

**RECOVERY PROGRAM**  
**FY 2014-2015 SCOPE OF WORK for:**  
(Passage O&M: Grand Valley Water Users)

Recovery Program Project Number: C-4bGVP

Reclamation Agreement number: R10PG40042  
Reclamation Agreement term: *Oct. 1, 2013 – Sep. 30, 2018*

Lead agency: Fish and Wildlife Service  
Colorado River Fishery Project – Grand Junction (CRFP-GJ)

Submitted by: Travis Francis, Fishery Biologist  
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Date Last Modified: 5/28/2013

Category:

- Ongoing project
- Ongoing-revised project
- Requested new project
- Unsolicited proposal

Expected Funding Source:

- Annual funds
- Capital funds
- Other [*explain*]

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:

General

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 Debeque Canyon. This fish passage was completed in August 2004, but not operated in 2004. It was designed for selective fish passage, similar to that at the Redlands fish passageway. In both 2005 and 2006, it was operated only on a trial basis and in 2007 it was only operated for about 5 weeks at the

height and immediately following spring runoff to remove sediment from the head end of the fish passage and attraction flow intakes. 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. Regular operations continued through 2011, but low flows in 2012 didn't allow for operation of the fish passageway.

#### Project Results to Date

In 2012, insufficient flows in the river precluded passage operation. In 2011, the fish trap was operated continuously between 19 April and 14 October. This was the fourth year that the fish passageway at Government Highline was been operated continuously since being completed in August 2004. The fish trap was operated for only 12 days in 2005, and 41 days in 2006. The fish trap was not operated during 2007. During 2009 and 2010, no threatened or endangered fish were captured in the fish trap. In 2008, only one adult razorback sucker was found in the fish trap in August. In 2011, three humpback chub and 22 bonytail were collected in the fish trap at Government Highline fishway. To date, two adult razorback sucker, six humpback chub, and 22 bonytail have used the fishway. Eight thousand eight hundred seventy (8,870) fish were processed in the fish trap during 2011. To date, 67,071 fish have used the fish passage at Government Highline Diversion Dam spanning from 2005-2006 and 2008-2011. Flannelmouth sucker and bluehead sucker comprised 33 % and 25% of the all fishes in the fish trap, respectively, and white sucker and brown trout comprised 16% and 2% of the nonnative fish in the trap. Native fishes comprised 86% of the total fish during 2011, compared to 89% in 2010, 91% in 2009, and 90% in 2008 (Francis 2012).

#### 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 RIP report.

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

#### VI. Study Methods/Approach:

FY 2014-2015

Passage operation will be similar to previous years with the opening about 15 April and closing 15 October during FY 2013-2015. For the most part, daily monitoring of the fish trap will be continued, especially during the months (mid-June through August) when the greatest likelihood of use by Colorado pikeminnow and razorback sucker might occur. This premise is based on the 15 years of historical data documenting the seasonal use by these two fishes at the Redlands fish passageway on the Lower Gunnison River.

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. Total length, weight, and PIT-tag IDs will continued to be collected for all listed species found in the trap. Other

introduced species (e. g., largemouth bass, smallmouth bass, green sunfish, black bullhead, white sucker, carp) collected will be sacrificed and disposed of in a manner that will not constitute a nuisance or as otherwise directed by CDOW. 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 forebay of the passageway. Other tasks include: regulating river flows through the fish ladder and attraction flow to remove sediment from the fishway; 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.

## VII. Task Description and Schedule:

### Description

Task 1.O & M of Government Highline 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 fishway entrance. Other tasks include: regulating river flows through the fish ladder and attraction flow to remove sediment from the fishway, noxious weed control, removing all stranded fish in the fish trap and dewatered portion of the fish ladder prior to winterizing.

Task 2.Compile and summarize fish use data; prepare annual RIP report.

### Schedule

Task 1. 5/2014 – 9/2014; 5/2015 – 9/2015

Task 2. 10/2014 – 11/2014; 10/2015 – 11/2015

VIII. Deliverables, Due Dates, and Budget by Fiscal Year:

FY 2014

Deliverables: *Tasks 1 and 2*

FY 2014									
	Labor	Title	# of employees	Hours	Reg. Rate	OT Hours	OT Rate		Total
		Project Leader GS-14		1	80	78.63	0	0	6290.4
		Administrative Officer GS-09		1	80	42.15	0	0	3372
		Fishery Biologist GS-11		1	320	46.53	0	0	14889.6
		Crew leader Tech. GS-06		1	120	30.88	0	46.32	3705.6
		Biological Tech. GS-05		2	560	18.39	0	27.58	20596.8
	<b>Labor Subtotal</b>								48854.4
	Equipment & Supplies	Category	Item	Quantity	Unit	Rate	Duration		Total
		Office Supplies	Computer Supplies and Peripherals						50
		Office Supplies	Ink Cartridges and paper						50
		Office Supplies	Cell, SAT, and Office phone service						50
		Field Equipment	GSA vehicle lease per month	1	each	344.02	6		2064.12
		Field Equipment	Mileage	7150	miles	0.31	1		2216.5
		Field Equipment	PPE (e.g. rubber boots, first aid)						100
		Field Equipment	Fish disposal at county landfill						100
		Field Equipment	Ground Maint. (e.g. sprayer, round-up)						100
		Field Equipment	Nets, Rakes, Tools						100
	<b>Equipment Total</b>								4,831
									<b>Grand Total</b>
	<b>USFWS Grand Jct.</b>								53685

FY 2015

Deliverables: *Tasks 1 and 2*

FY 2015									
	<b>Labor</b>	<b>Title</b>	<b># of employees</b>	<b>Hours</b>	<b>Reg. Rate</b>	<b>OT Hours</b>	<b>OT Rate</b>		<b>Total</b>
		Project Leader GS-14		1	80	80.99	0	0	6479.2
		Administrative Officer GS-09		1	80	43.41	0	0	3472.8
		Fishery Biologist GS-11		1	320	47.93	0	0	15337.6
		Crew leader Tech. GS-06		1	120	31.81	0	47.71	3817.2
		Biological Tech. GS-05		2	560	18.94	0	28.41	21212.8
	<b>Labor Subtotal</b>								50319.6
	<b>Equipment &amp; Supplies</b>	<b>Category</b>	<b>Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Rate</b>	<b>Duration</b>		<b>Total</b>
	Taken out to meet budget guidelines	Office Supplies	Computer Supplies and Peripherals						0
	Taken out to meet budget guidelines	Office Supplies	Ink Cartridges and paper						0
	Taken out to meet budget guidelines	Office Supplies	Cell, SAT, and Office phone service						0
		Field Equipment	GSA vehicle lease per month	1	each	354.34	6		2126.04
		Field Equipment	Mileage	7150	miles	0.32	1		2288
	Taken out to meet budget guidelines	Field Equipment	PPE (e.g. rubber boots, first aid)						0
	Taken out to meet budget guidelines	Field Equipment	Fish disposal at county landfill						0
	Taken out to meet budget guidelines	Field Equipment	Ground Maint. (e.g. sprayer, round-up)						0
	Taken out to meet budget guidelines	Field Equipment	Nets, Rakes, Tools						0
	<b>Equipment Total</b>								4,414
									<b>Grand Total</b>
	<b>USFWS Grand Jct.</b>								54734

**Out-year budgets for GVWU Fish Ladder Operation: 2016-2018**

**THESE BUDGETS ARE ESTIMATES ONLY AND MAY NOT REPRESENT ACTUAL COSTS**

FY 2016

Deliverables: *Tasks 1 and 2*

<b>FY 2016</b>									
	<b>Labor</b>	<b>Title</b>	<b># of employees</b>	<b>Hours</b>	<b>Reg. Rate</b>	<b>OT Hours</b>	<b>OT Rate</b>		<b>Total</b>
		Project Leader GS-14		1	80	83.42	0	0	6673.6
		Administrative Officer GS-09		1	80	44.72	0	0	3577.6
		Fishery Biologist GS-11		1	320	47.93	0	0	15337.6
		Crew leader Tech. GS-06		1	120	32.76	0	49.14	3931.2
		Biological Tech. GS-05		2	560	19.51	0	29.26	21851.2
	<b>Labor Subtotal</b>								51371.2
	<b>Equipment &amp; Supplies</b>	<b>Category</b>	<b>Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Rate</b>	<b>Duration</b>		<b>Total</b>
		Office Supplies	Computer Supplies and Peripherals						100
		Office Supplies	Ink Cartridges and paper						100
		Office Supplies	Cell, SAT, and Office phone service						100
		Field Equipment	GSA vehicle lease per month	1	each	364.97	6		2189.82
		Field Equipment	Mileage	7150	miles	0.33	1		2359.5
		Field Equipment	PPE (e.g. rubber boots, first aid)						100
		Field Equipment	Fish disposal at county landfill						100
		Field Equipment	Ground Maint. (e.g. sprayer, round-up)						100
		Field Equipment	Nets, Rakes, Tools						100
	<b>Equipment Total</b>								5,249
									<b>Grand Total</b>
	<b>USFWS Grand Jct.</b>								56621

FY 2017

Deliverables: *Tasks 1 and 2*

<b>FY 2017</b>									
	<b>Labor</b>	<b>Title</b>	<b># of employees</b>	<b>Hours</b>	<b>Reg. Rate</b>	<b>OT Hours</b>	<b>OT Rate</b>		<b>Total</b>
		Project Leader GS-14	1	80	85.92	0	0		6873.6
		Administrative Officer GS-09	1	80	46.06	0	0		3684.8
		Fishery Biologist GS-11	1	320	50.84	0	0		16268.8
		Crew leader Tech. GS-06	1	120	33.74	0	50.62		4048.8
		Biological Tech. GS-05	2	560	20.09	0	30.14		22500.8
	<b>Labor Subtotal</b>								53376.8
	<b>Equipment &amp; Supplies</b>	<b>Category</b>	<b>Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Rate</b>	<b>Duration</b>		<b>Total</b>
		Office Supplies	Computer Supplies and Peripherals						100
		Office Supplies	Ink Cartridges and paper						100
		Office Supplies	Cell, SAT, and Office phone service						100
		Field Equipment	GSA vehicle lease per month	1	each	375.92	6		2255.52
		Field Equipment	Mileage	7150	miles	0.34	1		2431
		Field Equipment	PPE (e.g. rubber boots, first aid)						100
		Field Equipment	Fish disposal at county landfill						100
		Field Equipment	Ground Maint. (e.g. sprayer, round-up)						100
		Field Equipment	Nets, Rakes, Tools						100
	<b>Equipment Total</b>								5,387
									<b>Grand Total</b>
	<b>USFWS Grand Jct.</b>								58763

FY 2018

Deliverables: *Tasks 1 and 2*

<b>FY 2018</b>									
	<b>Labor</b>	<b>Title</b>	<b># of employees</b>	<b>Hours</b>	<b>Reg. Rate</b>	<b>OT Hours</b>	<b>OT Rate</b>		<b>Total</b>
		Project Leader GS-14	1	80	88.5	0	0		7080
		Administrative Officer GS-09	1	80	47.44	0	0		3795.2
		Fishery Biologist GS-11	1	320	52.37	0	0		16758.4
		Crew leader Tech. GS-06	1	120	34.76	0	52.13		4171.2
		Biological Tech. GS-05	2	560	20.7	0	31.04		23184
	<b>Labor Subtotal</b>								54988.8
	<b>Equipment &amp; Supplies</b>	<b>Category</b>	<b>Item</b>	<b>Quantity</b>	<b>Unit</b>	<b>Rate</b>	<b>Duration</b>		<b>Total</b>
		Office Supplies	Computer Supplies and Peripherals						100
		Office Supplies	Ink Cartridges and paper						100
		Office Supplies	Cell, SAT, and Office phone service						100
		Field Equipment	GSA vehicle lease per month	1	each	387.2	6		2323.2
		Field Equipment	Mileage	7150	miles	0.35	1		2502.5
		Field Equipment	PPE (e.g. rubber boots, first aid)						100
		Field Equipment	Fish disposal at county landfill						100
		Field Equipment	Ground Maint. (e.g. sprayer, round-up)						100
		Field Equipment	Nets, Rakes, Tools						100
	<b>Equipment Total</b>								5,526
									<b>Grand Total</b>
	<b>USFWS Grand Jct.</b>								60515

IX. Budget Summary:

FY2014	
USFWS-GJ	\$ 53,685
FY2015	
USFWS-GJ	\$ 54,734
2014-2015 Total =	\$108,419

Estimated Budget Summary for Fiscal Years 2016-2018:

FY2016	
USFWS-GJ	\$ 56,621
FY2017	
USFWS-GJ	\$ 58,736
FY2018	
USFWS-GJ	\$ 60,515
2016-2018 Total =	\$175,872
5-Year Total =	\$284,291

X. Reviewers: Program Staff and Biology Committee

XI. References:

Francis, T.A. 2012. Evaluation of the effectiveness of the fish passage structure at the Grand Valley Water User's Dam. Annual report prepared for the Recovery Implementation Program for the Endangered Fishes of the Upper Colorado River Basin. Recovery Program Project Number C-4b-GVP. U. S. Fish and Wildlife Service, Colorado River Fishery Project, Grand Junction, Colorado.