

Work Plan for Fiscal Year 2002

January 17, 2002

I Program Title. Coleman National Fish Hatchery -CVPIA Section 3406(b)(11)

II Responsible Entities.

	Agency	Staff Name	Role
Lead	USFWS	Scott Hamelberg	Project Leader- Coleman NFH Complex
Co-Leads	USBR	Denise Stotts	Funding Coordination
		Michele Simpson	Funding Coordination

III Program Objectives for FY 2002.

The program objectives are enumerated below. The source documents for these objectives is contained within the original language authorizing the CVPIA.

A. Continue rehabilitation/expansion of the Coleman National Fish Hatchery (NFH) by implementing the U.S. Fish and Wildlife Service's 1987 Coleman NFH Station Development Plan, including implementation of the water intake modification project and improving visitor use/experience.

B. Visitor use at Coleman NFH is estimated to be from 80,000 to 100,000 annually. A recent safety/environmental compliance review of the Coleman NFH complex identified a potential health and human safety concern related to the station's drinking water system. Safe drinking water is achieved on-station through a well and storage tank and application of an Ultra Violet (UV) sterilization system. However, as currently configured, the station's fire suppression system utilizes common lines with the drinking water system. Use of the fire suppression system could result in the contamination of the drinking water system through the cross-piping connections. This situation could, therefore, result in the complete unavailability of potable water on station until the drinking water lines were flushed and UV treated water again recharged in the system. A complete separation of the two systems has been identified to rectify this situation to assure the availability of high quality treated drinking water to station staff and the visiting public. The project as described in this FY 2002 Annual Work Plan can be considered a component of Phase Two and/or Nine of the Station Development Plan.

IV Status of the Program:

The Coleman NFH Complex is one of the largest production facilities of salmon and steelhead in the U.S. The facility is a key fishery mitigation feature of the construction of Shasta Dam. The CVPIA set provisions requiring the rehabilitation and expansion of the Coleman NFH. (It also authorized modification to the Keswick Fish Trap and the Stilling Basin below Keswick Dam). The 1987 Coleman NFH Station Development Plan, identified in the CVPIA, outlined a nine-phase strategy to rehabilitate the hatchery. During the last twelve/thirteen years, approximately \$24,000,000 has been invested in the infrastructure at Coleman NFH, and seven of the nine identified construction/rehabilitation phases as identified in the Station Development Plan are complete or have experienced substantial progress. Projects completed within the last twelve/thirteen years include: replacement of the barrier weir in Battle Creek, rehabilitation of the sill at intake #3, replacement of the cold storage building, construction of a spawning building, replacement of the pollution abatement pond, replacement of the 15 ft. x 150 ft. raceways, addition of an electrical substation, replacement of the hatchery building roof and shop roof and complete rewire of the administrative building, hatchery building and shop (not all projects were funded with CVPIA funds). Also within this time period, a major accomplishment has been the construction of a state-of-the-art ozone water treatment facility and associated water filtration structures¹. Of the nine construction/rehabilitation phases identified, five phases (Two, Six, Seven, Eight, and Nine) have yet to be fully completed. For example, Phase Two generally requires overall station rehabilitation. Although not specifically identified in the Station Development Plan, current assessments of station buildings have identified that the buildings do not meet California Zone 2 earthquake codes. Initial engineering and design for the needed seismic retrofits are underway. Many electrical deficiencies and other environmental and human health and safety issues have also been recently identified and their rectification should be considered as part of an ongoing effort under Phase Two. Phase Nine outlines improvements planned to upgrade the public use experience and address public safety issues such as parking. Phase Seven called for the construction of twenty additional 15 ft. x 150 ft. raceways, and Phase Six and Eight calls for improvements and reconstruction of the water intake system, and an increased ozone treatment capability up to 65,000 gpm.

¹Following studies begun in the early 1980's, ozonation was identified as the means that provided the greatest degree of fish health protection. Consequently, ozonation of the station's water supply was identified in the Station Development Plan. The NEPA process and an environmental assessment resulted in an action which substantially reduced the amount of water to be ozonated. The current objective is to filter 45,000 gpm and ozonate 30,000 gpm of water. This objective has been achieved. A five to seven-year test period (which includes the current large-scale fall chinook salmon tagging program), will evaluate the efficacy of the disinfection system. At the conclusion of the test period, a determination will be made regarding the need for additional disinfection capacity.

With respect to Phases Six, Seven and Eight, with the exception of some of the water intake improvements (see below) and contingent upon the outcome of ozone efficacy studies, Phase Six, Seven and Eight are not likely to be completed. Phase Six called for an ozonation capacity increase to 45,000 gpm. However, during the NEPA process the capacity was set instead at 30,000 gpm, and a five to seven-year test period was identified to evaluate the efficacy of the system. At the conclusion of the test period, a determination will be made regarding the need for additional disinfection capacity (i.e, the continuation of Phase Six). Phase Seven which calls for the construction of twenty additional 15 ft. x 150 ft. raceways. However, construction of these raceways will not be completed unless increases in hatchery production numbers/capability is warranted. Phase Eight described an increase in station water delivery capability and increased ozone production capability for up to 65,000 gpm. This additional increase in water delivery capacity and ozone generation will only be necessary if the raceways identified in Phase Seven are constructed.

Although water delivery capacity may not likely be increased, recent efforts associated with the Battle Creek Restoration project (funded by Cat III, CALFED, and AFRP) has elevated the urgency to modify the facility's intake structures (i.e., move and/or screen the intakes). Objectives of the water intake modification project are: 1)) to avoid entrainment and potential loss of naturally-produced juvenile salmonids; and, 2) to assure an adequate water supply for the facility (quantity and quality). Ongoing engineering and environmental analyses of proposed alternatives will fully disclose the advantages and the potential aquatic and terrestrial impacts of available alternatives. Although some funding for the intake modification project has been secured through CVPIA, funding to implement the entire project will be sought through CALFED in 2002.

V FY 2001 Accomplishments.

In FY 2000 and FY 2001 the objective to ozonate 30,000 gpm of water was achieved and demonstrated a positive effect on station operations. For the first time in the station's history the juvenile broodyear 1999 and 2000 fall chinook salmon were released in April 2000 and 2001, respectively, with no incidence of viral diseases experienced during their entire rearing cycle. Additionally, water quality resulting from the sand filtration capabilities also resulted in more fish reaching the proper size at release than in the past. The construction of a fourth and final sand filter was largely finished in FY 2001 using FY 1999 and FY 2000 funds.

Additionally, late in Fiscal Year 2000 (FY), the following projects were awarded:

- 0.1 Hatchery building seismic retrofit to meet California Zone 2 seismic requirements—FY01 funds were added to this project.
- 0.2 Contract to provide detailed station piping and valving drawings to facilitate facility operations.

Preliminary NEPA documentation and alternative designs and criteria development for the water intake modification project was also continued with FY01 funding. A variety of improvements to the Keswick Dam fish trap were also completed or are underway in FY2001.

VI Tasks, Costs, Schedules and Deliverables.

A Narrative Explanation of Tasks.

1. Program Management. The United States Fish and Wildlife Service (USFWS) and United States Bureau of Reclamation (USBR) Program Managers are responsible for co-managing this program. The tasks and sub-tasks associated with managing the program are divided among the agencies based on efficiencies as shown below.
 - 1.1 Program Management USFWS Program Manager is responsible for developing all contracts associated with this project.
 - 1.2 Program Management USBR Program Manager has similar responsibilities to the USFWS Program Manager.
 - 1.3 Technical Support USBR's Area Office staff will provide technical support in the development of individual projects.
2. Design and Engineering. Program Managers will coordinate with appropriate offices and divisions within their respective agencies to oversee design and engineering phases.
3. Environmental Documentation and Appraisal Review. Program Managers will coordinate with appropriate offices and divisions within their respective agencies to ensure that all necessary environmental documentation and appraisal reviews are completed.
4. Contracting. The USFWS will issue any necessary construction contracts. The USFWS lead will work with the engineering and contracting offices in the Regional Office.
5. Equipment Purchase and Project Construction. Actual project construction will be carried out by

- station personnel and/or through a contractor.
6. Construction Inspection. Construction inspection will be completed by a designated USBR inspector in conjunction with the USFWS Regional Office engineering and USFWS lead or designated representative.

Additional Funding Needs.

Completed construction for this particular task = approximately \$100,000. This cost includes estimates of electrical modifications/improvements, purchase of a back-up UV system, the demolition of the existing water cistern, the purchase and installation of an on-site water storage/pressure tank, an air compressor, a small building and pad, and trenching and piping for the domestic water delivery system.

B Schedule and Deliverables.

#	Task	Dates		Deliverable
		Start	Complete	
1	Program Management	10/01/01	09/30/02	Final FY 2002 Annual Work Plan
1.1	Program Management (USFWS)	10/01/01	09/30/02	Completion of contracts for design and construction
1.2	Program Management (USBR)	10/01/01	09/30/02	Completion of contracts for design and construction
2	Design and Engineering	10/01/01	04/01/02	Construction plan and associated drawings
3	Environmental Documentation	04/01/02	05/01/02	NEPA or other docs (if necessary)
4	Contracting	05/01/02	06/15/02	Bid solicitation package and selection of contractor
5	Equipment Purchase and Project Construction	04/15/02	09/30/02	Equipment delivery and Partial Construction of separated water systems
6	Project inspection	06/15/02	09/30/02	Acceptance of construction

Explanatory Notes:

Task 5 will require approximately \$100,000 in additional funding to complete. This cost includes estimates of electrical modifications/improvements, purchase of a back-up UV system, the demolition of the existing water cistern, the purchase and installation of an on-site water storage/pressure tank, an air compressor, a small building and pad, and trenching and piping for the domestic water delivery system.

Schedule and Deliverables - Additional Funding Needs.

#	Task	Dates		Deliverable
		Start	Complete	
5	Project Construction	?	?	Completed separation of fire suppression system and drinking water system

Explanatory Notes:

This cost includes estimates of electrical modifications/improvements, purchase of a back-up UV system, the demolition of the existing water cistern, the purchase and installation of an on-site water storage/pressure tank, an air compressor, a small building and pad, and trenching and piping for the domestic water delivery system.

C Summary of Program Costs and Funding Sources.

#	Task	Total Cost	Funding Sources					
			RF	W&RR	Prop 204			
1, 3, 4 and 6	Program Management, Environmental Documentation, Contracting, Construction Inspection	\$ 15,000	\$ 0	\$ 15,000	\$ 0	\$ 0	\$ 0	\$ 0
2	Design and Engineering	\$ 7,500	\$ 0	\$ 7,500	\$ 0	\$ 0	\$ 0	\$ 0
5	Equipment Purchase and Construction	\$ 36,500	\$ 0	\$ 36,500	\$ 0	\$ 0	\$ 0	\$ 0
Total Program Budget		??	??	??	??	??	??	??

Explanatory Notes: Tasks 1, 3,4, and 6, have been combined as they can all be considered part of program/project management.

Program Costs and Funding Sources - Additional Funding Needs.

#	Task	Total Cost	Funding Sources					
			RF	W&RR	Prop 204			
5	Construction	\$ 100,000	\$ 0	\$ 100,000	\$ 0	\$ 0	\$ 0	\$ 0
		\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
		\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
		\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Total Program Budget		\$ 100,000	\$ 0	\$100,000	\$ 0	\$ 0	\$ 0	\$ 0

Explanatory Notes:

Additional Construction costs is an estimate. Actual additional funding needs will be available following completion of Task 2.

This cost includes estimates of electrical modifications/improvements, purchase of a back-up UV system, the demolition of the existing water cistern, the purchase and installation of an on-site water storage/pressure tank, an air compressor, a small building and pad, and trenching and piping for the domestic water delivery system.

D CVPI A Program Budget.

#	Task	FT E	Direct Salary and Benefits Costs	Contracts Costs	Miscellaneous Costs	Administrative Costs	Total Costs
1	Program Mgmt	0.1	\$ 5,000	\$ 0	\$ 0	\$ 2,500	\$ 7,500
1	Program Mgmt	0.1	\$ 5,000	\$ 0	\$ 0	\$ 2,500	\$ 7,500
2	Design and	0.1	\$ 5,000	\$ 0	\$ 0	\$ 2,500	\$ 7,500
5	Equipment		\$ 0				
	Construction	0.1	\$ 5,000	\$ 2,000	\$ 22,000	\$ 7,500	\$ 36,500
		0.0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
		0.0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Total by	0.0	\$ 20,000	\$ 2,000	\$ 22,000	\$ 15,000	\$ 59,000

Explanatory Notes:

Task #1 above also represents estimated expenditures necessary for Tasks 3,4, and 6, which we have considered all part of program/project management.

Miscellaneous Costs under Task 5 represents equipment purchases.

CVPI A Program Budget - Additional Funding Needs.

#	Task	FT E	Direct Salary and Benefits Costs	Contracts Costs	Miscellaneous Costs	Administrative Costs	Total Costs
3	Construction	0.0	\$ 0	\$ 100,000	\$ 0	\$ 0	\$ 100,000
		0.0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
		0.0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
	Total by	0.0	\$ 0	\$ 100,000	\$ 0	\$ 0	\$ 100,000

Explanatory Notes:

Additional Construction costs is an estimate. Actual additional funding needs will be available following completion of Task 2.

This cost includes estimates of electrical modifications/improvements, purchase of a back-up UV system, the demolition of the existing water cistern, the purchase and installation of an on-site water storage/pressure tank, an air compressor, a small building and pad, and trenching and piping for the domestic water delivery system.

Quarterly Obligation/Expenditures.

#	Task	Quarter 1	Quarter 2	Quarter 3	Quarter 4
1	Program Management	\$ 3,000	\$ 4,000	\$ 4,000	\$ 4,000
2	Design and Engineering	\$ 0	\$ 0	\$ 7,500	\$ 0
		\$ 0	\$ 0	\$ 0	\$ 0
Total CVPIA Budget by Quarter		\$ 3,000	\$ 4,000	\$ 11,500	\$ 4,000

Explanatory Notes: Task #1 above also represents estimated expenditures necessary for Tasks 3, 4, and 6, which we have considered all part of program/project management

Explanatory Notes:

Additional Construction costs is an estimate. Actual additional funding needs will be

available following completion of Task 2.

This cost includes estimates of electrical modifications/improvements, purchase of a back-up UV system, the demolition of the existing water cistern, the purchase and installation of an on-site water storage/pressure tank, an air compressor, a small building and pad, and trenching and piping for the domestic water delivery system.

VII Future Years Commitments/Actions.

A-1. General Station Development Plan

- 1.1 Ozone Efficacy Study..... Unfunded
- Sub-Total.....Unfunded^a

A-2 Improve Interpretive/Visitor Use Experience and Safety Measures

- 2.1 Parking improvements and other site work.....Unfunded
- 2.2 Visitors Center/multi-purpose room.....Unfunded
- 2.3 Kiosk and other interpretive signs/exhibits.....Unfunded
- 2.4 Public safety items
 - 2.4a Separate Drinking Water and Fire Suppression Systems.....\$150,000^b
 - 2.4b Guard rails and etc.....Unfunded
 - Sub-Total.....\$150,000^c

A-3. Water Intake Modifications (BOR–Project Management)

- 3.1 Develop and Implement Real-Time Fish Salvage Operations.....
.....
.....
.....
.....Unfunded^d
- 3.2 Planning/Engineering/Evaluation of alternative.....\$100,000
- 3.3 NEPA/CEQA, ESA design data collection.....\$500,000
- 3.4 Permits.....\$75,000
- 3.5 Administration/Overhead.....\$170,000
- Sub-Total.....\$845,000^e

A-4. Building Renovation Projects^f

- 4.1 Incubation Building.....Partially funded..est.\$1,500,000^g
- 4.2 Shop Building.....Unfunded.....est \$650,000
- 4.3 Administration Building.....Unfunded.....est \$100,000

A-5 Facility Electrical Supply Renovation^h

- 5.1 Replacement of main facility electrical distribution system.....Unfunded.....est \$500,000

a-Cost is approximately \$160,000.

b-\$59,000 to be obligated from FY2002 CVPIA funds (FY 2002 AWP)

c-Future funding is necessary to complete items A-2 (estimated @ \$400,000).

d-Annual fish salvage efforts will continue–real-time techniques (fyke nets, screw traps, etc.)
Will
continu
e to be
investig
ated.

e Original expectation of FY 2001 expenditures. Future funding is necessary to complete item A-3 (estimated @ \$5,900,000) A proposal was submitted to CALFED in attempt to secure FY 2002 funding for:

- S Advanced and Final Intake Design Development
- S Intake modification Permitting - Environmental and other
- S Intake modification Project Construction and Implementation

f-Seismic code violations have been identified in all three of these buildings. Many other safety hazards have also been identified due to the age of the buildings.

g-Approximately \$900,000 has already been obligated to this project. An additional \$500,000 may be available from unspent funds from item A-3.

h-During the recent required removal of underground fuel storage tanks a portion of the underground electrical (480V) distribution system was exposed. Upon its exposure it was identified that the burial depth of the cabling system does not meet current electrical code. The burial depth of the cable is currently estimated a one foot below the surface. Current code, however, requires the cable be buried to a depth of approximately six feet. Rectification of this deficiency would require that all electrical distribution lines on the facility are identified and retrenched to allow proper burial depth.

Other Projects

- Construction of a Fish Health Laboratory—current lab located in two of the hatchery residences
- Construction of Additional Raceways—Although the twenty additional 15 ft. x 150 ft. raceways are not currently considered to be needed, smaller rearing units may be required in the future to more efficiently rear fish in light of changing production goals and rearing strategies.
- Increases in water treatment capacity may be necessary consistent with Phase Six and Phase Eight of the Station Development Plan.