

**COLORADO RIVER RECOVERY PROGRAM**  
**FY-2006-2007 PROPOSED SCOPE OF WORK for:**  
(Passage O&M: Grand Valley Project)

Project No.: C-4b-GV

Lead Agency: Fish and Wildlife Service  
Colorado River Fishery Project  
Submitted by: Chuck McAda, Project Leader  
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Date: 16 May 2003 (revised 6/23/03; 10/1/03 by Pat Nelson; 2/13/04; 3/14/05 and 7/05/05 by Chuck McAda)

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

I. Title of Proposal: **Annual operation and maintenance of the fish passage structure at the Government Highline Diversion Dam on the Upper Colorado River**

II. Relationship to RIPRAP:

Colorado River Action Plan: Mainstem  
II.B.3. Restore fish passage at Government Highline Dam (Grand Valley Project)  
II.B.3.a.(3) Operate and maintain fish ladder.  
II.B.3.a.(4) Monitor and evaluate success.

III. Study Background/Rationale and Hypotheses:

Government Highline Dam

The fish passage at Government Highline Diversion Dam on the Upper Colorado River at the lower end of Debeque Canyon was scheduled to be operational 1 August 2004. It also has been designed for selective fish passage. Although the passage was completed in August 2004, it was not operated in 2004 and will not be operated in 2005 except on a trial basis.

IV. Study Goals, Objectives, End Product:

Government Highline Passageway

Operate the fish passage for the entire season from early-April through the first of October. Collect data on the number of large-bodied fish, different fish species, and seasonal distribution of fish that use this passageway. Summarize the annual results of passageway fish use in the annual RIP report.

V. Study area

Colorado River: river mile 193.7.

VI. Study Methods/Approach

For 2006 the fish passageway will be operated on an experimental basis. Operations will consist of 10 days per month for a total of 5 months (May through September) In 2007, it is assumed that the fish passageway at Government Highline will be operated for the entire season which will be from early-April through the first of October. As at the Redlands fishway, the passageway at Government Highline has a fish trap that requires workers to remove and sort fish.

The trap is designed to collect large-bodied fish. Depending upon manpower, the fish trap at the passageway at each site will be run at least every other day, Monday through Friday, and where possible every weekday. All fish will be sorted by species and counted. Vital statistics including length, weight, and PIT-tag ID's will continued to be collected for all listed species found in the trap. On the weekend, the trap will be checked for listed fishes, only. Because of Recovery Program priorities for control of nonnative fishes in the Colorado River, all smallmouth bass and largemouth bass captured will be sacrificed, preserved, and provided to the Colorado Division of Wildlife for the stable isotope study. Other introduced species (e.g., green sunfish, black bullhead, white sucker, channel catfish) collected will be sacrificed and disposed of in a manner that will not constitute a nuisance or as otherwise directed by CDOW.

In addition to collecting and counting fish in the fish trap, FWS personnel will be responsible for periodic cleaning of river borne sediment in the fish trap and routine cleaning of surface and submerged trash, debris, and river borne algae from the trash grates and bar screens in the forebay of the passageway. FWS personnel will also be responsible for opening and winterizing the passageway.

VII. Task Description and Schedule

Description

Task 1. O & M of Government Highline fish ladder and fish trap which includes monitoring the fish trap, sorting, examining, and enumerating all fish in addition

to removing and disposing of all non native fish; removing sediment from the trap and cleaning trash and debris from the trash racks, bar screens, fish trap, and fishway entrance.

Task 2. Compile, computerize, and summarize fish use data; prepare annual RIP report.

Schedule

Task 1. 4/2006 – 10/2006; 4/2007 – 10/2007

Task 2. 10/2006 – 11/2006; 10/2007 – 11/2007: (report on 2006 & 2007 passageway results)

VIII. FY-2006 Work (year 2 of multi-year study)

Deliverables/Due Dates:

Annual Report due: 11/2006

Budget (actual salary rates w/ benefits provided by CRFP Administrative Officer used for labor)

Tasks 1 & 2. Experimental O & M of the fish passageway and fish trap at Government Highline Diversion Dam (10 days per month/ 5 months): monitor fish trap; sort, examine, and enumerate all fish, remove non native fish; compile, computerize, and summarize fish use data; prepare and submit annual RIP report

Labor (salaries and benefits)

Fishery Biologist (1-GS-12@ 1,846)	6 weeks	\$ 11,076
Biological Technicians (GS-5/6@ 658)	10 weeks	<u>\$ 6,580</u>
	Subtotal	\$ 17,656

Equipment/Supplies

FWS Vehicle maintenance, GSA-lease (2 months @300/month)		\$ 600
FWS vehicle gasoline and maintenance (@\$0.40/mile: 64 miles round trip x 50 trips)		\$ 1,880
dip nets, rakes, other equipment; herbicide for spraying weeds		\$ 500
office supplies		\$ 500
Supplies for constructing shelves in the metal storage building		<u>\$ 750</u>
	Subtotal	\$ 3,630

Operation and Maintenance (@ Government Highline)	
Annual Energy Costs: propane: \$ 1,200: assumed \$ 2.40/gal, 500 gal tank [propane used to operate sump pump, overhead cranes]	\$ 1,200
Maintenance/Service on Propane-powered generator	
On-site servicing of air/oil filters, spark plugs (Source: Rocky Mountain Cummins–Grand Junction–as per Beth/Donna)	<u>\$ 500</u>
Subtotal	\$ 1,700
<b>FY2006</b>	<b>Total \$ 22,986</b>

FY-2007 Work (year 3 of multi-year study)

Deliverables/Due Dates:

Annual Report due: 11/2007

Budget

Tasks 1 & 2. Routine O & M of the fish passageway and fish trap at Government Highline Diversion Dam (6 months): monitor fish trap; sort, examine, and enumerate all fish; remove non native fish; compile, computerize, and summarize fish use data; prepare and submit annual RIP report

Labor (salaries and benefits)		
Project Leader (1-GS-14@ 2,096)	2 weeks	\$ 4,192
Fishery Biologist (1-GS-12@ 1,902)	8 weeks	\$ 15,216
Biological Technicians (GS-5/6@ 678)	15 weeks	\$ 10,170
Admin. Assistant (1-GS-9, @ 1,372)	2 weeks	<u>\$ 2,744</u>
Subtotal		\$ 32,322

Equipment/Supplies

FWS Vehicle maintenance, GSA-lease (2 months @300/month)	\$ 600
FWS vehicle gasoline and maintenance (@\$0.40/mile: 64 miles roundtrip x 135 trips)	\$ 3,456
Dip nets, rakes, misc equip, herbicide.	\$ 500
Office supplies	<u>\$ 500</u>
Subtotal	\$ 5,056

Operation and Maintenance (@ Government Highline)	
Annual Energy Costs: propane: \$ 1,200: assumed \$ 2.47/gal, 500 gal tank. propane used to operate sump pump, overhead cranes	\$ 1,236
12-volt DC battery (for starting propane generator)	\$ 90
Maintenance/Service on Propane-powered generator	
On-site servicing of air/oil filters, spark plugs (Source: Rocky Mountain Cummins-Grand Junction-as per Beth/Donna)	<u>\$ 515</u>
Subtotal	\$ 1,841
<b>FY2007</b>	<b>Total \$ 39,219</b>

IX. Budget Summary

FY-2006	\$ 22,986
<u>FY-2007</u>	<u>\$ 39,219</u>
Total:	\$ 62,205

X. Reviewers: N/A

XI. References

None

Prepared and compiled by: Bob D. Burdick, 21 April 2005  
revised CWM, July 5, 2005  
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