

# UPPER COLORADO RIVER ENDANGERED FISH RECOVERY PROGRAM

FY 2023 ANNUAL REPORT

PROJECT: C-9

## **Project Title**

O&M for Elkhead Release and Elkhead Lease

## **Bureau of Reclamation Agreement Number:**

05-WC-40-420

## **Project/Grant Period:**

Start date: 02/17/05

End date: Ongoing

Reporting period end date: 09/30/23

Is this the final report? Yes  No

## **Principal Investigator:**

Hunter Causey, Director of Asset Management/ Chief Engineer

Colorado River Water Conservation District

201 Centennial Street | Suite 200

Glenwood Springs, CO 81602

Telephone: (970)945-8522 X 1213

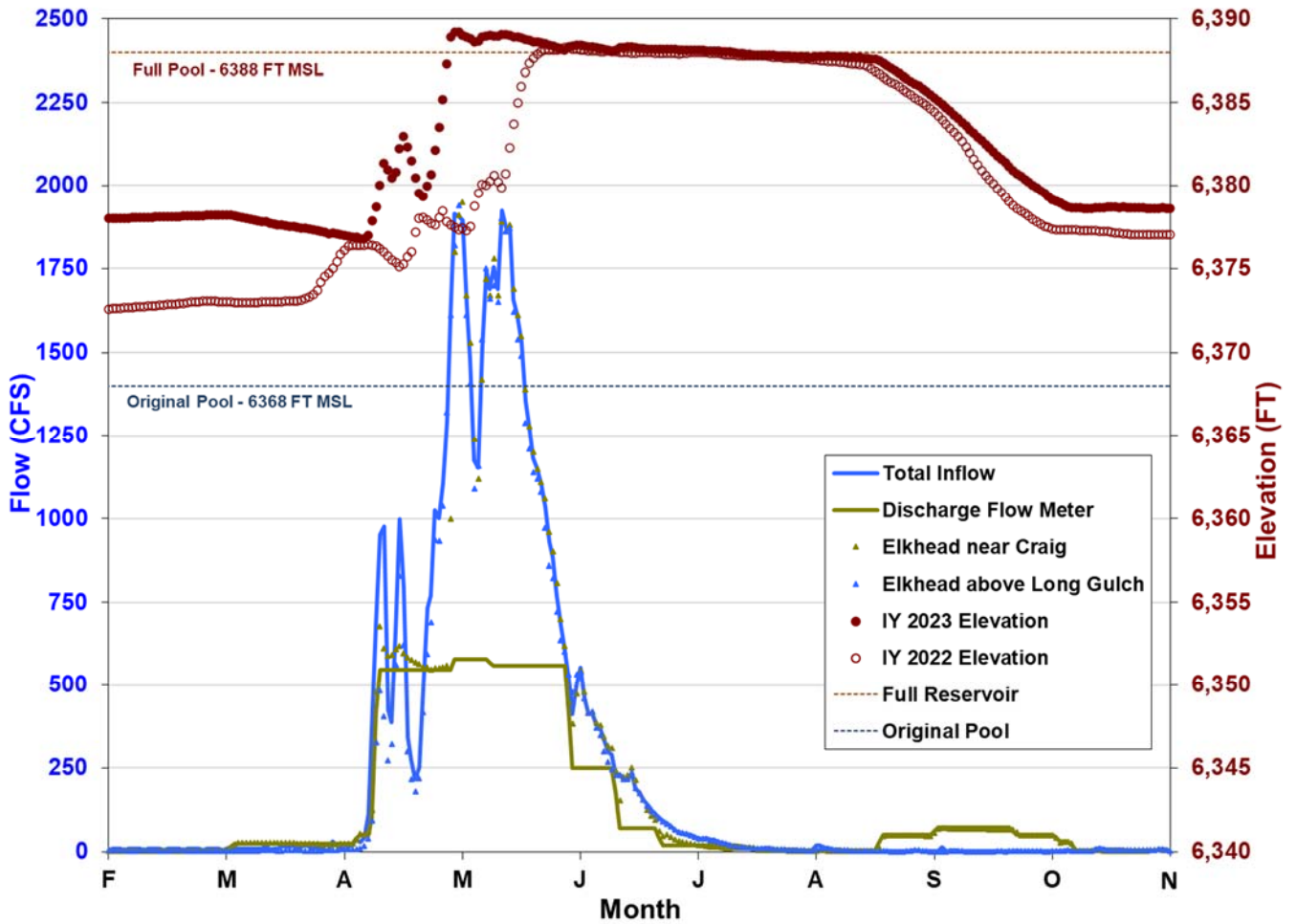
Cell: (970)319-1604

Email: hcausey@crwcd.org

## **Abstract:**

Elkhead Reservoir begins filling before ice is off the reservoir. Screened outlet works releases are ramped up to avoid reservoir rise and potential damage to the ice-encapsulated spillway fish net. Ramped up releases also reduce the potential for the reservoir ice sheet to be pushed into the net by wind and spillway discharges. Additionally, ramping releases in moderately dry years can reduce downstream erosion by creating space to subsequently store erosive inflow peaks. Elkhead Reservoir was operated in 2023 to first release the 833 acre-feet of Short Term Lease water carried over from 2022 and later release 4,717 acre-feet of the Recovery Program's 5,000 acre-feet of water available annually, from August 18 through October 6, 2023. Release of the 5,000 acre-feet CWCB pool water at 30 cubic feet per second was paused on October 6 because 1) Maybell streamflow forecasts were near the average year targets of 134 cfs, 2) Maybell Irrigation Canal headgate repairs required construction of a coffer dam for crews to work 'in the dry', and 3) 30 cubic feet per second was to be bypassed at the headgate to facilitate the construction. The Recovery Program elected not to lease the additional 1,167 acre-feet of Short Term Lease water available in 2023. Weekly coordination calls hosted by the USFWS Regional Hydrologist set the release rate for the upcoming week. Recovery Program releases were made in August, September, and October based on CBRFC forecasts, NWS and DWR updates, and habitat needs and flow targets. Maybell gage flows are shown in Figure 2 below. Charges for delivery operations will be included in the 2023 calendar year (2023 CY) invoice to the Recovery Program. Costs summarized below occurred during the Federal Fiscal Year 2023.

### Elkhead Reservoir IY 2023 Flows and Elevation



**Figure 1.**  
Elkhead Reservoir IY 2023 Flows and Elevation

### Yampa River Near Maybell, CO - 09251000

Streamflow, 7/1/2023 to 11/15/2023



**Figure 2.**  
USGS 09251000 Yampa River near Maybell, Colorado

**Study Schedule:**

Deliveries began in 2007 and will continue as requested.

**Relationship to RIPRAP:**

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

**Accomplishment of FY 2023 Tasks and Deliverables, Discussion of Initial Findings and Shortcomings:**

The releases described in the operations portion of the abstract section provided benefit to endangered fish habitat.

**Additional noteworthy observations:**

The debris boom installed in 2016 protecting the fish net was observed to have shifted. A preliminary inspection suggests that the large Danforth anchor securing the boom on the upstream side shifted due to ice pressures and this year's significant runoff. The expense to address this problem is planned for FFY 2024.

Another significant but worthwhile expense anticipated for FFY 2024 is the replacement of the dam's legacy controls system by DMC, Inc. Most equipment that will be replaced was installed in 2005 and is now obsolete. What we currently have in place will only be supported until 2025, and we already have limited functionality. Instead of waiting until the system is inoperable, we want to be proactive and take this on while we can be thoughtful about the implementation. Taking this project on as proposed is more cost-effective than trying to piecemeal the upgrades. The last benefit is that this project will allow some reservoir releases to be made remotely, requiring fewer trips by City of Craig staff and reducing expenses for all the project partners.

**Recommendations:**

None.

**Project Status:**

On track and ongoing.

**FY2023 Budget Status**

Funds Provided: \$54,232.22

Funds Expended: \$169,550.49

Difference: \$0

Percent of the FY 2023 work completed, and projected costs to complete: 100%

Recovery Program funds spent for publication charges: \$0.00

UPPER COLORADO RIVER ENDANGERED FISH RECOVERY PROGRAM

**Status of Data Submission**

N/A

**Signed:**



Hunter J. Causey  
Principal Investigator  
November 21, 2023