

Glen Canyon Dam Technical Work Group Meeting

June 28-29, 2011

Conducting: Shane Capron, Chairperson
Facilitator: Mary Orton, The Mary Orton Company (June 28 only)

Convened: 8:15 a.m.

Committee Members/Alternates Present:

Jan Balsom, NPS/GRCA
Cliff Barrett, UAMPS
Kerry Christensen, Hualapai Tribe
Jerry Lee Cox, Grand Canyon River Guides
Bill Davis, CREDA
Kurt Dongoske, Pueblo of Zuni
Paul Harms, NM Interstate Stream Commission
Norm Henderson, NPS
Garry Cantley, BIA
John Jordan, Federation of Fly Fishers
Robert King, UDWR

Glen Knowles, U.S. Bureau of Reclamation
Ted Kowalski, CWCB
Tricia McCraw, ADWR
Gerald Myers, Federation of Fly Fishers
Don Ostler, UCRC (alternate for WY)
Clayton Palmer, WAPA
LeAnn Skrzynski, Southern Paiute Consortium
Bill Stewart, AGFD
Jason Thiriot, Colo. River Commission/NV
Marc Wicke, USFWS
Michael Yeatts, Hopi Tribe

Committee Members Absent:

Charley Bullets, Southern Paiute Consortium
Christopher Harris, Colorado River Board/CA
Amy Heuslein, BIA
Tony H. Joe, Jr., Navajo Nation
Rick Johnson, Grand Canyon Trust

John Shields, Wyoming State Engineer's Office
Pam Sponholtz, USFWS
Larry Stevens, Grand Canyon Wildlands Council

Interested Persons:

Perri Benemelis, ADWR
David Bennion, WAPA
Todd Chaudhry, NPS/GRCA
Mary Daugherty, USGS/GCMRC
Helen Fairley, USGS/GCMRC
Dave Garrett, M³Research/Science Advisors
Pam Garrett, M³Research
John Halliday, DOI
Chris Hughes, NPS/GLCA

Leslie James, CREDA
John Jordan, Federation of Fly Fishers
Ted Melis, USGS/GCMRC
Jack Schmidt, Utah State University
Sam Spiller, USFWS
Dave Trueman, USBR
Scott Vanderkooi, USGS/GCMRC
Randy Van Haverbeke, USFWS

Meeting Recorder: Linda Whetton

Welcome and Administrative. Shane said Lori Caramanian would be joining the meeting via telephone this morning to answer questions the TWG might have on policy issues to be elevated to the AMWG.

Approval of the March 8-9, 2011, Meeting Minutes. Without objection, the minutes were approved pending the addition of Paul Harms as a member of the Core Monitoring Ad Hoc Group, not Paul Grams.

Review of Action Items The action items were updated (**Attachment 1**).

Old Business.

Ad Hoc Group Updates: Shane provide the following updates:

- Budget AHG – The BAHG report was distributed in preparation for today's budget discussion.
- Cultural Resources AHG – This group hasn't had any assignments for some time.
- Species of Concern AHG – The AMP 3 Goal report will be presented at tomorrow's meeting.
- Core Monitoring AHG – Draft criteria were developed at the last meeting and the task is to rewrite Appendix B for inclusion in the Core Monitoring Plan. He has been waiting for the new GCMRC

chief to come on board because he feels it's really important that the TWG work closely with GCMRC in developing the General Core Monitoring Plan.

- Socioeconomic AHG – An update will be provided at tomorrow's meeting.

Reports/Assignments from AMWG. Shane said the only thing that came up was a question from Helen Fairley about whether the base case and change case analyses could be used to inform the LTEMP. If so, what would be TWG's role in determining base case and change case analyses that would be evaluated in FY12. Shane said this would be folded into further discussion tomorrow.

GCMRC Knowledge Assessment Workshops Schedule. Dr. Melis said the Aquatics Expert Workshop was held June 1-3 in Flagstaff. As a courtesy to the TWG, he provided copies of a disk that contains detailed notes, discussions, and PPT presentations with preliminary results. Upcoming workshops:

- July 11-12 at GCMRC - Physical Resources, Sediment, and Water Quality Resource Issues
- Week of August 29 – Hydropower and Economics Workshop in Flagstaff
- Oct 24-28 or Oct 31-Nov 4 for the Knowledge Assessment (2-2.5 days)

He has received comments from people about holding workshops at Saguaro Lake Ranch. He reminded the group the ADWR conference rooms are free of charge and asked if there were other locations people wanted to consider.

Action Item: Linda will query the group on other options besides meeting at Saguaro Lake Ranch.

New Business.

Action Item: Linda will query the TWG for availability for the TWG October meeting.

TWG Facilitation. Mary Orton left the room for this agenda item. Shane said Mary Orton has been providing facilitation assistance to the CMAHG and BAHG. To help Shane properly execute his TWG Chair duties and related assignments, Reclamation has agreed to allow the TWG Chair funds (which are not being utilized by the TWG Chair) to be used for TWG facilitation needs. It would cost approximately \$5,000 to have Mary facilitate four meetings and the BAHG process. Dr. Garrett said the SAs would support using Mary in order to allow Shane to accomplish what he needs to do with the TWG and concurred that Mary does an excellent job.

Guidelines for Productive Group Interaction. Mary distributed and reviewed copies of a handout, "Guidelines for Productive Group Interaction" (**Attachment 2**) and said it would serve as a good reminder of how to make sure every voice has the ability to be heard and respected and for the group to truly benefit from working together as a group.

FY 2012 Budget and Workplan. Mary reviewed the desired outcomes for today's discussion. She referenced Ms. Castle's March 31, 2011, memo (**Attachment 3a**) and said comparison of the original budget process table that was approved by AMWG last year and this year indicates USGS is working more closely with DOI in developing consensus before bringing anything to the TWG. She and Shane have worked on identifying the technical issues and said the TWG will decide what issues will be discussed by DOI and the AMWG will discuss broader policy issues.

Dr. Melis said the FY12 part of the FY11-12 budget was officially recommended by the AMWG in August 2010, and then was approved by the Secretary of the Interior. Based on direction from DOI, they have been looking at possible revisions.

Shane said there is an approved FY11-12 budget with a review of the second year and the summary of proposed revisions to the FY2012 workplan and budget are identified in the memo from USGS and Reclamation to Ms. Castle dated May 3, 2011 (**Attachment 3b**). It includes a table with the changes and rationale for those changes (**Attachment 3c**). Shane said the BAHG discussed policy vs. technical issues at the June 13, 2011, meeting and those were captured in the BAHG meeting minutes. The BAHG

developed a draft report (**Attachment 3d**) which included core policy issues and technical issues. Those issues were forwarded to Lori Caramanian who was directed by Ms. Castle at the last AMWG meeting to help the TWG differentiate between the two levels. He said some issues may get addressed and some may not, but the TWG won't have another opportunity to review. He asked Mary to talk about the decision rules and then go to Lori's response.

Mary reviewed the desired outcomes for today's meeting:

- Resolve TWG member's technical differences with the proposed FY12 budget with Reclamation and GCMRC, as possible.
- Agree on unresolved concerns with the FY12 budget that will be addressed by DOI (technical issues).
- Agree on unresolved concerns with the FY12 budget that TWG will forward to AMWG (policy issues).
- Identify potential budget development process recommendations for future years.

Shane said Lori would be joining the call in the next 40 minutes so it would be important to get through all the DOI responses to the BAHG first. He reviewed the technical issues:

Technical Issues (page 3 of BAHG report).

1. Economics (project 32): Cancel economist position, set aside \$25K for SEAHG support, savings of about \$73K. The BAHG felt it was too soon to hire a full-time economist and the SEAHG should complete its plan and then circle back and determine what resources are needed and then provide the \$25K. In talking with Lori, Shane said DOI wants the economist first and feels the expertise is needed at GCMRC.
2. Science Advisor budget (project 44): Add \$67K back in plus another \$30K for LTEMP participation. There were no objections. Shane said that DOI funding of \$25K has been identified in the SA budget in FY11 with addition of another science advisor. GCMRC feels the SAs are fully funded. As far as the LTEMP process, there is lack of clarity. DOI is interested in having the SAs involved in the LTEMP but Lori wants to know what the expectations of the SAs will be, what reviews will be needed, and time frames. Glen said there is funding in the compliance line item for LTEMP work.

Clayton said there is nothing in attachment one that says DOI will be commenting on BAHG recommendations. He felt it was unproductive to have the BAHG, consisting of six or seven members, develop comments on the budget that in the past were brought to the TWG. The TWG would then discuss the matters with DOI representatives in the room and changes would be made. For the record, he doesn't feel it's productive to have DOI respond to BAHG recommendations but should wait and respond to TWG recommendations on TWG technical issues.

Policy Issues (page 1 of BAHG report).

1. Sediment Monitoring. Shane said the impetus for this policy issue came out of the DFCs as one of the priorities provided by Ms. Castle and requested the AMP be reviewed in relation to those DFCs and new DOI priorities, and the projects be reconsidered based on those. It's his understanding the review would occur in FY12 but isn't sure people have thought through when the budget would be changed. He and Lori spent a lot of time talking about impacts to the FY12 budget and things that would be considered in the FY13 and FY14 work plans. Once the framework for the Core Monitoring Plan is approved then the major program areas will be developed. It makes sense to the CMAHG and DOI to make the sediment individual core monitoring plan be one of the first ones that come up for review in FY12.
2. Terrestrial Monitoring. Shane said DOI is very sensitive to this issue and feel this recommendation is premature. John Halliday should be given time to work with the tribes in developing a proposal that DOI could consider. A preliminary report would go directly to the AMWG for their August meeting.
3. Nonnative Fish Control. Shane said there isn't anything specifically in the budget to do non-native fish control. It was changed and agreed to by GCMRC and BOR. It was one thing the program could do to mitigate that issue. Reclamation mailed letters today for determining eligibility and effect for historic properties and TCPs to the tribes and SHPOs. That starts the process of working with the tribes to get to resolution of effect on both the HFE Protocol EA and the Non-native Fish Control EA. They are also looking into utilizing an NHPA special facilitator to get that resolution of effect and will be working with the tribes to set up additional tribal consultation meetings and also put resolution of effect meetings later this summer.

4. Archeological Site Monitoring. Glen said Reclamation has sent out letters of eligibility and effect for the EA undertakings. They intend to meet with the tribes to find resolution of effect for the two EA undertakings and possibly do a new PA and utilize an NHPA facilitator. The new regional archeologist will report for duty mid-August.

Clarifying Questions. Shane said there would only be 15 minutes to talk with Lori. If there are any disagreements with DOI responses, he suggested the TWG focus on where they think movement might be with DOI or what they might need to know to be able to make the motion that needs to go to the AMWG.

Clayton asked how Reclamation is going to complete its 106 compliance requirement on the operation of Glen Canyon Dam from 1995. Glen told him they have dealt with the two EAs and are approaching 106 compliance separately, but there is overlap. They have identified historical properties and traditional cultural properties affected by the two undertakings which is also part of stipulation one under the old 1994 PA. They intend to have meetings with the tribes on mitigation and resolution of adverse effects and plan to set up meetings with the tribes and SHPOs to start talking about resolution of effect. They also want to do that in the context of the old PA and operations of the Dam and look at the potential for developing a new PA.

Norm said the request was made by Kurt to reinstate the \$200K for the treatment plan in year two of the budget. It was his understanding that in order to make changes in the second year workplan, there had to be sound, scientific reasoning for doing so. He sees the cultural resource monitoring development that GCMRC has been trying to establish for the last several years as having been unilaterally truncated. He feels it's a big policy issue for the group.

Cliff said he was concerned about the DFCs being integrated into the Core Monitoring Plan. As TWG Chair, Shane said he wanted a solid commitment from the DOI that they're headed in the right direction and feels he got that from DOI, but suggested Cliff ask Lori directly about that.

Shane said he wanted to complete the discussion on technical issues and then move to policy level issues. Mary brought up the BAHG report as the starting point for the discussion.

Lori Caramanian joined the call at 10:30.

The group discussed the hiring of an economist by GCMRC. Several concerns were expressed, including:

- More discussion is needed.
- How necessary it is to have clear understanding about the degree to which an economist is useful.
- The kind of economist that is needed won't be known until the socioeconomic report is completed and evaluates the requirements of the position.
- Doesn't seem to be in line with the priorities as outlined by the Secretary's Designee.

Lori agreed that this needed more discussion, and explained that DOI wanted the economist on board to support the LTEMP. She also said that she felt the economist is needed in order to complete the socioeconomic report. She noted that while the Secretary's Designee identified four priorities, she also made it clear that they would not preclude the program from addressing other issues and the program needs to have a deeper understanding of power economics and socioeconomics. She said she thought it was the right time to make this hire.

The issue of cultural resources was also discussed and the role of the AMP in the cultural resources arena. Lori noted that this was an important issue and that Reclamation recently hired a regional archeologist. She asked Glen to respond in more detail. Glen said the Section 106 letters regarding the HFE Protocol EA and the Non-native Fish Control EA were sent yesterday, and they laid out the process Reclamation would use to address the potential adverse effects of the two EAs. They are considering hiring an NHPA subject matter expert to assist with that task, and will set up meetings with the tribes and other participants later in the summer. Reclamation is also planning a similar process to determine how to address the 1994 PA.

In response to a comment suggesting the sediment program should be reviewed in light of the Secretary Designee's priorities, Lori said that it would be good to review the entire program in light of spending priorities and constraints.

Lori said the BAHG did a great job going through the issues and credited Shane and Mary for keeping the process focused. She reminded people that Ms. Castle said this is a work in progress and DOI could disseminate information in a more timely manner. Before hanging up, she thanked everyone for their participation and said she'd be available this afternoon if there were additional questions.

Shane said there were two things to be considered in crafting a motion: 1) a set of policy issues that may or may not go to AMWG, and 2) possibly additional technical issues for DOI's consideration. He suggested going through the issues one more time. The following was noted from earlier meetings:

Policy Issues – to be addressed at this meeting as necessary

1. Sediment monitoring → moved to Resolved Issues. This is a high priority to be addressed in the Core Monitoring Plan process in FY12. Shane will follow up with the new GCMRC chief and Ted will affirm that the FY12 budget supports the fish, sediment, and core monitoring plan development. Per Clayton, add after FY12 on the first sentence, "as to its relevance to DFCs and DOI priorities."
2. Terrestrial monitoring → concerns remain
3. Non-native Fish Control → concerns remain
4. Archaeological Site Monitoring → concerns remain

Technical Issues – sent to DOI from the BAHG

- Project #32 (economist position) → concerns remain. See discussion above.
- Project #44 (SA budget) → concerns remain.

In addition, cultural resources issues were expressed, specifically with regard to terrestrial monitoring, killing fish, marginalizing the views of the tribes, integration of tribal values into the program, and line item #27 regarding the treatment of sites.

Shane asked those concerned to draft policy statements in the form of motions to be considered after lunch. He recapped what the TWG had decided: 1) not to move any technical issues to DOI, 2) frame the two issues as policy issues, 3) to remove the sediment policy to the "resolved" list.

The following motions were made regarding the budget:

Motion (proposed by Kurt Dongoske): The TWG recommends that adequate funding for the SAs be a high priority for the AMP. TWG further recommends that AMWG task the TWG with developing a recommendation for AMWG on the roles and expectations of the Science Advisors with regard to the Adaptive Management program and the related LTEMP. Based on the definition of the Science Advisors' role that AMWG ultimately adopts, TWG recommends that budget priorities for FY13-14 then reflect support to accomplish these responsibilities of the Science Advisors.

Passed by consensus.

Motion (proposed by Kurt Dongoske): The TWG recommends that AMWG make a recommendation to the Secretary on the following questions: How should the program fairly treat conflicts of cultural values, specifically those involving Native American perspectives? How will tribal values be monitored and tracked in this program?

Passed by consensus.

Motion (proposed by Clayton Palmer): TWG recommends that AMWG recommend to the Secretary that Reclamation implement the process that has been identified in Reclamation's 2007

Treatment Plan to comply with the requirements of NHPA Section 106 for the operation of Glen Canyon Dam.

Passed by consensus.

Motion (proposed by Kurt Dongoske): TWG recommends that AMWG recommend to the Secretary that Reclamation identify what it will do in FY12 to mitigate effects at the 53+ archaeological site identified in Reclamation’s 2007 Treatment Plan.

Passed by consensus.

After discussion, the motion was revised and a roll call vote was taken, as follows:

Motion: TWG recommends that DOI restore full funding and the full scope of GCMRC’s cultural resources monitoring development (Project 25), taking the funding from the Treatment Plan line item, Project 27; or that credible scientific justification be provided to the AMWG for the change.		
Representative	Stakeholder Entity	Vote
Bill Stewart / Andy Makinster	Arizona Game and Fish Department	A
Tricia Crawford / Perri Benemelis	Arizona	Y
Amy Heuslein / Garry Cantley	Bureau of Indian Affairs	A
Glen Knowles / Marianne Crawford	Bureau of Reclamation	A
Christopher Harris	California	absent
Ted Kowalski / Jennifer Gimbel	Colorado	A
Bill Davis / Leslie James	CREDA	Y
Gerald Myers / John Jordan	Federation of Fly Fishers	Y
Jerry Lee Cox / Sam Jansen	Grand Canyon River Guides	Y
Rick Johnson / Nikolai Lash	Grand Canyon Trust	absent
Larry Stevens	Grand Canyon Wildlands Council	absent
Mike Yeatts	Hopi Tribe	Y
Kerry Christensen / Loretta Jackson-Kelly	Hualapai Tribe	N
Norm Henderson / Chris Kincaid	National Park Service - GLCA	A
Jan Balsom / Todd Chaudhry	National Park Service - GRCA	N
Tony Joe	Navajo Nation	absent
McClain Peterson / Jason Thiriot	Nevada	Y
Paul Harms / Don Ostler	New Mexico	Y
Kurt Dongoske	Pueblo of Zuni	Y
Charley Bullets / LeAnn Skrzyński	Southern Paiute Consortium	Y
Robert King	Utah	Y
Pam Sponholtz / Sam Spiller	U.S. Fish and Wildlife Service	A
Cliff Barrett	UAMPS	Y
Clayton Palmer / David Bennion	Western Area Power Administration	A
John Shields / Don Ostler	Wyoming	Y
	Total Yes	12
	Total No	2
	Total Abstain	7
	Total Voting	14
	Motion Passes	
Abstentions count toward the quorum, but not the vote. For example, if 20 TWG members are present then a quorum is present (quorum=16). If the vote is 3-0-17 (that is 3 yeas, 0 nays, and 17 abstentions), the motion passes because abstentions those abstaining have chosen not to vote.		

Motion (made by Kurt Dongoske): The TWG recommends that the AMWG recommend that the Secretary of Interior consider a review of the GCDAMP programs related to archaeological site monitoring and compliance with NHPA section 106 and the GCPA, to clarify how DOI (and the

**GCDAMP) is achieving compliance with both NHPA section 106 and the GCPA and what is specifically necessary to do so.
Passed by consensus.**

Ted Kowalski said his small group discussed the concept of hiring an economist and felt it was important to complete the socio-economic program first. He read the following recommendation:

The TWG recommends that the AMWG recommends that the Secretary direct the SEAHG to develop a proposal for an AMP Socio-Economic (SE) Program in FY 2012. AMP stakeholders and DOI agencies may provide members to serve on this committee, especially people who have expertise in economics of electrical power and recreational economics. The SEAHG should be chaired by someone who has expertise in one of these fields and who has experience with the GCDAMP. The work for the SEAHG should be administratively supported (i.e., preparation for meetings, collecting comments and revising documents) and facilitated. Since this task involves the development of a new program of value to the AMP stakeholders, and often involves the stakeholders advocating for their agencies or interests, the GCMRC (as the scientific agency supporting the AMP) should not oversee the development the SE Program. The SE Program should be provided to the Scientific Advisors (SA) for review. If an SA member has been involved in the development of the SE program, then that person should not participate in the SE review. The SE program should be initially focused on a robust and scientifically-based program dealing with power economics and market based recreational economics.

After discussion, the members revised the language and voted by raising hands:

Motion: The TWG recommends that the AMWG recommends that the Secretary direct GCMRC to consider hiring an economist only after the AMWG approve a Socio-Economic Implementation Plan; and provide a chair for the TWG Socioeconomic Ad Hoc Group who has expertise in economics from the Science Advisors; and the TWG further recommends that AMWG direct TWG to focus the socio-economic program initially on a robust and scientifically-based program dealing with power economics and market based recreational economics.

Hand Vote Results: Yes = 10 No = 5 Abstain = 3
Motion Passes.

Mary read the entire budget motion. Because there wasn't consensus, a roll call vote was taken.

Motion: The TWG recommends to AMWG the USGS and Reclamation FY12 Budget and Work Plan as approved by the Secretary of the Interior on September 22, 2010, with changes described in the May 3, 2011 memorandum from Ted Melis and Glen Knowles to Anne Castle, with the following policy recommendations:

- 1. The TWG recommends that the AMWG recommend that the Secretary of Interior consider a review of the GCDAMP programs related to archaeological site monitoring and compliance with NHPA section 106 and the GCPA, to clarify how DOI (and the GCDAMP) is achieving compliance with both NHPA section 106 and the GCPA and what is specifically necessary to do so.**
- 2. The TWG recommends that adequate funding for the SAs be a high priority for the AMP. TWG further recommends that AMWG task the TWG with developing a recommendation for AMWG on the roles and expectations of the Science Advisors with regard to the Adaptive Management Program and the related LTEMP. Based on the definition of the Science Advisors' role that AMWG ultimately adopts, TWG recommends that budget priorities for FY13-14 then reflect support to accomplish these responsibilities of the Science Advisors.**
- 3. The TWG recommends that AMWG make a recommendation to the Secretary on the following questions: How should the program fairly treat conflicts of cultural values, specifically those involving Native American perspectives? How will tribal values be monitored and tracked in this program?**

4. **TWG recommends that AMWG recommend to the Secretary that Reclamation implement the process that has been identified in Reclamation's 2007 Treatment Plan to comply with the requirements of NHPA Section 106 for the operation of Glen Canyon Dam.**
5. **TWG recommends that AMWG recommend to the Secretary that Reclamation identify what it will do in FY12 to mitigate adverse effects at the 53+ archaeological sites identified in Reclamation's 2007 Treatment Plan.**
6. **The TWG recommends that the AMWG recommends that the Secretary direct GCRMC to consider hiring an economist only after the AWMG approves a Socioeconomic Implementation Plan and provide a chair for the TWG Socioeconomic Ad Hoc Group who has expertise in economics from the Science Advisors; and TWG further recommends that AMWG direct TWG to focus the socioeconomic program initially on a robust and scientifically-based program dealing with power economics and market based recreational economics.**

Representative	Stakeholder Entity	Vote
Bill Stewart / Andy Makinster	Arizona Game and Fish Department	absent
Tricia Crawford / Perri Benemelis	Arizona	Y
Amy Heuslein / Garry Cantley	Bureau of Indian Affairs	absent
Glen Knowles / Marianne Crawford	Bureau of Reclamation	A
Christopher Harris	California	absent
Ted Kowalski / Jennifer Gimbel	Colorado	Y
Bill Davis / Leslie James	CREDA	Y
Gerald Myers / John Jordan	Federation of Fly Fishers	Y
Jerry Lee Cox / Sam Jansen	Grand Canyon River Guides	N
Rick Johnson / Nikolai Lash	Grand Canyon Trust	absent
Larry Stevens	Grand Canyon Wildlands Council	absent
Mike Yeatts	Hopi Tribe	Y
Kerry Christensen / Loretta Jackson-Kelly	Hualapai Tribe	Y
Norm Henderson / Chris Kincaid	National Park Service - GLCA	A
Jan Balsom / Todd Chaudhry	National Park Service - GRCA	A
Tony Joe	Navajo Nation	absent
McClain Peterson / Jason Thiriot	Nevada	Y
Paul Harms / Don Ostler	New Mexico	Y
Kurt Dongoske	Pueblo of Zuni	Y
Charley Bullets / LeAnn Skrzynski	Southern Paiute Consortium	Y
Robert King	Utah	Y
Pam Sponholtz / Sam Spiller	U.S. Fish and Wildlife Service	A
Cliff Barrett	UAMPS	Y
Clayton Palmer / David Bennion	Western Area Power Administration	Y
John Shields / Don Ostler	Wyoming	Y
	Total Yes	14
	Total No	1
	Total Abstain	4
	Total Voting	15
	Motion Passes	

Abstentions count toward the quorum, but not the vote. For example, if 20 TWG members are present then a quorum is present (quorum=16). If the vote is 3-0-17 (that is 3 yeas, 0 nays, and 17 abstentions), the motion passes because those abstaining have chosen not to vote.

Adjourned: 4:55 p.m.

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Conducting: Shane Capron, Chairperson

Convened: 8:15 a.m.

Committee Members/Alternates Present:

Jan Balsom, NPS/GRCA
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Kerry Christensen, Hualapai Tribe
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Bill Stewart, AGFD
Jason Thiriot, Colo. River Commission/NV
Marc Wicke, USFWS
Michael Yeatts, Hopi Tribe

Committee Members Absent:

Charley Bulletts, So. Paiute Consortium
Christopher Harris, Colorado River Board/CA
Amy Heuslein, BIA
Tony H. Joe, Jr., Navajo Nation

John Shields, Wyoming State Engineer's Office
Pam Sponholtz, USFWS

Interested Persons:

Perri Benemelis, ADWR
David Bennion, WAPA
Todd Chaudhry, NPS/GRCA
Mary Daugherty, USGS/GCMRC
Helen Fairley, USGS/GCMRC
Dave Garrett, M³Research/Science Advisors
Pam Garrett, M³Research
John Halliday, DOI
Chris Hughes, NPS/GLCA

Leslie James, CREDA
John Jordan, Federation of Fly Fishers
Ted Melis, USGS/GCMRC
Jack Schmidt, Utah State University
Sam Spiller, USFWS
Bill Swan, Irrigation District
Dave Trueman, USBR
Scott Vanderkooi, USGS/GCMRC
Randy Van Haverbeke, USFWS

Meeting Recorder: Linda Whetton

Welcome and Administrative. Shane asked for comments regarding yesterday's process for passing the budget motion. The following comments were made:

- DOI is taking the results of an Ad Hoc Group and responding to them, without waiting for TWG or AMWG to act. Some felt that it made the TWG and AMWG less relevant.
- Those who voted no or abstained should be asked their reasoning.
- The process of technical and policy issues caused the group to do a lot of rewriting yesterday.

Shane said he didn't think there would be time on today's agenda to review the project descriptions that Dr. Melis had prepared. As such, a WebEx would be scheduled for GCMRC to present and field questions from the TWG.

Action Item: Linda will query the TWG for their availability to participate in a WebEx conference call to discuss the following projects (**Attachment 4**):

1. BIO 2.Rxx: Mainstem juvenile humpback chub monitoring (including Marble Canyon sampling). New Cost (NFFCF); informs removal decisions near the Little Colorado River, and

2. BIO 2. E18, 11, 12: Formerly: Detection of rainbow trout movement from the upper reaches of the Colorado River below Glen Canyon Dam – Revised: as Natal Origins of Rainbow Trout in Marble Canyon/LCR Confluence Area

Sediment Update. Dr. Paul Grams gave a PPT presentation (*via phone*), “Update on Sand Mass Balance with Modeling” (**Attachment 5**). He provided the following results:

- The relatively high volume dam releases of winter-spring-summer 2011 (~ 17,000 → 24,000 cfs) do not permit sand retention
 - Measured sand export from January 1, 2011 to May 2, 2011:
 - ~0.7 million tons loss from upper Marble Canyon (RM 0 to 30)
 - ~0.15 million tons loss from lower Marble Canyon (RM 30 to 61)
 - ~1.05 million tons loss from eastern Grand Canyon (RM 61 to 87)
 - ~0.2 million tons loss from central and western Grand Canyon (RM 87 to 225)
- Model-predicted sand export from May 2, 2011 to October 1, 2011:
 - ~1.0 million tons loss from upper Marble Canyon (RM 0 to 30)
 - ~0.6 million tons loss from lower Marble Canyon (RM 30 to 61)
 - ~0.6 million tons loss from eastern Grand Canyon (RM 61 to 87)
 - No model prediction for central and western Grand Canyon (RM 87 to 225)
- Sand is moving out of upper Marble Canyon by deflation (the “new” pile of sand delivered by Paria in Fall 2010, is shrinking and being transported through the downstream reaches in suspension, not moving downstream as a “wave” on the bed)

In answer to questions, Paul said:

- No comparison of modeling to actual has yet been done.
- GCMRC did not look at alternative operations to minimize sediment transport.
- The total in the table above shows about 4 million metric tons of sediment moved through the system during this time.
- Because it is impossible to predict the hydrology, GCMRC has not done long-term (20-year) predictive assessment of sand balance.

2012 Hydrograph Development Status. Dave Trueman gave a PPT presentation (**Attachment 6a**) and provided copies of the “DOI and DOE Operating Hydrograph Recommendations for Glen Canyon Dam (2012 Water year)” dated June 6, 2011, (**Attachment 6b**). He said that as a result of DOI and DOE discussions, they adopted the targeted method over doing the original 2011 hydrograph in 2012:

2011 Hydrograph Method	Targeted Method
<ul style="list-style-type: none"> • Monthly volume may vary +/- 100 kaf from average of remaining balance • 16,000 cfs limit up to 11.0 maf annual release • 22,000 cfs limit above 11.0 maf annual release • No limits if needed for equalization • ROD limits apply 	<ul style="list-style-type: none"> • August releases are limited using percentage method to conserve sediment inputs • Sept/Oct low-steady releases also conserve sediment • No limits on other months • No limits if needed for equalization • ROD limits apply

In answer to questions, Dave said:

- Reclamation is pressed to complete the flows, and so they are moving water through at powerplant capacity.
- The latest 24-moth study shows continuing at powerplant capacity into the next calendar year for at least a couple of months and maybe into November and December.
- While we’ve become accustomed to 8.23 maf releases, they are not normal. This is the driest 10-year period on record. This is a pretty massive input.

Shane asked if there was anyone who would be voting against the motion.

Proposed Motion: The TWG recommends to AMWG for their approval the DOI-DOE Proposed Hydrograph for Water Year 2012.

After discussion, the group acted on the following motion:

Motion (Proposed by Kerry Christensen, seconded by Robert King): The TWG recommends to AMWG for their approval the DOI-DOE Proposed Hydrograph for Water Year 2012 as described in the Proposed Operating Parameters of the June 6, 2011, document.		
Representative	Stakeholder Entity	Vote
Bill Stewart / Andy Makinster	Arizona Game and Fish Department	A
Tricia Crawford / Perri Benemelis	Arizona	Y
Amy Heuslein / Garry Cantley	Bureau of Indian Affairs	Y
Glen Knowles / Marianne Crawford	Bureau of Reclamation	Y
Christopher Harris	California	absent
Ted Kowalski / Jennifer Gimbel	Colorado	Y
Bill Davis / Leslie James	CREDA	Y
Gerald Myers / John Jordan	Federation of Fly Fishers	Y
Jerry Lee Cox / Sam Jansen	Grand Canyon River Guides	A
Rick Johnson / Nikolai Lash	Grand Canyon Trust	N
Larry Stevens	Grand Canyon Wildlands Council	A
Mike Yeatts	Hopi Tribe	A
Kerry Christensen / Loretta Jackson-Kelly	Hualapai Tribe	Y
Norm Henderson / Chris Kincaid	National Park Service - GLCA	A
Jan Balsom / Todd Chaudhry	National Park Service - GRCA	A
Tony Joe	Navajo Nation	absent
McClain Peterson / Jason Thiriot	Nevada	Y
Paul Harms / Don Ostler	New Mexico	Y
Kurt Dongoske	Pueblo of Zuni	Y
Charley Bullets / LeAnn Skrzyński	Southern Paiute Consortium	Y
Robert King	Utah	Y
Pam Sponholtz / Marc Wicke	U.S. Fish and Wildlife Service	A
Cliff Barrett	UAMPS	Y
Clayton Palmer / David Bennion	Western Area Power Administration	Y
John Shields / Don Ostler	Wyoming	Y
	Total Yes	15
	Total No	1
	Total Abstain	7
	Total Voting	16
	Motion Passes	
Abstentions count toward the quorum, but not the vote. For example, if 20 TWG members are present then a quorum is present (quorum=16). If the vote is 3-0-17 (that is 3 yeas, 0 nays, and 17 abstentions), the motion passes because those abstaining have chosen not to vote.		

BOR Updates on EAs. Glen provided copies of his PowerPoint presentation (**Attachment 7**) to the group. Reclamation is in the midst of a Cooperating Agency Review which ends today. They intend to revise the two EAs based on comments received and then have a 2-week public comment period for the HFE Protocol EA and a 3-week comment period for the Non-native Fish Control EA. Once that process is completed, the two EAs will be finalized. Another step was added to the process and that was to do NHPA 106 Compliance. Letters were sent to the SHPOs on eligibility and effect. They did determine sites that were eligible for consideration and determined there was an adverse effect to sites for both undertakings and are in the process of setting up meetings with the appropriate parties to conclude

Section 106 compliance with the goal of finding a resolution for adverse effect, especially with the five tribes, SHPO, and the Advisory Council. Assuming that can be done, they'll complete ESA consultation with the FWS on the two undertakings and get a biological opinion on the two proposed actions. They could get to a decision notice this summer and if they can get to a FONSI on both EAs, they may be able to implement the HFE Protocol in time to consider an HFE in the fall provided there are sediment inputs.

Dr. Melis said GCMRC intends to review the comments from the SAs in completing the science plans which will be included as appendices in the EAs.

LTEMP EIS Update. Glen said a Notice of Intent was signed to begin the EIS process and it should be published in the Federal Register within the next two weeks. Scoping will get started and Reclamation will begin working with people to get the cooperating agencies and agreements in place with their co-lead agency, the National Park Service.

Shane said the TWG has been asked to comment on is the potential role of the SAs in the LTEMP process. He asked Dr. Garrett how the SAs could help that process and when reviews of products could be done. Because the TWG wants to look at trade-off analysis and incorporating both biophysical and socioeconomic cultural impacts and trade-off assessments, Dr. Garrett said the SAs would be looking at those areas. Dr. Melis referenced page 236 in the FY11-12 workplan (**Attachment 8**) for work the SAs will be doing. Shane said it would be important for the TWG to provide input to DOI on how the SAs should be involved in the LTEMP process or DOI will make that decision. The following suggestions were captured:

- Two roles for the SAs: 1) be involved as plans are being put together so they understand what went into them, and 2) be independent evaluators or observers so that when they do an evaluation, they understand what was developed rather than just looking at it from what's on the paper.
- The SAs could be useful by: 1) making some presumptions that there are DFCs to be met, constructing a set of alternatives all of which are targeted at meeting those DFCs while keeping within the law and keeping a proper balance among the resources, and 2) GCMRC as the science arm of the AMP would be involved in describing one alternative or another alternative actually has a likelihood to accomplish the DFCs while keeping the balance. The SAs would look at their evaluations of how and whether the alternatives would achieve this and whether the experimentation that is inevitable lead part of the LTEMP and the monitoring programs are robust enough to tell the decision-makers whether the implementation of some alternative is actually achieving the goals.
- Need for sufficient DOI funding for the SAs involvement.
- The Department needs to report back to the AMWG on the status of the DFCs. That work product from the AMWG is a critical element of the LTEMP. The 1995 EIS cost over \$100 million.
- Need for adequate representation on the SAs for peer review of how cultural resource issues and Native American issues are addressed.

Core Monitoring Update. Shane said this item was covered in yesterday's discussion. The next step is for him to work with Jack Schmidt to bring a revised draft to the next meeting and the CMAHG to complete Appendix B.

Species of Concern Update. Larry Stevens distributed copies of the "GCWD Draft White Paper: Draft 6/15/2011 AMP Goal 3 White Paper" (**Attachment 9a**) and his PPT presentation (**Attachment 9b**). The white paper is still in draft and comments are still welcome. The charge from the AMWG was to develop a list of which species had been lost in post-dam time and perhaps being able to assemble enough information to understand why they might be considered in this effort. He said there is no commitment for funding from the AMP to restore extirpated or declining species.

Larry said that two administrative issues emerged from this analysis that haven't been discussed by the AMWG. First, many taxa of management concern (TMC) were recognized from the CRE that may warrant management attention, if not by the AMWG, then by other managing agencies. A total of 47 (54 percent) of the 85 TMC considered in here had potential restoration scores > 50 percent (Table 2;

Appendix A). Also, many species with scores <50 percent lacked critical information on distribution, habitat use, or population status. There appears to be considerable opportunity for improving the quality of basic information on TMC.

Second, AMWG monitoring recommendations currently focus primarily on HBC, as well as flow and sediment transport, with minor attention to KAS. However, at least 5 species (1 plant, 1 lizard, and 3 non-listed fish) scored higher than HBC in our analysis. Concern for the 3 non-listed CRE fish arose from the desire of the Committee to prevent those species from becoming federally endangered. The zebra-tailed lizard scored above HBC because it would be such an inexpensive and easily-accomplished restoration action. AMWG may choose to engage in further discussion of the restoration potential of these TMC, and we hope that the information provided here contributes to those discussions and to improved stewardship of the CRE.

Motion (Proposed by Ted Kowalski, seconded by Mike Yeatts): TWG recommends that AMWG consider the report of the Species of Concern Ad Hoc Committee entitled, "Assessment of Taxa of Management Concern in the Colorado River Ecosystem, Glen and Grand Canyons, Arizona, USA: Habitat Needs, Availability, and Ecosystem Roles" dated 15 June 2011, which meets the criteria set forth in the AMWG motion of April 2009, calling for "a review of information about an assessment of the status of habitat needs and availability, and ecosystem roles" of native species of management concern.

Passed by consensus.

Socioeconomic Ad Hoc Group Update. Helen Fairley said the key piece of the report is the need for resolution on the information needs in a broad sense, not just hydropower. They've run into the issue of how that discussion should be guided and having the appropriate expertise on board. She noted that Anne Castle's perspective is that there is no need or obligation that it be strictly the members who are the TWG representatives here to be part of the ad hoc committee, that there is room for expertise to be brought in from other parts of a given agency. For example, the Park Service has an economist that they could bring to be part of the discussion. Other organizations might have economists that aren't sitting at the table but could be part of that committee to help refine those INs. Even though they don't have the expertise, they have a work plan for this year that they're trying to move forward at some level. They've had discussions among Park Service and WAPA in terms of how to make incremental progress. One piece they're going to do in the context of the Knowledge Assessment is the GTMax review as described in the FY11 workplan. It's serving a number of different purposes, but one of the more important ones from the TWG's perspective is that it's an opportunity for everyone that wants to know more about that model to get a much more in-depth understanding of it because that's the model that WAPA is proposed as a main method for making assessments of effects under different operations. They also want outside expertise to help in the review. That will be done in the context of the workshop at the end of August and then move right into the actual Knowledge Assessment Workshop.

The other piece is the Park Service undertaking the economic study. They are planning to move forward with doing economic analyses of different components of the recreational use in the Colorado River. As an interim measure to build on that work and expand it to incorporate more attention to this program, they proposed providing them with some additional funding from the small amount of money that was set aside for recreational fisheries work this year to supplement and expand upon what they're proposing to do in FY11-12. The idea was to expand on the scope of the sample of fishermen that would be included in the survey. Originally they were proposing to look specifically at the people that are going upstream into the Lee's Ferry Reach to fish from boats and using fishing guides. They suggested it might be valuable to incorporate more of the walk-in fisherman and people who aren't necessarily boat supported, people that are coming in from the reservation side of things as well as just coming in at the ramp and walking downstream in order to get a bigger and more comprehensive picture of the people that are using that fishery. In combination with other TWG input, there may be additional questions in the context of that survey.

Some members indicated that they didn't feel the GTMax model needed to be reviewed by GCMRC.

Survey Instrument Ad Hoc Group Report. Dr. Garrett distributed copies of his report and PPT presentation (**Attachment 10**). He said it was great working with McClain and others who support the SIAHG's work. He said the group didn't review the survey instruments because it couldn't be accomplished. However, they looked at the questions being asked in the Survey Instrument and added some information needs the TWG and other participants wanted to see in that document. Upon submittal of the report to Ms. Castle, he requested and received permission to make today's presentation. He said Ms. Castle liked the report and is handling interactions with the Park Service. He said there were two issues that came up: (1) Are the INs for the SEAHG program fully developed, and can INs be added. There was a concern the INs that they were given were not fully developed. He said they agreed to allow the committee members to add INs and or questions if they saw that was needed. (2) They also felt a definition was needed to clarify how input from the ad hoc group related to future findings of the NPS survey and how that should be interpreted. They decided to use the SEAHG report as guidance in developing additional INs.

The SIAHG only dealt with issues related to the Lee's Ferry area of sports fishery and boating, and boating through the Grand Canyon. In addition to new questions they proposed, they felt strongly about making some statements about how the Park dealt with the unique characteristics of the Canyon and the fishing anglers and how they reference Lee's Ferry against other sports fishery locations in the Southwest. They felt there were two areas that were really missed, the sports fishery at Lee's Ferry and the walk-in anglers. They asked the Park to look into clarification of those. The group had a discussion that Native Americans utilize walk-in and specifically the walk-in the lower mile of that region. They may have been possibly impacted by changes in regulations and access. They posed a question on that. Also missing from the survey was the half-day float trips which they also added into the SIAHG report. Dave said Ms. Castle advised that he could talk with Bruce Peacock regarding recommendations from the SIAHG on the survey.

Helen said the TWG may want to provide information on how recreational values may change under different flow regimes.

Public Comments:

John Jordan: It would be very helpful if there was an e-mail sent with the dates for upcoming meetings and workshops.

Adjourned: 2:00

Attachment 11: A Review of the GCMRC Report on an "Analysis of Biophysical and Socio-cultural Impacts of Four Experimental Options"

Respectfully submitted,

Linda Whetton
Upper Colorado Regional Office
U.S. Bureau of Reclamation

General Key to Adaptive Management Program Acronyms

ADWR – Arizona Dept. of Water Resources
AF – Acre Feet
AGFD – Arizona Game and Fish Department
AIF □ Agenda Information Form
AMP – Adaptive Management Program
AMWG – Adaptive Management Work Group
AOP – Annual Operating Plan
BA – Biological Assessment
BAHG – Budget Ad Hoc Group
BCOM – Biological Conservation Measure
BE – Biological Evaluation
BHBF – Beach/Habitat-Building Flow
BHMF – Beach/Habitat Maintenance Flow
BHTF – Beach/Habitat Test Flow
BIA – Bureau of Indian Affairs
BO – Biological Opinion
BOR – Bureau of Reclamation
CAHG – Charter Ad Hoc Group
CAPA – Central Arizona Project Association
GCT □ Grand Canyon Trust
CESU – Cooperative Ecosystems Studies Unit
cfs – cubic feet per second
CMINs □ Core Monitoring Information Needs
CRBC – Colorado River Board of California
CRAHG - Cultural Resources Ad Hoc Group
CRCN – Colorado River Commission of Nevada
CRE □ Colorado River Ecosystem
CREDA – Colorado River Energy Distributors Assn.
CRSP – Colorado River Storage Project
DAHG – Desired Future Conditions Ad Hoc Group
DASA - Data Acquisition, Storage and Analysis
CWCB – Colorado Water Conservation Board
DBMS – Data Base Management System
DOE □ Department of Energy
DOI – Department of the Interior
EA – Environmental Assessment
EIS – Environmental Impact Statement
ESA – Endangered Species Act
FACA – Federal Advisory Committee Act
FEIS – Final Environmental Impact Statement
FRN – Federal Register Notice
FWS – United States Fish & Wildlife Service
FY – Fiscal Year (October 1 – September 30)
GCD – Glen Canyon Dam
GCT □ Grand Canyon Trust
GCMRC – Grand Canyon Monitoring & Research Ctr.
GCNP – Grand Canyon National Park
GCNRA – Glen Canyon National Recreation Area
GCPA – Grand Canyon Protection Act
GLCA – Glen Canyon National Recreation Area
GRCA □ Grand Canyon National Park
GCRG □ Grand Canyon River Guides
GCWC □ Grand Canyon Wildlands Council
HBC – Humpback Chub (endangered native fish)
HMF – Habitat Maintenance Flow
HPP – Historic Preservation Plan
INs – Information Needs

KA □ Knowledge Assessment (workshop)
KAS – Kanab ambersnail (endangered native snail)
LCR – Little Colorado River
LRRMCP – Lower Colorado River Multi-Species Conservation Program
LTEP – Long Term Experimental Plan
MAF – Million Acre Feet
MA – Management Action
MATA – Multi-Attribute Trade-Off Analysis
MLFF □ Modified Low Fluctuating Flow
MO – Management Objective
MRP □ Monitoring and Research Plan
NAU – Northern Arizona University (Flagstaff, AZ)
NEPA – National Environmental Policy Act
NHPA – National Historic Preservation Act
NPS □ National Park Service
NRC □ National Research Council
O&M □ Operations & Maintenance (USBR funding)
PA □ Programmatic Agreement
PEP □ Protocol Evaluation Panel
POAHG □ Public Outreach Ad Hoc Group
Powerplant Capacity = 31,000 cfs
R&D □ Research and Development
RBT – Rainbow Trout
RFP □ Request For Proposals
RINs □ Research Information Needs
ROD Flows □ Record of Decision Flows
RPA □ Reasonable and Prudent Alternative
SA □ Science Advisors
Secretary □ Secretary of the Interior
SCORE □ State of the Colorado River Ecosystem
SHPO – State Historic Preservation Office(r)
SOW □ Scope of Work
SPAHG – Strategic Plan Ad Hoc Group
SPG □ Science Planning Group
SSQs □ Strategic Science Questions
SWCA □ Steven W. Carothers Associates
TCD □ Temperature Control Device
TCP □ Traditional Cultural Property
TES □ Threatened and Endangered Species
TWG □ Technical Work Group
UCRC □ Upper Colorado River Commission
UDWR □ Utah Division of Water Resources
USBR □ United States Bureau of Reclamation
USFWS □ United States Fish & Wildlife Service
USGS □ United States Geological Survey
WAPA □ Western Area Power Administration
WY – Water Year (a calendar year)

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

Updated: May 12, 2010