

Glen Canyon Dam Technical Work Group Meeting

June 22-23, 2009

Conducting: Shane Capron, Chairperson

June 22, 2009

Convened: 9:30 a.m.

Committee Members/Alternates Present:

Mary Barger, WAPA
Cliff Barrett, UAMPS
Chris Harris, Colo. River Board of Calif.
Kerry Christensen, Hualapai Tribe
William Davis, CREDA
Norm Henderson, NPS/GCNRA
Amy Heuslein, BIA
Rick Johnson, Grand Canyon Trust
Matt Kaplinski, GCRG (alternate)
Glen Knowles, USFWS
Dennis Kubly, USBR

Steve Mietz, NPS/GRNP
Don Ostler, UCRC (alternate for NM & WY)
Clayton Palmer, WAPA (alternate)
Bill Persons, AGFD
D. Randolph Seaholm, CWCB
Mark Steffen, Federation of Fly Fishers
Larry Stevens, GCRG
Jason Thiriot, Colo. River Comm./NV
Bill Werner, ADWR
Michael Yeatts, the Hopi Tribe

Committee Members Absent:

Charley Bullets, Southern Paiute Consortium
Jay Groseclose, NM Interstate Stream Comm.
Robert King, UDWR

John O'Brien, GCRG
John Shields, WY State Engineer

Interested Persons:

Matthew Andersen, GCRM/USGS
Glenn Bennett, USGS/GCMRC
Chris Cantrell, AGFD
Jen Dierker, NPS/GRCA
Kurt Dongoske, Pueblo of Zuni
Helen Fairley, USGS/GCMRC
Dave Garrett, Science Advisors
Pamela Garrett, M³Research
Paul Grams, USGS/GCMRC
John Hamill, USGS/GCMRC

Leslie James, CREDA
Jeri Ledbetter, Grand Canyon River Guides
Lindia Liu, Colo. River Board of California
Andy Makinster, AGFD
Barbara McKenzie, USGS/GCMRC
Emily Omana, Grand Canyon Wildlands Council
Jane Rodgers, NPS
Tim Steffen, Federation of Flyfishers
David VanHaverbeke, USFWS

Meeting Recorder: Linda Whetton, USBR

Welcome and Administrative. The Chairman welcomed the TWG members, alternates, and interested persons. Attendance sheets were distributed. He said Dennis Kubly's flight was delayed and he would be arriving until around noon.

Approval of Draft Meeting Minutes. Shane asked for comments on the minutes. Bill Persons said he didn't review them thoroughly but thought some things were lost in the translation and suggested Dennis Kubly review them. Shane said he thought the July 2008 and the March 2009 minutes could be revised and reduced and that a discussion on what the TWG wants in terms of minutes or notes should be held in conjunction with revising the TWG Operating Procedures. They should also meet FACA guidelines. Shane suggested using today's meeting to prepare a more condensed version of the minutes with a review by he and Dennis made before sending them to the TWG.

Action Item Tracking Report: Shane reviewed the action items (**Attachment 1**).

OLD BUSINESS

Norm expressed concern about several reporting requirements that he feels are really program requirements, both for the Annual Report to Congress from the Secretary and the Five Year Review of the Operating Criteria. He feels fairly significant review processes haven't been done and in particular the Annual Report to Congress. Since it's an open report, he feels there should be periodic updates given to the TWG. Norm was concerned with four specific reports: 1) FY09-10 GCPA Annual Plan of Operations for GCD; 2) the FY09-10 GCPA Annual Reports to Congress, including the operations and allocation of costs reports; 3) Five-Year review of the Operating Criteria for GCD; and 4) Monthly Volume Update and specifically how are yearly projections and monthly determinations made. Norm wants these kept on the action item tracking report so Reclamation provides regular updates to the TWG. Shane said he feels Reclamation should provide updates on these reports at each meeting.

Leslie James said a determination should be made on which are program reports and which are not. Shane said the group would refine what is necessary for each meeting. Norm said he wanted to have a discussion about recommendations on monthly volumes as far as the hydrograph and recommendations made to the Secretary for the Annual Operating Plan. Shane opted to hold further discussion until Reclamation (Dennis Kubly) was present.

NEW BUSINESS:

Update on Litigation. This was delayed until Dennis was present.

Arizona Sport Fish Consultation. Glen Knowles said the FWS is in the midst of an inter-service consultation. Their Division of Wildlife and Sport Fish Restoration Program provides Federal aid to the State of Arizona to support its sport fish stocking program. They're in the process of doing a Section 7 consultation on the effects of the issuance of that money to AGFD to support that program and the effects of stocking sport fish throughout the state on listed species. The one-year consultation is almost finished so it would cover all the activities of the AGFD for one year. They're also doing a 10-year consultation so beyond the one-year time frame they're currently dealing with they would also consider the effects of stocking over a 10-year period. They hope to have that consultation completed by the end of this year or early next year. The Division of Wildlife and Sport Fish Consultation is also conducting NEPA on this action. They completed scoping earlier this year but haven't completed the scoping report yet. They will prepare a NEPA document but aren't sure whether it will be an EA or an EIS.

Economics Valuation Study/Economics Workshop. Shane said the idea of this workshop came from the last AMWG meeting. Norm provided a white paper entitled, "Economic Values of National Park System Resources Within the Lower Colorado River Basin: A Compilation of Existing Data and Proposal for Future Work" (**Attachment 2**) and Helen will be responsible for setting up the workshop. Helen said the workshop would be set up in conjunction with the core monitoring review so they'll be looking at later this summer for that review. GCMRC would bring a *strawman* proposal to the TWG for a broader discussion and use the workshop as basis for defining the scope of a project to pursue in the future. She said there might also be the potential to get some outside funding to get an actual study started.

ACTION ITEM: Helen Fairley will keep the TWG apprised of the Economics Valuation Study/Economics Workshop details.

TWG Meeting Materials. Rick Johnson emphasized the need for the meeting materials to be sent out ten days in advance of the meeting in accordance with the TWG Operating Procedures. He also said the OP state "if materials are not provided in advance of the meeting, action on this topic may be delayed at the chairperson's discretion." He expressed frustration in not being adequately prepared for the TWG meetings when the materials aren't available in advance. Shane said all the materials go through Reclamation staff so it's a critical component but unfortunately people were still working on some items for this meeting past a set deadline. Linda said one of the problems they had was getting resolutions from the BAHG via

conference calls. She admitted that Reclamation, GCMRC, and the TWG chair need to complete the agenda well in advance of the meeting and then work to get the reports ready for the TWG to review. Shane said he feels it's hard to make the 10-day commitment but he will continue to push for that. He intends to talk with Tom Ryan, Dennis, and Linda after the meeting on how to make the process work more efficiently. Amy said using a facilitator should be considered in helping the process.

ACTION ITEM: A greater effort will be made to distribute meeting materials to the TWG within the 10-day deadline and no action will be taken on agenda items if the materials aren't delivered on time.

TWG Ad Hoc Group Cleanup (Attachment 3a = AIF). Shane said this item has been on several TWG agendas but never dealt with. He referred to a PPT Kurt Dongoske had prepared toward this effort and also a complete list prepared by Linda with multiple ad hoc groups. Shane proposed disbanding all the ad hoc groups and starting fresh with a new ad hoc group list, their charges, members, and chairs. He said the Budget AHG and the Cultural Resources AHG should be standing ad hoc groups. The HBC AHG would be retained and a new Species of Concern AHG would be developed as well as a Geomorphological Model AHG. He proposed the TWG consider adding a Fish Implementation AHG because he feels that over the next year while GCMRC works to implement the PEP recommendations, the new ad hoc group could work with GCMRC on those recommendations and help bring forward a workplan for FY11 that integrates all the PEP recommendations. He reviewed the charges for the ad hoc groups (**Attachment 3b**).

Concerns:

- *Ad hoc groups need to complete reviews on time-sensitive issues and report back to the TWG by the due date.*
- *Time frames need to be clarified and reports should be given to the TWG at least six months ahead of time.*
- *Ad hoc groups should be kept to a minimum.*
- *Need clear guidance on Cultural Resources AHG as it's been switching with the PA.*
- *Those individuals involved in litigation issues should remove themselves from specific ad hoc groups.*

ACTION ITEM: TWG members interested in chairing the HBC AHG (replacing Glen Knowles) should let Shane or Linda know. Also, any members who wish to be added or removed from the current ad hoc groups should let Shane or Linda know as well.

GCMRC Presentation

Paul Grams gave a PPT presentation on "Sandbar Evolution: Extending the Historical Perspective" (**Attachment 4**). He provided the following conclusions:

- Extending the sandbar monitoring data series back to 1984 would provide valuable perspective on present sandbar condition relative to condition following first and largest of the post-dam floods
- Implementing project requires cooperators assistance to develop methods and train staff
- GCMRC has placed project on deferred list to be implemented when funding is available

Bill Davis expressed concern in that they went through quite a process in the DFC to come up with some idea of how to measure sediment and he sees this as an end-run around that process. There were two proposals submitted to the DFC to come up with a measurement for sediment and this is the Park Service proposal to use 1984 as the reference point for trying to establish a number for sediment sandbar volume in the canyon. He doesn't think it's a legitimate way to go about it and a separate proposal was submitted. He referred to the slide on Jackass Camp which shows that in 1984 they were looking at an artifact of the pre-dam sand volume in the river and when the floods came, those artifacts or residual amounts of sand that were left in the river were then deposited up on the shore. Since that time and because the sand volumes aren't coming down the river, 90% of it now being retained behind the dam, there is a systematic loss of sediment in the canyon. The river is trying to come up to some stable level based on what it can sustain. He feels that using 1984 as the basis by which to establish sandbar levels in the canyon is really incorrect. It's a

DFC question, not a budget question at this point and he doesn't feel they should proceed further until they establish what kind of number they're looking for.

Larry Stevens believes that each of the flow years has effects that are a little questionable and if there is some way in this proposal to get at the question of what happened in 1983 vs. 1984, he felt it would be very important because those were two very different years.

Status Report on Cultural Monitoring and Archaeological Field Site Work. Shane said the intent of this presentation was to get an update on the monitoring program as one component of the whole cultural program. He said the permitting for this work was denied in FY09 and he had requested from Reclamation to get the letter from the Park Service describing the permit denial, but they haven't gotten back to him yet. He also talked with John Hamill about that as well. He said part of the purpose of this is to better understand the program, how to get past the permitting issue, determining if some field work will be done, and finally how to get the program back on track. Helen Fairley distributed copies of her PPT presentation, "Report on Current Status and Phase I Results of the Cultural Monitoring R&D Project" (**Attachment 5a**) and the NPS letter from Martha Hahn dated May 18, 2009, (**Attachment 5b**) not approving the FY07-11 Archeological Site Monitoring Research and Development project. She said the permitting and Section 106 compliance monitoring issues remain unresolved.

Fish PEP Review, Recommendations & Proposed Workplan. Dr. Michael Bradford distributed copies of the "GCMRC Fish Monitoring Program – Protocol Evaluation Panel, A Draft Summary of Recommendations" (**Attachment 6a**) and the "Responses to Monitoring Questions for the PEP" (**Attachment 6b**) and then gave a PPT presentation, "2009 Fish PEP Panel" (**Attachment 6c**). He offered recommendations for Lee's Ferry, LCR HBC, and the mainstem of the Colorado River and concluded with the PEP observations: 1) good coverage of trout and common non-native species with randomized AGFD surveys, 2) currently no monitoring program for other non-native species nor mainstem natives, 3) recent studies indicate trammel nets may be acceptable for mainstem HBC sampling, and 4) there is a need for new non-native and mainstem native fish sampling program.

Mark questioned the statement on page 5, #2.5 which reads, "It was suggested that monitoring of HBC subjects 65-80% of all fish in the population to handling ..." and said he had never heard that statistic before. Dr. Bradford said that in one of Lew Coggins' papers there is a plot of the number of proportion of the stock that is tagged over time which they think has gone down recently. Shane said this is an issue that needs to get resolved through the implementation process to better understand the handling and integrate that with how often tagging is done.

2010-11 AMP Fish Monitoring: Incorporating Protocol Review. Dr. Andersen gave a PPT presentation (**Attachment 6d**). In conclusion, the FY10 analyses would include: 1) fish cooperators (USGS, USFWS, AGFD) reviewing fish capture data, 2) a meeting to review results in January 2010, and 3) have the Science Advisors on the FY11 projects.

Bill Davis said that since Shinumo Creek is now a new site, he asked if all the new translocation sites are now going to become part of the AMP budget. If so, then the group needs to think this through. Matthew said that the Shinumo translocation was supported by the collection of fish in 2008 so there was a single AMP funded project to collect young HBC near the mouth. Some were moved above Chute Falls and some were taken to a hatchery and grown out and then translocated to Shinumo this year. The translocation into Shinumo was not supported by AMP funds.

Bill also expressed concerns about mark recapture estimates with Region 6 as they had some questions about the AMP process. In going back from 2 to 1, he asked if they were in agreement with that as he thought they wanted two mark recapture estimates a year. Matthew said that shortly after he joined GCMRC, Region 6 had asked for a concurrent estimate because they weren't convinced that ASMR was giving consistent results so they did try to deploy a lot of mark recapture efforts both in the LCR and the mainstem at approximately the same time. The results and the review of the ASMR was presented to

Region 6, especially to Tom Czapla, and were very well supported. Bill asked if the PEP panel would need to be consulted to see if they're in agreement with this. Shane added there is a requirement in the biological opinion that part of our ability is to have those population estimates every year so a question for FWS is if the program decides to go to every 2, 3, 4 years, etc., for the ASMR, by doing the annual estimates from the closed population mark recapture trips, would that suffice to meet our requirements for the biological opinion. Shane said this may be resolved when they reconsult. Bill questioned that there are two regions involved. Glen said they would certainly coordinate with Region 6 and won't change anything in the monitoring program unless it's acceptable to Region 6.

Shane asked if there was desire to form an ad hoc group so they would be able to provide comments in January. He said GCMRC will hold its annual reporting meeting and based on results from that, a determination could be made on the need and charge for an ad hoc group. There was little support for an ad hoc at this time.

Summary of 2009 Mechanical Removal Project. Andy Makinster said they've only been back off the river for two weeks so it will take some time to analyze the data and put it in a format presentable to the TWG. He said the electrofishing catch rates were really fairly similar to those seen in 2000 and 2001.

Shane asked how the group could compare what his population estimate was this year to historical population estimates made by Lew Coggins. Matthew said that those are the kind of initial analyses that Andy was talking about doing so that information isn't available yet. However, Andy said the removal numbers were similar to those done in February 2003.

Mark said he was interested in how many humpback chubs were caught, how many were caught more than once, and if Andy thought there were any that might have been injured or killed by the electroshocking. He also wanted to know more information on how the electroshocking equipment is set up, if it is more selective depending on the settings for size of fish, etc., and what they are doing to minimize any negative effect on humpback chubs that may have been caught. Andy said they thought more humpback chubs had been caught on this trip than had previously been seen in previous removal trips.

Shane said he would like to have a more thorough analysis of the results at the next TWG meeting if Andy could answer Mark's concerns and other questions from the members.

FY2010-11 Budget and Workplan Development. (**Attachment 7a** = AIF and GCDAMP Preliminary Biennial Draft Budget for FY2010-11). Shane said that since there wasn't time for questions following Helen's presentation, time would be set aside when the cultural portion of the budget is discussed.

AMWG Recommendation and follow-up. Shane said the AMWG responded to the TWG motion and provided a recommendation back to the TWG. The BAHG followed up with that and responded to each of those issues as did GCMRC (**Attachment 7b**). Shane suggested going through the BAHG report first and discussing the individual items. He said some of the issues are still not resolved and the TWG would need to work through those in order to get to a budget motion. Dennis said the question might be asked whether or not the TWG is willing to restrict their thoughts and discussion to those parts of the budget that the AMWG directed them or are there other elements of the budget and workplan they have questions or issues about. He said that gets to the subset of the budget and workplan elements. Cliff said he felt it would be better to start with the BAHG report and discuss how the BAHG and GCMRC responded to the AMWG questions.

Reclamation Budget. Dennis said Reclamation made only one change from the previous version of the budget which was to remove the funding for mechanical removal based on the AMWG's direction (#2 in their motion) and move it back to line 74. Reclamation removed the \$141,000 from above the line but everything else stayed the same. He said there were a couple of questions on the treatment plan and the monitoring of the tribal resource monitoring that he would try and answer in lieu of Mike Berry's absence.

Shane said that he thought the major change was that Mike had identified \$75K appropriated funds that will be moved into the tribal monitoring line item to allow for some monitoring of cultural sites in FY10-11, but if that funding fell through, he would then take that money out of the \$500K for the treatment plan and fund it that way so there would be less money for excavations and field work.

GCMRC Budget and Proposed Resolutions. John Hamill distributed copies of his PPT, "GCMRC's FY2010-11 Biennial Work Plan for the Glen Canyon Dam Adaptive Management Program (**Attachment 7c**). They assumed CPI at 0% in FY2010 and 3% in FY2011. He said there is about \$1,244,064 in FY09 anticipated carryover funds which will be used in FY2010. They received the funding for the nearshore ecology study (**Attachment 7d**) that will be implemented in FY10. Another big carryover was in the cultural program. Because they were unable to get into the field to perform that work, there is almost \$300K anticipated from that project. They had established a contingency fund to support the systemwide overflight that was done in May and there were some proposals to use those funds both for analysis and additional data acquisition using water penetrating LIDAR, but those didn't come to fruition so that fund is still available for use in FY10. There was also about \$66K projected for carryover from the HFE to go into Synthesis of Knowledge that is associated with the high flow experiments in 1996, 2004, and 2008.

Dennis Kubly said one of the big questions for the BAHG was whether or not the Experimental Flow Fund (EFF) and the non-native contingency fund will be used in advance rather than carried over for future use. He asked if the TWG could consider a deliberation over whether to use the carryover money or the EFF. John said he sees it as all the same money in that there is a budget of \$10.9 million so if money is taken out of carryover and they decide to free up experimental flow funds, something is going to have to drop out. He said the money is all allocated by the FY10 proposed budget. Dennis asked if before he used the EFF whether GCMRC considered using carryover money as opposed to using EFF and contingency fund dollars. John said they looked at the preliminary budget and the recommendations from the AMWG that the experimental non-native fish removal should go back into the GCMRC budget and funded as an experimental project. John made the decision that as an experimental project, like in 2003 when it was previously implemented, that it was reasonable to use experimental funds. He said that if they hadn't used the EFF, they would have had to find another \$258K worth of projects to cut out of their budget.

John said one of the issues raised in the BAHG report was that GCMRC was proposing to use quite a bit of money from the EFF. He distributed copies of a table (**Attachment 7e**) depicting the status of the EFF for FY2008-12. They started out with \$926,500 in FY08 and have pretty much spent all that. He went through the remaining years. There is an understanding that in the years a HFE is done, the channel mapping project which is priced at about \$400K/year would be suspended, so that money could be used to support experimental work.

Q: John, you said USGS is still providing \$1 million of overhead money and I don't see that in the budget. I see \$647K. I don't see the line item in the program funding portion. (Henderson)

A: It is not shown here as a line item because it's captured in the reduced rate showing 21% rather than 36% or 42% overhead. Actually for FY09 the USGS contributed a \$1.3 million rather than just \$1 million. It varies based on the money we receive from power revenues, the more we have to cost share to reduce the burden. (McKenzie)

Q: What is on line 216? (Henderson)

A: I think that is the Lake Powell funding and the nearshore ecology appropriated dollars. (McKenzie)

Q: Do you have carryover on your side that is building up beyond that? (Kubly)

A: We carried over \$66K of EFF from FY09 to FY10 and we're proposing that those funds be used for the HFE synthesis in FY10. Essentially we've depleted the entire EFF by the end of FY09 with the exception of \$66K which was carried over. (Hamill)

Proposed Draft Budget Motion. Shane read a proposed draft budget motion for the TWG to consider when they get through their final budget deliberations tomorrow: **The TWG approves the FY2010-11 Draft Budget, Work Plan, and Hydrograph and recommends it be forwarded to the AMWG for further action.**

BAHG Report. Dennis said he would briefly discuss the BAHG Report (**Attachment 7f**) and then use the remaining time to discuss some of the more controversial issues. Shane said he would like to take the issues as they come up rather than go through the entire budget report.

Concerns:

1. Hydrograph in Figure 1. Matt said it shows 14K-23K fluctuations projected in the summer and he feels that's a pretty substantial significant change over what we've been experiencing for the last four years or so. After some discussion, it was decided that this concern could be pursued in the BAHG report.

2a. Moving the non-native mechanical removal program back under GCMRC. Shane said the group needs to determine if they're going to do one trip or two trips. The workplan currently shows two trips.

2b. Whether to use the funding from Experimental Flow Fund for that. Shane said there isn't a clear definition of what the EFF is to be used for. Mary said she recalls Randy Peterson saying that the EFF started at \$300K a year and then went up to \$500K and it was to fund High Flow Experiments or BHBFs at the time.

Public Comments: None

Final issues discussed:

Pueblo of Zuni on Mechanical Removal. Kurt said the Pueblo of Zuni would prefer to see the mechanical removal project, both trips, not done because of their objection to the taking of life in the location where the removal takes place. They want to see the money reallocated to other more useful programs.

Remaining Funds from 2008 LSSF. Dennis said he had a concern about the \$58K to be spent on redds and early life stages. He said it doesn't follow what the PEP recommended but he understands what Matt says in that it's about the experimental flows. He asked if they learned anything from the 2008 low steady flows that gave an indication of whether that is money well spent.

Preparation for Budget Discussion. Shane said that last time in order to get to a budget recommendation they voted on each individual line item issue. He feels the TWG is going to be back there again. He knows people have different concerns but feels that they will have to walk through each of the issues and then have a hand vote whether to include it in a final recommendation. Once a full list is generated, then the TWG will vote on a final motion. John advised that if the group decides not to fund one project, then they need to tell GCMRC where to use the money.

Adjourned: 5 p.m.

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June 22-23, 2009

Conducting: Shane Capron, Chairperson

June 23, 2009

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Committee Members/Alternates Present:

Mary Barger, WAPA
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Committee Members Absent:

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Jane Rodgers, NPS
Tim Steffen, Federation of Flyfishers
David VanHaverbeke, USFWS

Meeting Recorder: Linda Whetton, USBR

Welcome and Administrative. The Chairman welcomed the TWG members, alternates, and interested persons. Attendance sheets were distributed. Shane said he really enjoys being the TWG chair and appreciates the passion that people have for their resources. On the budget, he thought there were probably only a few things that the group didn't agree on. He said he would like to take over where Dennis left off and let Dennis represent Reclamation and not as the BAHG chair. He said most of the issues have been debated and felt it was time for people to make their concerns known. He said he would like to put the motion on the table with a second and then consider amendments to the motion.

Motion (Proposed by Randy Seaholm and seconded by Bill Werner): The TWG approves the FY2010-11 Draft Budget, Work Plan, and Hydrograph and recommends it be forwarded to the AMWG with the following changes:

Using the BAHG Report, the following items were discussed:

Item #1

Norm said that GCMRC brought 3 options for a HFE plan and that those should be included. Norm said he would like to go with Option 3 because there will still be fall steady flows and developing an HFE and incorporate a BHBF.

Cliff said that somewhere in the budget GCMRC must've put money in the budget and accept #1 and then talk more about it as we get into the budget.

Mark said he had a problem with the hydrograph displayed in the plan. If it turns out to be like that, it will have some negative consequences and another example of a badly designed experiment. He couldn't support the hydrograph as it was shown in the budget plan.

Amendment to Motion (proposed by Norm Henderson, seconded by Steve Mietz): Consider in FY2011 equalized monthly volumes and study the effects, both economically and the effects on resources including hydropower.

Randy spoke against the amendment stating the direction from the AMWG was to proceed in 2010 for MLFF and an experimental off-the-shelf HFE in 2011. He didn't feel this was the right place to hash out the guidance given from the AMWG and identified in the AOP process.

Norm asked if people really understood the concept and Shane wondered if a presentation needs to be made at a future meeting and consider the implications.

John stated that what Norm proposed would require a fairly significant undertaking to look at all the environmental effects and right now GCMRC doesn't have the resources or the time to do it.

Proposed Amendment (by Norm Henderson, seconded by Steve Mietz) In FY2010, consider implementation equalized monthly volumes and study the effects, both economically and the effects on resources including hydropower.

Yes = 5 No = 11 Abstain = 4

Amendment fails.

Item #2

The discussion moved to consideration of the non-native removal efforts in the LCR reach. Shane said the funding currently includes two electrofishing trips. Matt said that after hearing the PEP review yesterday, the only argument against two trips would be the additional handling of the fish. By doing only one trip it would reduce the amount of handling of fish in the spring and fall and reduce the number of electrofishing passes.

Larry said if the trout numbers do rise, that may trigger a removal trip but he felt it would be wise to get the results from the last trip before making a decision. Dennis concurred and said the substantive and technical basis for determining the recommended number of trips needs to be included in the TWG's decision. John reminded the members that if it's not in the budget, the work won't be done. Matthew added that the last time this was discussed with the TWG, they only wanted two trips. Shane reminded the group that there isn't a science plan for a non-native removal project.

Other concerns expressed:

- There is going to be a problem with crossing over into management activity. Need to keep a demarcation between science and management actions. (Garrett)
- Need for a non-native removal plan. (Capron)
- Haven't seen any direct data that there is a correlation between trout removal and positive effects on humpback chub. Changing the location would lessen the effect on cultural properties important to Zuni. (Dongoske)

- The conservation measures are quite broad and I like the current development of having GCMRC come to our next meeting. (Knowles)
- Strongly oppose killing anything in the Grand Canyon. The Zunis and Hopis have sacred concerns and we need to consider those. (Steffen)

Mary asked how much money is available in the budgets for 2010 and 2011 for non-native removals. John said there is around \$300K for non-native fish removal and they would have to cut \$400K from the budget. He advised that if they agreed with Dennis, they would be looking at cutting \$450K from the budget.

Steve Mietz said he feels GCMRC should find the money within their science budget either through cutting specific projects or an across the board cut to fund nonnative mechanical removal in FY2010-11.

Dennis said at the last AMWG meeting there was a total of \$2.3 million in carryover and an underfunding in FY09. In FY09 they had a planned 3% CPI increase, but it ended up at 4.9%. This year they are using a 0% CPI projection for FY 2010. FY 2009 ended up being 1.9% more than what they had anticipated in their budget. He said in this budget there is \$1.22 million of carryover, some of which is dedicated for specific projects. Even with that money, the dollars can't be found to do what they thought was a management action. He suggested offering up \$100K a year out of the EFF for mechanical removal. With regard to the nonnative contingency fund, that fund was set up with what little money they had from carry forward to begin to develop the basis for a warm water nonnative fish control contingency fund. If a warmwater nonnative fish problem occurs in FY2012, there could be approximately \$200K available. Even though it's not enough to address the issue, it would be a good start for the fund. It is prudent planning to set aside money for nonnative control which has been identified as a high priority. There would be no money from the nonnative fish contingency fund used for mechanical removal. He said there are other requests by GCMRC for the SCORE report and the Knowledge Assessment Workshop that are outside the intended use of the EFF. He said the SCORE report could be deferred until FY2012 by GCMRC providing the annual reports on the status of resources instead and using them and the SCORE report for compliance development for what will come after FY2012. The Knowledge Assessment is seen somewhat differently because it really is the foundation for what the group knows or doesn't know about cause and effect between dam operations and resource responses. He would like to see the KA Workshop maintained in the present time frame and he would agree to seek Reclamation funding to supplement what GCMRC has to do to carry that out.

Shane summarized what Dennis had proposed:

- \$100K each year from the EFF for nonnative mechanical removal
- Not allow funding to be removed from the nonnative fish contingency fund
- SCORE report is deferred to FY2012
- Knowledge Assessment Workshop would hopefully be funded by Reclamation's appropriated funds

Dennis said he perceived the carry forward and the underfunding as providing additional dollars for GCMRC. He doesn't think it's asking too much of them to go back and look in that funding for how they would fund the remainder of the mechanical removal. Matt asked how mechanical removal has been funded in the past. Ted said he recalled that in 2002 they were instructed by AMWG to come up with a long-term experimental plan which GCMRC did. It was implemented by the Department in December 2002 for implementation in 2003-2004. They had a total package in the budget which they had to start funding from their accumulated experimental funds which began in 2001 and they started expending in 2003. They didn't implement the high flow experiment of 2004 until technically FY05 so for the first couple of years of the experimental period, they were doing so-called R-tells or trout redd studies in the tailwaters with experimental winter fluctuations (Jan-Mar) and doing mechanical removal six trips a year. In the first two approved years of that plan, they were not doing any high flow tests. They were doing experimental fluctuating flows and experimental mechanical removal of trout and other nonnative fish. In the third year of what became an extended experimental period (2005), they did the 2004 experimental high flow. Those experimental activities, as he recalled, were being paid for out of the EFF as it had been accumulated since

2001. The experimental era by his estimates ended in 2006 and they haven't had an experimental plan since 2006. However, they did do an HFE in 2008 and paid for that again out of the EFF.

Amendment 1: (Proposed by Steve Mietz, seconded by Rick Johnson): GCMRC should find money within their science budget either through cutting specific projects or an across the board cut to fund nonnative mechanical removal in FY2010-11.

Amendment 2: (proposed by Dennis Kubly, seconded by Larry Stevens): 1) Mechanical Removal funding in FY2010-11, \$100K will be provided from the Experimental Flow Fund each year. GCMRC will find in its budget the funds for the remaining requirement in each year (using as guidance the AMWG priorities described in 2004). No funds should be utilized from the Nonnative Fish Contingency Fund (BIO 2. TBD) for nonnative fish removal (line 72, BIO 2.R16.10) in FY10-11. The SCORE report will be completed in 2011 with funding from GCMRC's budget. The Knowledge Assessment Workshop would be conducted in 2011. The funding for that activity will be provided by the Bureau of Reclamation with appropriated funds using as guidance the AMWG priorities described in 2004.

Bill Persons said that since mechanical removal is a conservation measure called for in the Biological Opinion, he suggested Reclamation pay for it. Shane told him that if he's suggesting a change to the amendment, then he needs to make a recommendation to remove funding to not use AMP dollars to fund the nonnative mechanical removal and that Reclamation should find appropriated dollars to fund that work.

John Hamill presented the following table concerning proposed expenditures:

	<u>FY10</u>	<u>FY11</u>	
Power Revenues	68,842	0	
Exp Flow Fund	150,000	309,251	
NN Contingency	96,466	0	
Total	315,308	309,251	
1. Dennis	-146,466	-209,251	→ GCMRC would have to find \$
2. Steve	-246,466	-309,251	→ GCMRC would have to cut \$

John said he still believes there will be sufficient funds in the EFF to conduct a HFE should one be approved under the scenarios they laid out yesterday.

Steve said he wanted to withdraw his amendment but wants the SCORE report completed per GCMRC's schedule in the amendment proposed by Dennis. Dennis accepted the change.

Cliff questioned why the SCORE report was mentioned in the amendment because it has nothing to do with mechanical removal. He also said that fundamentally a SCORE report shouldn't be done before the end of the 5-year experimental period is completed. He suggested finishing the discussion on mechanical removal and talk about the SCORE report and the KA Workshop when they come up in the budget. Dennis accepted those changes.

Bill Persons said he thought GCMRC could use the EFF for 2010 in the short-term but he didn't know what he was trading with so didn't know if he could support the amendment.

REVISED AMENDMENT 2: (Proposed by Dennis Kubly, seconded by Larry Stevens): 1) Mechanical Removal funding in FY2010-11, \$100K will be provided from the Experimental Flow Fund each year. GCMRC will find in its budget the funds for the remaining requirement in each year (using as guidance the AMWG priorities described in 2004). No funds should be utilized from the Nonnative Fish Contingency Fund (BIO 2. TBD) for nonnative removal (line 72, BIO 2.R16.10) in FY2010-11. ~~The SCORE report will be completed in 2011 with funding from GCMRC's budget. The Knowledge Assessment Workshop would be~~

~~conducted in 2011. The funding for that activity will be provided by the Bureau of Reclamation with appropriated funds using as guidance the AMWG priorities described in 2004.~~

Voting Results: Yes = 9 No = 9 Abstain = 1

Motion fails.

ACTION ITEM: Item #3. Linda will send an e-mail requesting volunteers for the Geomorphological Model AHG.

Item #4a – Shane said this was generally done.

Item 4b – Shane said it's been done.

Item 4c – The CRAHG recommended it be restored but there is no funding. Dennis said the BAHG anticipates hearing a report from the CRAHG.

Shane said that the \$70K for the NPS is not in the budget. He said the Park Service provided a spreadsheet (**Attachment 7g**) to the BAHG of what the \$70K paid for but he thought the budget was actually for \$111K+. Steve said the \$111K pointed out that there was a lot more being contributed to the program than just the \$70K. Shane reiterated that the \$70K is not part of the budget and someone would need to make that amendment and if passed, the budget would be over by \$70K. Steve suggested taking the money from the cultural R&D program. Helen said that wasn't the recommendation of the CRAHG. Mary said there was \$36K for the checkdam work so that's the \$111K. Shane said he talked with Jan Balsom and the \$111K didn't include funding for the checkdam work.

Kurt said the CRAHG endorsed funding the \$70K for NPS participation in the core monitoring for development for cultural resources and the \$36,500 in 2010 for the checkdam work. He said if Jan doesn't believe it was part of that, then that was news to him. Shane said Jan's explanation was that they actually put some of their own funds in there and it really costs them \$111K to do all that work but they're only asking for \$70K. The \$36,500 is a separate funding issue and Shane said that is more pass through to the tribes who would be implementing it. Mary said she thought it was \$10K to the tribes and the rest was for NPS work in helping with the checkdam.

Helen said the proposal that the Park is asking for funding is not for its direct participation in the cultural R&D project, it's basically for supporting their compliance program and activities related to Section 106 compliance as they view those to be. In the \$36,500 being requested, \$10K was dedicated for the Zuni's participation with the checkdam work and the \$26,500 was for NPS involvement in that work as well. She said it's not clear with this additional proposal stating they need \$111K and what is being covered there. She said GCMRC was very much in support of having a collaborative relationship in developing the protocols and developing a monitoring program for the future that would be integrated and address the broader needs of this program in compliance issues, GCPA and NHPA. One of her concerns in that proposal is for doing a separate and different type of approach to monitoring that would not be of an integrated nature and using different protocols that they haven't had any involvement in developing so far. She feels people need to have a clear idea of what's being proposed.

Dennis stated there is already \$70K from Utah State University for NPS participation, so this is an additional \$70K. Kurt added that whatever funding USU provides to NPS is a contractual obligation in terms of working in the Park in case there are some burial issues, etc., relevant to implementing the data recovery associated with the treatment plan. He said by putting in the additional \$70K might be more confusing. The treatment plan is for \$500K and should be left as that. This \$70K is important to NPS because they're integrating with GCMRC and perhaps BOR to carry out both Section 110 and Section 106 monitoring of cultural resources in the canyon and how that can integrate with the CRMP that's also looking at monitoring cultural resources. He doesn't want to see a duplication of effort but supports integration between what Helen's program is developing and what the Park is developing under the CRMP.

Amendment (Proposed by Steve Mietz, seconded by Norm Henderson): Include an additional \$70K in the budget for NPS participation. The role of this funding is to address coordination aspects of compliance activities beyond those specific to the actual data recovery, including monitoring and data management integration. ~~The TWG recommends that the funding come from either the Sediment Program or the Quality of Water Program. Steve will provide additional information to the TWG by the end of the week.~~

Voting Results: Yes = 8 No = 3 Abstain = 9

Amendment passed.

Shane asked if anyone wanted to speak to the checkdam issue. Mike Yeatts said that the checkdam project was in the earlier recommendation in the budget. He said the broader issue is when the \$500K got devoted to data recovery, a number of the other aspects of the cultural compliance kind of disappeared, one of which was the checkdam work – trying to stabilize some of the sites so they didn't need to go into data recovery. There were some monitoring issues included in the Park proposal which covered some of that and some of the additional tribal work is picking up some of the monitoring needs that disappeared. He said the checkdam work got identified as needing funding. He said it was \$36,500 for participation with Zuni and to do maintenance with Park staff.

Mary reported that Jonathan Damp had told her the checkdam work needs to be done because sites are being lost. If they're not maintained, then they don't work. The NPS made a proposal and plan that the CRAHG approved. The Zuni has a team that does the checkdam work and has been working with NPS. Kurt said the program was started in the early 1990s and the Zuni has a soil conservation program which they're very effective at retarding erosion on the Zuni reservation and they've been involved with the Park Service.

Amendment (Steve Mietz, Norm Henderson): Include an additional \$36,500 in FY2010-11, in the budget for checkdam maintenance as described in the NPS proposal.

Voting Results: Yes = 6 No = 11 Abstain = 3

Motion fails.

Point of Order. Steve said the TWG needs to have a process so that when the agenda is vetted through the TWG, people are expected to be present. He was moved to later on the agenda and had staff here earlier in the day who could've answered the TWG's questions. He feels the TWG needs to address how the agendas are set for the meetings so the expertise is present and the TWG can make informed decisions. Shane noted it but said there was no one from the Park present at the last BAHG meeting to speak to the issue as well so that was partly why it dropped off.

Item #5 – Shane said a discussion paper on the pros and cons of the two budget proposals was provided to the AMWG in their meeting materials.

Item #6a – The said the general agreement from TWG is that GCMRC is proposing these issues as core monitoring but they haven't been approved yet and this was noted in the meeting minutes. Shane will tell AMWG that these activities have been identified and will be reviewed over the next two years as part of core monitoring.

Item #6b – Shane said there were a number of issues. GCMRC talked about staffing and about providing more time for reporting this year. Shane felt those issues were resolved enough to move forward. Mary said the TWG and AMWG asked for allocation of staff time for projects from GCMRC. Shane said GCMRC was not willing to do that but provided a list of reporting they're going to do this year to deal with the issue. He said some people felt there wasn't enough effort being applied to writing reports versus just doing footwork and research. They've reallocated more time in FY10-11 to do more report writing. John said the only thing new since the BAHG call was a listing of the specific projects that they were providing analysis and reports on.

Item #6c – Norm said he wanted to propose an amendment to incorporate what GCMRC has agreed to do in the workplan and budget. He specifically wanted a line item for the workshop and recognition of any of the products from the workshop that would be incorporated into the budget once the workshop is completed. He offered the following amendment:

Amendment (Norm Henderson, Steve Mietz): GCMRC should identify and describe in the FY2010-11 budget and work plan, the need for and the products expected from, the 2009 economic values workshop. Once developed, the FY2010-11 budget will be updated to incorporate the recommendations and follow-up by the TWG.

Shane said he felt Norm's motion was in conflict to the AMWG's request. Matt said there is capacity in the program to do economic analysis so he questioned why GCMRC would be asked to do that work since they don't do economic analyses. There were concerns about the source of funding and Bill Persons said he didn't like the second sentence because he couldn't adopt findings from a workshop that hasn't been held. The amendment was put to a vote.

Revised Amendment (Norm Henderson, Steve Mietz): GCMRC should identify and describe in the FY2010-11 budget and work plan, the need for and the products expected from, the 2009 economic values workshop. Once developed, the FY2010-11 budget will be updated, subject to availability of funding, to incorporate the workshop recommendations.

Voting Results: Yes = 7 No = 9 Abstain = 4
Amendment failed.

Review of Agenda & Upcoming TWG Items.

1. Shane proposed the next TWG meeting be held at ADWR on (Tue-Wed) Sept. 29-30. He distributed copies of the TWG 1-Year Running Workplan (**Attachment 8**).
2. Shane said he hasn't received any input on the Biennial Process White Paper. Since it has to be presented to the AMWG, he asked for input from the TWG.
3. He said the AMWG is expecting updates on Shinumo from Steve Mietz and recovery activity updates from Glen Knowles. Regarding the HBC Comprehensive Plan, he said Rick Johnson had raised a serious concern that folks hadn't had time to review it. He proposed the review of the HBC Comprehensive Plan to the web conference on July 21. He said the web conference would also focus on non-native control plan and the HBC Comprehensive Plan, however, he said they could also discuss the nearshore ecology study. John Hamill said he would also like to add an initial discussion on the Fall Steady Flow Science Plan.
4. He said he wasn't sure they would get to the GCRMRC updates today and the TWG facilitation (**Attachment 9**) issue is not a big concern right now.

Dennis expressed concern for items currently on the AMWG agenda that were also part of the TWG agenda so he said the AMWG agenda would need to be revised again. Shane said the TWG might want to consider having a conference call to discuss the HBC Comprehensive Plan since that's an item on the AMWG agenda. Randy questioned the appropriateness of discussing the Plan until there is some kind of decision from the judge relative to the GCT lawsuit. He said the TWG would be trying to answer questions that the Service may have to do. Shane said that he sees it as a program document and feels the HBCAHC has done a great job in preparing the document. There are some serious policy issues that AMWG has to consider but from a technical perspective, Shane said he feels it's ready to go to the AMWG. Until the AMWG tells the TWG not to do something that they've asked them to do, he said the TWG should continue their work and forward as appropriate. Randy suggested Shane talk with an Interior solicitor and about the appropriateness of the document. Dennis said that could be done and added that Glen received some advice about his personal participation. He thinks it has to do with the fact that the ad hoc groups are not decision-making bodies, they're recommending bodies. Shane said he would follow up with Dennis and Reclamation. He would also set up a conference call for the TWG to discuss the Plan before it goes to the AMWG.

Continuation of Budget Discussion. Shane said they're up to Item #6d and have the original portion of the motion available but it was amended with #1 based on the 70K for the Park Service. All the other proposals have failed so far. Norm said he felt it would be important to inform the AMWG on those items which failed. Shane said the information would be captured in the meeting minutes but he could also include in his report.

Item #6d. Resolved. This was to provide the explanation for funding for where the nonnative mechanical removal funding went. He said there is a response and doesn't require further discussion.

Item #6e. Resolved. This was a general accounting issue. Shane said that Dennis added in a staff person and should have more ability to track some of the funding issues.

Item 6f: GCMRC should develop an on the shelf HFE science plan for a potential next HFE. John said the response provided was generally the synthesis needs to be done, reporting from the 2008 HFE, and then move to an HFE plan sometime in FY2011 after development of the SCORE report. Shane said he felt that was a little contrary to the 3-tiered proposal that GCMRC made in their presentation. John said the reason for that was because it was a major discussion item for the BAHG. Based on the BAHG's concerns, GCMRC prepared the options that he presented yesterday along with their assessment of those options. John said there are two primary options for them and getting involved in another off the shelf science plan in FY2010 doesn't make sense to them. They don't have the results of the 2008 test or the synthesis to rely on the development of that plan. The other two options focused on waiting until all the synthesis is completed in FY2010 and then develop a plan based on that. He said the major disadvantage is that if there is a major sediment input, they wouldn't be in a position to take advantage. The next option (3) was to develop a much-reduced in-scope science plan that would basically replicate what they did in 2008 with some minor adjustments and then rely on their existing monitoring programs to assess the effects.

Norm felt the group should vote on the options. John said the options presented yesterday represented their most current thinking about what the choices the TWG has. They don't favor Option 1 (single off-the-shelf plan for a single HFE. They can live with either Option 2 (wait until FY2011) or Option 3 (develop a reduce in-scope science plan). John said his thoughts were summarized in his PPT slides. Shane said GCMRC is looking for guidance on which approach to take. As such, he sees an amendment needed to the budget. Mary said she was in favor of Option 2. Don Ostler said he doesn't believe the BO allows a HFE until the synthesis work is done so he doesn't think there is the option of doing Option 3 unless they want to be inconsistent with the BO. Shane said that BO allows for certain activities to occur and so if another HFE was desired, more compliance would be needed (EA or EIS), NEPA compliance, and reconsultation under Section 7 because it wasn't included in the authorized activities.

Amendment (Proposed by Matt Kaplinski, seconded by Rick Johnson): GCMRC should develop an HFE science plan based on GCMRC's Option 3 as presented to TWG in FY2010.

Voting Results: Yes = 7 No = 9 Abstain = 3

Dennis (abstaining): There is a missing component of the downstream trout immigration question. I expect the FWS would probably ask us to address that and if so that's going to increase the costs. We've never specifically addressed that. And if the HFE is going to result in the distribution of those downstream, then it's certainly going to have to be addressed.

Item #6f Proposed Amendment (Proposed by Mary Barger, seconded by Kerry Christensen): GCMRC should develop an HFE science plan in FY 2011 based on GCMRC's Option 2 as presented to the TWG.

Voting Results: Yes = 10 No = 3 Abstain = 6

Amendment passed.

Item 6g. Shane said this focused on the historical expenditures issue in the workplan and asked if people felt it had been resolved adequately. John said they tried to get the information done for this meeting but are

still working on it. They plan to present to the AMWG. John said going back and summarizing very precisely what was expended in previous years by project is not a simple task. There was never an end of year report issued for FY07 so that's not part of their records and that goes back that AMWG didn't have a meeting that year. John said they could provide a simple summary which would show the progression of expenses. Shane asked if that satisfied the group. John said it would be included in the AMWG mailout.

Item 6h. Shane said this was the implementation of the warm water nonnative control plan efforts in FY2011 and there is no money in the budget for field work. John said there is \$300K that's going into mainstem removal right now and there is always the option of re-prioritizing how that money is used. He said that money could be moved into warm water nonnative control. There is also money going into the nonnative contingency fund in FY2011 that isn't accounted for in GCMRC's budget which is dependent on carryover.

Matthew said there is money in the budget for 2010-11 to have the annual nonnative control plan meeting and TWG members to discuss data from the previous year. He said there is also money in the budget to pursue the PEP assessment and also the mainstem monitoring to determine whether there are any problem species. Dennis said that if the funds are not available and there is a warm water eruption, he assumed they would be going back to the FWS for not being in compliance. Dennis said it will be difficult for him to vote for the budget because there are no dollars in the FY10-11 budget that Reclamation would be able to use to fulfill its conservation measures obligations. He clarified that GCMRC is taking the same position in that this is a management action and don't intend to spend Reclamation's power revenues for nonnative control but rather set aside science dollars for monitoring. He said that leaves the program and Reclamation and FWS with a dilemma because funds are not available for that compliance activity should it be needed. He said that's what is in the BAHG response. John said this was a continuing problem with always coming to the science program to solve the compliance requirements because eventually there won't be a science program. He feels funding should be sought from other sources especially for warm water nonnative fish control. Dennis replied that the problem with not being in compliance with the ESA far surpasses GCMRC's budget problem.

Item 6i. Shane said this focused on natal origins of trout in the LCR Reach. He said there is a commitment for a published peer review manuscript in the next couple of years. He asked if there were additional comments. Matthew said there are projects being carried out in FY10-11 that will contribute to the data presented last fall and they've had additional conversations with Carl Walters on how to structure the data so they could be crafted into a manuscript.

Proposed Amendment (Proposed by Dennis Kubly, seconded by): GCMRC should use the funding (\$58K) currently used for Lees Ferry redd counts trout early life stage work (BIO 4.M2.10-11), and address the natal origin question.

Bill Davis questioned if the PEP made the recommendation. Matthew said the PEP did not favor the early life stage work as an element of core monitoring. The reason he has maintained a scaled down version in the budget is largely to address the experimental flows. They have seen results from Korman where he was able to show a pretty direct correlation to RBT growth to experimental flows so Matthew felt it was one of the best tools to use if they are going to quantify fish response to the FSF. Bill said it's difficult to pick up the movement and said they would probably have to use another method to measure in order to answer the natal origin question.

Bill Persons said that AGFD has tried tagging large numbers of fish, small fish when they were stocking. From about 1995-1998 all those fish received coded wire tags. They've looked at how much they would have to tag (small trout) in the Lees Ferry Reach so that they would have a chance of detecting those fish if they moved downstream. He said there aren't enough days in the year with the number of shocking boats they have available to tag that many fish. He suggested doing something other than tagging small fish because it would not be economical to do that.

Dennis said he is not addressing a natal origin question but rather he is asking what conditions in Lees Ferry promote emigration from the reach to downstream reaches. They should not tag only small fish but all size classes because if they didn't, they wouldn't know which size classes were emigrating from the Lees Ferry reach.

Bill Davis expressed concern about not identifying the funding source.

Amendment 6i (Proposed by Dennis Kubly, seconded by Norm Henderson): GCMRC should use the funding currently used for Lees Ferry redd counts and trout early life stage work (BIO 4.M2.10-11), and address the hypothesis that the primary source of trout in Grand Canyon is the Lees Ferry Reach.

Voting Results: Yes = 7 No = 9 Abstain = 4

Motion failed.

REVISED Amendment 6i (Norm Henderson, Bill Davis): GCMRC should include as a work element the investigation of the hypothesis that the primary source of trout in Grand Canyon is the Lees Ferry Reach in FY2010-11.

Voting Results: Yes = 13 No = 0 Abstain = 5

Motion passed.

Item 6j. Budget General Issues. Shane said the other issues were taken care of but the "burden" rate was not. He said GCMRC doesn't see the utility in disclosing the full burden rate. Clayton said the reason this issue was brought up was because some years ago the USGS provided \$1 million to the program and had quite a bit to say about providing that to the program. However, it became known that the USGS wasn't providing \$1 million to the program because it was being eaten up in the burden rate. It became an issue in FY07 and he asked at that time that GCMRC identify the dollars used both at GCMRC as indirect costs and USGS. He would like to see GCMRC provide the information to the AMP.

John said USGS uses the \$1 million with two burden rates, one is for a preferred customer rate (DOI customers) and they offer that rate by taking USGS appropriated funds and buy down their burden rate. Normally it would be around 40% and with the preferred customer rate, it's 20% but they need USGS appropriated dollars in order to offer that. Clayton said WAPA charges overhead for non-reimbursable projects, then they charge the direct costs (if labor involved) and indirect costs and show them how much is charged for each project. He said the reason they do that is so their customers can see what the total cost is for a project and can choose whether or not they want the project.

Amendment 6j (Proposed by Clayton Palmer, seconded by Randy Seaholm): GCMRC should disclose the total "burden" rate for each line item.

Voting Results: Yes = 10 No = 6 Abstain = 2

Motion passed.

Motion (Proposed by Mary Barger, Cliff Barrett): The SCORE report should not be carried out in FY2010-11.

Voting Results: Yes = 5 No = 6 Abstain = 5

Motion failed.

Discussion on the Knowledge Assessment was rescinded by Rick Johnson.

Motion (Proposed by Steve Mietz, seconded by Rick Johnson): Deferred DASA project (12.D9.10-11) be included in the FY2010-11 budget.

Voting Results: Yes = 6 No = 6 Abstain = 5

Motion failed.

MOTION (Proposed by Randy Seaholm, seconded by Bill Werner: The Technical Work Group approves the FY2010-11 Draft Budget, workplan, and hydrograph and recommends it be forwarded to the AMWG for further action with the following changes:

- 1) Include an additional \$70,000 in the budget for NPS participation. The role of this funding is to address coordination aspects of compliance activities beyond those specific to the actual data recovery, including monitoring and data management integration.
- 2) GCMRC should develop an HFE science plan in FY2011 based on GCMRC's Option 2, as presented to the TWG.
- 3) GCMRC should include as a work element the investigation of the hypothesis that the primary source of trout in Grand Canyon is the Lees Ferry Reach in FY2010-11.
- 4) GCMRC should disclose the total "burden" rate for each line item in the budget.

Representative	Stakeholder Entity	Vote	Representative	Stakeholder Entity	Vote
Bill Persons Andy Makinster	Arizona Game & Fish Dept.	Y	Rick Johnson	Grand Canyon Trust	N
Amy Heuslein	Bureau of Indian Affairs	A	Larry Stevens	Gr. Canyons Wildlands Council	Y
Dennis Kubly	Bureau of Reclamation	A	Mark Steffen	Federation of Fly Fishers	N
Mike Yeatts	Hopi Tribe	A	Matt Kaplinski	Grand Canyon River Guides	N
Kerry Christensen	Hualapai Tribe	Y	Bill Werner	State of Arizona	Y
Steve Mietz	NPS-GRCA	N	Christopher Harris	State of California	Y
Norm Henderson	NPS-GLNRA	N	Randy Seaholm	State of Colorado	Y
Steven Begay	Navajo Nation	Vacant	Jason Thiriot	State of Nevada	Absent
Jonathan Damp	Pueblo of Zuni	Vacant	Jay Groseclose	State of New Mexico	Absent
VACANT	San Juan Southern Paiute	Vacant	Robert King	State of Utah	Absent
Charley Bullets	Southern Paiute Consortium	Absent	Don Ostler	State of Wyoming	Y
Glen Knowles	U.S. Fish & Wildlife Service	A	Bill Davis	CREDA	Y
Mary Barger	Western Area Power Admin.	Y	Cliff Barrett	UAMPS	Y
			Total Yes		10
			Total No		5
			Total Abstain		4
			Total Voting		15
			Motion Passes		

Public Comments: None

Steve Mietz said he would make the Shinumo Translocation presentation following the meeting.

Adjourned: 3 p.m.

Glen Canyon Dam Technical Work Group Conference Call
July 1, 2009

Conducting: Shane Capron, Chairperson

Committee Members/Alternates Present:

- Cliff Barrett, UAMPS
- Kerry Christensen, Hualapai Tribe
- William Davis, CREDA
- Amy Heuslein, BIA
- Rick Johnson, Grand Canyon Trust
- Matt Kaplinski, GCRG (alternate)
- Glen Knowles, USFWS
- Steve Mietz, NPS/GRNP
- Don Ostler, UCRC
- Clayton Palmer, WAPA (alternate)
- Bill Persons, AGFD
- Mark Steffen, Federation of Fly Fishers
- Larry Stevens, GCRG
- Jason Thiriot, Colo. River Comm./NV
- Bill Werner, ADWR
- Michael Yeatts, the Hopi Tribe

Other Participants:

Helen Fairley, USGS/GCMRC
Dave Garrett, Science Advisors
Leslie James, CREDA

Tom Ryan, USBR
Sam Spiller, USFWS
Ted Melis, USGS/GCMRC

Shane said there were two issues up for discussion today: 1) the HBC Comprehensive Plan, and 2) Biennial Budget Discussion Paper. He thought it would be good to talk about the Comprehensive Plan for an hour and then spend 30 minutes on the biennial budget paper. He thanked the HBC AHG and especially Glen Knowles for all their hard work on the plan. He feels it's ready to be moved up to the AMWG. He didn't have a lot of comment about the Plan to get into too much detail. He read the motion passed by the AMWG at their March 2005 meeting:

The AMWG directs the TWG to further develop the humpback chub comprehensive plan, as follows:

1. **Describe linkages, sequences, and feedback loops among projects**
2. **Identify priorities and a timeline for completion of each action within the comprehensive plan.**
3. **Spell out specific steps and criteria for any actions that would be needed if a crisis occurs (e.g., severe population decline).**
4. **Continue to include active participation by GCMRC staff and any additional expertise.**
5. **Incorporate comments from the Science Advisors. The TWG will include a response to comments document in their final draft.**

He asked Dave Garrett to talk about the Science Advisor comments and their responses and whether the TWG has been responsive to the AMWG motion.

Shane drafted the following motion for the TWG's consideration today: **The TWG accepts the HBC Comprehensive Plan and forwards it to AMWG for review, comment, and consideration for transmission to its Implementation Plan Ad Hoc Group.**

Humpback Chub Comprehensive Plan (**Attachment 10a**). Dr. Garrett thanked Glen and the HBCAHG for their work. The SAs saw the plan again in 2007 and had made some comments about tightening things up. The document going is only the 2007 document. They felt there were significant improvements but they needed some clarity and direction in Goal 2 in separating that from recovery direction. There was a lot of talk in those dates and the recovery group got formed. He wasn't sure where those separations occurred and felt those were important. The SAs also felt there was more science needed on refugia and rearing. He said the SAs have seen tremendous improvement and feel it is ready to be moved forward to the AMWG.

Steve asked if the SAs tried to integrate the PEP recommendations. Shane said the recommendations could be found in Section 4.3 and that the recommendations would be integrated over the next couple of years. He said one recommendation is that the TWG add language that acknowledges the PEP review. Shane said he would make that change.

Dave said they didn't do a formal review of PEP recommendations and asked if Steve had a specific concern. Steve asked if the SAs had any substantive comments. Shane said the plan doesn't get very deep into the monitoring program. He felt it would be worth having the SAs do a two-phase approach which would be to look at the final PEP and have their comments and when there is a recommendation before the TWG, then have the SAs review and let the TWG know of their deliberations.

Steve said the PEP was going to mention focusing on the other aggregations and he felt it should be included. Shane suggested adding the wording in Section 4.3.

Shane said there were two sentences that he felt troubled about and knows people are concerned to move the plan forward because of the litigation and USFWS not being able to comment. Section 5.0 (page 34) there is a sentence that reads, "this current iteration ... are necessary to conserve HBC in the lower Colorado River basin .." He wants to change that to read, "the ad hoc believes the ... may contribute to the conservation of HBC." He asked how people felt about that. Bill Werner said that "necessary to conserve" may not mean that you conserve. Shane said a recovery plan can't be done and there are specific requirements for that. He felt it was necessary to use "conserve" language. It's language that agencies would use in a recovery plan and gets back to Bill's comment in that the TWG doesn't know what will be done and by softening the language, it makes it a little less strong.

Glen said Shane made an excellent point and concurred with his change. He added there is a great deal of learning that needs to be done in finding the best possible strategy. To say that all of these need to be implemented is correct. Dam operations is one of the projects and they don't have a prescription for doing that.

Shane said he had another concern on page 60, appendix b, second paragraph, which reads "... and like previous versions to ensure recovery of HBC." Those are terms that make him uncomfortable because of the litigation and language such as "which are likely to contribute to the recovery of HBC."

Shane asked if there was consensus in moving the document forward. Matt questioned the wording on page 33, section 4.1, the expanding range ... #3 on using dam releases to improve habitat, it appears in other parts of the document but doesn't recognize changes in releases affect habitat for the fish. This came up during the hydrograph discussion for 2010. Shane said he thought that was captured in Table 1 and that the details can be found on page 63 on how dam operations could be used to mitigate damages.

Matt suggested a table of contents be added and the background information section could include some breakdown sections. Shane said he felt good about incorporating a table of contents but felt uncomfortable with putting in subheadings. Bill also suggested doing a doublecheck with the references cited. Shane said if he knew of specific ones to let him know.

Jason said that on page 6 the last sentence of the first real paragraph, the biological opinion be remanded by 2008. He thought it should be 2009. Shane concurred.

GCMRC distributed copies of:

- 1) Open File Report 2009-1075, "Abundance Trends and Status of the Little Colorado River Population of Humpback Chub: An Update Considering Data from 1989-2008" (**Attachment 10b**).
- 2) Fact Sheet 2009-3035, "Status and Trends of the Grand Canyon Population of Humpback Chub" (**Attachment 10c**).

3) Fact Sheet 2009-3033, "Status and Trends of Resources Below Glen Canyon Dam Update"
 (**Attachment 10d**).

Motion (Proposed by Larry Stevens, seconded by Bill Werner): **In response to AMWG's March 2-3, 2005 motion, the TWG forwards to AMWG the following documents: (a) Comprehensive Plan for the Management and Conservation of Humpback Chub (*Gila cypha*) in the Lower Colorado Basin, (b) Science Advisor comments, and (c) responses to the comments by the Humpback Chub Ad Hoc Group. TWG has reviewed the plan and finds that it is scientifically and technically credible and recommends that AMWG review the plan and forward it to the Implementation Plan Ad Hoc.**

Representative	Stakeholder Entity	Vote	Representative	Stakeholder Entity	Vote
Bill Persons	Arizona Game & Fish Dept.	Y	Rick Johnson	Grand Canyon Trust	A
Andy Makinster			Larry Stevens	Gr. Canyons Wildlands Council	Y
Amy Heuslein	Bureau of Indian Affairs	Y	Mark Steffen	Federation of Fly Fishers	N
Dennis Kubly	Bureau of Reclamation	Absent	Matt Kaplinski	Grand Canyon River Guides	Y
Mike Yeatts	Hopi Tribe	Y	Bill Werner	State of Arizona	Y
Kerry Christensen	Hualapai Tribe	Y	Christopher Harris	State of California	Y
Steve Mietz	NPS-GRCA	A	Randy Seaholm	State of Colorado	Absent
Norm Henderson	NPS-GLNRA	Absent	Jason Thiriot	State of Nevada	Y
Steven Begay	Navajo Nation	Vacant	Jay Groseclose	State of New Mexico	Y
Jonathan Damp	Pueblo of Zuni	Vacant	Robert King	State of Utah	Absent
VACANT	San Juan Southern Paiute	Vacant	Don Ostler	State of Wyoming	Y
Charley Bulletts	Southern Paiute Consortium	Absent	Bill Davis	CREDA	Y
Glen Knowles	U.S. Fish & Wildlife Service	A	Cliff Barrett	UAMPS	Y
Mary Barger	Western Area Power Admin.	Y			
				Total Yes	14
				Total No	1
				Total Abstain	3
				Total Voting	15
				Motion Passes	

Biennial Budget Discussion Paper. Shane said the paper (**Attachment 11**) was prepared following discussions on a 2-year budget and then the second year would roll out into the following first year. He said the AMWG minutes relate to the discussion. The Strategic Plan needs to be updated. The last attachment is trying to outline what the other options would be for a biennial budget process. There isn't a whole lot to write on this. He said his perspective is that a 2-year rolling budget is going to put a lot of stress on the TWG and AMWG process. In the upper basin it works okay but he's concerned about locking into a 2-year rolling process. He feels the only way out of that is to not do a 2-year rolling budget but take one year off where they don't discuss budget and use that year to work on multiple issues.

Ted Melis said GCMRC supported the BAHG process conception in 1997 and this idea of a 2-year budget was potentially that it could provide more efficiency, but the bigger objective was to have an approved plan that might have some budget elements in the out-years and that it was the will of some stakeholders (non-federal) to do things that is done by the MSCP and go forward with an improved plan. GCMRC's opinion was that it was a sound strategy in the plan and that it would be an approved, recommended plan and people could go out for more funding. On a one-year plan they couldn't do funding for projects. He said GCMRC would promote a 2-year budget that hearkened back to that original plan. Ted said that even though John supports a 2-year non-rolling budget process, they want something that reduces staff time. If this new budget process requires more budget time, then they're not supportive of that.

Tom said Dennis would be providing additional information on the budget process to Shane and also information about getting appropriations, but he wasn't sure how that would get shared with the TWG. Shane said Dennis did talk about it and recalled that Dennis might make a presentation to the AMWG about this and describe what isn't included in this.

Motion (Proposed by Bill Werner, seconded by Cliff Barrett): **In response to AMWG's April 29-30, 2009 motion, the TWG forwards to the AMWG a discussion paper on the pros and cons of two biennial budget processes.**

Motion passed by consensus.

Adjourned: 10:45 AM

Respectfully submitted,

Linda Whetton
U.S. Bureau of Reclamation
Upper Colorado Region

Documents distributed after the meeting:

Attachment 12: Appendix E = FY 10 GCMRC GCDAMP Budget revised June 18, 2009;
FY 11 GCMRC GCDAMP Budget revised June 18, 2009; and
FY 09, 10, 11 GCMRC Summary

Attachment 13: Letter from Governor Norman J. Cooyate (Pueblo of Zuni) to Larry Walkoviak, Regional Director,
Dated June 30, 2009, Subject: Mainstem Nonnative Fish Control (BIO 2.R16.10) for FY 2010 & 2011

General Key to Adaptive Management Program Acronyms

ADWR – Arizona Dept. of Water Resources	KA – Knowledge Assessment (workshop)
AF – Acre Feet	KAS – Kanab ambersnail (endangered native snail)
AGFD – Arizona Game and Fish Department	LCR – Little Colorado River
AGU – American Geophysical Union	LRRMCP – Lower Colorado River Multi-Species Conservation Program
AIF – Agenda Information Form	LTEP – Long Term Experimental Plan
AMP – Adaptive Management Program	MAF – Million Acre Feet
AMWG – Adaptive Management Work Group	MA – Management Action
AOP – Annual Operating Plan	MATA – Multi-Attribute Trade-Off Analysis
BA – Biological Assessment	MLFF – Modified Low Fluctuating Flow
BAHG – Budget Ad Hoc Group	MO – Management Objective
BCOM – Biological Conservation Measure	MRP – Monitoring and Research Plan
BE – Biological Evaluation	NAAO – Native American Affairs Office
BHBF – Beach/Habitat-Building Flow	NAU – Northern Arizona University (Flagstaff, AZ)
BHMF – Beach/Habitat Maintenance Flow	NEPA – National Environmental Policy Act
BHTF – Beach/Habitat Test Flow	NGS – National Geodetic Survey
BIA – Bureau of Indian Affairs	NHPA – National Historic Preservation Act
BO – Biological Opinion	NPS – National Park Service
BOR – Bureau of Reclamation	NRC – National Research Council
CAPA – Central Arizona Project Association	NWS – National Weather Service
GCT – Grand Canyon Trust	O&M – Operations & Maintenance (USBR funding)
CESU – Cooperative Ecosystems Studies Unit	PA – Programmatic Agreement
cfs – cubic feet per second	PEP – Protocol Evaluation Panel
CMINs – Core Monitoring Information Needs	POAHG – Public Outreach Ad Hoc Group
CRBC – Colorado River Board of California	Powerplant Capacity = 31,000 cfs
CRAHG - Cultural Resources Ad Hoc Group	PPT – PowerPoint (presentation)
CRCN – Colorado River Commission of Nevada	R&D – Research and Development
CRE – Colorado River Ecosystem	Reclamation – United States Bureau of Reclamation
CREDA – Colorado River Energy Distributors Assn.	RBT – Rainbow Trout
CRSP – Colorado River Storage Project	RFP – Request For Proposals
DASA - Data Acquisition, Storage and Analysis	RINs – Research Information Needs
DBCB – Colorado Water Conservation Board	ROD Flows – Record of Decision Flows
DBMS – Data Base Management System	RPA – Reasonable and Prudent Alternative
DFCAHG – Desired Future Conditions Ad Hoc Group	SA – Science Advisors
DOE – Department of Energy	Secretary – Secretary of the Interior
DOI – Department of the Interior	SCORE – State of the Colorado River Ecosystem
EA – Environmental Assessment	SHPO – State Historic Preservation Office(r)
EIS – Environmental Impact Statement	SOW – Scope of Work
ESA – Endangered Species Act	SPAHG – Strategic Plan Ad Hoc Group
FACA – Federal Advisory Committee Act	SPG– Science Planning Group
FEIS – Final Environmental Impact Statement	SSQs – Strategic Science Questions
FRN – Federal Register Notice	SWCA – Steven W. Carothers Associates
FWS – United States Fish & Wildlife Service	TCD – Temperature Control Device
FY – Fiscal Year (October 1 – September 30)	TCP – Traditional Cultural Property
GCD – Glen Canyon Dam	TES – Threatened and Endangered Species
GCT – Grand Canyon Trust	TWG – Technical Work Group
GCMRC – Grand Canyon Monitoring & Research Ctr.	UCRC – Upper Colorado River Commission
GCNP – Grand Canyon National Park	UDWR – Utah Division of Water Resources
GCNRA – Glen Canyon National Recreation Area	USBR – United States Bureau of Reclamation
GCPA – Grand Canyon Protection Act	USFWS – United States Fish & Wildlife Service
GLCA – Glen Canyon National Recreation Area	USGS – United States Geological Survey
GRCA – Grand Canyon National Park	WAPA – Western Area Power Administration
GCRG – Grand Canyon River Guides	WY – Water Year (a calendar year)
GCWC – Grand Canyon Wildlands Council	
GUI – Graphical User Interface	
HBC – Humpback Chub (endangered native fish)	
HMF – Habitat Maintenance Flow	
HPP – Historic Preservation Plan	
IEDA – Irrigation & Electrical Districts Assoc. of Arizona	
INs – Information Needs	
IT – Information Technology	

Q/A/C/R = Question/Answer/Comment/Response