

RECOVERY PROGRAM
FY 2020-2021 SCOPE OF WORK for:
(Passage O&M: Grand Valley Water Users)

Recovery Program Project Number: C-4bGVP

Reclamation Agreement number: TBD
Reclamation Agreement term: October 1, 2020 – Sept. 30, 2024

Note: Recovery Program FY20-21 scopes of work are drafted in May 2019. They often are revised before final Program approval and may subsequently be revised again in response to changing Program needs. Program participants also recognize the need and allow for some flexibility in scopes of work to accommodate new information (especially in nonnative fish management projects) and changing hydrological conditions.

Lead agency: U.S. Fish and Wildlife Service
Grand Junction Fish and Wildlife Conservation Office
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<u>Category:</u>	<u>Expected Funding Source:</u>
<input checked="" type="checkbox"/> Ongoing project	<input checked="" type="checkbox"/> Annual funds
<input type="checkbox"/> Ongoing-revised project	<input type="checkbox"/> Capital funds
<input type="checkbox"/> Requested new project	<input type="checkbox"/> Other <i>[explain]</i>
<input type="checkbox"/> Unsolicited proposal	

I. Title of Proposal: Annual Operation and Maintenance of the Fish Passage Structure at the Government Highline Diversion Dam on the Upper Colorado River.

II. Relationship to RIPRAP:

Colorado River Action Plan: Mainstem
II.B.3. Restore fish passage at Government Highline Dam (Grand Valley Project)
II.B.3.a.(3) Operate and maintain fish ladder
II.B.3.a.(4) Monitor and evaluate success

III. Study Background/Rationale and Hypotheses:

The fish passage at Government Highline Diversion Dam (or Grand Valley Water User's Dam [GVWU]) on the Upper Colorado River at the lower end of De Beque Canyon was completed by 1 August 2004. It was designed for selective fish passage, similar to that at the Redlands fish passageway. The passage was operated intermittently from 2005-2006. In 2008, with the

completion of fish passage downstream at the Price Stubb Dam in April 2008, the fish trap was operated full time from the first of May to mid-October. Low flows in 2012 didn't allow for operation of the fish passageway, but it was operated in 2013 through 2017. In 2018, the passage was operated from 1 May through 28 June due to insufficient flows thereafter.

Project Results to Date

The purpose of this project is to collect and summarize annual data on the number of large-bodied fish, different fish species, and seasonal distribution of fish that use the fish passageway at the Government Highline Diversion Dam on the Upper Colorado River in De Beque Canyon. Through 2018, 251 adult razorback sucker (*Xyrauchen texanus*), seven humpback chub (*Gila cypha*), five Colorado pikeminnow (*Ptychocheilus lucius*), and 102 bonytail (*Gila elegans*) have used the fish-way. Through 2018, 159,070 fish have used the fish passage at Government Highline Diversion Dam. Native fishes comprised 83% of the total fish collected through 2018 (Francis and Ryden 2018).

IV. Study Goals, Objectives, End Product(s):

Continue to collect data on the number of large-bodied fish, different fish species, and seasonal distribution of fish that use this passageway. Summarize the annual results of passageway fish use in the annual report.

V. Study Area: Colorado River: river mile 193.7.

Study Methods/Approach: FY 2020-2021

The fish trap at GVWU passageway may be opened by mid-April and closed in mid-October. The trap is designed to collect large-bodied fish. Depending upon manpower, the fish trap at the passageway will be run at least every other day, Monday through Friday, and where possible every weekday. All fish will be sorted by species and counted. Vital statistics including length, weight, and PIT-tag IDs will be collected for all listed species found in the trap. Other introduced species (e. g., largemouth bass, smallmouth bass, green sunfish, black bullhead, gizzard shad, white sucker, and carp) will be sacrificed and disposed of in a manner that will not constitute a nuisance or as otherwise directed by Colorado Parks and Wildlife (CPW). Channel catfish will be returned downstream of the fish ladder alive.

In addition to collecting and counting fish in the fish trap, FWS personnel will continue to be responsible for periodic cleaning of river borne sediment in the fish trap and routine cleaning of surface and submerged trash, debris, and river borne algae from the trash grates and bar screens in the fore bay of the passageway. Other tasks include: regulating river flows through the fish ladder and attraction flow to remove sediment from the fish-way, noxious weed control, and removing all stranded fish in the fish trap and dewatered portion of the fish ladder prior to winterizing. FWS personnel will also be responsible for opening and winterizing the passageway.

FWS personnel are also responsible for maintaining the Price Stubb PIT tag antenna, solar panel, batteries, data logger, cell phone modem, and MUX at the top end of the Price-Stubb

Dam Fish Passageway located at Colorado River mile 188.3. This includes one day of providing personnel, coordinated with the Bureau of Reclamation and their hired contractor that operates a track hoe, to assist with removing high water debris from the passageway. A report of annual PIT tag detections will be included with this annual report (previously provided in the annual database management report).

VI. Task Description and Schedule:

Description

Task 1. O & M of GVWU fish ladder includes monitoring the fish trap, sorting, examining, and enumerating all fish in addition to removing and disposing of all non-native fish; removing sediment from the trap and cleaning trash and debris from the trash racks, bar screens, fish trap, and fish-way entrance. Other tasks include: regulating river flows through the fish ladder and attraction flow to remove sediment from the fish-way, noxious weed control, removing all stranded fish in the fish trap and dewatered portion of the fish ladder prior to winterizing.

Task 2. O&M of Price-Stubb Fish Ladder PIT tag antenna and associated equipment. This includes one day of providing personnel, coordinated with the Bureau of Reclamation and their hired contractor that operates a track hoe, to assist with removing high water debris from the passageway.

Task 3. Compile and summarize fish use data from both locations; prepare annual RIP report.

Schedule

Task 1. 4/2020 – 10/2020; 4/2021 – 10/2021

Task 2. 10/2019 –10/2020; 10/2020 – 10/2021

Task 3. 10/2020 – 11/2020; 10/2021 – 11/2021

VII. Deliverables, Due Dates, and Budget by Fiscal Year: Please See Interagency Agreement Cost Estimating Tool Spreadsheet

Annual report submission by November each year and data submissions to STReAMS by the following January.

Submission of 6-12 photos of project components or individuals completing tasks by February 28th. Images can be uploaded to;

<https://www.flickr.com/photos/coloradoriverrecovery/>

Photographs will likely be taken with cell phone phones and uploaded photos to a folder named by project number. Each image will have a number, and an email will be sent to the I&E Coordinator with the number and a brief description of the photo. For example, date, location, what is happening and who the photographer is.

FY2020	
USFWS-GJ	\$67,547.43
FY2021	
USFWS-GJ	\$68,898.38
2020-2021 Total = \$136,445.81	
Estimated Budget Summary for Fiscal Years 2020-2022:	
FY2022	
USFWS-GJ	\$70,309.25
FY2023	
USFWS-GJ	\$71,782.86
FY2024	
USFWS-GJ	\$73,322.67
2022-2024 Total = \$215,414.78	
5-Year Total = \$351,860.59	

VIII. Reviewers: Program Staff and Biology Committee

IX. References:

Francis, T.A. and D.W. Ryden 2018. Annual Operation and Maintenance of the Fish Passage Structure at the GVWU Dam on the Colorado River. Annual report prepared for the Upper Colorado River Endangered Fish Recovery Program. Recovery Program Project Number C-4b-GVP. U. S. Fish and Wildlife Service, Grand Junction Fish and Wildlife Conservation Office, Grand Junction, Colorado.