

# UPPER COLORADO RIVER ENDANGERED FISH RECOVERY PROGRAM

FY 2020 ANNUAL REPORT

PROJECT: 71

## **Project Title**

Colorado River Decision Support System (CRDSS)

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

N/A

## **Project/Grant Period:**

Start date: 1/1/1993

End date: Ongoing

Reporting period end date: 9/30/2020

Is this the final report? Yes \_\_\_\_\_ No X

## **Principal Investigator:**

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## **Abstract:**

The CRDSS supports better decision making with respect to the utilization of Colorado River water resources. It provides computer databases and tools to make informed and timely decisions regarding the use and operation of Colorado's water resources in the Upper Colorado River Basin. The CRDSS operates in accordance with existing compacts and state laws governing the administration of water and water rights, and will allow planning for the optimal use and development of Colorado's water resources to occur.

In relation to the Recovery Program, CRDSS is being used to evaluate the physical and legal water availability at different locations along a stream and to determine the amount of water available for instream flow appropriations. It can also provide information to help determine the impacts of endangered fish flows on Colorado's ability to develop its full compact apportionment.

The development of CDSS was initiated in 1993. A funded maintenance program has been established to provide ongoing maintenance and data updates. Some of the funding and tasks for the study directly benefited the Recovery Program, as mentioned below.

## **Study Schedule:**

1993-Ongoing

## **Relationship to RIPRAP:**

- Assess legal and physical availability of water and compact considerations associated with the protection of instream flow water rights for endangered fish and their critical habitat in the Little

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Snake River, the Yampa River above and below the Little Snake River, the White River, the Colorado River (mainstem), and the Gunnison River.

- Provide hydrology support to develop and evaluate flow augmentation alternatives for the Yampa and Little Snake Rivers.
- Estimate current and projected future depletions in the Colorado River mainstem above the 15-Mile Reach and Yampa Rivers in Colorado for their respective Programmatic Biological Opinions (PBOs).

### RIPRAP Activity Numbers:

Yampa and Little Snake Rivers: I.B.3, I.B.4., I.C.3., I.D.2.

White River: I.A.1., I.B.3, I.C., I.D., I.E.1.

Colorado mainstem: I.A.3., I.A.4., I.B.3

Gunnison River: I.B., I.C.

### **Accomplishment of FY 2020 Tasks and Deliverables, Discussion of Initial Findings and Shortcomings:**

- Accounting for the 15-Mile Reach PBO was performed in 2019 and 2020 using the CRDSS datasets and StateCU. This accounting was submitted and accepted by the U.S. Fish and Wildlife Service in February, 2020.
- CRDSS datasets in all West Slope subbasins were utilized to update the Bureau of Reclamation's Colorado River Simulation System (CRSS) RiverWare model projection of future depletions in Colorado. Specifically, the 2016 UCRC Demand Schedule was disaggregated and implemented in CRSS in 2020 under the guidance of Colorado staff using CRDSS datasets and studies.
- The Basin Roundtables on the West Slope are in the process of updating their Basin Implementation Plans. The StateMod and StateCU models, as well as all of the data gathered under CRDSS, are available to the Basins to make planning decisions.
- A Yampa River transit loss study was performed and accepted by Colorado Division of Water Resources Division 6 for administration of the Yampa River in 2020. CRDSS was used as a major data source for the study. Recovery Program releases from Elkhead Reservoir are being administered by the new transit loss guidelines.

### **Additional noteworthy observations:**

N/A

### **Recommendations:**

- CWCB will continue providing funding and staff for use and maintenance of the CRDSS.
- CWCB plans to prepare 15-Mile Reach and Yampa PBO depletion accounting reports in 2021 for the 2016-2020 period pursuant to the respective PBOs.

### **Project Status:**

On track and ongoing.

### **FY 2020 Budget Status**

Funds Provided: \$115,038 State of Colorado funding + in-kind services

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Funds Expended: \$115,038

Difference: \$0

Percent of the FY 2020 work completed, and projected costs to complete: 100% and 0%

Recovery Program funds spent for publication charges: \$0

### **Status of Data Submission**

CRDSS models and data can be viewed online at [colorado.gov/cdss](http://colorado.gov/cdss).

### **Signed:**

Brian Macpherson, PE

Principal Investigator

11/17/2020