I. Project Title: **Capital Projects Management**

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

III. Principal Investigator(s): Ryan K. Christianson  
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IV. Abstract: The U.S. Bureau of Reclamation manages and implements capital projects associated with the Upper Colorado River Recovery Program. Work includes preparation of preliminary cost estimates; developing and revising schedules and budgets; developing budget requests for appropriated funds; responding to agency, departmental, OMB and Congressional requests for supporting budget information; allocating costs between appropriated, power revenue and state funds; coordinating with the National Fish and Wildlife Foundation in the collection and expenditure of state funds; developing and managing contracts and agreements; trouble shooting operational problems and implementing corrective actions on completed capital projects; and, resolving issues/disputes associated with implementation of capital projects.


VI. Relationship to RIPRAP: General Recovery Program Support Action Plan:

VII. Accomplishment of FY 2018 Tasks and Deliverables, Discussion of Initial Findings and Shortcomings: Major FY 2018 accomplishments included:

1) Final design and permitting activities for the fish barrier and screen located on the Green River Canal just downstream from the Tusher Wash Diversion Dam near Green River, Utah.  
   a. A construction contract was awarded to NW Construction of Bozeman, Montana on September 21, 2018.  
   b. Thayn Hydropower will take advantage of a dewatered raceway to rehabilitate the 8-Gate Structure at the head of the canal, which will be constructed concurrently with the fish screen and barrier (see report C-28 for more details).

2) Ongoing planning to construct a fish escapement device at Ridgway Reservoir.  
   a. Tri-County Water Conservancy District operated the reservoir in a manner to
b. A value engineering study was conducted in September 2018 to explore alternatives for a permanent structural solution for fish escapement prevention. Further analysis is required, but installation is expected in 2020.


4) The Orchard Mesa Irrigation District regulating reservoir was completed in 2017 and was utilized during the 2018 irrigation season, resulting in significant water savings.
   a. The Orchard Mesa Irrigation District continues to install automatization and optimization devices resulting in more efficient water use and more water in the 15-mile reach. Planning and permitting activities for the final phases of the project are proceeding;

5) Work is progressing on installation of fish escapement facilities at Red Fleet and Starvation Reservoirs;
   a. For Red Fleet Reservoir, final design, environmental compliance and permitting activities are nearly complete and construction is expected in 2019.
   b. A redesign is required for Starvation Reservoir, delaying construction until at least 2021.

6) Habitat development projects continue to be identified and a design was completed for a facility at Stirrup Bottom along the Green River.
   a. Construction of this facility is anticipated in 2020.

7) Due to low flows in the Yampa River, 2000 acre-feet of storage was leased from CRWCD in Elkhead Reservoir as part of the Elkhead Reservoir Enlargement Agreement.
   a. CRWCD completed a replacement of the outlet tower stem guide anchor bolts at Elkhead Reservoir in 2017 which was paid using capital projects funds in FY 2018.

8) Provided miscellaneous technical assistance associated with the Grand Valley Project Fish Passage and Screen, Grand Valley Irrigation Company Fish Passage and Screen, Redlands Water and Power Company Fish Passage and Screen and Grand Valley Water Management facilities.
   a. Discussions with GVIC are ongoing to determine solutions to improve operations of the fish passage and screen which was minimally operated in 2018.

9) Continued participation in the Green Mountain Reservoir Historic User Pool weekly meetings and Coordinated Reservoir Operation process to manage Colorado River flow regimes to benefit fish habitat.

10) Provided financial assistance to the Grand Valley Water User Association and Orchard Mesa Irrigation District to rehabilitate Grand Valley Project Power Plant. Rehabilitation of this facility will help to ensure continued water supply benefits to 15 Mile Reach.

11) Public involvement activities were provided in support of capital projects and Reclamation participation in I&E Committee activities was continued.

VIII. Additional noteworthy observations: Based on FY 2017 indexing, remaining unallocated Capital Project funds under current legislative authorization at the end of FY 2017 is
approximately $3 million. The allocation includes anticipated but unapproved projects including: Catamount Reservoir fish escapement barrier, Stirrup Bottom habitat development, placeholder of $500,000 for other habitat development projects, and $1M for a modification to the GVIC fish screen.

IX. Recommendations: Need to determine which future projects need to be prioritized, as the federal budget cycle is a 3-year process and authorization runs out in 2023. Appropriations may be difficult to obtain at the higher levels required to spend all capital project funding authorized under the cost ceiling.

X. Project Status: Ongoing

XI. FY 2018 Budget Status

A. Funds Provided: $100,000  
B. Funds Expended: $115,760  
C. Difference: $15,760  
D. Percent of the FY 2018 work completed, and projected costs to complete: NA  
E. Recovery Program funds spent for publication charges: $0

XII. Status of Data Submission (Where applicable): NA

XIII. Signed: Ryan Christianson  November 15, 2018  
Principal Investigator  Date

APPENDIX: NA