

COLORADO RIVER RECOVERY PROGRAM  
FY 2011 ANNUAL PROJECT REPORT

RECOVERY PROGRAM  
PROJECT NUMBER: C-9

I. Project Title: O&M for Elkhead Reservoir Fish Releases

II. Principal Investigator(s): Ray D. Tenney, P.E.  
Senior Water Resources Engineer  
Colorado River Water Conservation District  
P.O. Box 1120  
Glenwood Springs, CO 81601  
Telephone (970)945-8522 x220  
Fax (970)945-8799  
Email: rtenney@crwcd.org

III. Project Summary: Elkhead Reservoir as enlarged includes 5,000 acre-feet of Recovery Program controlled storage as a result of the Recovery Program participating in the capital investment in the enlargement project. This water is released, as directed by the Recovery Program, to enhance flows in the Yampa River in critical habitat for the benefit of the listed fishes. Operating costs for Elkhead Reservoir are distributed between the Recovery Program and the River District (owners of the enlargement pool) and the City of Craig and the Yampa Participants (the owners of the original pool). Billing of the operating costs is on a **calendar year basis**, in arrears. For the purposes of this report, expenditures in the 2011 FFY are reported with an estimate of the total expected calendar year expenses to be invoiced to the Recovery Program for 2011 operations.

IV. Study Schedule: Ongoing

V. Relationship to RIPRAP: Green River Action Plan: Yampa and Little Snake Rivers, I.B.2.a.(2)(b), Deliver water for endangered fish.

VI. Accomplishment of FFY 2011 Tasks and Deliverables, Discussion of Initial Findings and Shortcomings:

5,500 acre-feet of water was available for Recovery Program use in 2011. This was the “normal” Recovery Program pool of 5,000 acre-feet and 500 acre-feet which had been purchased by the Recovery Program in 2009 and carried over one year into 2010 per our agreement. 1,820 acre-feet was delivered as requested to maintain flows sufficient to extend the Yampa River bass removal effort on the descending limb of the hydrograph. Flows in the Yampa River did not require additional augmentation. See attached operations summary memo.

Seepage at the toe of the dam identified in the annual dam safety inspections was again observed this year. Monitoring will continue with no remedial action undertaken in 2011.

Wetland mitigation area monitoring indicates wetland mitigation area development is progressing well. Wetland mitigation area development monitoring will continue for one more year (total of 5 years) in the areas which were constructed and planted and for 6 more years (total of 10 years) in the upstream end of the reservoir where sediment accumulation

and natural vegetation development is the mechanism being relied upon to create wetland habitat. Wetlands mitigation areas are reported to be developing well.

A failure of the movable fish screen on the lowermost gate of the outlet works tower in the reservoir necessitated a repair effort in December 2010. This work involved re-bolting the fish screen to the stem which raises and lowers it from in front of the opening to the lowermost gate. Unfortunately this work must be performed by divers and required 20 hard hat dives in nearly zero visibility at a depth of 65 feet, 6400 feet above sea level. Fish screen related costs are by agreement borne entirely by the Recovery Program.

City of Craig related charges in the accounting include repair of one of the two compressors which supply air for the fish screen backwashes.

A USDA snotel site was established this year in the Elkhead Creek drainage for \$25,000 with funds from the CWCB and the River District. River District contributions of \$10,000 to this effort were charged to the project as the snotel information may improve predictions of runoff and fill operations. The USDA has agreed to operate this snotel at no cost to the project.

- VII. Recommendations: Operations currently rely on the management of recreational aspects of the project by Colorado State Parks and Wildlife who administer a water craft inspection and disinfection program for all boats launched at Elkhead Reservoir. This program is critical to avoiding invasive species which may adversely affect the outlet of the reservoir which is screened with ¼ inch fish screens. Support of continuation of the State of Colorado program by the Recovery Program may help maintain this effort and avoid costs to the project.
- VIII. Project Status: On track and ongoing.
- IX. FY 2011 Budget Status
- A. Funds provided: \$80,537.56 based on SOW submitted.
  - B. Funds Expended: Recovery Program charges related to the 2011 FFY are \$76,685.74. Note, the agreement for the Recovery Program participation in Elkhead Reservoir Enlargement utilizes a calendar year billing cycle so 2011 charges submitted to the Recovery Program will be accounted for as calendar 2011 costs and different than the value reported above.
  - C. Difference: Some anticipated maintenance activities were deferred as conditions are being monitored. Fish screen repair costs were not included in the project budget.
  - D. Percent of the FY 2011 work completed, and projected costs to complete: 100%
  - E. Recovery Program funds spent for publication charges: \$0
- X. Status of Data Submission (Where applicable): *[Indicate what data have been submitted*

*to the database manager and when they were submitted.]*

XI. Signed: Ray Tenney December 8, 2011  
Principal Investigator Date

*(Just put name and date here, since you will be submitting the report electronically)*

APPENDIX: *[More comprehensive/final project reports (NOT to be used in place of a complete annual report.). If distributed previously, simply reference the document or report.]*