

I. Project Title: **Propagation Facilities in the Grand Valley (Ouray National Fish Hatchery - Grand Valley Unit) for Captive Rearing of Endangered Fishes for the Upper Colorado River Basin.**

II. Bureau of Reclamation Agreement Number(s): R15PG00083

Project/Grant Period: Start date (Mo/Day/Yr): 10/1/2014
End date: (Mo/Day/Yr): 9/30/2019
Reporting period end date: 9/30/2016
Is this the final report? Yes _____ No X

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IV. Abstract:

Ouray National Fish Hatchery - Grand Valley Unit (Ouray NFH-GVU) consists of several facilities near Grand Junction, CO. These facilities include the Horsethief Canyon Native Fish Facility (HCNFF), the 24 Road Hatchery building, and several other scattered groups of grow-out ponds.

Ouray NFH-GVU produces and rears razorback sucker (annual stocking target = 6,000 fish \geq 350 mm TL) for stocking into the Colorado and Gunnison rivers. In addition, Ouray NFH-GVU also rears bonytail obtained as larvae from the USFWS's Southwest Native Aquatic Resources and Recovery Center (SNARRC) in Dexter, NM (annual stocking target = 10,000 fish \geq 250 mm TL), for stocking into the Colorado and Gunnison rivers. All stocking of these two endangered fishes are in accordance with the approved Integrated Stocking Plan (ISP).

Wild humpback chub from the Black Rocks area of the Colorado River continue to be held at the HCNFF ponds as a refugia population.

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 2016 Tasks and Deliverables, Discussion of Initial Findings and Shortcomings:

Razorback Sucker

In early April to mid-May 2016, about 5,222 age-1 razorback sucker were stocked into the grow-out ponds at HCNFF. These fish represented young from 13 different paired matings of broodstock performed in April 2015. Fish were stocked as a mixture of fish from each lot. Fish from the different lots were stocked in equal numbers in six ponds. These fish were PIT tagged prior to being stocked into grow-out ponds to help reduce stress later in the year when they would be harvested for stocking. An additional 4,215 razorback sucker were held at the 24 road hatchery until June 2016 due to the unavailability of grow-out ponds. In June 2016, after stocking 2016 bonytail from HCNFF, the 4,215 razorback sucker held at the 24 road hatchery were stocked into five ponds at HCNFF for further grow-out.

In April 2016, 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 excellent, with 88% of all eggs successfully hatching into fry. The hatchery is currently holding 11,000 135 mm TL razorback sucker.

In summer and fall 2016, a total of 5,617 razorback sucker were harvested and stocked. These fish were stocked at multiple locations – 1,804 were stocked from HCNFF into the Colorado River near Rifle, 215 were stocked from CDOT Pond into the Colorado River near DeBeque, 1,738 were stocked from HCNFF into the Colorado River in Grand Junction, and 175 were stocked from Beswick's Pond into the Colorado River in Grand Junction. In the Gunnison River, 1,680 were stocked from HCNFF near Delta and 5 more were stocked from Butch Craig Pond into the Gunnison River at Whitewater, CO. The 5,617 razorback sucker stocked in 2016 represented 93.62% of our annual target number (n = 6,000).

Our three "lease-free" grow-out ponds (CDOT, Beswick's, and Butch Craig ponds) will continue to be used as necessary in future years to provide redundancy and as we continue

to evaluate management options to improve the survival and growth of razorback suckers for augmentation.

Bonytail

In spring 2015 approximately 20,000 larval bonytail were received from SNARRC. These fish were stocked into grow-out ponds at HCNFF. In October 2015, these bonytail were harvested from HCNFF and brought into the 24 Road Hatchery to overwinter. In early to mid-April 2016, these bonytail were transferred to HCNFF to maximize growth until being stocked in summer 2016. In summer 2016, a total of 10,324 bonytail were harvested and stocked. All of these fish were stocked between Palisade and Fruita (i.e., near Grand Junction), CO in the Colorado River. The 10,324 bonytail stocked in 2016 represented 103% of our annual target number (n = 10,000).

In spring 2016 approximately 14,000 larval bonytail were received from SNARRC. These fish were stocked into two ponds at HCNFF. In November 2016, these bonytail were harvested from HCNFF and brought into the 24 Road Hatchery to overwinter. They will be stocked back into grow-out ponds at HCNFF in spring 2017, where they will be held until being stocked at various locations in the Colorado and Gunnison rivers.

Humpback Chub

Currently 18 wild adult humpback chub that have been collected from the Black Rocks area of the Colorado River are being held as a refugia population at the HCNFF ponds. The original plan was to bring in 5-7 additional large juvenile or small adult humpback chub at the end of the fourth sampling pass for the humpback chub population estimate (Project 131) study. Unfortunately due to very bad luck with three boats experiencing season-ending mechanical failures in two days, that trip had to be cancelled, so additional humpback chub were not collected for the refugia population. The plan is to bring in more 5-7 additional large juvenile or small adult humpback chub during fall 2017 sampling.

2016 Stocking Summary

A total of 5,617 razorback sucker (93.62% of the target stocking number) were stocked into the Colorado and Gunnison rivers in 2016 from the HCNFF, as well from three remotely-located grow-out ponds. The mean TL for all razorback sucker stocked in 2016 was 382 mm (target stocking size was 350 mm TL). Numbers of fish stocked in each location in 2016 were as follows:

<u>Location</u>	<u>Number Stocked</u>
Upper Colorado near Rifle (from HCNFF)	1,804
Upper Colorado near DeBeque (from CDOT Pond)	215
Colorado River in Grand Junction (from HCNFF)	1,738
Colorado River in Grand Junction (from Beswick's Pond)	175
Gunnison River near Delta (from HCNFF)	1,680
Gunnison River in Whitewater (from Butch Craig Pond)	<u>5</u>
2016 stocking totals for razorback sucker	5,617

A total of 10,324 bonytail (103% of the target stocking number) were stocked into the Colorado River in summer 2016 from the HCNFF. The mean TL for all bonytail stocked in 2016 was 264 mm (target stocking size was 250 mm TL). These fish were all stocked between Palisade and Fruita, CO:

<u>Location</u>	<u>Number Stocked</u>
Colorado River near Grand Junction (from HCNFF)	<u>10,324</u>
2016 stocking totals for bonytail	10,324

VIII. Additional noteworthy observations: None

IX. Recommendations:

- 1) Continue management and operation of Ouray NFH – GVU facilities to serve as a primary refuge facility for endangered fishes of the Upper Colorado Basin.
- 2) Continue production, grow-out, and stocking of razorback sucker and bonytail (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).

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

XI. FY 2016 Budget Status

- A. Funds Provided: \$550,170
 - a. \$507,170 to Ouray NFH-GVU
 - b. \$43,000 to Bureau of Reclamation (to pay gas, electricity, phone)
- B. Funds Expended: \$550,170
- C. Difference: \$0
- D. Percent of the FY 2015 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 2016

XIII. Signed: Brian Scheer, Thad Bingham, Mike Gross & Dale Ryden 11/8/2016
Principal Investigator(s) Date