

Work Plan for Fiscal Year 2002

February 12, 2002

I Program Title. Red Bluff Diversion Dam Fish Passage Program
CVPIA Section 3406(b)(10)

II Responsible Entities.

	Agency	Staff Name	Role
Lead	USBR	Max J. Stodolski	Program Manager
		Buford Holt, Sandy Borthwick	Support
Co-Lead	USFWS	Jim Smith, Ryan Olah	Biologist

III Program Objectives for FY 2002.

The program objectives are listed below. The source documents for these objectives are noted and their relationship, if any, to the CALFED Program Ecosystem Restoration Program Implementation Plan. The program objectives have been cross-referenced against the actions the program will undertake in FY 2002 in Section VI below.

A. Improve safe passage of juveniles migrating downstream, particularly chinook salmon (fall, late fall, winter and spring runs).

B. Improve upstream passage of adults, particularly chinook salmon (fall, late fall, winter and spring runs, and steelhead).

C. Provide water to users (farmers and wildlife refuges) served by the Tehama-Colusa and Corning Canals.

D. Continue to allow Lake Red Bluff to exist if possible, by keeping the gates in during the summer months, while meeting Objectives A, B, C and E.

E. Select and implement further actions to minimize fish passage problems at Red Bluff Diversion Dam (RBDD).

IV Status of the Program.

The exploration of alternatives for further improvements of fish passage compatible with irrigation needs and local interests in the first four years of the six year Fish Passage Planning Program has been implemented by USBR under Section 3406(b)(10) of the Act, leading to general recognition of the efficacy of the operations implemented in response to the 1993 Biological Opinion for the operation of the Central Valley Project (CVP) and State Water Project (SWP) on winter-run chinook salmon. The increased duration of gate removal at RBDD prompted by the Biological Opinion dramatically improved baseline conditions for anadromous salmon and changed the standard against which additional measures to minimize fish passage problems would be measured. This raised the standard and the high costs of improvements or refinements at RBDD, which in the end could run counter to subsequent CALFED decisions, leading to the acceptance of the resulting improvement in fish passage for the short term as being all that was practical pending new developments.

The first such development came in FY00 when the Tehama-Colusa Canal Authority (TCCA) concluded that the availability of CALFED funds opened new possibilities for resolution of water delivery and fish passage problems, leading to a renewal of investigations of pumping plants and river by-pass options. Several pending actions will further change the context from which additional measures to minimize fish passage problems must be considered. The pending decisions by the Secretary of the Interior concerning operations of USBR's Trinity River Division, the California State Water Resources Control Board concerning water quality standards in the Sacramento-San Joaquin Delta, and current judicial decisions/litigation in the San Joaquin Valley may impact CVP operations and flows in the Sacramento River at RBDD.

In addition, CALFED is seeking long-term solutions to ecosystem restoration and water supply reliability. Off channel storage adjacent to the Tehama-Colusa Canal is being considered as part of the CALFED process. The construction of additional storage in this area has the potential to dramatically impact the remaining fish passage issues at RBDD by changing the economics of canal operations.

Apart from the TCCA's new willingness to consider full pumping alternatives, the interests of the major players remains unchanged. The fishery agencies would prefer to see full reliance on screened pumps, the local community is primarily interested in retention of Lake Red Bluff, and the TCCA is concerned about the continuing pressure to shorten the four month period when diversions at Red Bluff can be made by gravity flow from Lake Red Bluff and the unreliability of the Black Butte Reservoir supply, which is critical to meeting demands during gates-out periods. Thus, study of the fish passage and water diversion options has been reopened with the aid of CALFED and USBR funding. \

V FY 2001 Accomplishments.

The accomplishments for Objectives C, D and E are continuing administrative accomplishments and are discussed in “Status of the Project” above. However, a “Schematic Design Report” and “Schematic Drawings” for fish ladders, fish screens, expansion of the research pumping plant, and a new pump station was completed.

The fiscal 2001 administrative accomplishments for the program focused on selecting three alternatives and a sub-alternative (2b) to consider for the solution of the fish passage problem at RBDD. The three alternatives selected are:

- ! Alternative (1), “Gates in” four months, improve the fish ladders and build a 1700 cfs pumping plant,
- ! Alternative (2a), “Gates in” two months, improve the fish ladders, build a new ladder at the center of the dam and build a 2000 cfs pumping plant
- ! Alternative (2b), “Gates in” two months, improve the fish ladders, no new ladder at the center of the dam and build a 2000 cfs pumping plant
- ! Alternative #3, Remove the gates year around and build a 2500 cfs pumping plant.

CH2MHill and the Study Management Group (SMG), comprised of the USBR, U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), California Dept. of Fish and Game (DFG), California Dept. of Water Resources (DWR) and the TCCA developed a study to evaluate the effects of “gates in” at the RBDD on all fish species in the Sacramento River. The study was eventually narrowed down to focus on salmonids, green sturgeon and pike minnow. The purpose of the study is to gain a better understanding of how the three alternatives affect fish passage.

The SMG provided assistance to CH2MHill in organizing and participating in numerous work group meetings with interested stakeholders and held three public meetings for the purpose of sharing information and to receive public input.

VI Tasks, Costs, Schedules and Deliverables.

A Narrative Explanation of Tasks.

- 1 Program Management. There are three Program Management funding requirements: the USBR, as lead Federal Agency; TCCA, as lead State Agency and CH2MHill (Contractor), a contractor provided for through a Federal Grant to the TCCA.
- 1.1 Program Management - The USBR program manager representing the lead Federal Agency is responsible for oversight of the program including budgeting and disbursement of Federal funds and administering a Grant to the TCCA which provides funding to the TCCA to procure the Contractor.

- 1.2 Program Management - USFWS, as a member of the SMG, will assist USBR and TCCA in developing the alternatives for fish passage improvements at RBDD. Will conduct biological studies at RBDD to evaluate salmonid fish passage behavior past the fish ladders by utilizing radio tagged adults and monitoring movement using radio telemetry.
- 1.3 Program Management - The TCCA program manager, representing the lead State Agency, is responsible for administering the contract provided for under the Grant and Proposition 204 funding..
- 1.4 Program Management - CH2MHill is responsible for providing the resources to accomplish the Tasks listed below, (2 through 10).
 - 2 Preliminary Design. Update and refine schematic designs and document design criteria for fish ladders, fish screens, Research Pumping Plant and the Mill Site pump station.
 - 3 Environmental Documentation. Prepare environmental documentation to meet the requirements of CEQA/NEPA and address the impacts and benefits of each alternative developed carried forward.
 - 4 Evaluate and Screen Alternatives. Develop fish impact assessment criteria. Assess potential of each alternative to meet the applicable fish passage criteria established by the agencies. Develop screening evaluation factors. These factors will include fish passage improvement, water supply reliability improvement, socioeconomic issues, environmental and permitting issues.
 - 5 Initiate Permitting. Initiate permit applications with appropriate agencies.
 - 6 Update Implementation Plan. Resolve implementation constraints and issues.

Additional Funding Needs.

Management and administrative support to facilitate additional tasks described below.

Expand Public Outreach - This task represents an expanded level of effort in response to early public outreach efforts and a reorganization recommended by the Team.

Alternative Refinement and Modeling - Stony Creek evaluation, additional studies include, bypass evaluation, hazardous waste, geotechnical and Endangered Species Act evaluations, historical and ancestral investigations and hydraulic modeling.

Power Analysis - Determine energy baseline, availability of supplies, operation optimization, generation options and cost analysis of alternative sources.

B Schedule and Deliverables

#	Task	Dates		Deliverable
		Start	Complete	
1	Program Management	10/01/01	12/31/02	Monitor program for accomplishment, schedule and budget; provide deliverables as stated in Tasks 1.1, 1.2, 1.3 below
1.1	Program Management (USBR)	10/01/01	12/31/02	Provide a revised FY02 Work Plan and a new FY03 Work Plan; close Grant with TCCA; provide Grant for Phase III.
1.1a	Program Management (USFWS)	10/01/01	12/31/02	Assist in developing alternatives. Continue conducting biological studies on adult salmonid passage behavior at RBDD and prepare status report for FY01study.
1.2	Program Management (TCCA)	10/01/01	12/31/02	Close out current contract; provide schedule for Phase III
1.3	Program Management (CH2M) *	10/01/01	12/31/02	Provide reports and documents as noted below for Tasks 2 through 10.
2	Preliminary Design	10/01/01	09/30/02	Provide design report to determine cost estimates for preferred alternative
3	Evaluate and Screen Alternatives	10/01/01	09/30/02	Select a preferred alternative

4	Environmental Documentation	10/01/01	09/30/02	Provide NEPA/CEQA documents and Record of Decision
5	Initiate Permitting	10/01/01	09/30/02	Obtain permits, required by other Agencies, for construction
6	Update Implementation Plan	10/01/01	09/30/02	Final Implementation Plan Report

Explanatory Notes: *1.3 - The CVPIA Program Budget will provide \$50,000 to fund CH2MHill's program management for Tasks 2 through 6. The CALFED Grant (Prop 204 funds) did not provide funding for program management. All other funds for Tasks 2 through 6 come from Prop 204.

Schedule and Deliverables - Additional Funding Needs.

#	Task	Dates		Deliverable
		Start	Complete	
7	Program Management (CH2MHILL only)	10/01/01	09/30/02	Monitor program for accomplishment, schedule and budget; same as Task 1, 1.1, 1.2, 1.3 above except provide deliverables as stated in Tasks 8, 9, 10 below
8	Expand Public Outreach	10/01/01	09/30/02	Conduct several stakeholder and public meetings; provide results of each meeting with meeting summaries and final reports.
9	Alternative Refinement and Modeling	10/01/01	09/30/02	Final Reports on refinements and modeling studies
10	Power Analysis	10/01/01	09/30/02	Final Report

Explanatory Notes:

These additional tasks were not anticipated in the original scope of the Phase II effort but were identified during the preliminary design portion of the program and are important to the successful completion of the public outreach and alternative evaluation portion of the Phase II work.

These additional tasks are being funded through a \$2,000,000 add-on to the W&RR appropriations for FY01. From this \$2,000,000 a Grant Agreement was funded in the amount of \$1,230,000 in late FY01 to the TCCA obligating funds to accomplish Tasks 7 through 10. The Tasks for the remaining Contract Costs of \$770,000 will be identified by mid FY02.

The “Additional Funding” are not new funds that are needed from the FY02 budget but are funds that have been obligated from FY01 funds through a Grant with TCCA to accomplish the above Tasks during FY02. No additional funding is required from FY02 appropriations. This Table is provided for information only to note the additional activities for FY02.

C. Summary of Program Costs and Funding Sources.

#	Task	Total Cost	W&RR	Prop 204
1	Program Management			
1.1	USBR*	\$ 542,500	\$ 542,500	\$ 0
1.1 a	USFWS	\$ 65,500	\$ 65,500	\$ 0
1.2	TCCA**	\$ 0	\$ 0	\$ 0
1.3	CH2MHill	\$ 134,000	\$ 50,000	\$ 84,000
2	Preliminary Design	\$ 50,000	\$ 0	\$ 50,000
3	Evaluate and Screen Alternatives	\$ 10,000	\$ 0	\$ 10,000
4	Environmental Documentation	\$ 450,000	\$ 0	\$ 450,000
5	Initiate Permitting	\$ 100,000	\$ 0	\$ 100,000
6	Update Implementation Plan	\$ 40,000	\$ 0	\$ 40,000
Total Program Budget		\$1,392,000	\$ 658,000	\$ 734,000

Explanatory Notes:

*1.1 Includes \$99,500 for USBR Denver Technical Service Center to assist in design work and reviewing the deliverables from Tasks 2 through 10 a needed.

**1.2 TCCA will provide in-kind services for their project management activities which is valued at \$64,000.
This includes all Tasks 1 through 10.

Program Costs and Funding Sources - Additional Funding Needs.

#	Task	Total Cost	W&RR
7	Program Management (CH2M Only) **	\$ 80,000	\$ 80,000
8	Expand Public Outreach	\$ 400,000	\$ 400,000
9	Alternative Refinement and Modeling	\$ 570,000	\$ 570,000

10	Power Analysis	\$ 180,000	\$ 180,000
Total Program Budget		\$ 1,230,000	\$ 1,230,000

Explanatory Notes:

The "Additional Funding" are not new funds that are needed from the FY02 budget but are funds that have been obligated from FY01 funds through a Grant with TCCA to accomplish the above Tasks during FY02. No additional funding is required from FY02 appropriations. This Table is provided for information only to note the additional activities for FY02.

D CVPI A Program Budget.

#	Task	FT E	Direct Salary and Benefits Costs	Contract s Costs	Miscellan eous Costs	Administra tive Costs	Total Costs
1	Program						
1.1	USBR	4.4	\$ 258,000	\$ 0	\$ 0	\$ 169,000	\$ 427,000
1.1	USFWS	1.0	\$ 58,500	\$ 0	\$ 0	\$ 27,000	\$ 85,500
1.1	USBR	1.0	\$ 50,500	\$ 0	\$ 0	\$ 45,000	\$ 95,500
1.2	TCCA		In- kind				In- kind
1.3	CH2MHill		\$ 0	\$ 50,000	\$ 0	\$ 0	\$ 50,000
	Total by	6.4	\$ 367,000	\$ 50,000	\$ 0	\$ 241,000	\$ 658,000

Explanatory Notes:

Congressman Doug Ose, District 3, (R) CA, was successful in getting a "write-in" for \$2,000,000 in the FY01 W&RR Appropriations Bill. A Grant amounting to \$1,230,000 was obligated in FY01 to complete Tasks 7 through 10 above. The Tasks for the remaining Contract Costs of \$770,000 will be identified by mid FY02. This \$770,000 has been removed from "Contracts Costs" for this report to meet the budget target of \$658,000 for FY02. However, it should be noted that the TCCA has been assured by Congressman Ose, and agreed to by former Regional Director Lester Snow, that these funds will be available for this Program in FY02.

CVPIA Program Budget - Additional Funding Needs.

#	Task	FT E	Direct Salary and Benefits Costs	Contract s Costs	Miscellaneo us Costs	Administra tive Costs	Total Costs
7	Program Management	0.0	\$ 0	\$ 80,000	\$ 0	\$ 0	\$ 80,000
8	Expand Public Outreach	0.0	\$ 0	\$ 400,000	\$ 0	\$ 0	\$ 400,000
9	Alternative Refinement and Modeling	0.0	\$ 0	\$ 570,000	\$ 0	\$ 0	\$ 570,000
10	Power Analysis	0.0	\$ 0	\$ 180,000	\$ 0	\$ 0	\$ 180,000
	Total by Category	??	\$ 0	\$ 1,230,000	\$ 0	\$ 0	\$ 1,230,000

Explanatory Notes:

A breakdown of the contract costs is not available. These funds are assigned to the TCCA through a FY01 Grant.

The “Additional Funding” are not new funds that are needed from the FY02 budget but are funds that have been obligated from FY2001 funds through a Grant with TCCA to accomplish the above Tasks during FY2002.. No additional funding is required from FY2002 appropriations. This Table is provided for information only to note the additional activities for FY02.

E Quarterly Obligation/Expenditures.

#	Task	Quarter 1	Quarter 2	Quarter 3	Quarter 4
1	Program Management				
1.1	USBR	\$ 112,000	\$ 112,000	\$ 112,000	\$ 111,000
1.1a	USFWS	\$ 16,500	\$ 16,500	\$ 16,500	\$ 16,000
1.1b	USBR (Denver TSC)	\$ 24,000	\$ 24,000	\$ 24,000	\$ 23,500
1.2	TCCA	\$ 0	\$ 0	\$ 0	\$ 0
1.3	CH2MHill	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500
Total CVPIA Budget by Quarter		\$ 165,000	\$ 165,000	\$ 165,000	\$ 163,000

Explanatory Notes: Tasks 2 through 6 are funded with Prop 204 funds.

Program Management costs to the TCCA are provided through in-kind services.

Quarterly Obligation/Expenditures - Additional Funding Needs.

#	Task	Quarter 1	Quarter 2	Quarter 3	Quarter 4
7	Program Management	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000
8	Expand Public Outreach	\$ 150,000	\$ 100,000	\$ 100,000	\$ 50,000
9	Alternative Refinement and Modeling	\$ 190,000	\$ 150,000	\$ 130,000	\$ 100,000
10	Power Analysis	\$ 80,000	\$ 50,000	\$ 50,000	\$ 0
Total CVPIA Budget by Quarter		??	??	??	??

Explanatory Notes:

These “Additional Funding” are not new funds that are needed from the FY02 budget but are funds that have been obligated from FY2001 funds through a Grant with TCCA to accomplish the above Tasks during FY2002.. No additional funding is required from FY2002 appropriations. This Table is provided for information only to note the additional activities for FY02.

VII Future Years Commitments/Actions.

We are engage in the NEPA/CEQA process for this Program. The completion schedule for Tasks 7 through 10 under Phase II of the Project will be the end of FY02 with a Record Of Decision (ROD) expected in the first quarter of FY03. Phase III of the Project begins at the start of FY03 and includes Final Designs and Land acquisition. Phase IV follows which includes Project Construction concluding with Phase V which is Monitoring of the Project.

Currently we are looking at three alternatives plus one sub-alternative (2b):

Note: All alternatives include utilizing the Research Pumping Plant with additional pump added to Bay #4.

Alt. (1) Leave the gates in at RBDD, i.e., utilize gravity flows to the T-C and Corning Canals, from May 15 to Sept 15 each year. Build 1700 cfs pumping capacity with fish screens, build a new center fish ladder and improve both existing right and left abutment ladders. Cost estimate, \$87,900,000. All cost estimates are feasibility level.

Alt. (2a) Gates in from July 15 to Sept 15 each summer. Build 2000 cfs pumping capacity with fish screens, improve left and right abutment fish ladders, new center ladder not required. Cost estimate, \$93,500,000.

Alt. (2b) Same as Alternative (2a) except, no improvement to abutment fish ladders and no new center fish ladder would be constructed. Cost estimate \$78,100,000.

Alt (3) Gates at RBDD remain open year around, no gravity flow to Canals. Build 2500 cfs pumping capacity with fish screens. Cost estimate, \$88,200,000.