

FY 2010-2011 PROPOSED SCOPE OF WORK for:
Operation and Maintenance of Gages

Project #: 8

Lead Agency: U.S. Fish and Wildlife Service

Submitted by: Jana Mohrman
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<u>Category:</u>	<u>Expected Funding Source:</u>
<input checked="" type="checkbox"/> Ongoing project	<input type="checkbox"/> Annual funds
<input type="checkbox"/> Ongoing-revised project	<input type="checkbox"/> Capital funds
<input type="checkbox"/> Requested new project	<input checked="" type="checkbox"/> O&M funds
<input type="checkbox"/> Unsolicited proposal	<input checked="" type="checkbox"/> Other (Section 7)

I. Title of Proposal: Operation and Maintenance of Gages Important to the Recovery Implementation Program.

II. Relationship to RIPRAP:

<u>Task #</u>	<u>Task Description</u>
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Colorado River Action Plan

I.A.3.c.(3)(a) Deliver Ruedi flows to the 15-Mile Reach.

Green River Action Plan

I.A.3 Deliver identified flows

Yampa River Action Plan

I.B.2a.(2)(b) Elkhead Reservoir delivery flows for endangered fish

I.A.4a.(3)(e) Install and/or operate gages

Duchesne River Action Plan

I.C. Legally protect and deliver identified flows.

I.D. Coordinate reservoir operation

I.F. Determine the need and feasibility of additional gaging.

III. Study Background/Rationale and Hypotheses:

Over the years, the Recovery Program has identified a need to expand flow gaging in the basin to support development of flow recommendations, quantify sediment movement, and administer water secured for endangered fish. This Scope of work consolidates the Recovery Program gaging program and identifies the contributions of cooperating agencies. Cooperators are the Colorado State Engineers Office and the Central Utah Water Conservancy District. Utah gages are funded with Program O&M funds that are passed through to cooperating agencies. Colorado gages are funded directly by the Recovery Program by funds administered by the Bureau of Reclamation.

IV. Study Goals, Objectives, End Products:

Provide a basis for refining the flow recommendations for the important stream reaches of the Colorado, Yampa, Price and Duchesne Rivers.

Provide a benchmark for future monitoring by video or aerial photography.

Gages will be used to aid scheduling releases from Ruedi, Wolford Williams Fork Elkhead and Green Mountain Reservoirs and other water sources which may be acquired by the Recovery Program.

Provide basic information for sediment modeling for the Little Snake and Yampa Rivers.

Upgrade gaging to provide reliable system for monitoring flows along the lower Duchesne River.

V. Description of Past Performance:

The Palisade gages have been operating continuously since 1990. The gages on the Duchesne and Uinta Rivers have been operating for 4 years. Gages on the Yampa River have been operating for seven years. 2007 will be the second year of operation for the Williams Fork Creek gage.

VI. Study Area:

Colorado, Green, Yampa, and Duchesne Rivers.

VII. Study Methods/Approach:

The Recovery Program will work with cooperators to contract with for the operation of gages important to the Recovery Program.

VIII. Task Description and Schedule:

- A. Operate and maintain the Palisade (15-Mile Reach) gage installed in FY-90 by the Recovery Program.
- B. Operate and maintain the two gages installed on the Yampa River installed in FY-97 by the Recovery Program. Recent funding shortfalls have resulted in the Recovery Program funding 1/4 of the cost of the Craig gage on the Yampa River. The gage on the Yampa River above Elkhead Creek and the Gage on Williams Fork are needed to administer releases from the enlarged Elkhead Reservoir.
- C. Operate and maintain the gages installed on the Duchesne and Uinta Rivers installed in FY-97 by the Central Utah Water Conservancy District. The Recovery Program will cost-share in the operation of this gage.

- D. Operate and maintain the temperature equipment installed on the Duchesne and Uinta Rivers installed in FY-97 by the Central Utah Water Conservancy District. The Recovery Program will cost-share in the operation of this gage.
 - E. Operate and maintain the temperature equipment installed on the Jensen Utah gage installed in FY-98 for the Recovery Program. The Recovery Program will cost-share in the operation of this gage.
 - F. Operate and maintain the gage installed on the Price River during the summer of 2000. The gage was requested by the Biology Committee. River stage/flow and temperature will be collected. The Recovery Program will cost-share in the operation of this gage.
- IX Study Schedule: Typically gages are operated on an October to September Water/Fiscal year. Because of the change over to direct funding by Reclamation, the 2007 Operation of the Colorado gages begins January 1, of 2007, and continues through September 30, 2008.

Real time provisional data is available on the web at :

<http://waterdata.usgs.gov/co/nwis/current/?type=flow><http://www.usgs/nwis.gov>

The data is published in March of each year and is available in USGS annual water resource data reports. Historic data is also available on the web but usually lags two years because of quality assurance procedures and the volume of data which must be processed by USGS. The temperature for Lodore, Jensen and Deerlodge is available at:

http://waterdata.usgs.gov/nwis/uv?multiple_site_no=404417108524900%0D%0A09260050%0D%0A09261000&search_site_no_match_type=exact&index_pmcode_00010=5&index_pmcode_82292

FY2010

Colorado State Engineers Office: \$7,276

USGS: \$51,220

CUWCD: \$55,503

Total FY2010: \$113,999**XI 2010 Budget**

COLORADO	COST	UCRIP	USGS	CWCB/SEO
Funds go to Colorado State Engineers Office Steamboat Springs				
Williams Fork Creek near Craig	\$9,702	\$7,276	\$0	\$2,426
Funds go to USGS Grand Junction				
Yampa and Lodore Temperature	\$8,820	\$8,820	\$0	
Yampa River Near Craig ¼ of O/M	\$3,980	\$3,980	\$0	
Colorado River Near Palisade	\$15,908	\$15,908	\$0	
Yampa River Above Elkhead Creek	\$15,908	\$15,908	\$0	
Yampa River Below Little Snake	\$15,908	\$6,604	\$0	\$6,604 USBR \$2,700 NPS*
TOTAL	\$70,224	\$58,496		\$11,730

UTAH

Funds go to Central Utah Project	COST	CUWCD	USGS
Green River near Jensen (DCP & Temp)	\$5,127	\$2,820	\$2,307
Duchesne River near Randlett	\$14,900	\$8,195	\$6,705
Duchesne River above Randlett	\$14,900	\$8,195	\$6,705
Uinta River at Randlett	\$14,900	\$8,195	\$6,705
Duchesne River near Randlett (Temp)	\$2,517	\$1,384	\$1,133
Price River Flow and (Temp)	\$17,416	\$9,579	\$7,837
Duchesne R. at Myton	\$14,900	\$8,195	\$6,705
Green River at Ouray NWR	\$14,900	\$8,940	\$5,960
TOTAL:	\$99,560	\$55,503	\$44,057
Grand Total	\$169,784	\$119,959	

XI 2011 Budget

COLORADO	COST	UCRIP	USGS	CWCB/SEO
Funds go to Colorado State Engineers Office Steamboat Springs				
Williams Fork Creek near Craig	\$9,751	\$7,312	\$0	\$2,426
Funds go to USGS Grand Junction				
Yampa and Lodore Temperature			\$0	
Yampa River Near Craig ¼ of O/M	\$9,040	\$9,040	\$0	
Colorado River Near Palisade	\$4,080	\$4,080	\$0	
Yampa River Above Elkhead Creek	\$16,200	\$16,200	\$0	
Yampa River Below Little Snake	\$16,200	\$16,200	\$0	\$6,770 USBR \$2,730 NPS*
TOTAL	\$71,471	\$59,602		\$11,938

UTAH

Funds go to Central Utah Project	COST	CUWCD	USGS
Green River near Jensen (Temp)	\$5,000	\$2,750	USGS
Duchesne River near Randlett	\$15,100	\$8,300	\$2,250
Duchesne River near Randlett (Temp)	\$2,500	\$1,375	\$6,800
Uinta River at Randlett	\$15,100	\$8,300	\$1,125
Duchesne River above Uinta River	\$15,100	\$8,300	\$6,800
Price River Flow and Temp	\$22,650	\$12,455	\$6,800
Duchesne R. at Myton	\$15,100	\$8,300	\$10,195

Green River at Ouray NWR	\$15,100	\$9,060	\$6,800
TOTAL:	\$105,650	\$58,840	\$6,040
Grand Total for FY 2011	\$177,121	\$118,442	\$58,748

* USBR Salt Lake City has agreed to fund ½ of the Yampa River below Little Snake River gage. For additional information contact Robert Radke at 801-524-3719.

Colorado USGS Gages

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USBR Salt Lake City funds ½ of the Yampa River below Little Snake River gage

XI Reviewers: Recovery Program Staff.