

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

Project No.: C-4b-GVP

Note: Funding for this project in FY-2007 was reduced by \$ 27,627. The remaining funding was re-allocated to two other projects: 1) RP Project No.: 126, Removal of Smallmouth Bass in the Upper Colorado River between Price-Stubb Dam near Palisade, Colorado, and Westwater, Utah, (\$ 12,384) and 2) RP Project No.: 121a, Evaluation of Stocked Razorback Sucker and Colorado Pikeminnow in the Gunnison River (\$ 14,793) for FY-2007.

Lead Agency: Fish and Wildlife Service

Colorado River Fishery Project

Submitted by: Bob D. Burdick, Fishery Biologist (lead)

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Date: 16 May 2003 (revised 6/23/03; 10/1/03 by Pat Nelson; 2/13/04; 3/14/05; 7/05/05 by Chuck McAda; revised 3/21/2007 by BDB)

<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

was designed for selective fish passage. Although the passage was completed in August 2004, it was not operated in 2004. In both 2005 and 2006, it was operated only 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. **(Deferred until fish passage at Price-Stubb is completed and fish passage is contiguous in the Upper Colorado River. At such time, which is anticipated in 2008, Grand Valley fish passage will be operated full time between mid-April and mid-October.)**

V. Study Area

Colorado River: river mile 193.7.

VI. Study Methods/Approach

2005 Results

The fishway was operated on a trial basis for 6 days each in mid-June and late-September. In June, 2,527 fish were processed in the fish trap that included one razorback sucker and one humpback chub. In September, 2,111 fish were processed that included two humpback chub.

2006 Results

During 2006 the fish passageway was operated on an experimental basis. Operations consisted of 10 days per month for a total of 5 months (late-April through late-September). As at the Redlands fishway, the passageway at the Grand Valley Project 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 was run at least every other day, Monday through Friday, and where possible every weekday. All fish were be sorted by species and counted. Vital statistics including length, weight, and PIT-tag ID's were collected for all listed species found in the trap. No endangered fish were caught during 2006 in the fish trap. A total of 11,978 fish were processed in the fish trap; 90% of these were native fishes.

In addition to collecting and counting fish in the fish trap, FWS personnel were 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 were also responsible for opening and winterizing the passageway.

2007 Plans

Fish passage at Price-Stubb Dam 5.4 miles downstream is now planned to be completed sometime in the spring of 2008. The fish passage at Government Highline has now been operated on a experimental trial basis for 2 years, 2005 and 2006. Most of the “bugs”, mechanical problems, and unknowns associated with operating fish passage at this site have been identified and corrected during this trial period. During low river flow and high irrigation demand months (i. e., July to September), we have identified the necessary threshold river discharges at the Cameo USGS gauging station that we can minimally operate the fish passage (with and without attraction flows) without impacting the capability of diverting river water into the Government High Canal.

Until fish passage is completed at the downstream Price-Stubb Dam, fish passage at the upstream Grand Valley Project will not be fully operational. Therefore, during 2007, the plan is to perform sediment maintenance only. No biological data will be collected from the fish trap. Sediment has continued to accrue on the fish passage side of the river and an island now has formed in front of the attraction flow gate. During the height and descending limb of spring runoff on the Upper Colorado River, the fish passage will be continuously operated to flush built up sediment through the fish ladder. Both the fish ladder and attraction flow will be opened. Operation of the fish ladder during this time should not impact the diversion capabilities of the Grand Valley Project. In the fall, when irrigation demand lessens we again plan to flush sediment that had accreted at the head end of the fish ladder and attraction flow entrance. During these periods, personnel will need to visit the site daily to clean and remove trash and debris from the trash racks and bar screens to maintain water velocity and water depth in the fish ladder for optimal sediment flushing. Any and all fish remaining in the fish trap and dewatered section of the fish ladder will be manually removed and returned to the river after each flushing session.

VII. Task Description and Schedule

Description

- Task 1. O & M of Government Highline fish ladder includes **regulating river water through the fish ladder and attraction flow to remove sediment from the fishway and cleaning trash and debris from the trash racks, bar screens, fish trap, and fishway entrance; noxious weed control; removing all stranded fish in the fish trap and dewatered portion of the fish ladder.**

Task 2. Prepare annual RIP report.

Schedule

Task 1. 5/2007 – 7/2007; 9/2007 – 10/2007

Task 2. 10/2007 – 11/2007

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

Deliverables/Due Dates:

Annual Report due: 11/2007

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

Tasks 1 & 2. O & M of the fish passageway at Government Highline Diversion Dam: **regulate river water through the fish ladder and attraction flow to remove sediment from the fishway**; clean trash and debris from the trash racks, bar screens, fishway entrance, fish trap; **remove all stranded fish in the fish trap and dewatered portion of the fish ladder**; **noxious weed control**; prepare and submit annual RIP report

Labor (salaries and benefits)

Project Leader (1-GS-14 @ 2,180)	0.5 week	\$ 1,090
Fishery Biologist (1-GS-12 @ 1,902)	2.5 weeks	\$ 4,913
Biological Technician (GS-5 @ 613)	5 weeks	\$ 3,065
Admin. Assistant (1-GS-9, @ 1,365)	0.5 week	\$ 683
	Subtotal	\$ 9,751

Equipment/Supplies

FWS Vehicle maintenance, GSA-lease (2 months @300/month) \$ 600		
FWS vehicle gasoline and maintenance (@\$0.49/mile: 64 miles round trip x 30 trips)		\$ 941
Rake repair, herbicide for spraying weeds		\$ 200
Office supplies		\$ 100

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 (costs to be covered by future O & M agreement w/ Grand Valley Water Users)		\$ 0
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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) (costs to be
covered by future O & M agreement w/
Grand Valley Water Users)

\$ 0
Subtotal \$ 1,841

FY2007 Total \$ 11,592

IX. Budget Summary

FY-2007 \$ 11,592 (originally \$ 39,219)

Grand

Total: \$ 11,592

X. Reviewers: N/A

XI. References: None

Prepared and compiled by: Bob D. Burdick, 21 April 2005
revised CWM, July 5, 2005; BDB March 21, 2007
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