

Attachment 2 – Stage 1 Estimated Costs

Attachment 2 -- Subject to Revision

G-004350

CALFED Bay-Delta Program Stage 1 Estimated Costs¹ (\$ in millions)

Program Element	Program Year(s) ²							Total	Cost Sharing (\$) ³		
	1	2	3	4	5	6	7		Fed	State	Other
Ecosystem Restoration ^{4,5}	\$263	\$207	\$175	\$170	\$170	\$170	\$170	\$1,326	\$513	\$513	\$300
Water Use Efficiency ⁶	\$31	\$62	\$299	\$641	\$641	\$641	\$641	\$2,956	\$759	\$759	\$1,438
Water Transfers ⁷	\$3	\$3	\$3	\$2	\$2	\$1	\$1	\$15	\$7.5	\$7.5	-
Watershed Management ⁸	\$40	\$45	\$45	\$45	\$45	\$40	\$40	\$300	\$138	\$138	\$24
Environmental Water Quality ⁹	\$15	\$33	\$38	\$48	\$50	\$48	\$48	\$280	\$90	\$90	\$100
Drinking Water Quality ⁹	\$41	\$78	\$82	\$110	\$116	\$120	\$128	\$675	\$200	\$200	\$275
Levees ¹⁰	\$33	\$76	\$78	\$82	\$45	\$65	\$65	\$444	\$142	\$88	\$34
Storage ¹¹	\$50	\$75	\$138	\$208	\$266	\$349	\$339	\$1,425	\$237	\$237	\$200
Conveyance ⁵	\$25	\$61	\$145	\$188	\$170	\$110	\$48	\$747	\$188	\$366	\$193
CALFED Science Program ^{7,12}	\$25	\$30	\$45	\$50	\$50	\$50	\$50	\$300	\$150	\$150	-
Total	\$525	\$670	\$1,048	\$1,544	\$1,555	\$1,594	\$1,530	\$8,468	\$2,425	\$2,549	\$2,564

¹ Preliminary; current year dollars based on staff estimates. Total costs assume contributions from State, Federal, and User/Private funding. This table provides estimates of outlays by year. It does not represent requested budgets for each budget year. Budget year information will be provided in future tables.

² Stage 1 will begin with the Record of Decision, scheduled for September 2000. Some funds will be expended in the latter part of federal fiscal year 2000 (for example, Prop 204 funds on ERP projects). The bulk of expenditures will occur in FY 2001. Because most of the federal fiscal year 2000 is not considered part of Stage 1, FFY 2000 and FFY 2001 have been combined in this table, and funds projected to be spent after the ROD in FFY 2000 are included.

³ Cost sharing represents a work in progress. More precise cost sharing allocations will be made as specific projects are developed and receive authorization. Cost share arrangements will be developed through agreements and will be consistent with applicable federal and state requirements. Exact share of costs will depend on the specific projects that are implemented, and will vary year to year. Initial years will be heavily funded by federal and state dollars. In most cases these are proposed cost shares—they are based not on available sources of funds but on a 50/50 split between federal and state sources or a 33/33/33 split between fed/state/users.

⁴ Proposed cost sharing for the ERP is a split between users (~\$35 million per year from a new broad-based fee & \$15 million per year in CVPIA Restoration Funds), and public dollars (assumed split equally between federal and state sources of funding). The main source of State funds would be Prop 204. The proposed source of federal funds could include Bay-Delta Act and/or other sources. This Table assumes revenues from new broad based fees would become available beginning in 2003. This includes \$50 million per year for the first four years for the Environmental Water Account.

⁵ Cost estimates differ from Appendix A in "California's Water Future: A Framework for Action" (June, 2000) because some actions which were considered complementary to CALFED were included in Appendix A, but are not included in this table.

⁶ Proposed expenditures in Federal Fiscal Years 2005 - 2007 are tentative. Actual expenditures will be determined after ongoing evaluation of effectiveness of program investments during the first four years of Stage 1 (federal fiscal years 2000/2001 - 2004). Availability of State and Federal funds is dependent on the availability of local funds.

⁷ Cost sharing for the water transfers program and Science Program assume equal federal/state shares.

⁸ Cost shares include a 10% contribution from locals for community based watershed activities, with the rest funded equally between federal & state sources.

⁹ In general cost sharing is assumed to be 50/50 fed/state or 33/33/33 fed/state/user, depending on the action. Some water quality actions assume federal and state funding in the initial 2 years, with 100% of the funding in latter years from users.

¹⁰ Total cost includes the Suisun Marsh Levee Program, which provides substantial ecosystem, water quality, and flood control benefits. Cost shares do not include this Program.

¹¹ Initial funding will be largely state and federal sources. This does not include cost-sharing for surface storage construction. Final cost shares (including reimbursements by beneficiaries) will depend on allocation of costs and identification of beneficiaries for individual projects. This assumes a 50% local match for full-scale groundwater storage projects.

¹² Science Program will provide for implementation of adaptive management and more cost-effective decision-making throughout the rest of the Program.

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Ecosystem Restoration Program Stage I Estimated Costs ¹ (in millions \$)															
	Action Item	Program Year(s)							Total Cost	Cost Sharing (%) ²			Estimated cost (\$)		
		1	2	3	4	5	6	7		Fed	State	Other	Fed	State	Other
1.	Develop and implement a coordination program with local interests	0.5	0.5	0.5	0.5	0.5	0.5	0.5	\$3.5	50%	50%		\$2	\$2	-
2.	Complete targeted research and scientific evaluations needed to resolve the high priority issues and uncertainties to provide direction for implementing the adaptive management process and information necessary for making critical decisions in Stage 2. ³	7.5	15	15	15	15	15	15	\$97.5	50%	50%	-	\$49	\$49	-
3.	Project level environmental documentation and permitting as needed for each bundle of Stage 1 actions	15	11	10	10	10	10	10	\$74	50%	50%		\$37	\$37	-
4.	Full coordination and funding partnerships with other ongoing activities which address ecosystem restoration in the Bay-Delta system	0.5	0.5	0.5	0.5	0.5	0.5	0.5	\$3.5	see footnote 2					
5.	Continue high priority actions that reduce direct mortality to fishes ⁴	40	25	25	25	25	25	25	\$190	see footnote 2					
6.	Implement habitat restoration in the Delta, Suisun Bay and Marsh, Yolo Bypass, and habitat corridors to improve ecological function, facilitate recovery of endangered species, and determine the feasibility and desirability of implementing larger scale habitat restoration in future stages	9	17	10	10	20	20	20	\$106	see footnote 2					
7.	Acquire and restore select Sacramento River meander corridor easements	10	10	10	10	10	10	10	\$70	see footnote 2					
8.	Continue flood plain easements along San Joaquin River	7	22	10	5	25	25	25	\$119	see footnote 2					
9.	Reclaim and restore habitat to flooded Delta Islands and Delta channel Islands	20	10	-	-	-	-	-	\$30	see footnote 2					

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Ecosystem Restoration Program Stage I Estimated Costs ¹ (in millions \$)															
Action Item	Program Year(s)							Total Cost	Cost Sharing (%) ²			Estimated cost (\$)			
	1	2	3	4	5	6	7		Fed	State	Other	Fed	State	Other	
10. Develop an ecosystem water market, after an appropriately protective water transfer framework has been established; e.g., acquire 100,000 acre-feet on long-term basis and plan for other short-term purchases	20	20	20	20	20	20	20	\$140	50%	50%	-	\$70	\$70	-	
11. Environmental Water Account (costs assume the EWA and environmental water purchases are managed together)	50	50	50	50	-	-	-	\$200	see footnote 2						
12. Incorporate ecosystem improvements with levee associated subsidence reversal plans ⁵	-	-	-	-	-	-	-	-	-	-	-				
13. Improve research, monitoring, detection, and control of exotic species	10	5	5	5	5	5	5	\$40	see footnote 2						
14. Environmental education and outreach programs	3	3	3	3	3	3	3	\$22	50%	50%		\$11	\$11	-	
15. Program Management and Coordination	4.5	4.5	4.5	4.5	4.5	4.5	4.5	\$32	50%	50%		\$16	\$16	-	
16. Continue gravel management	30	10	2	2	2	2	2	\$50	see footnote 2						
17. Implement large scale habitat restoration as demonstration projects on Butte Creek, Deer Creek, Clear Creek, Tuolumne River, Cosumnes River, and Mokelumne River.	36.0	3.0	10.0	10.0	30.0	30.0	30.0	\$149							
Total (First 7 years)	\$263	\$207	\$175	\$170	\$170	\$170	\$170	\$1,326				\$513	\$513	\$300	

¹ Preliminary; current year dollars based on staff estimates. This table provides estimates of outlays by year. It does not represent requested budgets for each budget year. Budget year information will be provided in future tables.

² Proposed cost sharing for the ERP is a split between users (at least \$50 million per year from broad-based user fees), and public dollars (assumed split equally between federal and state sources of funding). The main source of State funds would be Prop 204. The proposed source of federal funds could include Bay-Delta Act and/or other sources. This Table assumes revenues from new broad based fees would become available beginning in 2003.

³ Funding for the ERP Science Program to establish partnerships with universities, fund focused research, and continue scientific evaluations.

⁴ Remove select physical barriers and screen diversions. Includes fish migration barrier removal evaluations.

⁵ No additional funding is needed--funding is part of actions #5,6,7,8, & 17

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Water Use Efficiency Program Stage I Estimated Costs ¹ (\$ in millions)															
Action Item	Program Year(s)							Total Cost	Cost Sharing (%)			Estimated cost (\$)			
	1	2	3	4	5	6	7		Fed	State	Other	Fed	State	Other	
Financial Incentive Program															
18. Urban, Agricultural, and Managed Wetlands	30	45	150	375	375	375	375	\$1,725	25%	25%	50%	\$431	\$431	\$863	
19. Recycling	-	14.0	136	250	250	250	250	\$1,150	25%	25%	50%	\$288	\$288	\$575	
subtotal	\$30	\$59	\$286	\$625	\$625	\$625	\$625	\$2,875				\$718	\$718	\$1,438	
Technical Incentive Program ²															
20. Urban (includes support of CUWCC), Agricultural (includes support of AWMC), and Managed Wetlands .	0.8	1.8	8.2	9.6	14	14	14	\$62.4	50%	50%	-	\$31.2	\$31.2	-	
21. Recycling	0.1	0.8	2	2	2	2	2	\$9.4	50%	50%	-	\$4.7	\$4.7	-	
subtotal	\$0.9	\$2.6	\$9.7	\$11.1	\$15.5	\$16.0	\$16.0	\$71.8	50%	50%	-	\$35.9	\$35.9		
Directed Studies															
22. Research ET	0.1	0.2	4	5	-	-	-	\$8.9	50%	50%	-	\$4.5	\$4.5	-	
23. Water Measurement Program ³	0.1	0.5	0.5	-	-	-	-	\$1.1	50%	50%	-	\$0.6	\$0.6	-	
subtotal	\$0.2	\$0.7	\$4.1	\$5.0	-	-	-	\$10.0	50%	50%	-	\$5.0	\$5.0		
Total (First 7 years)	\$31	\$62	\$299	\$641	\$641	\$641	\$641	\$2,956				\$759	\$759	\$1,438	

¹ Preliminary; current year dollars based on staff estimates. This table provides estimates of outlays by year. It does not represent requested budgets for each budget year. Budget year information will be provided in future tables. Cost estimates assume contributions from existing federal, state, and local water use efficiency programs.

² Labor to overcome technical barriers and low interest loans to overcome financial barriers

³ Develop, after consultation with CALFED agencies, the Legislature, and stakeholders, state legislation that requires appropriate measurement of water use for all water users in California.

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Water Transfers Framework Stage I Estimated Costs ¹ (\$ in millions)															
	Action Item	Program Year(s)							Total Cost	Cost Sharing (%)			Estimated cost (\$)		
		1	2	3	4	5	6	7		Fed	State	Other	Fed	State	Other
24.	Increase the Availability of Existing Facilities for Water Transfers ²	0.7	1.0	0.5	0.2	0.1	0.1	0.1	\$2.7	50%	50%	-	\$1.3	\$1.3	-
25.	Lower Transaction Costs through Permit Streamlining ³	0.8	1.1	0.9	0.9	0.3	0.2	0.0	\$4.2	50%	50%	-	\$2.1	\$2.1	-
26.	Information Sharing ⁴	1.3	1.2	1.2	1.2	1.2	1.1	1.0	\$8.2	50%	50%	-	\$4.1	\$4.1	-
	Total (First 7 years)	\$2.7	\$3.3	\$2.6	\$2.3	\$1.6	\$1.4	\$1.1	\$15.0				\$7.5	\$7.5	-

¹ Preliminary; current year dollars based on staff estimates. This table provides estimates of outlays by year. It does not represent requested budgets for each budget year. Budget year information will be provided in future tables.

² Includes actions such as: forecast and disclose conveyance capacity in state and federal project facilities, and evaluate policies for transporting water in existing project facilities, dedication of a portion of Delta conveyance capacity to non-project & EWA transactions, and improve instream water transfers tracking protocols.

³ Includes actions such as: streamline the water transfer approval process, develop transferable water definitions for various types of transfers, clarify carriage water requirements for cross-Delta water transfers, and refine refill criteria for reservoir storage based water transfers.

⁴ Includes development of "On-Tap" (an interactive water transfer information web-site), establishment of the Water Transfer Information Clearinghouse, and impact analysis disclosure for water transfers.

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Watershed Program Stage I Estimated Costs ¹ (\$ in millions)															
	Action Item	Program Year(s)							Total Cost	Cost Sharing (%)			Estimated cost (\$)		
		1	2	3	4	5	6	7		Fed	State	Other	Fed	State	Other
27.	Community Based Watershed Activities ²	30	35	35	35	35	30	30	\$230	45%	45%	10%	\$103	\$103	\$24.0
28.	Watershed Stewardship ³	5	5	5	5	5	5	5	\$35	50%	50%	-	\$17.5	\$17.5	-
29.	Improve Watershed Information Functions ⁴	1	2	2	2	1	1	1	\$10	50%	50%	-	\$5	\$5	-
30.	Project Level Environmental Documentation	3	3	3	3	3	3	3	\$21	50%	50%	-	\$10.5	\$10.5	-
31.	Collaboration with other Programs ⁵	0.5	0.5	0.5	0.5	0.5	0.5	0.5	\$4	50%	50%	-	\$2	\$2	-
32.	Provide appropriate assistance towards development of a Statewide Umbrella Watershed Management Act ⁶	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Total (First 7 years)	\$40	\$46	\$46	\$46	\$45	\$40	\$40	\$300				\$138	\$138	\$24

¹ Preliminary; current year dollars based on staff estimates. This table provides estimates of outlays by year. It does not represent requested budgets for each budget year. Budget year information will be provided in future tables.

² Includes assessment, planning, restoration, maintenance, conservation, and monitoring

³ Build the capacity of community based programs to carry out comprehensive long-term watershed management

⁴ Make data and other information more useable and available to people involved with watershed management

⁵ Integration with CALFED programs and other State, Federal, and local programs. Includes the Interagency Watershed Advisory Team

⁶ Costs are included under integration with other programs (action #31)

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Environmental Water Quality Program Stage I Estimated Costs ¹ (\$ in millions)															
Action Item ²	Program Year(s)							Total Cost	Cost Sharing (%)			Estimated cost (\$)			
	1	2	3	4	5	6	7		Fed	State	Other	Fed	State	Other	
33. Project level environmental documentation and permitting as needed	1	3	3	4	4	4	4	\$23	50%	50%	-	\$11.5	\$11.5	-	
34. Mercury Evaluation and Abatement, including Cache Creek, Sacramento River, and the Delta	6.3	3.8	3.8	7.0	8.5	8.0	8.0	\$45	50%	50%	-	\$22.7	\$22.7	-	
35. Pesticides ³	3.0	1.8	2.8	1.8	1.8	1.8	1.8	\$15	33%	33%	33%	\$5	\$5	\$5	
36. Trace Metals ⁴	-	2.0	2.5	4.5	4.5	4.5	4.5	\$22.5	33%	33%	33%	\$7.5	\$7.5	\$7.5	
37. Salinity Reduction ⁵	0.6	3.5	4.0	4.0	4.0	4.0	4.0	\$24	25%	25%	50%	\$6	\$6	\$12	
38. Selenium ⁶	1.3	1.3	3.8	3.8	3.8	3.0	3.0	\$20	25%	25%	50%	\$5	\$5	\$10	
39. Sediment Reduction/Organochlorine Pesticides ⁷	-	2	2	2	2	2	2	\$12	25%	25%	50%	\$3.0	\$3.0	\$6.0	
40. Turbidity and Sediment ⁸	-	5.0	5.0	5.0	5.0	5.0	5.0	\$30	20%	20%	60%	\$6	\$6	\$18	
41. Dissolved Oxygen and Oxygen Depleting Substances ⁹	2	10	10	15	15	15	15	\$82	25%	25%	50%	\$20	\$20	\$42	
42. Unknown Toxicity ¹⁰	1	1	1	1	1	1	1	\$7	50%	50%	-	\$4	\$4	-	
Total (First 7 years)	\$15	\$33	\$38	\$48	\$50	\$48	\$48	\$280				\$90	\$90	\$100	

¹ Preliminary; current year dollars based on staff estimates. This table provides estimates of outlays by year. It does not represent requested budgets for each budget year. Budget year information will be provided in future tables.

² All of these actions are managed under the ERP

³ BMP's, support TMDL for diazinon and chlorpyrifos

⁴ Determine extent of copper contamination, review impacts of other metals

⁵ Conduct salinity reduction work in coordination with the San Joaquin Valley Drainage Program. This will require coordination with local salt removal in the drinking water quality program.

⁶ Includes research, evaluation of real-time management of selenium discharge, expanded source control, and coordination with other programs

⁷ Includes participation in USDA sediment reduction program and other actions

⁸ Includes erosion control BMPs, sedimentation basins, evaluation of use of head control structures on select tributary creeks, and analysis of river sediment loads

⁹ DO sag studies, study nutrients, reduce pollutant discharges from animal feeding operations

¹⁰ Participate in identifying unknown toxicity and addressing as appropriate

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Drinking Water Quality Program Stage I Estimated Costs ¹ (\$ in millions)															
	Action Item	Program Year(s)							Total Cost	Cost Sharing (%)			Estimated cost (\$)		
		1	2	3	4	5	6	7		Fed	State	Other	Fed	State	Other
43.	Cooperate on Bay Area Blending/Exchange	1.0	2.0	5.0	5.0	5.0	6.0	6.0	\$30	33%	33%	33%	\$10	\$10	\$10
44.	Address drainage problems in the San Joaquin Valley ²	-	-	-	15.0	30.0	30.0	30.0	\$105	50%	50%	-	\$53	\$53	-
45.	Source control Program ^{3,4}	16.0	40.0	43.0	46.0	48.0	51.0	58.0	\$302	see footnote # 4			\$75	\$75	\$152
46.	Delta Drinking Water Council	-	-	-	-	-	-	-	-	-	-	-	-	-	-
47.	Alternative sources of supply for Southern California (Southern California Blending)	1.0	2.0	2.0	10.0	10.0	10.0	10.0	\$45	33%	33%	33%	\$15	\$15	\$15
48.	Treatment Technology ^{4,5}	20.7	28.9	27.0	26.0	16.0	16.0	16.0	\$151	see footnote # 4			\$32	\$32	\$87
49.	Control runoff into Aqueduct	1.0	2.0	2.0	4.0	5.0	5.0	6.0	\$25	33%	33%	33%	\$8.3	\$8.3	\$8.3
50.	North Bay Aqueduct Intake ⁶	0.2	2.0	2.0	2.0	-	-	-	\$6	33%	33%	33%	\$2.1	\$2.1	\$2.1
51.	Operational Improvements ⁷	1.2	1.2	1.2	2.0	2.0	2.0	2.0	\$12	50%	50%	-	\$5.8	\$5.8	-
Total (First 7 years)		\$41	\$78	\$82	\$110	\$116	\$120	\$128	\$675				\$200	\$200	\$275

¹ Preliminary; current year dollars based on staff estimates. This table provides estimates of outlays by year. It does not represent requested budgets for each budget year. Budget year information will be provided in future tables.

² Includes funding for support of voluntary land retirement programs with a target of approximately 35,000 acres in Stage 1.

³ Could include projects and programs such as Assessment of Sources and Magnitudes of Loads, TOC/DOC studies/projects, Veale/Byron Tract Drainage Management, Industrial Source Control, Advanced Wastewater Treatment, Local Salt Removal, watershed improvements to reduce constituents of concern in the Sacramento River, Coordinated Watershed Program in the San Joaquin River Basin, recreational impacts on drinking water quality in the Delta and drinking water reservoirs, and monitoring, research, and modeling associated with the above projects.

⁴ For Industrial Source Control, Advanced Wastewater Treatment, Bromate Control, and UV Treatment/Ozonation projects -- This table assumes public funding could be used in the first 2 years, with the expectation that beneficiaries would fund 100% of the costs thereafter.

⁵ Costs could increase significantly if full-scale projects are constructed during Stage 1.

⁶ Includes funding for watershed protection at Barker Slough and pre-feasibility studies for relocation of the intake. Costs could increase significantly if a decision is made to construct relocation of the North Bay Aqueduct Intake.

⁷ Includes modeling, refinement studies, coordination with the Water Management Strategy, San Joaquin River Salt Recirculation.

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Levee Program Stage I Estimated Costs ¹ (\$ in millions)															
	Action Item	Program Year(s)							Total Cost	Cost Sharing (%) ²			Estimated cost (\$)		
		1	2	3	4	5	6	7		Fed	State	Other	Fed	State	Other
52.	Levees Subventions ³	10	11	13	17	20	40	40	\$151	54%	28%	18%	\$82	\$42	\$27
53.	Levees Special Projects ⁴	12	12	12	12	12	12	12	\$84	58%	42%	-	\$49	\$35	-
54.	Emergency Response	11	3	3	3	3	3	3	\$29	38%	38%	24%	\$11	\$11	\$7
55.	Suisun Marsh Levees Program ⁵	0.3	50	50	50	10	10	10	\$180						
	Total (First 7 years)	\$33	\$76	\$78	\$82	\$45	\$65	\$65	\$444				\$142	\$88	\$34

¹ Preliminary; current year dollars based on staff estimates. This table provides estimates of outlays by year. It does not represent requested budgets for each budget year. Budget year information will be provided in future tables.

² More information on cost sharing can be found in the levee program plan.

³ Subsidence control funding and environmental documentation are included in this estimate

⁴ Levee Risk Assessment, dredged material reuse, and environmental documentation are included in this estimate

⁵ This program provides substantial ecosystem and drinking water quality benefits in addition to flood control benefits. Cost shares will be proposed at a future date.

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Storage Strategy Stage I Estimated Costs ¹ (in millions \$)														
Action Item	Program Year(s)							Total Cost	Cost Sharing (%) ²			Estimated cost (\$)		
	1	2	3	4	5	6	7		Fed	State	Other	Fed	State	Other
56. Refine Water Management Strategy	3	2	2	2	2	2	2	\$15	50%	50%	-	\$7.5	\$7.5	-
Groundwater Banking and Conjunctive Use ³														
Federal, State, & Local Cooperative Projects														
57. Feasibility Studies with Local Sponsors	5	10	10	10	10	10	10	\$65	50%	50%	-	\$32.5	\$32.5	-
58. Project Implementation	10	25	65	75	75	75	75	\$400	25%	25%	50%	\$100	\$100	\$200
subtotal	\$15	\$35	\$75	\$85	\$85	\$85	\$85	\$465						
Surface Storage ⁴														
59. In-Delta Storage Feasibility Study, CEQA/NEPA, and Permits	18.0	18.0	-	-	-	-	-	\$36	50%	50%	-	\$18	\$18	-
60. In-Delta Storage - Begin construction	-	-	25	75	100	100	100	\$400	see footnote 2					
61. Shasta Lake Enlargement - Recon, Feasibility, CEQA/NEPA, and Permits	3.0	2.0	1.5	1.5	-	-	-	\$8	50%	50%	-	\$4.0	\$4.0	-
62. Shasta Lake Enlargement - Final Design and Begin Construction	-	-	-	-	50	50	50	\$150	see footnote 2					
63. Los Vaqueros Enlargement - Recon, Feasibility, CEQA/NEPA, and Permits	0.5	1.0	12.0	12.0	12.0	-	-	\$38	50%	50%	-	\$18.8	\$18.8	-
64. Los Vaqueros - Final Design and Begin Construction	-	-	-	-	-	100	100	\$200	see footnote 2					
65. North of Delta Off-Stream Storage (Sites Reservoir) - Feasibility, CEQA/NEPA, and Permits ⁵	10	10	15	15	-	-	-	\$50	50%	50%	-	\$25	\$25	-
66. Upper San Joaquin River Watershed Storage - Recon, Feasibility, CEQA/NEPA, and Permits	0.2	5	5	15	15	10	-	\$50	50%	50%	-	\$25	\$25	-
subtotal	\$32	\$36	\$59	\$119	\$177	\$260	\$250	\$932						
67. Power Facilities Re-operation Evaluation ⁶	0.4	1.5	2	2	2	2	2	\$11.9	50%	50%	-	\$6	\$6	-
68. Fish Migration Barrier Removal Evaluations ⁷	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total (First 7 years)	\$50	\$75	\$138	\$208	\$266	\$349	\$339	\$1,424				\$237	\$237	\$200

¹ Preliminary; current year dollars based on staff estimates. This table provides estimates of outlays by year. It does not represent requested budgets for each budget year. Budget year information will be provided in future tables.

² Storage cost-sharing will depend on allocation of costs and identification of beneficiaries for individual projects. Funding in the initial years will primarily be from federal and state dollars, with reimbursements from beneficiaries coming in later years to be determined after final designs are complete and beneficiaries are identified.

³ Includes funding for projects South of Delta and North of Delta. Funding is for construction of groundwater banking facilities and demonstration projects, development and implementation of a framework for conjunctive use, funding assistance for groundwater plan development, baseline monitoring and modeling, field studies, environmental documentation, design, and study of additional potential project sites.

⁴ Cost estimates assume some construction, mostly during the last few years of Stage 1. Actual expenditures will depend on the amount of construction during Stage 1.

⁵ Costs could increase significantly if a decision is made to construct Sites Reservoir.

⁶ Environmental documentation, feasibility studies, permits, negotiate cost sharing and operating agreements, and begin new operations if conditions and linkages are satisfied.

⁷ Costs are included with ERP's high priority actions that reduce direct mortality to fishes (ERP action #5)

Subject to Revision

Conveyance Strategy Stage I Estimated Costs ¹ (in millions \$)

Action Item	Program Year(s)							Total Cost	Cost Sharing (%)			Estimated cost (\$)		
	1	2	3	4	5	6	7		Fed	State	Other	Fed	State	Other
North Delta Interim Improvements														
69. Evaluate Delta Cross Channel Gate Operations	1	2	2	2	-	-	-	\$7	33.3%	33.3%	33.3%	\$2.3	\$2.3	\$2.3
70. Evaluate a screened through Delta diversion on the Sacramento River ²	1	2	3	2	-	-	-	\$8	50%	50%	-	\$4	\$4	-
71. Regional Flood Control/Ecosystem Restoration ³	7	8	20	35	35	35	35	\$175	65%	25%	10%	\$114	\$44	\$18
subtotal	\$9	\$12	\$25	\$39	\$35	\$35	\$35	\$190				\$120	\$50	\$20
South Delta Improvements														
72. Tracy Fish Screen ⁴	6.5	40	40	8	5	5	5	\$110	37.5%	25.0%	37.5%	\$41	\$27	\$41
73. New Clifton Court Forebay Intake (Assume design/construction of the intake and construction of one new 2,500 cfs screened module by 2006) ⁵	2	2	68	110	110	55	2	\$349	-	75%	25%	-	\$262	\$87
74. CVP/SWP Intake Intertie (Evaluations)	2	2	2	1	-	-	-	\$7	-	-	100%	-	-	\$7
75. CVP/SWP Aqueduct Intertie (Design & Construct 400cfs)	-	-	-	-	5	5	1	\$11	-	-	100%	-	-	\$11
76. Permanent Barriers, Dredging, Diversion Modifications	5	5	10	30	15	10	5	\$80	33.3%	33.3%	33.3%	\$27	\$27	\$27
subtotal	\$16	\$49	\$120	\$149	\$135	\$75	\$13	\$557				\$68	\$316	\$173
Total (First 7 years)	\$25	\$61	\$145	\$188	\$170	\$110	\$48	\$747				\$188	\$366	\$193

¹ Preliminary; current year dollars based on staff estimates. This table provides estimates of outlays by year. It does not represent requested budgets for each budget year. Budget year information will be provided in future tables.

² If there is a decision to construct a screened through Delta diversion on the Sacramento River, as much as \$300 million could be spent in the latter part of Stage 1

³ Includes 100 year flood protection for the North and South Mokelumne Rivers and significant ecosystem restoration. Could also include dredging.

⁴ Plan, design, construct, and test the CVP Tracy Test Fish Facility - 500 cfs screen, plus sorting, holding, transport, and release.

⁵ Costs include construction of the new intake (2003-2005) and construction of one new 2,500 cfs screened module (2004-2006). Costs in 2007 will be for monitoring and operations of the new screened module. Construction of a second screened module could begin in 2008.

Subject to Revision

CALFED Science Program Stage I Estimated Costs ¹ (in millions \$)															
	Action Item	Program Year(s)							Total Cost ²	Cost Sharing (%)			Estimated cost (\$)		
		1	2	3	4	5	6	7		Fed	State	Other	Fed	State	Other
77.	Monitoring, Assessment, Research, and independent scientific review to support CALFED Program elements	25	30	45	50	50	50	50	\$300	50%	50%	-	\$150	\$150	-
	Total (First 7 years)	\$25	\$30	\$45	\$50	\$50	\$50	\$50	\$300				\$150	\$150	-

¹ Preliminary; current year dollars based on staff estimates. This table provides estimates of outlays by year. It does not represent requested budgets for each budget year. Budget year information will be provided in future tables.

² The costs for the science component of the ERP are not included here; they can be found in the ERP budget