I. Project Title: **U.S. Fish and Wildlife Service Program Management**

II. Bureau of Reclamation Agreement Number(s): R18PG40023

Project/Grant Period:  
- Start date: 10/01/2017  
- End date: 9/30/2022  
- Reporting period end date: 9/30/2022  
- Is this the final report? Yes _____ No __X__

III. **Principal Investigator(s):**

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IV. **Abstract:**

The ongoing work of the Recovery Program Director’s Office is to ensure timely and effective planning, implementation, coordination, and administrative support of the Recovery Program by coordinating and implementing recovery activities; conducting Program planning and evaluation; managing the Recovery Program annual budget; providing staff assistance to **Program committees**; and directing and coordinating Service Recovery Program activities. These tasks were carried out by Recovery Program staff including the director, deputy director, coordinators for the major recovery elements, and administrative staff. Significant FY18 accomplishments include completing species status assessments for **humpback chub and razorback sucker**; supporting the Service leadership in finalizing 5-year reviews for humpback chub and razorback sucker; coordinating water releases and flow management to improve habitat conditions for endangered fish; implementing the **Upper Colorado River Basin nonnative and Invasive Aquatic Species Prevention and Control Strategy** with our state partners; refining the web-based **Species Tagging, Research and Monitoring System (STReaMS)** for data management and access; expanding outreach efforts in many locations within the basin; and managing the Program’s annual budget.

V. **Study Schedule:** 1989-ongoing.

VI. **Relationship to RIPRAP:**

General Recovery Program Support Action Plan:

VII.A.1 Assure consistency of RIPRAP with currently approved recovery plans.

VII.A.2 Recognize the role of the UCREFRP in revised recovery plans.

VII.A.3 Update, refine, and prioritize recovery actions (RIPRAP) annually.

VII.A.5 Update recovery goals/plans.
VII. Accomplishment of FY 2017 Tasks and Deliverables, Discussion of Initial Findings and Shortcomings:

A. Program Director & Staff

1. Directed and coordinated implementation of recovery efforts as described in the RIPRAP and the Biennial Work Plan in the areas of: a) instream flow protection and habitat restoration; b) nonnative fish management; c) propagation/genetics and research, monitoring, and data management; and d) information, education, and public involvement. Program coordinators are: Don Anderson for instream flow protection and fish passages/screens; Kevin McAbee for nonnative fish management; Julie Stahli for propagation/genetics, research & monitoring, and database management; and Melanie Fischer for information, education, and public involvement.

Maintained tracking system of Program reports and due dates to ensure timely accomplishment of Program objectives.

Significant Program accomplishments/activities in 2018 included:

Instream Flow & Habitat Management
- Maintained critical flows and operated fish screens and passages in multiple river basins.
- Continued collecting, processing, and managing river temperature data in the Yampa, White, Green, Colorado, and Gunnison rivers.
- Managed flows in the 15-Mile Reach via coordination with other Colorado River water users, reservoir operators, and the State Engineer’s Office.
  - Released 19,496 of dedicated fish pool water to the 15-Mile Reach from Ruedi, Granby, and Wolford Mountain reservoirs.
  - CWCB secured a temporary lease of 6,000 acre-feet of Ute Water Conservancy District contract water from Ruedi Reservoir, and the Colorado River Water Conservancy District timed nearly 19,000 acre-feet of maintenance releases from Wolford Reservoir to maximize flow benefits for the 15-Mile Reach.
  - Exxon Mobil subsidiary XTO Energy voluntarily relinquished 5,000 acre-feet of Ruedi Reservoir contract water as late-summer flow conditions became particularly dire, effectively making that additional quantity of water available to the Program to supplement 15-Mile Reach flows.
The Program funded a feasibility study for raising the Grand Valley Irrigation Company’s diversion dam at the top of the 15-Mile Reach, which would facilitate more frequent and more efficient fish bypass and fish screening operations.

Grand Valley Project water users finalized an ‘excess capacity’ contract with Reclamation which will facilitate future deliveries of non-Federal water to the 15-Mile Reach for the benefit of the fish.

- Managed flows in the Yampa River via coordination with other river users, reservoir operators, and the State Engineer’s Office.
- A total 7,000 acre-feet of water was released from Elkhead Reservoir to supplement instream flows for the endangered fish. With the entire Yampa River coming under water rights administration for the first time ever in 2018, procedures for quantifying and protecting Elkhead Reservoir releases under call conditions were tested and refined by the Division Engineer, and transit losses previously assessed against the Program’s fish pool releases were substantially reduced.
- Coordinated with a White River Planning Team to develop a draft outline for a White River Management Plan, and to help CWCB develop an RFP to contract for development of that Plan. The 2012 draft White River Flow Recommendations document was reworked to incorporate updated fisheries and streamflow modeling information, and the resulting updated document disseminated for technical review.
- Continued operation of Flaming Gorge Dam under the Biological Opinion and ROD and Study Plan to Examine the Effects of Using Larval Razorback Sucker Occurrence in the Green River as a Trigger for Flaming Gorge Dam Peak Releases.
- Operated to meet spring flow targets and recommended base flow temperatures in Reach 1 and at the confluence with the Yampa River, and to provide floodplain connection in Reach 2 of the Green River coincident with the presence of wild-produced larval razorback sucker. Larval trigger operations have proven very successful providing habitat for the managed Stewart Lake wetland. Similar managed wetlands have recently been configured and are operating at Johnson and Sheppard bottoms on the Ouray National Wildlife Refuge; design work is now underway to convert the Stirrup wetland into an additional wetland that can be managed to provide valuable larval nursery habitat.
- Continued work with the “GREAT” team to evaluate and revise as needed Muth et al. 2000 – the Green River Flow and Temperature Recommendations; a draft of an updated Green River Flow Recommendations document for Program committee review is nearing completion.
- Operated the Aspinall Unit on the Gunnison River under Aspinall EIS and ROD to achieve the Program’s spring and base flow targets for the Gunnison River. Monitoring to evaluate effects of Aspinall operation as per the Aspinall Study Plan is ongoing.
- Program partners continued to implement Upper Colorado River Basin Nonnative and Invasive Aquatic Species Prevention and Control Strategy.

**Nonnative Fish Management**
- The Program Director’s Office continued coordination of in-river nonnative fish removal efforts over 600+ miles of river.
Program stakeholders continue to work towards fish escapement prevention projects at Ridgway, Red Fleet, and Starvation Reservoirs.

Continued to track the emerging threat of grass carp, through testing ancillary captures of adults to determine if they are fertile or sterile fish. Stocking of fertile grass carp is illegal in both Utah and Colorado, where adults are captured.

Propagation & Data Management

Continued good hatchery production and numbers of stocked bonytail and razorback sucker with all stocking goals met or exceeded.

Refinement of the web-based Species Tagging, Research and Monitoring System (STReaMS) with individuals and detections growing over time.

Created standardized GIS layers to ensure consistent data records.

Research & Monitoring

Completed Colorado pikeminnow population viability analysis.

Completed multiple final reports in various recovery elements.

Coordinated multiple endangered species monitoring projects, including Colorado pikeminnow adult estimates in the Green River and humpback chub estimates in Desolation Canyon.

Information and Education

Accelerated and expanded outreach efforts, including:

- Continued sharing “Your Water ¬ Your Fish ¬ Your Future” message with water user partners in bill inserts, newsletters, and websites.
- Extensively visited field locations to promote understanding and awareness of the endangered fish in communities in western Colorado and eastern Utah.
- With Palisade High School and FWS hatchery personnel, established an aquaculture facility that will raise endangered fish in a river ecology class.
- Coordinated production of 40 4’ x 3’ signs for installation along the Green and Colorado rivers in Utah to encourage anglers to release native fish and “catch and keep” detrimental invasive, nonnative species.
- Produced new and attractive educational materials, including temporary tattoos, trading cards, lapel pins, paper and vinyl stickers, and “catch & keep” boat beverage holders for anglers.

2. Conducted Program planning and evaluation:

- Reviewed and updated the RIPRAP, documenting changes from previous version; submitted recommended RIPRAP revisions to the technical, Management, and Implementation committees for review; published final, revised RIPRAP (with progress information included) to web.

- Requested, revised as needed, and posted FY 2017 project accomplishment reports to the web.
Continued to implement peer review to ensure the technical and scientific integrity of Recovery Program activities.

Provided updates of depletion consultations. Through December 2017, the Program had provided Endangered Species Act Compliance for more than 2,100 water projects which can deplete more than 2.86 million af of water from the upper basin.

Coordinated initial stakeholder discussion about what the Program may look like when the current Cooperative Agreements expire in 2023.

3. Monitored the FY 2018 Recovery Program annual budget and modified as necessary.
   a. Developed annual funding table.
   b. Monitored payment and expenditure of Section 7 funds in the National Fish and Wildlife Foundation account.
   d. Calculated FY 2019 annual agency contributions and depletion charge increases based on the Consumer Price Index.
   e. Assisted with preparations for non-Federal Program participants’ Recovery Program trip to Washington, D.C. to brief key people in the Department of the Interior, the Office of Management and Budget, national environmental groups, Congressional delegations, and authorizing and appropriation committees. Prepared Program Highlights briefing book, continuing the feature “centerfold” highlighting the challenge of nonnative fish management.

4. Provided staff assistance to the Implementation and Management committees:
   b. Prepared and promptly distributed concise, accurate meeting summaries. Took notes at Biology Committee meetings and promptly provided drafts meeting summaries to the Committee chair. Coordinated presentations at Annual Researchers Meeting.
   c. Maintained Recovery Program administrative record (primarily on web).
   d. Provided staff assistance to committees as needed.
   e. Recovery Program committee and related activities publicized on the Program listsserver and posted on Program web pages.
f. Attended Implementation, Management, and technical committee meetings.

g. Maintained Recovery Program technical report library and database.

h. Continued to maintain the fws-coloriver electronic mailing list for Program participants. Electronic list improved and moved to a shared Google Sheet in FY17.

i. Continued to revise and maintain Program website with up to date information.

5. Directed and coordinated Service activities related to the Recovery Program.

a. Completed species status assessments (SSA) for humpback chub and razorback sucker. Coordinated multi-stakeholder teams for SSA content, provided documents for peer review, and met Service guidelines. Revised and completed SSAs based on Program and other input. Began drafting Colorado pikeminnow SSA, with help from Region 2.

b. Assisted Regional Director Walsh in completing 5-year reviews for humpback chub and razorback sucker, which recommended downlisting each species to “threatened” status.

c. Began drafting a proposed rule to reclassify humpback chub to threatened status.

d. Administered funding for Service Recovery Program activities.

e. Conducted monthly Service conference call.

f. Coordinated with and provided staff support to Service management on Recovery Program activities and issues. Drafted basis for annual Sufficient Progress memo (new, abbreviated version) and worked with Recovery Program participants and Service to finalize. Implemented process to maintain Program sufficient progress review while reducing workload of formal Service "sufficient progress" memo from annual to biennial.

g. Provided annual Recovery Data Call information.

B. Fish and Wildlife Service Fish and Wildlife Conservation Office staff:

a. Provided technical expertise and recommendations to the Biology Committee as requested.

b. Participated in Biology Committee meetings and Service conference calls.
c. Assisted with PDO-led outreach efforts (in addition to leading numerous outreach activities/visits).

d. Provided technical expertise to the Flaming Gorge Technical Workgroup, 15-Mile Reach coordination calls, and other groups as needed.

VIII. Additional noteworthy observations: N/A.

IX. Recommendations:
- Complete Proposed Rule to reclassify humpback chub to threatened status;
- Begin Proposed Rule to reclassify razorback sucker to threatened status;
- Complete SSA for Colorado pikeminnow;
- Complete 5-year review for Colorado pikeminnow and bonytail;
- Continue to work with Program stakeholders to develop a plan for Program structure after 2023;
- Complete review of Flaming Gorge Flow and Temperature Recommendations;
- Continue to work with stakeholders to provide appropriate flows in upper basin rivers;
- Continue emphasis on nonnative fish management, especially in completing capital structures to prevent nonnative fish escapement from Ridgway Reservoir;
- Continue to manage floodplain habitats to benefit razorback sucker;
- Continue to upload and manage data in Streams; and
- Continue outreach activities in the basin to promote the value of the Program to local communities.

X. Project Status: On track and ongoing.

XI. FY 2017 Budget Status

A. Funds Provided: $418,857
B. Funds Expended: $418,857 + carry-over dollars (in-review). Plus $730,000 (Program Management) and $620,000 (hatchery operation) in kind contributions from Service budgets.
C. Difference: In review, but enough carry-over funds identified to allow reduction in FY19 funding for this and some other Service projects that will cover overall Program budget shortfall.
D. Percent of the FY 2017 work completed, and projected costs to complete: All work completed.
E. Recovery Program funds spent for publication charges: N/A.

XII. Status of Data Submission (Where applicable): N/A

XIII. Signed: Thomas E. Chart 11/16/18
Principal Investigator Date