

RECOVERY PROGRAM

FY 2020-2024 SCOPE OF WORK for:

Recovery Program Project Number: 29b
Operation and Maintenance of Ouray National Fish Hatchery Randlett

Lead agency: U.S. Fish and Wildlife Service

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Category:

- Ongoing project
- Ongoing-revised project
- Requested new project
- Unsolicited proposal

Expected Funding Source:

- Annual funds
- Capital funds
- Other [*explain*]

I. Title of Proposal: Operation and Maintenance of Ouray National Fish Hatchery (ONFH) Randlett

II. Relationship to RIPRAP:

General Recovery Program Support Action Plan:

- 4. Manage genetic integrity and augment or restore populations.
- IV.A. Genetics Management.
- IV.A.4. Secure and manage genetic stocks in refugia.
- IV.A.4.a. Razorback sucker
- IV.A.4.a.(1) Middle Green River.
- IV.C. Operate and maintain facilities.
- IV.C.1. Ouray National Fish Hatchery.

Green River Action Plan: Mainstem

- IV.A. Augment or restore populations as needed.
- IV.A.1. Develop State stocking plan for the four endangered fishes in the Green River.
- IV.A.1.c. Implement plan.

III. Study Background/Rationale and Hypotheses:

This project is directly related to Section 2.4 IV. Conserve Genetic Integrity and Augment or Restore Populations in the Recovery Program Recovery Action Plan (USFWS 2003). One of five elements in the Recovery Program is native fish stocking. The goal of this element is to produce sufficient captive-reared endangered fishes for

augmentation and/or restoration stocking, conducting laboratory and field research, and to develop brood stocks with genetic diversity similar to the wild stock used as founders (Williamson and Wydoski 1994).

Razorback suckers have been propagated on the Ouray National Wildlife Refuge since 1987. The first facility was established by the Vernal Colorado River Fish Project on the Ouray National Wildlife Refuge and was limited to 3, 0.1 acre ponds, 3, 0.2 acre ponds and two steel buildings housing 14, 4' incubation and rearing troughs, 6, 4' circular tanks, 15, 3' circular tanks and 10, 8' circular tanks. Because of the success shown with the small facility, a decision was made by the U.S. Fish and Wildlife Service (USFWS) to construct a permanent facility using Stewardship, Drought Relief Funds, Recovery Funds and USFWS funds.

The permanent facility was completed in September of 1998 and consists of a hatchery building housing 30, 4' circular fiberglass tanks; 27, 8' circular fiberglass tanks; 24, 0.2 acre rearing ponds and 12, 0.5 acre brood (refugia)/rearing ponds. Since 1998 hatchery activities have included spawning, incubation, rearing, fish tagging, fish health, pond inventory, and stocking. The hatchery currently overwinters RZ and bonytail (BT) in sufficient numbers to fulfill the annual production schedule of 6,000 RZ averaging 350 mm and 10,000 BT averaging 250 mm total length (Integrated Stocking Plan Revision Committee 2015).

Since the fall of 1998 through fall of 2019, the Ouray NFH- Randlett facility has stocked Green River razorback sucker to wetlands along the Green River and to the Green River in northeastern Utah. Broodstock from 25 individual mated pairs are being maintained. Accurate records of lineage for all fish are being maintained so genetic and stocking plans can be addressed. Spawning and stocking is coordinated with the UCREFRP-PDO, the current revised integrated stocking plan, and others within the Recovery Program.

Utilizing similar stocking locations as RZ and as directed by the Recovery Team, BT from Ouray NFH have been reared to 250 mm and stocked into the Green River and into back waters associated with the Green since 2013. Although bonytail are not spawned on station, swim-up larvae are produced at the Dexter National Fish Hatchery and Technological Center, Dexter, NM and shipped to ONFH- Randlett to be reared and stocked as requested.

The hatchery also maintains genetic refugia for one population of humpback chubs (*Gila cypha*), from Desolation Canyon of the Green River.

IV. Study Goals, Objectives, End Product(s):

Goal: To operate a genetically sound captive propagation program for high priority endangered fish species for the Upper Colorado River Endangered Species Recovery Program in accordance with the Revised Integrated Stocking Plan (2015).

Objective: Operate and maintain propagation facilities that are needed to hold, rear, and

produce captive-reared endangered fishes for the Upper Colorado River Endangered Species Recovery Program in accordance with the Revised Integrated Stocking Plan. (2015).

End Product: Maintenance of endangered fish in refugia to prevent extinction; development of genetically sound broodstocks for production of young fish for stocking to stabilize or enhance wild stocks; production of captive-reared endangered fish for priority laboratory and field experiments.

V. Study Area: Upper Colorado River basin propagation facilities in Uintah Basin, Utah.

VI. Study Methods/Approach:

Conduct all tasks associated with the operation and maintenance of the Ouray National Fish Hatchery in accordance with the Upper Colorado River Endangered Species Recovery Program.

VII. Task Description and Schedule:

1. Develop and maintain captive razorback sucker broodstock.
2. Maintain genetic refugia of RZ and HB held at the Ouray National Fish Hatchery.
3. Spawn razorback sucker broodstock and produce family lots for stocking in the Green River in Utah.
4. Over winter pond cultured YOY RZ and BT intensively at the Ouray National Fish Hatchery.
5. Stock fry and overwintered RZ and BT into rearing ponds during spring.
6. Stock 6,000 RZ averaging 350 mm TL and stock to the Green River in Utah
7. Captive rear *Gila* spp. as a refugia and/or broodstock.
8. Rear and stock 10,000 BT averaging 250 mm TL to the Green River according the 2015 Revised Integrated Stocking Plan.

VIII. Deliverables and Due Dates by Fiscal Year:

PIs should submit 6-12 photos by February 28th each year. Photos can be submitted here: <https://www.flickr.com/photos/coloradoriverrecovery/>. PIs should make a folder with their SOW number and upload images into that folder. Photographs can be taken using cell phones as the quality is acceptable. Each uploaded image will have a number assigned to it. PIs should email Melanie Fischer at melanie_fischer@fws.gov the number and a brief description of each photo. Descriptions should include the date taken, location, what is happening in the photo, and who the photographer is. Field report articles should be 300-500 words and submitted to Melanie Fischer. PIs should include one photo related to field report article in photo submissions.

FY-2020

Photos (eg. bonytail diet study) submitted to I & E committee: 28 February 2020
PIT-tag data finalized and submitted to database, HCP reports finalized and submitted to PDO, annual report finalized and submitted to PDO: November 2020

FY-2021

Photos submitted to I & E committee: 28 February 2021
PIT-tag data finalized and submitted to database, HCP reports finalized and submitted to PDO, annual report finalized and submitted to PDO: November 2021

FY-2022

Photos submitted to I & E committee: 28 February 2022
PIT-tag data finalized and submitted to database, HCP reports finalized and submitted to PDO, annual report finalized and submitted to PDO: November 2022

FY-2023

Field report article and photos submitted to I & E committee: 28 February 2023
PIT-tag data finalized and submitted to database, HCP reports finalized and submitted to PDO, annual report finalized and submitted to PDO: November 2023

FY-2024

Photos submitted to I & E committee: 28 February 2024
PIT-tag data finalized and submitted to database, HCP reports finalized and submitted to PDO, annual report finalized and submitted to PDO: November 2024

IX. Budget Summary:

Beyond the current budget; the BOR has allocated \$6,000 each year for reconditioning wells at the hatchery but since the BOR drilled 4 new wells, reconditioning of the older wells has not been necessary. In 2017 the BOR did not recondition any wells at Ouray NFH but provided labor and equipment to clean our water supply line from the wet well to the water treatment building. The plans are to have the BOR drill two new wells at the hatchery in 2021.

	Hatchery	(BOR) O&M on Wells
FY2020	\$698,824	\$0
FY2021	\$712,800	\$100,000

FY2022	\$727,056	\$0
FY2023	\$741,595	\$0
FY2024	\$756,427	\$0
Total	\$3,636,702	

X. Reviewers:

Various Service and Recovery Program staff.

XI. References:

Integrated Stocking Plan Revision Committee. 2015. Revised Integrated Stocking Plan for Razorback Sucker and Bonytail. Upper Colorado River Endangered Fish Recovery Program, Denver, Colorado.

USFWS (U. S. Fish and Wildlife Service). 2003. Recovery implementation program for endangered fish species in the upper Colorado River basin. U. S. Department of the Interior, Fish and Wildlife Service, Region 6, Denver, Colorado.

Williamson, J. H., and R. S. Wydoski. 1994. Genetics management guidelines. Recovery implementation program for endangered fish species in the upper Colorado River basin. U. S. Department of the Interior, Fish and Wildlife Service, Region 6, Denver, Colorado.