

**RECOVERY PROGRAM  
FY 2018-2019 SCOPE OF WORK for:  
Operation and Maintenance of Ouray National Fish Hatchery - Grand Valley Unit**

Recovery Program Project Number: 29a

Reclamation Agreement number: R15PG00083  
Reclamation Agreement term: October 1, 2014 to September 30, 2019

Note: Recovery Program FY18-19 scopes of work are drafted in May 2017. They often are revised before final Program approval and may subsequently be revised again in response to changing Program needs. Program participants also recognize the need and allow for some flexibility in scopes of work to accommodate new information (especially in nonnative fish management projects) and changing hydrological conditions.

Lead agency: U.S. Fish and Wildlife Service  
Ouray National Fish Hatchery - Grand Valley Unit (Ouray NFH-GVU)  
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<u>Category:</u>	<u>Expected Funding Source:</u>
<input checked="" type="checkbox"/> Ongoing project	<input checked="" type="checkbox"/> Annual funds
<input type="checkbox"/> Ongoing-revised project	<input type="checkbox"/> Capital funds
<input type="checkbox"/> Requested new project	<input type="checkbox"/> Other [ <i>explain</i> ]
<input type="checkbox"/> Unsolicited proposal	

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

II. Relationship to RIPRAP:

General Recovery Program Support Action Plan:

- IV. Manage genetic integrity and augment or restore populations (stocking endangered fishes).
  - IV.A. Genetics Management
    - IV.A.4.a. Razorback sucker
      - IV.A.4.a. (2) Upper Colorado River
    - IV.A.4.b. Bonytail
    - IV.A.4.c. Humpback chub
  - IV.B. Conduct annual fish propagation activities
    - IV.B.2. Implement revised integrated stocking plan (Integrated

- Stocking Plan Revision Committee 2015)
- IV.C. Operate and maintain facilities
  - IV.C.2. Ouray NFH: Grand Valley Unit

Four program documents are used to plan, implement, and coordinate genetics management and artificial propagation activities for endangered fishes at Ouray NFH-GVU. These are the Genetics Management Guidelines, Genetics Management Plan, Coordinated Hatchery Facility Plan (Facility Plan), and Integrated 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 (Stocking Endangered Fishes) (USFWS 2016). One of seven 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).

Endangered fishes have been cultured and reared 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 consisting of the last wild razorback suckers captured from the upper Colorado River. Production of razorback suckers began in 1996 when an intensive-rearing, water-reuse hatchery building (24-Road Hatchery) 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. During the 2000s, numerous constructed and leased grow-out ponds were used to rear razorback suckers large enough for stocking into the rivers of the upper basin. However, these ponds were not only geographically widespread, but also very disparate in terms of shape, size, depth, ease of access, security, productivity, and rates of return. From 2010-2017, all of these leases were allowed to expire. The Recovery Program now no longer maintains any leased ponds. A few “freebie” grow-out ponds (e.g., Beswick’s Pond and CDOT Pond on the Colorado River and Butch Craig Pond on the Gunnison River) are still utilized. The Horsethief Canyon Native Fish Facility (HCNFF) ponds, completed in summer 2012, replaced the older, less efficient, leased grow-out ponds. This facility located near Fruita, CO consists of 22 (6.2 total acres of) lined ponds that will allow Ouray NFH-GVU to better standardize producing, rearing, and managing endangered fish production.

To summarize, the Ouray NFH-GVU currently consists of several separate facilities, all of which are managed by hatchery staff to achieve the same goal. These include the 24-Road Hatchery building, the newly constructed HCNFF ponds, the older Horsethief refugia ponds (being maintained as a backup facility, but not currently in active use) and a few other “freebie” grow-out ponds.

The first young razorback suckers produced at what is now known as Ouray NFH-GVU 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. Ouray NFH-GVU annually maintains a broodstock of 500-1,000 adult razorback sucker, including offspring (f<sub>1</sub>s) from several distinct year-classes. Fish from younger year classes (f<sub>2</sub>s) are also being held and will be added to the broodstock as they mature. Accurate records of lineage are maintained for all fish 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. Razorback sucker at Ouray NFH-GVU are held and reared as both broodstock fish and production fish for stocking into the rivers of the upper Colorado River basin.

In May 2013, bonytail were first brought to Ouray NFH-GVU from the Colorado Parks and Wildlife's J.W. Mumma Native Aquatic Species Restoration Facility (NASRF). These fish were received by NASRF as larval fish from the U.S. Fish and Wildlife's Southwestern Native Aquatic Resources & Recovery Center (SNARRC) before being transferred to the Ouray NFH facility. The Ouray NFH-GVU now receives its bonytail directly from the USFWS-SNARRC facility as larval fish each spring. Bonytail at Ouray NFH-GVU are held and reared as production fish for stocking into the rivers of the upper Colorado River basin.

Beginning in summer 2014, crews from the Grand Junction Fish and Wildlife Conservation Office (GJFWCO) began collecting and bringing in wild humpback chub from the Black Rocks area of the Colorado River near the Colorado-Utah state line to HCNFF. The original plan was to bring in juvenile chub (*Gila* spp.), rear them to a size where the species could be determined, then retain any wild humpback chub at HCNFF and return any wild roundtail chub back to the Colorado River. Unfortunately, very few wild juvenile *Gila* have been collected over the last few years. So, larger juvenile and adult humpback chub have been brought from the wild into HCNFF instead. Because of the low numbers of adult (and larger juvenile) humpback chub in the wild, the numbers of fish being brought into captivity at HCNFF has been necessarily small each year. These fish are currently being held at HCNFF as a refugia population.

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

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

Objective: Operate and maintain propagation facilities that are needed to hold, rear, or produce captive-reared endangered fishes for the UCREFRP 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; Ouray NFH-GVU propagation facilities are located in and around Grand Junction and Fruita, CO. Stocking locations currently include the Colorado River from Rifle, CO downstream to Loam, CO and the Gunnison River from Delta, CO downstream to Grand Junction, CO.

VI. Study Methods/Approach:

Conduct all tasks associated with the operation and maintenance of Ouray NFH-GVU facilities in accordance with the Genetics Management Plan (Williamson and Wydoski 1994; Czapla 1999), the annual propagation plan, and the latest version of the Revised Integrated Stocking Plan for Razorback Sucker and Bonytail (UCREFRP 2015).

VII. Task Description and Schedule:

All tasks are done annually

1. Develop and maintain captive broodstock for:
  - a. Razorback sucker
2. Spawn broodstock and produce family lots for culture at either the HCNFF ponds or the 24-Road Hatchery building
  - a. Razorback sucker
3. Intensively rear razorback sucker and bonytail.
  - a. Also maintain a refugia population of humpback chub brought into captivity.
4. Stock 200 mm razorback sucker into grow-out ponds in spring.
5. Maintain water level, water quality, and productivity in HCNFF ponds and other off-site grow-out ponds (Beswick's Pond, CDOT Pond, and Butch Craig Pond).
6. Operate and maintain Ouray NFH-GVU facilities to:
  - a. Hold, produce, and rear razorback sucker as broodstock and production fish
  - b. Hold and rear bonytail as production fish
  - c. Hold and rear humpback chub brought in from the wild in refugia
7. Harvest, PIT tag, and stock target numbers of endangered fish annually:
  - a. 6,000 razorback sucker (mean = 350 mm TL) into the Gunnison and Colorado rivers (anticipated at 3,000 in each river)
  - b. 10,000 bonytail (mean = 250 mm TL) with stocking locations to be determined by hatchery and state managers along with the UCREFRP office as time of stocking approaches.

VIII. Deliverables, Due Dates, and Budget by Fiscal Year:

**Operation and Maintenance of Ouray National Fish Hatchery - Grand Valley Unit**

**FY-2018**

Costs Shared by UCREFRP and SJRBRIP (i.e. O&M Costs)

Personnel/Labor Costs (Federal Salary + Benefits)

	Rate/hr	HR/Person	Persons	Total
Principal Biologists (GS-11) X 2 people - 1,960 hours each	\$52.80	1960	2	\$206,976.00
Biological Technician (GS-7) - 1,960 hours	\$31.82	1960	1	\$62,367.20
Biological Technicians (GS-5) - 1,960 hours	\$22.94	1960	1	\$44,962.40
Overtime:				
Biological Technician (GS-7) - 120 hours	\$47.73	120	1	\$5,727.60
Biological Technician (GS-5) - 40 hours	\$34.41	120	1	\$4,129.20
				<hr/>
			Personnel/Labor Subtotal	\$324,162.40

Permitting; Coordination; Data Input, Analysis, Management & Presentation:

Report Writing; Office & Administrative Support (Federal Salary + Benefits)

Project Leader (GS-14) - 320 hours	\$80.95	320	1	\$25,904.00
Administrative Officer (GS-9) - 320 hours	\$42.14	320	1	\$13,484.80
				<hr/>
			Permitting, Data Input, etc. Subtotal	\$39,388.80
			<b>Personnel/Labor Subtotal</b>	<b>\$363,551.20</b>

Operations (Fish Food, Chemicals and Fertilizer, Hatchery Supplies, Vehicles and Fuel, Electricity)

Actual costs = 4 orders of fish food per year (1 order per fiscal quarter). The line items below represent one of our four orders (placed in 2016). This fish food order will last us 90 days. We have several different sizes of fish on station, thus the different sizes of food in each order.

	# of orders	bags	\$/bag	Total \$
Rangen, Inc. - Fish Food for older life stage fish				
Trout # 0 Starter	4	5	\$62.00	\$1,240.00
Trout # 1 Starter	4	10	\$62.00	\$2,480.00
Trout # 2 Starter	4	20	\$62.00	\$4,960.00
1.3 mm Razorback Diet Slow Sinking	4	60	\$54.50	\$13,080.00
2.0 mm Razorback Diet Slow Sinking	4	80	\$49.50	\$15,840.00
3.0 mm Razorback Diet Slow Sinking	4	240	\$47.00	\$45,120.00

Reed Mariculture - Otohime Fish Food for early life stage fish

Otohime A1, Pellet Size 1 kg	1	1	\$49.50	\$49.50
Otohime A2, Pellet Size, 1 kg	1	1	\$49.50	\$49.50
Otohime B1, 2 kg	1	12	\$36.93	\$443.10
Otohime B2, 2 kg	1	5	\$36.93	\$184.63
Otohime C-1, 2 kg	1	8	\$29.17	\$233.34

Fish Food Subtotal \$83,680.06

Chemicals and Fertilizer

Exact use of the money in this line item will vary from year to year depending on specific chemical/fertilizer/herbicide needs in a particular year. It will also depend on if there are outbreaks of pathogens that need to be treated (e.g., "Ich") in a given year. Funds for a "typical" field season for one study would likely include the following:

	Rate/unit	Quantity	\$\$\$\$
Chorulon Inj 10,000iu (HCG) - for injecting fish to induce spawning	\$338.00	1	\$338.00
Muriatic Acid	\$7.84	32	\$250.88
Copper Sulfate 50 lb. bags	\$111.50	40	\$4,460.00
Parasite S (Formalin) - for treatment of topical fish parasites	\$415.00	4	\$1,660.00
Virkon A - disinfectant for controlling spread of Aquatic Invasive Species (AIS)	\$87.00	8	\$696.00
Perox-Aid (H2O2) - 55 gallons drum (treat fish disease & water chemistry issues)	\$828.69	1	\$828.69

Chloram-X (dechloriator) 10lb tub	\$57.40	12	\$688.80
Citrine Plus 1 gallon containers - algae control in ponds	\$27.99	100	\$2,799.00
Tricaine-S brand MS-222 anesthetic 1kg bottle	\$681.49	2	\$1,362.98
Halamid (Chloramine-T) 25 kg pail (\$850 Canadian = ~ \$650 US)	\$650.00	3	\$1,950.00
190 proof ethyl alcohol 5 gal jug + shipping	\$164.00	5	\$820.00
Distilled water - 1 gallon jug	\$14.45	20	\$289.00
Stress Coat - 1 gallon container	\$37.79	8	\$302.32
Proline Defoamer - 1 gallon jugs	\$34.59	6	\$207.54
Weed killer (Rodeo) 2.5 gallon jug	\$76.95	8	\$615.60
Weed killer (2,4-D) 32 oz. container	\$9.98	50	\$499.00
Weed killer (Makaze) 2.5 gallon jug	\$53.99	8	\$431.92
Aquashade (water colorant) 1 gallon jug - reduces bird predation on fish	\$56.69	12	\$680.28
Dimilin 25W (anchor worm control) 5 lb box	\$245.00	20	\$4,900.00
Sodium Bicarbonate (pH increaser) 50 lb. bag,	\$16.99	80	\$1,359.20
*** price varied (~ 5 purchases/year)			
Stock Salt 50 lb. bags (~ 5 purchases/year)	\$5.99	64	\$383.36

Chemicals & Fertilizer Subtotal

\$25,522.57

Hatchery Supplies and Equipment Repair and Replacement

Exact use of the money in this line item will vary from year to year depending on specific equipment repair, replacement, or upgrade needs in a particular year. Funds for a "typical" field season for one study would likely include the following:

	Rate/unit	Quantity	\$\$\$\$
Egg hatching jars – Model J30	\$93.69	5	\$468.45
Belt feeders (replace ~12 full units annually - 3-4 year life span)	\$220.15	11	\$2,421.65
Belt feeder clocks (replace ~ 15 annually - 1 year life span)	\$67.15	15	\$1,007.25
Yeti brand 125-quart coolers	\$549.99	2	\$1,099.98
Aerators for ponds	\$771.64	4	\$3,086.56

Breathable chest waders - 4 pair @ \$120/pair	\$120.00	4	\$480.00	
Dura-Frame electrofishing dip nets – 1 @ \$629.93 each (with shipping)	\$629.93	5	\$3,149.65	
Ohaus industrial bench scale - replace 1 unit	\$584.00	1	\$584.00	
*** Repair - ~1 per/year	\$601.21	1	\$601.21	
***Replace battery &/or recalibrate unit - ~ \$150/unit X 2/year	\$85.00	2	\$170.00	
YSI brand combination pH/temperature water chemistry meters	\$105.00	2	\$210.00	
HVAC system - periodic services and any necessary repairs (~ 4 services/year)	\$1,949.07	1	\$1,949.07	
Porta-potty service at remotely located ponds	\$78.75	8	\$630.00	
Service the diesel generator - 1 time/year	\$860.00	1	\$860.00	
Portable water pump replacement/repair				\$1,073.88
***Portable 2" water/trash pump for stocking truck	\$527.00	1	\$527.00	
*** 2" discharge hose - 50' long, 150 PSI	\$63.95	1	\$63.95	
*** 2" suction hose kit - 25' long, aluminum camlock	\$82.95	1	\$82.95	
*** Little Giant 13.5 gpm, 1/12 hp submersible water pump	\$399.98	1	\$399.98	
Repair vertical turbine pump & motor - do 1 of the 3 per year	\$4,750.00	1	\$4,750.00	
Fluorescent hatchery lights - replace/repair 1/2 of hatchery annually	\$3,485.00	1	\$3,485.00	
Pond and fish tank cleaning supplies				\$428.71
*** Scrub pads (fish tank cleaning pads)	\$2.06	101	\$208.06	
*** Kinney Scrapers & 5-ft. tapered wood handles + freight	\$220.65	1	\$220.65	
PVC pipe fittings - repair/replace older & broken parts, as necessary	\$185.43	4	\$741.72	
*** (~ 4 purchases/yr at ~ \$185.43/purchase)				
Oxygen cylinders refilled/replaced - 3 per month = 36 total/year	\$22.60	36	\$813.60	
Oxygen tank regulator - replace ~ 1 annually Unit + shipping costs)	\$199.04	1	\$199.04	
Diffusers (i.e., air stones) and diffuser manifolds, partial replacement annually				\$1,345.02
*** Diffusers - 9", 1/2" NPT	\$16.35	58	\$948.30	
*** Diffuser Manifolds	\$198.36	2	\$396.72	
Screens and pond boards:				\$1,240.72
Slotted metal mesh - screening material	\$143.76	5	\$718.80	
Redwood boards (2"x8"x6') - stop boards: 8/pond X 22 ponds = 176	\$11.88	44	\$522.72	
*** (redo ~ 1/4 per year)				
Sand for fluidized sand filters - 50 lb. bags	\$3.98	40	\$159.20	

Christy Pak Pall Rings Polypropylene, 2" - for packed columns \$35.00 50 \$1,750.00

Hatchery Supplies Subtotal \$32,705.51

Office Supplies

Copier paper, staples, staplers, pencils, sharpies, pens, writing pads, sticky notes, file folders, paper clips, binder clips, envelopes, highlighters, etc.

Office Supplies Subtotal \$1,500.00

Vehicles: maintenance, repair, and fuel

Vehicles: GSA-lease rate (@ \$365/month lease = \$12.17 per day based on 30 days in an "average" month + \$0.42/mile)

	Rate/unit	Quantity	\$\$\$\$
Hatchery pickup truck (days used)	\$12.17	365	\$4,442.05
Hatchery pickup truck (miles)	\$0.42	16425	\$6,898.50
Diesel fuel for Kubota ATVs (used to feed fish, haul gear, spray weeds, etc.)	\$2.42	55	\$133.10
Gas for back-up generator (gal)	\$2.47	25	\$61.75
Lube, Oil, filter, rotate tires - 2 times per year	\$203.47	2	\$406.94
Dunlop 245/70 R 19.5 tires (or equivalent) - replace 3 (of 6) annually	\$344.65	3	\$1,033.95

Vehicles and Fuel Subtotal \$12,976.29

Electricity/Utilities

Paid by the Bureau of Reclamation - Grand Junction office \$43,000.00

Electricity/Utilities Subtotal \$43,000.00

<b>Operations Subtotal</b>	<b>\$199,384.43</b>
<b>Total cost of FY-2018 scope-of-work for Project 29a</b>	<b>\$562,935.63</b>
<b>Total requested FY-2018 funding by agency:</b>	
<b>USFWS: Ouray National Fish Hatchery - Grand Valley Unit</b>	<b>\$519,935.63</b>
<b>Bureau of Reclamation - Grand Junction office</b>	<b>\$43,000.00</b>

**Operation and Maintenance of Ouray National Fish Hatchery - Grand Valley Unit**

**FY-2019**

Costs Shared by UCREFRP and SJRBRIP (i.e. O&M Costs)

Personnel/Labor Costs (Federal Salary + Benefits)

	Rate/hr	HR/Person	Persons	Total
Principal Biologists (GS-11) X 2 people - 1,960 hours each	\$53.84	1960	2	\$211,052.80
Biological Technician (GS-7) - 1,960 hours	\$32.46	1960	1	\$63,621.60
Biological Technicians (GS-5) - 1,960 hours	\$23.40	1960	1	\$45,864.00
Overtime:				
Biological Technician (GS-7) - 120 hours	\$48.69	120	1	\$5,842.80
Biological Technician (GS-5) - 40 hours	\$35.10	120	1	\$4,212.00
				<u>\$4,212.00</u>
			Personnel/Labor Subtotal	\$330,593.20

Permitting; Coordination; Data Input, Analysis, Management & Presentation:

Report Writing; Office & Administrative Support (Federal Salary + Benefits)

Project Leader (GS-14) - 320 hours	\$82.57	320	1	\$26,422.40
Administrative Officer (GS-9) - 320 hours	\$42.98	320	1	\$13,753.60
				<u>\$13,753.60</u>
			Permitting, Data Input, etc. Subtotal	\$40,176.00

**Personnel/Labor Subtotal** **\$370,769.20**

Operations (Fish Food, Chemicals and Fertilizer, Hatchery Supplies, Vehicles and Fuel, Electricity)

Fish Food

\*\*\* See FY-2018 budget for line item breakdowns

Value Calculated for FY-2018	\$83,680.06
FY-2018 total with anticipated 2% increase for FY-2019	\$85,353.66
Fish Food Subtotal	\$85,353.66

Chemicals and Fertilizer

\*\*\* See FY-2018 budget for line item breakdowns

Value Calculated for FY-2018	\$25,522.27		
FY-2018 total with anticipated 2% increase for FY-2019	\$26,032.72		
	Chemicals & Fertilizer		
	Subtotal		\$26,032.72

Hatchery Supplies and Equipment Repair and Replacement

\*\*\* See FY-2018 budget for line item breakdowns

Value Calculated for FY-2018	\$32,705.51		
FY-2018 total with anticipated 2% increase for FY-2019	\$33,359.62		
	Hatchery Supplies		
	Subtotal		\$33,359.62

Office  
Supplies

\*\*\* See FY-2018 budget for line item breakdowns

Value Calculated for FY-2018	\$1,500.00		
FY-2018 total with anticipated 2% increase for FY-2019	\$1,530.00		
	Office Supplies		
	Subtotal		\$1,530.00

Vehicles: maintenance, repair, and fuel

\*\*\* See FY-2018 budget for line item breakdowns

Value Calculated for FY-2018	\$12,976.29		
FY-2018 total with anticipated 2% increase for FY-2019	\$13,235.82		
	Vehicles and Fuel		
	Subtotal		\$13,235.82

Electricity/Utilities

\*\*\* See FY-2018 budget for line item breakdowns

Value Calculated for FY-2018	\$43,000.00		
FY-2018 total with anticipated 2% increase for FY-2019	\$43,860.00		
Paid by the Bureau of Reclamation -	Electricity/Utilities		
	Subtotal		\$43,860.00

Grand Junction office

<b>Operations Subtotal</b>	<b>\$203,371.81</b>
<b>Total cost of FY-2019 scope-of-work for Project 29a</b>	<b>\$574,141.01</b>
<b>Total requested FY-2019 funding by agency:</b>	
<b>USFWS: Ouray National Fish Hatchery - Grand Valley Unit</b>	<b>\$530,281.01</b>
<b>Bureau of Reclamation - Grand Junction office</b>	<b>\$43,860.00</b>

**Out-year budgets for Operation and Maintenance of Ouray NFH-GVU: 2020-2022**

**THESE BUDGETS ARE ESTIMATES ONLY AND MAY NOT REPRESENT ACTUAL COSTS**

**Operation and Maintenance of Ouray National Fish Hatchery - Grand Valley Unit**

**FY-2020**

Costs Shared by UCREFRP and SJRBRIP (i.e. O&M Costs)

Personnel/Labor Costs (Federal Salary + Benefits)

	Rate/hr	HR/Person	Persons	Total
Principal Biologists (GS-11) X 2 people - 1,960 hours each	\$54.92	1960	2	\$215,286.40
Biological Technician (GS-7) - 1,960 hours	\$33.11	1960	1	\$64,895.60
Biological Technicians (GS-5) - 1,960 hours	\$23.87	1960	1	\$46,785.20
Overtime:				
Biological Technician (GS-7) - 120 hours	\$49.66	120	1	\$5,959.20
Biological Technician (GS-5) - 40 hours	\$35.80	120	1	\$4,296.00
				<u>\$4,296.00</u>
			Personnel/Labor Subtotal	\$337,222.40

Permitting; Coordination; Data Input, Analysis, Management & Presentation:

Report Writing; Office & Administrative Support (Federal Salary + Benefits)

Project Leader (GS-14) - 320 hours	\$84.22	320	1	\$26,950.40
Administrative Officer (GS-9) - 320 hours	\$43.84	320	1	\$14,028.80
				<u>\$14,028.80</u>
			Permitting, Data Input, etc. Subtotal	\$40,979.20

**Personnel/Labor Subtotal** **\$378,201.60**

Operations (Fish Food, Chemicals and Fertilizer, Hatchery Supplies, Vehicles and Fuel, Electricity)

Fish Food

\*\*\* See FY-2018 budget for line item breakdowns

Value Calculated for FY-2019	\$85,353.66
FY-2019 total with anticipated 2% increase for FY-2020	\$87,060.73
Fish Food Subtotal	\$87,060.73

Chemicals and Fertilizer

\*\*\* See FY-2018 budget for line item breakdowns

Value Calculated for FY-2019	\$26,032.72		
FY-2019 total with anticipated 2% increase for FY-2020	\$26,553.37		
	Chemicals & Fertilizer		
	Subtotal		\$26,553.37

Hatchery Supplies and Equipment Repair and Replacement

\*\*\* See FY-2018 budget for line item breakdowns

Value Calculated for FY-2019	\$33,359.62		
FY-2019 total with anticipated 2% increase for FY-2020	\$34,026.81		
	Hatchery Supplies		
	Subtotal		\$34,026.81

Office  
Supplies

\*\*\* See FY-2018 budget for line item breakdowns

Value Calculated for FY-2019	\$1,530.00		
FY-2019 total with anticipated 2% increase for FY-2020	\$1,560.60		
	Office Supplies		
	Subtotal		\$1,560.60

Vehicles: maintenance, repair, and fuel

\*\*\* See FY-2018 budget for line item breakdowns

Value Calculated for FY-2019	\$13,235.82		
FY-2019 total with anticipated 2% increase for FY-2020	\$13,500.54		
	Vehicles and Fuel		
	Subtotal		\$13,500.54

Electricity/Utilities

\*\*\* See FY-2018 budget for line item breakdowns

Value Calculated for FY-2019	\$43,860.00		
FY-2019 total with anticipated 2% increase for FY-2020	\$44,737.20		
Paid by the Bureau of Reclamation -	Electricity/Utilities		
	Subtotal		\$44,737.20

Grand Junction office

<b>Operations Subtotal</b>	<b>\$207,439.26</b>
<b>Total cost of FY-2020 scope-of-work for Project 29a</b>	<b>\$585,640.86</b>
<b>Total requested FY-2020 funding by agency:</b>	
<b>USFWS: Ouray National Fish Hatchery - Grand Valley Unit</b>	<b>\$540,903.66</b>
<b>Bureau of Reclamation - Grand Junction office</b>	<b>\$44,737.20</b>

**Operation and Maintenance of Ouray National Fish Hatchery - Grand Valley Unit**

**FY-2021**

Costs Shared by UCREFRP and SJRBRIP (i.e. O&M Costs)

Personnel/Labor Costs (Federal Salary + Benefits)

	Rate/hr	HR/Person	Persons	Total
Principal Biologists (GS-11) X 2 people - 1,960 hours each	\$56.02	1960	2	\$219,598.40
Biological Technician (GS-7) - 1,960 hours	\$33.77	1960	1	\$66,189.20
Biological Technicians (GS-5) - 1,960 hours	\$24.35	1960	1	\$47,726.00
Overtime:				
Biological Technician (GS-7) - 120 hours	\$50.65	120	1	\$6,078.00
Biological Technician (GS-5) - 40 hours	\$36.52	120	1	\$4,382.40
				<u>\$4,382.40</u>
			<b>Personnel/Labor Subtotal</b>	<b>\$343,974.00</b>

Permitting; Coordination; Data Input, Analysis, Management & Presentation:

Report Writing; Office & Administrative Support (Federal Salary + Benefits)

Project Leader (GS-14) - 320 hours	\$85.90	320	1	\$27,488.00
Administrative Officer (GS-9) - 320 hours	\$44.72	320	1	\$14,310.40
				<u>\$14,310.40</u>
			Permitting, Data Input, etc. Subtotal	\$41,798.40
			<b>Personnel/Labor Subtotal</b>	<b>\$385,772.40</b>

Operations (Fish Food, Chemicals and Fertilizer, Hatchery Supplies,  
Vehicles and Fuel, Electricity)

Fish Food

\*\*\* See FY-2018 budget for line item breakdowns

Value Calculated for FY-2020				\$87,060.73
FY-2020 total with anticipated 2% increase for FY-2021				\$88,801.94
			Fish Food Subtotal	\$88,801.94

Chemicals and Fertilizer

\*\*\* See FY-2018 budget for line item breakdowns

Value Calculated for FY-2020	\$26,553.37	
FY-2020 total with anticipated 2% increase for FY-2021	\$27,084.44	
	Chemicals & Fertilizer Subtotal	\$27,084.44

Hatchery Supplies and Equipment Repair and Replacement

\*\*\* See FY-2018 budget for line item breakdowns

Value Calculated for FY-2020	\$34,026.81	
FY-2020 total with anticipated 2% increase for FY-2021	\$34,707.35	
	Hatchery Supplies Subtotal	\$34,707.35

Office  
Supplies

\*\*\* See FY-2018 budget for line item breakdowns

Value Calculated for FY-2020	\$1,560.60	
FY-2020 total with anticipated 2% increase for FY-2021	\$1,591.81	
	Office Supplies Subtotal	\$1,591.81

Vehicles: maintenance, repair, and fuel

\*\*\* See FY-2018 budget for line item breakdowns

Value Calculated for FY-2020	\$13,500.54	
FY-2020 total with anticipated 2% increase for FY-2021	\$13,770.55	
	Vehicles and Fuel Subtotal	\$13,770.55

Electricity/Utilities

\*\*\* See FY-2018 budget for line item breakdowns

Value Calculated for FY-2020	\$44,737.20	
FY-2020 total with anticipated 2% increase for FY-2021	\$45,631.94	
Paid by the Bureau of Reclamation - Grand Junction office	Electricity/Utilities Subtotal	\$45,631.94

<b>Operations Subtotal</b>	<b>\$211,588.04</b>
<b>Total cost of FY-2021 scope-of-work for Project 29a</b>	<b>\$597,360.44</b>
<b>Total requested FY-2021 funding by agency:</b>	
USFWS: Ouray National Fish Hatchery - Grand Valley Unit	\$551,728.49
Bureau of Reclamation - Grand Junction office	\$45,631.94

**Operation and Maintenance of Ouray National Fish Hatchery - Grand Valley Unit**

**FY-2022**

Costs Shared by UCREFRP and SJRBRIP (i.e. O&M Costs)

Personnel/Labor Costs (Federal Salary + Benefits)

	Rate/hr	HR/Person	Persons	Total
Principal Biologists (GS-11) X 2 people - 1,960 hours each	\$57.14	1960	2	\$223,988.80
Biological Technician (GS-7) - 1,960 hours	\$34.45	1960	1	\$67,522.00
Biological Technicians (GS-5) - 1,960 hours	\$24.84	1960	1	\$48,686.40
<b>Overtime:</b>				
Biological Technician (GS-7) - 120 hours	\$51.66	120	1	\$6,199.20
Biological Technician (GS-5) - 40 hours	\$37.25	120	1	<u>\$4,470.00</u>
<b>Personnel/Labor Subtotal</b>				<b>\$350,866.40</b>

Permitting; Coordination; Data Input, Analysis, Management & Presentation:

Report Writing; Office & Administrative Support (Federal Salary + Benefits)

Project Leader (GS-14) - 320 hours	\$87.62	320	1	\$28,038.40
Administrative Officer (GS-9) - 320 hours	\$45.61	320	1	<u>\$14,595.20</u>
<b>Permitting, Data Input, etc. Subtotal</b>				<b>\$42,633.60</b>
<b>Personnel/Labor Subtotal</b>				<b>\$393,500.00</b>

Operations (Fish Food, Chemicals and Fertilizer, Hatchery Supplies,  
Vehicles and Fuel, Electricity)

Fish Food

\*\*\* See FY-2018 budget for line item breakdowns

Value Calculated for FY-2021	\$88,801.94
FY-2021 total with anticipated 2% increase for FY-2022	\$90,577.98
<b>Fish Food Subtotal</b>	<b>\$90,577.98</b>

Chemicals and Fertilizer

\*\*\* See FY-2018 budget for line item breakdowns

Value Calculated for FY-2021	\$27,084.44	
FY-2021 total with anticipated 2% increase for FY-2022	\$27,626.13	
	Chemicals & Fertilizer Subtotal	\$27,626.13

Hatchery Supplies and Equipment Repair and Replacement

\*\*\* See FY-2018 budget for line item breakdowns

Value Calculated for FY-2021	\$34,707.35	
FY-2021 total with anticipated 2% increase for FY-2022	\$35,401.50	
	Hatchery Supplies Subtotal	\$35,401.50

Office  
Supplies

\*\*\* See FY-2018 budget for line item breakdowns

Value Calculated for FY-2021	\$1,591.81	
FY-2021 total with anticipated 2% increase for FY-2022	\$1,623.65	
	Office Supplies Subtotal	\$1,623.65

Vehicles: maintenance, repair, and fuel

\*\*\* See FY-2018 budget for line item breakdowns

Value Calculated for FY-2021	\$13,770.55	
FY-2021 total with anticipated 2% increase for FY-2022	\$14,045.96	
	Vehicles and Fuel Subtotal	\$14,045.96

Electricity/Utilities

\*\*\* See FY-2018 budget for line item breakdowns

Value Calculated for FY-2021	\$45,631.94	
FY-2021 total with anticipated 2% increase for FY-2022	\$46,544.58	
Paid by the Bureau of Reclamation - Grand Junction office	Electricity/Utilities Subtotal	\$46,544.58

<b>Operations Subtotal</b>	<b>\$215,819.79</b>
<b>Total cost of FY-2022 scope-of-work for Project 29a</b>	<b>\$609,319.79</b>
<b>Total requested FY-2022 funding by agency:</b>	
<b>USFWS: Ouray National Fish Hatchery - Grand Valley Unit</b>	<b>\$562,775.21</b>
<b>Bureau of Reclamation - Grand Junction office</b>	<b>\$46,544.58</b>

VIII. Budget Summary:

**FY2018**

USFWS – Grand Junction FWCO (Grand Jct., CO)	\$519,935.63
USBoR – Western Colorado Area Office (Grand Junction, CO)	<u>\$ 43,000.00</u>
FY2018 Total (both offices)	\$562,935.63

**FY2019**

USFWS – Grand Junction FWCO (Grand Jct., CO)	\$530,281.01
USBoR – Western Colorado Area Office (Grand Junction, CO)	<u>\$ 43,860.00</u>
FY2019 Total (both offices)	\$574,141.01

**2018-2019 Total = \$1,137,076.60**

Estimated Budget Summary for Fiscal Years 2020-2022:

**FY2020**

USFWS – Grand Junction FWCO (Grand Jct., CO)	\$540,903.66
USBoR – Western Colorado Area Office (Grand Junction, CO)	<u>\$ 44,737.20</u>
FY2020 Total (both offices)	\$585,640.86

**FY2021**

USFWS – Grand Junction FWCO (Grand Jct., CO)	\$551,728.49
USBoR – Western Colorado Area Office (Grand Junction, CO)	<u>\$ 45,631.94</u>
FY2021 Total (both offices)	\$597,360.44

**FY2022**

USFWS – Grand Junction FWCO (Grand Jct., CO)	\$562,775.21
USBoR – Western Colorado Area Office (Grand Junction, CO)	<u>\$ 46,544.58</u>
FY2022 Total (both offices)	\$609,319.79

**2020-2022 Total = \$1,792,321.09**

**5-Year Total = \$2,929,397.69**

IX. Reviewers:

Ouray NFH-GVU and Upper Colorado River Endangered Fish Recovery Program staff.

X. References:

Czapla, T.E. 1999. Genetics Management Plan. Upper Colorado River Endangered Fish Recovery Program, Denver, Colorado.

Upper Colorado River Endangered Fish Recovery Program - Integrated Stocking Plan Revision Committee. 2015. Revised Integrated Stocking Plan. Upper Colorado River Endangered Fish Recovery Program, Denver, Colorado.

Upper Colorado River Endangered Fish Recovery Program – Recovery Implementation Program Recovery Action Plan. 2016. 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.