

**COLORADO RIVER RECOVERY PROGRAM
FY-2012/2013 PROPOSED SCOPE OF WORK for:
O&M Ouray National Fish Hatchery, Grand Valley Unit**

Project No.: 29a

Lead Agency: Fish and Wildlife Service
Ouray National Fish Hatchery, Grand Valley Unit

Submitted by: Dave Schnoor, Thad Bingham and Brian Scheer

Address: 1149 24 Road, Grand Junction, CO 81505
Phone: (970) 245-9236
FAX: (970) 245-9236
E-Mail: karl_schnoor@fws.gov

Date: March 8, 2011

Category

- Ongoing project
 Ongoing-revised project
 Requested project
 Unsolicited proposal

Expected Funding Source

- Annual funds
 Capital Funds
 Other

I. Title of Proposal: **Operation and Maintenance of Ouray National Fish Hatchery, Grand Valley Unit**

II. Relationship to 2009 RIPRAP:

General Recovery Program Support Action Plan:

IV. 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.(2) Upper Colorado River.

IV.C. Operate and maintain facilities.

IV.C.2. Grand Valley Endangered Fish Facility.

Green River Action Plan: Mainstem

IV.A.1.c. Implement (stocking) plan.

Colorado River Action Plan: Mainstem

IV.A.2.a.(2) Implement razorback sucker state stocking plan.

Colorado River Action Plan: Gunnison River

IV.A.3.b. Implement razorback sucker State stocking 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 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). The need for captive-reared endangered fish and propagation facilities is identified in Wydoski (1994).

Fishery biologists have cultured and reared endangered fishes in the upper basin since 1987. Propagation began in the Grand Valley in 1991 with construction of Horsethief Refugia Ponds at Horsethief State Wildlife Area. The refugia ponds were constructed to develop and hold broodstock from the last wild razorback suckers captured from the upper Colorado River. Production of razorback suckers began in 1996 when an intensive-rearing hatchery building was built. The hatchery was expanded in 1998 and is currently capable of producing about 28,000 young razorback suckers averaging 200mm long each year. Construction and leasing of grow-out ponds have produced 10 ponds suitable for rearing large razorback suckers for stocking into the rivers of the upper basin. Some of these ponds have not produced well and leases will be terminated in FY 2011.

The first young razorback suckers produced in the Grand Valley facility were stocked into the Gunnison River in 1995. More than 100,000 razorback suckers have been stocked into the Gunnison and Colorado rivers since then. The Grand Valley facility currently has a broodstock of about 500 adults, including offspring (f_1 s) from wild razorback suckers comprising four year classes. Fish from younger year classes (f_2 s) are also being held and will be added to the broodstock as they mature. Accurate records of lineage for all fish are maintained to ensure that the maximum amount of original genetic material is maintained in the broodstock. Spawning is controlled to ensure that equal numbers of offspring (eventually encompassing several generations) from the original, wild broodstock will be stocked into the river system over the duration of the propagation program.

IV. Study Goals, Objectives, End Product:

Goal: To operate a genetically sound captive propagation program for high priority endangered fish species for the RIP in the Upper Colorado River Basin in accordance with the Annual Stocking Plan (Nesler et al. 2003).

Objective: Operate and maintain propagation facilities that are needed to hold, rear, or produce captive-reared endangered fishes for the RIP in the Upper Colorado River Basin in accordance with the Annual Propagation Operation Plan.

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 Grand Valley, Colorado.

VI. Methods/Approach:

Conduct all tasks associated with the operation and maintenance of the Grand Valley Endangered Fish Facilities in accordance with the Genetic Management Plan (Williamson and Wydoski 1994; Czapla 1999) and the annual propagation plan.

VII. Task Description and Schedule:

All tasks are done annually

1. Develop and maintain captive razorback sucker broodstock.
2. Spawn razorback sucker broodstock and produce family lots for culture at the Grand Valley Unit.
3. Intensively rear razorback sucker at the 24 Rd Hatchery.
4. Stock 200mm razorback suckers into grow-out ponds in spring.
5. Maintain water level, water quality, and productivity in 10 grow-out ponds.
6. Continue development of new pond facility at Snook's Bottom for 2012.
7. Begin using new pond facility for razorback sucker production in 2013.
8. Harvest, PIT tag, and stock 14,895 300mm razorback sucker into the Gunnison, Colorado, and Green rivers in the following amounts: Colorado River, Rifle to Debeque reach (3,310); Colorado River, Palisade to CO-UT state line (3,310); Gunnison River, Hartland to Redlands reach (3,310); and lower Green River, Green River, UT (4,965).

VIII. FY-2012 Work

Fish and Wildlife Service

Labor for tasks 1-6 (actual estimated increase):

Project Leader (1 GS 14 @3155/wk for 12 weeks)	36,724
Administrative Officer (1 GS 9 @1480/wk for 11.5 weeks)	16,509
Fishery Biologist (GS 13 @ 2425.84/wk for 26 weeks)	61,180
Fishery Biologist (1 GS 11 @1767/wk at full time)	89,127
Fishery Biologist (1 GS 11 @1767/wk at full time)	89,127
Biological Tech (1 GS 9 @ 1443/wk)	72,785
Biological Technician (2 GS 5 @718/wk for 16 wks)	22,287
Labor Overtime (at 3.4068%)	<u>13,157</u>
Labor Subtotal	400,896

Bozeman Fish Technology Center (in kind service)

Grind and sift fish food for larval razorback suckers <\$ 2,500>

Operations

Fish Food	\$ 16,000
Chemicals and Fertilizer	\$ 8,000
Hatchery Supplies and Equipment Repair and Replacement	\$ 10,000
Office Supplies	\$ 1,500
Vehicles/fuel & maintenance/repair	\$ 10,100
Electricity (Horsethief, Peters Ponds)	\$ 11,000
Travel	<u>\$ 8,320</u>
Operations Sub total	<u>\$ 64,920</u>

Fish and Wildlife Service total \$465,816

Bureau of Reclamation

Utilities for 24 Rd Hatchery (gas, electricity, phone) \$ 43,000

FY-2012 Total \$508,816

FY-2013 Work

Fish and Wildlife Service

Labor for tasks 1-6 (actual estimated increase):

Project Leader (1 GS 14 @3155/wk for 12 weeks)	36,724
Administrative Officer (1 GS 9 @1480/wk for 11.5 weeks)	16,509
Fishery Biologist (GS 13 @ 2425.84/wk for 26 weeks)	61,180
Fishery Biologist (1 GS 11 @1767/wk at full time)	89,127

Fishery Biologist (1 GS 11 @1767/wk at full time)	89,127
Biological Tech (1 GS 9 @ 1443/wk)	72,785
Biological Technician (2 GS 5 @718/wk for 16 wks)	22,287
Labor Overtime (at 3.4068%)	<u>13,157</u>
Labor Subtotal	400,896

Bozeman Fish Technology Center (in kind service)
Grind and sift fish food for larval razorback suckers <\$ 2,500>

Operations	
Fish Food	\$ 16,000
Chemicals and Fertilizer	\$ 8,000
Hatchery Supplies and Equipment Repair and Replacement	\$ 10,000
Office Supplies	\$ 1,500
Vehicles/fuel & maintenance/repair	\$ 10,100
Electricity (Horsethief, Peters Ponds)	\$ 11,000
Travel	<u>\$ 8,320</u>
Operations Sub total	<u>\$ 64,920</u>

Fish and Wildlife Service total \$465,816

Bureau of Reclamation
Utilities for 24 Rd Hatchery (gas, electricity, phone) \$ 43,000

FY-2013 Total \$508,816

IX. Budget Summary:

FY-2012	\$508,816	(\$465,816 to FWS and \$43,000 to BOR)
FY-2013	\$508,816	(\$465,816 to FWS and \$43,000 to BOR)

X. Reviewers:

Various Service and Recovery Program staff.

XI.References:

Czapla, T.E. 1999. Genetics Management Plan. 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.

Nesler, T.P., K. Christopherson, J.M. Hudson, C.W. McAda, F. Pfeifer, and T.E. Czaplá. 2003. An integrated stocking plan for razorback sucker, bonytail and Colorado pikeminnow for the Upper Colorado River Endangered Fish Recovery Program, Addendum to State stocking plans. Upper Colorado River Endangered Fish Recovery Program, 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.

Wydoski, R. S. 1994. Coordinated hatchery facility plan: need for captive-reared endangered fish and propagation facilities. 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.