

**COLORADO RIVER RECOVERY PROGRAM  
FY 2011 ANNUAL REPORT**

**Project No.: C-14 & PIP 12C**

**I. Project Title:** Coordinated Reservoir Operations (CROS)  
Operations and I&E

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

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**III. Project Summary:**

This project involves voluntary operational coordination of selected reservoirs in the Colorado River Basin upstream from the confluence of the Colorado and Gunnison rivers. The goal is to enhance spring peak flows to improve endangered fish species habitat in the 15-Mile Reach of the Colorado River without diminishing reservoir yields, affecting the timing of reservoir filling or causing flows to exceed flood stage at Cameo. Participating reservoirs in the past have included Green Mountain and Ruedi (Reclamation), Wolford Mountain (Colorado River Water Conservation District), Dillon and Williams Fork (Denver Water), and Windy Gap, Willow Creek and Granby (Northern Colorado Water Conservancy District & Reclamation). CROS occurs in years when runoff conditions allow participating reservoirs to contribute without affecting their yield. The intent of CROS is to attempt to coordinate bypasses of inflow to enhance the natural peak flows on the Colorado river for 10 days to two weeks. This typically occurs during the last week of May and the first week of June.

In 2011, coordinated reservoir releases were not made due to flooding concerns. Snowpack levels remained well above average throughout April and May. Streamflow forecasts indicated peak flows above flood stage were likely at Cameo, with a 50th percentile forecasted peak of 23,000 cfs and a 10<sup>th</sup> percentile peak of 36,000 (25,400 cfs is flood stage). Spring was cool and the runoff gradual. The resulting peak at Cameo was 29,000 cfs, which is the highest since CROS began.

**IV. Study Schedule:** 1995 - present

**V. Relationship to RIPRAP:** Colorado Mainstem Action Plan 1.A.5.I.

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

*Tasks for the FY11 Water Year included:* The reservoir operators began the weekly calls on May 2<sup>nd</sup>. Even though a coordinated release for fish was unlikely, the group still met by phone once a week to coordinate and alleviate possible flooding while operating reservoirs safely.

The press release announcing that no CROS would occur was issued on June 7<sup>th</sup>, 2 days before the Colorado river peaked at Cameo.

Reclamation presented the annual operations meeting for Ruedi Reservoir the third week of May in El Jebel, CO. The Recovery Program also presented information on the 10,825 process, summarized operations in 2010 and talked about possible operations for fish releases in 2011.

**VII. Recommendations:** The Recovery Program should continue to support the efforts of and encourage participation in Coordinated Reservoir Operations. The participating entities should work with the NWS Colorado Basin River Forecast Center to improve peak runoff forecasts. The ongoing effort should continue to refine and improve the coordination process, and address issues including identification of inundation levels downstream of participating reservoirs, improved communication and coordination, and improved accounting and monitoring. Additionally, the Recovery Program's I&E Committee is encouraged to work with Participants and the U.S. Fish and Wildlife Service to improve public education of CROS role and function in the Upper Colorado River Basin.

**VIII. Project Status:** The Coordinated Reservoir Operations is an ongoing activity and will continue to refine and improve the process and address issues identified to allow for greater effectiveness of the effort.

**IX. FY 2011 Budget Status**

	Federal	State (In Kind)
<b>A. Funds Provided:</b>	\$ 5,000	\$12,000
<b>B. Funds Expended:</b>	\$ 2,485	\$ 2,000
<b>C. Difference:</b>	\$ 2,515	\$10,000
<b>D. Percent of the FY 2011 work completed, and projected costs to complete:</b> 100%		

**E. Recovery Program funds spent for publication charges: \$0**

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

**XI. Signed:** Michelle Garrison                      **Date** Dec. 5, 2011  
Principal Investigator

**Signed:** Ron Thomasson                      **Date** Dec. 5, 2011  
Principal Investigator