COLORADO RIVER RECOVERY PROGRAM
FY 2009 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 or affecting the timing of reservoir filling. Participating reservoirs in the past have included Green Mountain and Ruedi (Reclamation), Windy Gap, Wolford Mountain (Colorado River Water Conservation District), Dillon and Williams Fork (Denver Water), and 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 releases of inflow to enhance the natural peak flows on the Colorado for 10 days to two weeks. This typically occurs during the last week of May and the first week of June. In 2009, coordinated reservoir releases were made starting May 14, 2009 through May 26, 2009.

IV. Study Schedule: 1995 - present


VI. Accomplishment of FY 2009 Tasks and Deliverables, Discussion of Initial Findings and Shortcomings:

Tasks for the FY09 Water Year included: Combined releases in 2009 of 42,783 acre-feet were the highest since CROS began in 1995, compared with an average of 25,000 acre-feet. We continued to maintain very effective participant and public communications regarding CROS
operations, developing peak enhancement operating plans, performing required coordination and maintenance activities to facilitate CROS as water supply allowed.

This year a series of news releases, vs. one news release announcing the program, was disseminated so that CROS information would be available in a real-time fashion and, therefore, more accurate. The news releases were featured in the Aspen Times, accompanied by supporting quotes from Reclamation. Because the same publisher owns several mountain newspapers, the article appeared across the Roaring Fork Valley and in Dillon and Frisco, CO. Reclamation presented the annual operations meeting for Ruedi Reservoir the third week of May in Basalt, CO. This meeting was also used to present the possibility of a CROS release and what that might entail. Additional public presentations that included CROS were made by either Reclamation or the Fish and Wildlife Service at the Colorado River District’s annual State of the Colorado River meetings in Frisco, Granby, and Basalt, CO, also in May.

The participating reservoirs voluntarily by-passed additional inflow above their normal operating plans as part of CROS as follows:

<table>
<thead>
<tr>
<th>Reservoir</th>
<th>Flow Rate (cfs)</th>
<th>Time Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green Mountain Reservoir</td>
<td>547</td>
<td>average for 13 days</td>
</tr>
<tr>
<td>Ruedi Reservoir</td>
<td>227</td>
<td>average for 13 days</td>
</tr>
<tr>
<td>Windy Gap Reservoir</td>
<td>175</td>
<td>average for 6 days</td>
</tr>
<tr>
<td>Willow Creek Reservoir</td>
<td>107</td>
<td>average for 13 days</td>
</tr>
<tr>
<td>Wolford Reservoir</td>
<td>507</td>
<td>average for 13 days</td>
</tr>
<tr>
<td>Williams Fork</td>
<td>283</td>
<td>average for 9 days</td>
</tr>
</tbody>
</table>

A detailed report documenting 2009 CROS operations will be prepared at a later date.

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 River Basin 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 & 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 2009 Budget Status**

   **Federal** | **State (In Kind)**
   --- | ---
   A. **Funds Provided:** | $20,000 | $12,000
   B. **Funds Expended:** | $2,485 | $10,000
   C. **Difference:** | $17,515 | $2,000
   D. **Percent of the FY 2009 work completed, and projected costs to complete:** 100%
   E. **Recovery Program funds spent for publication charges:** $0

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

XI. **Signed:** Michelle Garrison  
    Principal Investigator  
    Date January 8, 2010

**Signed:** Ron Thomasson  
    Principal Investigator  
    Date January 8, 2010