California Bay-Delta Public Advisory Committee Public Meeting

Tuesday, March 25, 2003 11:30 a.m. – 5:30 p.m.

Chico-Leland Stanford Masonic Family Center 1110 W. East Avenue Chico, California



1416 Ninth Street, Suite 1155 Sacramento, California 95814 (916) 657-2666 FAX (916) 654-9780 http://calfed.ca.gov

March 10, 2003

California Bay-Delta Public Advisory Committee Tuesday, March 25, 2003, 11:30 a.m. to 5:30 p.m. Chico-Leland Stanford Masonic Family Center

1110 W. East Avenue Chico, California **Agenda**¹

11:30 a.m.

- 1. Opening Remarks/Introductions
- 2. Regional Highlights
- 3. Staff Reports
- 4. Subcommittee Reports (Action Item)
 - Adopt Working Landscapes Subcommittee Description
- 5. California Bay-Delta Authority Governance (Action Item)
 - Selection of Committee Representative to Authority
 - Adopt Committee Priorities & Procedures
- 6. Water Security, Clean Drinking Water, Coastal & Beach Protection Act of 2002 Reports
- 7. 2003 Water Operations Plan Update
- 8. Integrated Key Milestones
- 9. Public Comment

5:30 p.m.

10. Adjourn

Wednesday, March 26, 2003, 8:00 a.m. to 2:00 p.m.

Oxford Suites

2035 Business Lane Chico, California

8:00 a.m. to 2:00 p.m.

Tour/Site Visits of Sacramento Valley Region projects and activities.²

- ➤ If you have any questions or need additional information, please contact Eugenia Laychak at (916) 657-2666. Meeting packets available upon request, please contact Pat Rogers at (916) 657-2666.
- ➤ If you need reasonable accommodation due to a disability, please contact Pauline Nevins at the CALFED Bay-Delta Program at (916) 657-2666 or TDD (800) 735-2929.

For further information visit our website at http://calfed.ca.gov.

CALFED Agencies

California

The Resources Agency
Department of Water Resources
Department of Fish and Game
The Reclamation Board
Delta Protection Commission
Department of Conservation
San Francisco Bay Conservation
and Development Commission

California Environmental Protection Agency State Water Resources Control Board Department of Health Services Department of Food and Agriculture Federal

Department of the Interior
Bureau of Reclamation
Fish and Wildlife Service
Geological Survey
Bureau of Land Management
Environmental Protection Agency
Army Corps of Engineers

¹ Order of agenda items is subject to change.

² Members of the public are responsible for their own transportation.



Memorandum

Date: March 17, 2003

To: California Bay-Delta Public Advisory Committee

From: Patrick Wright

Director

Subject: March 25 and 26, 2003 Meeting

The first Committee meeting of 2003 will be held on Tuesday, March 25, and Wednesday, March 26, 2003, in Chico, California. On March 25, the Committee meeting will be held at the Leland Stanford Masonic Family Center and on March 26, the Committee will conduct a tour of the Sacramento Valley Region. Expected meeting outcomes are:

- Highlighting of Sacramento Valley regional efforts in addressing local and Bay-Delta Program goals.
- Discussion on the role of the Committee in the California Bay-Delta Authority Governance structure and selection of the Committee representative to the Authority.
- Adoption of Committee procedures, priorities, and schedule for 2003.
- Adoption of the Working Landscapes Subcommittee description.
- Discussion on Bay-Delta Program and Authority budgets, funding from Proposition 50, and the Authority finance plan for long-term financing.
- Discussion on the Science Program priorities and budget.
- Review of progress on the 2003 Water Operations Plan and Integrated Key Milestones related to water operations and the Environmental Water Account.

An agenda and materials for the meeting are attached. For your information, regional highlights will not only include the March 26 tour, but will also include, on March 25, agenda item 2, a presentation by David Guy and others on the Sacramento Valley Water Management Program and an update by Resources Secretary Mary Nichols and Jason Peltier on the Colorado River Quantified Settlement Agreement. Materials for agenda item 8, Integrated Key Milestones, will be handed out at the meeting.

I look forward to meeting with you in Chico.

CALFED Agencies

The Resources Agency
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Department of Fish and Game
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California Bay-Delta Public Advisory Committee

Meeting Date: 3/25/03 Agenda Item: 3A

CALFED Finance Plan Background and Next Steps

Description: Process and schedule for developing funding options and reaching

agreement on the long-term Finance Plan for the CALFED Bay-

Delta Program.

Recommended Action: Committee Discussion and Comments

Staff Recommendation: Staff recommends the California Bay-Delta Public Advisory Committee discuss and provide comments on the process and schedule for developing a long-term Finance Plan. Development of the Finance Plan is a priority this year for the California Bay-Delta Authority.

Finance Plan Overview

Background: A long-term Finance Plan for CALFED Bay-Delta Program has not been developed, although there has been numerous documents and discussion on the topic since the time of the ROD, and before. The final EIS/EIR for the CALFED Bay-Delta Program included a spending plan for Stage 1 of the Program, and an evaluation and funding options for each Program Element. The Bay-Delta Program has funding available to develop a long-term Finance Plan over the next 6-9 months. Preparation of the Plan is necessary now since portions of the Program are significantly under funded and for many Program elements, anticipated funds from Federal and local sources have not materialized. In addition, current Bond funds will be exhausted by most Program elements in the next three to four years.

The Program is in the early stages of initial scoping for the Plan. A team of consultants has been identified to provide technical advice on the process and Plan. An independent panel will be convened for additional review. A document summarizing previous reports has been prepared (Attachment 1).

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Agenda Item 3A

Meeting Date: 3/25/03

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Committee Role: The Committee, Subcommittees, and Steering Committee will assist the Bay-Delta Program by reviewing the process, schedule, and draft documents to ensure the Finance Plan has broad support when complete. The Committee can also assist in structuring the independent panel and identifying potential members.

Attachment:

Summary of CALFED Finance Planning Efforts and Next Steps



Summary of CALFED Finance Planning Efforts and Next Steps

Summary of Previous CALFED Finance Planning Efforts and Next Steps

This summary provides an overview of past financing efforts related to the CALFED Bay-Delta Program. A literature review was conducted to create an inventory of documents important to CALFED finance efforts, and to develop a short history of financing activities conducted for CALFED.

In the Record of Decision and the Framework Agreement, Stage I (Years 1-7) projected expenditures were estimated to be \$8.6 billion, roughly divided equally between State, Federal, and Local & Water User funding sources. Total appropriations for CALFED programs and projects over the first three years are estimated at about \$2 billion, as shown in Figure 1. The majority of the funding has been from State bond funds briefly described below.

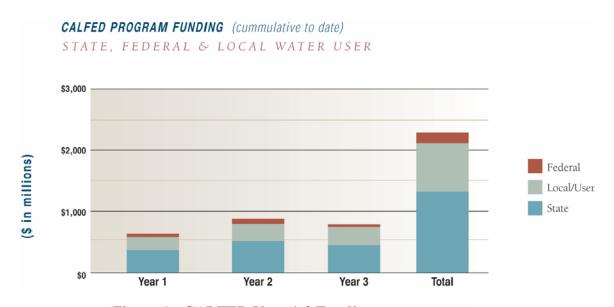


Figure 1: CALFED Year 1-3 Funding

Financial planning for programs and projects that ultimately became part of the CALFED preferred alternative began before the formal creation of CALFED in 2000. For example, the 1992 Central Valley Project Improvement Act (CVPIA) included cost share targets for several projects that have since become components of the CALFED program.

To date, three State bonds funds have been approved that contribute funding to the CALFED Bay-Delta Program. In 1996, Proposition 204, the Safe, Clean, Reliable Water Supply Act, was passed, providing for a bond issue of \$995 million, \$450 million of which was specifically designated for ecosystem restoration projects under CALFED. In 2000, Proposition 13, the Safe Drinking Water, Clean Water, Watershed Protection, and Flood Protection Act was passed, providing for additional funding of \$1.97 billion for water resource purposes. Much of these funds have contributed to meeting CALFED

objectives. Specifically, Chapter 9 of Proposition 13 included \$250 million for the CALFED Bay-Delta Program. Most recently, in 2002 Proposition 50, The Water Security, Clean Drinking Water, Coastal and Beach Protection Act, was passed providing \$825 million specifically for CALFED, and up to several hundred million more for statewide management activities that could contribute to CALFED.

A summary of the following reports is provided in this document:

- ◆ Central Valley Project Improvement Act; 1992
- Financing Options for Water-Related Infrastructure in California, 1996
- ◆ California's Water Future: A Framework for Action; June 9, 2000.
- ◆ CALFED Final Programmatic EIS/EIR; Technical Appendix Implementation Plan, which contains a Financing Plan (Section 5), July 2000
- ◆ CALFED Programmatic Record of Decision (ROD), August 28, 2000
- Broad-based User Fee, November 2000

At this time, CALFED is initiating a process to complete a CALFED finance plan. CALFED will work with agencies, stakeholders, and the Legislature to develop and implement the Finance Plan. Currently, a draft Finance Plan containing preferred options for funding all CALFED program elements is scheduled for fall 2003.

Key Principles and Policies in Prior Work

This section summarizes some key finance principles and policies identified in the documents noted above, and provides a brief overview of existing State and Federal laws regarding water resource financing.

Federal and State Laws - Cost share requirements

Federal laws such as the biennial Water Resources Development Acts passed by Congress govern cost sharing for federal agencies, particularly the U.S. Army Corps of Engineers. These federal laws that apply to water resources investments prescribe minimum non-federal cost shares necessary to allow for federal participation. In addition, certain principles and guidelines also restrict the ways that the federal government may participate in water resource financing.

Requirements for state cost share levels for water projects can be found in the State Water Code and in separate cost share agreements. Several CALFED documents also outline cost share targets for federal, state and local participants that contribute to programs and projects under CALFED oversight.

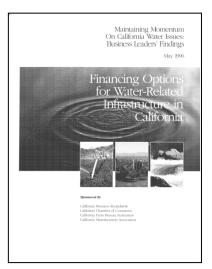
CVPIA Cost Shares

The Central Valley Project Improvement Act of 1992 included cost-share levels for several projects that were later included in the CALFED preferred alternative. Section 3406(b) of the CVPIA authorized a list of fish and wildlife restoration activities, including projects such as the removal of Saeltzer Dam on Clear Creek, that was later incorporated into the CALFED program. CVPIA cost share levels for most of the projects assigned one-quarter of the costs to the State, with remaining costs split equally between the federal government and local entities. Other cost share limits, such as 50-50% State and federal participation, were used for the remainder of CVPIA projects. A Restoration Fund was also created through the CVPIA, established by the U.S. Treasury to handle deposits from CVP water and power beneficiaries. Restoration funds have provided the majority of financing for CVPIA actions since 1993 (CVPIA 10-Year Report, 2002).

In 1994, USBR, USFWS, DWR and DFG signed the Central Valley Project Improvement Act Sharing of Costs Agreement for Mitigation Projects and Improvements (SCAMPI), concerning implementation of the CVPIA. The agreement allows for a large degree of flexibility between the signatories, and establishes principles, task orders, and other fundamental CVPIA cost sharing objectives.

Business Leaders' Findings

In 1996, a group of primarily business organizations sponsored a report titled *Financing Options for Water-Related Infrastructure in California*. The report stressed the need to



develop a comprehensive needs and benefits assessment for Bay-Delta planning purposes, and provided a thorough discussion of potential funding elements. It also supported the use of the "beneficiaries pay" principle, which was later incorporated into CALFED principles.

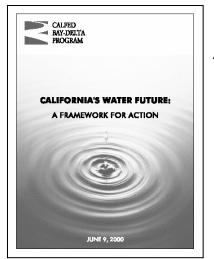
The document identified three primary funding sources for Bay-Delta infrastructure financing: federal funding, Bay-Delta General Obligation Bonds, and a Bay-Delta User Fee. The report also considered the creation of several new institutions: a Bay-Delta Financing Authority and Mitigation Credit Bank under the Authority, a State Water Infrastructure Bank, and a Blue Ribbon Commission on Water Industry Restructuring.

As described in the 1996 report, a Bay-Delta Financing Authority could be established to oversee the financing of all projects with general public benefits, solicit federal and State funding, and administer revenues from user fees. A tool that could be used by the Authority is a Mitigation Credit Bank, which, if created, would allocate financial credits

to those stakeholders willing to make investments early on in long-term Bay-Delta cost obligations. Creation of a State Water Infrastructure Bank could help local assistance programs by using the State's credit to achieve greater access to capital for local water service providers. The report recommended the appointment of a Blue Ribbon Commission on Water Industry Restructuring to investigate opportunities for public-private partnerships for State water infrastructure.

Another key topic discussed in the report was the possible creation of a broad-based user fee. Various combinations of fixed and variable fees were examined, using the current CVPIA fee structure and the SWRCB Decision 1630 fee proposal as models. Predicted annual fee revenues ranged from \$14.48 to \$72.40 million, depending on the particular fee schedule. The fees could be used to recover those parts of project costs that benefit all Bay-Delta water diverters.

A Framework for Action



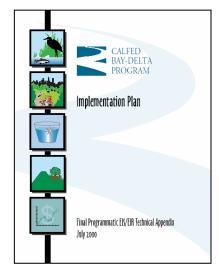
In June 2000, the State and Federal Administrations issued a report entitled *California's Water Future: A framework for Action*. The Framework document is organized by CALFED program element, and provides preliminary estimates for funding requirements. It also describes State intentions for allocation of funds from Propositions 204 and 13 and outlines recommendations for total program funding during Stage 1 (the first seven years) implementation of CALFED's preferred alternative. The Framework document also proposes a user fee to generate about \$35 million annually for ecosystem restoration purposes. Much of the funding allocation information from the Framework report was incorporated into the CALFED Bay-Delta Program Final

Programmatic EIS/EIR and Programmatic Record of Decision.

Implementation Plan

In July 2000, as part of the Final Programmatic EIS/EIR, the CALFED Financing Plan was drafted (Section 5 of the Technical Appendix to the EIS/EIR). The Financing Plan represents the most recent effort to develop a formal process for CALFED financing and will be a useful reference in producing a more specific finance plan. For each program element, the Financing Plan identifies beneficiaries, describes guidelines for estimating benefits and cost allocation, and proposes financing and cost share options. Formal cost allocation techniques, such as the widely used Separable-Cost Remaining Benefits (SCRB) method, are also briefly described.

The Financing Plan also outlines the principle of "beneficiary pays." According to the



Plan, "A fundamental philosophy of the CALFED Program is that costs should, to the extent possible, be paid by the beneficiaries of the program actions."

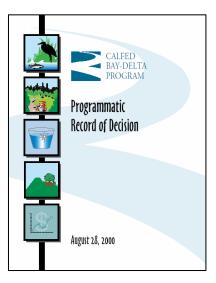
The report contains a list of potential funding mechanisms that could be used for CALFED programs is:

- General obligation bonds
- Water and power revenue bonds
- State appropriations
- Federal appropriations
- Private financing
- Broad-based user fee

The Financing Plan lists advantages and disadvantages for each mechanism, and includes a discussion on possible user fee approaches. For the user fee option, the Plan examines the potential revenue obtainable from a fee based on current CVPIA fees, charged on the amount of water delivered. The Plan also discusses earlier attempts to create a broad-based user fee, including the SWRCB draft D1630, which received strong opposition before being abandoned. The Financing Plan estimates, as an extremely rough approximation, that \$110 million in user fees could be collected annually if all State Water Project and Central Valley Project contractors, along with all other diverters with an impact on the Bay-Delta system, were charged.

A cost and benefit effort currently in the development stage that is mentioned in the Financing Plan is a "Multi-Objective Approaches to Floodplain Management on a Watershed Basis" study being conducted by the Department of Water Resources. The second component of the study involves developing a framework to estimate costs and benefits related to multi-objective floodplain management, and could be a useful tool for CALFED allocation decisions when the study is completed.

CALFED Programmatic Record of Decision



The CALFED ROD included several *solution principles* within its mission statement. These principles play a role in CALFED financing decisions:

- Reduce conflicts in the system Solutions will reduce major conflicts among beneficial uses of water.
- Be equitable Solutions will focus on solving problems in all problems areas. Improvements for some problems will not be made without corresponding improvements for other problems.

- Be affordable Solutions will be implementable and maintainable within the foreseeable resources of the Program and stakeholders.
- Be durable Solutions will have political and economic staying power and will sustain the resources they were designed to protect and enhance.
- Be implementable Solutions will have broad public acceptance and legal feasibility, and will be timely and relatively simple to implement compared with other alternatives.
- Have no significant redirected impacts Solutions will not solve problems in the Bay-Delta system by redirecting significant negative impacts, when viewed in their entirety, within the Bay-Delta or to other regions of California.

The ROD (Volume 1)) includes some funding guidelines, particularly with regard to how bond funds from Propositions 204 and 13 should be allocated between CALFED program elements (pp. 36, 38, 41, 46, 53, 64, 70).

The Ecosystem Restoration section of the ROD contains a discussion of possible funding sources for the program element, including the creation of a new user fee. According to page 38 of the ROD, "CALFED Agencies will work with local interests to develop State legislation to create a broad-based user fee that will generate approximately \$35 million annually."

The Implementation Memorandum of Understanding in the ROD (Volume 1, Attachment 3), includes a discussion and list of programs and funding (Table 1) that existed at the time the ROD was signed that meet CALFED objectives and should be subject to CALFED review.

Implementing a Broad-based Bay-Delta Diversion Fee

Just after the ROD was signed, additional review and study was conducted under contract with the CALFED Bay-Delta Program, regarding a possible broad-based user fee. One of the main objectives of this report was to identify potential participants who might be charged fees for Bay-Delta water diversions and estimate possible water delivery quantities that might be subject to the user fee. The report documents water supply quantities used in revenue estimates and discusses implementation considerations.

The draft report provides background on users paying fees under the CVPIA restoration fund program, documents broad categories of water rights and diversions, and discusses types of deliveries that could be subject to the user fee. Depending on the types and numbers of water users, the report estimates that between 8.2 and 13.1 MAF of annual Bay-Delta diversions could be eligible for assessment if such a fee was implemented. For example a \$7/acre-ft agricultural and \$14/acre-ft municipal and industrial charge could generate between \$70.4 and \$104.8 million annually in diversion-based user fee revenues. The report suggests that water diversions currently charged through the CVPIA restoration fund program should not be charged again by any new Bay-Delta diversion fee.

Several other suggestions for future consideration were included in the report:

- Provide incentives to encourage the measurement of current Bay-Delta water deliveries.
- Consider exempting small water rights holders from potential future diversion fees
- Seek authorization through state legislation if a diversion fee is recommended in the future.

Next Steps

We plan to produce a report that provides preferred options for a CALFED Finance Plan to the BDPAC and the Bay-Delta Authority by fall 2003. In order to complete the report we plan to perform the following for each Program element:

- Meet with CALFED agencies, BDPAC members, and interested stakeholders to identify the key issues and information needed to reach agreement on how to pay for the CALFED program
- 2. Convene an independent panel to advise on the proposed approach to developing a Finance Plan and to advise on a draft report containing funding options
- 3. Identify, describe and classify the benefits, beneficiaries, and the costs for program implementation
- 4. Identify the resources and contributions currently dedicated to make the CALFED program possible
- 5. Develop and evaluate several future funding options

List of Key CALFED Finance Documents

- "Agreement for Cost Sharing Related to Ecosystem Restoration Under Proposition 204 and the Bay-Delta Act" (January 1998).
- CALFED Bay-Delta Program (February 2002). Annual Report 2001.
- CALFED Bay-Delta Program (March 1998). Draft Implementation Strategy, Draft Programmatic EIS/EIR Technical Appendix.
- CALFED Bay-Delta Program (2000). California's Water Future: A Framework for Action.
- CALFED Bay-Delta Program (December 2000). Environmental Water Account Finance Plan.
- CALFED Bay-Delta Program (June 1999). Financing Plan, Draft Programmatic EIS/EIR Implementation Plan.
- CALFED Bay-Delta Program (July 2000). Financing Plan, Final Programmatic EIS/EIR Implementation Plan.
- CALFED Bay-Delta Program (July 2000). "Financing Plan", Phase II Report.
- CALFED Bay-Delta Program (August 2000). Programmatic Record of Decision.
- CALFED Bay-Delta Program, Finance Workgroup (June 28, 2002). Benefit and Cost Allocation Planning Process for CALFED Projects and Programs: Draft Principles and Methodologies Report, internal working document.
- CALFED Bay-Delta Program, Finance Workgroup (November 1998). *Discussion of Financial Principles*, internal working document.
- CALFED Bay-Delta Program, Water Use Efficiency Subcommittee (October 2002).

 Revised WUE Implementation Funding Draft Policy Principles and Associated Activities.
- California Business Roundtable, California Chamber of Commerce, California Farm Bureau Federation, California Manufacturers Association (May 1996).

 Maintaining Momentum on California Water Issues: Business Leaders' Findings

 Financing Options for Water-Related Infrastructure in California.
- California Department of Water Resources (September 2002). *Multi-Objective Approaches to Floodplain Management on a Watershed Basis: Study Summary.*
- CVPIA, Central Valley Project Improvement Act Sharing of Costs Agreement for Mitigation Projects and Improvements (June 27, 1994).
- U.S. Department of the Interior, Draft "Implementation of the Central Valley Project Improvement Act, Ten-Year Report, Fiscal Years 1993-2002" (July 2002).
- Wahl, Richard W. (November 28, 2000). *Implementing a Broad-based Bay-Delta Diversion Fee, A Report to the CALFED Bay-Delta Program*, draft document.

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California Bay-Delta Public Advisory Committee

Meeting Date: 3/25/03 Agenda Item: 4A

Working Landscapes Subcommittee Description

Description: Subcommittee description that defines the term "Working

Landscape" and explains the Subcommittee's purpose, mission, and

operations.

Recommended Action: Committee Adopt Description

Subcommittee Recommendation: The Working Landscapes Subcommittee approved its description on December 5, 2002. The Subcommittee is forwarding the description to the California Bay-Delta Public Advisory Committee for adoption.

Background

Each California Bay-Delta Public Advisory Committee subcommittee has a description adopted by the Committee that explains its mission, purpose, membership, and operations.

The CALFED Working Landscapes Subcommittee (WLS) continues to meet monthly since it was formally established as a subcommittee of BDPAC in July 2002. In December 2002, the Subcommittee finalized its description which includes background, a definition of "working landscapes" vision, mission, etc. The Subcommittee is submitting this document for consideration and adoption at this time.

Attached, please find a copy of the document. Any questions can be directed to the Subcommittee's Co-chairs Ryan Broddrick and Denny Bungarz, or Casey Walsh Cady with the California Department of Food and Agriculture, staff to the WLS Subcommittee, at (916) 651-9447, ccady@cdfa.ca.gov.

Attachment:

California Bay-Delta Public Advisory Committee Working Landscapes Subcommittee Description

CALFED Agencies

California

The Resources Agency Department of Water Resources Department of Fish and Game The Reclamation Board Delta Protection Commission Department of Conservation San Francisco Bay Conservation and Development Commission

California Environmental Protection Agency State Water Resources Control Board Department of Health Services Department of Food and Agriculture

Department of the Interior Bureau of Reclamation Fish and Wildlife Service Geological Survey Bureau of Land Management **Environmental Protection Agency** Army Corps of Engineers

CALIFORNIA BAY-DELTA PUBLIC ADVISORY COMMITTEE Working Landscapes Subcommittee Description

Approved by Subcommittee on December 5, 2002

Background

The CALFED Record of Decision (ROD) agreement calls for numerous projects to improve water quality, ecosystem quality, water supply reliability and Delta levee system integrity in the Bay-Delta and its watersheds. Private landowners and local entities, by and large, understand the need for these projects. Nevertheless, landowners and local communities are concerned with how CALFED projects will affect their economic sustainability. Paramount among these concerns is how the conversion of private agricultural lands to public habitat affects the long-term viability of regional agricultural economies and the tax revenues of local governments and special districts.

In the ROD, CALFED acknowledges that "implementation of the CALFED Program will affect some agricultural lands." The ROD, however, also discusses implementing the Program while "minimizing impacts to agriculture." (ROD, Page 33-34). In an effort to address landowner and local concerns with CALFED, the Secretaries for the Resources Agency and the Department of Food and Agriculture established a Working Landscapes Workgroup under the auspices of CALFED). The Workgroup was directed to promote partnerships between CALFED agencies, private landowners, local governments and conservation groups to address local concerns while achieving CALFED goals.

The Workgroup's effort resulted in a recommended approach to Bay-Delta Program implementation called the *Local Partnerships Planning Process*. At its July 2002 meeting, Bay Delta Public Advisory Committee concurred with the approach set forth in the *Local Partnerships Planning Process* and established the Working Landscapes Subcommittee to implement it.

Working Landscape Defined (for the purposes of the CALFED Working Landscapes Subcommittee)

A working landscape is a place where agriculture and other natural resource-based economic endeavors are conducted with the objective of maintaining the viability and integrity of its commercial and environmental values. On a working landscape, both private production, as well as public regulatory decisions account for the sustainability of families, businesses and communities, while protecting and enhancing the landscape's ecological health. The working landscape is readily adaptable to change according to economic and ecosystem needs.

With respect to CALFED, a working landscape is both an objective and a means to achieve it. A working landscape is efficiently managed largely by private

Working Landscapes Subcommittee Description December 5, 2002 Page 2

agricultural landowners and managers who are supported and encouraged to manage their lands in ways that fulfill CALFED goals, allowing them to pursue ecological health goals while yielding economic returns on investments, and generating tax revenues that support their local governments.

Official Designation

The Working Landscapes Subcommittee is a subcommittee of the California Bay-Delta Public Advisory Committee (BDPAC). BDPAC is a federally chartered and formal state advisory committee to the CALFED Bay-Delta Program. The Working Landscapes Subcommittee operates under BDPAC as a formal state advisory committee and adheres to state open meeting requirements.

Vision

The Subcommittee works towards the following best-of-all-possible-outcomes:

Californians understand the value of a working landscape for a vibrant economy and healthy natural environment. This, in part, stems from the actions of the Working Landscape Subcommittee, which provides the BDPAC with creative and practical strategies that: (1) enhance the sustainability of California agriculture; (2) are implemented with the enthusiastic participation of local communities, landowners and land managers; and, (3) significantly contribute to the fulfillment of a "long-term comprehensive plan [to]...restore ecological health and improve water management for beneficial use of the Bay-Delta system" (CALFED mission statement, ROD, P. 9), while minimizing impacts to agriculture.

The working landscape is an economically and ecologically vital and sustainable landscape where agricultural and other natural resource-based producers generate multiple public benefits while providing for their own, and their communities', economic and social well-being.

Private land stewardship, with the support of good science, financial incentives, and technical and regulatory assistance, is the primary vehicle for achieving many aspects of the CALFED mission. Public and private partnerships are commonplace on both private and public lands. Private land owners and managers are recognized and fairly compensated for the public benefits they provide. These benefits include, but are not limited to, food, fiber, minerals, timber and energy, downstream flood protection, recreation, biological diversity, clean air and water, and scenic open space.

Working Landscapes Subcommittee Description December 5, 2002 Page 3

CALFED has a consistent and equitable process by which to partner with landowners for public benefits on private lands.

Organizational Purpose and Mission

The Working Landscapes Subcommittee reports directly to BDPAC. The purpose of the Working Landscapes Subcommittee is to provide advice and guidance to BDPAC to ensure that implementation of the CALFED Bay-Delta Program values the role of the private land owner and operator in meeting CALFED objectives to:

- "Provide good water quality for all beneficial uses;
- Improve and increase aquatic and terrestrial habitats...;
- Reduce the mismatch between Bay-Delta water supplies and current and projected beneficial uses; and,
- Reduce the risk...from catastrophic breaching of Delta levees." (CALFED ROD, P. 9)

Consistent with the CALFED Solution Principles, the Subcommittee's advice and guidance to BDPAC will:

- Reduce conflicts in the system;
- > Be equitable;
- Be affordable:
- Be durable;
- Be implementable; and,
- Have no significant redirected impacts on other programs, stakeholders or regions of CALFED. (CALFED ROD, p. 9)

More specifically, the Subcommittee's work will be guided by the following CALFED ROD commitment with respect to agricultural land acquisition:

"Successful implementation of the CALFED Program will affect some agricultural lands. As an important feature of the State's environment and economy, agricultural lands will be preserved during implementation of the [CALFED] Program in a manner consistent with meeting program goals, minimizing impacts to agriculture. Some of the land needed for program implementation is already owned by the Federal or State government and that land will be used to achieve program goals. Partnerships with landowners, including easements with willing landowners, will be pursued to obtain mutual benefits if public land is not available for the intended purpose. Acquisition of fee title to land will be from willing sellers only, and will be used when neither available public land nor partnerships are

appropriate or cost-effective for the specific need. Such acquisitions will consider the potential for third-party and redirected impacts. In addition, to the maximum extent possible, the CALFED Agencies will seek to implement the Program through technical and financial assistance to locally based, collaborative programs such as the Sacramento River Conservation Area/SB 1086 program." (CALFED ROD, pp. 33-34)

The Subcommittee will work to achieve integration of the Working Landscapes approach into the implementation of relevant CALFED Program elements.* Other activities of the Working Landscapes Subcommittee include encouraging broad public participation and strategic partnerships, exchanging information, analyzing issues, and fact-finding, as appropriate, on the implementation of all CALFED Bay-Delta Programs as they relate to working landscapes.

The mission of the Working Landscapes Subcommittee is to:

- 1. Provide advice on CALFED Program priorities, long-term plans, annual work plans and budgets, performance, balance and integration with respect to working landscapes, as defined above;
- Assist landowners in helping to restore the ecological health of the Bay-Delta system by protecting and restoring native species of fish, wildlife, plants, and their habitats;
- 3. Avoid, minimize and mitigate impacts to agricultural resources and local communities resulting from CALFED actions, consistent with the ROD;
- 4. Assist in implementing CALFED ROD actions as they affect the attainment of the Working Landscapes Subcommittee vision;
- Conduct voluntary local demonstration projects using a "conservation toolbox" approach that includes financial incentives, regulatory assistance, and technical and educational opportunities to landowners to manage their land as working landscapes;
- 6. Provide educational opportunities to broaden the understanding of the value of the *working landscapes* approach to the CALFED Program, its agencies, stakeholders and the general public; and,
- Address institutional barriers that prevent or discourage the practice of conservation measures that contribute towards the achievement of a working landscape.

Working Landscapes Subcommittee Description December 5, 2002 Page 5

Membership/Participants

The Working Landscapes Subcommittee is co-chaired by 2 BDPAC members appointed by the BDPAC in consultation with the CALFED Bay-Delta Program. The co-chairs are Ryan Broddrick, Ducks Unlimited and Denny Bungarz, Glenn County Supervisor and BDPAC Vice-Chair.

The role of the Working Landscapes Subcommittee co-chairs includes the coordination and facilitation of the Subcommittee and interested members of the public. The co-chairs also act as liaisons between BDPAC and the Working Landscapes Subcommittee by communicating information and guidance to both groups.

The priority for the framework for membership of the Working Landscapes Subcommittee is to be inclusive of all participants so that issues can be adequately addressed to continue to advance the Working Landscapes approach in the CALFED Program. The initial recommendation is that the Subcommittee membership will be open to all interested parties and with no formal membership required. The Subcommittee wants to encourage participation by individuals representing a wide array of interests including agricultural, urban, environmental, labor, community organizations, recreational, fisheries and wildlife, universities, businesses, and local, tribal, state and federal government among others.

Decision Making

The Working Landscapes Subcommittee will use a collaborative approach for decision-making during its discussions. The Subcommittee will achieve a broad base of support for any recommendation forwarded to BDPAC. A summary of action items and major outcomes from each Subcommittee meeting will be presented to the Working Landscapes Subcommittee co-chairs.

Staff Resources

The California Department of Food and Agriculture, the Department of Conservation, the Delta Protection Commission and the Department of Fish and Game will staff the Working Landscapes Subcommittee. Additional support will be provided by other CALFED agencies.

* CALFED program elements include: Levee System Integrity, Drinking Water Quality, Watershed Management, Environmental Water Account, Ecosystem Restoration Program, Water Transfers, Water Use Efficiency, Conveyance, Storage, Water Management, and Science.



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California Bay-Delta Public Advisory Committee

Meeting Date: 3/25/03 Agenda Item: 5A

Selection of Committee Representative to California Bay-Delta Authority

Description: The Committee is expected to select its representative to the

California Bay-Delta Authority.

Action: Committee Selection of Representative

Background: Section 79412 (g) of the California Bay-Delta Authority Act, authorizes the Committee to select its representative to the Authority by majority vote of all of the members of the Committee. The Committee has scheduled selection of its representative at the March 25, 2003 meeting.

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California Bay-Delta Public Advisory Committee

Meeting Date: 3/25/03 Agenda Item: 5B

Overview of California Bay-Delta Authority Governance Transition

Description: An overview of progress on the transition to the new governance

> and California Bay-Delta Authority structure, as a result of enactment of the California Bay-Delta Authority Act.

Recommended Action: Committee Discussion and Comments

Staff Recommendation: Staff recommends the California Bay-Delta Public Advisory Committee discuss progress being made on transitioning to the California Bay-Delta Authority governance structure and related policy issues. Comments from the Committee on respective roles of the Committee, Authority, and State and Federal agencies, and the proposed meeting schedule and content will help prepare the Authority and Authority staff for later phases of the transition.

Governance Transition and Multi-Year Program Plans

Background: Attachment 1 provides an overview of the governance transition. Related to the transition, the California Bay-Delta Authority Act includes requirements for Program planning and budgeting which call for a different process than was used for development of the Year 3 Work Plans. Attachment 2 explains the statutory requirements and the formats for the multi-year Program Plan and annual Year 4 Program Plan.

Committee Role: The Authority Act states in section 79460 (d) that the Committee shall advise and make recommendations to the authority and director on issues related to the Program and any of the processes, projects, or programs required by the Act. The Committee is to be consulted by the authority on any changes to the list of CALFED Programs (Category A), as stated in section 79423(c). Also, the Act (section 79421) calls for the Authority to meet jointly with the Committee at least once a year. In addition to these responsibilities the Committee will retain the duties and responsibilities outlined in the Department of Interior Federal Charter.

CALFED Agencies

California

The Resources Agency Department of Water Resources Department of Fish and Game The Reclamation Board Delta Protection Commission Department of Conservation San Francisco Bay Conservation and Development Commission

California Environmental Protection Agency State Water Resources Control Board Department of Health Services Department of Food and Agriculture

Department of the Interior Bureau of Reclamation Fish and Wildlife Service Geological Survey Bureau of Land Management Environmental Protection Agency Army Corps of Engineers

Agenda Item 5B

Meeting Date: 3/25/03

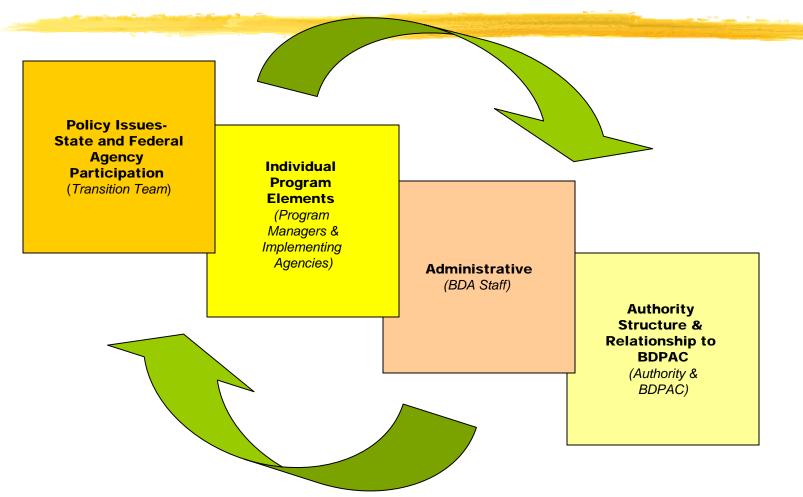
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Attachments:

Attachment 1 - California Bay-Delta Authority Governance Transition

Attachment 2 – California Bay-Delta Authority Program and Budget Planning Process Materials

California Bay-Delta Authority Governance Transition



California Bay Delta-Authority Governance Transition

Policy Issues –
 State and Federal
 Agency
 Participation

- Role of Federal Agencies
- Role of State and FederalAgencies not named in theAuthority
- Implementation MOU
- Revised BDPAC Charter

California Bay-Delta Authority Governance Transition

- Changes in Status of Individual Program
 Elements
 - →Watershed
 - →Drinking Water Quality
 - →Ecosystem Restoration

- Each program manager is working with the implementing agencies to develop a transition plan
- Year4 program plans will describe transition process

California Bay-Delta Authority Governance Transition

Administrative Transition

- Budget and Accounting
- Human Resources
- Contracts
- Information Technology
- Telecommunications
- Legal Support
- Facilities Management
- Purchasing, mail/messenger, printing

California Bay-Delta Authority Governance Transition

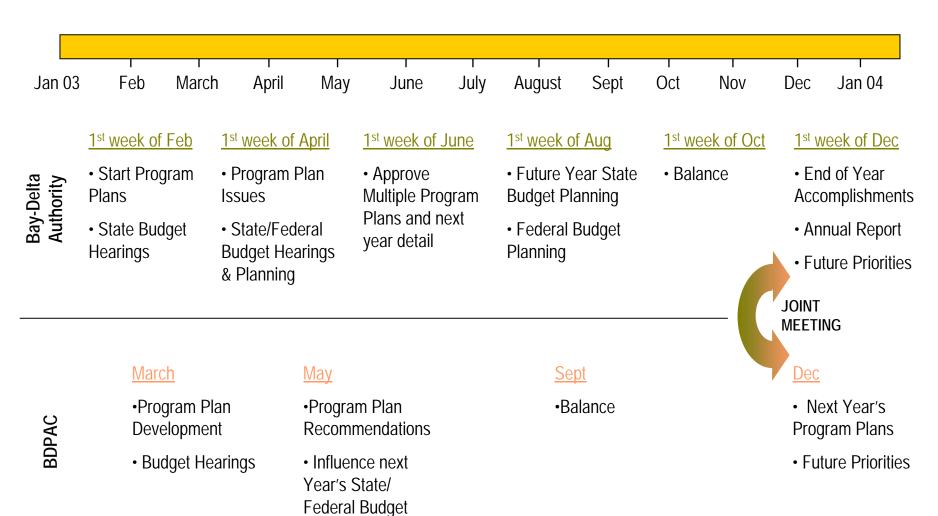
Authority Structure and Relationship to BDPAC

- BDPAC is advisory to Authority, & State and Federal Agencies
- Role of Stakeholders and Public Members
- Authority Meetings will be more formal than Policy Group meetings
- Proposed Meeting schedule for Authority 6 times a year (every other month)
- Proposed meeting schedule for BDPAC 4 times a year
- One joint meeting each year between BDPAC and the Authority

California Bay-Delta Authority Meeting Content

- Administrative Matters Consent Calendar
- Approval of ROD Milestones
- Project Solicitations and Recommendations
- Project Progress and Timelines
- Program Performance Review and Adaptation
- Regional Implementation Accomplishments & Issues
- Public Comment

California Bay-Delta Authority Proposed Meeting Schedule



California Bay-Delta Authority Governance Transition

- California Bay-Delta Authority Offices are Moving!
- Effective April 7, 2003New Location: 650Capitol Mall, 5th floor

- Move begins April 1st
- All phone numbers and email addresses will change
- New Main Phone (916) 445-5511
- Phone and email will be forwarded or referred
- No email between April 1-7
- Physical move begins April 4
- BDA employees report to new offices April 7

California Bay-Delta Authority Program and Budget Planning Process January 30, 2003

This paper summarizes the planning and budget related requirements in SB 1653, The California Bay-Delta Authority Act. The Act basically built upon the existing CALFED Bay-Delta Program work plan process, but made several modifications. One significant change is the planning process is now mandated by law for the State agencies and will consequently become a more formal process. For Federal Agencies, the process essentially remains as a voluntary process of coordinating with state agencies and the new Authority.

Section 79423(i, j, k)

Multiyear Program Plans and Long-term Expenditure Plans. Annually the authority is required to review and approve, and if appropriate recommend modifications to multiyear program plans and long-term expenditure plans for CALFED programs (Category A) based on certain criteria. If the Authority does not approve the multiyear plan submitted by an implementing agency, the Authority shall report to the Legislature and to the implementing agency on why the plans do not meet the adopted criteria. If a modification to the current or future fiscal year program plan is recommended by the Authority, then the implementing agency should resubmit the plan to the Authority for approval. All modifications should be submitted to the Legislature.

Section 79423(a-h) and Section 79421 (h,o) Annual Program Plans and Budgets.

- ◆ As part of the annual budget development process, all State agencies with CALFED Programs (Category A) are required to submit annual program plans and proposed budgets for the following budget year to the Director of the Authority. The Director shall then submit a comprehensive budget proposal to the Resources Agency who in turn submits the proposal to the Department of Finance.
- ◆ The bill requires the annual program plans and budgets to include certain information such as priorities, performance measures, and strategies for Environmental Justice and Tribal concerns, and scientific uncertainties.
- ◆ Annually the Authority in consultation with State and Federal CALFED agencies and the Public Advisory Committee, with concurrence by the implementing agencies, shall determine changes to the list of CALFED Programs (Category A).
- ♦ The bill requires the Authority to adopt criteria for review, approval and modification of annual program plans and projected expenditures, and submit the criteria to State legislative policy and fiscal committees.

Section 79423(1)

Implementing Agency Authority. Implementing agencies retain final decision-making authority for their programs and budgets.

Format for Multiyear Program Plan (Years 4-7) Program Element

1) Goals and Objectives

Summarize goals / objectives for the program element, and if necessary clarify and expand upon the objectives in the ROD and Final EIS/EIR.

2) Look Back

Summarize progress and delays for each Program Element for Year 1-3.

3) Cross Program Integration and Linkages

Describe the significant activities and issues that require program integration with other program elements. Describe status and how to proceed to address each issue.

4) Institutional Structure

Describe the roles and responsibilities of each state and federal implementing agency and participating agency, CBDA, and public advisory committees.

5) Tasks and ROD Milestones

- ♦ Implementation Commitments. Describe the status and future plans for incorporating the CALFED implementation commitments into implementation of the program element. Implementation commitments were listed in the ROD and include but are not limited to Science and Performance Evaluations, Environmental Justice, Tribal, and Public Involvement.
- ♦ <u>Science and Performance Evaluation</u>. As part of the Implementation Commitments regarding science include description of the critical unknowns, peer review process, issues being addressed by studies, performance measure development, scheduled evaluation of achievements, and evaluation and revision of ROD tasks as needed.
- ◆ <u>Description of Strategy/Tasks</u>. Describe program element strategy, and list and describe the tasks for meeting program goals/objectives. Include the ROD Milestones.
- <u>Regional Description</u>. Provide a summary of the goals/objectives for each region and the primary activities/tasks that would be emphasized by region.

6) Long –term Expenditure Plan

Summarize expenditure plan and cost-sharing for Stage 1 from ROD and Final EIS/R. Describe revised financing strategy and cost-sharing by task/project if modified from the ROD. Identify outstanding issues to be addressed in the CALFED Finance Plan regarding long-term financing and cost-sharing.

7) Long term Schedule

Provide a schedule through Stage 1 of major milestones and deliverables.

Format/Instructions for Annual Year 4 Program Plan

Program Elemen	t	

(This document should build upon the Multiyear Plan. Information should apply only to Year 4 and background or detailed information already included in the Multiyear program plan should not be included in the Annual Plan, but references back to the Multiyear plan included as needed.)

1) Activities by task for Year 4

By the major tasks/projects -- Describe what activities will occur in Year 4; describe the role and responsibility of each agency/department.

2) Implementation commitments

Describe the Year 4 activities for incorporating the CALFED implementation commitments into implementation of the program element.

3) Schedule of major program deliverables

Include dates for major program activities such as-- completed reports, grant solicitation and selection dates, peer review panel reviews, and BDPAC subcommittee or public meetings.

4) Year 4 Proposed Budget

Include a table summarizing the base budget and proposed changes by task and by fund source.



California Bay-Delta Public Advisory Committee

Meeting Date: 3/25/03 Agenda Item: 5C

Schedule and Process for Consideration of Subcommittee Recommendations

Description: Guidelines for Committee consideration of Subcommittee

recommendations, taking of action and forwarding of recommendations to the California Bay-Delta Authority.

Recommended Action: Committee Adopt Schedule and Process

Staff Recommendation: At the December 4, 2002 meeting, the Committee asked Bay-Delta Program staff to recommend guidelines, a schedule, and process to facilitate effective consideration of subcommittee and Committee recommendations. Processes are proposed for taking action on recommendations for Program Work Plans and recommendations for other issues of concern.

Process and Schedule for Program Work Plan Recommendations

- 1. February to May, 2003, Committee subcommittees to provide feedback to Authority staff and advice to Committee on draft Program Element work plans.
- 2. Late May or early June, Committee will meet to act on Subcommittee recommendations.
- 3. Subcommittee recommendations will be in writing, no longer than two pages in length, and forwarded to Program staff (Eugenia Laychak), no less than two weeks prior to Committee meeting. Recommendations will be organized following the format shown in this recommendation.
 - Description
 - Recommended Action
 - Recommendation
- 4. Recommendations to be included in Committee meeting packet which staff will mail to Committee members one week prior to meeting.

CALFED Agencies

Agenda Item 5C

Meeting Date: 3/25/03

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- 5. For recommendations that will affect other subcommittees, subcommittees are to coordinate with those subcommittees before forwarding the recommendations to staff.
- 6. Committee will consider subcommittee recommendations and take appropriate action. Recommendations adopted by Committee will be forwarded to Authority.

Process for Other Subcommittee Recommendations

- 1. Provide schedule for forwarding recommendations to Committee and Program staff.
- 2. Subcommittee recommendations will be in writing, no longer than two pages in length, and forwarded to Program staff, no less than two weeks prior to BDPAC meeting. Recommendations will be organized following the format shown in this recommendation.
 - Description
 - Recommended Action
 - Recommendation
- 3. Recommendations to be included in Committee meeting packet which staff will mail to Committee members one week prior to meeting.
- 4. For recommendations that will affect other subcommittees, subcommittees are to coordinate with those subcommittees before forwarding the recommendations to staff.
- 5. Committee will consider subcommittee recommendations and take appropriate action. Recommendations adopted by Committee will be forwarded to Authority.

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California Bay-Delta Public Advisory Committee

Meeting Date: 3/25/03 Agenda Item: 5D

A Proposed Collaborative Process and Definition of Consensus for the Committee Structure

Description: A proposed collaborative process for conducting Committee and

subcommittee deliberations, including a definition of consensus and

options for reaching closure in the event consensus cannot be

reached.

Recommended Action: Bay-Delta Program Staff Recommends Committee Discussion and

Comment

Staff Recommendation: At the December 4, 2002 meeting, the Committee asked the Bay-Delta Program to propose a definition of consensus. The purpose of the request was to ensure that under new Bay-Delta Authority governance, the Committee would have a workable collaborative process for addressing difficult issues at the subcommittee and Committee levels. Committee discussion is recommended to ensure ample opportunity to develop a process and definition of consensus that will best suit the Committee and subcommittees.

Introduction

The Bay-Delta Public Advisory Committee provides assistance and recommendations to the Governor, Secretary of the Interior, and Bay-Delta Program implementing agencies, through the California Bay-Delta Authority, on implementation of the Program. The Committee and its subcommittees will use a collaborative process when developing recommendations to the Authority and agencies.

CALFED Agencies

Agenda Item 5D Meeting Date: 5/25/03

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Defining a Collaborative Process

A collaborative process usually produces the best outcomes for the Program, Authority, Committee, and the public. Those outcomes are a result of members, representing different interests, sitting down together to seek common ground, and to make recommendations that benefit the represented interests and community as a whole.

The Committee and subcommittees may focus on working towards consensus. Reaching consensus, for the purpose of this effort, means reaching broad agreement on issues pertinent to implementation of the Program. Consensus does not mean that there are no differences of opinion. Consensus refers to the highest level of agreement than can be reached, without dividing the membership into factions. The result is that members support, agree to, or at least can live with a particular decision. To realize potential for broad agreement, the Committee will be encouraged to acknowledge the concerns and work toward mutual understanding of issues until members develop a recommendation that will receive enthusiastic support from the membership.

In rare cases, after the Committee or subcommittee has extensively deliberated on an issue and cannot reach consensus, the Committee or subcommittee has several options for closure. Members not in agreement may stand aside, so as not to block agreement on the recommendation. The Committee or subcommittee may identify the areas of common ground and outstanding issues and recommend venues or processes for working on the issues. The Committee may shift to a majority vote and report the results to the Authority and agencies. A report based on a majority vote may include a minority report.

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California Bay-Delta Public Advisory Committee

Meeting Date: 3/25/03 Agenda Item: 5E

2003 Committee Priorities

Description: Annual priorities to guide Committee actions and provide necessary

advice and assistance to the California Bay-Delta Authority.

Recommended Action: Committee Adopt Priorities

Staff Recommendation: Staff recommends the California Bay-Delta Public Advisory Committee adopt the following priorities. Focus on these priorities will provide the California Bay-Delta Authority with needed advice and assistance on issues of greatest concern during 2003.

2003 Committee Priorities

The following are the four recommended Priorities:

Balanced Implementation

Background: Ensuring a reliable and sufficient water supply and restoring ecological health require continued progress on all elements of the Bay-Delta Program.

Committee Role:

The Committee can assist the Authority in ensuring appropriate resources are focused on meeting ROD commitments. The Committee will identify issues and track progress, ensure appropriate processes are developed to address issues, identify critical linkages between projects and programs, and ensure those linkages result in appropriate integration of Program actions and oversight. Of particular importance this year is ensuring progress on the ROD commitment to expand South-of-Delta pumping to 8.500 cfs while protection Delta interests and meeting our ecosystem restoration and water quality goals. In 2003, the Committee expects to provide recommendations to the Authority on feasibility of pursuing In-Delta Storage. It will consider other recommendations from its subcommittees including advice on the Multi-Year Program Plans.

CALFED Agencies

California

The Resources Agency
Department of Water Resources
Department of Fish and Game
The Reclamation Board
Delta Protection Commission
Department of Conservation
San Francisco Bay Conservation
and Development Commission

California Environmental Protection Agency State Water Resources Control Board Department of Health Services Department of Food and Agriculture

Federa

Department of the Interior
Bureau of Reclamation
Fish and Wildlife Service
Geological Survey
Bureau of Land Management
Environmental Protection Agency
Army Corps of Engineers

Department of Agriculture
Natural Resources Conservation Service
Forest Service
Department of Commerce
National Marine Fisheries Service
Western Area Power Administration

Agenda Item 5E

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Meeting Date: 5/25/03

Federal Authorization

Background: Progress in key areas of the Bay-Delta Program has been delayed, due to lack of Federal authority to participate in storage feasibility studies, oversight and coordination, and levee projects. Lack of long-term Federal authority threatens overall balance of the Program.

Committee Role: The Committee can support the Authority's efforts to obtain authorization by providing advice on maintaining a balanced program. Committee members, as representatives for their individual organizations, would have accurate information for engaging elected officials in related discussions.

Bay-Delta Program Finance Plan

Background: Portions of the Program are significantly under funded and for many Program elements, anticipated funds from Federal sources have not materialized. The Authority is developing a plan to identify promising options for long-term financing of each element of the Program plan and expects to have the plan drafted by fall 2003. Stakeholder participation in preparing the plan is critical for developing strategies that include State, Federal, local and user funding sources.

Committee Role: The Committee expects to be kept up-to-date on progress and review the draft report. It will likely provide advice to the Authority based on recommendations from the Steering Committee, other subcommittees, and Authority staff.

Coordination with California Bay-Delta Authority

Background: The California Bay-Delta Authority Act calls for continuation of the Bay-Delta Advisory Committee and its assistance in implementing the Program. The Committee has been operating for over a year and is prepared to assist in the transition.

Committee Role: The Committee can provide its perspective on progress the Program is making, bring Authority members up-to-date on critical finance and implementation issues and recommend priorities and critical actions for meeting ROD milestones.

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California Bay-Delta Public Advisory Committee

Meeting Date: 3/25/03 Agenda Item: 6A

2003-04 Budget Overview

Description: Information on the State and Federal proposed 2003-04 budgets for

the CALFED Bay-Delta Program.

Recommended Action: Committee Discussion and Comments

Staff Recommendation: The Committee has regularly reviewed Bay-Delta Program funding proposals, priorities and budgets and provided valuable guidance to staff. Staff recommends the Committee continue those discussions by commenting on the 2003-04 proposed budgets and funding.

CALFED Bay-Delta Program Year 4 Proposed Budget

Background: Attachment 1 summarizes the State and Federal proposed budgets for the CALFED Bay-Delta Program. Although State General Funds have significantly declined and Federal funding remains low, Proposition 50 funds provide critical funding to support the Program.

Attachment 2 provides a summary of Proposition 50 proposed funding for FY 2003-4. The Governor's proposed budget includes \$329.4 million from Chapter 7 specifically for the CALFED Bay-Delta Program. In addition, the Governor's proposed budget includes Proposition 50 funding from other Chapters that are for statewide programs, but which could significantly contribute to the CALFED Program. Approximately \$317 million is proposed for FY 2003-04 from Chapters 4, 5, 6, and 8. The Bay-Delta Program staff are working with the responsible agencies for these Chapters to develop the criteria and process for project review and selection and incorporate the principles for Proposition 50 spending adopted by the Committee its December 4, 2002 meeting (see Attachment 3).

CALFED Agencies

Agenda Item 6A

Meeting Date: 3/25/03

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Of particular interest is funding for the Drinking Water Quality Program. Chapter 7 of Proposition 50 provides funding for all elements of the CALFED Bay-Delta Program, except Drinking Water Quality. Funding for the Drinking Water quality Program is expected to become available from the other Chapters in Proposition 50 (Chps 4,5,6,8) that provide water quality funding for statewide purposes.

The Legislature has shown an interest in more closely guiding the expenditure of certain Proposition 50 Chapters. Senator Machado has introduced SB 21 (Attachment 4) as a vehicle for adding legislative criteria or guidelines for Proposition 50 spending. Senator Machado has convened several stakeholder working groups to review the Administrations' funding proposal, and develop proposed legislative language as needed. In addition, the Legislative Analysts Office has recommended that funding for Chapters 3 and 8 be "deleted from the budget bill and instead be put in legislation that defines the programs and guides their implementation". The Legislative Analysts Office also recommends that Chapter 6 desalination funds be deleted form the budget bill and held until a report on the role of the State in furthering desalination technologies is provided to the Legislature. The report is required by AB 2717 (Hertzberg) and due July 2004.

Committee Role: The Committee can assist in development of State and Federal budgets and priorities by:

- Continuing to support sufficient funding in the budgets for all elements of the CALFED Bay-Delta Program.
- Ensuring the method of spending is consistent with the Proposition 50 principles adopted by the Committee.
- Encouraging the Drinking Water Subcommittee to closely monitor distribution of the Proposition 50 funds and other funds to ensure sufficient funding for the Drinking Water Quality Program.

Attachments:

Attachment 1 – CALFED Bay-Delta Program Year 4 Proposed Funding

Attachment 2 – Prop. 50 Funds Related to CALFED Goals and Objectives FY 03-04 Proposed Budget

Attachment 3 – Proposition 50 Proposed Principles

Attachment 4 – SB 21 (Machado)

CALFED Bay-Delta Program Year 4 Proposed Funding (\$ in millions)

March 12, 2003

		FY 2003-04 State Funding ¹				FY 2004 Federal Funding ²				Water User/Local Funding ³						
Dua mana Flamont	Total Year 4	GF	Drop 204	Drop 42	Dron 50 4	Other	State Subtotal	Bay-Delta	USBR W&RR	USACE	Other Fed	Federal	SWP	CVPIA RF	Local	User/ Local
Program Element	Funding		Prop 204		Prop 50 ⁴	State 5					rea	Subtotal	_		(est.)	Subtotal
Ecosystem Restoration	\$152.3	\$1.2	\$50.1	\$10.0			\$129.2		\$1.1	\$0.6		\$1.7	\$7.3	\$14.1		\$21.3
Environmental Water Account	\$43.9	\$0.1			\$35.8		\$35.9	\$8.0				\$8.0				
Water Use Efficiency	\$118.9	\$3.0		\$28.2	\$61.5	\$1.9	\$94.7		\$13.2			\$13.2			\$11.0	\$11.0
Water Conservation	\$62.8	\$3.0		\$9.3	\$35.3	\$1.9	\$49.5		\$2.2			\$2.2			\$11.0	\$11.0
Water Recycling	\$56.1			\$18.9	\$26.2		\$45.1		\$11.0			\$11.0				
Water Transfers	\$0.6	\$0.6			\$0.0		\$0.6									
Watershed	\$30.0	\$0.4			\$29.6		\$30.0									
Drinking Water Quality	\$5.6	\$0.8		\$2.0	\$2.8		\$5.6									
Levees	\$25.3	\$0.5			\$21.3		\$21.8			\$0.1		\$0.1	\$0.4		\$3.0	\$3.4
Storage	\$31.1	\$0.5		\$10.6	\$20.0		\$31.1	\$5.5				\$5.5				
Surface	\$20.0				\$20.0		\$20.0									
Groundwater and Other	\$11.1	\$0.5		\$10.6			\$11.1									
Conveyance	\$31.8	\$2.2		\$9.7	\$0.6		\$12.5						\$19.3			\$19.3
Science	\$29.9	\$0.1		\$2.0	\$13.8	\$1.2	\$17.0		\$4.0		\$1.7	\$5.7	\$6.2	\$0.8	\$0.2	\$7.2
CALFED Science	\$16.3	\$0.1		\$2.0	\$13.5		\$15.5				\$0.8	\$0.8				
IEP	\$13.6				\$0.3	\$1.2	\$1.5		\$4.0		\$0.9	\$4.9	\$6.2	\$0.8	\$0.2	\$7.2
Water Supply Reliability	\$76.2				\$76.2		\$76.2									
Oversight & Coordination	\$10.5	\$8.9					\$8.9	\$1.5		\$0.1		\$1.6				
Total	\$555.9	\$18.2	\$50.1	\$62.5	\$329.4	\$3.1	\$463.4	\$15.0	\$18.3	\$0.8	\$1.7	\$35.8	\$33.2	\$14.8	\$14.2	\$62.2

¹ Year 4 CALFED proposed State budget includes funding for the California Bay-Delta Authority, Department of Water Resources, Department of Fish and Game, State Water Resources Control Board, Resources Agency, Department of Forestry and Fire Protection, Department of Conservation and the San Francisco Bay Conservation and Development Commission.

² Federal funding sources include California Bay Delta Act funds (Bay Delta Act), U.S. Bureau of Reclamation Water and Related Resources (USBR W&RR), U.S. Army Corps of Engineers appropriations (USACE), and Other Federal sources (Other Fed). Other Fed includes the U.S. Fish & Wildlife Service, U.S. Geological Survey, National Marine Fisheries Service, and U.S. Environmental Protection Agency.

³ Water User/Local subtotal includes State Water Project Funds and CVPIA Restoration Funds that are collected from state water contractors and Central Valley Project water users, but are budgeted and appropriated through the federal and state governments. Local funds are based on year 3 estimates for local cost sharing and will be updated as information becomes available.

⁴ An additional \$235 million (not shown in this table) is available in FY 03-04 for statewide programs in Drinking Water Quality, Desalination and Integrated Regional Water Management. A portion of this funding is expected to support CALFED objectives.

⁵ Includes DWR funds (\$1.9m) that contribute to the Water Conservation Program, and Interagency Ecological Program (IEP) funding (\$1.2m) from various departments that contributes to the Science Program.

⁶ Federal Bay Delta funds include \$5.5 million for the storage program element: Shasta Enlargement (\$2.25m), San Joaquin River Basin (\$1.0m), Los Vaqueros (\$1.75m) and Sites Reservoir (\$0.5m).

Prop 50 Funds Related to CALFED Goals & Objectives FY 03-04 Proposed Budget

(\$ in millions) February 4, 2003

rebluary 4, 2005						
Program Element / Department	Chapter, Section	Funding				
CALFED Bay-Delta Program Funds						
Ecosystem Restoration		\$67.9				
DWR	Ch 7, Sec 79550 (e)	\$1.1				
BDA	Ch 7, Sec 79550 (e)	\$65.8				
DFG	Ch 7, Sec 79550 (e)	\$1.0				
Environmental Water Account	21 - 2 (1)	\$35.8				
DWR	Ch 7, Sec 79550 (d)	\$35.6				
DFG	Ch 7, Sec 79550 (d)	\$0.2				
Water Use Efficiency	Ch 7 Can 70550 (a)	\$61.5				
DWR - Water Conservation	Ch 7, Sec 79550 (g)	\$35.3				
SWRCB - Water Recycling	Ch 7, Sec 79550 (g)	\$26.2				
Watershed BDA	Ch 7, Sec 79550 (f)	\$29.6 \$27.7				
DWR	Ch 7, Sec 79550 (f)	\$1.7 \$1.7				
CDF	Ch 7, Sec 79550 (f)	\$0.2				
Drinking Water Quality 1	On 7, Occ 73330 (I)	\$2.8				
SWRCB	Ch 5, Sec 79540 (a)	\$0.1				
DWR	Ch 6, Sec 79545(b,c)	\$0.1				
BDA	Ch 8, Sec 79560	\$2.5				
Levees	011 0, 000 7 3000	\$21.3				
DWR	Ch 7, Sec 79550(c)	\$21.3				
Storage	3.1.1, 333.13333(3)	\$20.0				
DWR	Ch 7, Sec 79550(a)	\$19.7				
DFG	Ch 7, Sec 79550(a)	\$0.3				
Conveyance		\$0.6				
BDA	Ch 7, Sec 79550 (b)	\$0.5				
DWR	Ch 7, Sec 79550 (b)	\$0.1				
Science ²		\$13.8				
BDA	Ch 7, Sec 79550 (a-g)	\$13.0				
DFG	Ch 7, Sec 79550 (e)	\$0.5				
DWR	Ch 7, Sec 79550 (e)	\$0.3				
Water Supply Reliability		\$76.2				
DWR	Ch 7, Sec 79550 (d)	\$76.2				
Total, CALFED Program		\$329.4				
2						
CALFED Related Statewide Funds ³						
Ecosystem Restoration		\$60.2				
WCB - Regional Water Management	Ch 8, Sec 79565	\$60.2				
Drinking Water Quality 1		\$150.6				
DHS	Ch 4, Sec 79530	\$102.1				
SWRCB	Ch 5, Sec 79540	\$37.0				
DWR	Ch 6, Sec 79545(b,c)	\$11.5				

Prop 50 Funds Related to CALFED Goals & Objectives FY 03-04 Proposed Budget

(\$ in millions) February 4, 2003

Program Element / Department	Chapter, Section	Funding		
Desalination		\$15.2		
DWR	Ch 6, Sec 79545(a)	\$15.2		
Integrated Regional Water Management		\$91.2		
DWR	Ch 8, Sec 79560	\$58.1		
SWRCB	Ch 8, Sec 79563	\$33.1		
Total, Statewide CALFED Related		\$317.2		

The Drinking Water Quality program needs \$356 million in Stage 1 to meet the ROD objectives.

² Pursuant to Sec 79551, CALFED is proposing that 5% (about \$40 million over 3 years) of the Chapter 7 funds be set aside for science, in addition to program-specific science reviews to be done by the implementing agencies. According to Sec 79551, "All appropriations pursuant to this chapter shall include money for independent scientific review, monitoring, and assessment of the results or effectiveness of the project or program expenditure".

These are statewide programs and funds. The amount available to support CALFED objectives, consistent with Sec 79509, will be determined after project selection. According to this section, "...any project that will wholly or partially assist in the fulfillment of one or more of the goals of the CALFED Bay Delta Program shall be consistent with the CALFED Programmatic Record of Decision, and shall be implemented, to the maximum extent possible, through local and regional programs."

Proposition 50 Proposed Principles For Programs/Funds Related to the CALFED Bay-Delta Program November 21, 2002

Proposition 50 includes funding in several Chapters that could significantly contribute to CALFED goals and objectives. Section 79509 specifically requires (except for Chapters 6 and 10) "any project that will wholly or partially assist in the fulfillment of one or more of the goals of the CALFED Bay-Delta Program shall be consistent with the CALFED Programmatic ROD, and shall be implemented to the maximum extent possible through local and regional programs".

In addition to the \$825 million specifically for the CALFED Bay-Delta Program within Chapter 7, statewide funding for drinking water quality and regional water management is available in Chapters 4, 5, 6 and 8. Depending on how the language in the bond is interpreted and the amount of funding provided in the CALFED Solution Area, significant funding could be available for the CALFED Program. The following principles are proposed for the statewide programs and the Chapter 7 CALFED programs to comply with Section 79509 and to maximize interagency coordination of Proposition 50 programs.

Statewide Programs and Funding

Integrated Regional Water Mgmt / Chapter 8	DWR/SWRCB	\$500 million
Integrated Regional Water Mgmt / Chapter 8	WCB	\$140 million
Contaminant & Salt Removal Technologies / Chapter 6	DWR	\$100 million
Clean Water and Water Quality / Chapter 5 (a)	SWRCB	\$100 million
Safe Drinking Water / Chapter 4(a)(b)	DHS	\$435 million

Principles -- For the Proposition 50 funding listed above that is statewide in nature:

- Maximize coordination between the California Bay-Delta Authority and the departments with funding authority regarding setting priorities and criteria, and project review and selection. For example, incorporate adequate science and technical review, and public involvement in the process.
- 2. Provide ONE process for distributing funds rather than a CALFED process and non-CALFED process for the same types of projects.
- 3. Maintain a statewide process but ensure consistency with the ROD for projects in the CALFED Solution Area.
- 4. Retain final decision authority with the department receiving the appropriation.

CALFED Bay-Delta Program -- \$825 million

Chapter 7 Principles

- 1. Allocate funding over 2-3 years.
- 2. Pursuant to Section 79551, allocate 5% percent of the Chapter 7 funds to support to overall CALFED Science Program.
- 3. Work with the BDPAC and subcommittees, CALFED agencies, and the Legislature, to develop priorities for Proposition 50 spending.

Introduced by Senator Machado

December 2, 2002

An act to add Chapter 12 (commencing with Section 79590) to Division 26.5 of the Water Code, relating to water.

LEGISLATIVE COUNSEL'S DIGEST

SB 21, as introduced, Machado. Water: Water Security, Clean Drinking Water, Coastal and Beach Protection Act of 2002.

The Water Security, Clean Drinking Water, Coastal and Beach Protection Act of 2002, an initiative measure approved by the voters at the November 5, 2002, statewide general election, authorizes the state to issue general obligation bonds in the amount of \$3,440,000,000 for the purposes of the act.

This bill would express legislative intent with respect to the enactment of a comprehensive statutory framework for implementing the act.

Vote: majority. Appropriation: no. Fiscal committee: no. State-mandated local program: no.

The people of the State of California do enact as follows:

SECTION 1. Chapter 12 (commencing with Section 79590) is added to Division 26.5 of the Water Code, to read:

CHAPTER 12. IMPLEMENTATION

79590. (a) The Legislature finds and declares all of the following:

SB 21 -2-

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1 (1) The enactment of the Water Security, Clean Drinking 2 Water, Coastal and Beach Protection Act of 2002 (Division 26.5 3 (commencing with Section 79500)) through the voters' approval 4 of Proposition 50 at the statewide general election on November 5 , 2002, demonstrates the public's commitment to all of the 6 following:

- (A) Maintenance of adequate funding of the state's major water programs, including the CALFED Bay-Delta program.
- (B) Meeting the state's obligations under the Colorado River Water Use Plan.
- (C) Investing in water quality and safe drinking water programs.
- (D) Protecting coastal water quality and marine, aquatic, and terrestrial habitat for fish and wildlife.
- (2) The Water Security, Clean Drinking Water, Coastal and Beach Protection Act of 2002 requires the Legislature to appropriate the funds provided by that act, and authorizes the Legislature to establish funding criteria and direction in most of the programmatic areas of the measure.
- (3) The achievement of a geographically and programmatically balanced implementation of the Water Security, Clean Drinking Water, Coastal and Beach Protection Act of 2002 requires the enactment of a comprehensive statutory framework that is consistent with the provisions of that act.
- (b) It is, therefore, the intent of the Legislature to enact a comprehensive statutory framework for implementing the Water Security, Clean Drinking Water, Coastal and Beach Protection Act of 2002 that accomplishes all of the following:
- (1) Ensures the equitable distribution of funding to meet the needs of all regions of California in a manner that optimizes the use of the taxpayers' dollars.
- (2) Provides for the efficient, expeditious, and coordinated administration of programs funded by the act.
- 34 (3) Contributes to the long-term improvement of California's water quality, water supply reliability, and environment.



California Bay-Delta Public Advisory Committee

Meeting Date: 3/25/03 Agenda Item: 6B

Integrated Regional Water Management

Description: Update on SWRCB and DWR efforts to implement the Integrated

Regional Water Management funding in Chapter 8 of Proposition

50.

Recommended Action: Committee Discussion and Comments

Staff Recommendation: Staff recommends the California Bay-Delta Public Advisory Committee review the progress being made by the SWRCB and DWR to develop a competitive grant process to implement Chapter 8 of Proposition 50 and provide comments.

Integrated Regional Water Management

Background: Chapter 8 of Proposition 50 calls for a competitive grant process to select projects for funding. BDPAC previously recommended principles to guide implementation of statewide funding sources such as Chapter 8. These principles are:

- Maximize coordination between the California Bay-Delta Authority and the departments
 with funding authority regarding setting priorities and criteria, and project review and
 selection. For example, incorporate adequate science and technical review, and public
 involvement in the process.
- Provide ONE process for distributing funds rather than a CALFED process and non-CALFED process for the same types of projects.
- Maintain a statewide process but ensure consistency with the ROD for projects in the CALFED Solution Area.
- Retain final decision authority with the department receiving appropriation.

CALFED Agencies

The Resources Agency
Department of Water Resources
Department of Fish and Game
The Reclamation Board
Delta Protection Commission
Department of Conservation
San Francisco Bay Conservation
and Development Commission

California Environmental Protection Agency State Water Resources Control Board Department of Health Services Department of Food and Agriculture

Federal

Department of the Interior
Bureau of Reclamation
Fish and Wildlife Service
Geological Survey
Bureau of Land Management
Environmental Protection Agency
Army Corps of Engineers

Department of Agriculture
Natural Resources Conservation Service
Forest Service
Department of Commerce
National Marine Fisheries Service
Western Area Power Administration

Agenda Item 6B Meeting Date: 3/25/03

Page 2

SWRCB and DWR are working to develop the competitive grant process for Integrated Regional Water Management consistent with these principles and with input from other stakeholder processes. They are planning a joint or coordinated process that will include stakeholder input in its development. They are considering focusing this grant funding on larger projects and programs developed on a regional scale, which address multiple objectives, and integrate multiple water management approaches. Smaller, more local scale projects would be addressed through the coordinated watershed grant process. Both grant processes will be guided by the Memorandum of Understanding under development between the Resources Agency and CalEPA. Staff from the agencies will present an overview of the process and how it is being developed at the BDPAC meeting.

Committee Role: The Committee can assist the Authority in reviewing and commenting on the grants process and how the SWRCB and DWR have addressed the BDPAC principles for statewide funding sources.

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California Bay-Delta Public Advisory Committee

Meeting Date: 3/25/03 Agenda Item: 6C

Science Program Priorities and Budget

Description: Bay-Delta Program Science Program Year 4 draft Program Plan and

Budget Priorities.

Recommended Action: Committee Discussion and Comments

Staff Recommendation: At the December 4, 2003 Committee meeting, the Lead Scientist reviewed the Year 3 Science Program Plan and priorities to be funded by Proposition 50. Proposition 50 funds are insufficient to fully fund the Program at the \$40 million level called for in the Programmatic Record of Decision (ROD). The Committee asked for detail on the Science Program priorities, including those to be funded by Proposition 50 and those for which funds are not available. Staff recommends the Committee continue the discussion and comment on the priorities.

Science Program Priorities

Background: The Committee asked that the Science Program address several key issues concerning integrated key milestones related to water operations, environmental water account, water contracts renewals and the South Delta Improvement Program. Attachment 1 is a draft of the Science Program Year 4 Plan which addresses the issues raised by the Committee in December and reflects the priorities that will be in a soon-to-be-released proposal solicitation package.

Attachment 2 is a proposed budget for the Science Program. Proposed priorities for use of Proposition 50 funds and other funds, if they become available, are listed. The total proposed budget reflects priorities based on the \$40 million Science Program budget contained in the ROD. Proposition 50 and other existing funds would cover about \$15.7 million, leaving \$24.4 million worth of projects unfunded.

CALFED Agencies

The Resources Agency
Department of Water Resources
Department of Fish and Game
The Reclamation Board
Delta Protection Commission
Department of Conservation
San Francisco Bay Conservation
and Development Commission

California Environmental Protection Agency State Water Resources Control Board Department of Health Services Department of Food and Agriculture

Federa

Department of the Interior
Bureau of Reclamation
Fish and Wildlife Service
Geological Survey
Bureau of Land Management
Environmental Protection Agency
Army Corps of Engineers

Department of Agriculture
Natural Resources Conservation Service
Forest Service
Department of Commerce
National Marine Fisheries Service
Western Area Power Administration

Agenda Item 6C

Meeting Date: 3/25/03

Page 2

Committee Role: The Committee can assist the Authority in ensuring a robust Science Program that will address the critical scientific issues needed to make well informed policy decisions. At the December 4, 2002, meeting, it was mentioned that one of the responsibilities of the Steering Committee is to provide advice and guidance to the Science Program.

Attachments:

Attachment 1 - Draft Science Program Plan - Year 4

Attachment 2 - Bay-Delta Authority Science Program Year 4 Priority Budgets

Draft Science Program Plan Year 4 March 12, 2003

This summary highlights two aspects of the Science Program's substantive activities for Year 4 (many of which follow actions begun in Year 1-3): priority issue areas, the relationship between CALFED-wide science activities undertaken by the program and science activities needed within each program area.

Priorities in Year 4

The Science Program will continue to focus on the following issue areas during Years 3 and 4:

Water Operations and Biology in the Delta—science issues
Performance Measures
Signature Adaptive Management Projects
Improving Monitoring Capabilities
Restoration Science--Adaptive Management Approach
Collaborative Science & Communication —Bay Delta Science Consortium
Support development of new science within CALFED Programs

Background

The budget for science builds upon three decades of systematic monitoring and process studies from the Interagency Ecological Program, the US Geological Survey, universities and other CALFED agencies. Limited funding, divergent agency missions, insufficient coordination, and compressed timetables left critical voids in the state of this knowledge, however. The collaborative process that characterizes the CALFED Bay-Delta program requires transparency, open recognition of scientific uncertainties, and open discussion and publication of scientific findings. As described in the ROD, it was expected that the science program would:

- o Respond to emerging questions relevant to the four interconnected CALFED goals,
- Support overlooked or underfunded science needs,
- o Support greater partnering among agencies, academics and private sector,
- Develop the knowledge base necessary to support accomplishment and perpetuation of CALFED goals,
- Develop and clarify the status of credible scientific knowledge as it applies to policy decisions,

Goals

The Science Program budget is limited to expenditures that cut across the missions of CALFED's standing programs and focus on system-wide responses to the suite of activities that CALFED is proposing to undertake. In the near-term a variety of important issues will be addressed with important implications for the Delta and that CALFED goals that rest on processes in the Delta or that affect the Delta. These include: considerations of pumping rates (8500 cfs), long-term water contracts, decisions on a Through Delta Facility, development of permanent barriers, development of better fish facilities, decisions about levee construction, decisions about dredging, changes in

management of exports (consideration of volumes and how to manage environmental water like "b(2)" and EWA), Delta restoration plans, flow management in streams and rivers, changes in storage in the Delta and upstream, and river/stream restoration. The species of concern and the ecosystem of the Delta will respond less to individual issues than to the outcomes and implications of all the actions together as they are implemented. Each standing program and managers of each action have a stake in the net response of the system, but their individual contributions to the system-wide response will probably be difficult to separate out; as could the response to all the actions compared to natural variability. But the basic premise of the Accord and ROD is that the balance of all actions together will allow the four goals to be met. Because no individual CALFED standing program looks at the net effect of all the actions, understanding the integrated influences of all actions on the larger response measures of the systems (e.g. populations of key species) is the unique responsibility of the science program. So it is the Science Program's responsibility to look across the sum of these actions and help the Authority understand how that that net effect is influencing accomplishment of CALFED goals. The Year 4 budget of the Science Program is designed to develop knowledge that will help us understand this net effect, especially with regard to the actions cited above. The emphasis in Year 4 is also restricted to implications for the balance between ecosystem protection and water supply reliability. That means understanding implications of all actions together on ecosystem processes (like flow, hydrodynamics, water chemistry, sediment transport, contaminant fate/effects, and animal/plant communities); as well as the response of the species of concern, themselves, which will be largely dictated by their population biology as coupled to changes in ecosystem processes. The water quality goal is a minor component of Year 4 priorities because the major source of funding is Proposition 50 and the water quality chapter of that bond does not include an investment in science. Standing Bay-Delta programs and the management of each activity are responsible for doing their best to understand (largely local) implications of their individual actions. Science focused on helping individual programs accomplish their missions and understand their implications will be within the budgets of those programs.

General Approach

The workplan is developed around certain key philosophical criteria that should be clear to all. Attachment B describes some tools that might be used in accomplishing agenda. But more important is the strategic philosophy of the agenda:

- O Provide information that will inform the major decisions that the Authority must make in the near future on water operations, conveyance, flow management, restoration and storage (for example); and that will allow interpretation of the net, system-wide effects of these actions when taken together. But be aware that understanding processes in the system is probably the shortest path to providing such information.
- o Identify, and attempt to quickly eliminate, the obvious and simpler critical bottlenecks in knowledge. There are some opportunities for gains in understanding in the shorter-term and these should be exploited. For example, it is probably feasible to soon develop better understanding of factors involved in direct losses of delta smelt and salmonids at the intakes to federal and state

- pumping plants in the Delta. Although ultimately we must understand the implications of take for populations, there is also benefit to better understanding and managing take, especially as it is defined as a critical goal of existing and proposed management actions.
- Take the long view —do not use relatively short timelines as a constraint to addressing important, but difficult issues. And develop understanding over time the program will be revisiting activities and strategies over a long period of time so understanding should be directed at future evaluations as well as those that are currently
- Use available funds, personnel and time to address feasible questions and issues. The balance between long- and short-term gain is necessary because many very important questions are not feasible to resolve in the short-term. Much effort can be wasted on projects that raise short-term expectations but address questions that are not feasible to resolve in the short-term.
- Focus on the most important factors limiting success in achieving goals. It is rare that single factors control the response of an ecosystem, community or population of organisms (for example), but at the extremes, at least, it is sometimes known which factors are more important than others. Factors with minor influences are the least important to fully understand.
- Recognize the importance of more than one target species, with the short list including longfin smelt, Sacramento splittail, green sturgeon, and steelhead, in addition to delta smelt and Chinook salmon.
- Recognize the importance of understanding ecosystem characteristics, processes and functions, and ecosystem-level responses that will affect the success of achieving CALFED goals.
- Clarify the status of knowledge. Workshops in which the science program identifies the status of knowledge, and, in a balanced manner, discusses assumptions and uncertainties in that status are key to the establishing the credibility of the science used to support decisions by the Authority's member agencies. A continuing and aggressive flow of such information is critical to communication among scientists, agencies and the many collaborators in the Authority's programs.
- Provide an iterative feedback loop between scientists and managers clarify both knowledge, assumptions and uncertainties and to reduce uncertainty in our understanding of key populations and ecosystem processes and our ability to manage them.

Year 4 Budget Justification

Table 1 details two budget scenarios to address the goals and philosophy stated above. The first shows the Science Program budget as anticipated when Proposition 50 funding is applied to science needs, as allocated as of March, 2003. The second shows the what could be accomplished if the original plans had been implemented, which called in the ROD for a commitment of \$40 million dollars. The latter represent highest priority items that will not be funded. Other needs certainly exist, some of these will be described in the text.

The science program has been allocated a total budget of \$13.75M in year Proposition 50 funding and \$2.0M from Proposition 13 funding (the latter in partnership with SDIP). Present activities are also supported by \$770,000 federal funds from the US Geological Survey to support the Lead Scientist and Deputy Director for Science, some consultants and staff that report directly to them, and some key advisory functions.

Continuation of successful activities begun in years 1 – 3. The Year 4 budget allows continuation of some of the activities that developed in the first two years of the Science Program (CALFED Year 2 and 3). Expenditures involve using experts for critical insights, development and managing requests for proposals and peer review of proposals, and activities to clarify the state of knowledge (white papers; annual workshops and review functions like the annual EWA review). These activities include \$2.7M for "Continued funding and leadership activities..." (pg 2, Table 1) and \$0.8M to match funds with the Conveyance program and continue the very successful studies evaluating how operations of the Delta Cross Channel affect water quality and protection of threatened species. The Delta Cross Channel studies involves information directly critical to impending decisions about a through delta alternative. The mix of activities involving clarification of the state of knowledge has provided the critical link between developing new knowledge and use of that knowledge ("best available science") in the policy arena and for management.

Year 4 activities. The budget also supports new activities to clarify the status of knowledge related to upcoming policy decisions; and a few selected emerging opportunities or under-funded activities deemed of the highest priority. Priority was determined by the immediacy of the policy need, and the likelihood the work would vield results of benefit within a short time frame. Decisions about priorities were made based upon two year's of input from stakeholders and policy makers highlighting key issues and input from standing boards or panels of scientific. The input of the latter was used to identify key process knowledge that would relate to the policy issues (as cited above). The source of input from scientific experts is identified for each priority in Table 1. Different advisory groups included the Independent Science Board of the Ecosystem Restoration Program (ISB), the Annual Review of the Environmental Water Account (EWA), a workshop addressing needs the status of knowledge with regard to Sacramento Splittail (Split.), the Delta Protection Commission (DPC), Mercury expert panel (Merc.), Adaptive Management Forum (AMF) and the ERP Grant Selection Panel. As stated above, the ROD envisioned a much faster expansion of knowledge than CALFED budgets have allowed to date. So the two columns in the budget (Table 1) illustrate not only Year 4 proposed expenditures, but some of the many needs that could be met by the budget envisioned by the ROD. The latter cannot be met under current circumstances.

Water Operations and Delta Uncertainties.

Species of concern. The issues listed above, individually and *en masse*, have implications for the species of most concern in the Delta. Uncertainties about the response to the issues by those species and the processes that affect their populations will make all decisions more contentious, so narrowing those uncertainties is very important.

Examples of important questions include: "What role does residence in the Delta play in the success of salmon and delta smelt?" "What is the importance of predation in the Delta compared to take?" "What is the effect on native fishes of the massive invasions of the Delta by exotic flora; and how will changes in water management or Delta configurations affect the success of such species?" "What is the role of ocean harvest of Chinook salmon compared to other stressors?" "What is the role of upstream survival of salmonids compared to stress in the Delta; and does upstream survival affect estimates of population effects of downstream stressors like the export facilities?" "What is the role of indirect (non-pump) mortality in the Delta?" "How do the barriers affect flows and fish?" In their annual review, the EWA panel identified several critical research needs that included such questions, including better knowledge of chinook salmon life cycles in the Delta, better knowledge of predation in the Delta, and better understanding of environmental conditions that result in large salvage of delta smelt. In addition, a group of experts discussing listing of Sacramento Splittail discussed research needs for that species, that would aid decisions about listing. The science agenda for Year 4 under species of concern includes funding for a small number of new projects on each of the species of concern (salmon, delta smelt, splittail and steelhead). The major expenditures would be for bringing more coherence to those programs that already exist (review of salmon monitoring), as well as support for assembling the status of knowledge for upcoming regulatory actions (NMFS recovery plan for salmonids; reconsideration of delta smelt listing by the FWS; discussion of state of science to assist biological opinions and biological assessments for accomplishment of 2003's Integrated Key Milestones; evaluation of the fate of the Environmental Water Account). A full budget (as suggested by the ROD) would allow a robust pursuit of the questions, with multiple interdisciplinary projects for each. Increasing the pace of growing knowledge would provide answers that would benefit major decisions for decades ahead. For example, water operations could use such knowledge to balance resource management choices: forcing fish past the Delta, better manage fish within the Delta, emphaze managing inflows at the Cross Channel or just manage exports. The slower pace will allow progress, but frustrations from both scientists and managers about that pace will continue. An important issue that will not be addressed in the upcoming budget is the question of what controls the aquatic weed, (*Egeria sp.*). Hypotheses suggest that physical processes that could be changed by some Delta actions might be involved in the success of this nuisance species (whose abundance seems to affect the response of native fishes in the Delta), but such work cannot be funded under this budget.

Response of Delta Ecosystem. Development of methodologies for "gaming" or developing scenarios built around alternative sets of actions or change, based upon existing knowledge, is another tool that could be applied immediately to questions the responses of the Delta to all actions taken together. Gaming has worked successfully to forecast outcomes of individual actions or programs (e.g. EWA). Work on developing the best possible models for understanding system response to different mixtures of actions must begin immediately if best science is to be incorporated into making those decisions.

Performance Measures.

While the effort to develop performance measures from existing data will continue, the real advances in determining system responses to the combined CALFED actions, and thereby tracking the response to the mandates of the ROD, will come from data collection programs specifically designed to expand the suite of measures. The first measures of system response have come from establishing a systematic way to present IEP and other existing monitoring data (again using species of concern, and their response to natural and human-induced system change). That will continue. It is also critical to continue to support development of wetlands performance measure, as no pre-established system exists for that aspect of the system, even though many actions proposed for the Delta have implications for processes that affect wetlands (hydrodynamics, sediment transport. etc.). The ROD budget would have allowed for a robust approach to developing a sustainable wetlands monitoring program. That would involve continuing the current 2 year pilot studies, and addinf data management/data interpretation efforts to the existing program. A robust pursuit of evaluating the response of wetlands ecosystems to CALFED actions (including responses of species of concern in those systems) will not be sustainable under the present budget.

Improved Monitoring and Analysis.

Data Analysis. The single greatest gap in scientific knowledge applicable to the response of the system to the suite of CALFED actions, is the need for development, analysis and publication of the data that we have already collected, especially where there is the potential for immediate payback. Specific projects that are needed include development of performance measures directed at CALFED's four goals, support for a competitive university-agency data analysis partnership program, extension of a liason position between the science program and IEP, and support for additional analysis of delta smelt data. The EWA review panel specifically identified this is as feasible area for short-term advances. These all will all be supported under the present budget. Full funding of improved monitoring for salmonids and delta smelt (inlcuded above) and associated ongoing data analysis programs that would explicitly consider things like working windows in the Delta, will eventually be essential; but had to be partly cut in the year 4 budget. In addition, geographic, geologic and hydrologic inventory of in-channel Delta islands has also been proposed. The inventory could be a major first step in better prioritizing restoration and levee repair efforts in the Delta.

Signature Opportunities for science.

Some places in the Bay-Delta and its watershed offer opportunities for immediate advances in meeting CALFED's goals. Two of the more important are Battle Creek (where a workshop to define science needs will be held) and Suisun Marsh (where restoration and water management converge and prospects for restoration successes are substantial). Suisun Marsh is a system where issues dealing with levee management, ecosystem restoration and flow modifications associated with Delta operations all meet. Opportunities exist for rapid advances in science in this important ecosystem. Suisun Marsh meets well the need for advancing understanding to multiple CALFED actions. Modest efforts are proposed to begin taking advantage of both circumstances. Similarly the opportunities described above would benefit from full funding. For example, the Battle Creek workshop must be followed by support for the needed science to return this

system to the promising status it once held. Issues with regard to ecosystem restoration, storage management and flow management intersect here. Similarly, integrative management across CALFED programs would benefit from funding case studies in which water management (ground and surface), water use efficiency and ecosystem restoration are integrated. Or where reservoir management is integrated to provide the hydrograph needed for ecosystem recovery, water for conjunctive use and water to meet downstream regulatory criteria. Rapid progress might be made if such work could answer questions like: "How much of the flow needs for a given stream can be met by a combination of better combining surface and ground water management with advances in water use efficiency; and which combination of strategies is the most effective?" "Can biological benefits be documented from such integrative management?"

Restoration Science related to other programs.

While the Ecosystem Restoration Program has a strong history of supporting scientific studies, it is more difficult to support work that crosses the boundary between restoration and the goals of other programs; or looks at system-wide response of indicators of restoration success. Questions that remain unsupported by the ERP include: "How will dredging or generation of mercury in new storage facilities affect mercury inputs to the system, compared to wetlands restoration?" "Can conceptual model development in tributaries be used to implement adaptive management experiments combining flows and restoration actions across streams?" "Can we quantify if the benefits being achieved by the growing corridor of restored habitat on the Sacramento River balance the costs of changing delta hydrodynamics or exports?" The science program will continue to work with ERP tp implement these activities in river systems in which science has long played only a minor role.

Collaboration and Communication.

The effectiveness of science depends upon collaboration among CALFED partners (government and non-government) and wide dissemination of results. The Bay-Delta Science Consortium was initiated for specifically those purposes, and will be provided support for a new technical publication series, partnered studies in Suisun Marsh, common data management, fact sheets for managers and the public, and education.

Building science within standing CALFED Programs

This category of the budget is focused on helping the standing programs develop their internal science activities, by advising and leading development of advisory panels, workshops and new studies, and matching funds on critical science. The Program is using a common approach for developing and clarifying the status of knowledge, both within the Science Program and among CALFED's standing programs. Key questions are first identified by staff, stakeholders and science advisors. These questions express the most basic assumptions about the issue or program. Experts will then help describe the status of knowledge—what is known and not known and the relative importance of different factors—associated with those management questions. The experts are engaged via white papers, participating in review workshops, and serving on review panels to accomplish this task. CALFED staff and selected expert advisors then use that information to produce

an agenda of scientific needs (as in the Ecosystem Restoration Program Annual Plan) and begin the process of soliciting proposals to meet those needs. CALFED uses a combination of a broad call for proposals (a Proposal Solicitation Process) and invites specific proposals. Regardless of the solicitation method, proposals are selected using a peer review process, then funded. Results from all science activities are fed back to managers and CALFED staff via publications, white papers, workshops, briefings, web publication, seminars and the CALFED Science Conference. Adaptive feedback is accomplished by making all review outcomes public and using recommendations to advance the progress on the issue, program or project (e.g. Environmental Water Account.

Maintaining this process over time provides not only on-going review of complex projects and program elements but serves as a mechanism for providing the most recent scientific information to managers (adaptive management).

This approach is outlined in Figure 1.

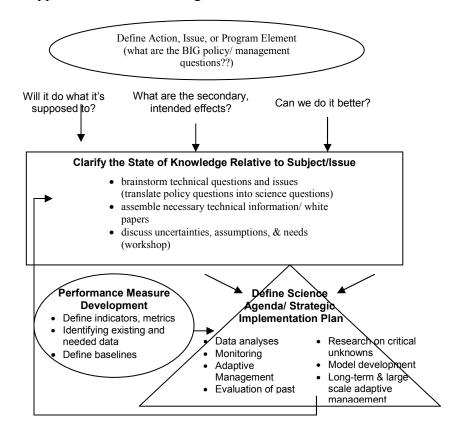


Figure 1: Adaptive Approach for Integrating Science Across Issues and Programs

Science Across CALFED and Science Within Each Program

The Science Program is focusing on large-scale issues that cut across multiple program elements and regions. Within each program area, however, there are also specific science and project technical needs including:

- peer review of specific study designs, proposals submitted through proposal solicitations (PSPs), and final technical products
- balanced and unbiased descriptions of the state of science relative to a specific issue
- identifying critical unknowns needed to assess program performance or define classes of activities needed to reach program goals; and
- specific data analyses and monitoring needed to support performance assessment

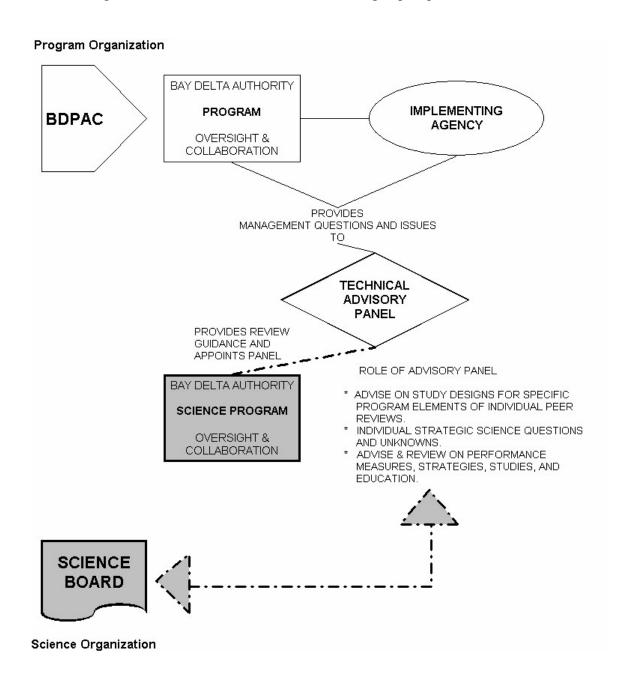
For example, the storage program is applying these scientific approaches to ensure its feasibility and environmental impact studies use the best available scientific information and to identify the strengths and weaknesses of one of its core tools (Department of Water Resources' CALSIM II model). The drinking water program is applying these approaches to develop a monitoring strategy that will feed into an overall assessment of program performance.

A summary of scientific tasks currently being undertaken by individual programs is listed under "Program-Specific Science" in Attachment A.

The following table outlines the distinction between the scientific activities that will be supported and carried out by the Science Program, and those that should be carried out within individual programs.

Science Program	Individual Programs
CALFED wide Science Board, expert	Support Program-specific science advisors
panels examining cross-program issues and	
studies, National Academy of Science	
reviews of science throughout CALFED	
Conduct reviews of programs, large-scale	Conduct peer review of specific studies and
activities cutting across program areas,	tools, include peer review in PSP selection
advise on peer review in PSPs, and	process
facilitate inclusion of outside experts	
Develop science agendas for cross-cutting	Develop strategic science agendas specific
issues, implement agendas by funding	to program assessment, fund studies and
regional and large-scale monitoring gaps,	monitoring to implement agendas
signature projects, intensive	
multidisciplinary studies, and research	
aimed at building knowledge	
Support multiple communication tools and	
arenas, including online journal, science	
conferences and forums	

The science advisors appointed to work with each program (collaboration between the program and CALFED Science Program to determine who and help frame their charge) will be integrated into the overall structure of standing expert panels and Science Boards.



Attachment A: Summary of Science Activities: Year 3

Water Operations and Biology in the Delta: Science Issues

- Studies & Monitoring Underway
 - Effects of toxicants on juvenile salmon—reconnaissance study in south delta to see if effects can be detected
 - o Fundamental hydrodynamic and transport mechanisms in the Delta
 - Genetic identification methods for spring run Chinook salmon in the Sacramento watershed
 - o Replaced in-situ flow monitoring equipment in the Delta
 - The spatial ecology and population dynamics of Delta Smelt revealed by otolith biogeochemistry
 - Delta Cross Channel studies (funded initial year, cost-shared with Conveyance Program)
 - o IEP fish presence, abundance, and location data—identifying patterns and controlling processes
 - Interpretation of larval fish data: Sponsored symposium and edited publication of papers

• Workshops and Reviews

- Water Management workshop: population-level effects
- o Salmon and EWA water management workshop
- o Delta smelt workshop
- Evaluate implications of climate variability and climate change for water management and proposed CALFED Actions
- o Review of Delta Cross Channel proposals and progress
- Workshop on Resource valuation
- Develop synthesis of knowledge relevant to converging issues on water operations and environmental management in the delta and hold related workshop(s).
- o EWA Technical Review
 - Convene annual review by independent panel and issue report
 - Publish summmaries of year's activities, justifications and summaries of workshops

• Science Agendas and White Papers

- Delta smelt research agenda—sponsored development of a multiorganization IEP project work team and complete agenda for science needs both for IEP and for PSP.
- o Complete Delta Smelt white paper
- o Complete Salmonid white paper
- Improving science underlying water operations: initiate process of selecting and starting studies using science agenda developed in Year 2 as basis for PSP
- Determining effectiveness of Delta fish screens in the broader ecosystem context: initiate PSP and select studies to improve science linking take to ecosystem conditions and populations

Performance Measures

- Expand to a white paper the philosophy, process and formats used for CALFED performance measures.
- Produce annual report on progress in developing performance measures for CALFED and CALFED programs
- Using ERP as a model, characterize and justify metrics, and interpret trends, in an initial set of key indicators.
- Began development of a conceptual model for evaluating changes in supply reliability at different scales associated with CALFED actions
- Providing expert advisor to help each program develop and use performance measures
- Establish peer review process for selection of indicators and written explanations.

Signature Adaptive Management Projects

- Stockton Ship Channel:
 - o Studies & Monitoring Underway:
 - Development of long-term hydrological models in support of dissolved oxygen management in Stockton ship channel and San Joaquin river
 - Workshops and Reviews:
 - Expert panel for multidisciplinary review of Delta projects linked to flow and water quality changes (San Joaquin River DO)
- Battle Creek (briefly describe, paraphrase issues, as done above)
 - Begin science advisory process
 - o Panel discussion of state of Science

Improve Monitoring Capabilities

- Complete aquatic monitoring white paper
- Analyses of under-exploited monitoring data
 - Collaborate with CA Sea Grant to solicit, select and fund proposals for postdoctoral research in several issue areas
 - Collaborate with IEP to integrate peer review into the proposal-workplan development and selection process
- Review of Collection, handling, trucking and release studies for Delta smelt (associated with salvage from diversion facilities).
- IEP-SAG review of salmon monitoring
- Replaced old real-time flow monitoring equipment in Delta
- Wetlands
 - Co-sponsor research on indictors linking toxicants to wetland ecological health- UC Davis
 - Pilot Wetlands Monitoring—organize multidisciplinary team to develop methods and conduct integrated monitoring of restoration sites from San Pablo Bay to the Delta

Restoration Science: An Adaptive Management Approach

- Studies and Monitoring Underway: Science Program-sponsored
 - o Ecological evaluation of Yolo bypass to support floodplain restoration
 - Heavy metal and mercury concentrations in bed sediments and floodplains of Clear Creek watershed
 - o Invasive species in ports and harbors
 - Developing a flow and sediment transport model for channel and floodplain restoration on the Sacramento River

Workshops and Reviews

- Supporting statewide strategic science plan for mercury studies & coordination of CALFED mercury studies
- o Instream flow modeling workshop (Year 2)
- Support implementation of recommendations from ERP Science Board's adaptive management workshop
- o Support ongoing expert panel review of Upper Yuba River studies
- o Workshop on floodplain restoration

• Science Agendas and White Papers

- Sediment budget and controlling processes throughout the watershed putting restoration plans in the context of sediment availability
- o White paper: Progress in Delta restoration
- o Update science agendas on restoration science in each ERP region;
- Follow up on science agenda for shallow water habitat management in the Delta

Creation of a Bay-Delta Consortium for Collaborative Science

- Provided staff and start-up funds for the Bay Delta Science Consortium, including planning co-location of DWR, CDFG, USFWS, and USGS scientists and field staff
- Developing criteria for collaborative proposals
- Discussing a collaborative focus on Suisun Marsh

Communication

- Initiated development of communication strategy for the Science Program
- Conferences
 - o 2nd CALFED Science Conference, Sacramento, January 2003
 - o Co-Sponsoring 2003 State of the Estuary Conference
 - Co-Sponsoring Pacific Climate Conference 2002 (when, since year is nearing end)
 - Co-Sponsoring Society of Environmental Toxicology and Chemistry Conference, 2002
 - o Co-Sponsored AFS Early Life History Meeting, 2003
 - o Co-Sponsoring American River Conference, 2002

Educational Material

- Scientific studies in the Delta--video
- Water Education Foundation Delta Flow Video

Online Science Journal

 Funded the development of a new online series devoted to publication of scientific studies on water issues in California; journal editors have accepted two manuscripts for review and the digital publication process is starting

• Fact Sheets

- o Science in Action: Delta Cross Channel studies fact sheet published in Estuary
- o Science in Action: Delta shallow water habitat fact sheet published in Estuary
- o River restoration fact sheet in progress
- Science Program Activity Reports (selected examples)
 - o Presentation at Estuarine Research Federal conference on adaptive management experiments within CALFED Bay-Delta Program
 - o Briefed US GAO on the structure of the Science Program
- Web Site: Initiated development of Science Program web site

Program Specific Science

- Levees
 - Delta island subsidence and accretion (cost share with DWR)
 - Shallow water habitat science agenda
- Drinking Water Quality and Evironmental Water Quality
 - Delta water quality: analysis of existing data to establish a baseline water quality (cost-shared with Drinking Water Program)
 - Share (with whom?) in developing independent science review process for PSP
 - Developing conceptual models and monitoring strategy
 - o Performance measures under development
 - Funded studies
- Ecosystem Restoration Program
 - Update peer review process in PSP (ERP)
 - Fund ~\$10M scientific studies to support restoration, selected in competitive process
 - Begin performance measures
 - o Adaptive Management forums: Merced, Clear Creek, Tuolomne
 - Sustain science advisory board (Independent Science Board-ISB)
 - Brown-bag science/restoration seminars every month
 - o Planning adaptive management experiments with ISB
 - o Support science blueprint from Prop. 204
 - Statewide mercury study strategy
 - o Begin studies of feasibility of restoring salmonids in Upper Yuba
- Conveyance
 - o Co-sponsored peer review of north Delta flood models with Levee Program
 - Advising on technical panel for Through Delta Facility studies
 - o Supporting adaptive management Delta cross channel studies
- Storage
 - o Continue review of portions of the Delta Wetlands technical studies
 - Initiating Process to peer review CALSIM and its applications
- WUE

- Providing advice to WUE on defining the role of an external science review committee
- Water Management
 - Arsenic White Paper—geochemical and microbial processes, drinking water use, and potential conjunctive use issues (Water Management)
 - Butte Basin ground water and linked models (peer review and advise on process)
- Science
 - Engaged in discussions with the National Academy of Sciences and developed plans for a review of the Science Program in spring, '03 (Science Program)

Attachment B: Science Tools

Attachment A: Summary of Science Activities: Year 3

Criteria

A science agenda should be developed around certain key criteria so that monitoring and research will:

- Take the long view that is do not use EWA or other relatively short timelines to constrain the program. As pointed out earlier for chinook salmon, learning about some aspects of this species will require one or more decades.
- Identify and attempt to eliminate obvious critical bottlenecks in knowledge for example, it is probably feasible to better understand losses of delta smelt and salmonids to predators in the Delta and in particular at the intakes to federal and state pumping plants in the Delta. For some species biologists and managers debate about the magnitude of the losses and the effects of the EWA and other water management actions. But even if losses from predators are small for the population, there is benefit to better understanding and managing take, as long as that is defined as a critical goal of existing and proposed management actions. In the longer term it is critical to progressively develop an understanding of the implications of the direct losses of at risk fish species at the state and federal intakes.
- Recognize the importance of more than one target species with the short list including longfin smelt, Sacramento splittail, green sturgeon, all chinook salmon races and steelhead.
- Recognize the importance of ecosystem characteristics and functions.
- Develop over time that is, the program evolves as we learn more.
- Provide answers to big (and expensive) decisions that CALFED must make in the near future

 for example, dual conveyance versus isolated facility.
- Be feasible within the available funds, personnel and time. Another way to state this is "Are we capable of significantly advancing the state of knowledge within a sever year time frame and with reasonable resources (ie several tens of millions of dollars)?"
- Make maximum use of available resources and data. This criterion may require that we rethink we way we do things.
- Provide an iterative feedback loop between scientists and managers to reduce uncertainty in our understanding of key populations and ecosystem processes and our ability to manage them

The list of criteria is not exhaustive and should be fleshed out.

Tools

There are several underutilized tools available to scientists, and in particular to biologists attempting to understand a complex ecosystem. Annotated examples include.

- Quantitative analysis of existing data sets. There appear to be several longterm data sets that could provide additional information. An example is the hatchery release data base, in particular releases of coded wire tagged salmon from the Coleman National Fish Hatchery. Before proceeding with such analyses we would have to determine the quality of the data, length of record, etc. Publication is an essential component of this process and any contracts developed through this agenda would include a requirement for publication..
- Data management systems. The ability to analyze existing data sets depends in part on the availability of the data along with sufficient metadata to help the analyst determine their usefulness. Some data, such those from the Interagency Ecological Program, are fairly readily available, although even with IEP data, some data have not been made available to a wide audience. With salmonid data, the picture is more bleak in that there is no coherent system of data storage. As with the salmonid program in general (see Organization later in this section), data are often found in desktop systems (or worse, in cardboard boxes) maintained by the collector and it is difficult for system ecologists to even determine what is available.
- Models. Models include conceptual as well as mechanistic representations of what we think we know about the ecoystem or some component of the overall system. In the Bay/Delta there appears to be a growing divergence between physical and biological scientists in their approach to modeling. On one hand, mathematical models of estuarine circulation are becoming more sophisticated and more accurate descriptions of reality. With the possible exception of the particle-tracking model, many biologists have not embraced the use of models, either conceptual or mechanistic. In addition, many of the key assumptions in biological models are not supported by sound field or laboratory data. Finally, we have to actually use the models being developed. Several salmon models have been written over the years but there has been little application of the models to management questions. It comes full circle in that skepticism about model use often comes from dubious assumptions assumptions that need to validated with research results.
- Publication. If we were to look at the open literature on the San Francisco Estuary and its watershed, the conclusion might be that there has been a lot of scientific research in the estuary, most of it about physics and lower trophic levels, less about fish and there is little in the open literature about watersheds in general and salmonids in particular. Thus there is an impressive amount of science but some of the most relevant results are not ending up in outlets where they can be reviewed and/or widely read. It is important that a new tradition of peer reviewed publication begin now. Peer reviewed publications provide an opportunity to make our information available to colleagues, with the goal of helping ensure that our methods and conclusions are appropriate for the hypotheses being examined. Without this peer review process, our science can lack credibility.
- Research. In many cases we need hypothesis driven research to resolve those tough ecological questions being asked by managers that is we need to get to beyond describing what happened to explaining how it happened. Conceptual and mechanistic modeling can help determine where to focus the research for example on the apparent information bottlenecks listed in the criteria.
- *Monitoring*. Monitoring plays several roles in the science agenda and it is important that monitoring goals be established early on. In the Bay/Delta system monitoring has four basic purposes.
 - 1. To evaluate system status and trends. That is, are things getting better? (Snapshots of key species and ecosystem functions over time.)
 - 2. To monitor project performance. That is, did the project do the things the proponents listed in their proposal? (Did the project rebuild the spawning riffle as proposed?)
 - 3. To evaluate project impact. That is, did the project have the desired outcome? (Did spawning salmon use the new riffle?)

- 4. To help determine when and where to take action, such as real time monitoring and monitoring take level at the state and federal intakes. (Using data from fish sampling in the watershed along with fish salvage data to determine the need for an EWA action.)
 In concept monitoring is reasonably straightforward, but in reality the programs must be carefully designed, conducted and updated to serve their intended purposes. The data must be periodically checked, electronically archived and made available to interested parties. Most important is an ongoing and comprehensive interpretation of the collected data.
- *Adaptive Management*. Three elements of adaptive management (AM) can be incorporated immediately in our research/monitoring program.
 - 1. Using new scientific findings into water management actions in the Bay/Delta system. For example, the recent change from Red Bluff Diversion Dam ladder counts to carcass surveys in estimating winter chinook escapement demonstrates that new information.
 - 2. Using an experiment/assessment approach. When experiments/assessments can be conducted at relatively low risk (for example, recent studies on flow distribution and salmonid movement near Delta Cross Channel/Georgiana Slough) the payoff can be large.
 - 3. Seek opportunities for formal adaptive management experiments. The March 19-20, 2002 AM workshop (sponsored and organized by the ERP Science Board) provided the opportunity for scientists and managers to consider formal experiments in three important areas of uncertainty instream flow benefits for salmonids; the ecological value of floodplains; and the importance of tidal habitat in the Delta and upper Bays. In each case the participants were able to provide some specific recommendations as to particular study areas (the Yolo Bypass, for example) but there is much work to be done before an actual AM proposal can be developed. Agencies and stakeholders should encourage and support development of these, and other, formal AM proposals.
- Workshops/white papers. One of the more effective means of addressing key science issues involves preparation of a summary of what we know about a subject, convening a working meeting of informed scientists to address the summarized information and suggest additional analyses, conclusions from the data and possible monitoring and research to answer unresolved questions. To achieve results, workshops normally best structured around a specific topic and a limited number of active participants. Workshops should result in products (summaries and conclusions) that can make their findings available to interested parties. Most important it is critical that participants have an expectation, and a mechanism, for implementing appropriate workshop recommendations.

Resources. Acquisition and efficient resource allocation are often the bugaboos of many major science programs. Although science dollars are generally much less than those being spent for restoration and other activities, in sum they can add up to a significant program cost – a cost many managers may be reluctant to appropriate. In addition, the day-to-day workload of agency staff is often such that there is not much time available for contemplative analyses and publication. The answer to this dilemma involves more funds and better use of existing staff and resource – more easily said than done. An essential component of the answer is communication between scientists and managers with the goal of helping managers understand how well the actions benefit target resources. We need to continue to promote active university involvement in all aspects of the CALFED science agenda.

Bay-Delta Authority Science Program Year 4 Proposed Budget Priorities March 10, 2003

The attached spreadsheet explains what project areas the Science Program considers as priorities for 2003 and 2004, both in terms of priorities for Prop 50 2003/2004 funds, and recommendations for investments that would more fully support CALFED decision making and program evaluation if the full \$40M ROD budget were available.

A few notes for reading the spreadsheet:

The three budget columns:

"Ongoing Science Program Activities," represents planned workshops, reviews, panels, and top priority study areas.

"New Science Support for Decisions and Evaluation" represent absolutely critical pieces of information that have been identified both by the CALFED community as key management needs and by the external research community as the next step in advancing the state of knowledge relevant to program needs.

"Unfunded Science Support" represents additional critical pieces of information and/or increases in the level of effort that the Science Program recommends funding to better support decision making and performance evaluation. These priorities were derived in the same manner as those recommended for Prop 50 expenditures. The dollar value for each priority area was based on the \$40M overall program budget for Year 4 in the ROD.

Carryover Prop 13 funding (at bottom)

Following a series of general fund cuts in the '02/'03 budget, the South Delta Program and Science Programs began a collaborative effort to address several outstanding technical questions related to the effectiveness and ecological implications of fish screens. Proposals for these and related cross-program Delta-focused questions will be solicited during an upcoming call; the selection process is expected to be complete late this fall, necessitating the carryover of funds to '03/'04.

Expenses not shown

There are significant, ongoing program costs not shown in this budget. For example, the Lead Scientist and Program Manager and a significant amount of peer review and workshop expenses are covered by \$770 in federal funds from the USGS. The current level of ongoing program costs exceeds the \$4.5M in this budget and is currently being supported by carryover of SB23 funding. We expect to scale down activities to the budgeted level after the carryover runs out in mid-'04.

EWA

Recommnedation Unfunded Science Support (amt. based on Propsed Other **\$40M ROD** Prop 50 Budget budget) Funds Water Operations and Delta Uncertainities **EWA** Fund half of Delta Cross Channel Multi-discipline data collection and analysis (share with Conveyance) \$0.8 Species of concern - Salmonids Solicit and fund improved salmonid and native fish monitoring, by implementing new recommendations from the Baseline Aquatic Monitoring Review & the upcoming Science Program review of systemwise \$1.0 EWA salmon monitoring efforts \$0.3 Solicit and fund expanded salmonid modeling, data analysis, understanding of the role of predation, and knowledge of life history needs in the Delta via new grants, furthering the IEP postdoctoral program and **EWA** support for supplements to existing staff as recommended by the EWA Review \$0.5 \$1.8 Fund, help design and help lead workshop to clarify state of science necessary for NMFS salmonid \$1.0 Recovery Plan; fund related NMFS salmonid research \$0.1 Species of concern - Delta Smelt EWA Fund, design and help lead workshop to support FWS evaluation of status of Delta Smelt \$0.1 Solicit and fund expanded Delta smelt monitoring and delta smelt studies as recommended by EWA \$1.2 **EWA** \$1.0 Species of concern - Sacramento Splittail and steelhead: Fund and support organization of international Workshop on Restoration of Floodplains; Implement actions recommended by Splittail \$2.0 Split. workshop; begin steelhead studies \$0.4 Synthesis of Knowledge of Delta; Support Biological Assessment, Biological Opinions and evaluation of EWA with workshop and publications linking state of knowledge to policy decisions **EWA** (science program funds and leads these efforts). \$0.8 \$1.0 Delta Invasive Species: Egeria (Hydrodynamics, ecological effects, effects on pollutant transfer) Responses of Delta Ecosystem: Integrate water and ecological modelling tools and pilot evaluation **EWA** of Delta ecosystem responses to combinations of hydrological regimes and CALFED activities \$1.2 Science Support for South Delta Decisionmaking--Fish Screens (Prop 13 carryover in collaboration w/ \$2.0 ISB \$2.0 ISB Implement recommendations of climate white paper **Performance Measures** Support and supervise experts to continue development of performance measures focused on CALFED \$0.3 ISB goals and cross-program accomplishments Support and provide on-going review of wetlands monitoring--Is restoration improving the status of \$0.7 \$2.0 wetlands fish populations ISB Support and supervise advisor to develop wetlands performance measures: Develop, describe & explain ISB specific measures that cut across programs and develop specifics of long-term monitoring program \$0.3 Implement solicitation, peer review and provide funding for data collection or analysis pilot studies for

\$1.0

cross-program performance measures where data is presently inadequate

Year 4 Proposed Budget Priorities--Page 2

	Year 4 Proposed Budget PrioritiesPage 2			
tion	3/10/03			Unfunded
 Jeda				Science Support (amt.
m of				based on
Source of Recommnedation		Prop 50 Budget	Other Funds	\$40M ROD budget)
	nprove Monitoring & Analysis (especially related to measuring performance)			9 7
E14/4	Provide funding and lead peer review for competitive program for Analysis of Existing Data for the Bay	#1.0		Φ0.5
EWA DPC	Delta & Watershed Review and fund In-channel Island Inventory in Delta	\$1.8		\$0.5 \$0.4
ыс	Continue funding and supervision for liason focused on working with IEP to analyze data on fish			ψ0
EWA	distributions and trends in Delta (e.g. relevance to working windows, etc.)	\$0.3		\$0.6
•				
5	signature Opportunities Suisun Marsh: Solicit proposals, provide peer review and begin to fund collaborative scientific studies to			
	help implement framework/blueprint (mercury, salinity, circulation, ecological status, restoration			
	monitoring)- Bay-Delta Science Consortium	\$0.3		\$2.0
	Battle Creek: Convene workshop to define science needs then solicit proposals, provide peer review and			
	begin to fund critical scientific studies defined by workshop	\$0.2		\$1.0
	Solicit proposals, provide peer review and begin to fund cross Program integration case studies: Integration of surface water mgt., ground water mgt., water use efficiency and ecosystem restoration in			
WUE	Central Valley, Butte Basin and Tuolomne River			\$1.5
	Provide funding for Adaptive Management forum and experiments within and across tributataries:			75.0
ISB	Comparative studies of factors involved in anadromous and native fish recovery			\$0.5
R	testoration Science related to other programs			
	Develop strategy, solicit proposals, provide peer review and begin to match ERP funds for implications of			
Merc.	restoration for mercury contamination			\$1.2
	Select, oversee and fund regional Science Coordinators to develop conceptual models and science needs			
AMF; ISB	within and across tributary and major river basins.			\$0.3
ISB;	Solicit proposals, provide peer review and begin to fund studies of implications of restoration and water			4
EWA	use strategies in river/tributary systems: Implications of flow regimes			\$1.0
ERP Selection	Select, fund and oversee charge development for Sacramento River Corridor advisory team; and solicit proposals, provide peer review and begin to fund studies implementing measures of restoration			
Panel	performance in the Sac River corridor			\$1.2
C	Collaborative Science & Communication			
	Continue funding, leadership and advice/oversight for Bay-Delta Science Consortium communication activities: data management coordination, consolidation of facilities, activities that promote collaboration			
	and communication (e.g. Technical publication series)	\$0.5		\$0.5
	Continue funding and leadership activities for Electronic Technical Publications Series, Science Board,			
	Expert reviews, Peer Review panels, managing RFPs, fact sheets, white papers	\$2.7		
	Fund acclerated Data Management			\$0.4
	Fund Ca F&G staff; DWR Staff working on CALFED science issues (appropriated to DWR and CDFG)	\$0.8		
Г	evelop new science in CALFED Standing Programs			
	Help lead identification of science needs, development of research agendas and provide matching funds			
	for experts and activities with CALFED's standing programs	\$1.0		
	CALFED Science Program Year 4 Budget Subtotals	\$13.7	\$2.0	
	Unfunded (difference between ROD budget and Year 4 Budget)			\$24.4
	(AMOCONO CONTROL DAME TO A TOWN TO BEEN TO BE BEEN TO BE BEEN TO BEEN			r=



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California Bay-Delta Public Advisory Committee

Meeting Date: 3/25/03 Agenda Item: 7

2003 Water Operations Plan Update

Description: A progress report on State and Federal water project operational

objectives and outlook, fishery actions, and issues of concern for

2003.

Committee Discussion and Comments **Recommended Action:**

Staff Recommendation: The Committee has received updates on the status of State and Federal water project operations at nearly every meeting. Staff recommends the Committee discuss and comment on the spring 2003 update to address issues of concern.

2003 Water Operations Plan Update Overview

Background: The March 25, 2003, update on the 2003 Water Operations Plan will address the following topics:

- Operational objectives related to Central Valley Project/State Water Project exports and San Luis Reservoir storage.
- Fishery actions pertaining to export reductions, the Vernalis Adaptive Management Program and expected ramping during June.
- Issues that need to be addressed in 2003 including Endangered Species Act assurances needed by mid-April and prior to major Environmental Water Account expenditures, joint point of diversion response plans and extension of the 500 cfs permit.
- Operational outlook for water contractor allocations, Environmental Water Account operations, and meeting Central Valley Project Improvement Act objectives.

Committee Role: The Committee will continue to comment on operation of the Central Valley Project and State Water Project Operations and how those operations affect species of concern and water supply. The Committee is being asked to help identify issues and ensure appropriate processes are in place to address those issues.

CALFED Agencies

California Bay-Delta Public Advisory Committee & CALFED Bay-Delta Program Policy Group

Wednesday, December 4, 2002 Sheraton Grand Hotel Sacramento, California 9:00 am to 3:30 pm **Draft Meeting Summary**

Chairs' Reports

Mary Nichols (Secretary of Resources) opened the meeting and noted that this would be the last meeting of the CALFED Policy Group. In 2003 the California Bay-Delta Authority will be the agency governing body for the California Bay-Delta Program. She introduced Committee Chair Gary Hunt, Vice Chair Denny Bungarz, Jason Peltier (U.S. Department of Interior) and Susan Ramos (Designated Federal Officer). Other members conducted self introductions. Secretary Nichols, Chair Hunt and Patrick Wright (Director, CALFED Bay-Delta Program) updated the Committee on status of Proposition 50 and thanked member interests for their support of the Proposition. Jason Peltier expressed support for Congressional authorization of the CALFED Bay-Delta Program and appropriations for key programs. Mr. Peltier, Secretary Nichols, and Chair Hunt discussed that leadership and support from California is essential for quick passage and that the Program is in the interests of the country, as well as California.

Virginia Cahill (Deputy Attorney General) in response to a request from Chair Hunt, stated that Committee meetings educate members on Program matters. Members may use this information to influence Congress and the California Legislature on their personal time, not in their capacities as Committee members. Ms. Cahill cited Federal and State laws and restrictions.

Action Items

- The next meeting of the BDPAC Steering Committee will be in the January/February timeframe. In addition to discussing Committee priorities, potential agenda items include Program funding in the 2003 Governor's budget, Science Program budget and priorities, Governance and the Finance Plan.
- The timeframe for the next BDPAC meeting is contingent on the California Bay-Delta Authority appointment process.
- Subcommittee co-chairs and members are to contact staff with changes to Subcommittee assignments/responsibilities. Staff will contact new Committee members for desired Subcommittee memberships.
- Initiation of the new Bay-Delta Authority may require new Committee procedures and reformatting of materials to ensure good coordination with the Authority.

Director's Report

Director Patrick Wright reminded members of the upcoming Science Conference and the intent to approve ecosystem restoration directed actions in 2003. Director Wright also discussed with Mr. Peltier and Secretary Nichols the impending transition of the CALFED Bay-Delta Program to the California Bay-Delta Authority.

Program Progress and Balance - 2002 Review

Director Wright noted the Program would not make a finding of imbalance for 2002 (Year 2), as Proposition 50 funds will address most major shortfalls.

2003 (Year 3) CALFED Bay-Delta Program Work Plans

Director Wright reviewed progress on the Year 3 work plans and provided an overview of their content. Eugenia Laychak (Committee Coordinator/Facilitator) reviewed the recommended Committee and Policy Group actions on the Subcommittee recommendations.

Environmental Justice Subcommittee: Martha Guzman (Subcommittee Co-chair) reiterated the importance of the Subcommittee's recommended work plan and raised issue with references to funding and resource constraints. Secretary Nichols and Chair Hunt noted the work plans are based on funding that may or may not materialize and the exception made in the Program response was pertinent to all work plans.

Action: Secretary Nichols directed the Program to work with the Subcommittee to determine how to incorporate the Subcommittee's recommendations into the work plan, based on available funding.

Working Landscapes Subcommittee: Ryan Broddrick and Denny Bungarz (Subcommittee cochairs) reviewed the Subcommittee's recommended goals and priorities.

Action: The Committee accepted the Subcommittee recommendation; Policy Group action was not necessary as the goals and priorities had been incorporated in the Year 3 work plans.

Ecosystem Restoration Subcommittee: Ryan Broddrick (Subcommittee Co-Chair) reviewed the Subcommittee majority and minority positions on Ecosystem Restoration Program desired outcomes. The majority position favored working towards targets stated in the Programmatic Record of Decision, using ERP funds to support the Environmental Water Program and supporting a user fee for future funding of the ERP. The minority position did not support reference to the targets. It did support a pilot water acquisition program, funding for the pilot, and BDPAC discussion on a user fee for the ERP. Members discussed the merits of the issues and the process used to forward the positions to the Committee. Director Wright mentioned that the recommendation to pursue a broad-based user fee will be addressed during development of the Program finance plan.

Action: The majority of the Committee supported adoption of the majority and minority positions of the Ecosystem Restoration Subcommittee report on desired outcomes and forwarded the positions to the Program and agencies for their review. Working with the Subcommittee, the Program and staff will try to resolve the outstanding issues and include that resolution in the ERP work plan. The plan will be brought back to BDPAC for review.

Drinking Water Subcommittee: Greg Gartrell and Marguerite Young (Subcommittee Co-Chairs) forwarded the Subcommittee recommendation on agricultural discharge waivers to the State Water Resources Control and Central Valley Regional Water Quality Control Boards prior to the meeting. In response, Art Baggett (State Board Chair) and Secretary Nichols clarified that the State Board would not be addressing agricultural discharge waivers (as suggested in the Subcommittee recommendation), as the task is the sole responsibility of the Regional Board.

Remaining Action Items

- Subcommittees and staff will work between now and January 2003 to finalize the Year 3 work plans. Work plans will be subject to change during Year 3, depending on availability of funding.
- Director Wright stated that the issues in the Natural Resources Defense Council letter dated December 2, 2002, will be addressed or acknowledged in the Year 3 work plans.
- Chair Hunt asked that the Program recommend a schedule and process for developing Committee recommendations on the 2004 (Year 4) work plans and for taking action on all other Subcommittee recommendations. A recommendation on the process will include a definition of consensus.

Program Priorities

Jerry Johns (Department of Water Resources) discussed key milestones for water operations and the Environmental Water Account (EWA). Committee and Policy Group members, Secretary Nichols and Director Wright discussed the importance of linking Ecosystem Restoration actions to water operations biological opinions and future approvals of the EWA. They also mentioned the need for objective scientific review of issues prior to policy decisions. Part of the scientific review is developing metrics to measure success of the ERP. It was mentioned that policy decisions on implementation of the Central Valley Project Improvement Act would affect actions on ROD milestones. There was discussion on future funding sources for the EWA and it was noted that bond funds are not a likely source.

Mark Cowin (Department of Water Resources) reviewed schedules for surface storage projects. Committee members noted that Federal authorization and appropriations are needed to complete most studies. It was mentioned that local voters will need to authorize proposed expansion of the Los Vagueros Reservoir in Contra Costa County.

Lead Scientist's Report

Sam Luoma (CALFED Bay-Delta Program Lead Scientist) provided his semi-annual update of the Science Program. Members expressed the need for Federal appropriations for Science Program activities and asked for detail on the Program priorities. Science Program focus on information needed for decisions on the key operations milestones (including the biological benefits of the EWA), objective information for agency biological opinions, effects of water management actions on total organic carbons in the Delta and mercury issues were suggested as priorities.

Action Items

- Director Wright stated that the spring 2003 science workshops on expanding Delta pumping to 8,500 cfs and new related biological opinions will be integrated to ensure coordinated review of water operations near term actions in 2003 and 2004.
- Chair Gary Hunt reiterated that one of the Steering Committee responsibilities is to provide advice and guidance to the CALFED Science Program.

CALFED Bay-Delta Program Finance

Kate Hansel (Program staff) updated members on proposed expenditures to be funded by Proposition 50 and proposed funding principles that had been reviewed by the Steering Committee. Curt Miller (Program staff) discussed the Legislative process for authorizing expenditure of Proposition 50 funds, focusing on issues such as resisting the tendency to designate funds for special interest projects and determining the source of funds for implementing provisions of the Colorado River Quantified Settlement Agreement.

Maureen Stapleton and Timothy Quinn (Committee members) provided highlights of the ongoing negotiations over the QSA. Ms. Stapleton and Secretary Nichols emphasized that failure to execute the QSA will have long-term, far-reaching and significant consequences. Failure will permanently change how water issues are addressed in California.

Other issues discussed by Committee and Policy Group members included the ability of agencies to meet Clean Water Act provisions requiring assessment of the feasibility of surface storage projects, in light of long-term water use efficiency and water quality grant programs. Members also discussed the December 3, 2002, letter from the Association of California Water Agencies, and the need to have single statewide grant funding processes for distributing Proposition 50 funds and to ensure effective participation by the environmental justice community. The processes will need to be efficient to encourage agencies to work with the Program.

Co-Chairs Marguerite Young and Greg Gartrell (Drinking Water Subcommittee), Robert Meacher and Martha Davis (Watershed Subcommittee) and Marci Coglianese and Tom Zuckerman (Levees and Habitat Subcommittees) summarized their recommendations. With regards to funding for the Levee Program, concern was expressed that the Program is under funded; however, Proposition 50 funds will help address the funding need. It was discussed that

a broad interpretation of "levee maintenance" would include rehabilitation and may be an appropriate use of bond funds.

Action Items

- The Committee adopted and conveyed to the Policy Group, BDPAC, Drinking Water Subcommittee, and Watershed Subcommittee recommendations on principles and guidelines for allocating Proposition 50 funds. The Policy Group forwarded the Committee recommendations to the implementing agencies.
- The Committee adopted and conveyed to the Policy Group the Delta Levees and Habitat Subcommittee recommendation on a levees financing strategy. Joint meetings between the Delta Levees and Habitat and Ecosystem Restoration Subcommittees will be scheduled to discuss overlapping issues/topics. User fee issues will be brought back to the Committee as part of consideration of the overall Program finance plan.
- The Program will support legislative or administrative efforts to allow up-front funding to recipients of Program grant funds to ease financial burdens on those recipient organizations.
- The Program will report to the Committee on legislative bills and processes that affect Program funding and policies.

Subcommittee Meeting Summaries can be obtained from our website.

For further information, please visit our website at http://calfed.ca.gov.

Correspondence included in the BDPAC/packet is on file at the CALFED office.

To obtain a copy of the Correspondence Section, please call (916) 657-2666.





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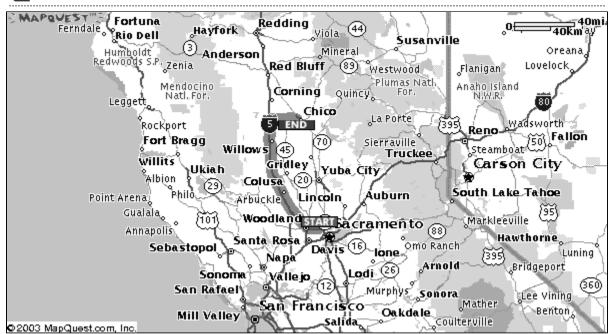
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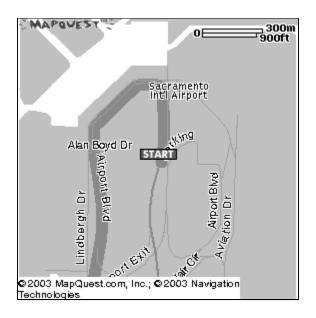
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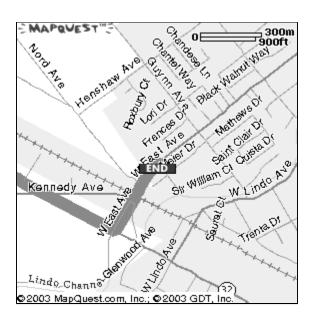
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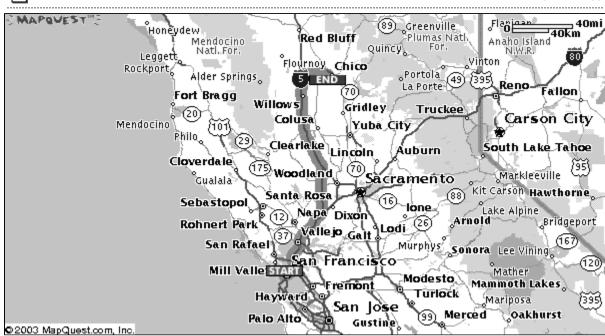
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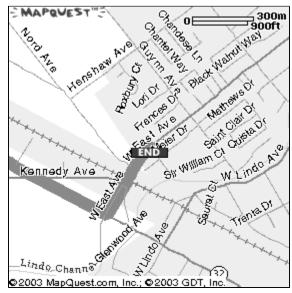
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4. Turn LEFT onto BRYANT ST.	0.23 Miles
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7. I-505 N becomes I-5 N.	65.36 Miles
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11. Turn LEFT onto W EAST AVE.	0.24 Miles



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