

## M e m o r a n d u m

Date: February 14, 2000

To: CALFED Policy Group

From: Steven R. Ritchie  
Acting Executive Director

Subject: January 19, 2000 CALFED Policy Group Meeting Summary

***Participants:***

Secretary of Resources Mary Nichols, Deputy Secretary of the Interior David Hayes, Margit Aramburu, Executive Director, Delta Protection Commission; Alf Brandt, DOI; Karen Burnette, USFS; David Cottingham, DOI; Robert Hight, DFG; Luana Kiger, NRCS; Steve Macaulay, Deputy Director DWR; Felicia Marcus, Regional Director, Region IX USEPA; Susan Ramos, USBR; CALFED Acting Executive Director Steve Ritchie; Mike Shulters, USGS; Mike Spear, Regional Director USFWS; Gary Stern, NMFS; Steve Stockton, USACE; Bill Vance, CalEPA; Nancy Werdel, WAPA; Patrick Wright, Resources Agency; A.J. Yates, California Department of Food and Agriculture.

***BDAC Participants:***

Byron Buck, CUWA; Alex Hildebrand, South Delta Water Agency; Pat McCarty, Delta Protection Commission.

CALFED Co-chair David Hayes, Deputy Secretary of the Interior, opened the Policy Group meeting and welcomed all participants. He communicated a farewell message from Patty Beneke, former Assistant Secretary of the Interior, who recently resigned from her post. Ms. Beneke had served as the Federal Policy Group Co-chair for the past two years.

**Executive Director's Report**

CALFED Acting Executive Director Steve Ritchie opened the meeting agenda with a brief summary of selected items from the monthly Executive Director's report, including the following:

**Hydro-power Reoperation Workshop**

Mr. Ritchie reported on the proceedings of a WAPA-sponsored workshop held on January 12th that focused on the potential impacts of proposed CALFED actions on hydropower in California. He noted that discussions at the workshop underlined the importance of integrating potential hydropower impacts into CALFED's overall adaptive management assessment processes.

**CALFED Agencies**

**California** The Resources Agency  
Department of Fish and Game  
Department of Water Resources  
California Environmental Protection Agency  
State Water Resources Control Board  
Department of Food and Agriculture

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

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

### **Integrated Storage Investigation Progress Report**

Mark Cowin presented a synopsis of six reports recently published by staff and consultants working on CALFED's Integrated Storage Investigation. They included the following:

#### **1. Hydroelectric Facility Reoperation Investigation**

**Goal:** Evaluate the potential for reoperation of PG&E hydroelectric facilities to help meet CALFED objectives.

**Discussion:** About one-half of total storage capacity of PG&E facilities is in Lake Almanor. This study considered reoperation of Almanor directly and extrapolated conclusions for remainder of PG&E facilities. The study dealt only with physical reoperation - it did not consider institutional issues. The study considered three goals for reoperation:

- 1) Increase CALFED system-wide water reliability
- 2) Changes in timing of flows for environmental enhancement
- 2) Local Water supply reliability

#### **Findings:**

- PG&E reservoirs are operated similarly to typical water supply reservoirs
- Downstream storage dampens potential system-wide benefits of reoperation.
- Local water supply improvements - 20 to 40 TAF
- Delta export water supply improvements - 20 to 40 TAF
- Ecosystem benefit - changing timing of flows to spring - 60 to 80 TAF

#### **2. Flow Regime Requirements for Habitat Restoration along the Sacramento River between Colusa and Red Bluff**

**Goal:** Outline long-term studies to address the flow regime requirements for riparian habitat restoration along the Sacramento River between Colusa and Red Bluff and provide some initial guidelines for potential diversions to offstream storage.

**Discussion:** Core Team led by Matt Kondolf of UC Berkeley conducted research and produced a draft white paper. Draft was reviewed by an expert panel, leading to this final white paper. Study deals with channel migration and related habitat issues. Study does not consider direct flow needs for fisheries. Lack of data and scientific uncertainty hinders conclusiveness of findings. Additional work is recommended.

**Findings:** Flows between 55,000 and 80,000 cfs are critical for channel migration. Storage operations should be designed to not decrease the frequency-duration of flows in this range. These recommendations are intended for initial feasibility study of offstream storage only. Additional monitoring, fieldwork, and research are recommended for two-year and long-term time frames.

#### **3. Drinking Water Quality Operations Studies**

**Goal:** Evaluate potential for drinking water quality improvements through operation of new storage facilities.

**Discussion:** Best Delta water quality typically occurs during high outflow months of April

through July. Fishery concerns have shifted more exports to lower-quality fall months. Storage can provide additional system operational flexibility to improve export water quality through:

- 1) Outflow management - using upstream of Delta reservoir releases to increase Delta outflow in fall months to improve Delta water quality, and
- 2) Export management - selectively exporting during improved water quality periods and relying on south of Delta storage releases to meet water supply needs.

**Findings:** Two base studies were used representing CALFED's preferred alternative without new storage; one without a Hood to Mokelumne diversion and a second with a 4,000 cfs Hood to Mokelumne diversion. For each of these base studies, operations of 1) 2 MAF of new offstream storage upstream of the Delta and 2) 1 MAF of new south of Delta off-aqueduct storage for drinking water quality improvement were considered. In each case, water supply reliability was not allowed to decrease below the reliability provided without the new storage facilities. Study results indicate that with either new storage facility in place, reduction in peak concentrations of bromide and salinity in the south Delta in fall months could be as much as 30 to 50 percent in many years, including the driest years.

#### **4. Export Operations Flexibility Analysis**

**Goal:** Evaluate potential for new storage and conveyance facilities, demand reduction measures, and flexible application of the export/inflow ratio standard to contribute to system operational flexibility.

**Discussion:** Monthly schedules of Delta export curtailments (total project export capacity reduced to 2,250 cfs) that would reduce fish entrainment were developed. Water management actions were simulated with these schedules superimposed on other operational rules. Using this approach, the number of days of potential export curtailment provided by a water management action while maintaining a base water supply reliability could be estimated.

**Findings:** All findings assume projected 2020 demands for Bay-Delta supplies, existing Bay-Delta standards, and a number of external operational assumptions not listed here.

- 1) **Demand reduction measures.** Water management actions that would reduce projected 2020 Bay-Delta demands by about .6 MAF would allow approximately 20 additional days of export curtailment in above normal and below normal years.
- 2) **South Delta conveyance improvements.** Increasing Banks Pumping Plant capacity to 10,300 cfs and allowing joint point of diversions for the SWP and CVP would allow about 30 to 40 additional days of export curtailment in wet and above normal years.
- 3) **New Storage.** 2 MAF of new offstream storage upstream of the Delta would provide additional operational flexibility in all year types. Flexibility would be particularly improved in below normal years (about 30 additional days of export curtailment), dry years (about 30 additional days of export curtailment) and critical years (about 90 additional days of export curtailment).

### **5. Conjunctive Use Site Assessment**

**Goal:** Develop a preliminary list of conjunctive use sites, including estimates of operational characteristics and costs, for use in subsequent CALFED water management strategy evaluations.

**Discussion and Findings:** Working from previously developed information, a workgroup selected 9 potential conjunctive use sites for analysis. While this list is not intended as a catalog of all potential conjunctive use sites in California, it does include the sites considered most feasible by the workgroup. Storage capacity and recharge and recovery rates were estimated for all 9 sites. The implementability of the sites was considered and judgement was used to further screen the sites for initial analysis in the CALFED Water Management Strategy Evaluation Framework. One north of Delta site with 500 TAF of storage capacity and 4 south of Delta sites with 1.8 MAF total storage capacity were selected. Total capital and annual costs were developed for these projects. This information will be incorporated in the initial alternatives under consideration in the Water Management Strategy Evaluation Framework.

### **6. Initial Surface Water Storage Screening**

**Goal:** Document an initial screening of potential surface water storage facilities that could be implemented to help achieve CALFED objectives.

**Discussion and Findings:** An initial inventory of 52 potential reservoir sites was previously developed, based on review of reports completed over the past 40 years. Sites were eliminated based upon 1) minimum capacity and 2) conflict with CALFED objectives, solution principles, or policy. Reasoning is documented for each eliminated site. Twelve surface storage sites are retained for further consideration.

Copies of each of these reports are available from Mark Cowin at CALFED.

### **Finalization of the EIS/R and Review of the Preferred Program Alternative**

Steve Ritchie reviewed the timeline for release of the final programmatic EIS/R, currently scheduled for April 7, 2000. Mr. Ritchie introduced review of the Preferred Program Alternative language by reminding the Policy Group that they will be asked to approve the final language prior to sending the EIS/R for publication. Under the current schedule, CALFED will seek final approval of the Preferred Program Alternative at the Policy Group's meeting on February 23rd.

Steve Ritchie described the refinements that have been made to the language describing the Preferred Program Alternative. Prior to sending the final EIS/R going to print, the Policy Group will be asked specifically focusing on the following two areas of concern:

#### **1. Hood Diversion**

Mr. Ritchie clarified that the proposed diversion at Hood is a contingent proposal, subject to satisfactory resolution of a series of significant fisheries concerns, which are identified in the language of the Preferred Alternative.

Felicia Marcus commented that "we have a ways to go" in achieving consensus on the description of the Preferred Alternative. She emphasized that from her perspective, "we aren't there yet."

## **2. South Delta Improvements**

Since May 1999 when the Policy Group approved a plan for South Delta improvements, some doubts have arisen as to the plan's efficacy in meeting the all of the joint objectives of the South Delta program, including increasing reliability of water supply to local users, improving water quality for local users, and providing adequate fisheries protections in the South Delta. He noted that CALFED is re-examining extensive channel dredging, as well as other options, to accomplish these multiple goals.

BDAC member Alex Hildebrand read a letter he had written to Secretary Nichols and Steve Ritchie regarding the preferred program alternative. In the letter Mr. Hildebrand expressed the view that the preferred alternative had not had adequate study. The letter went on to state that the "through Delta" alternative had not been adequately studied, and furthermore in his view CALFED had not made a clear commitment to involve local expertise or independent technical review of potential third part impacts of the preferred program alternative.

**Outcome:** No action, information only.

## **Water Management Strategy Evaluation Framework**

CALFED staff Mark Cowin and consultant Paul Brown presented a progress report to the Policy Group on the development of the Water management Strategy Evaluation Framework. Paul Brown provided the Policy Group with a preview of the kinds of water management trade-offs that will be identified in the Water Management Strategy comprehensive analysis currently underway. These trade-offs, along with a "report card" of the performance of various combinations of water management tools, will be presented to the CALFED Policy Group at their meeting on February 23rd.

Mark Cowin commented that it is the intent of CALFED to have settled on a particular water management scenario for Stage I, with a rough model for ongoing longer-term water management decision-making. The evaluation framework can be the keystone of this decision-making process for policy-makers.

Steve Ritchie noted that the preliminary "report card" will not give the Policy Group an answer, but will provide guidance in making water management decisions that are based on measurable performance and cost/benefit outcomes.

**Outcome:** No action, information only.

## **Water Operations**

Kathy Kelly of the Department of Water Resources and Chet Bolling of the U.S. Bureau of Reclamation gave a report to the Policy Group on the current status of Federal and State water project operations, along with the current proposed set of actions to stabilize water

supply deliveries in 2000. Ms. Kelly and Mr. Bolling provided the Policy Group with a chronology of decisions made in December to close the Delta Cross Channel, the action that caused water quality problems for exporters. Mr. Bolling provided a detailed description of the current regulatory criteria that triggered the decision to close the Cross Channel.

Steve Macaulay, Deputy Director of DWR, commented that this series of decisions highlighted the ongoing and unresolved conflicts in Delta water operations between fisheries, water quality and water supply needs.

Co-chair Hayes commented that this decision issue highlighted the need for increased communication and information.

Mr. Macaulay went on to say that both the State and the Federal projects are committed to filling San Luis Reservoir by April 15, 2000. He stated that under a median hydrology, the State hopes to fill the federal share.

Mr. Macaulay noted that decisions like this need to be elevated faster, that there needs to be an Early Warning System in place. He also commented that high level policy makers need to be aware that they may be asked to make tough decisions and tough trade-offs.

***Public Comment***

Tim Quinn of the Metropolitan Water District expressed concern that we are missing opportunities to improve the decision-making process. He suggested an intermittent opening of the Cross Channel gates.

Laura King of the San Luis Delta Mendota Water Authority commented on the number and amount of export reductions in the last year that showed questionable fisheries benefits in December and probably will show questionable fisheries benefit later this year.

She asked if there was a commitment from the operators to fill San Luis Reservoir and asked to hear about the plan to do so.

Greg Zlotnick, Santa Clara Valley Water Authority, reiterated Mr., Quinn's comments.

**Proposed water operations tools for 2000 include:**

1. Measures to increase operational a flexibility by utilizing Joint Point of Diversion, which could yield up to 150 thousand acre feet (TAF)  
Increasing Clifton Court Forebay exports by 500 cfs, which could yield up to 90 TAF  
Flex the Export/Inflow ratio, which could yield up to 30 TAF
2. Measures to acquire water, which could yield up to 106 TAF at a cost of \$23.7 million
3. Measures to reduce the low-point problem in San Luis Reservoir, by MWD source shifting  
Kern County source shifting

Ms. Kelly commented that the potential yield identified by carrying out the actions under Measure #1 is totally dependent on this winter's rainfall. She also commented that actions proposed under Measure #3 are proposed only as a last resort, since the water obtained in those actions would have to be repaid.

The current budget for putting these actions to work stands at \$20 million, split evenly between the Federal and State governments.

**Outcome:** No action, information only.

**Public Comment**

Marta Guzman, United Farm workers and BDAC member, asked a question regarding the CALFED solution area. Mr. Ritchie replied that the CALFED Program, and its proposed water quality actions, pertained to the entire Bay-Delta system, and that it does include Southern California.

Dan Keppen of the Northern California Water Association commended CALFED on its work regarding investigation of hydropower reoperation. He also asked about the status of the Water Management Development Team. Mr Ritchie replied that the Team is currently on the back burner, and may be re-convened.

Mr. Hayes adjourned the meeting at 4:30 p.m. Next meeting of the Policy Group Wednesday, February 23, 2000, in Sacramento.