

**COLORADO RIVER RECOVERY PROGRAM**

Project Number: C-9

**FY 2010 and 2011 SCOPE OF WORK for:**

**Operation and Maintenance of Elkhead Reservoir  
to deliver 5,000 af for instream flow augmentation**

*[Show brief title of project here]*

Lead agency: Colorado River Water Conservation District

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Category:

Expected Funding

Source:

- Ongoing project
- Ongoing-revised project
- Requested new project
- Unsolicited proposal

- Annual funds
- Capital funds
- Other *[explain]*

- I. Title of Proposal: Operate Elkhead Reservoir to release water for augmentation of Yampa River flows.
- II. Relationship to RIPRAP: *[Action plan(s), task number(s) and title(s) in the most recent RIPRAP which are correlated with this project. See RIPRAP at <http://www.fws.gov/mountain-prairie/crrip/riprap/RIPRAPMarch31-08.pdf>]*

Green River Action Plan: Yampa and Little Snake Rivers, I.B.2.a.(2)(b), Deliver water for endangered fish.

III. Study Background/Rationale and Hypotheses:

Flow augmentation deemed beneficial to recovery of listed fishes in the Yampa River.

IV. Study Goals, Objectives, End Product

Release water requested by Recovery Program for augmentation of Yampa River flows, maintain the reservoir facilities and comply with all permit requirements.

## V. Study Area:

Elkhead Reservoir, Elkhead Creek, Yampa River Basin

## VI. Study Methods/Approach

Agreements provide for the release of 5,000 af of stored water for augmentation of Yampa River flows. The Recovery Program requests reservoir releases for various purposes. The River District and the City of Craig operate the reservoir to make the requested releases and keep all required records.

## VII. Task Description and Schedule:

Winter – reservoir operations are limited. Low flow releases are made to assist with maintenance of open stream conditions for stock watering downstream of the reservoir. Diversion records from previous water year are completed and submitted to the SEO.

Spring – reservoir operations are complicated by the desire to minimize un-screened spills over the spillway. Reservoir fill is managed to reach elevation 6371 prior to commencement of runoff to protect wetland mitigation features in the upstream end of the reservoir. Outlet releases are adjusted to increase discharges as inflows increase until the outlet capacity is exceeded by inflow and the reservoir spills. Effort requires daily attention to flow, snowpack, weather and release rates. Weed control is undertaken on reservoir lands.

Summer – reservoir is operated to bypass inflow necessary to meet Elkhead Creek demands from senior water rights holders and to make releases requested by the Recovery Program, any contracts for River District water and releases requested by the other pool owners the City of Craig and the Craig Station power plant. Routine maintenance is performed. Wetlands mitigation area performance is evaluated and reporting prepared. Weed control and routine maintenance. Seepage at three downstream locations has been identified as requiring action by the State Engineer during annual dam safety inspections. Some budget has been included to address these seeps. Observation, evaluation, design and remedial construction may be necessary. Water rights for the enlargement pool which the Recovery Program has invested in will be adjudicated in Colorado Water Court to facilitate conveyance to the CWCB for the benefit of the RIP.

Fall – reservoir releases abate as irrigation demand downstream slows and calls for fish releases cease.

## VIII. Deliverables, Due Dates, and Budget by Fiscal Year:

Reporting of reservoir diversions to the Division is required by January of the year following the October 1 cessation of the water year. Reporting of dam monitoring data

is required annually. This includes dam settlement monument monitoring, piezometer data. Reporting of wetland mitigation area progress is required annually to the USACOE.

Budget: Broken out by task and funding. The 2010 cost estimate summarizes estimated costs for the 2009 releases, which will be finalized in March 2010, then paid. The 2011 cost estimate is the estimated costs for the 2010 releases.

2010 Estimate	Totals	Entire Pool		RIP Only
		24777 af	11956 af	
SEO Identified Issues	\$10,000	\$10,000		
Gauging	\$34,552	\$34,552	\$0	\$0
Water Quality		\$0	\$0	\$0
Rec. Fees	\$15,000	\$0	\$15,000	\$0
Electric	\$5,500	\$3,500	\$0	\$2,000
Operating	\$89,552	\$49,552	\$40,000	\$0
Travel	\$2,200	\$500	\$1,700	\$0
Labor	\$77,164	\$18,338	\$58,826	
City of Craig Expenses	\$33,334	\$33,334	\$0	\$0
Totals	\$267,301	\$149,775	\$115,526	\$2,000

**2010 Prorated Costs Calculations Between CRWCD & Others**

Participants	af	%	%	Prorated Costs	Cost/af
Yampa Participants	8408	33.93%		\$50,826	\$ 6.04
City of Craig	4413	17.81%		\$26,676	\$ 6.04
Recovery Program	5000	20.18%	41.82%	<b>\$80,538</b>	\$ 16.11
CO River District	6956	28.07%	58.18%	\$109,261	\$ 15.71
				\$267,301	

2011 Estimate	Totals	Entire Pool		RIP Only
		24777 af	11956 af	
SEO Identified Issues	\$5,000			
Gauging	\$36,625			
Water Quality		\$0	\$0	\$0
Rec. Fees	\$15,000			
Electric	\$6,050	\$3,850		\$2,200
Operating	\$84,625	\$51,625	\$33,000	
Travel	\$2,420	\$550	\$1,870	
Labor	\$70,232	\$17,044	\$53,188	
City of Craig Expenses	\$35,334	\$35,334		
Totals	\$255,285	\$108,403	\$88,058	\$2,200

**2011 Prorated Costs Calculations Between CRWCD & Others**

<b>Partipants</b>	<b>af</b>	<b>%</b>	<b>%</b>	<b>Prorated Costs</b>	<b>Cost/af</b>
<b>Yampa Participants</b>	<b>8408</b>	<b>33.93%</b>		<b>\$50,911</b>	<b>\$6.06</b>
<b>City of Craig</b>	<b>4413</b>	<b>17.81%</b>		<b>\$26,721</b>	<b>\$6.06</b>
<b>Recovery Program</b>	<b>5000</b>	<b>20.18%</b>	<b>41.82%</b>	<b>\$75,574</b>	<b>\$15.11</b>
<b>CO River District</b>	<b>6956</b>	<b>28.07%</b>	<b>58.18%</b>	<b>\$102,078</b>	<b>\$14.67</b>
				<b>\$255,285</b>	

IX. References:

\* Do NOT include overhead costs on funds transferred from Reclamation to the Service.