

COLORADO RIVER RECOVERY PROGRAM  
FY 2012 ANNUAL PROJECT REPORT

RECOVERY PROGRAM  
PROJECT NUMBER: C4b-GV

I. Project Title: **Annual Operation and Maintenance of the Fish Passage Structure at the Government Highline Diversion Dam on the Upper Colorado River**

II. Bureau of Reclamation Agreement Number(s): R10PG40042

Project/Grant Period: Start date: 10/1/2006  
End date: 9/30/2012  
Reporting period start/end date: 10/1/2011 to 9/30/2012  
Is this the final report? Yes X No \_\_\_\_\_

III. Principal Investigator(s):

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IV. Abstract:

The purpose of this project is to collect and summarize annual data on the number of large-bodied fish, different fish species, and seasonal distribution of fish that use the fish passageway at the Government Highline Diversion Dam on the Upper Colorado River in Debeque Canyon. For FY 2012, the fish passageway & fish trap were not operated due to insufficient flows. In 2012, fish use was not documented and therefore no biological data were collected from the fish trap.

V. Study Schedule:

- a. initial year: 2004
- b. final year: Ongoing

VI. Relationship to RIPRAP: Colorado River Action Plan: Colorado River II.B.3.a (4). Operate, monitor, and evaluate the success of fish passage at Government Highline Diversion Dam.

VII. Accomplishment of FY 2012 Tasks and Deliverables, Discussion of Initial Findings and Shortcomings:

### Fish Passage

For FY 2012, the fish passageway & fish trap were not operated due to insufficient flows. In 2012, fish use was not documented and therefore no biological data were collected from the fish trap.

For previous years catch please see Appendix tables 1 and 2.

### Operation and Maintenance

Annual grounds (weed management etc.) maintenance was completed in FY 2012.

## VIII. Recommendations:

### A. Biological:

1. Continue to collect information on the number of fish, by species, in the fish trap of the Government Highline fish passageway in 2013 starting about 15 April and running through mid-October.

### B. Operation and Maintenance:

1. To maintain optimum performance of the fish passageway, sediment maintenance should be performed on “as needed basis” to remove sediment and debris from the forebay of the fishway and attraction flow intakes to prevent buildup and compaction of sediment. This could be performed coincident with the removal of sediment and debris from the Price-Stubb fish passage 5 miles downstream from the fish passage Grand Valley Water User’s diversion dam with a trackhoe in mid-July or early-August following runoff. It is also necessary to dredge out sediment where the 12-inch pipe returns processed fish from the passageway to prevent fish stranding and possible death.
2. A large vegetated sediment bar continues to accrue in front of the intakes of the attraction flow grates and upstream to the inflow of the fishway itself. In 2009, river flows in August and September become low enough that fish exiting the pipe immediately upstream of the fish passage intake became stranded on a sediment bar in the river. As a result, to prevent stranding and possible death, fish had to be manually moved to the river upstream of this point to a deeper section of river.

IX. Project Status: “on track and ongoing”

X. FY 2012 Budget Status

- A. Funds Provided: 51,120
- B. Funds Expended: 51,120
- C. Difference: -0-
- D. Percent of the FY 2012 work completed, and projected costs to complete: 100%
- E. Recovery Program funds spent for publication charges: -0-

XI. Status of Data Submission (Where applicable): *N/A*

XII. Signed: Travis Francis      11/01/2012  
Principal Investigator      Date

APPENDIX:

**Table 1.** Number of Colorado pikeminnow, razorback sucker, bonytail and humpback chub captured in the fish trap of the Grand Valley Water User's passageway between 2005 and 2012.

<u>Year</u>	<u>No. of Colorado pikeminnow</u>	<u>No. of Razorback sucker<sup>a</sup></u>	<u>No. of Bonytail</u>	<u>No. of Humpback Chub</u>
2004	fish passageway & fish trap not run due to insufficient flows			
2005	0	1	0	3
2006	0	0	0	0
2007	fish passageway run for sediment maintenance only (fish trap not run)			
2008	0	1	0	0
2009	0	0	0	0
2010	0	0	0	0
2011	0	0	22	3
2012	fish passageway & fish trap not run due to insufficient flows			
Totals	0	2	0	6

<sup>a</sup> all razorback sucker captured in the fish trap were from fish originally stocked in the Colorado and Gunnison rivers.

**Table 2.** Comparison of the total number of fish, total native vs. nonnative fishes, and percent composition of native and nonnative fish captured in the fish trap of the Grand Valley Water User's passageway between 2005 and 2012.

<u>Year</u>	<u>Total Number of Fish</u>	<u>Total Native</u>	<u>Total Nonnative</u>	<u>Percent Composition</u>	
				<u>Native Fishes</u>	<u>Nonnative Fishes</u>
2004		fish passageway & fish trap not run due to insufficient flows			
2005	4,638 <sup>a</sup>	2,867	1,771	61.8	38.2
2006	11,978 <sup>b</sup>	10,747	1,231	89.7	10.3
2007		fish passageway run for sediment maintenance only (fish trap not run)			
2008	10,788 <sup>c</sup>	9,663	1,125	89.6	10.4
2009	12,402 <sup>d</sup>	11,286	1,116	91.0	9.0
2010	18,390 <sup>e</sup>	16,358	2,032	89.0	11.0
2011	8,875 <sup>f</sup>	6,870	2,005	77.4	22.6
2012		fish passageway & fish trap not run due to insufficient flows			
<b>Totals</b>	<b>67,071</b>	<b>57,791</b>	<b>9,280</b>	<b>86.2</b>	<b>13.8</b>

<sup>a</sup> Fish trap operated for 12 days (June and September).

<sup>b</sup> Fish trap operated for 41 days (five, 2-week periods).

<sup>c</sup> Fish trap operated continuously between May 2 and October 15.

<sup>d</sup> Fish trap operated continuously between April 20 and October 15.

<sup>e</sup> Fish trap operated continuously between April 16 and October 15.

<sup>f</sup> Fish trap operated continuously between April 19 and October 14.