

Budget AHG/TWG/GCMRG/USBR
Combined Budget Conference Call
June 14, 2010

Conducting: Shane Capron, TWG Chair

Convened: 1 p.m. (MDT)

Participants:

Matthew Andersen, GCMRC/USGS

Cliff Barrett, UAMPS

George Caan, Colo. River Commission/NV

Marianne Crawford, USBR

Helen Fairley, USGS/GCMRC

Dave Garrett, m3Research/Science Advisors

Paul Grams, USGS/GCMRC

John Hamill, USGS/GCMRC

Chris Harris, Colo. River Board CA

Norm Henderson, NPS

Amy Heuslein, BIA

Lisa Iams, USBR

Leslie James, CREDA

Rick Johnson, Grand Canyon Trust

Glen Knowles, USBR

Dennis Kubly, USBR

Barbara McKenzie, USGS/GCMRC

Ted Melis, USGS/GCMRC

Steve Mietz, NPS/GRCA

Don Ostler, UCRC (alternate for WY)

Clayton Palmer, WAPA

Jason Thiriot, Colo. River Commission/NV

Dave Wegner, member of the public

Michael Yeatts, the Hopi Tribe

Meeting Recorder: Linda Whetton

Introduction. Dennis explained that since it was difficult to get a majority of the BAHG together, it was decided to have a combined conference call with the BAHG and TWG members in hopes that the discussion would set the stage for a more effective and efficient meeting on June 29-30. He said in the interim there have been some questions posed about the pages in the workplan that look at the projected release volumes and daily release ranges for 2011 and some concern that Reclamation was getting ahead of itself by putting out this much detail at this time. He said he just sent out an e-mail that gives a little more clarification and an apology that the change didn't get made in the plan itself but there are three points that he tried to make in the e-mail concerning the projections: 1) We are in a year under existing compliance where there is a wide range in the forecasts that are projected, volumes anywhere from 8.25 to 14 maf, and that as the year proceeds, these projections will improve and modeling capability will more accurately portray what will be the final release volume; 2) DOI agencies are having discussions concerning the hydrograph and are focusing on processes by which there might be a recommendation for one or more hydrographs that would fit within existing compliance, but that process has not been completed yet; 3) as we move through the adaptive management program and more information becomes available and people are looking at the potential for transitions from an experimental phase to a more management oriented phase, there may be implications about whether we're still continuing to emphasize experiments or whether we're really moving forward to establishing some more standard changes in operations. That consideration begs the question of the relative roles of the TWG, AMWG, and the Department. Consequently, the program is in a hiatus of needing to provide information to the TWG upon which to develop a hydrograph recommendation but feeling that there is not a place or time where they can do that and do justice to the process.

Rick said he wanted to clarify the process that the TWG would have an opportunity to consider one or more hydrographs at the upcoming TWG meeting. Dennis said that nothing has changed. In the time before the next meeting, GCMRC will have completed some of their modeling work and be in a better position to provide more information on expected hydrologic conditions. Rick expressed concern that one of the things that came out of the Ecosystem Modeling Workshop was that release fluctuations would create a negative mass balance.

ACTION ITEM: Any additional concerns should be sent via e-mail to Shane Capron by COB Thursday, June 17.

Because GCMRC staff will be at a conference in Las Vegas at the time of the next TWG meeting, it was decided to hold a Webinar/Conference Call on Wednesday, June 21 from 1-2 p.m. (AZ time, 2-3 p.m. MDT) for a discussion on hydrology and sediment modeling. John said he expects approval of their report by June 18 but is a little concerned that there isn't much wiggle room if something goes haywire

between now and this Friday. There is no time for them to be able to present their findings without Reclamation approval given the sensitivity of the issue. He said their presentation would probably be 30 minutes and then allow some time for discussion. He said they would only be providing information and wouldn't get into making a recommendation. He feels the call could be done in an hour. He said USGS assumed MLFF with steady flows, Sept-Oct and a potential high flow in one or both years. They would be using the FY11 hydrograph as it was provided in early April. Rick asked about other hydrographs that people may want to present. John said they are using the WY FY11 hydrology, 11 maf and 8.23 and then they're evaluating several different scenarios for how the dam would be operated, like MLFF, equalized monthly flows, SASF, etc., imposed on the WY11 hydrology as of April 8. John said he sent out a memo to the TWG several weeks ago with the scope of what their analysis would be.

Budget Discussion

Norm said that since so much of the budget revolves around the hydrograph whether any assumptions could be made. Dennis said with the amount of variability that even the range of annual volumes is very high and the 24-month study is run every month. He said August is the first tier for a cut point on the next water year and then in April under the interim guidelines is where it's decided you establish whether or not you have to go to balancing or equalization. As far as sideboards, Dennis said he couldn't offer up a lot except to say that the range is probably between 8.23 and 14 maf. The most probable right now includes some level of equalization. He said that what was sent out in the graphs that they're now removing does portray about 11 maf but he didn't know beyond that. He said there is existing compliance so people need to recognize that if something is crafted in a hydrograph that goes outside existing compliance, additional compliance will certainly have to be worked into the process.

Major funding shifts in GCMRC FY11-12 Biennial Work Plan. John explained the accommodations GCMRC made for new initiatives and projects that were deferred. He referred to **Attachment 3** of his June 9, 2010, memo (attached). He said it was a little vague because there wasn't a bottom line recommendation or formal language adopted but they did include funding for non-native fish control and for development of an LTEMP EIS. They freed up some money in Reclamation's budget as well as moving money from GCMRC's budget to Reclamation's budget to allow for about \$600K in FY11 for non-native fish control and an additional \$300K in FY12. Shane said he didn't see where the \$600K was in the budget as a line item. Barbara said it's not shown as a line item but said when she talked with Dennis, it was agreed to not increase that value since it was coming from different sides of the budget on line 24 but just to put it in the comments. Because the proposals have not been implemented, they would show the budget as it was proposed until direction was received to actually move the funding around.

- Extirpated Species Workshop. Steve said in terms of #8 that went to the AMWG and was voted on in terms of \$25K for an extirpated species workshop wasn't identified as an AMWG priority. He said he wasn't sure how to make that an AMWG priority other than the process isn't being followed the entire time to make it shown as a priority but it's still not in the budget or hasn't been addressed. He asked John how they reached that decision. John said it was his recollection that every year there are proposals to get more actively involved in extirpated species with the AMP budget and it runs into a brick wall about whether it's appropriate that the AMP deal with extirpated species. He said he makes some judgments where he thinks there is broad support for items that are likely to be funded, but spending AMP money on something there hasn't been a lot of support for is not something he wants to get engaged in. Steve said he didn't understand how John reached that conclusion based on the fact that it was passed by the TWG and made it to the AMWG discussions for doing the work. He said he is having trouble with following the process and how now the project doesn't have broad support. He asked if he needed to document the broad support. John said the issues came forward not because everyone wanted them but because it was felt they needed to go forward and be discussed and that there wasn't broad consensus that everything would be funded associated with the 20 different motions the TWG passed. John said the TWG never voted to fund a workshop but to forward the issue to AMWG for further discussion. Shane told Steve it would be voted on again by the TWG and then sent back to the AMWG for a decision. Steve informed Shane he would bring up

an amendment for an extirpated species workshop. Shane said if anyone has something they want brought up in the TWG meeting, they should send that information to Shane.

Experimental Fund Expenditures and Projected Balance. John directed people to look at **Attachment 4** of his memo which addresses how Experimental Flow Funds will be use to do work associated with preparation of a HFE Science Plan (page 204 of BWP).

- Leslie said there was a disconnect in #1 with the explanation and the title of the narrative in the BWP. John said if there were any other changes, they should be sent to him as soon as possible.
- Rick questioned letting stakeholders do work and having GCMRC review. He said he was trying to understand the differentiation. He mentioned the Douglas work that had been done. Helen told him that work was outside the program whereas the project he mentioned is part of a program GCMRC is developing with an approach to the AMP.
- Shane questioned the use of the Experimental Flow Fund and how it would square with the AMWG since it was to be used for future high flow experiments. John said that the increased monitoring is needed to support an HFE. Rick said he thought that perhaps the cap on power revenues isn't relevant and that the program needs clarity and a policy call from Anne Castle. John said GCMRC tried to be responsive to AMWG's direction on how to use EFF money.

Reduction in Science Advisors Budget. Dave Garrett asked if he felt it would be helpful to share a memo he sent to John about what SA services would be reduced as a result of the \$50K being taken out of their budget. John said he felt that was appropriate and told Dave to forward the memo to the TWG.

Reduction in NPS Permitting. Steve said he didn't understand why there would be a reduction in the money allocated for processing NPS permits. He said the funding needs to continue. Matthew told him that this didn't appear to require funding at this level since there weren't as many permits needed in association with AMP work, and that it no longer requires a full-time employee to do the permitting work. Steve suggested having a separate conversation with NPS, GCMRC, and USBR to discuss line item further.

Reduction of POAHG Funding. Mike said he wants to talk with other POAHG members to determine what their needs will be for FY11 and FY12.

LTEMP EIS. George Caan asked he could find the scope of the LTEMP EIS and the associated costs. Dennis told him that the LTEMP costs were used as a predictor for how much the LTEMP EIS might cost. However, he said the Department has a better idea of what they want.

Rick asked if the LTEMP EIS would result in a new ROD for dam operations. Dennis said that since the program began in 1997 there have been three large scale experiments. There's a level of uncertainty in planning for those and the Department hasn't told them anything about what is being planned.

Dave asked whether the LTEMP and LTEMP EIS process might be merged. Clayton reminded everyone that Anne Castle said she thought it would take three years to complete the LTEMP EIS. Rick suggested they be put together and get the whole thing on the table to ensure there are sufficient funds to do the work. Leslie said the cost would be determined by the scope of work. Dennis pointed out that Reclamation does not believe the \$250K/\$500K allocated by GCMRC will be enough, which is why Reclamation moved \$300K to that line item from the treatment plan in FY2011.



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June 9, 2010

MEMORANDUM

To: Technical Work Group

From: John Hamill, Chief, Grand Canyon Monitoring and Research Center, Southwest Biological Science Center, US Geological Survey, Flagstaff, Arizona

Subject: DRAFT Fiscal Year 2011-12 Glen Canyon Dam Adaptive Management Program Biennial Work Plan, Budget, and Hydrograph (BWP)

Attached is the subject BWP for your consideration ([Attachment 1](#)). The BWP addresses several recommendations from DOI and the AMWG to provide additional funding emphasis to the following projects:

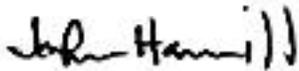
- Nonnative fish control (shown in Reclamations portion of the BWP)
- LTEMP EIS development (shown in Reclamations portion of the BWP)
- Increased aquatic food base, sediment, rainbow trout, and Glen Canyon recreation experience monitoring to support the evaluation of the proposed HFE Protocol
- A new study to evaluate rainbow trout use of the Paria River to Badger Rapid reach (the reach immediately below Lee's Ferry)
- HBC monitoring and translocation above Chute Falls
- Hydropower economic analyses by WAPA with independent oversight by GCMRC

To achieve a balanced budget, a number of projects were scaled back or deferred to accommodate these projects. ([Attachment 2](#)) In addition, GCMRC assumed several changes in Reclamation's portion of the budget to accommodate the new projects. ([Attachment 3](#)) Proposed expenditures from the Experimental Fund are detailed in [Attachment 4](#). Our responses to TWG concerns related to the Preliminary FY11-12 budget are provided in [Attachment 5](#). GCMRC recognizes that uncertainties exist in the scope and direction of several activities including nonnative fish management, the HFE protocol, and the LTEMP EIS. Our budget and work plan reflects our recommended approach based on what we expect will occur; however, future changes may be needed once the scope and direction of these activities is determined.

In the last two years, a flat budget along with an increased emphasis on funding for management and compliance actions has greatly increased competition for funding in the AMP. GCMRC is concerned that this shift in emphasis will adversely impact the AMP resource monitoring and applied research projects that address high priority information needs. As you will see in reviewing the BWP, this shift will significantly impact projects that are aimed at assessing the status of key resources and evaluating the effectiveness of management or experimental actions. I believe this has serious implications for the ability of the AMP to “learn by doing” and assess progress towards achieving desired future conditions. GCMRC supports implementation of compliance and management actions but believes a strategy is needed to seek additional revenues to meet the growing demands for science and management in the AMP. We believe that DOI and the AMWG need to work together to address this issue.

After considering recommendations from the TWG, GCMRC will develop a final draft BWP for AMWG review and approval.

Your participation in this review process is appreciated.



JOHN HAMILL
Chief, GCMRC

Attachments:

- 1- FY 11-12 BWP
- 2- Major funding shifts
- 3- List of deferred projects
- 4- Summary of expenditures from the Experimental Fund
- 5- GCMRC response to TWG concerns/recommendations

cc: Secretary's Designee

Attachment 1 Biennial Work Plan



GCDAMP Draft BWP
FY11-12_06-09-10.pc

Attachment 2 GCMRC FY11 and FY12 Major Deferred or Scaled Back Projects
Projects that were cut to address AMWG/DOI recommendations are highlighted in grey

Project Number /Title	FY11	FY12	Comments	
GOAL 1—Aquatic Food Base				
BIO 1.M1	Aquatic Food Base Monitoring	84,200	84,200	Deferred field sampling except at Diamond Creek and Lees Ferry in FY11-12
GOAL 2—Native Fishes				
BIO 2.M4	Monitoring of Mainstem Fishes	518,427	239,300	Deferred increased mainstem monitoring FY11-12 subject to change based on fish data analyses
BIO 2.R7	Stock Assessment of Grand Canyon Native Fish	48,700	49,000	Decreased analysis of fish data
BIO 2.R13	Remote PIT Tag Reading	84,500	84,500	Defer expansion of PIT tag system
BIO 2.R17	Nonnative Control Plan Science Support	76,900	76,900	Decrease staff support
BIO 2.tbd	Fall Steady Flows Thermal Imaging	86,200	86,200	Deferred
GOAL 6—Riparian and Springs				
BIO 6.M2	Bird Monitoring / Alternating Years with Vegetation Transect Monitoring	-	53,000	Defer bird monitoring FY12
BIO 6.R4	Arthropod Monitoring Research & Development	0	95,400	Proposed by PEP to be implemented in alternating years FY10, FY12
GOAL 7—Quality of Water				
PHY 7.R2	Integrated Flow, Temperature, and Sediment Modeling of the CRE	145,200	145,200	Defer further model R&D
GOAL 9--Recreation				
REC 9.R5	Evaluate Relation between Flows and Recreation Experience	225,000	225,000	Deferred in FY09-12
REC 9.R6	1973 Weeden Campsite Survey Revisited	75,000	75,000	Deferred in FY09-12
REC 9.R7	Update Regional Recreation Economic Study	250,000	250,000	Deferred in FY09-12
GOAL 10--Power and Economics				
HYD 10. tbd	Phase I - Results of Economic Value Workshop	117,300	117,300	Deferred FY11-12
GOAL 11—Cultural Resources				
CUL 11.R1	Cultural Research & Development towards Core Monitoring, Phase II	45,000	45,000	Reduced scope of work in FY11-12
CUL 11.R3	Geomorphoc Model of Archaeological Site Vulnerability	266,100	266,100	Deferred in FY09-12

Project Number /Title		FY11	FY12	Comments
GOAL 12— Administrative / Management				
DASA 12.D1	Quadrennial Remote Sensing Overflight	83,500	116,500	Decreased savings for overflight FY11-12
DASA 12.D1	Hyperspectral Overflight for Vegetation Mapping	95,200	95,200	Deferred FY10-12
DASA 12.D3	Library Operations / Scanning Support	66,200	66,700	Decreased to 1/2 time position,
DASA 12.D9	Integrated Image Analysis and Change Detection	89,600	89,600	Deferred 1984 Sandbar Image Analysis FY10-12
PLAN 12.P1	Support and Enhancement of Ecosystem Modeling Efforts	143,000	143,000	Defer model expansion, publication of results & MATA workshop FY11-12
PLAN 12.P5	NEW Desired Future Conditions Facilitation & Decision Support	60,500	60,500	Deferred FY11-12
ADM 12.A4 (B)	Science Advisors Support	50,000	50,000	Reduced services FY11-12
ADM 12.A5	GCMRC Component of SBSC Sys Admin Support	72,900	72,900	Defer expanded GCMRC Website development,
TOTAL GCMRC Major Deferred or Scaled Back Projects		2,683,427	2,586,500	

**Attachment 3 -- Major funding shifts in the GCMRC FY 11-12 Biennial Work Plan
(June 8, 2010 draft)**

- LTEMP EIS Support needs \$250K FY11 & FY12
 - To be held in reserve by Reclamation
 - Assumes an additional \$250K of matching funds from Reclamation
- Nonnative Fish Suppression Contingency Fund needs FY11 \$600K, FY12 \$300K
 - To be held in reserve by Reclamation
 - To be allocated in accordance with the Nonnative Fish Environmental Assessment
- GCMRC recommends Reclamation Funds to be redirected for LTEMP EIS & Nonnative Fish Suppression Contingency Fund
 - ½ POAHG funding FY11 \$28,092, FY12 \$28,935
 - All Compliance Documents Funding FY11 \$50,584, FY12 \$52,101
 - ½ Admin Support for NPS Permitting Funding FY11 \$60,120, FY12 \$61,924
 - All Nonnative Fish Suppression Contingency Plan Funding FY11 \$144,819, FY12 \$50,521
 - Canyon Treatment Plan funding \$300K FY11
- TOTAL Redirected Reclamation Budget: FY11 \$583,615, FY12 \$193,481

Attachment 4 -- Experimental Fund Expenditures and Projected Balance -- FY10 through FY12

Experimental Fund Projected Balance FY10 through FY12					
BOR Experimental Fund Summary		FY10 Gross Actual Funding from BOR Experimental Fund	Gross FY11 Proposed Funding from BOR Experimental Fund	Gross FY12 Proposed Funding from BOR Experimental Fund	Comments
Beginning Balance at Start of Fiscal Year		-	427,174	286,672	
Contributions to Experimental Fund from Reclamation		493,500	505,838	521,013	
BIO 2.E18	NEW Evaluation of Trout Movement, Natal Origins and Alternatives for Controlling Rainbow Trout Populations Near the LCR (PBR)	-	198,631	311,610	FY11 Total project = \$437,201; FY12 Total project = \$459,061
BIO 1.M1	HFE Science Plan Implementation Aquatic Food Base	-	100,000	100,000	\$100k per year Goal 1 FY11 & FY12
BIO 4.M2	HFE Science Plan Implementation Monitoring Lees Ferry Fish	-	22,709	22,709	\$22,709 Goal 4 FY11 & FY12
PHY 8.M2	HFE Science Plan Implementation Sediment	-	300,000	300,000	\$300k per year Goal 8 FY11 & FY12
REC 9.R4	Evaluate Recreation Values and Visitor Experience Quality in the Glen Canyon Reach		25,000	25,000	\$25k per year Goal 9 FY11 & FY12
PLAN 12.E7	LTEMP EIS Support		-	-	Total compliance \$250K per year FY11 & FY12; Funds to be redirected from Reclamation in FY11 & FY12
EXP 7	HFE Synthesis of Knowledge (Study 7)	66,326	-	-	
Total Expenditures		(66,326)	(646,340)	(759,319)	
Balance at End of Fiscal Years		\$ 427,174	\$ 286,672	\$ 48,366	

Attachment 5 -- GCMRC Response to FY 2011-12 Preliminary Budget Recommendation to the Adaptive Management Work Group - April 6, 2010

MOTION: TWG has reviewed the preliminary FY 2011-12 biennial budget provided by GCMRC and Reclamation and is forwarding that budget to AMWG along with a list of concerns for AMWG consideration and feedback. This recommendation is based a two-year biennial budget as requested by AMWG at their August 2009 meeting. The TWG will work with GCMRC and Reclamation to develop a final biennial budget recommendation for FY 2011-12 and a proposed work plan and hydrograph over the summer, incorporating input from AMWG, using the recommended biennial budget process.

TWG requests either AMWG concurrence with the TWG recommendations on the “Issues of Concern” or further direction on how to resolve these.

Issues of Concern:

1. Implement a new start in the work plan for power economics which will be carried out by WAPA in FY 2011 and 2012, as described in the proposal provided by WAPA dated 3/15/10. WAPA will perform these tasks with no cost to the GCDAMP, and will provide the actual cost as a cooperator in the budget spreadsheet. The work will be part of the work plan and coordinated and reviewed by GCMRC. The work plan would be developed by GCRMC and WAPA in coordination with the TWG. This will result in costs to GCMRC that will need to be provided to oversee and provide peer review of this project. (10/3/3)

GCMRC Response: This project is included in GCMRC’s BWP. Funding is included GCMRC to coordinate the work plan and provide peer review for this new initiative, and coordinate timely publication of findings pursuant to USGS publication standards.

2. (Line 175) Humpback chub translocations above Chute Falls have been deferred by GCMRC. TWG believes this is an important compliance requirement, and a project that has shown great potential for positive effects on the LCR population and should be funded in FY 2011 and 2012. (No objection)

GCMRC Response: Funding to implement humpback chub monitoring and translocation above Chute fall is included in the BWP GCMRC staff time is included to help develop a long term study plan for the project in coordination with FWS. Continued funding of this activity by the AMP will impact other elements of the AMP science program.

3. TWG is concerned about the continued use of the experimental fund for other purposes within the budget. Without setting aside the experimental fund, it may be difficult to carry out flow experiments in the future. Should there be an HFE in FY 11 or 12, having this small amount of money available for data gathering and analysis would mean no meaningful study. The default would be determining the effect of an HFE through the

monitoring program alone. An HFE should only be conducted to answer direct science questions. Therefore, a science plan should be developed and funding should be identified for this purpose. (10/3/3)

GCMRC Response: *GCMRC does not believe that the use of the experimental fund was or should be limited only to high flow experiments. A summary table showing the experimental fund expenditure and balances for FY 2010, 2011 and 2012 is attached (Attachment 3).*

4. (Line 24) TWG is concerned about the continued use of the warm water nonnative fish contingency fund for other purposes within the budget. (no objection)

GCMRC Response: *The BWP proposes depositing \$900K into the nonnative fish contingency fund in FY 11 and 1 (\$600K in FY 11 and \$300K in FY 12). These funds would be allocated by Reclamation subject to nonnative fish control projects defined through the Nonnative fish EA and tribal consultation.*

5. (Line 166) GCMRC has moved numerous projects out of the budget to an unfunded projects list. Many of these issues represent compliance requirements or other important projects that should be carried out to further the goals of the GCDAMP. The AMWG should consider other mechanisms for acquiring funding for these projects, such as identified in the biennial budget process paper. (13/2/2)

GCMRC Response: *GCMRC agrees with the TWG that this is a significant issue that needs to be addressed by the AMWG and DOI.*

6. Although GCMRC has designated projects in the spreadsheet as core monitoring (COR), TWG has only provisionally approved the sediment-related programs at this time and will be considering the other programs over the next few years. (no objection)

GCMRC Response: *All such Core Monitoring designations are made with the understanding that they are subject to TWG and AMWG review in accordance with the Step 4 approval process in the general core monitoring plan.*

7. (Line 115) Add funding in FY 2011 for DFC support (60k), including facilitation and decision support. (No objection)

GCMRC Response: *No funding was specifically included in GCMRC's portion of the BWP for this activity. We believe the Knowledge Assessment and ecosystem modeling project can help address this need.*

8. (Line 71) The FY11-12 budget/work plan should include \$25,000 to fund an Extirpated Species Workshop to achieve the following:
 - a. Finalize and prioritize species list

- b. Assess current compliance environment for various implementation strategies
- c. Develop a strategic framework for implement extirpated species goal within AMP

GCMRC Response: *The AMWG or DOI needs to determine whether funding for extirpated species work (Goal 3) is an AMP priority. It is currently not reflected in the AMWG priority questions or called for in the Monitoring and Research Plan. Funding this out of DASA 12.D5.10 will impact a variety projects which need GIS support.*

GCMRC is willing to assist with planning and organizing this workshop if the AMP decides to sponsor this activity. However, the direct costs for the workshop (i.e. conference room rental, travel reimbursements, speakers' fees, facilitators' fees, etc.) will not be covered by GCMRC.

9. (Line 188) The FY11-12 budget/work plan should include \$89,568 to fund deferred project DASA 12.D9.10-11. This one-time study is needed to aid the AMP in quantifying a desired future condition for sediment resources. This work could be funded by reducing the DASA 12.D5.10 cooperative agreement by \$89,568 for one year or \$45,000 over two years. (11/3/2)

GCMRC Response: *Funding this work seems premature until the DFC process determines that this analysis is needed. Funding this out of DASA 12.D5.10 will impact GIS support to a variety of projects and delay project deliverables. Also see GCMRC Response 7, above*

10. (Line 160) Evaluation of rainbow and brown trout movement . . . this funding is inadequate for the purpose of studying and implementing possible alternatives to lethal fish removal. We suggest an increase to \$200 to \$300K. As an alternative, we suggest a budget correction after tribal consultation and resulting actions identified. (No objection)

GCMRC Response: *The BWP include a detailed study plan for evaluating rainbow trout movement in the Paria to Badger Reach below Lee Ferry. We believe this study will help address questions related to the natal origins of rainbow trout and the feasibility of and strategy for removing fish in the Paria to Badger reach.*

11. (Line 168) Increased mainstem monitoring should be funded in FY 11 and 12. (No objection)

GCMRC Response: *Mainstem fish monitoring was reduced in FY 11 to make funds available to address AMWG priorities provide funds for nonnative fish control. In FY 12 the mainstem monitoring will be restored to the FY 10 level of effort. Intensive sampling of the mainstem will occur in conjunction with any mechanical removal project that is implemented in FY 11 and 12.*

12. (Line 186) Since this geomorphological modeling project assists in the identification of the impacts of dam operations vs. the impacts of natural effects, this project should be funded. (no objection)

GCMRC Response: We believe a geomorphic model may potentially assist in the identification of the impacts of dam operations on cultural sites and be useful to frame the future monitoring program. The geomorphic workshop planned for later this year will better define the scope and benefits of a model. Due to the relatively high expected cost (~\$250K) and program funding constraints, GCMRC does not support model development in FY 11 or 12.

13. (Lines 38-42) Recommend that DOI and DOE meet with the tribes to discuss including a CPI increase for tribal participation to those tribes that utilize their allocation, consultation and tribal monitoring programs. Another tribal entity may participate in FY 11 and additional funding may be necessary. (No objection)

GCMRC Response: Funding for tribal participation is not within the purview of GCMRC. This is provided with DOI appropriated funds outside the scope of the AMP science budget

14. (Line 29) Develop methodologies to integrate tribal perspectives into the treatment plan. (no objection)

GCMRC Response: N/A. This project is managed by BOR.

15. The budget spreadsheet and work plan should include other projects being undertaken by cooperators using funds outside of the GCDAMP funding. (7/6/3)

GCMRC Response: We recommend that ancillary project descriptions, deliverables and associated cost should be indentified in an appendix to the BWP. We agree with Robert King's comment at the last TWG meeting that the AMP budget/spreadsheet should not include funding being provided by other cooperators for GCDAMP ancillary projects

16. TWG advises the AMWG that if a long term experimental management plan EIS is undertaken in FY11 or 12 the amount of power revenues requested in the budget will increase. (No objection)

GCMRC Response: GCMRC BWP provide for \$250K of AMP funds to support a LTEMP EIS

17. TWG recognizes that it does not have a formal process for evaluating and identifying a proposed hydrograph to the AMWG, and intends to undertake that development in this budget cycle. (8/7/1)

GCMRC Response: GCMRC staff support for the hydrograph development "process" should be factored into this discussion.

Failed TWG “issues of concern”

1. (Line 184) The FY11-12 budget/work plan should include \$117,273 to fund deferred project HYD 10.tbd, “Phase I – Results of Economic Value Workshop”. (6/7/3)

GCMRC Response: We support this work. However, the AMWG or DOI needs to determine whether additional economic analysis capacity is an AMP priority. It has been clearly identified as a priority by the Science Advisors and by previous NAS/NRC reviews of the program. However, it is currently not reflected in the AMWG priority questions or called for in the Monitoring and Research Plan. If this work is a priority it’s not apparent where the funding will come from.

2. (Line 66) The FY11-12 budget/work plan should initiate the development of a non-native fish control implementation plan that will include elements that will be scoped at the March 31st 2010 NNF workshop, but include the following elements:

- Define cooperating groups and roles
 - Agencies and tribes involved
 - Roles of agencies and tribes in plan development
 - Roles of agencies and tribes in plan implementation
 - Role of conservation measures
- Define geographic and programmatic scope of plan
- Outline possible control alternatives for inclusion in plan
- Compliance and consultation and science needs
- Completion schedule and deadlines
- Funding needs for implementation
- Draft outline of chapters of plan

GCMRC Response: GCMRC supports this initiative and believes that if the plan is developed collaboratively and with AMP support, it will facilitate implementation of nonnative fish management actions. Except for GCMRC science support to develop the plan, funding for developing this management plan should not be taken from the AMP science budget. Also the development of this plan should be coordinated with ongoing tribal consultation and the NEPA activities related to nonnative fish management.

3. (Line 143 & 161): SCORE report – FY 11 & 12 are “tight” budget years. We suggest deferring this project. (3/13/0)

GCMRC Response: GCMRC supports the development of a SCORE report and Knowledge Assessment in FY 11 and 12. We believe they are needed inform the LTEMP EIS and GCMRC and AMP strategic planning.