

**RECOVERY PROGRAM
FY 2018-2019 SCOPE OF WORK for:**

Recovery Program Project Number: 167

Smallmouth bass control in the White River

Reclamation Agreement numbers: R15PG00083 (USFWS) & R14AP00007 (UDWR)
Reclamation Agreement terms: Oct 2014–Sep 2019 (FWS) & May 2014–Sep 2018 (UDWR)

Note: Recovery Program FY18-19 scopes of work are drafted in May 2017. 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.

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Category:

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

Expected Funding Source:

- Annual funds
- Capital funds
- Other [explain]

I. Title of Proposal:

II. Relationship to RIPRAP:

White River Action Plan:

- III. Reduce negative impacts of nonnative fishes and sportfish management activities (nonnative and sportfish management)
 - III.A. Reduce negative interactions between nonnative and endangered fishes.
 - III.B. Reduce negative impacts to endangered fishes from sportfish management activities.
 - III.B.2. Preclude new nonnative species introductions, translocations or invasions to preserve native species dominance within critical habitat.

- III.B.2.a. Determine and implement an adequate level of mechanical removal to reduce smallmouth bass.

III. Study Background/Rationale and Hypotheses:

The Upper Colorado River Endangered Fish Recovery Program has determined that control of nonnative fish in the upper Colorado River basin is essential to the recovery of the four endangered fish species (USFWS 2002a-c): Colorado pikeminnow (*Ptychocheilus lucius*), razorback sucker (*Xyrauchen texanus*), humpback chub (*Gila cypha*), and bonytail (*Gila elegans*). The highest catch rates of adult and sub-adult Colorado pikeminnow in the Green River sub-basin are observed in the White River (Bestgen et al. 2010). Furthermore, adult razorback sucker, many in spawning condition, have been collected in the White River during 2011 and 2013 spring sampling (CRFP Vernal, unpublished data) and larval razorback sucker were documented for the first time in June 2011 (Webber et al., 2013a), suggesting this species is now utilizing this system for spawning purposes. Additionally, the White River is a stronghold for unlisted native species (Lanigan and Berry 1981; Martinez et al. 1994; Breen and Hedrick 2009, 2010), thus providing an important forage base for Colorado pikeminnow (Osmundson et al. 1998).

Smallmouth bass (*Micropterus dolomieu*) have been documented in the White River for over three decades (Crosby 1975), yet proliferation of this population has not occurred as in other systems (e.g., Yampa River). However, 41 smallmouth bass were collected during one low flow native species sampling pass (42.5 mile reach in Utah) conducted during 2009 (Breen and Hedrick 2010). In addition, increasing numbers of smallmouth bass were collected from 2011- 2013 during Colorado pikeminnow abundance estimate sampling. During our initial investigation in 2012, we learned that the majority of smallmouth bass were found in the first ten miles below Taylor Draw Dam, and densities decreased dramatically downstream of this area (Breen et al. 2012). This has continued to be the overall distribution of bass in the river, but adult and sub-adult densities have increased in downstream reaches, particular after low discharge and warm river conditions that are conducive to bass reproduction (Webber et al. 2013b).

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

Goal:

Sufficiently reduce the abundance of adult smallmouth bass in the White River such that their potential to spawn and their predatory and competitive impacts on the growth, recruitment, and survival of endangered and other native fishes is minimized.

Objectives:

1. Conduct removal passes for smallmouth bass in the White River from the Taylor Draw Dam (RM 104) to the BLM Enron boat ramp (RM 24). Effort will be distributed based on greatest efficiency of bass removal.
2. Identify levels of control necessary to prevent population expansion.

End Product:

An annual report will provide information on the extent of the smallmouth bass population in the White River, as well as annual fluctuations in densities. Metrics to be summarized include: total abundance of adult and juvenile smallmouth bass, total CPUE, CPUE by river mile and size class, abundance of other nonnatives removed, and knowledge of spawning periods and locations.

Revision from previous SOW:

UDWR increased removal effort in Utah to the equivalent of three passes. One pass will monitor the full reach and remaining effort targeting high density areas during the spawning period. This effort was previously approved by the BC in February 2016.

V. Study Area:

The study area encompasses the White River below Kenney Reservoir (Colorado and Utah), where we will remove smallmouth bass from the Taylor Draw Dam (RM 104) to the BLM boat launch (RM 87.5), and from the Colorado-Utah border (RM 72) to the Enron boat ramp (RM 24). Crews from USFWS Green River Basin FWCO, UDWR Vernal, and Colorado- Parks and Wildlife (see SOW 126b) will share the workload to complete removal efforts through this reach, thus the Colorado-Utah border (RM 72) will serve as a break point for two distinct sections. We will not sample the lower 24 miles of the White River given the poor habitat availability and low fish densities observed in this stretch (Breen and Hedrick 2009). We will investigate sampling between the BLM boat launch (RM 87.5) and the Colorado-Utah border (RM 72) to increase understanding of river-wide bass densities, but private land access issues make this a difficult reach to sample.

VI. Study Methods/Approach:

Temporarily reducing riverine smallmouth bass and northern pike populations appears viable under certain environmental conditions but both species can easily reverse these reductions in population abundance and return to pre-removal abundances under favorable environmental conditions (Breton et al. 2014; Zelasko et al. 2015). Therefore, mechanical removal efforts will attempt to reach eradication of nonnative fish populations in the river. However, recent synthesis reports investigating effectiveness of in-river removal efforts for northern pike and smallmouth bass determined that reducing in-river populations of these two species would not be successful unless in-river reproduction and reservoir escapement were controlled (Breton et al. 2014; Zelasko et al. 2015). Therefore, mechanical removal efforts will continue to temporarily suppress riverine populations, and will focus on reducing in-river reproduction when feasible. Simultaneously, Program partners will work on other means to reduce in-river reproduction and reservoir escapement, in order to make mechanical removal more effective and to attempt to reach complete eradication of riverine populations.

Smallmouth bass will be removed by electrofishing. Two electrofishing rafts will simultaneously electrofish each shoreline of the river. Effort will be focused on shoreline habitat that is likely to contain smallmouth bass. Sampling crews will conduct removal activities in a manner that minimizes potential negative impacts to endangered fish as a result of electrofishing activities. This includes discontinuing electrofishing when elevated numbers of endangered and threatened fishes are known to be present, especially when actively

spawning. Electrofishing passes will be conducted from June to early July, focusing on the descending limb of the hydrograph when water temperatures will likely favor smallmouth bass spawning and nesting. Smallmouth bass captured in this project will not be tagged and released for population estimates.

Several methods will be used in an attempt to identify spawning periods and locations. First, crews will examine shoreline areas for nests and destroy any found. Second, all bass captured will be examined for spawning condition; fish >200 mm TL will be dissected to make this determination if not visibly ripe upon inspection. Finally, the time and locations of YOY smallmouth appearance in catches will be noted and tracked to estimate spawning period and to locate spawning areas. Otolith collection and preservation may provide further insight on exact hatch dates at the request of the Recovery Program.

In addition to the targeted smallmouth bass, other nonnative species encountered will be removed as feasible with the exception of common carp (*Cyprinus carpio*), channel catfish (*Ictalurus punctatus*), and small-bodied cyprinids. All endangered fishes captured will be scanned for a PIT tag, tagged if needed, weighed (g), measured TL (mm), and released alive. Additionally, submersible antennas provided by the Recovery Program will be deployed by UDWR to supplement the stream-wide PIT array at Bonanza bridge, and to examine endangered fish use of the White River as well as roundtail chub life history strategies and habitat preference.

VII. Task Description and Schedule:

- Task 1. Six smallmouth bass removal passes from Taylor Draw Dam (RM 104) to BLM boat launch (RM 87.5), potentially the Colorado-Utah border (RM 72); May-July 2018
- Task 2. Three smallmouth bass removal passes from the Colorado-Utah border (RM 72) to Enron boat ramp (RM 24); June-July 2018
- Task 3. Data entry, analysis, and reporting; October-December 2018

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

USFWS personnel costs are based on FY2017 GS and WG tables, with current benefit rates included for each position. Future rates were determined assuming a 2% inflation and cost of living increase. Vehicle and travel costs are based on current GSA rates, again assuming a 2% rate of inflation in future years.

FY 2018

Deliverables Annual report due November 2018. Data submitted to database manager.

Budget

USFWS FY2018

Task Activity	Rate \$/h	Hours	Cost
Task 1			
Preparatory Labor			
GS-11 Biologist Field Preparation	\$42.37	16	\$678
3 GS-5 Technicians Field Preparation	\$23.16	48	\$1,112
Taylor Draw Dam to BLM boat ramp (6 passes)			
GS-11 Biologist	\$42.37	136	\$5,762
3 GS-5 Technicians	\$23.16	336	\$7,783
Overtime for GS-5 technicians	\$34.75	72	\$2,502
GS-8 maintenance and equipment repair	\$43.43	196	\$8,512
Subtotal			\$26,349
Travel, Equipment			
ETS electrofishing control box and inverter filter (2018 only)			\$6,695
Honda EU7000is generator (2018 only)			\$4,500
Honda 9.9 hp outboard motor (2018 only)			\$2,498
Boat gas (6 gal gas/boat x \$4.00/gal x 2 boats/day x 14 days)			\$672
GSA truck (2 trucks x rate/mo x # truck-months)	\$250	3	\$750
Vernal to Rangely round trip and local shuttles (140 mi/day x \$0.33/mile x 14 days x 2 trucks)			\$1,294
Maintenance/replacement of rafting gear (oars, repair kit supplies, raft repairs/patching, motor maintenance), sampling nets, electrofishing gear (generator maintenance, electrode replacement), safety equipment (life jackets, control pedals/mats), camping equipment (based on average annual expenses from prior years).			\$1,000
Subtotal			\$17,409
TASK 1 TOTAL			\$43,758
Task 3- Data Analysis, Annual Report, Project Presentation, Administration			
Labor			
GS-12 Supervisory Fish Biologist	\$60.84	40	\$2,434
GS-11 Fisheries Biologist	\$42.37	120	\$5,084
GS-9 Admin Assist.	\$41.57	80	\$3,326
TASK 3 TOTAL			\$10,844
USFWS SOW TOTAL			\$54,602

UDWR FY2018

Task 2. Three removal passes from the Colorado/Utah border to Enron.

	Rate	Hours/Units	Cost
Labor			
Project Leader	36.95	150	5542.50
Biologist II	33.77	60	2026.20
Journey Maintenance/Construction Specialist	34.34	120	4120.80
Technician II	18.19	150	2727.93
Technician I	16.89	300	5065.71
Shuttle Drivers	17.25	60	1034.99
		Subtotal	\$20,518
Travel			
2 trucks @ 4% of annual use ^a	16000.00	0.04	640.00
Per diem (12 days x 5 people)	41.00	60	2460.00
		Subtotal	\$3,100
Equipment			
Boat fuel (gallons)	4.00	144	576.00
Boat/motor repair and maintenance ^b			975.00
Camping supplies ^c			450.00
Sampling equipment ^d			1600.00
		Subtotal	\$3,601
		Task 2 Total	\$27,219

UDWR Task 3. Data entry, analysis, and reporting.

	Rate	Hours/Units	Cost
Labor			
Project Leader	36.95	40	1478.00
Technician II	18.19	40	727.60
		Task 3 Subtotal	\$2,206
		UDWR FY18 TOTAL	\$29,425

(a) The State of Utah uses Automotive Resources Inc. for motor pool operations. Rental is approximately \$8,000/year/vehicle (includes fleet rental, mileage, and gas), which is based on the average annual cost for all trucks used in our program.

(b) Boat/motor repair and maintenance includes, but is not limited to oil (3 qts./motor & generator x \$11 qt. x 2 motors & generators x 1 oil change = \$75), 1 prop (\$100), water pump/filters/lower unit oil/grease/gas can/misc. maintenance items (\$500), shop supplies/tools/misc. small parts/safety equipment (\$300)

(c) Camping supplies includes, but is not limited to 1 sleeping pad (Aire-\$150), cooking supplies/propane/toilet supplies (\$300).

(d) Sampling equipment includes, but is not limited to first aid supplies (\$100), 2 life jackets (NRS-\$150), SPOT locator service fee (\$100), satellite phone service/maintenance (\$300), batteries (\$200), straps (NRS-\$150), livewell/buckets/fish nets/measuring boards (\$100), raft repair and misc. raft materials (\$500).

FY 2019

Deliverables Annual report due November 2019. Data submitted to database manager.
Budget

USFWS Vernal FY 2019

Task Activity	Rate \$/h	Hours	Cost
Task 1			
Preparatory Labor			
GS-11 Biologist Field Preparation	\$43.73	16	\$700
3 GS-5 Technicians Field Preparation	\$23.63	48	\$1,134
Taylor Draw Dam to BLM boat ramp (6 passes)			
GS-11 Biologist	\$43.73	136	\$5,947
3 GS-5 Technicians	\$23.63	336	\$7,940
Overtime for GS-5 technicians	\$35.45	72	\$2,552
GS-8 maintenance and equipment repair	\$44.29	246	\$10,895
Subtotal			\$29,168
Travel, Equipment			
Boat gas (6 gal gas/boat x \$4.00/gal x 2 boats/day x 14 days)			\$672
GSA truck (2 trucks x rate/mo x # truck-months)	\$255	4	\$1,020
Vernal to Rangely round trip and local shuttles (140 mi/day x \$0.34/mile x 14 days x 2 trucks)			\$1,333
Maintenance/replacement of rafting gear (oars, repair kit supplies, raft repairs/patching, motor maintenance), sampling nets, electrofishing gear (generator maintenance, electrode replacement), safety equipment (life jackets, control pedals/mats), camping equipment (based on average annual expenses from prior years).			\$1,000
Subtotal			\$4,025
TASK 1 TOTAL			\$33,193
Task 3- Data Analysis, Annual Report, Project Presentation, Administration			
Labor			
GS-12 Supervisory Fish Biologist	\$62.05	80	\$4,964
GS-11 Fisheries Biologist	\$43.73	168	\$7,347
GS-9 Admin Assist.	\$42.69	105	\$4,482
TASK 3 TOTAL			\$16,793
USFWS FY 19 TOTAL			\$49,986

UDWR Vernal FY 2019

Task 2. Three removal passes from the Colorado/Utah border to Enron.

	Rate	Hours/Units	Cost
Labor			
Project Leader	37.69	150	5653.35
Biologist II	34.45	60	2066.72
Journey Maintenance/Construction Specialist	35.03	120	4203.22
Technician II	18.55	150	2782.49
Technician I	17.22	300	5167.02
Shuttle Drivers	17.59	60	1055.69
		Subtotal	\$20,928
Travel			
2 trucks @ 4% of annual use ^a	16320.00	0.04	652.80
Per diem (12 days x 5 people)	41.82	60	2509.20
		Subtotal	\$3,162
Equipment			
Boat fuel (gallons)	4.08	144	587.52
Boat/motor repair and maintenance ^b			994.50
Camping supplies ^c			459.00
Sampling equipment ^d			1632.00
		Subtotal	\$3,673
		Task 2 Total	\$27,764

UDWR Task 3. Data entry, analysis, and reporting.

	Rate	Hours/Units	Cost
Labor			
Project Leader	37.69	40	1507.56
Technician II	18.55	40	742.15
		Task 3 Subtotal	\$2,250
		UDWR FY19 TOTAL	\$30,013

FY 2020

Deliverables Annual report due November 2020. Data submitted to database manager.
Budget

USWFS FY2020

Task Activity	Rate \$/h	Hours	Cost
Task 1			
Preparatory Labor			
GS-11 Biologist Field Preparation	\$46.92	16	\$751
3 GS-5 Technicians Field Preparation	\$24.10	48	\$1,157
Taylor Draw Dam to BLM boat ramp (6 passes)			
GS-11 Biologist	\$46.92	136	\$6,381
3 GS-5 Technicians	\$24.10	336	\$8,098
Overtime for GS-5 technicians	\$36.15	72	\$2,603
GS-8 maintenance and equipment repair	\$46.34	196	\$9,083
Subtotal			\$28,072
Travel, Equipment			
Honda 9.9 hp outboard motor (2020 only)			\$2,598
Boat gas (6 gal gas/boat x \$4.00/gal x 2 boats/day x 14 days)			\$672
GSA truck (2 trucks x rate/mo x # truck-months)	\$260	3	\$780
Vernal to Rangely round trip and local shuttles (140 mi/day x \$0.34/mile x 14 days x 2 trucks)			\$1,333
Maintenance/replacement of rafting gear (oars, repair kit supplies, raft repairs/patching, motor maintenance), sampling nets, electrofishing gear (generator maintenance, electrode replacement), safety equipment (life jackets, control pedals/mats), camping equipment (based on average annual expenses from prior years).			\$1,000
Subtotal			\$6,383
TASK 1 TOTAL			\$34,454
Task 3- Data Analysis, Annual Report, Project Presentation, Administration			
Labor			
GS-12 Supervisory Fish Biologist	\$63.30	40	\$2,532
GS-11 Fisheries Biologist	\$46.92	120	\$5,630
GS-9 Admin Assist.	\$44.42	80	\$3,554
TASK 3 TOTAL			\$11,716
USWFS SOW TOTAL			\$46,170

UDWR FY 2020

Task 2. Three removal passes from the Colorado/Utah border to Enron.

	Rate	Hours/Units	Cost
Labor			
Project Leader	38.44	150	5766.42
Biologist II	35.13	60	2108.06
Journey Maintenance/Construction Specialist	35.73	120	4287.28
Technician II	18.92	150	2838.14
Technician I	17.57	300	5270.36
Shuttle Drivers	17.95	60	1076.80
		Subtotal	\$21,347
Travel			
2 trucks @ 4% of annual use ^a	16646.40	0.04	665.86
Per diem (12 days x 5 people)	42.66	60	2559.38
		Subtotal	\$3,225
Equipment			
Boat fuel (gallons)	4.16	144	599.27
Boat/motor repair and maintenance ^b			1014.39
Camping supplies ^c			468.18
Sampling equipment ^d			1664.64
		Subtotal	\$3,746
		Task 2 Total	\$28,319

UDWR Task 3. Data entry, analysis, and reporting.

	Rate	Hours/Units	Cost
Labor			
Project Leader	38.44	40	1537.71
Technician II	18.92	40	757.00
		Task 3 Subtotal	\$2,295
		UDWR FY20 TOTAL	\$30,613

FY 2021

Deliverables Annual report due November 2021. Data submitted to database manager.
Budget

USFWS FY2021

Task Activity	Rate \$/h	Hours	Cost
Task 1			
Preparatory Labor			
GS-11 Biologist Field Preparation	\$47.86	16	\$766
3 GS-5 Technicians Field Preparation	\$24.58	48	\$1,180
Taylor Draw Dam to BLM boat ramp (6 passes)			
GS-11 Biologist	\$47.86	136	\$6,509
3 GS-5 Technicians	\$24.58	336	\$8,259
Overtime for GS-5 technicians	\$36.87	72	\$2,655
GS-8 maintenance and equipment repair	\$47.26	196	\$9,263
Subtotal			\$28,631
Travel, Equipment			
Boat gas (6 gal gas/boat x \$4.00/gal x 2 boats/day x 14 days)			\$672
GSA truck (2 trucks x rate/mo x # truck-months)	\$265	3	\$795
Vernal to Rangely round trip and local shuttles (140 mi/day x \$0.35/mile x 14 days x 2 trucks)			\$1,372
Maintenance/replacement of rafting gear (oars, repair kit supplies, raft repairs/patching, motor maintenance), sampling nets, electrofishing gear (generator maintenance, electrode replacement), safety equipment (life jackets, control pedals/mats), camping equipment (based on average annual expenses from prior years).			\$1,000
Subtotal			\$3,839
TASK 1 TOTAL			\$32,470
Task 3- Data Analysis, Annual Report, Project Presentation, Administration			
Labor			
GS-12 Supervisory Fish Biologist	\$66.37	40	\$2,655
GS-11 Fisheries Biologist	\$47.86	120	\$5,743
GS-9 Admin Assist.	\$45.61	80	\$3,649
TASK 3 TOTAL			\$12,047
USFWS SOW TOTAL			\$44,517

UDWR FY2021

Task 2. Three removal passes from the Colorado/Utah border to Enron.

	Rate	Hours/Units	Cost
Labor			
Project Leader	39.21	150	5881.75
Biologist II	35.84	60	2150.22
Journey Maintenance/Construction Specialist	36.44	120	4373.03
Technician II	19.30	150	2894.90
Technician I	17.92	300	5375.77
Shuttle Drivers	18.31	60	1098.34
		Subtotal	\$21,774
Travel			
2 trucks @ 4% of annual use ^a	16979.33	0.04	679.17
Per diem (12 days x 5 people)	43.51	60	2610.57
		Subtotal	\$3,290
Equipment			
Boat fuel (gallons)	4.24	144	611.26
Boat/motor repair and maintenance ^b			1034.68
Camping supplies ^c			477.54
Sampling equipment ^d			1697.93
		Subtotal	\$3,821
		Task 2 Total	\$28,885

UDWR Task 3. Data entry, analysis, and reporting.

	Rate	Hours/Units	Cost
Labor			
Project Leader	39.21	40	1568.47
Technician II	19.30	40	772.13
		Task 3 Subtotal	\$2,341
		UDWR FY21 TOTAL	\$31,226

FY 2022

Deliverables Annual report due November 2022. Data submitted to database manager.
Budget

USFWS FY2022

Task Activity	Rate \$/h	Hours	Cost
Task 1			
Preparatory Labor			
GS-11 Biologist Field Preparation	\$48.81	16	\$781
3 GS-5 Technicians Field Preparation	\$25.07	48	\$1,203
Taylor Draw Dam to BLM boat ramp (6 passes)			
GS-11 Biologist	\$48.81	136	\$6,638
3 GS-5 Technicians	\$25.07	336	\$8,424
Overtime for GS-5 technicians	\$37.61	72	\$2,708
GS-8 maintenance and equipment repair	\$48.21	196	\$9,449
Subtotal			\$29,203
Travel, Equipment			
Boat gas (6 gal gas/boat x \$4.00/gal x 2 boats/day x 14 days)			\$672
GSA truck (2 trucks x rate/mo x # truck-months)	\$271	3	\$813
Vernal to Rangely round trip and local shuttles (140 mi/day x \$0.36/mile x 14 days x 2 trucks)			\$1,411
Maintenance/replacement of rafting gear (oars, repair kit supplies, raft repairs/patching, motor maintenance), sampling nets, electrofishing gear (generator maintenance, electrode replacement), safety equipment (life jackets, control pedals/mats), camping equipment (based on average annual expenses from prior years).			\$1,000
Subtotal			\$3,896
TASK 1 TOTAL			\$33,099
Task 3- Data Analysis, Annual Report, Project Presentation, Administration			
Labor			
GS-12 Supervisory Fish Biologist	\$67.70	40	\$2,708
GS-11 Fisheries Biologist	\$48.81	120	\$5,857
GS-9 Admin Assist.	\$46.53	80	\$3,722
TASK 3 TOTAL			\$12,288
USFWS SOW TOTAL			\$45,387

UDWR FY2022

Task 2. Three removal passes from the Colorado/Utah border to Enron.			
	Rate	Hours/Units	Cost
Labor			
Project Leader	40.00	150	5999.38
Biologist II	36.55	60	2193.22
Journey Maintenance/Construction Specialist	37.17	120	4460.49
Technician II	19.69	150	2952.80
Technician I	18.28	300	5483.28
Shuttle Drivers	18.67	60	1120.31
		Subtotal	\$22,209
Travel			
2 trucks @ 4% of annual use ^a	17318.91	0.04	692.76
Per diem (12 days x 5 people)	44.38	60	2662.78
		Subtotal	\$3,356
Equipment			
Boat fuel (gallons)	4.33	144	623.48
Boat/motor repair and maintenance ^b			1055.37
Camping supplies ^c			487.09
Sampling equipment ^d			1731.89
		Subtotal	\$3,898
		Task 2 Total	\$29,463

UDWR Task 3. Data entry, analysis, and reporting.			
	Rate	Hours/Units	Cost
Labor			
Project Leader	40.00	40	1599.83
Technician II	19.69	40	787.58
		Task 3 Subtotal	\$2,387
		UDWR FY22 TOTAL	\$31,850

IX. Budget Summary:

	UDWR	USFWS	Total by FY
FY 2018	\$29,425	\$54,602	\$84,027
FY 2019	\$30,013	\$49,986	\$79,999
FY 2020	\$30,613	\$46,170	\$76,783
FY 2021	\$31,226	\$44,517	\$75,743
FY 2022	\$31,850	\$45,387	\$77,237
TOTAL	\$153,127	\$240,662	\$393,789

X. Reviewers: Recovery Program Director's Office – May 2017; Biology Committee – July 2017

XI. References:

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