

Glen Canyon Dam Technical Work Group Meeting

June 29-30, 2010

Conducting: Shane Capron, Chairperson

Date: June 29, 2010

Convened: 9:30 a.m.

Committee Members/Alternates Present:

Mary Barger, WAPA

Cliff Barrett, UAMPS

*Perri Benemelis, ADWR

Charley Bullets, So. Paiute Consortium

Kerry Christensen, Hualapai Tribe

Jerry Lee Cox, Grand Canyon River Guides

Marianne Crawford, USBR (alternate)

William Davis, CREDA

Kurt Dongoske, Pueblo of Zuni

*Paul Harms, NM Interstate Stream Commission

Norm Henderson, NPS/GCNRA

Amy Heuslein, BIA

Rick Johnson, Grand Canyon Trust

John Jordan, Federation of Fly Fishers

Ted Kowalski, CWCB (alternate)

Andy Makinster, AGFD

Don Ostler, UCRC (alternate for NM and WY)

Sam Spiller, USFWS (alternate)

Larry Stevens, Grand Canyon Wildlands Council

Jason Thiriout, Colo. River Comm./NV

Curtis Yazzie, Navajo Nation (alternate)

Michael Yeatts, the Hopi Tribe

* Not officially appointed by Secretary's Designee

Committee Members Absent:

Christopher Harris, Colorado River Board/CA

Robert King, UDWR

Dennis Kubly, USBR

Steve Mietz, NPS/GRCA

John Shields, Wyoming State Engineer's Office

Bill Stewart, AGFD

Interested Persons:

Debra Bills, USFWS

Helen Fairley, USGS/GCMRC

Dave Garrett, Science Advisors

Paul Grams, USGS/GCMRC

John Hamill, USGS/GCMRC

Leslie James, CREDA

Sam Jansen, Grand Canyon River Guides

Glen Knowles, USBR

Barbara McKenzie, USGS/GCMRC

Clayton Palmer, WAPA

Meeting Recorder: Linda Whetton

Administrative. Shane said the hydrograph discussion would not be part of this meeting's discussion as Deanna Archuleta has requested the TWG hold a July meeting or conference call for the purpose of discussing it then.

Approval of the March 15-16, 2010 Meeting Minutes. Approval postponed until next meeting.

Approval of Other Meeting Minutes. The minutes from the June 14th BAHG/TWG combined conference call (**Attachment 1a**), the June 21 TWG webinar/conference call (**Attachment 1b**), and the conference call to be held on June 27 (**Attachment 1c**) will be considered for approval as part of this set of minutes at the next TWG meeting.

Review of Action Items. The action items were reviewed (**Attachment 2**). The following action item was discussed in more detail:

2010:03-15-16(5): Shane said the Fall Steady Flow AHG will be working on this and will address concerns at the July meeting/conference call. If the group can't make good progress, then the TWG will need to decide how to improve the Plan. Shane said the regime for doing fall steady flows runs out after 2012. John said they're 3 years into a 5-year study without an approved plan. Matthew said the existing plan will incorporate ongoing studies as well. Shane asked Glen for an update on the group. Glen said a conference call was held on Monday (July 28) and they briefly discussed what they intend to do. He said GCMRC was given a suite of flows by DOI and tasked with developing a flow plan for 10 months of

MLFF and 2 months of steady flows. In doing that, it was a little backwards in terms of the science because GCMRC basically had to create a plan around flows that were already determined. As such, they utilized ongoing studies and the additional nearshore ecology study. A concern raised was that there isn't good integration in terms of the analysis that's in the plan for looking at how those studies are going to assess the effects of steady flows. Since the full membership of the ad hoc group wasn't present on the call, Shane recommended the group reconvene again in order to make sufficient progress to have a completed draft of the plan that can be approved at the July meeting. Glen said the ad hoc group will meet again and Glen will provide an update at the next TWG meeting.

New Business:

Kurt said he had three issues he wanted to discuss:

1) Since Mike Berry recently retired, Kurt Dongoske asked how Reclamation would meet its compliance without a regional archeologist. He cautioned that not having an archeologist on staff does not negate Reclamation's legal responsibility with the Programmatic Agreement and keeping the stipulations moving forward with compliance. He would like Reclamation to report back to the TWG at its next meeting on how they intend to maintain compliance with the PA. Glen said they are looking into having a person detailed into his position and certainly recognize the need to keep the tribal contracts intact.

2) Kurt also expressed concern that since Mike Berry was the contracting officer for technical review (COTR) for tribal participation funding, for tribal monitoring funding, and other tribal funded projects, with Mike gone there is no one in Reclamation to track the tribal participation support and funding. A similar issue is that without someone at Reclamation assigned to oversee the tribal contracts, tribal participation could be threatened. He would like to hear from Reclamation at the next TWG or AMWG meeting on how they intend to deal with Mike Berry's absence and how the tribal contracts will be managed.

3) Speaking for himself and not from his role as the Pueblo of Zuni TWG representative, Kurt said he has almost 19 years of personal experience with the AMP. In that time that he has been very optimistic and felt the program was a good way to manage important resources. However, now he feels very pessimistic and discouraged. He expressed confusion and frustration particularly with a letter the Pueblo Zuni received from the Bureau of Reclamation (**Attachment 3**) about a new project associated with nearshore ecology (collecting HBC otoliths to determine where they are spending time when they are aging). He said the letter was not received very well by the Governor. Kurt said consultation should be a progressive dialog with the tribes and the Federal Government. The proposed study doesn't address the aquatic value and ignores the value of what is held sacred by Zuni. He said the letter was completely insensitive to Zuni concerns and feels the AMP no longer cares about tribal concerns. He also said that when letters are received from Anne Castle with grammatical errors, they send a message that the Department doesn't really care. He feels consultation with the Department has been abysmal and questioned when the Department is going to take consultation with the tribes more seriously. He said it was going to be very difficult for him to explain the letter to the tribal council.

Glen Knowles said the letter Kurt referred to was considered one part of tribal consultation and that the project mentioned was part of a discussion between Reclamation and the Zuni Tribal elders on June 3. Kurt told him that Reclamation needs to take information received from previous meetings with the tribes and/or in letters more seriously so the tribes know they are being heard and can be negotiated with. Glen said Reclamation is trying to schedule a meeting with Zuni and a meeting with the Zuni Cultural Resources Advisory Team to further tribal consultation on these matters. Kurt said the Zuni religious leaders are very concerned about electrofishing on other aquatic life and that Reclamation can't compartmentalize the issues because it's one issue. Glen said the letter was one way of informing the tribe and told Kurt he would talk to Reclamation management about the Zuni's concerns and that it will be a topic of discussion at future meetings. Sam Spiller said he attended the June 3rd meeting and thought there may be some disconnect in what was the final outcome. He advised checking the notes Nancy Coulam took at the meeting. Sam said that FWS feels the project has scientific value but

recommended that analysis not be done until consultation is in place. Kurt said the Governor asked that if 200 HBC can be killed, could 200 be reared in ponds. Helen Fairley said she didn't hear a definitive response from anyone at the meeting and thought it was just being proposed to the Pueblo of Zuni. Kurt said that was his understanding as well. He said the letter didn't acknowledge the previous meeting between Larry Walkoviak and the Zuni Tribal Council which shows a lack of respect and there isn't effective communication taking place.

Mary Barger said that Mike Berry sent out a letter with a Memorandum of Agreement for review by the PA signatories. With Mike Berry's retirement, the Programmatic Agreement is technically out of compliance with the NHPA. She asked about the status of the treatment plan. Shane asked whether the CRAHG could deal with some of the PA issues. Kurt said the CRAHG could meet but all they can do is articulate their concerns in more detail and he wasn't sure that would be very productive. Shane said Reclamation has heard the TWG's concerns and reminded them that they could voice those to the Department at the next AMWG meeting.

Amy asked if someone could be detailed into Mike's position until it is permanently filled. Glen told her Reclamation is working on the vacancy announcement. Amy advised greater effort needs to be made in working with the tribes and being sensitive to their concerns. Shane said he thought there would be a meeting with the tribes during the middle of the month. John Jordan asked if the meeting would be open to all members. Helen said it's better to have a smaller group setting and that the tribes have asked to meet with GCMRC separately.

ACTION ITEM. Reclamation will report back to the TWG on the status of filling in behind Mike Berry and how Reclamation intends to handle compliance and contracting issues in the interim. Reclamation will also report on the status of the treatment plan.

ACTION ITEM. Reclamation will provide an update at the next in-person TWG meeting on the status of reports required under the GCPA, e.g., the Report to Congress for 2010, etc. (per Norm's request).

Update from HFE Protocol Workshop. Glen said Reclamation is engaged in a process to evaluate alternatives for a high flow experimental protocol. A notice was published in the Federal Register on Dec. 31, 2009, stating that Reclamation "would initiate development of a High-Flow Experimental Protocol (Protocol) for releases from Glen Canyon Dam as part of the ongoing implementation of the Glen Canyon Dam Adaptive Management Program (AMP)." Reclamation conducted a HFE Protocol Workshop on June 17-18, 2010, which focused on the timing, duration, frequency, and magnitude of high flow tests and how they would evaluate the effect of the high flow tests on resources of concern. Reclamation sees the next step as taking the information developed in the workshop and begin a series of meetings with the cooperators to flesh out alternatives. (The Workshop presentations were posted to the following URL: <http://www.usbr.gov/uc/rm/amp/twg/mtgs/10jun29/index.html>).

Update on Environmental Assessments. Glen said there is a lot of overlap between the two EAs and both are scheduled to be completed in October 2010. Reclamation has invited a list of people to be cooperating agencies and includes all the AMP DOI agencies, five AMP tribes, plus two additional tribes, and the Arizona Game and Fish Department. As part of the process, they provided Memorandums of Understanding (MOUs) to formalize the process with the cooperating agencies. They are still working on the MOUs so that although a number of people have verbally committed to be cooperating agencies, Reclamation hasn't received any official cooperating agencies at this time. Rick asked if there were going to be any intermediate steps for public comment. Glen said there will be and that the TWG and AMWG meetings will serve as a process for taking concerns.

Glen said the HFE Protocol EA will continue to be on TWG and AMWG agendas until it is completed. He said there will be a 30-day comment period on the Draft EA. Norm asked if there would be opportunities for including additional cooperators. Glen said Reclamation would consider adding cooperators if they so

desired. Mary asked if Reclamation was going to do a joint FONSI or multiple FONSIs. Glen said he didn't know as the work may result in an EIS or a withdrawal of the proposed action. Glen said the two EAs are seen as parallel EAs. As an example, one of the outcomes of the recent high flow test done in 2008 was somewhat of a revelation that it had a pretty substantial positive effect on young rainbow trout survival. In looking back at the data it appears the 1996 flow did as well. They are also looking at utilizing flows to disadvantage non-native fishes including RBT. So reclamation is considering preparing one biological assessment on both processes.

Regarding the non-native issue, Sam said FWS provided a report which responded to a letter that Deputy Assistant Secretary Deanna Archuleta sent to the Pueblo of Zuni. The report included a GCMRC response to efficacy of removal on HBC and also the cost of doing the removal. The FWS also presented a list of options to address concerns from various parties on mechanical removal. He said Ms. Archuleta's report recommended that a round-table type format be conducted on this to develop options, options that would identify the Bureau of Reclamation as a lead DOI entity to select and develop alternatives. The FWS still encourages that and would like to see that process include interested tribes, other parties especially the Lees Ferry fishing interests, GCMRC, AGFD, other federal agencies, and any other interested parties.

Fall Steady Flow Plan AHG Report. As discussed in the action items, the Fall Steady Flow AHG held a conference call on July 12. Glen will provide an update at the next full TWG meeting based on additional FSF AHG discussions.

Reports to Congress. Glen said this will be an agenda item at the upcoming AMWG meeting.

GCMRC Updates. (Ted Melis and Josh Korman joined by phone)

Biology Program Updates. Matthew passed out a copy of the "USGS/GCMRC Biology Program Updates" (**Attachment 4a**).

- Fish PEP Implementation. Matthew Andersen said the Fish PEP was conducted in May 2009. The PEP was convened to review GCMRC's fish monitoring protocols in the Grand Canyon. The PEP was impressed with the robust monitoring program for HBC in the Little Colorado River, but felt that not enough effort was devoted to mainstem native and non-native fish monitoring. Because of the endangered status of the HBC, GCMRC expects to maintain their focus on monitoring in the Little Colorado River. They plan to do additional mainstem fish monitoring in 2010-2012. To evaluate the potential effects of spatial and temporal changes in HBC monitoring, GCMRC entered into an agreement with Steve Martell to conduct runs of the ASMR model using subsets of existing monitoring data. Steve submitted a draft report to GCMRC this month for review. If monitoring changes are warranted and acceptable, GCMRC will likely require similar personnel and logistics costs as to what is currently proposed. The plan is to complete analyses by August 2010 and deliver a monitoring report by September 30, 2010, summarizing the recommended changes to the fish monitoring program.
- Non-native Fish Technical Document. Matthew said GCMRC's primary goal has been to look at non-native fish goals and bring them into one document with the current state of knowledge. Since some tribal members don't want to have the document published as an AMP document, GCMRC will not be presenting it to the TWG for any additional reviews or recommendations but intend to have it externally peer reviewed and then publish as a USGS Open File Report.

Referencing the non-native fish workshop held in March, Kurt said the NPS put together a working group to deal with non-native fish control in Grand Canyon. He wanted to know the articulation between what the workshop is doing and as the report is being finalized, if the group has the same information. Matthew said they would provide information to NPS and that Steve Mietz has been involved with the group. Norm said he thought there was endorsement for some

techniques, specifically mechanical removal at the LCR Reach which would be a problem for the tribes approving the plan. He thought this would be perceived as GCMRC's proposal on what to do before going through the process of incorporating everything. Matthew said their intent is to recommend nothing and aren't advocating for any technique. Norm said he didn't think the document was complete because of things not fully addressed, e.g., management of the Lees Ferry trout fishery and some of the possibilities of what could be done at Lees Ferry. Matthew said there are recommendations in the sense that they state where additional research could be applied, how flows could influence the status of non-native fishes, and what studies could be conducted to help advance the knowledge of how non-natives could be controlled. A workshop is being held next week in Flagstaff to discuss non-native fish control and related issues.

ACTION ITEM: Norm Henderson will keep the TWG informed of NPS actions related to non-native fish control in Grand Canyon and provide updates from NPS fish management workshops.

- Rainbow Trout Abundance in the LCR Reach. Matthew said that GCMRC, primarily through the work of the Arizona Game and Fish Department, has continued to monitor the relative abundance of rainbow trout in the Little Colorado River reach of the mainstem Colorado River. Abundance in 2010 appears to be similar to that observed in 2009, however, this is preliminary data subject to review and revision. Matthew said that immigration into the reach from upstream sources and the range of that increase has a great deal to do with what population will be observed there. If that rate is high or low, that may trigger or not trigger action also. Both the numbers and the immigration rate would be factors to consider whether or not removal would be recommended.

Cultural Program / Geomorphic Workshop. Helen Fairley distributed copies of a handout (**Attachment 4b**) which focused on the current cultural monitoring work. They had to work out some permitting issues before they could do the monitoring work. They did a trip in April, collected data on about six archeology sites, and are planning to do another trip in September. They are planning to wrap up Phase I of this project which was the original testing and evaluation of potential protocols for tracking change at archeology sites using LiDAR and other techniques. She said there are number of reports that will be coming out in the next several months to a year. They are planning to initiate Phase II of this project next spring which will be a pilot program to take the protocols and implement them in a systematic fashion over a period of years to evaluate dealing with a larger number of sites and do so in a similar systematic manner. Prior to doing the pilot program, they made a commitment to do two workshops: 1) a geomorphic modeling workshop, and 2) a data assessment workshop. The geomorphic workshop is scheduled for August 5-6, 2010. They are also planning a workshop with the tribes to discuss the opportunities for integration and how they might achieve that in the future. Kurt said there is an article by C. Michael Barton and others in the current issue of American Antiquity that looks at modeling in the Levant and suggested he be invited to participate in the workshop.

Ecosystem Workshop Report. Matthew distributed copies of a synthesis update, "Preliminary Data Subject to Review and Revision" (**Attachment 4c**). He said Dr. Carl Walters convened two workshops. The first one in March 2010 in Cedar Key, Florida, used the Ecopath/Ecosim platform to construct a bioenergetic model of organisms in Grand Canyon in March 2010. A number of those results were included in the Ecosystem Modeling Workshop held in April 2010. He said these capture a few things where they have some certainty and uncertainty and where they need to do more work. This is the second biological modeling summary. He said the percentages in the handout are a consensus of their belief in the statement. For example, if it says 100%, they're very confident that that's true. If it says 50%, everyone feels that's a very ambiguous statement that may or may not be true. Shane asked if a peer-reviewed journal article would be produced or if they were going to wait and do a study first. Matthew said they had spent some time talking with Carl and Josh about the feasibility of producing a journal article that recounts all the workshop information. Carl's best guess was that wasn't going to be well received by peer review journalists. That is because it was retrospective and so focused on management, it might not fare well in the peer review process and could be a wasted effort.

- Integrated Modeling Workshop Results. Matthew said that Josh Korman and Andy Makinster have indicated interest in trying to continue the Lees Ferry modeling into 2012 so they have some funding to work on the modeling for the LCR reach to be able to integrate more of the physical factors into what's driving the populations.

Don said he wanted some help in reconciling what he thought he heard at the Ecosystem Modeling Workshop to what he was now hearing. He said that Matthew's report seems so much more toned down. He heard that when they modeled different scenarios, they would benefit RBT. He heard words like "HBC might be decimated" and that "control efforts would be perhaps beyond our means of resources and money" and "that to control what was anticipated would require us to come up a whole new control strategy" because it's such a big problem. He said he wasn't hearing the same level of concern. Matthew said there is enough honest disagreement and enough scientific rigor that they want to make sure that they don't overstate their conclusions. They tried to provide some subjective quantifications so this was their attempt to provide rigorous and cautious statements of the primary findings.

Socio-economics AHG Report (Attachment 5a). Mary Barger said there were two conference calls, she handled the first one and Shane did the second one. She said Norm Henderson and Clayton Palmer were on the call and would help explain some of the issues. The AHG had the task to review the panel report and make a recommendation to the TWG and then make a recommendation to the AMWG. Shane read the motion and said the final report is available. On the first call, Mary said they didn't get through all the recommendations in the report, rather they got more involved in the studies that should be done for socio-economics. There were two camps on how it should be done. She proposed having two separate motions and then on the next call move into the panel's report. On the second call, there was an attempt to merge the two motions which is on the handout (Attachment 5b). She said Western disagrees with the language and that the handout not be used. In summary, she said another call will be needed to review the results of report and resolve some of the recommendations and also look at the two motions proposed individually by Norm and Clayton. She thought each of them should talk about their individual proposals. Shane said that AMWG expects something back and the TWG needs to be responsive to AMWG's request. Since it's anticipated the TWG will hold a conference call in late July, Mary thought the TWG could vote on a motion at that time. Shane said he didn't support trying to pass a motion on a conference call because of possibly not having a quorum.

Clayton said the group never got past power economics and so the two conference calls focused on the issue of recommendations from the panel but never discussed recreation or non-use. Clayton said he suggested at the end of the second call that since Western had some views on recreation and non-use, that they should be addressed on another call. Helen said she hasn't been involved but would like to have a better understanding of it and so she was added as a member of the Socio-economics AHG. Shane asked that Clayton and Norm explain their positions.

Base Case Analysis. Clayton said the authors of the final report recommend that for power economics that there be a base case, that is there be something against which changes are prepared – changes in GCD so there would be an existing description of the contribution of GCD as operated today to the power system of the CRSP and of the Western grid. The authors recommended some tests to see the degree to which the operation of GCD spilled over into the CRSP grid in order to determine the scope of the base case analysis. They suggested that if there is quite a bit of interaction between the CRSP power system and the Western electrical grid, there be a model developed that would simulate the Western electrical grid. Once the base case had been established and the electrical power system known and GCD's place in it, then modifications could be considered to the operation of GCD and be able to see the impact of those modifications to the economic system within CRSP and the Western grid figured into it, then operations could be modified and you could see the economic changes. He said that was a factual recommendation. He said Western offered to do the base case analysis. There is some overlap in Western's offer and the recommendations offered by the panelists. The panelists said that obviously the base case would need to be coordinated with Western. The CRSP system is Western's electrical system.

The operation of the CRSP dams provides power to Western and Western puts it on the grid and Western delivers it. The four authors said that development of a base case analysis needed to be coordinated with Western and Western agreed. Western further offered that Western would do the base case analysis using its models and personnel. They said that GCMRC be in charge of developing the task based on the report and with the contribution of expertise available to GCMRC and in coordination with the TWG. Western would do the base case report just as described by the authors and then submit the report to GCRMC for peer review. Clayton said it only goes so far as treating the recommendation by the panelists of doing the base case analysis. Shane asked Clayton if he disagreed with what was written on the handout. Clayton said the only part he disagreed with is that the base case will be prepared by GCMRC in collaboration with Western and appropriate experts. He didn't agree with reconvening the socio-economics panel to do that.

Shane said that Norm is asking for outside experts to be utilized and developed into this. He said he talked to Helen about this and they thought it would be reasonable to run the scope by the panel potentially and get their review. Helen said that could still be done. Shane said he wasn't sure if there really was a disagreement if that was one of Norm's main disagreements and Helen said it could be done. Clayton said the disagreement came down to Clayton saying that Western would be subject to the base case written and directed by GCMRC and the report would reflect that. He didn't agree with requiring GCMRC to get specific experts. Shane said this was highlighted because this was one of the groups that Norm thought was important and that Helen could work with. Norm said his only concern was if GCMRC had the resources to call upon an expert panel. John said approximately \$30K was available to do the review. John said it would be beneficial to have Helen explain what she thought the panel would do. Helen said their proposal was that the panel had recommended evaluating the appropriateness of the existing model to characterize the full scope of GCD operations versus the CRSP grid. She felt another step needed was to have a thorough review of the model, a workshop, update the model, and have a therefore have a broader understanding of it and its applicability to the program. Assuming that worked out, then they would do a base case analysis. She said they didn't look at funding for bringing in experts for development of a task statement. Clayton said it would serve them to have a conversation with GCMRC about this. He said he didn't have a disagreement with anything Helen said. He said the report talks about how much power overlaps with GCD and WAPA power. Their proposal is to do the base case and include the spillover and if the spillover is large or small. If it's small, then one thing is done and if it's large, a different thing is done. Clayton said the disagreement he and Norm had was that if you're going to describe for Western's modelers a base case analysis, who would put the description together. Clayton said Western would and Norm said he didn't trust Western. In the spirit of compromise, Clayton said GCMRC would put the description together.

Cliff said there is general agreement to do the base case analysis. GCMRC has it in their budget and there is general agreement that GCMRC will have the capability to do the work and can move forward on that piece. The committee hasn't fully reviewed the report. If the base study can be done and do the rest of the report, then they could talk about the report in another month. Cliff said he would like to move forward with the base case analysis. Don said it wasn't clear to him what the base case analysis is. Clayton said it's currently MLFF and the current economic benefits of GCD within the CRSP system. It would describe the exchange between CRSP operations. Don said that CRSP is not a base case analysis and asked if ROD would be included. Helen said they recommended some pre-ROD analysis. Don stressed the importance of not losing what's been done and do pre-ROD so they can be compared to future operations that could affect power. Cliff said the most immediate use is to use MLFF as the base case analysis but said he assured people the pre-ROD would be done.

Shane said the project is still going to move forward within the work plan so the base case analysis is going to go forward. Norm expressed concern that the group would get agreement on the base case analysis and then there wouldn't be anything done on the change case analysis. Shane said the report was going back to the ad hoc group to start working on the list. Shane said the first phase would be to get the recommendations forwarded to the AMWG so they can be considered and moved forward, and the second phase was getting a little bit more into the report as far as allowing comments on the report

as part of the second phase. Shane asked if there was any further discussion or whether the TWG wanted to ask the SEAHG to bring back a recommendation in July. It was decided to let the SEAHG continue their review and provide a recommendation in July.

General Core Monitoring Plan – Status and Next Steps. Helen said the report was e-mailed to the TWG and also posted to the TWG meeting page (**Attachment 6a**). She provided copies of Chapter 3 from the plan and then gave a PPT presentation (**Attachment 6b**). She presented the top TWG priorities and issues. She said there needs to be some more editorial changes. She went through some of the revisions that were made. The next steps would be for 1) the CMAHG to revise the plan, 2) TWG to review the CMAHG recommendations and provide final comments to GCMRC and discuss at the next TWG meeting, 3) GCMRC responds to TWG comments before the August AMWG meeting, and 4) AMWG to review and recommend plan to the Secretary of the Interior.

Sam asked why they chose not to put any money in for extirpated species. Helen said they are trying to develop programs that they are monitoring and since extirpated species don't exist, monitoring can't be done. John said they used the Strategic Plan as their starting point along with direction that came from the Science Planning Group. Helen said they are trying to work with what is in the program now but in order to move this forward there needs to be enough flexibility built into the program so changes can be made as it evolves.

Shane said the question is how much money should be spent on core monitoring. Norm said he thought the money had already been approved. He felt that before they have a plan that they can recommend to the AMWG, then it seems inappropriate because there are some key issues that need to be in place before the plan can be approved. Norm said it bothers him that there is another major effort with a concept that hasn't gotten agreement on for about 60% of the budget. He felt like the whole thing may have to be done over again. John said that 60-70% has been focused on the core monitoring programs because that is what has been approved every year in the annual budget and work plans. Mary expressed concern about the increase and not being able to see how it fits with the current budget. Cliff suggested the group may need to have more members in order to adequately review the plan. Norm reiterated that the TWG really needs some decisions from DOI before the group gets engaged. Shane encouraged everyone to read the document and determine whether the changes they offered got included. Shane said the ad hoc would meet and come back to the TWG at the July meeting.

Management Actions. Dr. Dave Garrett distributed copies of the "Executive Summary – Evaluation of Criteria Guiding Transitions of Science and Management Actions in Adaptive Management Program" (**Attachment 7a**) and the corresponding PPT "Evaluating Criteria Guiding Transition of Science and Management Activities in Adaptive Management Programs" (**Attachment 7b**). He said reviews of the GCDAMP indicate that improvements may be needed in several of the adaptive management processes including 1) GCDAMP organization and structure, 2) Program planning and budgeting, 3) Effective monitoring approaches, and 4) Responding to perturbations. He concluded with the following recommendations:

- To improve management/science transitions GCDAMP should review and revise several areas of its programs.
- Improved criteria and guidelines should be developed for consensus building; conflict resolution; goals and DFCs; entity roles; planning and budgeting; monitoring programs.
- The TWG/GCMRC/SAs should recommend a three-year program for accomplishing needed revisions.

Dr. Garrett said he would make a presentation to the AMWG in August. Shane advised the members to read the full report (**Attachment 7c**) and be prepared to draft a recommendation to the AMWG in July.

TWG Agenda Items for July 2010 Conference Call. Shane reviewed the list of items he has for a July conference call: 1) Socioeconomics recommendation to the AMWG, 2) Hydrograph, 3) General Core Monitoring Plan, and 4) Management Actions.

FY2011-12 Draft Biennial Budget

Science Advisors' Budget. Dr. Garrett passed out copies of his memo to John Hamill dated June 3, 2010, Subject: Science Advisor Program Proposed Budget Reductions: 2010/2012 (**Attachment 8**). Mary asked if the work that had to be done would need to be done by the science advisors. Given a 3-year time frame to accomplish revisions, she said the work needs to be in the 2-year budget now. Dr. Garrett said the above memo is a result of something he and John worked on because the SAs felt they needed to provide more support to the TWG. He has major concerns that the program is approaching an EIS without mechanisms, criteria guidelines, and structured processes which are needed to get there. Unfortunately, the FY2011-12 budget is very constrained and \$50K was recommended to come out of the SAs budget. He realizes that the SAs budget needs to receive cuts just like all the other AMP programs, but he asked for a reduction of \$30K-40K so that they could maintain enough service capability to the program. Shane said the AMWG could consider changes to the SAs budget at the August meeting.

Budget Discussion Update. Shane said he would like to get a list of the budget issues today in preparation for tomorrow's budget discussion. The following were listed:

1. Include \$25K for extirpated species workshop from the Park Service (Mietz/Henderson)
2. Include \$89,568 to fund deferred project DASA 12.D9.10-11 (Mietz/Henderson)
3. CREDA is requesting a change in the work plan as far as removing some language related to socio-economics. (James)
4. Recreation surveys in the workplan from WAPA. (Palmer)
5. How to implement recommendations from the management actions report.

GCT Hydrograph Recommendation. Shane said there would be issues with a hydrograph recommendation in July but asked if there were any other issues the members wanted to bring up for discussion. Rick said he sent out a provisional GCT hydrograph recommendation as it was his understanding that DOI would be coming out with one. He received Scott Wright's modeling report last night and hasn't had time to review it in detail. As such, he said it might be better to wait until the July TWG meeting to discuss further.

6. Want to include a "placeholder" for socio-economic work. (Henderson)
7. Restore the POAHG to full funding. (Yeatts)
8. Need for an administrative record for the AMP. (Stevens)
9. Need for explanation on why Canyon Treatment Plan (\$300K) was moved in the workplan. (Heuslein)

Shane said the GCDAMP Proposed FY2011-2012 Draft Work Plan (**Attachment 9a**) was posted to the TWG meeting webpage. Shane said he wanted USBR and GCMRC to make their presentations today to allow for sufficient discussion on the budget issues tomorrow.

USBR Budget Changes. Glen said Reclamation was only proposing two changes to their side of the budget although GCMRC provided language in the "comments" section pertaining to proposed changes to Reclamation's budget. Glen said Reclamation is still deliberating on whether to make the changes and would like to get feedback from the TWG before adopting any of the GCMRC recommendations. He said there are a couple of changes that could affect the function of the TWG. One of those is the Public Outreach Ad Hoc Group (POAHG) in which GCMRC is recommending a cut and wanted the POAHG to comment on how they saw that change affecting public outreach efforts. Another change is that GCMRC is proposing to cut NPS permitting funds. This has been a line item in Reclamation's budget for several years with the purpose being to fund a position at Grand Canyon National Park to facilitate the process of research permits for the program. Reclamation wants feedback from the Park Service on how that would affect the Park's ability to do that work.

He said Reclamation's only changes were that all the line items in the BR budget were indexed by the 2.5% CPI rate for FY2011 and 3% in FY2012. The only other change by Reclamation was in Compliance Documents as Reclamation sees a big increase in compliance needs in FY2011. As AS-WS Anne Castle has told the program, the Department intends to embark upon an EIS process in FY2011 for the Long-Term Experimental Management Plan (LTEMP). He said that planning process is likely to be very expensive. In an effort to get the funding for that, Reclamation moved \$300K from the canyon treatment plan (line 29) into compliance documents (line 18). They also moved \$50K from FY10 and FY11 from the canyon treatment plan into that line item as well creating a total of \$399,000. The tribes have expressed a lot of concern with the treatment plan in that it doesn't fully integrate tribal perspectives. They foresee not being at a point of finalizing the canyon treatment plan and actually implementing it anytime soon. The funding in that line item is intended to finalize and implement the plan. He said that for line 29 GCMRC also recommended pulling \$300K from that but putting \$250K towards compliance and \$50K towards non-native fish suppression funding. Reclamation doesn't feel that's enough so have recommended \$300K for compliance.

Kurt said he is concerned about moving money from the canyon treatment plan into compliance, Reclamation hasn't provided the PA signatories with a road map of how they're going to continue compliance with Dr. Mike Berry gone. Kurt said it was a little premature and felt that Reclamation needs to contact the PA signatories and tell them how compliance is going to be maintained. He asked what Reclamation intends to do in FY11. Glen said that he thinks Reclamation can come back to the TWG and provide an explanation on how they're going to proceed in lieu of Dr. Berry's retirement. Kurt asked that if the PA signatories were uncomfortable with what Reclamation is proposing and expect more work to be done under compliance, would that reduce the amount of money to be transferred from line 29 to line 18. Glen said he thought if that discussion could occur before the AMWG meeting in August, they would have that opportunity to do that at the AMWG meeting. Glen said that Mike had a lot of input to the budget and felt that this decision made sense and that there was a strong need to update the plan. Kurt said that Mike never formally presented that information to any of the PA signatories. Mike Yeatts said he supported Kurt's concerns and particularly that once the money is gone, it will be hard to get it back and they may be way out of compliance. He asked what the remaining \$205,838 would be used for since it was originally planned for treatment. Glen said that money will be used to complete the canyon treatment plan. Mary said that normally the CRAHG reviews the budget and comments on any proposed changes and they did not do that. They didn't know anything about the proposed changes. She said the only thing they were aware of was that Utah State University was suppose to write a two-year report of the summary of all the work they've done to date so she wasn't sure if that included FY10 money or whether it was part of the \$205,838. The last thing the PA signatories had heard was that FY10 was going to be taken off to resolve the changes in the treatment plan and would initiate in FY11. The agreement on the new PA was to do MOAs annually to resolve the problem with the PA and now they don't have those which means they're out of compliance. Mike said the PA had informally agreed that FY10 funding would be used to look at better integration of the tribes and no data recovery has been done this year and doesn't look like any will be done next year. Glen said he thought there was still some disagreement among the tribes about how to do data recovery. Kurt said another missing component is that there are two entities, the State Historic Preservation Office (SHPO) and the Advisory Council on Historic Preservation that needs to have input on the budget decision in terms of remaining in compliance.

Amy said she wanted clarification from Reclamation regarding the \$493,500 from this year and where it was reprogrammed. Glen will do some checking and get back to Amy.

ACTION ITEM: Reclamation (Dennis/Glen) will set up a meeting with the CRAHG and PA to discuss further direction and budget concerns.

GCMRC Budget Changes. John distributed copies of the updated spreadsheet dated 6/28/2010 with a "Table of contents (**Attachment 9b**), Guide to appendices E-1 through E-8." He went through the "GCMRC Proposed FY11-12 Biennial Budget and Work Plan," dated June 29, 2010 (**Attachment 9c**). He said there were a lot of uncertainties they were dealing with in trying to prepare the budget, three of

which include what's going to happen in the area of non-native fish control, what the HFE protocol is going to do, and what will unfold with the LTEMP. They tried to be responsive to the priorities that were articulated by the TWG and validated by the AMWG during their May 6th conference call and were also given to John by the Department as priorities that they had. Given that direction, GCMRC tried to accommodate the new initiatives within their budget. He said this budget is different from the one submitted in May. He went through the various changes.

The additional costs were \$1M in FY11 and \$750K in FY12. John said he felt very uncomfortable by moving monies between goals and projects. He felt they needed guidance from the program but feels strongly that money needs to go toward core monitoring. He went through the revised spreadsheet which showed the changes from taking funds from USBR and the related comments highlighted in yellow.

Shane said he was trying to follow the approach of taking money away and then giving it back. John said they took money away from aquatic foodbase, the sampling from the Little Colorado River which resulted in reducing the budget by \$84K. But then John said they talked with Ted Kennedy and he said that if high flows were going to be done every year or every other year for the next 10 years, he recommended going from quarterly to monthly sampling. It would cost roughly an extra \$100K to do that so they put the money back in there to address it and then took the money out of the Experimental Flow Fund.

John said USGS is still going to contribute \$1M to support science but they won't give the discount for mechanical removal. He said the purpose of USGS contributing the \$1 million was to support science and they view mechanical removal as a management activity which negates the intent for how the money should be used.

Public Comments: Paul Harms said that Anne Castle allowed Don Ostler to vote for NM and WY at the last AMWG meeting so he would like to request that Don be allowed to vote for NM since he hasn't been officially appointed as a TWG member. Shane said it doesn't seem unreasonable given the direction Ms. Castle gave at the last AMWG meeting and the TWG could follow a similar approach. He asked if anyone objected to that. Rick said he thought Shane should get a call from Anne Castle on this kind of action because in other ways, it doesn't happen. If he can't come to a TWG meeting, he can't just let someone else take his vote. He thought it opened a whole bunch of other issues about representation at the TWG. Rick said that rather than an ad hoc decision, he would like Anne Castle to make a formal opinion on how far this goes.

Adjourned: 5:55 p.m.

Glen Canyon Dam Technical Work Group Meeting
June 29-30, 2010

Conducting: Shane Capron, Chairperson

Convened: 8 a.m.

Committee Members/Alternates Present:

Mary Barger, WAPA
Cliff Barrett, UAMPS
Charley Bullets, So. Paiute Consortium
Kerry Christensen, Hualapai Tribe
Jerry Lee Cox, Grand Canyon River Guides
Marianne Crawford, USBR (alternate)
Kurt Dongoske, Pueblo of Zuni
*Paul Harms, NM Interstate Stream Commission
Norm Henderson, NPS/GCNRA
Amy Heuslein, BIA

Leslie James, CREDA (alternate)
Rick Johnson, Grand Canyon Trust
John Jordan, Federation of Fly Fishers
Andy Makinster, AGFD
Don Ostler, UCRC (alternate for WY)
Sam Spiller, USFWS (alternate)
Larry Stevens, Grand Canyon Wildlands Council
Jason Thiriot, Colo. River Comm./NV
Curtis Yazzie, Navajo Nation (alternate)
Michael Yeatts, the Hopi Tribe

* Not officially appointed by Secretary's Designee

Committee Members Absent:

Perri Benemelis, ADWR
Bill Davis, CREDA
Christopher Harris, Colorado River Board/CA
Robert King, UDWR

Dennis Kubly, USBR
Steve Mietz, NPS/GRCA
John Shields, Wyoming State Engineer's Office
Bill Stewart, AGFD

Interested Persons:

Helen Fairley, USGS/GCMRC
Dave Garrett, Science Advisors
John Hamill, USGS/GCMRC
Glen Knowles, USBR

Patricia McCraw, ADWR
Barbara McKenzie, USGS/GCMRC
Clayton Palmer, WAPA
Pam Sponholtz, USFWS

Meeting Recorder: Linda Whetton

Draft FY2011-12 Biennial Budget Discussion (cont.). Shane suggested going through the list and trying to resolve issues with GCMRC. If changes are made in the budget, then the person making the suggestion needs to identify where the money would come from.

NOTE: In an effort to summarize the issues of concern raised by various members, each issue will be listed, followed by discussion points and/or action, and the "hand voting results" will be used in the final budget recommendation.

a. Motion #1: The FY11-12 budget/workplan should include \$25,000 to fund and Extirpated Species Workshop to achieve the following: 1) Finalize and prioritize species list, 2) Assess current compliance environment for various implementation strategies, and 3) Develop a strategic framework to implement extirpated species goal within the AMP. (Mietz/Henderson)

- *There will be one workshop in FY12 per Norm.*
- *There are other issues that are a higher priority. A little premature in light of work being done by the DAHG. Perhaps the NPS could fund a workshop. (Henderson)*
- *Let's punt on this and make a decision later. Let's put on the deferred project list and then prioritize from there. (Hamill)*

Action: Shane said a "Deferred Projects List" will be created. The TWG will vote on their top five. He suggested putting on the FY11 budget. (Shane)

Voting Results: Yes = 8 No = 10 Abstaining = 1

b. Motion #2: The FY11-12 budget/workplan should include \$89,568 to fund deferred project DASA 12.D9.10-11. This one-time study is needed to aid the AMP in quantifying a desired future condition for sediment resources. This work could be funded by reducing the DASA 12.5.10 cooperative agreement by \$89,568 for one year or \$45,000 over two years. (Mietz/Henderson)

- *This has been on the unfunded list for several years. The idea was to go back and look at sandbar volumes in the 80's and do pilot testing on different sites. We've been reluctant to fund because we haven't decided on the baseline to be used. Not sure if 1984. This is a little premature. (Hamill)*
- *It's not just to determine the DFC, it's to show what occurred in the canyon and what can occur with dam operations. Look at the changes throughout the corridor and bring that information to the DFC to develop a reasonable DFC. (Henderson)*
- *The sandbar goes back to 1990. You could look at in the DFC or as a datapoint. (Grams)*

Voting Results: Yes = 5 No =13 Abstaining =

c. CREDA recommends that the last three paragraphs on page 151 of the BWP be deleted. We believe the remainder of the write-up reflects the intent of the TWG, but these paragraphs appear to have been pulled from the Socio-economic Workshop, which report has not yet been approved or recommended by either the TWG or the AMWG, and go beyond the scope outlined in this task. Specifically, the paragraph referring to the post 2024 WAPA contracts was stated to be "outside the scope" by one of the expert panelists ...(Barrett/James)

- *This is outside the FY11 parameters and the DFC Ad Hoc Group. (Barrett)*
- *One of the expert panelists said it's outside the scope of this program and is irrelevant for the FY11 budget. (James)*

Action: Leslie and Helen will talk about this

d) (Line 132) Remove Funding for Recreation Values (line 132) (Barger/Palmer)

- *Western doesn't object to having funds in FY11 or 12 to gather information about market expenditures by recreators. We believe that's what the recreational community has advocated in this program. Western is okay with having a line item \$ put in FY11 and 12 for that and conforms to having a phase I for economic studies on market analysis and phase II would not non-market values. I think the project is a phase II project and thought we had all agreed to fund a phase I project. (Palmer)*
- *This project is on how the recreationists are using the Glen Canyon Reach of the river corridor. This was a recommendation in 2005 from the Recreation PEP. It seems we need to have some baseline on how future activities may affect this area. It's also a recommendation from the Fish PEP in 2009 so we're trying to be responsive in getting some baseline information. (Fairley)*
- *I've been to Marble Canyon several times and the guides have stated that when DOE does an HFE, it affects their business. If you're responding to a fish or recreational PEP, you're not dealing with the effect of a secretarial action on the local businesses. That's phase I of the economic report. This is a phase II project. We're in disagreement on this project. (Palmer)*
- *AGFD has been doing a study but the 2009 PEP restructured questions. We were going to ask them about their experience. Since the PEP recommended, then we are in the process of developing the questions. I believe Helen and GCMRC would like to expand to not only include the anglers but those recreationists in the area. In general, we're already doing it but it's currently catered to only anglers. (Makinster)*
- *I think you can work with management agencies and get the right questions asked. I'm concerned with initiating a \$1million project. (Ostler)*
- *Let the Socio-economic AHG deal with this concern. (Capron)*
- *I'm advocating a study of the effects on the incomes of the businesses. So in order to avoid a complicated procedure, recommend we keep this line item and then we allow the SEAHG to deliberate and make a recommendation in July. It could be a line item added for what I want. The motion is to remove the \$ from the line item but ask the SEAHG to deliberate and make a recommendation at the TWG conference call. (Clayton)*

Voting Results: Yes = 7 No = 10 Abstaining = 3

FAILS → moved to the failed changes list

e) Add \$75K in FY11 and FY12 to Recreation Values (line 132), to initiate recreation surveys of Glen Canyon anglers and day use rafters (Henderson)

- *Where would the \$75K come from? Also, wasn't the SEAHG charged with making a recommendation? (James)*
- *The money will come from carryover money from FY10. (Henderson)*
- *So it will go to the unfunded projects. (Capron)*
- *It's non-market use. (Palmer)*
- *When it comes time to work on this, getting the economic information would be appreciated. (Hamill)*
- *Suggest letting the SEAHG work on this and get a recommendation to the TWG in July. (Capron)*
- *I'm asking for capability within GCMRC to do hydropower analyses as we develop the hydrograph proposals. I just want to make sure there is a bookmark in there and it will stay there. (Henderson)*

Voting Results: Yes = 5 No = 8 Abstaining = 6

FAILS → moved to the unfunded projects list.

f) Change the funding to \$50K in line 139 in FY11 and \$30K to line 139 to develop "change case" analysis for future hydrograph proposals (Henderson)

- *Hydropower analysis was not included in our budget. (Hamill)*
- *Where is the \$50K coming from? (Heuslein)*
- *It's adding on to the \$20K in FY11 and \$30K in FY12. (Henderson)*
- *I imagine the base case will be done and peer reviewed in early FY11. So change case analyses will be done based on the peer reviewed method and base case models. We're really talking about doing base case analysis in early FY11. We have a proposal that will be discussed in August that we will fund the change case analysis. (Palmer)*
- *Western could do the change case analysis and we would do peer review. (Hamill)*
- *This needs to be worked out with the SEAHG and GCMRC. It's time to decide if you want to put more money in there or not. (Capron)*

Voting Results: Yes = 4 No = 9 Abstaining = 6

FAILS → moved to the unfunded projects list.

g. (Line 7) Fund POAHG in FY11 at \$56,184 and FY12 at \$57,870 (Short \$28) (Yeatts)

- *Can some offices fill in the gaps with the costs? (Ostler)*
- *It's been for working on the displays, personnel costs, and operating expenses. (Yeatts)*
- *I don't have a clear perspective on what the POAHG is doing for FY11. (Knowles)*
- *The POAHG will be working on Phase II products. One of the things is to schedule a workshop with DOI and AMWG representatives to look at the role of POAHG in the future. We need to re-examine the purpose of the POAHG. We want to maintain funding in FY11 until we know what the long-term direction will be. (Yeatts)*
- *The POAHG has served as a good arm for interagency work. I haven't see a whole lot of value added since Phase I but unclear what the long-term purpose will be. They've been struggling with that issue for awhile. (Hamill)*

Voting Results: Yes = 6 No = 6 Abstaining = 6

FAILS → moved to the unfunded projects list.

h) Develop an AMP Administrative Historical Record (Stevens)

- *It's important to put together an annotated list of this program, places where studies were done, and answer questions done over time. It might be for the FY2013 budget. (Stevens)*
- *Consider having GCMRC determine a cost for doing this work. (Capron)*
- *Sometimes the library system is hard to get used to it. There is a lot of institutional knowledge and I'm not experienced to know what has happened. It's hard to follow documents and the background. I think it would be very useful to new members. (Cox)*
- *Suggest using the historian(s) in the Denver Office for this type of work. (Barger)*
- *Consider having the POAHG, GCMRC, and Reclamation prepare this historical record. (Heuslein)*

ACTION ITEM: Reclamation (Dennis/Glen) will check with the Denver Office staff on the possibility of them preparing an administrative history on the Glen Canyon Dam Adaptive Management Program and what the associated staff costs might be. They will report back to the TWG at the next meeting.

i) Concern for \$300K moved from Canyon Treatment Plan (Dongoske)

- *Reclamation needs to tell us what is going to be done, what money is remaining on the USU contract, what Native American perspectives will be in the treatment plan and narratives to the past. The amount of \$300K is being moved from the CTP to compliance documents but we don't know what is going to be done with the remaining \$205,838 and how to stay in compliance. This is a big part of the budget that needs to be addressed. The tribal plan was put on hold by USU because of some issues with the work being done by USU. (Dongoske)*
- *It's ironic that we're pulling from treatment to compliance when the money is to be used for compliance legislation. We need to maintain compliance. (Yeatts)*
- *What's the rationale for the movement of funds? (Ostler)*
- *This is part of the renegotiated contract with USU. Because there is no new annual MOA in place at present, we resort back to actions under the 1994 PA for PA compliance. (Knowles)*
- *I'm not happy with that answer. In 1994, you talked about compliance. There was a hiatus on treatment while working with the tribes. This year USU was to complete the treatment plan. That seems to have vanished. It's not going on. It's July 1 and I don't see how methodologies can be done by the end of the fiscal year. Not sure how you are going to deal with compliance. (Dongoske)*
- *We'll get a meeting scheduled so we can talk more about this. (Knowles)*
- *By removing that money, there is no option for treatment in FY11 because you need a lot of money. At the last CRAHG meeting we decided the money would stay there and we would do the work in FY11 and 12. There was a proposal to do a tribal workshop on how treatment is being done. We had no idea this was coming. We still don't have a proposal back from Reclamation. Mike canceled the meeting so we don't know why it happened. Can we defer until July conference call until we have more information? I don't want to close the door on this because it really needs more consultation with USB R, SHPO, and NHPO. This is a huge piece and want the opportunity to have a meeting. (Barger)*
- *Let's vote and accept on face value that Reclamation can maintain compliance and then state the motion passed is conditional upon Reclamation stating they have compliance and fund NEPA and NN fish suppression differently. We have to gain those facts. (Ostler)*
- *If we take out of the fish suppression fund, how would that affect its funding? (Ostler)*
- *Six trips could be required for mechanical removal. (Capron)*
- *It's about \$150K for mechanical removal or \$300K for two trips. (Hamill)*

Fund \$505,838 for the treatment plan (line 50) in FY11 unless Reclamation can maintain necessary compliance with \$205,838 in FY11, as demonstrated to AMWG.

Passed by consensus.

j) (Line 84) Reduce funding for Aquatic Food Base Monitoring by \$100K in FY11. (Stevens)

- *The fly in the ointment with foodbase monitoring has been variability and I'm not comfortable with the amount of variability in the program. The purpose of the program was to frame monitoring protocols for the future and we're not there yet. Increasing the sampling to monthly sampling may not be the solution. The recommendation is not to fund more intensive monitoring but free it up for these other purposes. You're developing a monitoring program that replaces another monitoring program so you have another way of tracking changes. It seems to be premature until we understand how variability is being counted. (Stevens)*
- *The previous PEP (2001) found that sampling of the standing stock was identified as the primary weakness so this has been a major departure from the previous method. The current proposal goes to Diamond Creek and Lees Ferry for sampling and has been very useful. If \$100K is taken away, they would cut it in half – every other month. I would advocate that if you cut it in half, then Lees Ferry and Diamond Creek sampling would be every other month. (Andersen)*

Voting Results: Yes = 11 No = 3 Abstaining = 4

Passes.

k) Add \$ from line 158 (forego preparing a SCORE Report) in FY 11 and FY12 to the Experimental Flow Fund (Barger)

- *I feel uncomfortable without having a science plan from the high flows. Don't like the way the budget is presented. It's no longer a fund that you can carry over and use. Every time there is a high flow then monitoring has to be done and will require some changes. I would like to put some money into the EFF and take it from the SCORE Report (line 158). The last SCORE report there was some guidance given to GCMRC and have the AMWG review it before it got printed. It came out as a publication and there were concerns with*

the language. I don't have a process or know the document but I don't want to support a SCORE report at this time. (Barger)

- *Are you asking that the amount of the SCORE report go into the EFF? (Kowalski)*
- *I would like to take Larry's \$100K from the foodbase money. This allows some flexibility. I'm leaving the Knowledge Assessment in. (Barger)*
- *Since we don't have a dollar amount for the cost of doing a SCORE Report, could we leave out and deal with it at another time? (Capron)*

Voting Results: Yes = 6 No = 7 Abstaining = 5

Fails

I) Remove funding for the Non-native Fish Suppression Fund for FY11 and use in the Experimental Flow Funds until the EA process is completed and funds are necessary (line 45). (Dongoske)

- *The issue with Zuni and mechanical removal is that it seems like a placeholder to do mechanical removal. I think the EA on non-native fish that's being done is predecisional. There is a lot of money in FY11 and FY12. The description in the workplan is vague and nebulous. It doesn't say mechanical removal but feels like it is in there. I need more information in order to support this. You're parking a lot of money based on a hunch. (Dongoske)*
- *We won't resolve the issues here. I think we can deal with Kurt's issues but we can't deal with targets at this time. (Capron)*
- *Western clearly supported the tribes' position that routine mechanical removal is not desired in the future in FY11 or FY12. The USBR has a BO that says removal. They are formally consulting with the FWS. We didn't presuppose our comment but said that money will be needed and more money will be dealt with in fish management in tribal values. Our preference and participation as an EA cooperater is to find an alternative that is not routine mechanical removal. (Palmer)*

Voting Results: Yes = 14 No = 2 Abstaining = 2

Passes

m) (Line 40) NPS funding for permits (Henderson)

NO ACTION TAKEN. The DOI agencies need to resolve this issue at the next Federal Family Meeting.

n) (Line 171) Add \$20K to the SA Budget in FY11 and FY12 (from Line 165) (Kowalski)

- *With the additional funding, they could provide peer reviews. The EIS is coming and don't have any idea how it's going to impact the program. If we have the reduction, then some reviews will be cut. The SA budget is based on FULL assistance to the AMP. (Garrett)*
- *What about the increase from another large program and use part of that for the SA program? I would support Dave and John working together on this. (Kowalski)*
- *They plan to produce 50-60 reports (for Lara Schmit). In the FY10, we only used for half the item and then made it a full-time position. (Hamill)*

Voting Results: Yes = 13 No = 2 Abstaining = 4

Passes.

BUDGET MOTION:

Motion: The TWG recommends the FY 2011-12 Draft Budget (tables provided by GCMRC dated June 28, 2010) and Work Plan (dated June 11, 2010) and recommends it be forwarded to the AMWG for further action with the following changes:

1. Fund \$505,838 for the Treatment plan (line 50) in FY11, unless Reclamation can maintain necessary compliance with \$205,838 in FY 11, as demonstrated to AMWG. (passed)
 2. (Line 84) Reduce funding for Aquatic Food Base monitoring by 100k in FY11. (11/3/4)
 3. Remove funding for the Non-native Fish Suppression Fund for FY11 and use in the Experimental Fund until the Non-native EA process is completed and funds are necessary (line 45).(14/2/2)
 4. (line 171) Add \$20,000 to the SA budget in FY11 and FY12, to restore funding. Funding would be taken from line 165 (Admin. support). (13/2/4)
- Motion (13/2/4)

- To be used with carryover funds if available (deferred):**
- a) The FY11-12 budget/work plan should include \$25,000 (in FY 12) to fund an Extirpated Species Workshop to achieve the following: a. Finalize and prioritize species list b. Assess current compliance environment for various implementation strategies c. Develop a strategic framework to implement the extirpated species goal within AMP. (8/10/1)
 - b) The FY11-12 budget/work plan should include \$89,568 to fund deferred project DASA 12.D9.10-11. This one-time study is needed to aid the AMP in quantifying a desired future condition for sediment resources. This work could be funded by reducing the DASA 12.D5.10 cooperative agreement by \$89,568 for one year or \$45,000 over two years. (5/13/2) line 249
 - c) (Norm) Add \$75,000 in FY11 and FY12 to Recreation Values (line 132), to initiate recreation surveys of Glen Canyon anglers and day use rafters. (5/8/6)
 - d) (Norm) Change the funding to \$50,000 in line 139 in FY11 and FY12 to develop “change case” analyses for future hydrograph proposals. (4/9/6)
 - e) (Mike) Fund POAHG (line 7) in FY 11 at \$56,184 and FY12 at \$57,870. (6/6/6)
 - f) (Mary) Add \$ to the Experimental Fund (line 42). (6/7/5)
 - g) Add \$20,000 to line 165 in FY 11 and FY12 (Admin. support).

Representative	Stakeholder Entity	Vote
Bill Stewart/ Andy Makinster	Arizona Game and Fish Department	y
Amy Heuslein / Garry Cantley	Bureau of Indian Affairs	a
Marianne Crawford	Bureau of Reclamation	a
Mike Yeatts	Hopi Tribe	y
Kerry Christensen	Hualapai Tribe	n
Steve Mietz	National Park Service - Grand Canyon	absent
Norm Henderson / Chris Kincaid	National Park Service - GLNRA	absent
Tony Joe Jr. / Curtis Yazzie	Navajo Nation	a
Kurt Dongoske	Pueblo of Zuni	y
VACANT	San Juan Southern Paiute Tribe	vacant
Charley Bullets /LeAnn Skrzynski	Southern Paiute Consortium	absent
Sam Spiller	U.S. Fish and Wildlife Service	a
Mary Barger / Clayton Palmer	Western Area Power Administration (DOE)	y
Rick Johnson / Nikolai Lash	Grand Canyon Trust	n
Larry Stevens	Grand Canyon Wildlands Council	y
John Jordan	Federation of Fly Fishers	y
Jerry Lee Cox / Sam Jansen	Grand Canyon River Guides	y
Perri Benemelis	Arizona	absent
Christopher Harris	California	absent
Jennifer Gimbel / Ted Kowalski	Colorado	y
McClain Peterson/ Jason Thiriot	Nevada	y
Paul Harms / Don Ostler	New Mexico	y
Robert King	Utah	absent
John Shields / Don Ostler	Wyoming	y
Bill Davis	Colorado River Energy Distributors Association	y
Cliff Barrett / Leslie James	Utah Associated Municipal Power Systems	y
	Total Yes	13
	Total No	2
	Total Abstain	4
	Total Voting	19
		Motion Passes

Failed Changes:

- a) (Clayton/Mary) Remove funding for Recreation Values (line 132). (7/10/3)
- b) (Line 40) NPS funding for permits. This was changed to an action item for Reclamation, GCMRC, and NPS to deal with.
- c) Estimate costs to develop an administrative history of the GCDAMP.

ACTION ITEM: Reclamation, GCMRC, and NPS will discuss the funding of Administrative Support for NPS Permitting (line 40) and report back to the TWG.

Comments on Voting Results:

Kerry Christensen (voting no) – I'm not comfortable with forwarding an unbalanced budget.
Rick Johnson (voting no) – Pass.

Attachment 10: Mechanics and Modeling of Flow, Sediment Transport and Morphologic Change in Riverine Lateral Separation Zones

Attachment 11: Floods and Sandbars in the Grand Canyon, a publication of the Geological Society of America (published in GSA Today, Volume 9, No. 4, April 1999)

Attachment 12: "Review of Geoarchaeological Investigation and an Archaeological Treatment Plan for 151 Sites in the Grand Canyon, Arizona" by the GCDAMP Science Advisors dated July 2009

July Agenda Items:

1. Hydrograph
2. Carryover funds → deferred list
3. Socioeconomics report
4. Core Monitoring Plan
5. Recommendation to the Management actions -> articulate a motion to AMWG based information provided by Dave Garrett
6. Steady flows and high flows discussion from Saguaro Lake workshop

Shane asked Linda to poll the members for a TWG conference call during the week of July 26 and also for a late September/early October two-day TWG meeting.

Public Comments: None

Adjourned: 2:25 P

Respectfully submitted,

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

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