

**RECOVERY PROGRAM
FY 2020-2021 SCOPE OF WORK for:**

Recovery Program Project Number: 29C

Wahweap State Fish Hatchery Operation and Maintenance

Reclamation Agreement number: R19AP00059
Reclamation Agreement term: Oct. 1, 2019 – Sept. 30, 2024

Lead agency: Utah Division of Wildlife Resources

Submitted by: Zane C. Olsen
Wahweap State Fish Hatchery
PO Box 410286
Big Water, UT 84741
Phone: (435) 675-3714
Email: zaneolsen@utah.gov

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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: Wahweap State Fish Hatchery Operation and Maintenance

II. Relationship to 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.b Middle Green River
 - IV.A.4.b Bonytail
 - IV.C. Operate and maintain facilities
 - IV.C.3 Wahweap State Fish Hatchery

Green and Colorado River Action Plans: Mainstem

- IV.A. Augment or restore populations as needed and as guided by the Genetics Management Plan.
 - IV.A.1. Develop augmentation plan for the four endangered fishes of the Green and Colorado River.
 - IV.A.1.c Implement Plan.

III. Background/Rationale and Hypotheses:

Wahweap State Fish Hatchery rears bonytail to recommended size in four growing seasons. Warm water temperatures and longer growing season at Wahweap maximize growth and production of bonytail.

IV. Study Goals, objectives, and End Product:

Goal:

Contribute and assist with the recovery of the endangered fish species in the Upper Colorado River basin by rearing healthy fish for stocking in the basin.

Objectives:

Operate a hatchery facility that supports a genetically sound propagation program for high priority endangered fish species for the UCREFRP in the Upper Colorado River Basin in accordance with the Annual Propagation Facilities Operation Plan and state stocking plans by holding and rearing endangered fish.

End Products:

- 1) Propagation technology and methodology
- 2) Bonytail for research and stocking
- 3) Maintain backup razorback brood populations for the Upper Colorado River Basin

V. Study area:

Utah Wahweap State Hatchery, Big Water, UT.

VI. Study Methods and Approach:

Conduct all tasks associated with the operation and maintenance of propagation facilities for endangered fishes such as pond culture, marking fish, maintaining records of pedigreed family lots, etc. First priority for Wahweap is to raise bonytail for stocking to meet Utah's stocking plan. The second priority is to maintain razorback sucker backup brood stock for the Upper Colorado River basin.

In FY 2020 a fiberglass raceway used for sorting fish and providing treatments for pathogens will be replaced with a permanent concrete raceway. The current outdoor fiberglass raceway had a short (5-year) useable lifespan due to extensive sun damage. The UDWR requested and was approved for an additional \$36,961 for the FY2020 period to replace the fiberglass raceway. Following that approval, the UDWR determined it was feasible and in the best long term interest of the facility to invest additional State funds (\$48,000) and a portion of the annual Wahweap maintenance budget (\$30,000) to build a permanent concrete raceway. This is a no-cost change to the scope of work and results in a long-term solution to fiberglass raceway use in harsh outdoor conditions.

Replacement of the raceway will ensure that bonytail can be treated for Asian tapeworm in properly aerated and less crowded conditions, which should reduce the likelihood of undue stress and mortality during sorting and treatment. The raceway may also provide the opportunity for implementation of flow-training techniques.

VII. Task Description and Schedule:

Tasks:

1. Rear bonytail, PIT-tag, stock, and submit PIT-tag data.
2. Maintain backup razorback sucker brood stock.
3. Replace 90 foot raceway used for fish sorting fish and pathogen treatments.

VIII. Deliverables and Due Dates by Fiscal Year:

FY-2020

Construct new sorting and pathogen treatment raceway: Winter 2019/20
Photos (eg. bonytail diet study) submitted to I & E committee: 28 February 2020
Program annual reports or annual updates to SLC for review: 15 September 2020
PIT-tag Data finalized and submitted to database, HCP report finalized and submitted to PDO, annual reports finalized and submitted to PDO: November 2020

FY-2021

Photos submitted to I & E committee: 28 February 2021
Program annual reports or annual updates to SLC for review: 15 September 2021
PIT-tag Data finalized and submitted to database, HCP report finalized and submitted to PDO, annual reports finalized and submitted to PDO: November 2021

FY-2022

Field report article and photos submitted to I & E committee: 28 February 2022
Program annual reports or annual updates to SLC for review: 15 September 2022
PIT-tag Data finalized and submitted to database, HCP report finalized and submitted to PDO, annual reports finalized and submitted to PDO: November 2022

FY-2023

Photos submitted to I & E committee: 28 February 2023
Program annual reports or annual updates to SLC for review: 15 September 2023
PIT-tag Data finalized and submitted to database, HCP report finalized and submitted to PDO, annual reports finalized and submitted to PDO: November 2023

FY-2024

Photos submitted to I & E committee: 28 February 2024
Program annual reports or annual updates to SLC for review: 15 September 2024

PIT-tag Data finalized and submitted to database, HCP report finalized and submitted to PDO, annual reports finalized and submitted to PDO: November 2024.

IX. Budget Summary:

Please see Non-Federal Grant Agreement Cost Estimating Tool Spreadsheet Budget Summary for more detailed information.

| | <u>USBR</u> | <u>UDWR</u> |
|---------------|-----------------------|------------------|
| FY 2020: | \$ 284,629.11 | \$ 45,771 |
| FY 2021: | \$ 252,563.98 | \$ 0 |
| FY 2022: | \$ 257,557.75 | \$ 0 |
| FY 2023: | \$ 262,651.40 | \$ 0 |
| FY 2024: | \$ 267,846.94 | \$ 0 |
| Total: | \$1,325,249.18 | \$ 45,771 |

X. Reviewers:

Wahweap SFH and Upper Colorado River Endangered Fish Recovery Program staff.

XI. References:

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.