



**CALFED
BAY-DELTA
PROGRAM**

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Date: January 28, 1998

To: Lester Snow

From: Stein Buer *SMB*

Subject: Information Request from Alex Hildebrand Regarding Isolated Facility

In a memo dated December 14, 1997 Alex Hildebrand requested technical information regarding the proposed isolated canal component which is included in CALFED Alternative 3. The memo included eight specific requests for technical information, including costs, alignment, areas affected, water levels, flood impacts, and operations. In response we have made copies of the prefeasibility report for this component, "Facilities Descriptions and Updated Cost Estimates for an Isolated Delta Conveyance Facility, October 1997, which addresses many of these questions and provides appropriate context. The cost estimates are quite preliminary, prepared for comparative use in a programmatic evaluation. Thus, even though there is substantial detail in the cost breakdowns, this should not be confused with cost certainty.

The prefeasibility report does not include potential mitigation costs, nor does it consider the growth in present worth of the project construction expenditures over the construction period. I requested that Dave Samson of my staff add this information, which is detailed in the attached cost summary. The result is a series of total cost estimates, starting with October 1996 dollars and assuming a five year construction period, which includes all identifiable costs. Total capital costs range from \$1.1 billion to \$1.7 billion for a capacity range of 5,000 cfs to 15,000 cfs, respectively.

The route of the canal used in this evaluation followed that of the original Peripheral Canal, and is shown in Figure 2 of the pre-feasibility report.

CALFED Agencies

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

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

Department of Agriculture
Natural Resources Conservation Service
Department of Commerce
National Marine Fisheries Service

The area of right of way is estimated to be about 5,300 acres, most of which is agricultural land. The affected area also includes open water, riparian habitat, wetlands, grasslands, and disturbed or developed lands. A detailed breakdown which accounts for the full 5,300 acres is not currently available.

The prefeasibility report does not address the questions regarding seepage, flood control, and operations. The original Peripheral Canal design called for an initial lift of 10 feet and water levels which could be as much as 20 feet above current land elevations and 25 feet above current groundwater levels. We have not performed new hydraulic calculations, but note that there is significant flexibility in designing the facility to address the concerns raised by Mr. Hildebrand. Potential design options which could be pursued in Phase III if such a facility were included in the preferred alternative include the following:

- Incising the canal more deeply in the landscape, reducing seepage potential, levee heights, and providing potential flood detention. This could increase costs since there would no longer be balance between cut and fill; conversely this approach could provide a significant new source of fill material for levee improvements.
- Seepage interceptor wells, to recapture water before it damages adjacent property.
- Compensation for losses due to seepage, including the potential creation of a compensation fund prior to construction of the facility.
- Integration of the canal with local flood control works and channels to improve, rather than impede flood management efforts. Design elements could include allowing storm inflow to the canal, drainage pumps, and drainage siphons.

As we have indicated in our recent meetings with the three Delta water agencies and their participants, we would be pleased to work with local

interests to assure that these concerns are incorporated into future facilities designs.

Canal operational scenarios have been evaluated at a systems operations level using DWRSIM using monthly time steps. Likely impacts and benefits to water supplies, water quality, and fisheries have been evaluated and are discussed in the draft EIR/EIS, so I will not elaborate on operations here. It is important to note, however, that a great deal of very detailed evaluation would need to be conducted during Phase III to address sensitivity and impact issues.

Please advise me if I need to provide additional information in response to Mr. Hildebrand's request.

Cc Steve Yaeger
Judy Kelly

Attachments