

United States Department of the Interior U.S. GEOLOGICAL SURVEY

SOUTHWEST BIOLOGICAL SCIENCE CENTER GRAND CANYON MONITORING AND RESEARCH CENTER

2255 NORTH GEMINI DRIVE, MS-9394 FLAGSTAFF, ARIZONA 86001 928 556-7094 Telephone 928 556-7092 Fax

John Hamill

March 25, 2009

To: Glen Canyon Dam Adaptive Management Work Group Members

From: John Hamill, Chief, Grand Canyon Monitoring and Research Center

Subject: GCMRC's Final FY 2008 Expenditure Report and Allocation of FY2008 Carryover

Funds and FY 2009 CPI Funds

Attached please find GCMRC's Final FY 2008 Expenditure Report (Table 1). This table provides a project by project accounting of available, obligated, and expended funds and related burden (overhead). A brief explanation is provided for any over or under expenditure of project funds.

Tables 2 shows how approximately \$2.3M of the carryover funds have been allocated for various planned and nondiscretionary activities including (a) completing various projects that were delayed or deferred due to the March 2008 High Flow Experiment, (b) completing various planned activities which were specified in the FY 2009 budget to be funded with carryover funding (e.g., High Flow Experiment data analysis and reporting, overflight, nearshore ecology project, modeling, etc.) and (c) addressing nondiscretionary increases in salaries, contracts, and cooperative agreements.

Table 3 shows how approximately \$531,000 of "discretionary funds" were allocated. Generally the discretionary funds were allocated to meet the following needs:

- Deferred replacement and/or maintenance of equipment for various projects
- Filling critical staff positions in DASA and the Biology Program
- Restoring funding for projects that were previously cut to achieve a balanced FY 2009 budget (e.g. survey control network).
- Providing a contingency fund to meet high priority unanticipated needs (i.e., overflight acquisition/analysis contingency fund, FY 2009 nonnative control contingency fund)

Barbara McKenzie and I will review the attached tables at the April 29-30, 2009, AMWG meeting. In the meantime if you have questions, please give me a call at 928-556-7364.

Attachment (3) Attached separately

	^	<u> </u>		D	l E	F		LI	1		I v
\vdash	A	В	С	υ	E	Г	G	Н	I	J	K
50	GCMRC Project ID	Project Descriptions	FY08 Gross Budget	FY08 Outstanding Obligations	FY08 Expended	FY08 Subtotal NET Obligated + Expended	FY08 Burden on Obligations & Expenditures	Burden Rate	FY08 Gross Obligations & Expenditures	Difference Between FY08 Budgeted and & FY08 Obligated & Expended	Comments
51	U.S. Geolog	ical Survey - Biological Resource Division	n - GCMRC - Pov	ver Revenues L	Jnder Cap Fund	ed Projects					
52											
53	GOAL 1 - FO	OD BASE									
54	BIO 1.R1.08	Aquatic Food Base (FY07FY09)	513,630	-	447,017	447,017	57,919	12.96%	504,936	8,694	Resignation of scientist in late FY08, some support work was conducted under HFE & NSE pilot projects
55	BIO 1.R4.08	Impacts of Various Flow Regimes on the Aquatic Food Base (FY08-FY09; Note 1)	72,700	-	67,333	67,333	5,579	8.29%	72,912	(212)	
56		SUB-TOTAL GOAL 1	586,330	-	514,350	514,350	63,498	12.35%	577,848	8,482	
57	GOAL 2 - NA	TIVE FISHES									
58	BIO 2.R1.08	LCR HBC Monitoring Lower 15km (HBC Population Est; Ongoing)	407,680	15,758	361,388	377,146	27,456	7.28%	404,602	3,078	Slight over-estimate of field supplies needed
59	BIO 2.R2.08	LCR HBC Monitoring Lower 1,200m; Ongoing)	73,088	-	62,250	62,250	4,959	7.97%	67,209	5,879	
60	BIO 2.R3.08	HBC Monitoring Above Chute Falls; Ongoing)	79,652	-	74,579	74,579	7,698	10.32%	82,277	(2,625)	Under-estimate of logistics costs needed
61	BIO 2.R4.08	Monitoring Mainstem Fishes (includes Diamond Down; Ongoing)	518,436	161,691	286,507	448,198	50,590	11.29%	498,788	19,648	ŭ
62	BIO 2.R5.08	Nonnative Control Planning (FY07FY10)	109,016	-	85,076	85,076	16,866	19.82%	101,942	7,074	Resignation of fisheries technician in FY08, technician charged some time to HFE
63	BIO 2.R6.08	Nonnative Control Pilot Testing (FY07FY10)	121,579	-	100,260	100,260	13,081	13.05%	113,341	8,238	Resignation of fisheries technician in FY08
64	BIO 2.R7.08	Stock Assessment of Native Fish in Grand Canyon (FY07Ongoing)	41,392	-	37,928	37,928	7,519	19.82%	45,447	(4,055)	Under-estimate of salary & benefits
65	BIO 2.R8.08	Abundance Estimation Procedures (FY07 Ongoing)	41,392	-	34,783	34,783	6,896	19.83%	41,679	(287)	
66	BIO 2.R9.08	Bioenergetics Modeling (FY07FY10)	41,392	-	27,035	27,035	5,360	19.83%	32,395	8,997	Resignation of fisheries technician; Used funds for Fish Cooperator's meeting
67	BIO 2.R11.08	Native Fishes Habitat Data Analysis (FY07FY10)	28,944	-	28,785	28,785	5,707	19.83%	34,492	(5,548)	Additional analysis (bioenergetic modeling) needed to prepare report manuscript
68	BIO 2.R12.08	Trammel Net Effects (FY07FY09)	38,458	-	36,250	36,250	2,208	6.09%	38,458	-	
69 70	BIO 2.R13.08	Remote PIT Tag Reading (FY07FY09)	34,624	-	32,077	32,077	2,585	8.06%	34,662	(38)	Companyation and control control LEE
71	BIO 2.R14.08 TBD	Test Sonic Tags (FY07FY09) Unplanned Fisheries Meeting	76,365	-	60,572 7.642	60,572 7.642	6,570 1.515	10.85% 19.82%	67,142 9.157	9,223 (9.157)	
72	יטטי	SUB-TOTAL GOAL 2	1,612,018	177.449	1.235.132	1.412.581	159,010	11.26%	1,571,591	40,427	2004 Tando Irom Sarpido III DIO 2.113.00
73	GOAL 3 - EX	TIRPATED SPECIES	.,,	,	.,,	.,,		0/0	.,5,00		
74	2/1	None Identified	-	-	-	-	-		-	-	
75		SUB-TOTAL GOAL 3		-		-	-				
76	GOAL 4 - RA	INBOW TROUT									
77	BIO 4.M1.08	Status & Trends of Lees Ferry Trout (Ongoing)	135,072	36,050	90,930	126,980	8,115	6.39%	135,095	(23)	
78		SUB-TOTAL GOAL 4	135,072	36,050	90,930	126,980	8,115	6.39%	135,095	(23)	
79	GOAL 5 - KA	NAB AMBERSNAIL									
80	BIO 5.R1.08	Monitor Kanab Ambersnail (FY95FY10)	34,340	1,512	19,288	20,800	2,681	12.89%	23,481	10,859	Field work conducted in association with other river trips
81	0041.0.00	SUB-TOTAL GOAL 5	34,340	1,512	19,288	20,800	2,681	12.89%	23,481	10,859	
82		RINGS / RIPARIAN	400 705		00.004	00.004	47.450	40.000/	405 500	2.000	Cothwara ungrada deferred to 57/00
83	BIO 6.R1.08 BIO 6.R2.08	Vegetation Mapping (FY07FY10) Vegetation Transects (FY07FY10)	108,785 89,686	-	88,064 16,130	88,064 16,130	17,459 3,198	19.83% 19.83%	105,523 19,328	3,262 70,358	Software upgrade deferred to FY09 Cooperator, software upgrade deferred to FY09
85		Vegetation Transects (F107F110) Vegetation Synthesis (FY07FY10)	68.485	17.000	31.215	48.215	6.812	14.13%	55.027	13.458	Occipination, software appraise deferred to F 109
86	2.0 0.110.00	SUB-TOTAL GOAL 6	266,956	17,000	135,409	152,409	27,469	18.02%	179.878	87.078	
ـــــــــــــــــــــــــــــــــــــــ		002 . C 2 00/12 0	_00,000	,500	,	.02,.00	,.50	.0.0= /0	,	0.,010	

_	A	В	С	D	E	Е	G	Н		T 1	К
50	GCMRC Project ID	Project Descriptions	FY08 Gross Budget	FY08 Outstanding Obligations	FY08 Expended	Expended	FY08 Burden on Obligations & Expenditures	Burden Rate	FY08 Gross Obligations & Expenditures	Difference Between FY08 Budgeted and & FY08 Obligated & Expended	Comments
51		ical Survey - Biological Resource Divisio	n - GCMRC - Pov	ver Revenues L	Inder Cap Fund	ed Projects					
87	GOAL 7 - QU	ALITY-OF-WATER			ı					1	
88	BIO 7.R1.08	Water Quality Monitoring Lake - Powell & Tailwaters (Budget presented below; FY07FY09)	-			-	-		-	-	
89	PHY 7.M1.08	Integrated Quality-of-Water Monitoring (Downstream of GCD; FY07Ongoing)	883,024	-	793,648	793,648	92,243	11.62%	885,891	(2,867)	Under-estimated lab needs
90	PHY 7.R1.08	Modeling Support Linked with Integrated Quality-of- Water Monitoring (FY07FY08)	116,877	-	104,317	104,317	7,422	7.11%	111,739	5,138	Some analysis delayed until FY09 due to time constraints
91		SUB-TOTAL GOAL 7	999,901	-	897,965	897,965	99,665	11.10%	997,630	2,271	
92	GOAL 8 - SE	DIMENT			-						
93	PHY 8.M1.08	Longterm Monitoring of Changes in Sediment Storage	130,929	-	8,000	8,000	1,586	19.83%	9,586	121,343	Planned postponement due to HFE per budget submission. Expenditure necessary to cover salary obligations
94		SUB-TOTAL GOAL 8	130,929	-	8,000	8,000	1,586	19.83%	9,586	121,343	
95		CREATIONAL EXPERIENCE									
96	REC 9.R1.08 / PHY 8.M2.08	Sand Bar and Campable Area Monitoring (FY07 FY11)	146,778	114,317	22,133	136,450	10,376	7.60%	146,826	(48)	
97	REC 9.R3.08	Compile Campsite Inventory and GIS Atlas (FY07-FY08)	86,179	21,225	16,816	38,041	4,626	12.16%	42,667	43,512	River trips postponed until FY09, Funds for student employee deferred to FY09
98		SUB-TOTAL GOAL 9	232,957	135,542	38,949	174,491	15,002	8.60%	189,493	43,464	
99	GOAL 10 - H	YDROPOWER									
100	HYD 10.M1.08	Monitor Power Generation and Market Values under Current and Future Dam Operations (FY07 Ongoing)	18,998	-	15,925	15,925	3,157	19.82%	19,082	(84)	
101		SUB-TOTAL GOAL 10	18,998	-	15,925	15,925	3,157	19.82%	19,082	(84)	
102	GOAL 11 - CI	ULTURAL									
103	CUL 11.R1.08	Research & Development toward Core Monitoring (FY07)	468,009	121,356	116,969	238,325	13,346	5.60%	251,671	216,338	River trips, partial salary for assistant deferred to FY09, Processing of suballocation to WESP for FY08 LIDAR work delayed until early FY09
104	0041 40 11	SUB-TOTAL GOAL 11	468,009	121,356	116,969	238,325	13,346	5.60%	251,671	216,338	
105	GOAL 12 - HI	IGH QUALITY MONITORING, RESEARCH & A	EAM							1	Diagrand complete word for EVOO Overflight /Added to
106	DASA 12.D1.08	Preparation for Monitoring Data Acquisition (Remote Sensing; FY07Ongoing) ACTUAL EXPENDED	260,000	-	-	-	-		-	260,000	Planned carry forward for FY09 Overflight (Added to \$148,400 from FY07 = \$408,400 total carry forward to FY09)
107	DASA 12.D2.08	Grand Canyon Integrated Oracle Database Management System (FY07Ongoing)	178,607	91,139	63,158	154,297	17,523	11.36%	171,820	6,787	Salary, supplies less than estimated
108	DASA 12.D3.08	Library Operations (FY07Ongoing)	42,635	59,409	3,309	62,718	4,274	6.81%	66,992	(24,357)	Additional student assistance to correct Library Holdings database
109	DASA 12.D4.08	Legacy Analog Data Conversion (Analog to Digital - Reports & Imagery) (FY07FY11)	78,736	42,216	27,033	69,249	7,930	11.45%	77,179	1,557	
110	DASA 12.D5.08	GIS Support for Integrated Analyses and Projects, GIS Lead (FY07Ongoing)	227,515	96,438	112,227	208,665	26,625	12.76%	235,290	(7,775)	Under-estimated student assistance, supplies
111	DASA 12.D6.08	Integrated Analysis and Modeling - Mapping Shoreline Habitat Changes (FY0708)	115,888	-	109,236	109,236	6,652	6.09%	115,888	-	
112		Sub-total Goal 12 DASA Portion	903,381	289,202	314,963	604,165	63,004	10.43%	667,169	236,212	
113	SUP 12.S1.08	Logistics Base Costs (See BNELA for project related logistics costs; Ongoing)	126,691	-	104,565	104,565	20,730	19.82%	125,295	1,396	Salary surplus due to vacancies
114	SUP 12.S2.08	Survey Operations (Ongoing)	102,417		85,891	85,891	17,028	19.83%	102,919	(502)	
115	SUP 12.S3.08	Control Network (Ongoing)	134,823	-	115,192	115,192	22,837	19.83%	138,029	(3,206)	
116		Sub-total Goal 12 Support Portion	363,931	-	305,648	305,648	60,595	19.83%	366,243	(2,312)	

	А	В	С	D	Е	F	G	Н	1	J	К
50	GCMRC Project ID	Project Descriptions	FY08 Gross Budget	FY08 Outstanding Obligations		FY08 Subtotal NET Obligated + Expended	FY08 Burden on Obligations & Expenditures	Burden Rate	FY08 Gross Obligations & Expenditures	Difference Between FY08 Budgeted and & FY08 Obligated & Expended	Comments
51	U.S. Geolog	ical Survey - Biological Resource Divisio	n - GCMRC - Pov	ver Revenues U	Jnder Cap Fund	ed Projects					
117	PLAN 12.P1.08	Enhancing the Conceptual Ecosystem Model to Identify Critical Ecosystem Interactions and Data Gap (Science Advisor's conduct work in FY07; Funding in Independent Reviews, ADM 12.A4.07; FY07FY08; Note 1)	-	-	-	-	-		-	-	
118	PLAN 12.P2.08	AMP Effectiveness Workshop (FY07-FY08) Will not be conducted in FY08	-			-	-		-	-	
119	PLAN 12.P3.08	Low Steady Summer Flows - Data and Research Compilation, Synopsis and Synthesis (Note 1)	-			-	-		-	-	
120		Sub-total Goal 12 Planning Portion	-	-	-	-	-		-	-	
121	ADM 12.A1.08	Administrative Operations (Ongoing) (Includes Vehicle Costs)	228,363	-	239,069	239,069	32,035	13.40%	271,104		Covered \$25k SBSC WEF Contribution (reflected in deobligation from BOR to SBSC), Covered \$24,386 SBSC HFE-related expenses: Both to be repaid in FY09
122	ADM 12.A2.08	Program Planning & Management (Ongoing)	1,059,438	-	861,990	861,990	170,890	19.83%	1,032,880	26,558	Over-estimated salary adjustment
123	ADM 12.A3.08	AMWG/TWG Meeting Travel Funds (Ongoing)	18,077	-	9,761	9,761	1,935	19.82%	11,696	6,381	
124	ADM 12.A4.08	Independent Reviews	90,301	-	23,231	23,231	4,605	19.82%	27,836	62,465	Suballocation for Robertson not used in FY08, Funds for Fisheries PEP deferred to FY09
125	ADM 12.A4.08	Executive Director of Science Advisors Review and Coordination; includes Science Advisors' Expenses (Ongoing)	214,200	-	169,335	169,335	33,571	19.83%	202,906	11,294	Used FY07 carryover for EIS efforts
126	ADM 12.A6.08	2008 Science Symposium (Intermittent)	29,750	-	25,000	25,000	-	0.00%	25,000	4,750	\$25k was deobligated by BOR from GCMRC for obligation to WEF, Symposium speakers' fees to be carried forward to FY09
127		GCMRC Component of SBSC Sys Admin Support (FY05-Ongoing)	202,300	-	137,831	137,831	27,325	19.83%	165,156	37,144	Planned server, network hardware deferred to FY09 due to staffing changes
128	Sub-to	otal Goal 12 Administrative/Management Portion	1,842,429	-	1,466,217	1,466,217	270,361	18.44%	1,736,578	105,851	
129		SUB-TOTAL GOAL 12	3,109,741	289,202	2,086,828	2,376,030	393,960	16.58%	2,769,990	339,751	
130	GCMRC	Power Revenues Under Cap Sub-totals	7,595,251	778,111	5,159,745	5,937,856	787,489	13.26%	6,725,345	869,906	
131											
132	GCMRC Pov	wer Revenue Funded Projects (NOT Capp	ed) and Other Fu	ınded Projects							
133	BIO 7.R1.08	Water Quality Monitoring - Lake Powell & Tailwaters	212,631	-	123,000	123,000	24,385	19.83%	147,385	65,246	Vacancy of Limnologist in FY08, boat repair & sample analysis deferred to FY09
134	TBD	Tribal River Trips Agreement 08AA402806	65,856	-	42,624	42,624	8,450	19.82%	51,074	14,782	Zuni river trip postponed until FY09
135	BIO 7.R15.08	Near Shore Ecology Agreement 08AA402808	610,000		97,448	97,448	19,320	19.83%	116,768	493,232	
136	GCMR	C Other Agreements Projects Subtotals	888,487	-	263,072	263,072	52,155	19.83%	315,227	573,260	
137											
138		GCMRC TOTAL AMP FY2008	8,483,738	778,111	5,422,817	6,200,928	839,644	13.54%	7,040,572	1,443,166	
139			5, .55,. 55	,	<u> </u>	-,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		1010170	.,,	.,,100	
139											

	A	В	С	D	Е	F	G	Н	ı	J	Г
50	GCMRC Project ID	Project Descriptions	FY08 Gross Budget	FY08 Outstanding Obligations	FY08 Expended	FY08 Subtotal NET Obligated + Expended	FY08 Burden on Obligations & Expenditures	Burden Rate	FY08 Gross Obligations & Expenditures	Difference Between FY08 Budgeted and & FY08 Obligated & Expended	Comments
51	U.S. Geolog	ical Survey - Biological Resource Divisio	n - GCMRC - Pov	ver Revenues U	Inder Cap Fund	ed Projects					
140	FY07 CARE	RYOVER									
141	Lake Powell	AGREEMENT 05AA402385 FY07 CARRYOVE	R FUNDING								
142	BIO 7.R1.08	Water Quality Monitoring - Lake Powell & Tailwaters	30,598	-	11,280	11,280	2,236	19.82%	13,516	17,082	
143		SUB-TOTAL Lake Powell FY07 CARRYOVER	30,598	-	11,280	11,280	2,236	19.82%	13,516	17,082	
144	TCD AGREE	MENT 06AA402575 FY07 CARRYOVER									
145		TCD Test Using Artificial Streams Task 1	67,694	-	61,565	61,565	3,749	6.09%	65,314	2,380	
146		TCD Water Temperature Model Task 2	57,307	-	48,157	48,157	9,547	19.82%	57,704	(397)	
147		SUB-TOTAL TCD FY07 CARRYOVER	125,001	-	109,722	109,722	13,296	12.12%	123,018	1,983	
148		EVAL CARRYOVER									
		enue FY07 CARRYOVER	00 5 1			00.555		40.05	01.55	1	
		FY07 C/O Used for PM Relocation Bonus	29,750	-	20,853	20,853	4,134	19.82%	24,987	4,763	
151 152		FY07 C/O Used for Logistics FY07 C/O Vegetation Student Data Entry	47,266 7,242	2,500	27,836 4,242	27,836 6,742	5,518 993	19.82% 14.73%	33,354 7,735	13,912 (493)	
		FY07 C/O Coggins Service Agreement	13,993	2,500	2,827	2,827	560	19.81%	3,387	10,606	
154	ADM 12.A1.00	FY07 C/O LSSF Workshop	150,657	210	36,413	36,623	6,574	17.95%	43,197	107,460	
155	BIO 1.R1.08	FY07 C/O Aquatic Food Base	20,841	- 210	19,644	19,644	1,196	6.09%	20,840	107,400	
156	ADM 12.1.08	FY07 C/O Enhancing Ecosystem Model	100,786	-	0,011	-		0.0070	-	100,786	
157	PHY 8.M1.08	Summary & Coordination of Biological & Physical Data from Fy00 Experiment	23,000	20,662		20,662	1,258	6.09%	21,920	1,080	
158	DASA 12.D1.08	FY07 C/O for Overflights	148,400	-	-	-	-		-	148,400	Planned carry forward for FY09 Overflight (Added to \$260k from FY08 AWP = \$408,400 total carry forward to FY09)
159	TBD	FY07 C/O EIS Experiment Contingency Fund	204,553	-	63,465	63,465	12,582	19.83%	76,047	128,506	
160	Ş	SUB-TOTAL Capped Revenue FY07 CARRYOVER	746,488	23,372	175,280	198,652	32,815	16.52%	231,467	515,021	
161		TOTAL FY07 CARRYOVER ALL SOURCES	902,087	23,372	296,282	319,654	48,347	15.12%	368,001	534,086	
162 163	TOTAL A	ALL FUND SOURCES ANNUAL WORK	9,385,825	801,483	5,719,099	6,520,582	887,991	13.62%	7,408,573	1,977,252	
164 165			,	·			·		, ,		
166		W EXPERIMENT									
	EXPERIMENT	PROJECT 1: SEDIMENT, ARCHAEOLOGIC		WATERS							
168		Exp 1.A Sand Budgeting	313,212	-	285,719	285,719	31,889	11.16%	317,608		Under-estimated lab needs
169		Exp 1.B Eddy- Sandbar Studies	118,756	12,005	94,133	106,138	12,479	11.76%	118,617	139	On an analysis tale and a SI EVOO do at a Si
170		Exp 1.C Response of Sandbars & Select Cultural Sites	604,180	49,248	493,663	542,911	43,784	8.06%	586,695	17,485	Some analysis delayed until FY09 due to time constraints
171		Exp 1.D Biological & Physical Aspects of Backwater Habitats	896,443	193,627	563,103	756,730	98,513	13.02%	855,243	41,200	
172		SUB-TOTAL EXPERIMENT 1	1,932,591	254,880	1,436,618	1,691,498	186,665	11.04%	1,878,163	54,428	

GCMR Project	RC									
50	Project Descriptions	FY08 Gross Budget	FY08 Outstanding Obligations	FY08 Expended	FY08 Subtotal NET Obligated + Expended	FY08 Burden on Obligations & Expenditures	Burden Rate	FY08 Gross Obligations & Expenditures	Difference Between FY08 Budgeted and & FY08 Obligated & Expended	Comments
51 U.S. Ge	eological Survey - Biological Resource Divisior	n - GCMRC - Pow	er Revenues U	nder Cap Fund	ed Projects					
173 EXPERIM	MENT PROJECT 2: RIPARIAN VEGETATION									
174	Exp 2 Riparian Vegetation Studies	42,709	8,022	28,691	36,713	5,996	16.33%	42,709	=	
175	SUB-TOTAL EXPERIMENT 2	42,709	8,022	28,691	36,713	5,996	16.33%	42,709	-	
176 EXPERIM	MENT PROJECT 3: AQUATIC FOOD BASE									
177	Exp 3 Effects on Food Available for Invertebrates	216,794	66,878	124,050	190,928	25,975	13.60%	216,903	(109)	
178	SUB-TOTAL EXPERIMENT 3	216,794	66,878	124,050	190,928	25,975	13.60%	216,903	(109)	
179 EXPERIM	MENT PROJECT 4: RAINBOW TROUT									
180	Exp 4.A Redds Study	227,566	106,013	78,787	184,800	12,146	6.57%	196,946	30,620	River trips postponed until FY09
181	Exp 4.B Movement Study	110,648	-	92,029	92,029	16,880	18.34%	108,909	1,739	
182	SUB-TOTAL EXPERIMENT 4	338,214	106,013	170,816	276,829	29,026	10.49%	305,855	32,359	
	MENT PROJECT 5: LAKE POWELL									
184	Exp 5 Lake Powell	35,244	-	29,593	29,593	5,681	19.20%	35,274	(30)	
185	SUB-TOTAL EXPERIMENT 5	35,244	-	29,593	29,593	5,681	19.20%	35,274	(30)	
	IEMENT PROJECT 6: CONSERVATION MEASURE									
187	Exp 6 Kanab Ambersnail	16,308	5,725	8,600	14,325	2,000	13.96%	16,325	(17)	
188	SUB-TOTAL EXP 6 - CONSERVATION MEASURES	16,308	5,725	8,600	14,325	2,000	13.96%	16,325	(17)	
	MENT PROJECT 8: LOGISTICAL SUPPORT									
190	Exp 8 Logistical Support	122,673	-	49,291	49,291	11,412	23.15%	60,703	61,970	
191	SUB-TOTAL EXPERIMENT 8	122,673	-	49,291	49,291	11,412	23.15%	60,703	61,970	
192	HFE Planned Carryover to FY08	521,487	-	-	-	-		-	521,487	
193	HFE TOTAL ALL FUND SOURCES	3,226,020	441,518	1,847,659	2,289,177	266,755	11.65%	2,555,932	670,088	
194										
195	TOTAL FY08 ALL FUND SOURCES	12,611,845	1,243,001	7,566,758	8,809,759	1,154,746	13.11%	9,964,505	2,647,340	
196		. , ,		, ,	,	, ,		<u> </u>	,	

Planned or Non-Discretionary Allocation of GCMRC FY08 Carryover, Increased FY09 CPI and Reduced FY09 Burden to FY09 Budgets

As of March 5, 2009

	Amount	Project	Comments
		Annual Work Plan	
	4,244	BIO 1.R1.09 Aquatic Food Base	Complete planned FY08 work in FY09
	.,	Tigadio Food Bass	Expand cooperative agreement for additional U of WY
	13,261	BIO 2.R4.09 Monitoring Mainstem Fishes (incl Diamond Down)	assistance
		BIO 6.R2.09 Vegetation Transects	Complete planned FY08 work in FY09
		PHY 7.M1.09 Core Monitoring of Downstream Integrated Quality of	
	54,000	Water (below Glen Canyon Dam)	Correct for actual salaries
		PHY 7.R2.09 Integrated Flow, Sediment Transport & Temperature	FY09 planned agreements, suballocations, equipment
	173,260	Modeling	purchases
	38,762	REC 9.R3.09 Compile Campsite Inventory & GIS Atlas	Reinstate previously planned deferment of project
	404.055	CI II 44 D4 00 December 9 December 4 consider Cons Manifesian	Complete planned FY08 work in FY09, Correct for actual
	181,255	CUL 11.R1.09 Research & Development towards Core Monitoring DASA 12.D1.09(A) Acquisition for Monitoring Data Acquisition (Remote	salaries
	408 400	Sensing) - 4 Band Imagery	Overflights FY07 & FY08 carryover planned for use in FY09
	400,400	PLAN 12.P1.09 Enhancing the Conceptual Ecosystem Model (GCEM) to	Overnights 1 107 & 1 100 carryover planned for use in 1 109
	66,307	Identify Critical Ecosystem Interactions and Data Gap	Complete planned FY08 work in FY09
		PLAN 12.P3.09 Low Steady Summer Flows (LSSF) - Data and Research	
	16,520	Compilation, Synopsis and Synthesis	October, 2008 workshop and report preparation
		ADM 12.A1.09(A) Administrative Operations	Program Manager relocation bonus
	31,696	ADM 12.A4.09 Independent Reviews	FY09 planned funding for Fish PEP
		ADM 12.A4.09 Executive Director of Science Advisors Review and	Increased SA costs due to delay in RFP; new contract throug
	55,539	Coordination; includes Science Advisors' Expenses	January, 2010
	24,956	ADM 12.A6.09 Science Symposium	20k symposium proceedings + 4.9k speakers' fees
\$	1 143 545	Subtotal Planned or Non-Disrectionary Funds - AWP Power	Revenues Canned
Ψ	1,110,010	Cablotain lainica of Non Bisicotionary Fands 7001 Fewer	Trevendes capped
			Received expected FY09 funding in late FY08, thereby creating
	493,232	BIO 2.R15.09 Near Shore Ecology - BOR Appropriated Funds	carryover rather than new funding
		(TBD) Tribal River Trips - DOI Tribal Funds	Zuni River trip not provided in FY08
	1,435	BIO TBD TCD Task 1: A Test Using Artificial Streams - TCD Funds	Complete planned FY08 work in FY09
\$	1,652,994	Total Planned or Non-Disrectionary Funds - AWP All Fu	nd Sources
		High Flow Experiment	
	93,807	Experiment 1.A Sand Budgeting	Complete Experiment 1.A
	76,093	Experiment 1.B Sandbar Deposition Rates	Complete Experiment 2.B
	351,589	Experiment 1.C Sandbar Fate: Topographic and Grain-size Responses	Complete Experiment 1.C
			Additional logistics, equipment maintenance, correct for actua
		Experiment 1.D Spring Backwater Monitoring	salaries
		Experiment 4.A Rainbow Trout Redds Study	Additional logistics
	66,325	Experiment 7 Synthesis	Carry forward to FY10 for HFE Synthesis
_	070.044	Total Bloom Annual Bloom Control	
\$	679,314	Total Planned or Non-Discretionary Funds HFE *\$670,088 C/O + \$9,22	26 Decreased Burden = \$679,314
\$	2,332,308	Total Planned or Non-Discretionary Funds Annua	al Work Plan & High Flow Experiment
Ÿ	_,,	. J.a	a tan a riigii i lon Exporiment

Disrectionary Allocation of GCMRC FY08 Carryover, Increased FY09 CPI and Reduced FY09 Burden to FY09 Budgets

As of March 5, 2009

		Details of Discretionary	Allocations
	Amount	Project	Comments
		Annual Work Plan	
	40,200	BIO 2.R7.09 Stock Assessment of Native Fish in Grand Canyon	35k Replace biologist, 5.2k for travel
	40,000	BIO 2.R13.09 Remote PIT Tag Reading	Purchase high priority biology equipment
	36,818	BIO (TBD) Nonnative Fish Control Contingency Fund	Additional Nonnative Fish Control if indicated by results of F Nonnative Fish Control Project (BIO 2.R16.09)
		PHY 8.M2.09 Core Monitoring for the Sediment Budget and Sandbar	
		Status throughout the CRE Utilizing Direct Topographic / Bathymetric	
	40,000	Measurements and Remote Sensing	Purchase additional new equipment, equipment repairs
	44.000		Expand NAU Cooperative Agreement for data compilation at
-		REC 9.R3.09 Compile and Analyze Recreational Safety Data	analysis
-	3,000	CUL 11.R1.09 Research & Development towards Core Monitoring	Scientist travel to CRAHG meeting in Phoenix, AZ
	125 000	DASA 12.D1.09(A) Acquisition for Monitoring Data Acquisition (Remote Sensing) - 4 Band Imagery	Additional Overflights Needs (Contingency Fund)
-	125,000	SUP 12.S1.09 Logistics Base Costs	Additional Overflights Needs (Contingency Fund) Working Capital Fund for equipment replacement
		SUP 12.S3.09 Control Network	Reinstate previously planned deferment of project
-		ADM 12.A2.09 Program Planning & Management	Additional funding for Fish PEP
-		ADM 12.A5.09 GCMRC Component of SBSC Sys Admin Support	Website development assistance
	20,000	7.Bit 12.76.00 Component of GDCC Cyc / termin Copport	Trobate development desictation
\$	449,144	Subtotal Disrectionary Funds - AWP Power Revenues Cap	ped
			16k Dale Robertson, 16k Bob Hart, 30k purchase new
		BIO 7.R1.09 Water Quality Monitoring - Lake Powell & Tailwaters -	equipment; Expect unused \$20,329 to be returned to BO
\$	82,329 531,473	BIO 7.R1.09 Water Quality Monitoring - Lake Powell & Tailwaters - Lake Powell Power Revenues Not Capped Total Discretionary Funds Annual Work Plan	equipment; Expect unused \$20,329 to be returned to BO at end of FY09
\$	531,473 2,332,308	Total Planned or Non-Discretionary Funds Annual Work Plan Total Planned / Non-Discretionary and Discretionary	at end of FY09
	531,473	Total Planned or Non-Discretionary Funds Annual Work Plan	at end of FY09
\$	531,473 2,332,308	Total Planned or Non-Discretionary Funds Annual Work Plan Total Planned / Non-Discretionary and Discretionary	at end of FY09
\$	531,473 2,332,308	Total Planned or Non-Discretionary Funds Annual Work Plan Total Planned / Non-Discretionary and Discretionary	at end of FY09
\$	531,473 2,332,308	Total Planned or Non-Discretionary Funds Annual Work Plan Total Planned / Non-Discretionary and Discretionary	at end of FY09
\$	531,473 2,332,308	Total Planned or Non-Discretionary Funds Annual Work Plan Total Planned / Non-Discretionary and Discretionary	at end of FY09
\$	531,473 2,332,308	Total Discretionary Funds Annual Work Plan Total Planned or Non-Discretionary Funds Annu Total Planned / Non-Discretionary and Discretio Experiment	nal Work Plan & High Flow Experiment nary Funds Annual Work Plan & High Flo
\$	531,473 2,332,308	Total Planned or Non-Discretionary Funds Annual Work Plan Total Planned / Non-Discretionary and Discretionary	nal Work Plan & High Flow Experiment nary Funds Annual Work Plan & High Flo
\$	531,473 2,332,308 2,863,781	Total Discretionary Funds Annual Work Plan Total Planned or Non-Discretionary Funds Annu Total Planned / Non-Discretionary and Discretio Experiment Sources of Additional Funds	at end of FY09 Ital Work Plan & High Flow Experiment Inary Funds Annual Work Plan & High Flo
\$	531,473 2,332,308	Total Discretionary Funds Annual Work Plan Total Planned or Non-Discretionary Funds Annu Total Planned / Non-Discretionary and Discretio Experiment	at end of FY09 Ital Work Plan & High Flow Experiment Inary Funds Annual Work Plan & High Flo
\$	531,473 2,332,308 2,863,781	Total Discretionary Funds Annual Work Plan Total Planned or Non-Discretionary Funds Annu Total Planned / Non-Discretionary and Discretio Experiment Sources of Additional Funds Annual Work Plan FY08 Carryover Funds	al Work Plan & High Flow Experiment nary Funds Annual Work Plan & High Flo for Use in FY09
\$	531,473 2,332,308 2,863,781	Total Discretionary Funds Annual Work Plan Total Planned or Non-Discretionary Funds Annu Total Planned / Non-Discretionary and Discretio Experiment Sources of Additional Funds Annual Work Plan FY08 Carryover Funds	al Work Plan & High Flow Experiment nary Funds Annual Work Plan & High Flow for Use in FY09 Repayment for support of SBSC expenses related to Science
\$ \$	531,473 2,332,308 2,863,781 1,927,866 670,088 49,386	Total Discretionary Funds Annual Work Plan Total Planned or Non-Discretionary Funds Annu Total Planned / Non-Discretionary and Discretio Experiment Sources of Additional Funds Annual Work Plan FY08 Carryover Funds High Flow Experiment FY08 Carryover Funds SBSC Cash Contributions	al Work Plan & High Flow Experiment nary Funds Annual Work Plan & High Flow for Use in FY09 Repayment for support of SBSC expenses related to Scienc Symposium and High Flow Experiment
\$	531,473 2,332,308 2,863,781 1,927,866 670,088	Total Discretionary Funds Annual Work Plan Total Planned or Non-Discretionary Funds Annu Total Planned / Non-Discretionary and Discretionary Experiment Sources of Additional Funds Annual Work Plan FY08 Carryover Funds High Flow Experiment FY08 Carryover Funds	al Work Plan & High Flow Experiment nary Funds Annual Work Plan & High Flow for Use in FY09 Repayment for support of SBSC expenses related to Science Symposium and High Flow Experiment h Flow Experiment
\$ \$	531,473 2,332,308 2,863,781 1,927,866 670,088 49,386 2,647,340	Total Discretionary Funds Annual Work Plan Total Planned or Non-Discretionary Funds Annu Total Planned / Non-Discretionary and Discretio Experiment Sources of Additional Funds Annual Work Plan FY08 Carryover Funds High Flow Experiment FY08 Carryover Funds SBSC Cash Contributions Total FY08 Carryover Funds from Annual Work Plan & High	al Work Plan & High Flow Experiment nary Funds Annual Work Plan & High Flow for Use in FY09 Repayment for support of SBSC expenses related to Science Symposium and High Flow Experiment h Flow Experiment AWP 21% estimated; 19.206% actual,
\$ \$	531,473 2,332,308 2,863,781 1,927,866 670,088 49,386	Total Discretionary Funds Annual Work Plan Total Planned or Non-Discretionary Funds Annu Total Planned / Non-Discretionary and Discretio Experiment Sources of Additional Funds Annual Work Plan FY08 Carryover Funds High Flow Experiment FY08 Carryover Funds SBSC Cash Contributions	at end of FY09 Ital Work Plan & High Flow Experiment Inary Funds Annual Work Plan & High Flow For Use in FY09 Repayment for support of SBSC expenses related to Science Symposium and High Flow Experiment h Flow Experiment AWP 21% estimated; 19.206% actual, H.19.196% estimated; 18.657% actual
\$ \$	531,473 2,332,308 2,863,781 1,927,866 670,088 49,386 2,647,340 9,227	Total Discretionary Funds Annual Work Plan Total Planned or Non-Discretionary Funds Annu Total Planned / Non-Discretionary and Discretio Experiment Sources of Additional Funds Annual Work Plan FY08 Carryover Funds High Flow Experiment FY08 Carryover Funds SBSC Cash Contributions Total FY08 Carryover Funds from Annual Work Plan & High	for Use in FY09 Repayment for support of SBSC expenses related to Science Symposium and High Flow Experiment h Flow Experiment AWP 21% estimated; 19.206% actual, H High Flow Experiment AWP 21% estimated; 19.206% actual,



GCMRC FY 08 Expenditures, Carryover and CPI Allocations

Glen Canyon Dam Adaptive Management Program Adaptive Management Work Group Meeting April 29, 2008

John Hamill, Chief, GCMRC

Summary

FY 08 expenditures complicated by HFE experiment and implementation of NSE/FSF study

Table 1: FY 2008 expenditure

Shows available, obligated and expended funds, overhead, and carry over funds

Table 2: Shows how planned and nondiscretionary funds were allocated (\$2.3M)

- Projects delayed by HFE (e.g., fish PEP)
- Planned carry forward (NSE, HFE reporting, overflight, etc)
- Non discretionary expenditures (increase in salaries, contracts, agreements)



Summary

Table 3. shows allocation of "discretionary" carry over funds (\$531,000)

- Deferred equipment replacement or maintenance
- Filling critical staff positions
- Restoring previously projects (control network)
- Contingency funds (over flight acquisition/ analysis, nonnative control)

