

UPPER COLORADO RIVER ENDANGERED FISH RECOVERY PROGRAM

FY 2020 ANNUAL REPORT

PROJECT: 19b

Project Title

General Hydrology Support - (Grand Junction FWCO contribution)

Bureau of Reclamation Agreement Number:

R20PG00024

Project/Grant Period:

Start date: 10/01/1992

End date: 09/30/2024

Reporting period end date: 09/30/2020

Is this the final report? Yes _____ No X

Principal Investigator:

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Abstract:

The Program Director's Office along with the Grand Junction Fish and Wildlife Conservation Office (GJFWCO) provides basic hydrology support to Recovery Program researchers and undertakes tasks to support the Recovery Program in basic data collection and monitoring projects. The work provided is, for the most part, in support of other research projects or activities such as flow delivery, flow quantification, and habitat restoration, all of which have a direct impact on the recovery of the Colorado River endangered fish. One task is the collection of water temperature data in various reaches of upper basin rivers. Temperature monitoring duties are divided between the Program Director's Office (PDO) in Denver and the Grand Junction Fish and Wildlife Conservation Office (GJFWCO). (In the past, staff from U.S. Fish & Wildlife Service's regional Water Resources Division office have also assisted with data collection, data management, and web page management.) The GJFWCO currently collects water temperature data from four sites on the mainstem Colorado River, four sites on the Gunnison River and one site on the Uncompahgre River. These data, along with those collected by the Water Resources staff for the Green, Yampa and Gunnison rivers are assembled into a temperature database for use by Recovery Program researchers.

Study Schedule:

Ongoing

Relationship to RIPRAP:

Colorado River Action Plan: Mainstem

I.E. Evaluate and revise as needed flow regimes to benefit endangered fish populations

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Gunnison River Action Plan:

I.D. Evaluate and revise as needed flow regimes to benefit endangered fish populations

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

In FY-2020, temperature data from temperature loggers (StowAway brand TidbiT v2 Temp UTBI-001) was downloaded in the field in May and again in August. One-hour interval readings were converted to daily means and then sent to the Recovery Program Director's office when the site-specific daily-mean tables were completed in November 2020.

Temperature data collection began in 1986 and continues to present day at two Colorado River stations, Palisade (rk 292.8) and Walker (rk 264.7). Over the years other sites have been added or removed, however currently sites are as follows: Rulison (rk 369.9), and Gold Bar in 1992 (rk 82.7). A site on the Gunnison River at rk 59.2 was added; one downstream of the North Fork confluence (rk 117.5), one at the NPS Never Sink recreation access area (just upstream of the Blue Mesa inflow), one just upstream of the confluence with the Uncompahgre River (rk 90.9), and one in the Uncompahgre River 0.87 rk upstream of the confluence with the Gunnison River. These additional Gunnison and Uncompahgre River sites were added in an effort to provide better data for future temperature modeling efforts for management of Aspinall Unit releases.

Annual data were summarized as mean daily temperatures in Excel spreadsheets following the format used by USGS in their Water Resources Data yearbooks. The spreadsheets are forwarded to the Program Director's Office who with assistance from volunteer Jim Renne web enables them and links them to the Riverdata Web Page. The temperature data can be accessed and downloaded from the Riverdata web page at <https://www.fws.gov/mountain-prairie/riverdata/temperatures.html> or by email request from the Program Director's Office. GPS locations for each thermograph are available by request; for security purposes the exact locations are not provided on the web page.

Other Notable Observations:

None.

Recommendations:

We recommend continuation of the current data collection efforts at the established sites.

Project Status:

On track.

FY 2020 Budget Status

Funding of these activities is subsumed under Project 19; see the Project 19 Scope of Work and Annual Report for relevant budget details.

Status of Data Submission

NA

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Signed:

Benjamin Schleicher
Principal Investigator
December 17, 2020