COLORADO RIVER RECOVERY PROGRAM
FY 2012 ANNUAL PROJECT REPORT

PROJECT NUMBER: 29a

I. Project Title: Propagation Facilities, in the Grand Valley (Ouray National Fish Hatchery (Grand Valley Unit), Horsethief Ponds, and grow-out ponds), for Captive Rearing of Endangered Fishes for the Upper Colorado River Basin.

II. Bureau of Reclamation Agreement Number(s): R10PG40080

   Project/Grant Period:
   Start date (Mo/Day/Yr): 10/01/2006
   End date: (Mo/Day/Yr): 09/30/2012
   Reporting period end date: 09/30/2012
   Is this the final report? Yes No X

III. Principal Investigator(s):

   Thad Bingham, Fish Biologist (Lead)
   Brian Scheer, Fish Biologist (Lead)
   Dale Ryden, Project Leader
   Ouray National Fish Hatchery, Grand Valley Unit
   1149 24 Road
   Grand Junction, Colorado 81505
   (970) 245-9236

   E-mail: thad_bingham@fws.gov
           brian_scheer@fws.gov
           dale_ryden@fws.gov

IV. Abstract:

   Ouray National Fish Hatchery - Grand Valley Unit (NFH-GVU) consists of several facilities near Grand Junction, CO. These facilities include the Horsethief Rearing Ponds, the 24 Road Hatchery building, numerous other grow-out ponds, and the newly constructed Horsethief Canyon Native Fish Facility (a 22-pond production and grow-out facility built in 2012).

   Ouray NFH-GVU produces razorback sucker to be stocked into the Colorado, Green, and Gunnison rivers in accordance with approved stocking plans. Broodstock are spawned in spring. Eggs are reared at the 24 Road Hatchery building for 1 year (excess fry are discarded). After a year, fish are stocked into grow-out ponds and held for 6 months. They are then harvested and stocked. Additional fish are held at 24 Road Hatchery until they reach about 300 mm total length and are then stocked directly into upper basin rivers.

FY 2012 Ann. Rpt. Project # 29a - 1
A Total 15,722 (average total length = 266mm) razorback sucker were stocked in 2012 from the hatchery and grow-out ponds, versus the target stocking number of 14,895.

V. Study Schedule: 2010 to end of Recovery Program.

VI. Relationship to RIPRAP: General Recovery Program Support Action Plan

IV.A. Genetic Management
   IV.A.1. Augment razorback sucker
   IV.A.4. Secure and manage genetic stocks in refugia
IV.C. Operate and maintain facilities

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

Grand Valley Unit Intensive Culture Hatchery (aka 24 Road Hatchery)

Prior to spawning in April, 2012, about 21,000 age-1 razorback sucker were stocked into various grow-out ponds in the Grand Valley from the Grand Valley Unit. These fish represented young from 14 different paired matings of broodstock performed in April 2012. Fish were stocked as a mixture of fish from each lot. Fish from the different lots were stocked in equal numbers in each pond. These fish were not PIT tagged so that individuals from the different lots will not be identifiable at harvest time.

In 2012, 7,597 fish were held in the hatchery and reared to stocking size. Of the 7,597 fish, 5,216 were stocked into the Green River and 1,681 into the Upper Colorado River at Rifle. The additional 700 fish that were held in the hatchery were stocked into pond 12 at the newly-constructed Horsethief Canyon Native Fish Facility (HCNFF) ponds. They were held for 2 months (on a trial basis) and then stocked into the Colorado River at Riverbend Park in Palisade, CO (n = 695 fish). Total length of all fish stocked from the Hatchery and HCNFF averaged 320 mm.

In spring 2012, a new flow-through egg incubation system was installed at the 24 Road Hatchery building. In April 2012, razorback sucker broodstock held at the old Horsethief Rearing Ponds were spawned and the eggs were transferred to this egg incubation system at the 24 Road Hatchery building. Hatching rates for razorback sucker eggs were the highest ever observed, with 75% of all eggs successfully hatching into fry. 300,000+ excess fry were discarded. The hatchery is currently holding about 19,000 3-5 inch fish for stocking in 2013. These fish are from 14 individual paired matings. 15,000 of these will be used to meet the stocking quota of 10,000 razorback sucker for 2013. The additional 4,000, will be used to meet the stocking request of 2,500–4,000 razorback sucker for the San Juan River Basin Recovery implementation Program (SJRBRIP).

Horsethief Ponds

In October 2012, about 400 adult razorback sucker broodstock that were held at the older Horsethief Rearing Ponds were transferred to the newly-constructed HCNFF. These fish will be used for future spawning. The plan is for the older Horsethief Rearing Ponds to now be used as seasonal grow-out ponds.

Grow-out Ponds

In fall 2012, 8,130 razorback suckers were harvested from other leased or free grow-out ponds (not including the Horsethief Rearing Ponds or HCNFF) around the Grand Junction area and stocked into the Colorado River near Rifle (1,808 fish), the Colorado River near Grand Junction (2,767 fish), and the Gunnison River (3,555 fish). No fish from leased or free grow-out ponds were stocked into the Green River.

As in previous years, all leased ponds required sampling with fyke nets which is less than 100% effective. Harvest effort was increased this year to attempt to capture fish missed from previous years. This effort was minimally successful at best. Overall growth in the ponds this year was slower than in the past years. The newly-constructed HCNFF will alleviate the management problems associated with currently-leased grow-out ponds. Leases expire on all currently-leased grow-out ponds in 2012, with the exception of Morse Pond, whose lease was renewed in 2010. Morse Pond, Peters Ponds and a small handful of other “free” grow-out ponds will continue to be used as necessary in future years as we continue to evaluate management options to improve the survival and growth of razorback suckers produced in grow-out ponds.

Construction of the new non-native fish facility at Snook’s Bottom was completed in September, 2012. Production and grow-out will begin at the HCNFF in spring 2013.

Stocking Summary

A total 15,722 (average total length = 266mm) razorback sucker were stocked in 2012 from the hatchery and grow-out ponds. Stocking numbers versus actual numbers of fish stocked in 2012 were as follows:

<table>
<thead>
<tr>
<th>Location</th>
<th>Target Number</th>
<th>Actual Number Stocked</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper Colorado</td>
<td>3,310</td>
<td>3,489</td>
</tr>
<tr>
<td>Colorado River in Grand Valley</td>
<td>3,310</td>
<td>3,462</td>
</tr>
<tr>
<td>Gunnison River</td>
<td>3,310</td>
<td>3,555</td>
</tr>
<tr>
<td>Green River</td>
<td>4,965</td>
<td>5,216</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td><strong>14,895</strong></td>
<td><strong>15,722</strong></td>
</tr>
</tbody>
</table>
VIII. Recommendations:

1) Continue management and operation of Ouray NFH – GVU facilities to serve as a primary refuge for endangered fishes of the Upper Colorado Basin.
2) Continue production, grow-out, and stocking of razorback sucker (and other native, endangered fish species as appropriate) to meet stocking goals set forth in approved stocking plans by the Upper Colorado River Endangered Fish Recovery Program (UCREFRP) and secondarily by the SJRBVIP.

IX. Project Status: Project is on track and ongoing.

X. FY 2012 Budget Status

A. Funds Provided: $508,816
   a. $465,816 to Ouray NFH-GVU
   b. $43,000 to Bureau of Reclamation (to pay gas, electricity, phone)
B. Funds Expended: $508,816
C. Difference: $0
D. Percent of the FY 2012 work completed, and projected costs to complete: 100% complete
E. Recovery Program funds spent for publication charges: $0

XI. Status of Data Submission (Where applicable): All PIT tag data were submitted to the UCREFRP database manager in October 2012

XII. Signed: Brian Scheer, Thad Bingham & Dale Ryden  11/14/2012
     Principal Investigator(s) Date