

I. Project Title: General Hydrology Support for Water Acquisition Activities.

II. Principal Investigator:  
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III. Project Summary:

The Service's Division of Water Resources provides support for activities undertaken by the Water Acquisition Committee (WAC) and the Recovery Program Director's Office in the areas of water acquisition and water scheduling and coordination. WAC support includes chairing the WAC, preparing agendas, preparing meeting summaries, developing Scopes of Work, preparing Annual Reports, and working on WAC-related projects. Other major tasks include participation in special projects such as Grand Valley Water Management, Coordinated Reservoir Operations, Yampa River Operation and Management Plan, and scheduling reservoir releases for flow support in the 15-Mile Reach and Yampa River.

IV. Study Schedule: Ongoing

V. Relationship to RIPRAP:

Colorado River Action Plan, Mainstem: I.A.5  
Yampa River Action Plan: I.A.1, I.B.2

VI. Accomplishments of 2005 Tasks and Deliverables, Discussion of Initial Findings and Shortcomings:

A. Gage Installation and Maintenance:

Water Rights Acquisition Committee Administrative Work: Scopes of Work and contracts were developed for the operation of the Palisade gage, two gages on the Yampa River, and two gages on the Duchesne River. The gages on the Colorado and Yampa rivers were funded cooperatively by the Recovery Program, Colorado River Water conservation District and USGS. The two gages on the Duchesne River were funded cooperatively by the Recovery Program, Central Utah Water Conservancy District, and USGS.

B. Hydrology Support for Water Acquisition Activities:

1. Assistance was provided to the Recovery Program Director with assistance in implementing the 2012 agreement for water from Ruedi Reservoir. The new lease modified and simplified reporting requirements, the service no longer must develop a special report documenting the benefits of the releases to the endangered fish in the 15-Mile Reach. To fulfill the reporting requirement a compendium of reports and Program Directors updates was provided to the Reclamation and the Colorado Water Conservation Board in March of 2006.

Water Year 2005 was a year where snowpack was near normal most of the winter and most reservoirs were expected to just come short of filling. Unexpectedly the runoff continued to build in the spring and most reservoirs ended up filling and spilling some water. The exception was Wolford Mountain Reservoir which has a south facing drainage area. Wolford Mountain Reservoir just fell of meeting drought targets and only 1,000 acre feet of water was made available in 2005. The Service Water Resources staff participated in the following activities to help keep water in the Colorado, Green, and Yampa rivers to support endangered fish.

- . During the late summer, flows in the 15-Mile Reach were monitored on a daily basis and weekly conference calls were held to coordinate releases from Ruedi, and Williams Fork Reservoirs. Because the late spring flows were high and remained high through July an average year flows target of 1,240 cfs was established was established in consultation with Service Biologists. The flow target was met for much of the late summer and only was missed as the runoff played out in late August and reservoir release could not be stepped up in time to offset the decline. The final accounting has been completed, 17,163 acre-feet of water was released from Ruedi, 3,814 acre-feet from Williams Fork reservoirs and 31,200 acre-feet from Green Mountain Reservoir under the municipal lease. No water was available from the Wolford 5,412 acre-foot West slope pool because of shortage criteria but the River district did make 1,000 acre feet available as a gesture of good will. No water was requested from the 6,000 af fish pool in Wolford because water was being saved to help attain a fill in 2006 and the flow recommendations were to be met from other sources. The total amount of water released from all sources in 2005 was 53,177 acre-feet.
2. Water year 2005 was another dry year on the Yampa River. I monitored the flows on a daily basis and coordinated with Tri-state Generation to facilitate water released from Stagecoach Reservoir to supplement river flows. No water was released from Steamboat Lake in 2005 and flows were for the most part remained above the 93 cfs target at Maybell.
3. The geomorphology peer review panel was requested to review two important program reports. Reviews were completed for the report on Riverine Fish Flow Investigations (Anderson and Stewart 2003) and the "Mud" report by Mussetter and Miller. I prepared a draft letter summarizing peer review comments and helped finalize the Recovery Program staff comments on the Anderson Stewart report.

C. Yampa River Reservoir Studies:

1. Some work continued in 2005 to negotiate a short term lease of water from Steamboat lake until water from Elk Head enlargement becomes available.
2. Considerable time was spent preparing draft sections of the Yampa River PBO and working with Program directors office and ES staff to finalize the PBO.

D. Coordinated Reservoir Operations and CFOPS:

No Coordinated Reservoir Operations discussions were held in 2005 because of the status of basin reservoirs which in early spring were not anticipated to fill. The coordinated reservoirs work group did meet via conference call several time and were prepared to make bu passes if spills were anticipated to occur.

E. General Support Activities:

1. I served as Chairman of the Water Acquisition Committee where the following tasks were performed: 1. prepared meeting summaries for all WAC meetings and reports to the Management Committee, 2. prepared annual reports to the Colorado Water Conservation Board on Ruedi flows and associated benefits to the 15-Mile Reach, and 3. prepared Scopes of Work and annual reports for the following projects:
  1. Water Right Consultant Services
  2. General gage operation and maintenance
  3. Steamboat Lake water lease
  4. Green Sediment Sampling
  5. Water acquisition Hydrology Support
  6. 15-Mile Reach Channel Monitoring
  7. Peer review of Geomorphology
2. As chairman of the Water Acquisition Committee, I serve as coordinator for Grand Valley Water Management, Redlands Gage, Coordinated Reservoirs, and the two CWCB projects. Many of the tasks included attending meetings, reviewing reports, providing comments, and reporting to the Service and WAC.
3. Provided support to the Program Directors office in updating the RIPRAP, developing Program Guidance, developing Program Directors updates and reviewing water related press releases and media products.
4. 15-Mile Reach PBO 5 year accounting started in 2005. Time was spent in gathering depletion data and condonation with CWCB staff. A spreadsheet of depletions was developed and forwarded to the CWCB Staff.

VII. Recommendations: Continue general hydrology support for Water Acquisition activities.

VIII. Project Status: The project is ongoing and changes each year to meet the changing objectives of the Recovery Program in securing, protecting, and delivering water for endangered-fish habitat.

IX. FY 2005 Budget Status:

A. Funds provided:	\$65,500
B. Funds expended:	<u>65,500</u>
C. Difference:	\$ 0

X. Status of Data Submission: Not applicable.

XI. Signed: George R Smith                      November 16, 2005  
Principal Investigator                              Date

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