

I. Project Title: **Retrieval of native fish from GVIC and GVP canals**

II. Principal Investigator(s):

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III. Project Summary:

A fish screen was constructed on the Grand Valley Irrigation Company (GVIC) irrigation canal in winter 2001 – 2002. However, the fish screen has not been operated for a full field season since its installation. Operational problems or lack of ‘fish water’ has meant that it has been pulled for at least part of the irrigation season every year since its installation. This program was originally intended as a monitoring program to compare numbers of fish collected from the canals pre and post implementation of the screen. However, since the screen has never been fully operational, it is primarily a fish salvage operation. Fish salvage is also done on the Government Highline canal which does not yet have an operational fish screen on it. The screen was completed in summer 2005, but is not yet operational.

Fish salvage is conducted by driving major portions of the canals looking for pools of water that contain fish after the irrigation water is turned off for the year. The irrigation diversions are halted in early November. The pools are sampled with electrofishing or seines. All native fish collected are identified and loaded into a hatchery truck for release in the Colorado River. Total numbers of fish collected and transported are recorded.

IV. Study Schedule: 2004–2005

V. Relationship to RIPRAP: Colorado River Action Plan: Mainstem

II.B.1.b. Screen GVIC diversion canal to prevent endangered fish entrainment.

II.B.3.b. Screen Government Highline diversion canal to prevent endangered fish entrainment.

VI. Accomplishment of FY 05 Tasks and Deliverables, Discussion of Initial Findings and Shortcomings:

The work reported here was done in November 2004, shortly after the beginning of the FY 05 fiscal year. Work is currently being conducted in November, 2005 (FY 06) and will be reported in next year's annual report.

Sampling in 2004 was hindered by rainy weather which made the canals roads muddy and difficult to travel. At the request of the water users, we stayed off of the worst sections of roads which were subject to being rutted by our trucks and equipment. We concentrated on sections with firm bases or sections that had dried out sufficiently between rain storms.

Grand Valley Irrigation Company. Parts of the canal were sampled from the diversion dam in the Colorado River to just west of 16 Road. Sampling was limited to areas where the roads were dry enough to travel with our heavy vehicles without doing damage to the surface. Crews traveled the canal road and sampled every pool encountered that could hold fish. A total of 1,783 flannelmouth suckers, 588 roundtail chubs, and 22 bluehead suckers were collected and stocked into the Colorado River. As in 2003, most of the fish were collected in the upper portion of the canal. No endangered fish were collected in 2004.

Grand Valley Water Users Association. The Highline Canal was sampled from just downstream of the diversion dam to about 18 road when the roads were dry enough to travel. As with the GVIC canal, sampling crews traveled the canal roads searching for pools of water that might hold fish. Pools were sampled using either electrofishing or seines. A total of 893 flannelmouth sucker, 5,166 roundtail chub, and 118 bluehead sucker were collected from the canal. In addition, 24 endangered Colorado pikeminnow were found in the canal.

Two of the Colorado pikeminnow were adults that had been stocked upstream from the diversion dam as part of a study conducted in 2000 and 2001. One of these fish was a wild adult that had been captured from the Colorado River, equipped with a radio tag and translocated upstream (Burdick 2003). It was stocked in May of 2001 at a length of 622 mm and was 685 mm long when recaptured. The other fish was part of a group (246) of hatchery fish stocked as subadults (Burdick 2003). Average length of these fish was 200 mm and they were also stocked in May of 2001. This fish was 502 mm long when it was recaptured. These two fish had resided in the upper river for about 3.5 yr before they moved downstream into the canal.

The remaining Colorado pikeminnow were from two stockings done by the Colorado Division of Wildlife near Rifle in 2004. One group (1,165 fish) was stocked in May and the other group was stocked in September (650 fish). Five fish found in the canal were from the May stocking and 17 were from the September stocking. The five fish stocked in May had grown an average of 67 mm when recaptured. The 17 fish from the September stocking had not grown appreciably at recapture.

VII. Recommendations: Complete the fish screen on the Government Highline Canal and ensure that it and the screen on the GVIC canal are operated year round.

VIII. Project Status: Project is on track.

IX. FY 05 Budget

A. Funds Provided:	22,900
B. Funds Expended:	22,900
C. Difference:	0
D. Publication Charges:	0

X. Status of Data Submission: Tagging data from 2004 has been added to the upper basin database.

XI. Signed: C.W. McAda, November 18, 2005

Literature Cited

Burdick, B.D. 2003. Evaluation of stocking sub-adult Colorado pikeminnow via translocation in the upper Colorado River between Palisade and Rifle, Colorado. Final Report to the Recovery Program for the Endangered Fishes of the Upper Colorado River, Project Number 105. U.S. Fish and Wildlife Service, Grand Junction, Colorado.