

## **Attachment 3 – Cost Estimates Back-up**

## **Stage 1 Estimated Costs – Back-up Information**

Stage 1 cost estimates for the CALFED Bay-Delta Program have been compiled through a combination of research, meetings, information from stakeholders, project proposals, CALFED staff estimates, and reports. The following is intended to provide how the estimates were developed for each of the CALFED program elements.

### **Ecosystem Restoration Program**

- Where possible, Ecosystem Restoration Program cost estimates were based on past and existing proposals from the Early Ecosystem Program Solicitation Package (PSP).
- In general, it was assumed that land for restoration would cost \$2,500 to \$3,000 per acre to acquire. Restoration costs would be an additional \$2,500 to \$3,000 per acre. For specific projects/locations where more information is available, cost estimates are based on site-specific costs and conditions. This information came primarily from PSP proposals.
- Environmental documentation and permitting was assumed to be approximately 8% of project costs. Some program actions will not require further environmental documentation, and those were not included in the calculations (for example, environmental education, administrative costs, etc).
- Ongoing coordination program costs (with locals (action #1) and ongoing programs (action #4)) assume 6 staff at ES-4/GS-13 level or equivalent, plus appropriate support.
- Science Program costs are assumed to be 12-18% of Program costs. Some actions will not require science and monitoring, so these were not included in the calculations.
- \$25 million per year is for installation of fish screens and ladders and removal of barriers. Costs can vary from \$1 to \$15 million, depending on the project.
- Water purchases assume \$200/acre-ft for acquisition of leases on water rights. Actual purchases of water rights could potentially be much higher per acre-foot, but would be a one time cost.

### **Water Use Efficiency Program**

- Cost estimates were developed by the CALFED technical team, which included significant contributions from regional liaisons and stakeholders. Please see attached tables for more detailed back-up information.

### **Water Transfers**

- Cost estimates are based on estimated staffing needs to provide overall program management and to complete individual actions, with an assumed \$100,000/PY estimate, with the exception of funding for the Water Transfers Clearinghouse and funding for program management. The Clearinghouse includes about \$500,000 annually for hiring consultants/contractors to help with development of the

website and other aspects of the Clearinghouse. The other half is for staffing based on \$100,000/PY. Spread throughout the estimate is funding for hiring consultants to provide program management assistance and implementation oversight services. The cost estimates for development of the website (\$350,000) and program management assistance are attached.

## Watershed Management

- The funding levels identified for the Watershed Program--- \$1 billion for the 30 year program, \$300 million for the first seven years--- are preliminary estimates, developed to support the programmatic document. These estimates were established based on discussions with the Interagency Watershed Advisory Team (IWAT) and the BDAC Watershed Workgroup (WWG). Several pieces of information were used as references in establishing our estimates, including—1) needs assessments performed by Agencies such as the Forest Service and NRCS, 2) program level estimates of need (Quincy Library Group, Sacramento River Watershed Program) and 3) the unmet request levels associated with existing Watershed efforts, such as the State Boards 319H and Delta Watershed Initiative.
- Our initial cost estimates were established based on these unmet needs, with estimates modified by consideration of CALFED's goals and objectives, our estimate of the current and potential capacity for locally based action; the potential of other CALFED Programs to partially meet the need; and finally what seemed reasonable to request given the extraordinary costs of the overall CALFED Bay Delta Program.

### NEEDS ASSESSMENTS USED

- 1995 NRCS estimates of conservation needs associated with the EQIP Program  
\$52,663,500 over previous 5 years w/ \$2-3 million available per year  
(Central Valley Only)
- Forest Service Sierra Nevada Framework planning effort
- Sacramento River Watershed Program- Funds needed for implementation of Best Management Practices in orchards and vineyards; on- going status and trend water quality monitoring; and community outreach and support.  
\$21,000,000 over next ten years
- Quincy Library Group Plan  
\$250,000,000 + total project costs
- Applications to the 319H Program  
\$8 to 16,000,000 in requests per funding cycle ( for \$2 to 7 million in funds)  
(Statewide estimates)
- Applications to the CALFED early Implementation Program (ecosystem restoration only)  
\$4 to 8,000,000 per funding cycle
- Receipt of comments on Draft Implementation Plan- See comments 3.5-4; 3.5-6

## Environmental Water Quality

- Cost estimates are derived based on past and existing similar projects, conversations with project proponents, staff experience to provide estimates for different treatment costs, plus \$100,000/PY for administrative and professional support costs.

## Drinking Water Quality

Cost estimates were taken from the following sources:

- Assessment of Sources and Magnitudes of Loads of Drinking Water Constituents of Concern draft work plan
- EPA communication with Bruce Macler
- SCVWD communication with Amy Fowler
- DWR MWQI communication with Carol Digorgio
- CCWD communication with Richard Denten, KT Shum, Dale Newkirk
- MWD communication with Lynda Smith, Marcia Torobin, Stuart Krasner
- Sacramento Regional County Sanitation District communication with Mary James
- CALFED Water Quality Program Plan

## Levees

Cost estimates were taken from the following sources:

- Sacramento-San Joaquin Delta: Levee Rehabilitation Study
- Levee System Integrity Program Plan, June 1999. Chapters 9 (Cost Estimate), 10 (Funding), and Appendix B: Cost Estimate Backup and Report

## Storage and Conveyance

Cost estimates were taken from the following sources, and updated to current year dollars using a construction cost index of 3.3%. In many cases estimates had to be prorated/changed to estimate project changes, such as increased or decreased proposed capacity of the project:

- Storage and Conveyance Component Cost Estimates, April 29, 1998.
- CALFED Storage and Conveyance Components: Facilities Descriptions and Cost Estimates, volumes 1-3, October 1997.
- Also see attached tables for examples of Storage and Conveyance costs back-up

## CALFED Science Program

CALFED Science Program costs include a constant \$10 million per year for baseline monitoring and funding for monitoring, assessment, and research to support all of the CALFED program elements (except for the ERP, which has a science component already budgeted). The funding for support of the CALFED program elements ramps up to a maximum of \$40 million per year. These estimates are based on staff estimates, taking into account existing monitoring programs and budgets.