Issues from Phase II
Report

Issues from the Phase II Report

CALFED
BAY-DELTA
PROGRAM

1416 Ninth Street, Suite 1155
Sacramento, California 95814

(916) 657-2666
FAX (916) 654-9780

Agenda Item 3

Memorandum

Date: March 26, 1998

To: CALFED Policy Group

From: Lester A. Snow
Executive Director

Subject: Policy Issues Arising from Phase II Report Review

Summary of Agenda Item:

The issues which the Program must address in the remainder of Phase II includes several issues which are policy oriented, that is, further technical analysis may not be able to fully resolve. These are issues that came into sharper focus during review of the Phase II Report. These issues are ripe for discussion now at the Policy Group level. Over the next several months of Policy Group meetings, we will be framing these issues for Policy Group discussion with the intent to reach closure on these issues prior to the final documents being produced.

Three of these issues are outlined below; additional issues of this nature will be brought to you for discussion at next month's meeting.

Policy Issues:

A. Time Value of Water

This is both a technical and policy issue. On pages 27-33 of the Phase II Interim Report, the concept of time value of water as it might apply to the Program is outlined.

Planners often discuss water in terms of averages that describe overall system performance -- average Delta outflow, average water project deliveries -- but there is more conflict over water management in drier years than in average years. Furthermore, average values are often misleading because they mask the incredible variability in flows in the Bay-Delta system. An increase in average outflow may have a minor beneficial effect on the environmental health of the system, but if outflow can be increased during a dry year or during a critical period within a year, the benefits may be far greater. Similarly, an increase in

water supplies for urban and agricultural users may be desirable during an average year, but critically important to local economies during a drought. Demand for water also varies over time. Demands tend to be higher than average in dry years, because there is less natural soil moisture, and plants need more irrigation. Water demand also varies seasonally; the demand is highest in summer, when natural flows are lowest. One of the greatest challenges for the Program is to reduce this conflict while simultaneously improving ecosystem quality and water supply reliability. This can be done by recognizing that the value of water varies according to its quantity and timing in the system. This recognition can be used to the advantage of both water diverters and the ecosystem. The importance of a unit of water in the system is not fixed; it varies according to the flow rate, the time of year, and the water year type.

Thus, it is possible to increase the diversion and storage of water during some high flow periods (while preserving peak flows that serve important functions in the system) in order to provide water supply later for diverters and the ecosystem. Some of this stored water can be used to augment outflow peaks during dry years, when there is keen competition for water. At these times, water operations have their greatest impact on the ecosystem, and additional water is most needed by Bay-Delta species. In concept, water can be diverted from rivers upstream of the Delta into storage during high flow periods with relatively little impact on the system and can be released at other times to produce great benefit to the system. Of course, this type of diversion must be operated in a way that preserves most of the variability in the flow, ensuring that peak flows so important to ecosystem health still occur in the river. [Extracted from pages 27-33, Phase II Interim Report]

Comments from the federal agencies representatives during final review of the Phase II Interim Report requested the addition of the following paragraph to the write-up of time value: "The validity and appropriate role for the 'time value of water' concept in California water management have not been fully discussed within the broader stakeholder and scientific communities. Additional work remains to identify and resolve controversy related to the concept, determine specific parameters (flow rates and timing), and scientifically evaluate the potential effects of this approach."

The current Program workplan addresses the technical aspects of this issue two ways. First, in the modeling efforts proposed, operational criteria for the time value concept will be developed and evaluated. Secondly, in the ERPP Science Program the concept of ecological benefits of this approach will be more fully discussed and evaluated for benefits. However, the Program holds this concept a fundamental aspect of its water management strategy.

Recommendation:

Program staff recommend that the Policy Group: (1) confirm the validity of the time value approach to water management, and (2) recommend we do further analysis under the workplan relative to the operational criteria needed to implement time value and through the ERPP Science Program to further define the ecological benefits/implications of time value.

B. Potential for Changes in Operational Restrictions as Ecosystem Recovers

Early in development of the CALFED Program, resolution of the fisheries and diversion conflict was recognized as a major need in formulating alternatives. One concept was that ecosystem restoration and healthier fishery populations could potentially lead to fewer diversion limitations in the future. (Since declining fish populations have lead to existing diversion limitations, a recovery in populations could reverse the limitations.)

Several CALFED agencies objected to the concept that the CALFED Program could potentially lead to fewer diversion limitations. Some suggested that project operations needed to integrate environmental considerations which may be even more restrictive than existing requirements. Early drafts of the Phase II Interim Report mentioned the potential for fewer diversion restrictions. Reviewers of the document, representative of the state and federal fish agencies, suggested that this wording in the published Phase II Interim Report (page 24) be changed to "Over time, these actions can lead to the Delta ecosystem being more resilient and less subject to damage from the effects of water diversions and levee maintenance resulting in less conflict and greater future flexibility." The Vision sidebar on page 5 does continue to hint at the potential for fewer limitations; "Sustained improvements in the fish and wildlife populations have led to reduced environmental restrictions on the operations of the state's water conveyance facilities, so water can be transferred from groundwater banks and other storage facilities to the areas of greatest need."

Recommendation:

Program staff recommend that the Policy Group confirm the Program's expectation on this issue -- that increased flexibility in the system and greater reliability could result from successful implementation of the common programs, i.e., a return to robust levels of species dependent on the Bay Delta system.

C. Commitment to Common Pool and Potential for Fully Isolated Conveyance

Many of the individuals and agencies that use water from the Bay-Delta system divert their water supplies directly from the Delta itself, including in-Delta agricultural users, some Bay area communities, and the state and federal water projects. This reliance by many users on a single source is sometimes called the common pool concept. Accompanying the use of a common pool is common interest: a shared interest in restoring, maintaining, and protecting Delta resources, including water supplies, water quality, levees, and natural habitat. Water users who currently have no alternative to Delta supplies and people who live and work in the Delta region believe that the maintenance of the common pool is their best guarantee of continued broad interest in maintaining and improving Delta conditions. Under each alternative for the CALFED Program, all diverters would continue to take some or all of their water from Delta channels, maintaining the common Delta pool concept.

Some CALFED agencies suggest that CALFED not make a commitment to continue the export system's dependence on the common pool. The concern seems to be that the common pool concept may preclude consideration of a fully isolated conveyance facility and that some south Delta diversions need to continue.

Recommendation:

Program staff recommend that the Policy Group confirm that the Program is committed to the concept of maintaining the common pool as part of all the alternatives.