

Descriptions of Projects in FY12 GCDAMP (GCMRC/BOR) Workplan

DFC 1: Colorado River Ecosystem

	Project in FY12 GCMRC/BOR Workplan	Project Description	Original FY12 Budget	Revised FY12 Budget	Change
	DFC 1, Sediment				
1	Water Quality Monitoring of Lake Powell and the Glen Canyon Dam Tailwaters (Ongoing) BIO 7.R1.12	USGS monitors water quality of Lake Powell and forebay and tailwaters of Glen Canyon Dam in collaboration with the National Park Service and Bureau of Reclamation. The data are used by the Bureau of Reclamation to calibrate and verify a water-quality model (CE-QUAL-W2) of Lake Powell.	188,063	146,708	-41,355
	3 BAHG members had concerns or questions. <ul style="list-style-type: none"> ▪ What funding source will this come from in Reclamation? ▪ Will Reclamation's workplan increase as a result of moving some responsibility for this item to Reclamation? ▪ This item deals with water quality monitoring of Lake Powell and the forebay and tailwaters. I know that the states of Arizona and Utah are monitoring extensively Lake Powell and have a very large data base. I hope we are not duplicating any of this monitoring. We don't have enough money to duplicate. 				
2	Integrated Quality of Water Monitoring (downstream of GCD) (Ongoing) PHY 7.M1.12	Project monitors water quality (suspended sediment, turbidity, streamflow, temperature, dissolved oxygen, pH, salinity) at six locations along the Colorado River between Glen Canyon Dam and Lake Mead. Data are used to link dam operations to downstream resource conditions and track the sand budget for scheduling high flows.	1,002,389	1,005,955	3,566
	3 BAHG members had concerns or questions. <ul style="list-style-type: none"> ▪ In light of the DOI priorities, we need to assess how much we are increasing the sediment budget. We should consider moving some of this to ESA work. ▪ We think GCMRC is measuring sediment and has moved away from focus on the things that sediment does. The is not entirely true; there is a new focus on beaches, etc., but we think the idea described by DFC #1 changes the paradigm regarding what sediment resources need to be monitored. I don't know that this budget reflects that new paradigm. 				
3	Modeling Support & Temperature Models (Ongoing) PHY 7.R3.12	Project creates tools to predict the sand budget for use in scheduling high flows. New work in FY 2012 will be directed toward development of an eddy-deposition model to improve the ability to connect sand-budget predictions provided by the current model with sandbar response. This project may also create tools to predict mainstem water temperatures.	142,944	171,002	28,058
	Three BAHG members had concerns or questions. See comments under #2.				
4	Integrated Long-term Monitoring of System-Wide Changes in Sediment Storage (Ongoing) PHY 8.M2.12	Project monitors a subset of sandbars and long-term changes in sand storage through repeat bathymetric and total station mapping of the Colorado River channel to evaluate effectiveness of dam operations, including if high flows achieve resource objectives related to sand bars and sediment storage.	479,183	500,280	21,097
	Three BAHG members had concerns or questions. See comments under #2.				

	Project in FY12 GCMRC/BOR Workplan	Project Description	Original FY12 Budget	Revised FY12 Budget	Change
5	Logistics Base Costs (See each project for project related logistics costs) (Ongoing) SUP 12.S1.12	Project provides complete logistical support for the 25 to 40 annual research, monitoring, and tribal river trips conducted annually through Grand Canyon by GCMRC. The project supports logistical support staff salaries, vehicles, equipment, and transportation.	213,153	209,461	-3,692
	One BAHG member had concerns or questions.				
6	Survey & Control Network Operations (Ongoing) SUP 12.S2.12	Project provides spatial reference and survey support to various GCMRC projects. Under the proposed budget scenario for FY 2012, support is provided mainly to PHY 8.M2.12. Support is also provided to campsite monitoring, Kanab ambersnail monitoring, aquatic food base, and remote sensing projects.	251,265	195,329	-55,936
	One BAHG member had concerns or questions.				
			\$2,276,997	\$2,228,735	-\$48,262
	DFC 1, ESA & Native Fish				
7	LCR Fish Monitoring (Ongoing) BIO 2.M1.12	Through a cooperative agreement with USGS, USFWS has conducted mark-recapture and monitoring activities in the lower 13.57 km of the Little Colorado River since 2000. The primary objective is to monitor for annual changes in the spring and fall abundances of humpback chub ≥ 150 and ≥ 200 mm, respectively. Data are used to generate and update the Age-Structured-Mark-Recapture (ASMR) model developed at GCMRC.	595,001	594,538	-463
	Two BAHG members had concerns or questions.				
8	HBC Translocation & Monitoring Above Chute Falls (Ongoing) BIO 2.M3.12	Through a cooperative agreement with USGS, USFWS leads a monitoring effort of translocated humpback chub above Chute Falls and in a short stretch of the Little Colorado River (13.57 to 14.1 km). Translocations have been conducted for conservation purposes. Monitoring data are used in the Age-Structured-Mark-Recapture model developed by GCMRC.	135,696	131,103	-4,593
	Two BAHG members had concerns or questions.				
9	Monitoring Mainstem Fish (Ongoing) BIO 2.M4.12	Through a cooperative agreement with USGS, the Arizona Game and Fish Department leads a monitoring effort of native and nonnative fish abundance and distribution in Marble and Grand Canyons.	539,107	453,566	-85,541
	Two BAHG members had concerns or questions. <ul style="list-style-type: none"> ▪ What isn't going to be accomplished, given the \$85,000 reduction? 				

	Project in FY12 GCMRC/BOR Workplan	Project Description	Original FY12 Budget	Revised FY12 Budget	Change
10	Remote PIT Tag Reading (Ongoing) BIO 2.R13.12	Project evaluates new methods that minimize handling of fish but allow measurement of fish movement, particularly juvenile humpback chub, in the Little Colorado River and its confluence with the mainstem.	147,597	123,198	-24,399
	No BAHG members had concerns or questions.				
11	Near Shore Ecology / Fall Steady Flows (FY08--FY12) BIO 2.R15.12	Through a cooperative agreement with USGS, the University of Florida is evaluating 1) whether steadier flows during fall increase survival rates of juvenile native and nonnative fish and 2) to what extent physical habitat structures, such as sandbars and backwaters, are used by young fish. This study supports the experimental flows described in the Biological Opinion and implemented during 2008-12.	423,475	353,004	-70,471
	Three BAHG members had concerns or questions. <ul style="list-style-type: none"> ▪ The researchers indicated that they don't expect to learn anything new from running steady flows for another year. It would be nice if we could save these funds for something else. ▪ See also comment under Project #14. 				
12	Biometrics & General Analysis Staff Position (Ongoing) BIO 2.R19.12	This budget item provides funding for a Research Statistician who supports the overall aquatic and physical science research of GCMRC, and the stock assessment of native fish in Grand Canyon (BIO 2.R7.12).	154,738	135,281	-19,457
	Two BAHG members had concerns or questions.				
13	Stock Assessment of Grand Canyon Native Fish (Ongoing) BIO 2.R7.12	Project produces annual estimates of size and capture rates of humpback chub and other native fish in Grand Canyon. Data are incorporated into Age-Structured-Mark-Recapture (ASMR) model every three years.	59,528	69,266	9,738
	One BAHG member had concerns or questions. <ul style="list-style-type: none"> ▪ How is this project different from Project #9? They are both dealing with abundance of native and non native fish in Grand Canyon. 				
14	Mainstem juvenile HBC monitoring (including Marble Canyon sampling) NEW COST (NNFCF); informs removal decisions in LCR BIO 2.Rxx	Project replaces the field effort of the near shore ecology project (BIO 2.R15.12) by determining juvenile humpback chub survival in the mainstem below the confluence with the Little Colorado River. The field work will also include sampling in Marble Canyon for rainbow trout that are marked in Lees Ferry associated with project BIO 2.E18.12.	0	453,192	453,192
	One BAHG member had concerns or questions. <ul style="list-style-type: none"> ▪ Projects 11 and 14 seem to overlap a great deal, and the near-shore budget nearly doubles to more than \$800,000 in 2012. Is there a way to save costs by melding these two efforts in 2012? 				

	Project in FY12 GCMRC/BOR Workplan	Project Description	Original FY12 Budget	Revised FY12 Budget	Change
	Monitor Kanab Ambersnail (FY12--Ongoing) BIO 5.M1.12	Through a cooperative agreement with USGS, the Arizona Game and Fish Department leads a monitoring effort of the abundance and distribution of the Kanab ambersnail and its habitat at Vasey's Paradise.	20,684	20,684	0
15	One BAHG member had concerns or questions. <ul style="list-style-type: none"> We continue to monitor KAS and that is reasonable; however, GCMRC is greatly delinquent on publication of the KAS genetics analysis. This is a publication that has already been paid for, but is long overdue. We request: a) that the analysis be published without spending additional AMP money, or b) turn the data over so that someone else can publish the findings. 				
			\$2,075,826	\$2,333,832	\$258,006
	DFC 1, Nonnative Fish Control				
16	Detection of Rainbow Trout Movement from the Upper Reaches of the Col River below Glen Canyon Dam (FY11--FY12) (PBR & Tagging) BIO 2.E18.12	Project collects information on the movement of rainbow trout between the Paria River (RM 1) and Badger Rapid (RM 8) to determine the feasibility of removing rainbow trout from this reach as an alternative to removal from the area near the confluence with the Little Colorado River.	453,028	454,378	1,350
	Two BAHG members had concerns or questions.				
17	Nonnative Control Plan Science Support (Ending) BIO 2.R17.12	Project evaluates threats from nonnative fish to native fish and develops plans to control the species that pose the greatest threat. Project scheduled to be completed March 2011.	62,512	0	-62,512
	One BAHG member had concerns or questions. <ul style="list-style-type: none"> Projects 17-29 set the stage for trout control about which there is much controversy. GCWC sides with the Zuni Tribe on the issue of trout control around the LCR: a better solution is needed to solve the potential problem of RBT feeding on young HBC there. 				
18	Nonnative Fish Control Contingency Fund BIO 2.Rxx	Money set aside to support nonnative fish removal at the confluence with the Little Colorado River.	0	191,126	191,126
	Two BAHG members had concerns or questions. See comments under Project #19.				
19	Nonnative Fish Suppression Contingency Fund BOR BUDGET	None provided.	271,460	271,460	0

	Project in FY12 GCMRC/BOR Workplan	Project Description	Original FY12 Budget	Revised FY12 Budget	Change
	<p>Four BAHG members had concerns or questions.</p> <ul style="list-style-type: none"> What is the difference between Projects #18 and #19? What will be done in FY12? GCMRC and Reclamation: 18 and 19 are two pots of money for the same purpose. What the funds are used for will depend on what comes out of the Non-Native Fish Control EA. Nothing is proposed in FY12 until EA is completed. I am concerned that we are budgeting for non-native fish removal when the issue is not yet resolved. I want to make sure there is meaningful tribal consultation and the Zuni issues are addressed meaningfully. Even though the EA is not complete, if the proposed action moves forward, there will be a significant effort to control fish and reduce drift (Project #16). The idea of fish control and removal above the LCR confluence is a brand-new project, and it is unclear whether there can be a removal curtain. There needs to be sufficient funding, a completed science plan with measures of success, and sufficient efforts to satisfy tribal concerns. There needs to be funds to study non-native fish suppression flows as a control measure, which is part of the proposed action. Why not combine 18 and 19 into one line? GCMRC: We kept them separate for clarity. This issue is still very much a contentious one between the Pueblo of Zuni and the federal government. The fact that it is listed here reinforces the Zuni perspective that the federal government was pre-decisional when they entered into consultation with Zuni regarding the mechanical removal issue. This issue is not resolved and is still in negotiation. 				
20	Experimental Funds Carryover - to be held by BOR BOR BUDGET	None provided.	26,037	26,037	0
	No BAHG members had concerns or questions.				
			\$813,037	\$943,001	\$129,963
	DFC 1, Food Base				
	Aquatic Food Base Monitoring (Ongoing) BIO 1.M1.12	Project monitors key food items to track overall aquatic food availability to determine if humpback chub and other native fish are food limited. In FY 2012, algae and invertebrate production will be monitored monthly at Lees Ferry and Diamond Creek and monitoring will be expanded to include the confluence with the Little Colorado River, where the largest population of humpback chub in the basin is found.	329,349	402,773	73,424
21	<p>One BAHG member had concerns or questions.</p> <ul style="list-style-type: none"> GCMRC is long overdue on presenting food base monitoring protocols and particularly protocols that integrate past data with the present effort. We request that the money expended in 2012 address that issue. 				
			\$329,349	\$402,773	\$73,424

	Project in FY12 GCMRC/BOR Workplan	Project Description	Original FY12 Budget	Revised FY12 Budget	Change
	DFC 1, Lees Ferry Fishery				
	Monitoring Lees Ferry Fish (Ongoing) BIO 4.M2.12	Through a cooperative agreement with USGS, the Arizona Game and Fish Department leads a monitoring effort of nonnative rainbow trout and whirling disease in the Lees Ferry reach.	223,710	216,170	-7,540
22	One BAHG member had concerns or questions. <ul style="list-style-type: none"> Isn't this more of a statutory requirement of the State of Arizona? Shouldn't Arizona Game and Fish be responsible for funding this effort and sharing their knowledge and data with this program? 				
			\$223,710	\$216,170	-\$7,540
	DFC 1, Vegetation				
	Vegetation Mapping (Ongoing) BIO 6.M1.12	Project evaluates the areal extents of riparian vegetation classes (woody and marsh/wetland vegetation) among the major habitat zones in the Colorado River ecosystem, and how they change over time in response to dam operations. Terrestrial vegetation contributes to above-ground primary productivity, arthropod densities, and associated food resources for terrestrial and aquatic vertebrates. Riparian vegetation also provides culturally important plant species.	61,063	61,169	106
23	Two BAHG members had concerns or questions. <ul style="list-style-type: none"> In the description it states that the riparian environment also provides culturally important plant species - I am not sure what that means, but if it is referring to plant species of traditional cultural importance to the each of the five tribes, then I sincerely doubt that GCMRC has an idea of what those plants are. There should be a Native American component to this ongoing effort. For Projects #23 and #24: The terrestrial vegetation monitoring program would greatly benefit AMP goals if it focused more clearly on modeling the relationships between dam operations and riparian vegetation development, including habitat structure and distribution. This is extremely critical, given that the river corridor is being largely defoliated by tamarisk leaf beetles right now, and there does not appear to be any GCMRC plan to deal with the situation or its impacts on aquatic-riparian linkage or wildlife. We also share the Tribal concerns that ethnobotanically important species have not received sufficient attention. 				
	Vegetation Transects (Ongoing) BIO 6.M2.12	Same as BIO 6.M1.12.	93,682	18,040	-75,642
24	Two BAHG members had concerns or questions. <ul style="list-style-type: none"> See second bullet under Project #23. I have concerns with the reduction in vegetation monitoring. This is one of the last vestiges of the terrestrial monitoring program and one of the few links to the ecosystem outside of the aquatic realm. For the Hopi Tribe, the terrestrial ecosystem is itself, and contains, many culturally significant resources that contribute to the Grand Canyon being a Traditional Cultural Property. To have a multi-million dollar monitoring program for the CRE that cannot provide even a cursory status for biological resources along the shore of the river seems a major shortcoming. 				

	Project in FY12 GCMRC/BOR Workplan	Project Description	Original FY12 Budget	Revised FY12 Budget	Change
			\$154,745	\$79,209	-\$75,536
Total DFC 1			\$5,873,664	\$6,203,720	\$330,054

DFC 2: Cultural Resources

	Project in FY12 GCMRC/BOR Workplan	Project Description	Original FY12 Budget	Revised FY12 Budget	Change
	Glen Canyon Arch Site Monitoring (GCMRC) Was CUL 11.R1.12; now CUL 11.xx.12	This project quantifies and tracks trends in the archaeological site conditions using LiDAR to measure indicators of stability and physical change that can be linked to potential effects of dam operations. In FY 2012, monitoring efforts will be limited to the Glen Canyon Reach upstream of Lees Ferry.	359,362	92,191	-267,171
25	<p>Three BAHG members had concerns or questions.</p> <ul style="list-style-type: none"> I have a strong concern that there will be no cultural resources work supported by AMP funds to GCMRC in the Grand Canyon. Given that we know next to nothing about the rate of erosion at the terrace deposits that maintain archaeological sites and we are potentially going to embark on a multi-year effort to conduct high flows for the specific purpose of creating higher-elevation sediment deposits, it seems appropriate to having a monitoring effort in place that can evaluate if these flows have an affect on erosion of the terrace deposits. Monitoring in Glen Canyon will not be useful in evaluating the effectiveness of high flows as it is above the primary sediment supply source; there won't be any new sand to be redeposited. The explanation for the reduction and redirection of this research effort is unacceptable. For three years, GCMRC's cultural resource program has been funded to develop a multi-pronged approach to archaeological site monitoring in the Grand Canyon to test the efficacy of quantitative data gathering and its ability to inform on the geomorphological processes operant on archaeological sites and provide an objective means to assess site condition. To truncate this long-term monitoring program development now without an adequate scientific explanation is inappropriate for this program, especially when the stakeholders originally approved its development and direction. Moreover, it flagrantly violates the established criteria agreed to by USGS, Reclamation, and TWG in making recommendations to AMWG on changes to the second year of a two-year budget. Is the USGS allowed to make unilateral decisions on which protocols in the AMP they want to follow and which they choose to ignore? Truncating this long-term monitoring program development now without sufficient explanation regarding the scientific merits of such a decision wastes in excess of \$1,000,000 that was previously spent on the original conceptual design of this program. This is not the first time this type of change has occurred and it should raise serious issues among the stakeholders regarding the functioning of this program. Does this mean that long term monitoring of cultural resources is no longer a consideration of this program? There are numerous and serious scientific questions regarding the health and condition of cultural resource in Glen and Grand Canyon, and to ignore those scientific questions and only focus on the Glen Canyon reach leaves the vast majority of cultural resources of concern neglected. My sense is that this may represent a serious violation of the explicit intent of the Grand Canyon Protection Act. 				

	Tribal Resource Monitoring (BOR) BOR BUDGET	None provided.	146,856	146,856	0
26	<p>One BAHG member had concerns or questions.</p> <ul style="list-style-type: none"> Need some clarification from the Bureau of Reclamation regarding this effort. Is the funding for this effort being extracted from the appropriated funds for participation? Or, does BOR anticipate continuing to issue a separate contract for tribal monitoring? 				
	PA & Treatment Plan (BOR) BOR BUDGET	None provided.	521,013	521,013	0
27	<p>Two BAHG member had concerns or questions.</p> <ul style="list-style-type: none"> What is this funding going to be used for by the Bureau of Reclamation? The Signatories to the PA have not been provided any information on what the BOR is proposing for FY 2012 to get the agency back into compliance with the PA and the law (NHPA). We are going on 3+ years with no evaluation of archaeological sites in the CRE by the Program. This certainly does not meet the intent of the GCPA towards cultural resources and given the concurrent lack of progress with site treatment, points to a lack of compliance with the 1994 PA. 				
			\$1,027,231	\$760,060	-\$267,171
	Total DFC 2		\$1,027,231	\$760,060	-\$267,171

DFC 3: Recreation

	Project in FY12 GCMRC/BOR Workplan	Project Description	Original FY12 Budget	Revised FY12 Budget	Change
	Campsite Area Monitoring (Ongoing) REC 9.R1.12	Project measures changes in space available for camping by conducting annual surveys of a subset of sandbars between Lees Ferry and Diamond Creek. These surveys are conducted concurrently with the sandbar surveys of project PHY 8.M2.	40,298	32,107	-8,191
28	<p>Two BAHG members had concerns or questions.</p> <ul style="list-style-type: none"> Given that this effort has been ongoing for quite a few years, one would think that the program has sufficient information on these campsites. How many consecutive years does it take to get this information? Also, shouldn't this be the purview and funding responsibility of the NPS, the land manager, and its interest in providing a "quality" experience in the Grand Canyon? For Projects 28-32: We strongly support these studies, as better a understanding of recreational issues and power economics is vital to the AMP. 				
29	Analyze Campsite Data in the GIS Atlas (FY07--FY12) REC 9.R3.12	Project compiles and analyzes current and historical campsite data to track changes in overall campsite size, distribution, and quality on a system-wide basis over decadal time scales.	41,059	40,601	-458

	Project in FY12 GCMRC/BOR Workplan	Project Description	Original FY12 Budget	Revised FY12 Budget	Change
	<p>Two BAHG members had concerns or questions.</p> <ul style="list-style-type: none"> ▪ What useful information is this atlas project providing to the program? How many years are necessary to continue to analyze this data? Sounds like an effort and an information gathering responsibility of the land manager: the National Park Service. ▪ See second bullet under Project #28. 				
	Evaluate Recreation Values and Visitor Experience Quality in the Glen Canyon Reach (FY11--FY12) <small>REC 9.R4.12</small>	Project develops a survey instrument and collects data to measure and monitor angler and other recreational visitors perceptions related to the quality of the sport fishery and other recreational attributes in the Glen Canyon to Badger Creek reach. Project scope is still being determined, but is also likely to include assessment of economic value of the sport fishery and other recreational attributes of the reach.	25,000	106,090	81,090
30	<p>Six BAHG members had concerns or questions.</p> <ul style="list-style-type: none"> ▪ Does a full-time economist have to be hired or could it be contracted? GCMRC: This is not decided yet. ▪ What is the role of the economist? GCMRC: Help coordinate and oversee various socioeconomic studies, coordinate with efforts of WAPA and NPS. ▪ How is this designed to focus on the trout fishery in Lees Ferry, and will this effort somehow negatively impact the values expressed by Zuni about not killing trout? I don't want Zuni's concerns to be lost. GCMRC: I don't think there will be a negative impact; we hope to incorporate better understanding of tribal values. ▪ Where is the plan to coordinate efforts among GCMRC, NPS, and WAPA? GCMRC: We will coordinate with existing plans. We are also trying to get clarity about NPS' projects and needs. We want to complement and enhance, not duplicate. ▪ I see the value to the park, but this is expensive. How will the data be useful to the program? Is it useful on its own, or is it dependent on bigger socioeconomic project? GCMRC: We will develop a 5-year workplan. We will have something before the AMWG meeting. ▪ Comment on 30, 31, and 32: The last time the TWG Socioeconomic AHG met, the next step was for GCMRC to set up a meeting among NPS, GCMRC, and WAPA to identify the details of who is doing what. We have not yet met. The AHG said, "We won't know whether to hire staff until the plan was made. " We have general concern about lines 30-32, as it appears GCMRC has not yet met with NPS and WAPA. WAPA is ready to meet and work out the details. GCMRC: We are working on dates for that meeting. Also, the AHG had recognized the need for support at GCMRC for these studies. ▪ See second bullet under Project #28. 				
			\$106,357	\$178,798	\$72,441
	Total DFC 3		\$106,357	\$178,798	\$72,441

DFC 4: Power

	Project in FY12 GCMRC/BOR Workplan	Project Description	Original FY12 Budget	Revised FY12 Budget	Change
31	Evaluate the Suitability of the GTMax Model for Modeling Economic Implications of Power Generation under Current and Future Dam Operations and Conduct Initial Analyses (FY11--FY13) HYD 10.R2.12	Project evaluates suitability of the GTMax and other potential models for assessing economic impacts of different dam-operating scenarios in FY11, with ongoing effort as needed in FY12 (but with originally proposed funds shifted to support new initiative described below).	19,867	0	-19,867
	Two BAHG members had concerns or questions. <ul style="list-style-type: none"> ▪ See second bullet under Project #28. ▪ See sixth bullet under Project #30. 				
32	New initiative for economics needs (revision of HYD 10.R2) – also supports DFC 3 HYD 10.xx.12	Project includes partial funding for an economist to work with GCMRC to assist in developing RFPs and providing oversight of economic studies that may be conducted by WAPA or other entities on hydropower modeling and economic forecasting under varying flow regimes.	0	99,717	99,717
	Four BAHG members had concerns or questions. <ul style="list-style-type: none"> ▪ See notes under Project #30. ▪ See second bullet under Project #28. 				
			\$19,867	\$99,717	\$79,850
	Total DFC 4		\$19,867	\$99,717	\$79,850

Support of Adaptive Management Program

	Project in FY12 GCMRC/BOR Workplan	Project Description	Original FY12 Budget	Revised FY12 Budget	Change
	DASA				
33	Quadrennial Remote Sensing Overflight (Ongoing) DASA 12.D1.12	Aerial photography for change analysis is conducted every four years, with the next scheduled overflight in FY 2013. Funds are set aside in intervening years to help pay for the next data-collection effort.	82,273	84,000	1,727

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	<p>Two BAHG members had concerns or questions.</p> <ul style="list-style-type: none"> Given the reduction in the vegetation work and the new priorities, do overflights need to continue to be done every four years? If so, which project(s) will be informed by the data collected? For Projects 33-38: The DASA program is essential to the long-term understanding of data. We would like to hear more about their progress and challenges at TWG meetings. 				
34	Grand Canyon Integrated Oracle Database Management System (Ongoing) DASA 12.D2.12	Project compiles all point data collected from ground-based studies into project-specific Oracle databases, maintains the databases, and works with the GIS Support project to develop internet access of archived data. The project also provides tools for the analysis of these data.	132,697	143,623	10,926
	One BAHG member had concerns or questions. See second bullet under Project #33.				
35	Library Operations / Scanning Support (Ongoing) DASA 12.D3.12	Project maintains all reports produced in support of the GCDAMP and any report relevant to the GCDAMP in hardcopy and digital forms; the digital forms are accessible from the internet. The library also houses all copies of the image and topographic data that have been collected for the Grand Canyon, which will be accessible through the internet within a year. The project is also working on converting some historical aerial photographic film to digital format.	40,051	40,049	-2
	One BAHG member had concerns or questions. See second bullet under Project #33.				
36	GIS Support for Integrated Analyses and Projects, GIS Lead (Ongoing) DASA 12.D5.12	Project compiles all spatial data either collected from ground-based studies or vector data generated from any source material and ingests the data into ArcMap coverages. This project also maintains the databases, works to develop internet access of archived databases, and works to provide GIS tools for the analysis of these data.	329,713	324,849	-4,864
	One BAHG member had concerns or questions. See second bullet under Project #33.				
37	Integrated Image Analysis and Change Detection (Ongoing) DASA 12.D9.12	Project plans and coordinates airborne image acquisition for the entire river corridor every 4 years and analyzes the resulting image data to provide a consistent, calibrated image mosaic. The project produces periodic change-detection databases that provide maps of changes throughout the river corridor.	254,975	86,896	-168,079
	Two BAHG members had concerns or questions. See second bullet under Project #33.				
38	Program Planning & Management (Ongoing) ADM 12.A2.12	DASA Program Manager's technical oversight and implementation of Remote Sensing change-detection studies (camp sites, vegetation, cultural sites, etc.)	153,187	153,187	0
	One BAHG member had concerns or questions. See second bullet under Project #33.				
			\$992,896	832,604	-\$160,292

	Project in FY12 GCMRC/BOR Workplan	Project Description	Original FY12 Budget	Revised FY12 Budget	Change
	Science Planning + Implementation				
	Support and Enhancement of Ecosystem Modeling Efforts (FY08-FY12) PLAN 12.P1.12	Project provides advisory assistance to GCMRC scientists and cooperators on data-analysis methods and model-integration of physical and biological data. Recent efforts have focused on aquatic ecosystem, but FY12 effort is proposed to scope potential for developing a terrestrial (landscape) ecosystem sub-model that could eventually be integrated with aquatics model(s).	114,381	149,591	35,210
39	<p>Two BAHG members had concerns or questions.</p> <ul style="list-style-type: none"> What is Project 39 really? If this supports Carl Walters and Josh Korman directly, then say so, as they are bold and effective thinkers and are sufficiently outside of the bureaucracy to make positive contributions. If not, please explain where this large amount of money goes. 				
	Update of Knowledge and SCORE Report (FY11--FY12) PLAN 12.P4.12	The report will document evaluations of various experimental treatments relative to the resource goals of the GCDAMP and resource responses to flow and non-flow treatments. Treatments to be evaluated include different flow experiments (MLFF, LSSF, HFE, etc.), mechanical removal of nonnative fish, and translocation of humpback chub and Kanab ambersnail.	96,826	110,647	13,821
40	<p>Four BAHG members had concerns or questions.</p> <ul style="list-style-type: none"> Is this a glossy publication? The TWG felt this didn't need to be printed but more of a living web-based document. GCMRC: The cost is in producing the report, not in printing it. The higher cost is getting the EPN to do all the steps needed to publish a report. We can reduce costs by developing a non-USGS report. The other costs are salaries of authors and staff. This line does not reflect the publication discussed at TWG conference call. Even if it is a live, web-based, updateable document, there would be some costs to create that web capability. Any KAIL or SCORE report should do a better job at integrating tribal values and concerns. 				
	2012 Colorado River Basin Science and Management Symposium (Quadrennial) ADM 12.A6.12	Support for helping to plan and co-sponsor the second Colorado River Basin Science and Management Symposium. This is a forum for exchanging information and facilitating cohesive research, monitoring, data sharing, and adaptive management strategies among four adaptive management programs in the Basin.	0	25,000	25,000
41	No BAHG members had concerns or questions.				
42	Program Planning & Management (Ongoing) ADM 12.A2.12	Portion of salary of Sociocultural, Biological & Physical/Modeling Program Managers, plus half of Deputy Chief's salary that directly supports science planning & implementation of GCMRC science project activities.	309,825	309,825	0

	Project in FY12 GCMRC/BOR Workplan	Project Description	Original FY12 Budget	Revised FY12 Budget	Change
	<p>One BAHG member had concerns or questions.</p> <ul style="list-style-type: none"> Projects 42 and 45-50: In our view, GCMRC has become far too large, and has drifted significantly from a role of coordinating contracted research and information management into an in-house bureaucracy. We suggest that some of these funds be used by an external review panel to evaluate GCMRC's present structure in relation to its mission, as defined in the ROD, and the steps needed to bring it back in line with that mission. 				
			\$521,032	\$595,063	\$74,031
	Independent Science Reviews				
	Independent Reviews (Ongoing) ADM 12.A4.12 (A)	Supports independent peer review for proposals received by GCMRC through a panel process. This project also supports Protocol Evaluation Panels (PEP) of GCMRC projects and methods. In FY 2012, PEPs are scheduled for campsite and sediment monitoring.	35,556	18,150	-17,406
43	<p>Three BAHG members had concerns or questions.</p> <ul style="list-style-type: none"> For Projects 43-44: We think the independent review and Science Advisors programs deserve more funding, as they provide the only critical overview of GCMRC. Funding saved by better integration of the near-shore ecology projects and elsewhere would help keep GCMRC better aligned with the AMP. 				
	Coordination and Review of Services Provided by Science Advisors (Ongoing) ADM 12.A4.12 (B)	Project supports the Science Advisors, who review scientific and planning documents and advise GCMRC on a range of scientific issues and questions. In FY 2012, the Science Advisors will include 4 to 6 senior scientists, primarily from universities. Review needs in FY12 include draft MRP and FY12-13 workplan, at a minimum. Budget may need to be revised as FY12 needs are further defined.	189,722	122,446	-67,276
44	<p>Four BAHG members had concerns or questions.</p> <ul style="list-style-type: none"> Concerned about reducing the Science Advisors' budget. Consider moving their support of the LTEMP into the budget; SA support of the LTEMP review should be above the line. The SAs play a valuable role. Given issues coming forward on native/nonnative fish interaction, and that the EAs in my mind are based on scientific hypotheses that are not well tested, their role will be critical. We should find a way to not reduce their funding. See comment under Project #43. 				
			\$225,278	\$140,596	-\$84,682
	GCMRC Science Leadership				
	Administrative Operations (Ongoing) ADM 12.A1.12 (A)	Project provides support for budgetary oversight and tracking, including cooperative and interagency agreements, and publications and outreach services.	269,572	290,223	20,651
45	One BAHG member had concerns or questions. See comment under Project #42.				

	Project in FY12 GCMRC/BOR Workplan	Project Description	Original FY12 Budget	Revised FY12 Budget	Change
46	Administrative Operations - GSA Vehicle Costs (Ongoing) ADM 12.A1.12 (B)	Leasing and operation of GSA vehicles used to conduct fieldwork and other GCMRC business.	67,458	77,576	10,118
	One BAHG member had concerns or questions. See comment under Project #42.				
47	Administrative Operations - Interior Vehicle Costs (Ongoing) ADM 12.A1.12 (C)	Purchase and operation of vehicles used to conduct fieldwork and other GCMRC business.	34,114	39,231	5,117
	One BAHG member had concerns or questions. See comment under Project #42.				
48	Program Planning & Management (Ongoing) ADM 12.A2.12	Budget item for funding of the portion of salaries and travel of GCMRC's Program Managers, plus all of the Chief's and Logistics Program Manager's salaries and travel, specific to program planning and management	760,430	697,941	-62,489
	Two BAHG members had concerns or questions. <ul style="list-style-type: none"> ▪ How many meetings and how many attendees does this assume? In the past there have been many GCMRC attendees. I suggest that only those that are absolutely necessary travel to those meetings. Others could be available by phone in case a question comes up on the agenda item. ▪ One BAHG member had concerns or questions. See comment under Project #42. 				
49	AMWG/TWG Meeting Travel Funds (Ongoing) ADM 12.A3.12	Travel expenses for GCMRC employees who travel to AMWG and TWG meetings.	21,180	30,250	9,070
	Three BAHG members had concerns or questions. See comment under Project #42.				
50	GCMRC Component of SBSC Sys Admin Support (Ongoing) (IT Support) ADM 12.A5.12	Budget item for funding technology support provided by SBSC, including computer security, systems administration, and Web site support and development.	218,518	191,817	-26,701
	One BAHG member had concerns or questions. See comment under Project #42.				
			\$1,371,272	\$1,327,038	-\$44,234
	BOR Administrative				
51	AMWG Personnel Costs BOR BUDGET	None provided.	181,659	181,659	0
	No BAHG members had concerns or questions.				
52	AMWG Member Travel Reimbursement BOR BUDGET	None provided.	17,953	17,953	0
	No BAHG members had concerns or questions.				

	Project in FY12 GCMRC/BOR Workplan	Project Description	Original FY12 Budget	Revised FY12 Budget	Change
53	AMWG Reclamation Travel BOR BUDGET	None provided.	14,572	14,572	0
	No BAHG members had concerns or questions.				
54	AMWG Facilitation Contract BOR BUDGET	None provided.	27,709	27,709	0
	No BAHG members had concerns or questions.				
55	AMWG POAHG Expenses BOR BUDGET	None provided.	57,079	57,079	0
	No BAHG members had concerns or questions.				
56	AMWG Other BOR BUDGET	None provided.	8,190	8,190	0
	No BAHG members had concerns or questions.				
57	TWG Personnel Costs BOR BUDGET	None provided.	88,590	88,590	0
	No BAHG members had concerns or questions.				
58	TWG Member Travel Reimbursement BOR BUDGET	None provided.	24,618	24,618	0
	No BAHG members had concerns or questions.				
59	TWG Reclamation Travel BOR BUDGET	None provided.	18,148	18,148	0
	No BAHG members had concerns or questions.				
60	TWG Chair Reimbursement BOR BUDGET	None provided.	25,310	25,310	0
	No BAHG members had concerns or questions.				
61	TWG Other BOR BUDGET	None provided.	2,340	2,340	0
	No BAHG members had concerns or questions.				
62	Administrative Support for NPS Permitting BOR BUDGET	None provided.	92,885	92,885	0
	No BAHG members had concerns or questions.				
63	Contract Administration BOR BUDGET	None provided.	41,064	41,064	0
	No BAHG members had concerns or questions.				
64	Programmatic Agreement Reclamation Administration BOR BUDGET	None provided.	61,815	61,815	0

	Project in FY12 GCMRC/BOR Workplan	Project Description	Original FY12 Budget	Revised FY12 Budget	Change
	No BAHG members had concerns or questions.				
65	*NPS Permitting with BOR Appropriated Funds BOR BUDGET	None provided.	30,962	30,962	0
	No BAHG members had concerns or questions.				
			\$692,894	\$692,894	\$0
	BOR Tribal Support				
66	Financial Agreements - Hopi Tribe BOR BUDGET	None provided.	95,000	95,000	0
	No BAHG members had concerns or questions.				
67	Financial Agreements - Hualapai Tribe BOR BUDGET	None provided.	95,000	95,000	0
	No BAHG members had concerns or questions.				
68	Financial Agreements - Navajo Nation BOR BUDGET	None provided.	95,000	95,000	0
	No BAHG members had concerns or questions.				
69	Financial Agreements - Pueblo of Zuni BOR BUDGET	None provided.	95,000	95,000	0
	No BAHG members had concerns or questions.				
70	Financial Agreements - Southern Paiute BOR BUDGET	None provided.	95,000	95,000	0
	No BAHG members had concerns or questions.				
			\$475,000	\$475,000	\$0
	BOR Compliance Documents				
71	Compliance Documents BOR BUDGET	None provided.	250,000	250,000	0
	One BAHG member had concerns or questions.				
			\$250,000	\$250,000	\$0
	Total Support of Adaptive Management Program		\$4,528,371	\$4,313,195	-\$215,174

Total All DFCs + Support of Adaptive Management Program		\$11,555,490	\$11,555,490	\$0
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	Additional Comments				
	One BAHG member had additional concerns or questions. <ul style="list-style-type: none"> ▪ Addendum: Will the LSSF report be finalized and published in this budget year? It is important to have it completed to inform the LTEMP. ▪ Could GCMRC provide us a five-year history of their FTE count? 				