

**FY-2002-2003 PROPOSED SCOPE OF WORK for:**  
Grand Valley Project Diversion Dam Fish Passage and Fish Screen Facilities

**Project #: C-23**

Lead Agency: Bureau of Reclamation  
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<u>Category:</u>	<u>Expected Funding Source:</u>
<input checked="" type="checkbox"/> Ongoing project	<input type="checkbox"/> Annual or <input type="checkbox"/> O&M funds
<input type="checkbox"/> Ongoing-revised project	<input checked="" type="checkbox"/> Capital funds
<input type="checkbox"/> Requested new project	<input type="checkbox"/> Other (explain)
<input type="checkbox"/> Unsolicited proposal	

I. Title of Proposal:

Grand Valley Project Diversion Dam Fish Passage and Fish Screen Facilities

II. Relationship to RIPRAP:

Colorado River Action Plan: Mainstem II.B.3 Restore fish passage at Government Highline and Mainstem II.B.3.b Screen Government Highline to prevent fish entrainment

III. Study Background/Rationale and Hypotheses:

The 14-foot-high Grand Valley Project Diversion Dam is owned by the United States and operated by the Grand Valley Water Users Association. Construction of the dam was completed in 1917. The dam is located on the Colorado River, near Cameo CO, approximately 5 miles upstream of the abandoned Price-Stubbs Diversion Dam and 8 miles upstream of the Grand Valley Irrigation Company Diversion Dam. All three of these dams prevent upstream movement of native and non-native fish; however, a fish passage facility was constructed at the Grand Valley Irrigation Company Diversion Dam in 1997. Entrainment of native fish in the Grand Valley Project and Grand Valley Irrigation Company canal systems has been documented. In response to these problems, the Upper Colorado River Recovery Implementation Program (Program) has identified restoration of fish passage at these three dams as well as screening the Grand Valley Irrigation Company and Grand Valley Project canals as important components of

recovery efforts for Colorado pikeminnow and razorback sucker.

The Program has adopted 3/32" wedge wire screening material as a standard as it prevents entrainment of a wide range of fish life stages, minimizes operation and maintenance problems and represents proven state-of-the-art technology. All screening and passage alternatives will emphasize minimization of fish mortality and operational impacts to the canal system.

#### IV. Study Goals, Objectives, End Product:

Goal: Screen and restore fish passage at the Grand Valley Project Diversion Dam and canal.

Objectives:

1. Conduct preconstruction planning and environmental compliance activities leading to selection of a preferred alternative.
2. Prepare designs, specifications, O&M contract and cost estimates leading to construction contract award.
3. Provide construction management services resulting in construction of the fish screen and passage facilities.

#### V. Study area: The Grand Valley Project Diversion Dam is located on the Colorado River, near Cameo CO, approximately 5 miles upstream of the abandoned Price-Stubb Diversion Dam and 8 miles upstream of the Grand Valley Irrigation Company Diversion Dam.

#### VI. Study Methods/Approach

A public scoping process will be conducted to identify issues and concerns regarding the proposal to screen and restore fish passage at Grand Valley Project Diversion Dam. A range of alternatives will be formulated to achieve the fish passage and screening goals and address issues and concerns. The alternatives will be presented and analyzed in a Draft Environmental Assessment (DEA). The Program Director's staff and Biology and Water Acquisition Committees will be consulted to provide technical input in the process leading to selection of a preferred alternative. Following completion of the planning and permitting phase, final designs, specifications and cost estimates will be prepared and a contract awarded to construct the preferred alternative.

#### VII. Task Description and Schedule

1. Conduct geotechnical investigations (Ongoing)

2. Formulate range of alternatives (FY 2002)
3. Conduct public scoping process (FY 2002)
4. Prepare DEA (FY 2002)
5. Assuming Finding of No Significant Impact (FONSI) prepare Final Environmental Assessment (FEA) (FY 2002)
6. If significant impacts, associated with the preferred alternative, are identified prepare Environmental Impact Statement (EIS). (FY 2002 - FY 2003)
7. Prepare final designs, specifications, O&M contract, cost estimates and award construction contract (FY 2002, assumes FONSI/FEA)
8. Construct fish passage and screen (FY 2003 - FY 2004, assumes FONSI/FEA)
9. Operate and evaluate fish screen and passage facilities and modify if required (FY 2005, assumes FONSI/FEA)
10. Long term operation and maintenance of fish screen and passage facilities (Ongoing after FY 2005)

VIII. FY-2002 Work

Task 1. Conduct geotechnical investigation

- Deliverables/Due Dates - Geotechnical data on foundation conditions at the Grand Valley Project Diversion Dam (ongoing)
- Budget
 

- Labor - 9 work weeks	\$13,500
- Travel	\$5,000
- Equipment - Drill Rig Rental	\$7,500
- Other	<u>    \$0</u>
- Total	\$26,000

Task 2. Formulate range of alternatives

- Deliverables/Due Dates - Value Engineering Report documenting analysis of alternative fish passage and fish screen facilities (ongoing)
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- Budget
 

- Labor - 12 work weeks	\$24,000
- Travel	\$4,000

-	Equipment	\$0
-	Other	<u>\$0</u>
-	Total	\$28,000

Task 3. Conduct public scoping process (ongoing)

-	Deliverables/Due Dates - Summary of issues, concerns and comments	
-	Budget	
-	Labor - 2 work weeks	\$3,000
-	Travel	\$0
-	Equipment	\$0
-	Other	<u>\$0</u>
-	Total	\$3,000

Task 4. Prepare DEA

-	Deliverables/Due Dates - DEA - schedule dependent on number and significance of issues and concerns (January 2002)	
-	Budget - dependent on number and significance of issues and concerns	
-	Labor - 4 work weeks	\$7,500
-	Travel	\$0
-	Equipment	\$0
-	Other	<u>\$0</u>
-	Total	\$7,500

Task 5. Prepare FONSI/FEA

-	Deliverables/Due Dates - FONSI/FEA (March 2002)	
-	Budget - dependent on number and significance of issues and concerns	
-	Labor - 8 work weeks	\$15,000
-	Travel	\$0
-	Equipment	\$0
-	Other	<u>\$0</u>
-	Total	\$15,000

Task 7. Prepare final designs, specifications, O&M contract, cost estimates and award construction contract

-	Deliverables/Due Dates - Construction contract (June 2002, assumes FONSI/FEA)	
-	Budget - dependent on type of structures selected as preferred alternatives	

- Labor - 208 work weeks	\$416,000
- Travel	\$20,000
- Equipment	\$5,000
- Other - Construction contract	<u>\$2,709,500</u>
- Total	\$3,150,500

FY - 2002 Total.....\$3,230,000

FY-2003 Work

Task 8. Construct fish passage and screen

- Deliverables/Due Dates - Fish passage and screen (March 2004)	
- Budget - dependent on types of structures selected as preferred alternatives	
- Labor - 247 work weeks	\$494,000
- Travel	\$20,000
- Equipment	\$5,000
- Other - Construction contract	<u>\$1,031,000</u>
- Total	\$1,550,000

Task 9. Operate and evaluate fish passage

- Deliverables/Due Dates - (September 2003)	
- Budget	
- Labor - 26 work weeks	\$30,000
- Travel	\$4,000
- Equipment	\$16,000
- Other	<u>\$0</u>
- Total	\$50,000

FY - 2003 Total.....\$1,600,000

Out Year Funding Needs - Current out year capital funding allocation associated with fish screening facility at Grand Valley Project Diversion Dam is \$3,450,000. Actual capital and annual O&M costs are dependent on numerous variables including alternative selected, rate of inflation and economic condition of the construction industry.

IX. Budget Summary - See current Capital Project Discussion Work Plan

X. Reviewers

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XI. References