

Glen Canyon Dam Technical Work Group  
FINAL Meeting Minutes  
February 2, 2005

**Conducting:** Norm Henderson, Chairman

**Convened:** 10 a.m.

**Committee Members Present:**

Mary Barger, WAPA  
Steven Begay, Navajo Nation  
Kerry Christensen, Hualapai Tribe  
William Davis, CREDA  
Brenda Drye, So. Paiute Consortium  
Lloyd Greiner, UAMPS  
Amy Heuslein, BIA  
Rick Johnson, Grand Canyon Trust  
John O'Brien, GCRG  
Chris Kincaid, NPS/GLCA  
Robert King, UDWR

Dennis Kubly, USBR  
Glen Knowles, USFWS  
Phillip S. Lehr, Colo. River Comm./NV  
Ken McMullen, NPS/GCNP  
Don Ostler, UCRC  
Bill Persons, AGFD  
Mark Steffen, Federation of Fly Fishers  
Larry Stevens, Grand Canyon Wildlands Council  
Bill Werner, ADWR  
Michael Yeatts, The Hopi Tribe

**Committee Members Absent:**

Christopher Harris, CRB/CA  
John Shields, WY State Engineers Office  
Jonathan Damp, Pueblo of Zuni

D. Randolph Seaholm, CWCB  
John Whipple, NM Interstate Stream Comm.

**Alternates Present:**

Don Ostler  
Don Ostler  
Jerome Zeiner

**For:**

John Shields, WY State Engineer's Office  
John Whipple, NM Interstate Stream Comm.  
Jonathan Damp, Pueblo of Zuni

**Interested Persons:**

Diane Austin, University of Arizona  
Christine Beard, USGS/GRMRC  
Mike Berry, USBR  
Nora Bryant, USGS/GCMRC  
Gary Burton, WAPA  
Kurt Dongoske, CREDA  
Helen Fairley, USGS/GCMRC  
Pam & Dave Garrett, M3Research  
Matt Kaplinski, GCRG  
J.D. Kite, USGS/GCMC

Lisa Leap, NSP/GLCA  
Paul Li, IEDA  
Mike Liszewski, USGS/GCMRC  
Jeff Lovich, USGS/GCMRC  
Ted Melis, USGS/GCMRC  
Anthony Miller, Colo. River Comm./NV  
Gordon Mueller, presenter  
Randall Peterson, USBR  
Barbara Ralston, USGS/GCMRC  
Pam Sponholtz, USFWS

**Meeting Recorder:** Linda Whetton, USBR

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**Welcome and Administrative Items.** The chairman welcomed the members, alternates, and interested persons. Attendance sheets were distributed. The chairman said the action items and approval of the past meeting minutes would be moved to tomorrow's agenda to allow the members more time to review.

**FY 04 USGS Fiscal Accounting.** Denny Fenn participated via conference call and said he wanted to talk about the USGS overhead. He described how the USGS applies overhead

charges (**Attachment 1**):

- Southwest Biological Science Center (SBSC) Rate on Reimbursable Funds = 35%. GCMRC is the largest of the four field stations that comprise SBSC.
- DOI PPreferred Customer rate = 15%. Of this collection, 10% currently goes to USGS Headquarters and 5% stays with SBSC. This proportion will change each year until 2008 when it reaches 7.5% for each party, where it will remain.
- For funds are passed through to outside research partners rather than being spent within the USGS, a special pass-through overhead rate of 6% is authorized, and no cost share is required. Of this amount, 3% goes to USGS headquarters and 3% stays with SBSC.
- SBSC rate on USGS funds = 19%. This amount is charged against USGS appropriated funds by the cost center in order to pay required overhead costs that would otherwise have to be paid by direct charge against these funds (this is a product of the overhead policy [and workbook] that identifies certain costs as "overhead" expenses).

Denny said that Assistant Secretary for Water and Science Mark Schaefer issued a memo on March 31, 2000, which transferred GCMRC from Reclamation to the USGS. In that memo, Mr. Schaefer listed 12 policies and protocols he wanted the USGS to follow in managing GCMRC. Policy No. 8 reads "The USGS will not charge bureau-level assessments against the funding provided by the Bureau of Reclamation to support GCMRC and its scientific activities." This policy was followed as specified through 2002. However, with the implementation of the new USGS common business practices, including the new bureau overhead policy, the decision was made to require SBSC to assess the AMP funds at the DOI preferred rate (15%). The SBSC appealed the USGS overhead decision. In response to SBSC's appeal, Director Groat vetted his decision with the Commissioner of BOR, Asst. Secretary-Water and Science, and the Asst. Secretary for PMB. All three senior leaders agreed to support his decision. Dir. Groat then turned down the SBSC appeal because he felt the overhead costs were legitimate and an unavoidable cost to doing business. The USGS agreed to grant SBSC the authority to levy the special 6% pass-through rate for all cooperative agreements (which today amounts to slightly less than half of the AMP funds available to GCMRC). This request must be renewed each year. How long the USGS will grant this authority to use the pass-through rate is unknown. Denny further explained how the USGS overhead affects the GCMRC budget.

The SBSC does its best to mitigate the charges by using the assessment funds to pay costs that in earlier years would have been direct charged to the AMP. In this way, they can reduce the impact on GCMRC. In FY04 they contributed an estimated \$680,000 from the SBSC burden account to GCMRC expenses, or in other words, \$50,000 more than USGS/Reston collected from the AMP assessment, and \$250,000 more than SBSC received from all of its assessment collections. However, SBSC cannot budget upfront for a large portion to GCMRC (and the AMP) because they don't know in advance what their total assessment income will be. In FY04 they had a good year at SBSC and could be generous but it might not always work out that way. At present, the FY05 and FY06 budgets are very conservative in this regard, with somewhat less than \$300,000 in SBSC burden dollars earmarked to support GCMRC costs.

GCMRC has not programmed \$600K in their FY06 budget and don't know what their assessment income will be and also won't know what partners will be coming to do work with them. J.D. added Sue Haselton (associate director of biology at USGS) doesn't like that 6% and so each year they have to go in and request a waiver and it seems like every year they find something else to take out of it. It's going down and they don't know how much longer they're going to get but they're pushing it through for every penny they can possibly get including the contracts. However, he's already been told that contracts will not be allowed this year but he so they're going to put it in there anyway and reference some regulations saying that the contracts are allowed.

Chris said the \$3 million Denny spoke about is a generous estimate. In FY04, they requested \$1.5 million so it is only requested on the new money. The old funding that's already in there doesn't get readjusted so if

there is \$1.5 million worth of cooperative agreements, a request can be made for that special rate on those but it's not the \$3 million. Jeff said they may have to readjust for FY05 but they're hopeful of getting the exemption again.

Action Item: GCMRC (J.D. Kite) will provide an update by July 2005 on what reimbursable monies they might receive.

FY04 USBR Fiscal Accounting. Dennis Kubly said it has been a very beneficial process in figuring out the FY04 expenditures (**Attachment 2**) and working with GCMRC personnel on the FY06 AMP budget and anticipates there will be yearly budget meetings. One thing he has learned is that there needs to be better communication among all parties involved. He explained there was a problem with getting tribal funds so the tribal consultation portion deviates slightly from the table. One of the things that complicates providing a balanced budget is often there are expenditures on contracts from previous years. For example, there was a small contract in 2000 with NAU but they only recently received an invoice. Consequently, it is difficult to draw a clean line between obligations and expenditures for two years. He noted the following:

- Public Outreach. There was only about \$4,000 expended in FY04 but there was \$85,000 shown in budget. The AMWG had originally identified an outreach budget for Humpback Chub public outreach but then incorporated the HBC effort into the whole public outreach budget.
- TWG Chair Reimbursement. The TWG Chair is being reimbursed for travel and per diem only, not salary. Reclamation wants to keep this line item funded because they don't know who will be the next TWG Chair.
- Compliance Documents. Expenditures were low in FY04. In 2002 a lot of money was expended for completing the Experimental Releases/Non-native fish removal EA. Reclamation wants to keep this line item funded because it's hard to estimate what will need to be done in the next few years.
- Contract Administration. This had an expense of \$21,000.
- Programmatic Agreement. There was a considerably larger amount on the PA because Reclamation hired a new archeologist. The \$43K dropped from the preceding year but they anticipate it will increase in FY06. Dennis added there was a small remote sensing contract with the Denver TSC to do the work in 2002. The monitoring was \$22K overage was to cover overage in FY03.
- Tribal Consultation. There is \$400K shown but Dennis said that was wrong because the FWS sent their contribution directly to the USGS. Because those funds came in late, they don't have an ending year balance.

**GCMRC FY04 Fiscal Accounting**. J.D. Kite distributed copies of his PowerPoint presentation (**Attachment 3**) and explained GCMRC's FY04 costs. He said the FY04 AMP budget was capped at \$8,420,000 and of that, GCMRC received \$6.6 million. However, GCMRC budget personnel were relatively new to GCMRC and didn't know how to interpret the AMP budget breakdown between USBR and GCMRC. In early January 2005, GCMRC budget personnel met with Reclamation staff to discuss the deficiency. As a result, Reclamation transferred \$848,000 which helped balance GCMRC's FY04 budget but they were still short \$2 million. In order to cover some of those costs, he pulled approximately \$640,000 out of the GCMRC burden and borrowed from other SBSC accounts. He said the mechanical removal effort was budgeted at \$586,000 but actually came in at \$850-900K.

**Action Item:** J.D. Kite will provide a handout of what work was outsourced at the next TWG Meeting (May 18-19, 2005).

The TWG raised concerns as to why the mechanical removal effort was so expensive. Ted Melis said the project was originally approved at \$586K but the burden hadn't been fully covered. GCMRC hadn't done that type of work before and therefore had estimated the cost of the work too low. It wasn't until the second year they realized how much it actually did cost. This year, which marks the second-third year of the effort,

will not include the diet analysis in an effort to reduce the costs. The AGFD is doing some of the work so the logistics costs still over \$100K per trip.

Bill Persons wanted more detail on what was covered under GCRMRC's \$1 million in other services. J.D. said he could provide that information to Bill at a later date. Mary said she was concerned that GCRMRC wasn't monitoring their contract costs more closely. Chris Beard said they now have three budget analysts at GCRMRC so they will be tracking those costs on a monthly basis.

**NPS Administrative Costs.** Ken McMullen passed out copies of a Cost Recovery Estimate Table (**Attachment 4**) and said he would also address concerns about the permitting and research work that Emma Benenati does for the Park Service.

Comments:

- Looks like we're funding Emma Benenati full-time but what's the percentage she does for other? (Barger). Ken said Emma's charges were about 60% for salary and 40% for other work.
- I question that cost. We're looking at scrimping and saving and we're supporting a NPS permitting person. (Persons) Ken said the Park was not charging for overhead and could go that route by putting a 15-20% charge for every trip that Emma provides.
- I can't see the rationale for paying someone a percentage for the research and permitting. That opens the door for the Hualapai Tribe to get 100% cost for salary because we do those tasks for the AMP as well. Would that be accepted? (Jackson)

Dennis said the Budget Ad Hoc Group had asked Ken to provide this presentation because they felt it would be important for the TWG to understand how the agreement between the Park Service and GCRMRC came about. He said that Helen Fairley had a line item in her portion of the budget for NPS people to go on river trips and the BAHG felt it should be discussed. Norm added that the agreement was formed prior to the creation of the AMP. Ken said it costs a lot less to have Emma do the work than hiring a full-time person.

**Recreation Campsite Monitoring.** Matt Kaplinski said he recently completed a review of the campsites and it can be found on GCRMRC's web site. The draft report is in the process of being peer reviewed. He proceeded with a PowerPoint presentation (**Attachment 5**).

**FY06 Tribal Proposals.** Helen Fairley said in November the cultural people had a meeting and were aware that in the core monitoring plan she had proposed a project for tribal values monitoring. Because she wasn't present at that meeting to have the tribes prepare their proposals, they got a lot of different kinds of proposals and studies. As such, she asked them to make to make individual presentations:

**Hualapai Tribe.** Kerry Christensen said they're proposing to do monitoring of cultural resources, ethno botanical, and wildlife populations important to the Hualapai Tribe. Helen added they were interested in doing some terrestrial ecosystem monitoring but it was difficult because the terrestrial monitoring program was coming from a different direction on a systemwide basis while other tribes were tied to specific locations. There was a disconnect in the overall approach. The proposal that GCRMRC received was tying monitoring to cultural monitoring in the ecosystem.

Dennis said the proposals are suppose to be through the GCRMRC program and he wondered what criteria was used in putting forth the proposals. Mike Berry said they saw \$250K in the budget and also asked the tribes for proposals. It was his thought there would be another review and discussion in preparation for a workshop that Helen had proposed. He feels the \$250K for a workshop is a little premature.

Jeff said it was difficult to receive the proposals without having them vetted through the TWG. GCMRC is not in the position to review those and incorporate into the budget until there is clear direction from the TWG.

**Southern Paiute Consortium.** Brenda Drye explained they have 20 sites on the north side of the canyon and within those they monitor 11 each year. They alternate every year between taking the children and tribal elders down. The elders teach their people about the different sites, movement of the water, and a botanist teaches them the scientific aspects of the work. They put the results into a database to determine what improvements need to be made in line with the adaptive management program. Helen said that one of the goals is to help the tribes articulate what they're doing but to also make sure the information is coming back into the Park Service and the AMP.

**Zuni Heritage Proposal.** Kurt Dongoske said he was asked by Jonathan Damp to make a PowerPoint presentation (**Attachment 6**). There are many places in the Grand Canyon that are important to the Zuni population. The Zuni Heritage and Preservation Office have a contract for TCP/GIS study with USBR which would provide a basis for the Zuni program. There was some earlier work done during the GCES days. A list of archeological sites was developed as a result of ZCRE and ZCRAT river trips. Zuni will develop data layers as a tool for working with the Center and integrate into the SCORE Report. The proposal seeks to answer several management objectives (11.1, 11.2, 11.3, 12.5, and 12.6).

**Hopi Proposal.** Mike Yeatts said their proposal is based on the last four years of terrestrial monitoring. Early on they realized that it's not how one looks at the resources, it's the evaluation about what is healthy about the fish. Rather than looking at developing a separate but parallel program that measures the same resources, the Hopi decided to utilize the resources and take that data and translate it into a format that the tribal members could look at and determine if the resources were healthy. The first year was reviewing the terrestrial monitoring. From there they developed a methodology survey based on formalized presentations of data coming to the Center on everything being monitored. In looking at the FY06 budget Mike noted that terrestrial monitoring was cut yet their proposal relies on that data coming from the program. As such, they will need to modify their proposal. Dennis said it will be important to have a good accounting of how the tribal dollars are spent in order to prepare next year's fiscal accounting reports.

**FY06 Draft Budget and Work Plans.** Dennis said the BAHG held a 2-hour conference call on Jan. 28 to discuss how they were going to present the FY06 budget to the AMWG. They tried to keep their discussions at a certain level rather than delving into individual projects and making line item comparisons. They devised a series of questions during the call which Dennis e-mailed to the TWG later that afternoon (**Attachment 7**):

- (1) Do the budget and work plan contain adequate information for the AMWG to determine whether the priorities identified at their August 2004 workshop were adequately considered in developing these products? Are the AMWG priorities identified in sufficient detail for the TWG to make these comparisons?
- (2) The budget is weighted heavily toward monitoring and contains very little funding for experiments. Are the reasons for this weighting adequately portrayed?
- (3) Deliberations over allocation of the budget resulted in continuation of some projects, rejection of some projects, amalgamation of some projects, and development of some new projects. Are the thought processes that led to these decisions apparent? Are the pros and cons of projects compared adequately for you to be able to understand why some projects are proposed to be continued and some not?
- (4) There are changes in budget figures as portrayed in the FY06 budget sheet from those in FY04 and FY05 budgets passed by AMWG, including an identification of deficits in the previous years. Is it clear to you why these changes have occurred and what the implications of these changes are to the GCDAMP?



(5) Do the FY06 budget and work plan contain sufficient funding emphasis for synthesis of existing information and development of an ecosystem perspective? Do they adequately portray the connection between proposed FY06 expenditures and the measurement of success or failure in meeting program management objectives and fulfilling information needs?

**FY06 Draft AMP Budget & Work Plan (Attachment 8a)** Dennis Kubly presented Reclamation's administrative portion of the budget. He said Reclamation's costs are similar to those of last year and in some cases were increased by the cost of living index (CPI) while in other line items some funds were removed. He said there were over expenditures in the TWG travel budget for FY04 so they added dollars to that line item. The increase from \$390,000 to \$450,000 is largely a function of the public outreach dollars being added in. In the case of the Programmatic Agreement Portion of the budget, Reclamation is now transferring the cost of the cultural monitoring over to GCMRC. There is a considerable decrease in the PA portion. However, Reclamation has retained those dollars for the archeologist and for the implementation of the treatment plans. The expectation in FY06 for Glen Canyon after two years at \$100,000 is that it will be finished with something on the order of \$20,000 and then there is the second year of \$250,000 for the Grand Canyon Treatment Implementation Plan. As indicated this morning, it is likely the Department will match with another \$250,000. The Park Service has put in a proposal for \$1 million over some unknown set of years in order to match with the \$250,000 so there could be \$500,000 a year.

Dennis said the cooperative agreements with the tribes were first advocated to be indexed in FY05 but that didn't happen, however, Reclamation believes that will occur in FY06. They have shown both the cooperative agreements and the river trip funding to be indexed along with the remainder of the budget. Dennis said Reclamation is unable to provide fiscal accounting on the expenditures at the present time but thinks they need to be able to provide that in the next round.

**GCMRC Portion of the FY06 Budget.** Jeff said he wanted to introduce the budget and then have the program managers provide more details on specific projects. He proceeded with a PowerPoint presentation (**Attachment 8b**). He said it was a very difficult budget for GCRMC to assemble because some fiscal realities had to be considered. There is an insatiable desire to accommodate more and more in this program whether it's experimentation of HBC recommendations or new ideas for expanding the paltry cultural program as it currently exists. One of the overarching principles they used in developing the budget was that it highly values core monitoring. He said monitoring is the foundation and to have core monitoring in place year after year after is absolutely essential to understanding changes as a result of dam operations or other activities. He passed out copies of the revised budget dated February 1, 2005, (**Attachment 8b**) and proceeded with a PowerPoint presentation (**Attachment 8c**). The last slide was a pie chart illustrating how the budget was broken out. He emphasized that what is programmed in FY06 does not necessarily ensure that will be programmed in FY07. They are recommending data acquisition for the canyon in a 4-year cycle and this is a big ticket item to collect digitally orthorectified data per the recommendations of the remote sensing initiative that will bear fruit and provide support to all program areas in GCMRC including cultural. For FY06 it happens to be a year when the trigger is flipped for a major remote sensing mission and then in FY07 and FY08, that figure will drop back down and they'll be able to reprogram. Jeff said except for the Aeolian project, there isn't really any experimentation proposed for FY06. The mechanical removal project by virtue of its high price tag is also not funded in the proposal. When they recommended the experimental design for the current round of experimentation, they suggested a 4-year on/4-year off plan for mechanical removal and they're just completing the third year in FY05. The funding did not go far enough to cover all those projects and that was their recommendation to consider removing.

Dennis asked what percentage of the budget Jeff thought was core monitoring and what percentage was reserved for experimentation. Jeff said most of the budget is in core monitoring because they felt it was important to start with core monitoring and then work up to see what could be accommodated. Jeff felt that if core monitoring were compromised, there might be some risks that could not be recovered from easily.

Sociocultural Program. Helen Fairley said she wanted to present the different projects under the Sociocultural program. She gave a PowerPoint presentation (**Attachment 9a**). In the FY06 budget they put most of the emphasis in the heritage resource department. They are trying to keep the campsite monitoring program going with some aspects of visitor experience included.

Larry Stevens asked if any controls are used in the historic sites. Helen said no but a population of sites has been identified as being potentially affected by dam operations. They don't have a full accounting of the sites being affected by dam operations. She would like to get away from the past approach of monitoring some sites very intensively and some sites once every five years. They're going to look at them in systematic and even fashion and she thinks over the long run they will show where the changes are occurring most intensively vs. perhaps less intensively and the different contributing factors. She said the idea is to not make any presuppositions about what's being affected and what's not, but look at them in a systematic way that will ultimately lead to a better understanding of those factors in the long run.

Dennis said the sociocultural program has been in place for some time and asked whether or not there has been any feedback provided to the TWG. This is the only research being proposed and it would help the TWG decide if they should support this project. Helen said it was FY03 money but the project didn't get underway until 2004. The work was also supplemented with money from the FIST program and was related to the bar building measurements taking place. The idea was that if they got the high test flow, it would continue for another year. They got the test but other projects that weren't funded or weren't anticipated, one of them being the high flows effect on the HBC below the LCR, hadn't actually been put into the budget so the work stopped. They would like to bring it to its full conclusion as originally planned.

Ted Melis said it was originally the so-called Potochnik and Thompson work that was done in an early phase of GCRMC research under Ruth Lambert's program. One of the recommendations from that final report was to spend more time thinking about the role of Aeolian process around the cultural sites. There was also the FIST project which began officially in 2001 based on a 2000 solicitation and that project was intended to look not just at sandbar dynamics and sand storage change detection but those elements with respect to biological and cultural resources. The cultural element was never clearly defined to the team that got the award in 2001 and 2002 but then it became clear in 2003. This is the cultural element of the FIST so to speak. The idea was to do research and define not only a potential linkage but what the linkage is or isn't and if there is a linkage that might be continued under some Park operated or other entity.

FY06 Projects for Physical Resources & Modeling. Ted Melis said the second series of projects falls into a category that is part of the physical program combined with modeling as a way to eventually reduce their need for empirical sampling. He gave a PowerPoint presentation on the physical resources (**Attachment 9b**) and modeling component of the budget along with the FY06 DASA projects (**Attachment 9c**).

FY06 Projects for Biological Resources. Barbara Ralston said that in terms of biological resources, they're looking at maintaining some monitoring components, trying to do some research elements, and anticipating at least one humpback chub action. It was a fairly difficult task to determine what should be done in FY06. She gave a PowerPoint presentation (**Attachment 9d**). She said the bird monitoring work won't be done in FY06, however, there will be an overflight project to capture riverwide vegetation.

Information Management. Mike Liszewski said that in FY06 they are proposing bringing web development services back in-house. They have worked out an arrangement with the Southwest Biological Science Center (SBSC) to share web development activities. He said there would be an increase in the program from both FY04 and FY05 but those are primarily due to a couple of funding issues used in previous years that were identified in other programs. For example, they used to have a peer review line item and part of their library and salary was covered under that line item instead of a library line item. Most of the operations and maintenance has been indexed by the CPI. The assessments are not reflected in the overall cost of the program. There was one additional chunk of money that was originally funded under the experimental flows

account but has now been transferred into the Information Office account. He gave a PowerPoint presentation (**Attachment 9e**).

**Reminder.** Norm asked the TWG to review the documents presented at today's meeting and be prepared to discuss tomorrow. He said they would not be making a recommendation on the FY06 budget to AMWG because it is still a draft but the TWG could provide some overall observations.

Adjourned: 5:20 p.m.



Glen Canyon Dam Technical Work Group  
FINAL Meeting Minutes  
February 3, 2005

**Conducting:** Norm Henderson, Chairman

**Convened:** 8:10 a.m.

**Committee Members Present:**

Mary Barger, WAPA  
Steven Begay, Navajo Nation  
Kerry Christensen, Hualapai Tribe  
William Davis, CREDA  
Brenda Drye, So. Paiute Consortium  
Lloyd Greiner, UAMPS  
Amy Heuslein, BIA  
Rick Johnson, Grand Canyon Trust  
John O'Brien, GCRG  
Chris Kincaid, NPS/GLCA  
Robert King, UDWR

Dennis Kubly, USBR  
Glen Knowles, USFWS  
Phillip S. Lehr, Colo. River Comm./NV  
Ken McMullen, NPS/GCNP  
Don Ostler, UCRC  
Bill Persons, AGFD  
Mark Steffen, Federation of Fly Fishers  
Larry Stevens, Grand Canyon Wildlands Council  
Bill Werner, ADWR  
Michael Yeatts, The Hopi Tribe

**Committee Members Absent:**

Christopher Harris, CRB/CA  
John Shields, WY State Engineers Office  
Jonathan Damp, Pueblo of Zuni

D. Randolph Seaholm, CWCB  
John Whipple, NM Interstate Stream Comm.

**Alternates Present:**

Don Ostler  
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**For:**

John Shields, WY State Engineer's Office  
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**Interested Persons:**

Diane Austin, University of Arizona  
Christine Beard, USGS/GRMRC  
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Anthony Miller, Colo. River Comm./NV  
Gordon Mueller, presenter  
Randall Peterson, USBR  
Barbara Ralston, USGS/GCMRC  
Pam Sponholtz, USFWS

**Meeting Recorder:** Linda Whetton, USBR

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**Welcome and Administrative Items.** The chairman welcomed the members, alternates, and interested persons. The members introduced themselves. Attendance sheets were distributed.

**Review of June 30-July 1, 2004 Draft Minutes.** Without objection, the minutes were approved.

**Review of Sept. 27-28, 2004, Draft Minutes.** With minor changes, the minutes were approved.

### **Review of Action Items**

**Database Sharing.** Mike Berry reported the Access database from Grand Canyon was transferred to GCMRC and Reclamation. The spatial data has not been transferred. He has reviewed the Access database and it needs to be brought up to current relational database standards. He said one of the line items in the FY05 budget for Grand Canyon is to contract out professional services and have the database brought up to standard before transferring to GCRMC at end of the fiscal year. Mike said the database being maintained by GCMRC will have to be set up to receive the database structures that they're going to be building in Access.

**Genetics Management Plan.** Gary Burton reported that Tom Czapla and Bob Muth have been so involved in gathering information in order to respond to the Grand Canyon Trust lawsuit that they haven't been able to do the upper basin responsibilities let alone anything in the lower basin. Larry Stevens said he was outraged the report was so late. He reaffirmed that the TWG can't proceed with humpback chub work until they have that report and wants the researcher to make a presentation at the next TWG meeting. Dennis concurred with Larry and said he would advocate the AMWG look at reallocating FY05 budget dollars to get the work done. He reminded the TWG that the work was assigned to the FWS in August 2003. Barbara Ralston passed out a copy of the Humpback Chub Genetics update (Attachment 10). Ted said that the contractor (Mike and Marliis Douglas) declared a one-time, non-funded extension to complete the report on their agreement. It's not subject to GCMRC's approval unless they request additional funding. Dennis said the Genetics Management Plan doesn't need to wait on the Douglas information because there is a genetics management plan for humpback chub in the upper basin which has been in place for some time so the TWG doesn't need to wait on the Douglas report. Norm said the TWG could recommend the AMWG take up the issue at their next meeting.

**Action Item:** Dennis and Norm will draft some motion language for the TWG to submit to the AMWG regarding the critical need of having the Genetics Management Plan done by FWS and the 05 budget may need to be adjusted to have the work done because FWS isn't able to do.

**Grand Canyon Trust Lawsuit Update.** Mary said she would also like a status report on the GCT lawsuit. Rick said the Department has asked the lawsuit be dismissed. It's under consideration right now and hopefully the judge will rule by mid-February on their motion to dismiss.

**Cultural Research Design AHG Update.** Mary said the purpose of the evaluation was to look at the report to see if it meets TWG and AMWG guidelines. The only comments received said the report fell a little short of that. She's not sure if the TWG wants to continue to ask for comments or address it at one of the cultural ad hoc meetings. She's not sure where this should go. Norm said he understood there was a concept that the research designs that are in the treatment plans will basically supplant this. Mary said the research design that was done under contract is more of an overarching thing and is not site-specific. She said the treatment plan that they have all talked about as part of the historic preservation plan will be site-specific so it will tie into this general research design and then there will be specific treatment plans. Mike said he is currently writing the RFP for the Grand Canyon Treatment Plan and the RFP will be circulated to all the PA members prior to letting it. The RFP specifically calls for bridging argument between Helen's overview and site-specific questions.

**Administration and Management.** J.D. Kite presented the FY06 administrative and management portion of GCMRC's budget. He gave a PowerPoint presentation (**Attachment 11**).

Larry said he wanted to propose as a resolution to AMWG that, if not this year but then as soon as possible, to do a pilot run on what it would take to expand the existing conceptual model because it doesn't embrace landscape at all. It doesn't really bring in terrestrial species, cultural resources, the non-site based

archeological elements, and then create an RFP that has the right people to put together an ecosystem model that is cutting edge and up-to-date that actually allows us to see how the structure of this program relates to the ecosystem. Rick said he thought a conceptual model would be really useful and suggested Larry prepare a one-page document on what he sees as the inputs, outputs, and how those outputs would be used to set priorities. Jeff raised a concern that if the TWG adopts the approach that Larry is espousing and GCRMRC doesn't disagree with it, then it would be a major synthesis. The work would have to be identified in the budget effort to allow GCRMRC to carve out the time to do it. He doesn't think it is something that can be done in a meeting nor can one write up in a few pages and link all of our plans together. Jeff also said that the river continuum model applies well to the AMP because it is more constrained to the definition of the geographic scope of this program. If there is a true conceptual model of how ecosystem processes are linked in the canyon with strong linkages from the terrestrial environment to the cultural environment, it goes well outside the scope of what is currently defined as the area of interest for the GCD AMP and so they would have to figure out how to deal with that.

Jeff reminded the TWG that Dennis did a good job of articulating the budget discussion into one of the bullets presented yesterday (#5) which reads: "Does the FY06 budget and work plan contain sufficient funding emphasis for synthesis of existing information and development of an ecosystem perspective?" He said one of the things the TWG should consider as they deliberate the budget is that very question and if the answer is no, then perhaps they could prepare a proposal to include such an effort in the 06 budget.

**Action Item:** (1) Add to the next TWG meeting agenda a discussion on developing a good conceptual ecosystem model that captures all the resources and makes the connections to the administrative structure to see where dollars should be spent, and (2) In an effort to start that discussion, Larry Stevens will prepare a 2-3 page paper for distribution to the TWG and science advisors.

### **Discussion of BAHG Questions.**

In referencing question #5, Matt said it would be helpful if there were a table that outlined the Strategic Plan elements, the MOs, INs, and also had the elements of the program incorporated so they could see what projects are being addressed or not being addressed as a result of budget constraints. Jeff said he felt the gaps in the budget were pretty obvious and didn't think that level of detail was needed. Rick said it's important the budget meets the goals of the GCPA by showing where they're at with each of the goals and which attributes apply. He didn't feel the work plan is specific to each project in meeting the intent of the Act and that the TWG needs to continually refine so they know if they're succeeding. One of the ways that can be done is to spend money on those projects which are directly related to either refining or monitoring the MOs. They also need to look at which projects need metrics.

**Action Item:** Norm will work with Jeff and Dennis in developing a table which outlines the Strategic Plan elements, the MOs and INS, so the TWG can see which projects are addressed in the FY06 Budget.

Jeff referred to the FY06 Budget and said that projects identified in red font were those not being funded under the current proposal. Projects identified in blue font are the projects that were completed in 2004 or 2005 and aren't programs that have been terminated. Jeff reiterated that just because everything is not funded in 05 doesn't mean its being cut.

Dave Garrett recognized that GCRMRC had to make some tradeoffs and one of those was the non-native fish control project which was more of a research project. The fourth year of that project will be truncated. As such, he said the science advisors would be interested to know how GCRMRC made that decision. Jeff said they didn't use any large matrix to figure out the tradeoffs but had a lot of discussions. They used core monitoring as the foundation for developing the budget believing that it was essential to everything that was being planned. After they applied funding to that, there wasn't adequate funding to accommodate mechanical removal at a cost of \$850,000.

Dave asked if Jeff wanted the science advisors to review the Core Monitoring Plan. Jeff said the plan was brought to the TWG in draft form and expecting changes from them, he felt it would be premature to have the science advisors review it at this point in time. Dennis asked if the science advisors would respond to the higher level questions in a relatively short period of time and not get down into the details of the budget. Dave said he thought the SAs could do that fairly well.

1. Do the budget and workplan contain adequate information for the AMWG to determine where the priorities identified at their August 2004 workshop were adequately considered in developing these products? Are the AMWG priorities identified in sufficient detail for the TWG to make these comparisons?

Bill Persons said that when he reads the five priorities, he questions what is in the HBC plan that's a priority. He's not sure the TWG can make that tie-in with the budget because there isn't enough specificity in the priority that is laid out by the AMWG.

Rick said he felt the AMWG gave the TWG broad guidelines and he wasn't sure if it was useful for the TWG to comment on what AMWG did or did not do. Larry added that in the last year and a half the TWG has been criticized about being off the wall in relation to AMWG needs. He feels as TWG members they need to encourage the AMWG and understand what they want.

Bill Persons questioned that if the mechanical removal is discontinued, will they have learned enough to see a response. He's not sure what he should tell his AMWG member and is a little confused. Jeff reassured Bill that the core monitoring is going to answer the question on response but the risk is that three years won't be enough time. Bill asked how high the risk could be but Jeff said he didn't know and couldn't calculate. Mary said that WAPA would like to see the full four years of mechanical removal done, even if at a reduced effort. She was confident that her AMWG member would put mechanical removal back in the budget.

Dennis said it's important to remember history. The whole paradigm for predation being the controlling factor on HBC came from GCMRC and there was a reallocation of budget to move money in the direction of controlling predators instead of improving habitat to see whether or not a signal could be seen from HBC. As he understands it, much of that signal occurred in the hoopnetting that was done as part of mechanical removal. By removing mechanical removal from the budget, they're also wiping out part of the signal. Some people thought there was a signal this last year because of higher numbers of small HBC. He doesn't feel it makes sense to truncate the experiment.

Jeff said he thought people were losing sight of a large issue here. GCMRC recognizes that the budget is not ideal but they have taken a good faith effort at presenting a budget or a work plan with the recognition that some difficult decisions had to be made. He said if it was the will of the group to reduce core monitoring to 20%, 30%, or whatever to accommodate other things, GCMRC will not offer any resistance. GCMRC has made a good faith effort to get the process started recognizing that there is inadequate funding in the AMP to accommodate every priority, every year.

Jeff said his staff would be willing to reprogram work based on the TWG's needs and asked the members to provide their priorities to GCMRC so the budget and work plan could be adjusted. Dennis suggested the Budget AHG and GCMRC work together and make a presentation to the TWG at a later date. He also suggested a "budget summary" be presented to the AMWG with an identification of how the TWG established its priorities with a breakdown along programmatic and project lines.

#### FY06 Budget Resolution:

- Present the budget separated into priority categories. Combine into a funding pie chart and provide a listing of specific projects for all priorities (1-6 and 6-12)
- Prepare a table that clearly shows the MOs/INs and in relationship to FY06 priorities

- Define the thought process that went into GCMRC budget, specifically how the decision was made to include mostly monitoring rather than a balance between research and monitoring.
- Present a process for completion of the final FY06 budget for AMWG.
- Mid-March BAHG meets with GCMRC/BOR to address specific concerns of FY06 work plan and budget

**Endangered Fish Growout Refugia.** Gordon Mueller said he has been working in the Colorado River basin for 25 years and said the first endangered fish he handled was a humpback chub in 1980. A few years ago he had a task to read the scientific review of a NEPA compliance document prepared by the Bureau of Reclamation on the temperature control structure so he has done a lot of work on Lake Powell and downstream in the reservoirs with the razorback sucker and the bonytail. He is working on a proposal to get people together who are interested in going out and actually building some sanctuaries and learning how to manage the fish. The idea is to get one-half to a dozen of the fish and see what it will take to raise the fish. He feels it is a huge step toward conservation of the species and sanctuaries provide opportunities for researchers and managers that cannot be learned or tested on large scale systems. He said he wanted to provide a management tool for consideration and proceeded with a PowerPoint Presentation (**Attachment 12**).

Bill Persons told Gordon that the AGFD agrees with him and feels now is the time to get some fish out of the river and put them in multiple sanctuaries. Bill Davis agreed and said that a lot of money has been spent on habitat improvement and it's time to look at other solutions for better habitats for the native fish. Glen complimented Gordon on the outstanding work he has been doing and feels there could be a lot of utility for the HBC. Norm asked Gordon to keep the TWG informed on his work.

**Progress Update on Revision of the Humpback Chub Comprehensive Plan.** Glen Knowles gave a brief update from the PowerPoint he presented in September (**Attachment 13**).

Rick Johnson passed out copies of two proposed motions for the TWG's consideration:

**Motion #1.** The AMWG directs the TWG to complete the humpback chub comprehensive plan. A draft will be presented at the next AMWG meeting. If an issue cannot be resolved by the TWG, then the issue and options will be presented at the next AMWG meeting for resolution. The comprehensive plan will:

1. Include all actions needed for humpback chub in Grand Canyon to achieve AMP Management Objectives, USFWS Recovery Goals, and remove jeopardy regardless of how the actions will be implemented.
2. Incorporate and cite the best available science regarding population trend and threats to humpback chub in Grand Canyon.
3. Describe linkages, sequences and feedback loops.
4. Identify priorities and a timeline for completion of each action.
5. Provide a risk analysis of each potential action and provide methods to ameliorate risks.
6. Spell out specific steps and criteria for any actions that would be needed if a crisis occurs (e.g., severe population decline).
7. Incorporate comments from GCMRC and the Science Advisors as appropriate. The TWG will include a response to comments document in their final draft.

**Motion #2.** The AMWG also directs the creation of a humpback chub implementation plan ad hoc committee. This ad hoc will:

1. Determine which actions identified in the humpback chub comprehensive plan can be accomplished under the AMP, and which can not.
2. Determine the pros and cons of a Recovery Implementation Program prior to making a

recommendation on a RIP to the Secretary of Interior.

Comments:

- I have some concerns about specific language. Motion #1 sounds like the AMP is responsible for recovery goals. You need to add authorities. FWS has the authority on recovery. We have to acknowledge their authority. We need to find a way to clarify the language. (Persons)
- #6 says spell out any criteria. Some of us are arguing that crisis occurs. Some of us are arguing that that crisis is here now. (Davis)
- I want to support the concept that one is on technical and policy. Does the TWG have the time and resources to take on this task? The AMWG can determine which ones can be done. (Kubly)
- We've done our work and identified what needs to be done. We put it in the budget and are the point of going forward. (Burton)
- In the first motion we need to identify that if AMWG is going to direct TWG, that it involves one of their priorities in the program. (Heuslein)

**Action Item:** Comments due to Rick Johnson by Feb. 9, 2005. Rick will provide comments back to the TWG. Rick's e-mail: rick.johnson@npgcable.com

**MOTION:** The TWG offers to undertake completion of the Humpback Chub Comprehensive Plan if directed by the AMWG.

Motion seconded.

Call for the question.

Voting Results: Yes = 11 No = 0 Abstaining = 4

Motion passes. (2/3 vote = 10)

Abstaining: Chris Kincaid, Mary Barger, Kerry C, Mark Steffen

**GCMRC Updates.**

Core Monitoring Plan Update. Jeff gave a quick overview of the Core Monitoring Plan (**Attachment 14a**). He started with a history of the development of the plan and said the CMAHG is going to recommend to the AMWG that they need a little more time to work on the plan. He reviewed the current schedule for completing the CM Plan:

- Next Core Monitoring Team meeting = March 10-11, 2005
- April 1 = mail out of draft #4 to the science advisors
- April 10 = review finished
- Core Monitoring Team meeting = April 11-12, 2005
- Revised draft #5 to mail to TWG on May 3, 2005
- Proposed TWG meeting week of May 16
- Final Core Monitoring Plan proposal to AMWG June 1, 2005
- Proposed AMWG meeting after July 1, 2005

Long-Term Experimental Plan. Jeff said that the plan they brought a couple of years ago was only for a few years and expired in 2004. He would like to know what would be useful for the TWG to know and would like to know the TWG's priorities. He suggested creating another ad hoc group or the LTEP AHG that would get the stakeholders together to determine what sideboards would need to be in place to build a good plan. Without those sideboards, Jeff feels it is difficult to develop a plan to meet the AMP's needs. The Science Advisors would function as a second review.



Score Report (**Attachment 14b**). Jeff reported the SCORE Report will be finished this summer. In October, they will have the science symposium and will highlight the SCORE Report and the long-term experimental plan at that venue. GCMRC is also prepared to do the knowledge assessment.

Dave Garrett said the science advisors were surprised to see that the original intent of the AMP was being done by ad hoc groups, writing long-term experimentation rather than having it done by GCMRC. He was adamant that science can't be implied and said that the planning needs to be brought back to a central focus along with the inherent constraints. The group has departed a little bit and he reminded them that if they go back to the model, decide on the priorities, and set the standards then GCMRC needs to come back with the constraints. Dave added that all the work should be driven by knowledge assessment, not only against the SA's but against other groups. The structure of the AMP was done very well but it is a little fractured right now. Dave said the science advisors did not agree with the Center's long term plan and felt that part of that failure was a non-collaborative effort. There was a missed cue. There seems to be a recommendation to go back to the original model.

Mary Barger said the schedule and completing the knowledge assessment got derailed because of the experiment. She still wants to see the knowledge assessment done and doesn't feel the TWG can move forward without that piece of information.

Jeff said he wanted to see an ad hoc group developed at the AMWG level to help with the policy issues. Dennis said that GCMRC has already received its direction from the AMWG and he wasn't sure what more the TWG could do. He said that Jeff's next step is to go back to the AMWG and explain why it can't be done. Dennis reminded Jeff that the model has already been accepted by the AMWG.

Strategic Science Plan. Jeff presented one slide on the calendar:

Chronology: Drafted May 24  
Reviewed by the SAB on June 24  
Presented to AMWG and TWG July 2004  
Re-engaged SAB to add strategic science elements  
Presented to AMWG on Oct 2004

Jeff asked Dave Garrett to comment on the process the science advisors engaged in to develop strategic science initiatives for the GCMRC to incorporate into their plan. Dave said the science advisors have seen the plan twice and the first look at the plan the science advisors were concerned that it wasn't a strategic science plan but it was in fact what they call an operations management plan. They advised GCMRC that there needed to be significant changes. When they saw it again, they had several concerns. The science advisors recommended that Dave get with Jeff and work with GCMRC on trying to implement suggestions from the science advisors. Dave said this relates to bringing all of the planning, on research, ecosystem concepts, hypothesis testing, integration altogether and that was the science strategy they felt was very important. Dave said it was the strategy for doing science including research and monitoring, interacting with the TWG, etc. He said that a lot of what the science advisors recommended is now included in the science plan and they feel much better about the plan as it exists now than it was originally drafted.

Jeff said further work on the plan has been deferred. GCMRC will re-engage on the draft and put into a final plan and present at the summer AMWG meeting.

05-06 Experiment. Jeff acknowledged those TWG members who were still present and said that GCMRC is trying to do their part to try and meet the TWG's research and information needs. He said this one in particular is such a high stakes game for adaptive management in that they just completed a high flow experimental release. He thanked his staff for all their hard work and sacrifices because it was a substantial effort on their part. He said Ted and Barbara would share some of the preliminary results. GCMRC is still waiting for more information from contractors and will provide additional information when it's available.

Preliminary Hoopnet Data from LCR to Unkar. Barbara distributed copies of her PowerPoint presentation (**Attachment 14c**) which showed the preliminary data for hoopnet catches before and after the high flow test. She said the bottom line is immediately following the high flow test there were fewer fish caught in the hoopnets than prior to the test. One of the interesting things noted was there was a slight trend or shift in length frequency upwards so there was a selection against smaller size fish in the system during the high flow test.

Attendance Time Check (3 p.m.) Present: 9 members, 2 alternates

Ted Melis made the following statement: "I appreciate those who have stayed recognizing we are 30 minutes past the appointed end time and to do a knowledge assessment here I think was a good thing even though it's not fully recorded under the AMWG motion, it's hard to disseminate this information to perhaps a quarter of the TWG and then try to discuss it at the next meeting. I would suggest that anything that has to do with experimental updates in future agendas be put on the first half of the first day. If we're going to assess our knowledge as the first step in the planning process and only a third of the group is engaged in that process, I think we're going to spin our wheels for a long time. If this is important, then it needs to be put at a time when everybody is there."

Dennis said if he had any authority, Reclamation would discontinue all travel reimbursements of flights that leave less than one hour after the meeting. Dennis said he would be willing to suggest it and think it's reasonable to expect people to come and stay at the meeting.

Experimental Update on Fine-Sediment. Ted Melis said there wouldn't be enough time to go through all the material and discuss it so the intention is to do a full presentation at the next AMWG meeting. The intention would be to review the Paria River sediment trigger, input activity for 04-05, the preliminary results from sandbar and volume changes, and very preliminary results from suspended sediment mass balance for Marble Canyon for July 2004/January 2005. Ted gave a PowerPoint presentation (Attachment 14d).

Warm Water Fish Suppression. Not presented.

Concurrent HBC Estimates. Not presented.

**Next TWG Meeting:**

Wednesday, May 18 (10 a.m. – 5 p.m.)

Thursday, May 19 (8 a.m. – 3 p.m.)

Location:

Bureau of Indian Affairs  
2 Arizona Center  
400 N. 5th Street  
12 Floor, Conference Room A  
Phoenix, Arizona

Adjourned: 3:10 p.m.

## General Key to Adaptive Management Program Acronyms

ADWR – Arizona Dept. of Water Resources  
AF – Acre Feet  
AGFD – Arizona Game and Fish Department  
AGU – American Geophysical Union  
AMP – Adaptive Management Program  
AMWG – Adaptive Management Work Group  
AOP – Annual Operating Plan  
BA – Biological Assessment  
BE – Biological Evaluation  
BHBF – Beach/Habitat-Building Flow  
BHMF – Beach/Habitat Maintenance Flow  
BHTF – Beach/Habitat Test Flow  
BIA – Bureau of Indian Affairs  
BO – Biological Opinion  
BOR – Bureau of Reclamation  
CAPA – Central Arizona Project Assn.  
cfs – cubic feet per second  
CRBC – Colorado River Board of California  
CRCN – Colorado River Commission of Nevada  
CREDA – Colorado River Energy Distributors Assn.  
CRSP – Colorado River Storage Project  
CWCB – Colorado Water Conservation Board  
DBMS – Data Base Management System  
DOI – Department of the Interior  
EA – Environmental Assessment  
EIS – Environmental Impact Statement  
ESA – Endangered Species Act  
FACA – Federal Advisory Committee Act  
FEIS – Final Environmental Impact Statement  
FRN – Federal Register Notice  
FWS – United States Fish & Wildlife Service  
GCD – Glen Canyon Dam  
GCMRC – Grand Canyon Monitoring and Research Center  
GCNP – Grand Canyon National Park  
GCNRA – Glen Canyon National Recreation Area  
GCPA – Grand Canyon Protection Act  
GUI – Graphical User Interface  
HBC – Humpback Chub (endangered native fish)  
HMF – Habitat Maintenance Flow  
HPP – Historic Preservation Plan  
IEDA- Irrigation and Electrical Districts Association of Arizona  
IN – Information Need  
IT – Information Technology (GCMRC program)  
KAS – Kanab ambersnail (endangered native snail)  
LCR – Little Colorado River  
LRRMCP – Lower Colorado River Multi-Species Conservation Program  
MAF – Million Acre Feet  
MA – Management Action  
MO – Management Objective  
MRAP – Monitoring and Remedial Action Plan  
NAAO – Native American Affairs Office  
NAU – Northern Arizona University (Flagstaff, AZ)  
NEPA – National Environmental Policy Act  
NGS – National Geodetic Survey  
NHPA – National Historic Preservation Act  
NPS - National Park Service  
NRC - National Research Council  
NWS - National Weather Service  
O&M - Operations & Maintenance (USBR funding)  
PA - Programmatic Agreement  
PEP - Protocol Evaluation Panel  
Powerplant Capacity - 31,000 cfs  
Reclamation – U.S. Bureau of Reclamation  
RBT – Rainbow Trout  
RFP - Request For Proposals  
RPA - Reasonable and Prudent Alternative  
SAB - Science Advisory Board  
Secretary(=s) - Secretary of the Interior  
SWCA - Steven W. Carothers Associates  
TCD -Temperature Control Device (for Glen Canyon Dam water releases)  
TCP - Traditional Cultural Property  
TES - Threatened and Endangered Species  
TWG - Glen Canyon Technical Work Group (a subcommittee of the AMWG)  
UCR - Upper Colorado Region (of the USBR)  
UCRC - Upper Colorado River Commission  
UDWR - Utah Division of Water Resources  
USBR - United States Bureau of Reclamation  
USFWS - United States Fish & Wildlife Service  
USGS - United States Geological Survey  
WAPA - Western Area Power Administration  
WY – Water Year (a calendar year)