

## Work Plan for Fiscal Year 2004

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

**II Responsible Entities**

	Agency	Staff Name	Role
Lead	USBR	Paul Freeman/Buford Holt	Program Managers
	USFWS	Jim Smith	Biologist

**III Program Objectives for FY 2004**

The program objectives are listed below. The source documents for these objectives, and their relationship, if any, to the CALFED Program Ecosystem Restoration Program Implementation Plan, are noted. In Section VI below, the program objectives have been cross-referenced against the actions the program will undertake during FY04.

- A. Improve safe passage of juveniles migrating downstream, particularly Chinook salmon - (fall, late fall, winter and spring runs). (Source document, CVPIA)
- B. Improve upstream passage of adults. (Particularly Chinook salmon - fall, late fall, winter and spring runs, and Steelhead). (Source document, CVPIA)
- C. Provide water to users (farmers and wildlife refuges) served by the Tehama-Colusa and Corning Canals. (Source document, CALFED)
- 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). (Source document, CVPIA)

**IV. Status of the Program**

The exploration of alternatives for further improvements of fish passage, compatible with irrigation needs and local interests, has led to general recognition of the efficacy of the operations already implemented in response to the 1993 Biological Opinion for the operation of the Central Valley Project and State Water Project 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 standard and the high costs of improvements or refinements at RBDD, which in the end could run counter to later CALFED decisions, led to acceptance of the resulting improvement in fish passage for the short term, and the suspension of new initiatives under the first four years of the six-year Fish Passage Planning Program Reclamation implemented under Section 3406(b)(10) of the Act. It was agreed, by all agencies involved, that all practical steps had been taken 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. A Biological Assessment and a draft EIS/EIR for the Fish Passage Improvement Project at Red Bluff Diversion Dam were completed in FY02, and made available for public review. A public hearing and public meeting on the EIS/EIR were also held in Red Bluff in FY02. The Fish & Wildlife Service submitted a draft Fish and Wildlife Coordination Act report in August 2002, which was included as an appendix in the draft EIR/EIS document. Given guidance by the court on the timing of ESA and NEPA compliance activities, work on the EIS/EIR was suspended pending completion of the ESA consultation for the CVP as a whole, and the OCAP consultation. A final EIS/EIR is now anticipated in FY04.

Several other pending actions have also arisen that 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 operation of Reclamation's Trinity River Division, the California State Water Resources Control Board's pending decision concerning water quality standards in the Sacramento-San Joaquin Delta, and current judicial decisions and 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.

The interests of the major players in the study of fish passage and water diversion options at Red Bluff remain 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.

#### **V. FY 2003 Accomplishments.**

The accomplishments for Objectives C, D and E are continuing administrative accomplishments, and are discussed in Status of the Project above. Discussions on the various alternatives to consider for the solution of the fish passage and water delivery problems at RBDD continue with the various agency representatives on the Study Management Group (SMG). The SMG is comprised of representatives of Reclamation, U.S. Fish and Wildlife Service (Service), National Marine Fisheries Service (NMFS), California Dept. of Fish and Game (CDFG), California Dept. of Water Resources

(DWR), and CH2MHill. The six alternatives, as outlined in the Red Bluff Fish Passage Program Improvement Project EIS/EIS, are as follow:

- No Action Alternative: Maintain existing conditions, except add a fourth pump to the Red Bluff Research Pumping Plant (RBRPP).
- Alternative 1a: Gates in four months, add a fourth pump to the RBRPP, improve the existing fish ladders, and build a 1380 ft<sup>3</sup>/s pumping plant.
- Alternative 1b: Gates in four months, add a fourth pump to the RBRPP, improve the right bank fish ladders, add a 1000 ft<sup>3</sup>/s bypass channel on the left bank, and build a 1380 ft<sup>3</sup>/s pumping plant.
- Alternative 2a: Gates in two months, add a fourth pump to the RBRPP, improve the existing fish ladders, and build a 1680 ft<sup>3</sup>/s pumping plant.
- Alternative 2b: Gates in two months, add a fourth pump to the RBRPP, and build a 1680 ft<sup>3</sup>/s pumping plant (no improvement to existing ladders).
- Alternative 3: Remove the gates year-round and build a 2180 ft<sup>3</sup>/s pumping plant.

During FY03 progress was made towards installation of a fourth pump in the Red Bluff Research Pumping Plant. Reclamation personnel from the Red Bluff office met with engineers from Denver's Technical Service Center to discuss the project. A site visit was made to the pumping plant to gather information needed for the preliminary design.

## **VI. Tasks, Costs, Schedules and Deliverables.**

### **A. Narrative Explanation of Tasks.**

1. Program Management - There are four Program Management funding requirements. The Bureau of Reclamation (Reclamation), as lead federal agency; the Service, co-lead federal agency; The Tehama-Colusa Canal Authority (TCCA), as lead state agency and CH2M.
  - 1.1. Program Management - The Reclamation program manager 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 sub-contractor.

Program Management - The Service, as a member of the SMG, will assist Reclamation and TCCA in developing the alternatives for fish passage improvement at RBDD.

- 1.2. Program Management - The TCCA program is responsible for administering the contract provided for under the grant and Prop 204 funding.
- 1.3. Program Management - CH2MHill is responsible for providing the resources to accomplish the Tasks listed below, (2 through 8).
2. Environmental Documentation - Prepare environmental documentation to meet the requirements of CEQA/NEPA and address the impacts and benefits of each alternative developed carried forward.
3. Alternative Refinement - 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.
4. Initiate Permitting - Initiate permit applications with appropriate agencies.
5. Update Implementation Plan - Resolve implementation constraints and issues.

#### **Additional Funding Needs.**

6. Completion of the Research Pumping Plant - Complete the design and installation of a fourth pump at the Red Bluff Research Pumping Plant, an action addressed in the NEPA review for the construction of the Research Pumping Plant. This will address, but not fully meet, Objective C by providing additional water to irrigators and will indirectly address Objective A, by delaying the onset of rediversions at Stony Creek and thus incrementally reducing risks to non-natal juvenile salmon in Stony Creek.
7. Program Management - Provide management and administrative support to complete EIS/EIR documents and continue public outreach if FY03 funds cannot be carried over to fund the fourth pump.
8. Design Specifications - None expected in FY04, but additional funds may be needed in FY05 to begin final design and construction specification drawings.
9. Acquire Land - None expected in FY04, but additional funds may be needed in FY05 to Purchase land for the construction and operation of the pumping plant.

**B. Schedule and Deliverables**

No.	Task	Dates		Deliverable
		Start	Complete	
1	Program Management	10/01/03	09/30/04	Monitor program for accomplishment, schedule and budget; provide deliverables as stated in Tasks 1.1, 1.2, 1.3 below
1.1	Program Management (BOR)	10/01/03	09/30/04	Provide a revised FY04 Work Plan and a new FY05 Work Plan; provide grant to TCCA for Phase III.
1.1.a	Program Management (FWS)	02/03	09/04	Assist in completion of EIS/EIR. Continue conducting biological studies to monitor passage of adult and juvenile salmonids at RBDD in response to pump installation and gate manipulations
1.2	Program Management (TCCA)	10/01/03	9/30/04	Provide schedule for Phase III
1.3	Program Management (CH2M)	10/01/03	9/30/04	Provide reports and documents as noted below for Tasks 2 through 9.
2	Alternative Refinement	10/01/03	6/31/04	Select a preferred alternative
3	Environmental Documentation	10/01/03	7/01/04	Provide final NEPA/CEQA document and the Record of Decision.
4	Initiate Permitting	10/01/03	8/30/04	Obtain permits, required by other Agencies, for construction
5	Update Implementation Plan	10/01/03	9/30/04	Final Implementation Plan Report
6	Design, Award Contract for Installation of Fourth Pump	10/01/03	9/30/04	Installed pump with all components needed for successful water delivery and fish bypass to river.

No.	Task	Dates		Deliverable
		Start	Complete	
7	Program Management (CH2MHill only)	10/01/03	09/30/04	Monitor program for accomplishment, schedule and budget; same as Task 1, 1.1, 1.2, 1.3 above, and assist in Tasks 8 and 9 below.

#### Schedule and Deliverables - Additional Funding Needs

No.	Task	Dates		Deliverable
		Start	Complete	
8	Final Design	10/01/03	09/30/04	Begin final design for pumping plant and provide construction specifications.
9	Land Purchase	10/01/03	09/30/04	Begin acquisition process for land for the construction and operation of the pumping plant.

Explanatory Notes: Funding for these tasks was not provided for in the FY04 budget.

#### C. Summary of Program Costs and Funding Sources.

No.	Task	Total Cost	W&RR
1	Program Management	(n/a)	(n/a)
1.1	Program Management (BOR)	\$560,000	\$560,000
1.1a	Program Management (FWS)	\$50,000	\$50,000
1.2	Program Management (TCCA)	\$70,000	\$0
1.3	Program Management (CH2M)	\$90,000	\$90,000
2	Alternative Refinement (CH2M)	\$20,000	\$20,000
3	Environmental Documentation (CH2M)	\$200,000	\$200,000
4	Initiate Permitting (CH2M)	\$50,000	\$50,000
5	Update Implementation Plan (CH2M)	\$10,000	\$10,000
6	Design and Installation of Fourth Pump	\$1,700,000	\$0

No.	Task	Total Cost	W&RR
7	Program Management (CH2M only)	\$50,000	\$20,000
8	Final Design (CH2M only)	\$420,000	\$0
9	Land Purchase (CH2M only)	\$ 50,000	\$0
Total Program Budget		\$3,270,000	\$1,000,000

Explanatory Notes: The CALFED (Prop 204 funds) will not provide any funding for the FY04 program.

1.1 Includes funding for USBR Denver Technical Service Center to assist in design work.

1.2 TCCA will provide in-kind services for their program management activities, which is valued at \$70,000.

#### **D. CVPIA Program Budget**

No CVPIA funds are anticipated for FY04 although substantial sums may be requested in FY05 for land acquisition and completion of final designs.

#### **E. CVPIA Program Budget - Additional Funding Needs**

No CVPIA funds are anticipated for FY04 although substantial sums may be requested in FY05 for land acquisition and completion of final designs.

### **VII. Future Years Commitments/Actions**

We are engaged in the NEPA/CEQA process for this Program. The completion schedule for Tasks 1 through 5 under Phase II of the Project is the end of the first quarter of FY04, with a Record of Decision (ROD) expected in the third quarter of FY04. Phase III of the Project begins at the start of FY04, and includes Final Designs and Land Acquisition. Phase IV follows with Project Construction, and the Program concludes with Phase V, which is Monitoring of the Project.

Currently we are looking at six alternatives. Note that all alternatives include use of the Research Pumping Plant with an additional pump added to Bay #4.

- A. **No Action Alternative:** Existing conditions, except for the addition of the Bay 4 pump. Cost estimate: \$1,700,000.
- B. **Alternative (1a)** 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 a 1380 ft<sup>3</sup>/s pumping plant with fish screens, improve both existing right and left bank ladders, and build a new center ladder if needed. Cost estimate: \$87,900,000. All cost estimates are feasibility level.

- C. **Alternative (1b)** Gates in at RBDD from May 15 to Sept 15 each year. Build a 1380 ft<sup>3</sup>/s pumping plant with fish screens; improve the existing right bank fish ladder; construct a 1,000 ft<sup>3</sup>/s bypass channel on the left bank, build a new center ladder if needed. Cost estimate: \$87,300,000
- D. **Alternative (2a)** Gates in from July 15 to Sept 15 each summer. Build a 1680 ft<sup>3</sup>/s pumping plant with fish screens, improve left and right abutment fish ladders, add a new center ladder if needed. Cost estimate: \$93,500,000.
- E. **Alternative. (2b)** Same as Alternative (2a) except, no improvement to abutment fish ladders, and a new center fish ladder would not be constructed. Cost estimate: \$78,100,000.
- F. **Alternative (3)** Gates at RBDD remain open year around, no gravity flow to canals. Build 2180 ft<sup>3</sup>/s pumping capacity with fish screens. Cost estimate: \$88,200,000.