AMWG Motion Information

AMWG Motion For Consideration

The Adaptive Management Work Group (AMWG) recommend for approval to the Secretary of the Interior, the Fiscal Year 2024 budget as shown on the budget worksheets presented to the AMWG on August 16, 2023, with the following additional guidance:

The AMWG recommends that any lethal management activity performed under the Glen Canyon Dam Adaptive Management Program (GCDAMP) Work Plan complies with the 2017 Programmatic Agreement for Long Term Experimental Management Plan and the National Park Service 2019 Expanded Non Native Aquatic Species Management Plan Programmatic Agreement prior to implementation of that action.

If funds become available, the AWMG recommends those funds are used to fund the work items listed below in order of priority:

Priority 1 -Short Term Rapid Response Under the Invasive Species Strategic Plan – Invasive Fish Species Below Glen Canyon Dam: A Strategic Plan to Prevent, Detect and Respond was adopted by the AMWG on February 16th, 2023. Should short term response be necessary in FY24 under this Strategic Plan, the Department of the Interior should prioritize available funds outside of the GCDAMP. If other funding sources have been exhausted, the Department of Interior may consider use of the Reclamation C.5 Experimental Management Fund and the C.6 Native Fish Conservation Contingency Fund. Such actions that may require use of these funds must be coordinated with the AMWG as proposed in the Strategic Plan and Budget Ad Hoc Group process.

Priority 2 – Continue Project Element G.6, Juvenile Chub Monitoring-West

Priority 3 – Continue sampling at two sub-reaches for Project Element H.2, Experimental Flow Assessment of Trout Recruitment.

Priority 4 – Continue Project Element C.3, Riparian Vegetation Predictive models and synthesis

Priority 5 – Other Additional Requests identified in the GCMRC FY24 Table.

Motion on TWG FY2024 Budget Recommendation to AMWG

The Technical Work Group (TWG) recommends that the Adaptive Management Work Group (AMWG) recommend for approval to the Secretary of the Interior, the Fiscal Year 2024 budget as shown on the budget worksheets presented to the TWG on June 15, 2023, with the following additional guidance:

The TWG recommends that any lethal management activity performed under the Glen Canyon Dam Adaptive Management Program (GCDAMP) Work Plan complies with the 2017 Programmatic Agreement for Long Term Experimental Management Plan and the National Park Service 2019 Expanded Non Native Aquatic Species Management Plan Programmatic Agreement prior to implementation of that action.

The TWG recommends that Grand Canyon Monitoring and Research Center (GCMRC) and Reclamation coordinate on Project N elements for FY24 with the TWG before the August AMWG meeting.

If funds become available, the TWG recommends those funds are used to fund the work items listed below in order of priority:

Priority 1 -Short Term Rapid Response Under the Invasive Species Strategic Plan – Invasive Fish Species Below Glen Canyon Dam: A Strategic Plan to Prevent, Detect and Respond was adopted by the AMWG on February 16th, 2023. Should short term response be necessary in FY24 under this Strategic Plan, the Department of the Interior should prioritize available funds outside of the GCDAMP. If other funding sources have been exhausted, the Department of Interior may consider use of the Reclamation C.5 Experimental Management Fund and the C.6 Native Fish Conservation Contingency Fund. Such actions that may require use of these funds must be coordinated with the AMWG as proposed in the Strategic Plan and Budget Ad Hoc Group process.

Priority 2 – Continue Project Element G.6, Juvenile Chub Monitoring-West

Priority 3 – Continue sampling at two sub-reaches for Project Element H.2, Experimental Flow Assessment of Trout Recruitment.

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Priority 5 – Other Additional Requests identified in the GCMRC FY24 Table.

(Leslie James, Colorado River Energy Distributors) Made a motion to accept the recommendation (Craig Ellsworth, Dept of Energy – Western Area Power Administration (WAPA)) Seconded. [Seth Shanahan, Southern Nevada Water Authority] Motion passed by consensus.

Reclamation FY24 Budget Spreadsheet

	Reclamation Adaptive Management Program Budget Summary	
		2024
	GCDAMP Total	\$ 11,360,000
	Reclamation Total (20%)	\$ 2,272,000
	GCMRC Total (80%)	\$ 9,088,000
A	Adaptive Management Work Group	\$ 215,000
	percent of BOR budget	10%
A.1	Adaptive Management Work Group Costs (BOR)	\$ 75,000
A.2	AMWG Member Travel Reimbursement	\$ 20,000
A.3	AMWG Reclamation Travel	\$ 20,000
A.4	AMWG Facilitation and Notetaking	\$ 60,000
A.5	Public Outreach - Reclamation public affairs, POAG	\$ 25,000
A.6	AMWG Other	\$ 15,000

В	Technical Work Group	\$	200,000
	percent of BOR budget		9%
B.1	Technical Work Group Costs (BOR)	\$	120,000
B.2	TWG Member Travel Reimbursement	\$	25,000
B.3	TWG Reclamation Travel	\$	20,000
B.4	TWG Chair Reimbursement/Facilitation	\$	25,000
B.5	TWG Other	\$	10,000
C	Program Management, ESA Compliance, and Management Actions	\$	1,127,000
	percent of BOR budget		51%
C.1	Administrative Support for NPS Permitting	\$	130,000
C.2	Contract Administration	\$	70,000
C.3	Integrated Stakeholder River Trip	\$	-
C.4	Science Advisors Program	\$	150,000
C.5	Experimental Management Fund	\$	350,000
C.6	Native Fish Conservation Contingency Fund		•
C.7	Experimental Vegetation Treatment - Grand Canyon	\$	170,000
C.8	Experimental Vegetation Treatment - Glen Canyon	\$	67,000
C.9	Evaluation of means to prevent fish passage through GCD	\$	_
C.10	Evaluation of temperature control methods at GCD	\$	_
C.11	Ridgway Rail and Southwest Willow Flycatcher monitoring	\$	10,000
C.12	Monitoring Metrics Development and Tracking	\$	35,000
C.13	Program Management	\$	145,000
D	Cultural Resources	\$	655,000
	percent of BOR budget		30%
D.1	Cultural Resources Program Management (BOR)	\$	120,000
D.2	External Support to Reclamation for cultural resources compliance	\$	40,000
D.3	Cultural Resources Monitoring - Grand Canyon	\$	60,000
D.4	Cultural Resources Monitoring - Glen Canyon	\$	40,000
D.5	Traditional Cultural Property Documentation	\$	-
D.6	Zuni and NPS Data Recovery and Community Outreach Pilot	\$	100,000
D.7	Monitoring Paiute Places on the Colorado: An Educational Resource	\$	-
D.8	Hualapai Agricultural and Gardening Practices along the Colorado River	\$	-
D.9	Hopi Grand Canyon (Öngtupqa) Oral History Project	\$	45,000
D.10	Southern Paiute Participation in the Glen Canyon AMP: 25 Years of Monitoring and Education, 1996-2021	\$	-
	Hualapai Shared Histories Along the Colorado River in Grand Canyon	\$	-
D.11			
D.11 D.12	Cultural Sensitivity Training Development	\$	50,000
		\$ \$	50,000 25,000
D.12	Cultural Sensitivity Training Development		25,000
D.12 D.13	Cultural Sensitivity Training Development Contingency fund for NHPA section 106 compliance	\$	

TOTAL Anticipated Budget Available to Reclamation	\$ 2,272,000
TOTAL Estimated Reclamation Expenditures	\$ 2,197,000
Potential Surplus	\$ 75,000

GCMRC FY24 Budget Spreadsheet

FY 2024

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Project	Project Description	Salaries 24	Travel & Training	Operating Expenses	Logistics 24	Total OE	Burden	Cooperative Agreements	To other USGS	Total
		7.00%			10.00%		18.00%			
A	Streamflow, Water Quality, and Sediment Transport and Budgeting in the Colorado River Ecosystem									
A.1	Stream gaging and hydrologic analyses	\$185,738	\$4,200	\$8,000	\$24,200	\$222,138	\$39,984.84	\$0	\$117,157	379,280
A.2	Continuous water-quality parameters	\$69,792	\$800	\$11,000	\$24,200	\$105,792	\$19,042.56	\$0	\$23,260	148,095
A.3	Sediment transport and budgeting	\$363,739	\$5,000	\$40,600	\$24,200	\$433,539	\$78,037.02	\$0	\$255,860	767,436
	Total A	\$619,269	\$10,000	\$59,600	\$72,600	\$761,469	\$137,064.42	\$0	\$396,277	1,294,810
В	Sandbar and Sediment Storage Monitoring and Research									
B.1	Sandbar and campsite monitoring with topographic surveys and remote cameras	\$430,693	\$1,750	\$10,000	\$36,984	\$479,427	86,537	\$8,000	\$0	573,964
B.2	Bathymetric and topographic mapping for monitoring long-term trends in sediment storage	\$275,958	\$1,750	\$5,200	\$0	\$282,908	50,923	\$0	\$0	333,831
B.3	Control network and survey support	\$70,640	\$1,000	\$15,000	\$0	\$86,640	15,595	\$0	\$0	102,235
	Total B	\$777,291	\$4,500	\$30,200	\$36,984	\$848,975	153,056	\$8,000	\$0	1,010,031
C	Riparian Vegetation Monitoring and Research									
C.1	Ground-based riparian vegetation monitoring	\$82,080	\$3,240	\$3,310	\$47,223	\$135,853	24,708	\$8,500	\$0	169,061
C.2	Determining hydrological tolerances and management tools for plant species of interest	\$9,150	\$0	\$0	\$0	\$9,150	1,682	\$1,180	\$0	12,012
C.3	Predictive models and synthesis	\$45,747	\$0	\$0	\$0	\$45,747	10,828	\$86,447	\$0	143,022

C.4	Vegetation management decision support	\$9,150	\$0	\$0	\$0	\$9,150	1,771	\$4,130		15,050
	Total C	\$146,126	\$3,240	\$3,310	\$47,223	\$199,899	38,989	\$100,257	\$0	339,145
D	Effects of Dam Operations and Vegetation Management for Archaeological Sites									
D.1	Dam operations, vegetation management, archaeological sites	\$217,746	\$5,000	\$2,423	\$21,458	\$246,627	44,393	\$0	\$0	291,020
D.2	Monitoring landscape-scale ecosystem change with repeat photography	\$28,810	\$4,800	\$800	\$0	\$34,410	6,194	\$0	\$0	40,604
D.3	Cultural program history Total D	\$0 \$246,556	\$0 \$9,800	\$0 \$3,223	\$0 \$21,458	\$0 \$281,037	0 50,587	\$0 \$0	\$0 \$0	331,623
	Total D	\$240,330	\$2,000	\$3,223	\$21,430	\$201,037	30,307	φ υ	φU	331,023
E	Controls on Ecosystem Productivity: Nutrients, Flow, and Temperature									
E.1	Phosphorus budgeting in the Colorado River	\$85,474	\$1,000	\$3,500	\$0	\$89,974	16,195	\$0	\$0	106,169
E.2	Rates and composition of primary producers in the Colorado River	\$63,597	\$7,000	\$9,865	\$0	\$80,462	14,483	\$0	\$0	94,945
E.3	Productivity at higher trophic levels	\$74,982	\$2,500	\$516	\$0	\$77,998	14,040	\$0	\$0	92,038
	Total E	\$224,053	\$10,500	\$13,881	\$0	\$248,434	44,718	\$0	\$0	293,152
F	Aquatic Invertebrate Ecology									
F.1	Aquatic invertebrate monitoring in Marble and Grand Canyons	\$297,459	\$3,792	\$29,096	\$19,296	\$349,643	62,936	\$0	\$0	412,579
F.2	Aquatic invertebrate monitoring in Glen Canyon	\$237,967	\$13,247	\$8,487	\$8,250	\$267,951	48,231	\$0	\$0	316,182
F.3	Aquatic invertebrate monitoring of Grand Canyon tributaries	\$0	\$0	\$0	\$0	\$0	0	\$0	\$0	0
F.4	Fish diet studies	\$59,492	\$0	\$0	\$0	\$59,492	10,709			70,201
	Total F	\$594,918	\$17,039	\$37,583	\$27,546	\$677,086	121,876	\$0	\$0	798,962

G	Humpback Chub Population Dynamics throughout the Colorado River Ecosystem									
G.1	Humpback chub population modeling	\$121,906	\$4,000	\$2,000	\$0	\$127,906	23,023	\$0	\$0	150,929
G.2	Annual spring/fall HBC abundance estimates in the lower 13.6 km of the LCR	\$16,572	\$0	\$14,200	\$116,094	\$146,866	36,711	\$342,506	\$0	526,083
G.3	Juvenile chub monitoring near the LCR confluence (JCM-East)	\$143,055	\$0	\$13,000	\$293,866	\$449,921	80,986	\$0	\$0	530,907
G.4	Remote PIT-tag array monitoring in the LCR	\$49,544	\$0	\$6,000	\$8,498	\$64,042	11,528	\$0	\$0	75,569
G.5	Monitoring humpback chub aggregation relative abundance and distribution	\$15,087	\$0	\$14,100	\$65,068	\$94,255	19,853	\$96,240	\$0	210,348
G.6	Juvenile chub monitoring - West (JCM-West)	\$0	\$0	\$0	\$0	\$0	0	\$0	\$0	0
G.7	Chute Falls translocations	\$5,524	\$0	\$2,600	\$18,277	\$26,401	6,778	\$67,520	\$0	100,699
	Total G	\$351,689	\$4,000	\$51,900	\$501,802	\$909,391	178,878	\$506,266	\$0	1,594,535
Н	Salmonid Research and Monitoring									
H.1	Rainbow trout monitoring in Glen Canyon	\$11,048	\$0	\$1,300	\$15,720	\$28,068	7,692	\$88,000	\$0	123,760
H.2	Experimental flow assessment of trout recruitment	\$84,207	\$500	\$21,266	\$106,057	\$212,029	38,675	\$17,000	\$0	267,705
Н.3	Brown Trout Early Life Stage Survey in Glen Canyon	\$0	\$0	\$0	\$0	\$0	0	\$0	\$0	0
H.4	Salmonid modeling	\$62,476	\$0	\$1,500	\$0	\$63,976	12,806	\$43,000	\$0	119,782
	Total H	\$157,731	\$500	\$24,066	\$121,777	\$304,073	59,173	\$148,000	\$0	511,247
I	Warm-Water Native and Non-Native Fish Monitoring and Research									
I.1	System-wide native fish and invasive aquatic species monitoring	\$12,564	\$0	\$6,000	\$96,229	\$114,793	27,189	\$217,550	\$0	359,532
I.2	Invasion and colonization dynamics of warm-water invasive fish	\$123,131	\$0	\$0	\$7,752	\$130,883	24,189	\$21,000	\$0	176,072

I.3	Impacts of channel catfish on native fish in the LCR	\$115,592	\$0	\$1,100	\$0	\$116,692	21,005	\$0	\$0	137,697
	Total I	\$251,287	\$0	\$7,100	\$103,981	\$362,368	72,383	\$238,550	\$0	673,301
J	Socioeconomic Research									
J.1	Predictive models for adaptive management	\$61,800	\$1,500	\$250	\$0	\$63,550	11,439	\$0	\$0	74,989
J.2	Brown trout incentivized harvest	\$96,661	\$1,500	\$1,250	\$0	\$99,411	18,629	\$24,500	\$0	142,540
	Total J	\$158,461	\$3,000	\$1,500	\$0	\$162,961	30,068	\$24,500	\$0	217,529
K	Geospatial Science, Data Management, and Technology									
K.1	Enterprise GIS, geospatial analysis, and processing	\$197,459	\$1,500	\$1,400	\$0	\$200,359	36,065	\$0	\$0	236,423
K.2	Data management and database administration	\$172,529	\$1,500	\$700	\$0	\$174,729	31,451	\$0	\$0	206,180
K.3	Remote monitoring and advanced technology support	\$49,467	\$500	\$1,600	\$0	\$51,567	9,282	\$0	\$0	60,849
	Total K	\$419,455	\$3,500	\$3,700	\$0	\$426,655	76,798	\$0	\$0	503,453
L	Overflight Remote Sensing in Support of GCDAMP and LTEMP									
L.1	Overflight remote sensing	\$194,352	\$0	\$0	\$0	\$194,352	37,401	\$80,596	\$0	312,349
	Total L	\$194,352	\$0	\$0	\$0	\$194,352	37,401	\$80,596	\$0	312,349
M	Leadership, Management, and Support									
M.1	Leadership, management, and support	\$639,515	\$20,000	\$103,208	\$0	\$762,723	137,290	\$0	\$0	900,013
M.2	Logistics staff	\$293,008	\$3,000	\$0	\$0	\$296,008	53,611	\$11,000	\$0	360,619
M.3	IT	\$0	\$0	\$65,000	\$0	\$65,000	11,700	\$0	\$0	76,700
	Total M	\$932,523	\$23,000	\$168,208	\$0	\$1,123,731	202,602	\$11,000	\$0	1,337,332
N	Hydropower Monitoring and Research									
N.1	Hydropower monitoring and research	\$21,063	\$1,500	\$2,500	\$0	\$25,063	4,511	\$0	\$0	29,574
	Total N	\$21,063	\$1,500	\$2,500	\$0	\$25,063	4,511	\$0	\$0	29,574
	GCMRC AMP Total (FY24)	5,094,772	90,579	406,771	933,371	6,525,493	1,208,104	1,117,169	396,277	9,247,043