

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

II. Bureau of Reclamation Agreement Number: N/A

III. Principal Investigator(s):

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IV. Abstract:

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. Participating reservoirs in the past have included Willow Creek, Granby, Green Mountain and Ruedi (Reclamation), Wolford Mountain (Colorado River Water Conservation District), Dillon and Williams Fork (Denver Water), and Windy Gap (Northern Colorado Water Conservancy District). 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 2012, coordinated reservoir releases were not made due to extremely dry conditions. Spring 2012 was warm and dry, with snowpack levels consistently well below average throughout the Upper Colorado basin. Most reservoirs were not projected to fill. Streamflow forecasts indicated spring peak flows would remain significantly below the trigger for considering CROS operations.

V. Study Schedule: 1995 - 2023

VI. Relationship to RIPRAP:

Colorado Mainstem Action Plan 1.A.5.g.(2). Coordinated reservoir operations.
If available, deliver additional peak flows, evaluate process & hydrology, and provide annual report.

VII. Accomplishment of FY 2012 Tasks and Deliverables, Discussion of Initial Findings and Shortcomings:

The reservoir operators and other participants met on April 23, 2012 to discuss snowpack, streamflow and storage conditions. There was consensus that due to the dry conditions, CROS operations were not possible.

The press release announcing that no CROS would occur was issued on May 16. Flows at the Cameo gage remained well below the lower threshold for CROS operations throughout the 2012 runoff season.

In May, Reclamation presented run-off and coordinated reservoir operations data at the Colorado River District's State of the River meeting in El Jebel, Colo. The last week of July, Reclamation hosted its annual Ruedi Reservoir operations meeting in Basalt, Colo. to provide a public summary of the run-off season and look ahead to the remainder of the water year.

VIII. 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 continue its work with participants and the U.S. Fish and Wildlife Service to improve public education of the CROS role and function in the Upper Colorado River Basin.

IX. 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.

X. FY 2012 Budget Status

	Federal	State (In-Kind)
A. Funds Provided:	\$20,000	\$12,000
B. Funds Expended:	\$2,485	\$ 1,000
C. Difference:	\$17,515	\$11,000
Funds not expended due to cancellation of CROS operations.		
D. Percent of the FY 2012 work completed, and projected costs to complete:	N/A	
E. Recovery Program funds spent for publication charges:	\$0	

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

XII. Signed: Michelle Garrison Dec. 12, 2012
Principal Investigator Date

Ron Thomasson Dec. 12, 2012
Principal Investigator Date