

COLORADO RIVER RECOVERY PROGRAM
FY 2021 ANNUAL PROJECT REPORT

RECOVERY PROGRAM
PROJECT NUMBER: C-9

I. Project Title: O&M for Elkhead Release and Elkhead Lease

II. Bureau of Reclamation Agreement Number(s): 05-WC-40-420

Project/Grant Period: Start date: 02/17/05
End date: Ongoing
Reporting period end date: 09/30/21
Is this the final report? Yes _____ No X

III. Principal Investigator(s): Hunter Causey
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

IV. Abstract:

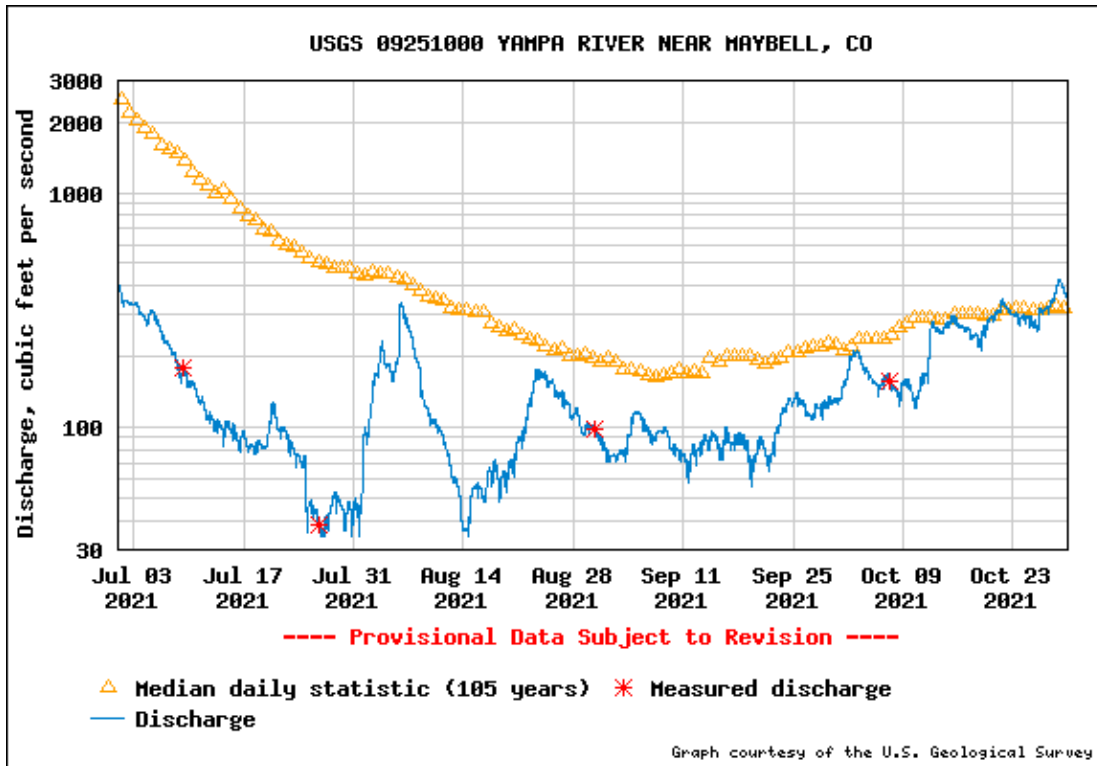
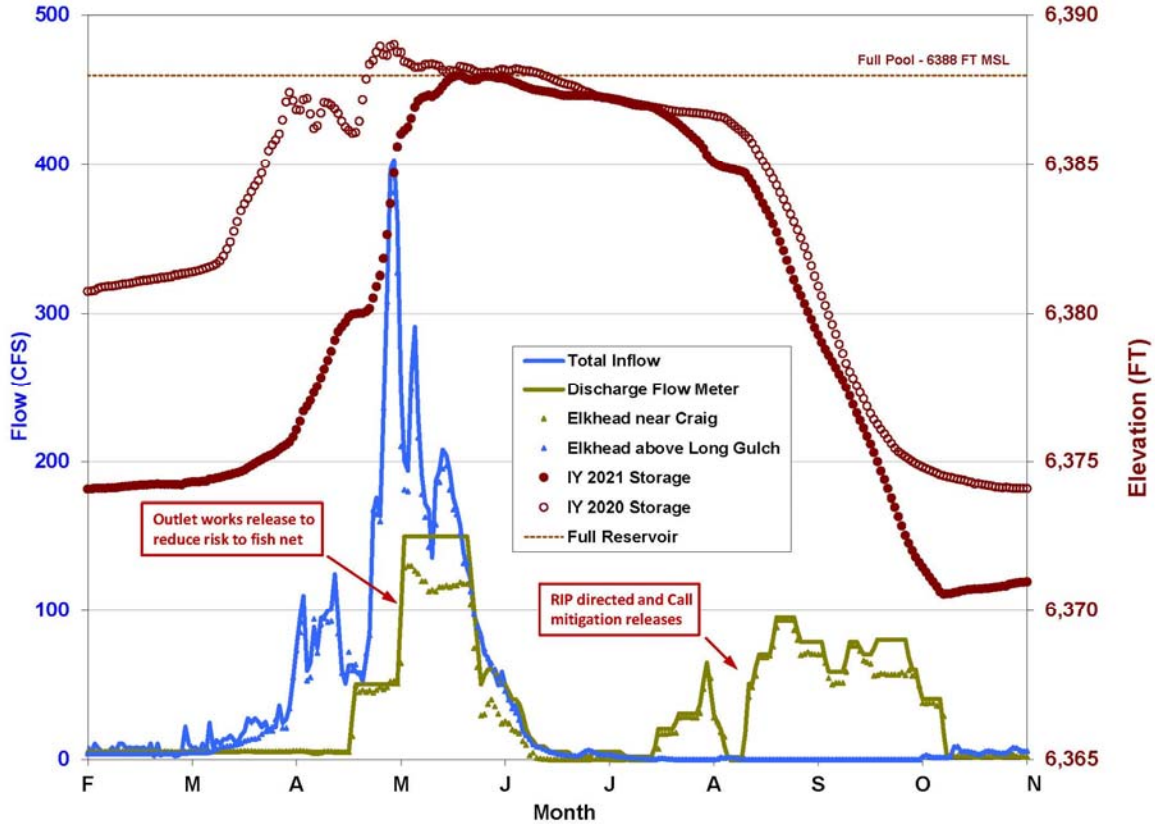
Operations

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, the outlet tower air bubble deicing system is cranked up and the resulting enlarged warmer water plume is driven by the prevailing winds toward the spillway fish net, freeing it from ice earlier than reservoir ice off occurs.

Elkhead Reservoir was operated in 2021 to release the Recovery Program's 5,000 acre feet of water through September 2021. In addition, the Recovery Program retained 747 acre feet of Short Term Lease carryover water from 2020 and leased 1253 acre-feet of 2021 Short Term Lease water. Of the 2000 acre feet of Lease water available in 2021, 1498 acre feet was released. The River District released 1500 acre feet of water through the 2021 Yampa River Flow Pilot Project, a collaborative effort to better understand the need for additional water supplies in the Yampa River Basin for historical water users while enhancing river flows for endangered fish and recreational users. In partnership with the Colorado Water Conservation Board (CWCB) 677 acre-feet of water were released to provide relief to farmers and ranchers in the Yampa Valley impacted by severe drought conditions. Weekly coordination calls hosted by the USFWS Regional Hydrologist set the release rate for the upcoming week. Releases were made in July, August, September and October following the Maybell gage flows as shown in the figures below.

Charges for delivery operations will be included in the 2021 calendar year (2021 CY) invoice to the Recovery Program. Costs summarized below occurred during the Federal Fiscal Year 2021.

Elkhead Reservoir IY 2021 Flows and Elevation



FY 2021 Ann. Rpt. Project #C-9

- V. Study Schedule: Deliveries began in 2007 and will continue as requested.
- VI. Relationship to RIPRAP: Green River Action Plan: Yampa and Little Snake Rivers, I.B.2.a.(2)(b), Deliver water for endangered fish.
- VII. Accomplishment of FY 2021 Tasks and Deliverables, Discussion of Initial Findings and Shortcomings:

Reservoir operations were

- VIII. Additional noteworthy observations:

Significant use of the upstream mitigation area by sandhill cranes has been observed in the last few years.

- IX. Recommendations:

None.

- X. Project Status: On track and ongoing.

- XI. FY 2021 Budget Status

- A. Funds Provided:
\$62,003.01 for general operations;
\$62,650 for lease of 1253 acre-feet at \$50 per acre foot
- B. Funds Expended: \$ 190,511.47
- C. Difference: 0
- D. Percent of the FY 2021 work completed, and projected costs to complete: All work completed
- E. Recovery Program funds spent for publication charges: 0

- XII. Status of Data Submission (Where applicable): N/A.

- XIII. Signed:  Hunter J. Causey, 12/23/2021
Principal Investigator Date

(Just put name and date here, since you will be submitting the report electronically)

Appendix: Cost accounting spread sheet for Federal Fiscal 2020