

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 & R13PG40018

Project/Grant Period: Start date (Mo/Day/Yr): 6/3/2013
End date: (Mo/Day/Yr): 9/30/2017
Reporting period end date: 9/30/2013
Is this the final report? Yes _____ No X

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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 (HCNFF), 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 incubated and hatched at the 24 Road Hatchery building. Larval fish are stocked both into HCNFF for production purposes, as well as being retained at the 24 Road Hatchery building to facilitate maintaining separate family lots for broodstock recruitment. In the fall of each year, fish from production ponds are harvested, PIT-tagged, and stocked to meet goals set forth in approved stocking plans by the Upper Colorado River Endangered Fish Recovery Program (UCREFRP) and secondarily by the San Juan River Basin Recovery Implementation Program (SJRBRIP). In 2013, 10,061 (mean = 358 mm TL) razorback sucker were stocked into the Colorado and Gunnison

rivers, versus the target stocking goal of 10,000.

V. Study Schedule: 1996 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 2013 Tasks and Deliverables, Discussion of Initial Findings and Shortcomings:

Razorback Sucker

Prior to spawning in April, 2013, about 9,000 age-1 razorback sucker were stocked into the grow-out ponds at HCNFF, as well as 2,950 to the old Horsethief Rearing Ponds, 3,300 to the Peters Ponds, and 1,100 to Morse Pond. These fish represented young from 15 different paired matings of broodstock performed in April 2013. 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 April 2013, razorback sucker broodstock held at HCNFF were spawned and the eggs were transferred to the 24 Road Hatchery building. Hatching rates for razorback sucker eggs were the highest ever observed, with 80% of all eggs successfully hatching into fry. The hatchery is currently holding about 12,000 4-5" razorback sucker, 6,000 of which will be used to meet the Upper Colorado River Endangered Fish Recovery Program's razorback sucker stocking goal for 2014. These fish are from 15 individual paired matings. 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).

In late June 2013, an outbreak of *Ichthyophthirius multifiliis* (Ich for short), a protozoan parasite, occurred at the Peters Ponds, as well as in two ponds at HCNFF. The fish at HCNFF were treated and tested negative for the presence of Ich when they were tested again in late August. These fish were harvested and stocked in October 2013.

However, because of the nature of the Peters Ponds (they leak and need to be constantly topped off with water) it was impossible to do an effective chemical treatment for Ich. Instead, these ponds were flushed with fresh water as much as possible and by the late August re-inspection, the severity of the infection had dramatically subsided. Because target stocking numbers were met via other sources, these fish were not stocked in 2013. Instead, they were harvested from the Peters Ponds, brought into isolation, and then

treated for any remaining Ich infection. Once these fish were known to be clean, they were put into grow-out ponds at HCNFF, where they will remain, to be stocked in FY 2014.

In fall 2013, a total of 10,061 razorback sucker were harvested, PIT-tagged, and stocked. Of these, 8,300 razorback suckers were harvested from HCNFF and 1,761 were harvested from the old Horsethief Rearing Ponds. These fish were stocked at three locations -- 3,668 were stocked into the upper Colorado River (near Rifle, CO), 4,049 were stocked into the Colorado River in Grand Junction, and 2,344 were stocked into the Gunnison River near Delta, CO.

The newly-constructed HCNFF alleviated the management problems associated with previously-leased grow-out ponds. Leases have now expired on all previously-used grow-out ponds, with the exception of Morse Pond, whose lease was renewed in 2013. Morse Pond, the 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.

Bonytail

In spring 2013 approximately 20,000 larval Bonytail were received from Dexter National Fish Hatchery. These fish were stocked into 2 ponds at the new HTNFF. In October 2013, these Bonytail were harvested from HTNFF and brought into the 24rd Hatchery for winter. They will be stocked in the spring back to HTNFF where they will grow for the summer months and then stocked into the Upper Basin for 2014 production.

Humpback Chub

In late August 2013, an effort was made to collect and bring into captivity young chubs from the Black rocks area of the Colorado River. These fish (which are extremely hard to identify to species at small sizes) were going to be reared at the HCNFF until they could be identified to species. At that point, any humpback chub would be retained to begin developing a broodstock for this species, while roundtail chub would be returned to the river. CRFP crews spent a week collecting fish, but numbers were low and only 20-30 young chubs were encountered. These were transported to the HCNFF, held in isolation, and treated for disease. Unfortunately, only about a dozen of these fish survived. They were placed in a grow-out pond at HCNFF. This same effort will be repeated in FY 2014, with the hopes of obtaining additional humpback chub broodstock.

2013 Stocking Summary

A total 10,061 razorback sucker (mean = 358 mm TL) were stocked in 2013 from the

HCNFF and Horsethief Rearing Ponds. Stocking numbers versus actual numbers of fish stocked in 2013 were as follows:

Location	Number Stocked
Upper Colorado	3,668
Colorado River in Grand Valley	4,049
Gunnison River	2,344
TOTALS	10,061

VIII. Additional noteworthy observations: None

IX. 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 SJRBRIP.

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

XI. FY 2013 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 2013 work completed, and projected costs to complete: 100%
- E. Recovery Program funds spent for publication charges: \$0

XII. Status of Data Submission (Where applicable): All PIT tag data were submitted to the UCREFRP database manager in October 2013

XIII. Signed: Brian Scheer, Thad Bingham & Dale Ryden 11/8/2013
Principal Investigator(s) Date