Glen Canyon Dam Technical Work Group
Meeting Minutes
May 28, 2003

Conducting: Kurt Dongoske, Chairperson **F I N A L**

Committee Members Present:

Mary Barger, WAPA
Robert Begay, Navajo Nation
Kerry Christensen, Hualapai Tribe
Jonathan Damp, Pueblo of Zuni
William Davis, CREDA
Brenda Drye, So. Paiute Consortium
Lloyd Greiner, UAMPS
Norm Henderson, NPS
Amy Heuslein, BIA
Pamela Hyde, Southwest Rivers
Matt Kaplinski, GCRG
Robert King, UDWR
Dennis Kubly, USBR
Phillip Lehr, Colo. River Commission/NV
Bill Persons, AGFD
D. Randolph Seaholm, CWCB
John Shields, WY State Engineer's Ofc.
Mark Steffen, Federation of Flyfishers
Michael Yeatts, The Hopi Tribe

Committee Members Absent:

Perri Benemelis, ADWR
Christopher Harris, CRB/CA
Cole Crocker-Bedford, NPS/GRCA
Wayne Cook, UCRC
Don Metz, USFWS
Nikolai Ramsey, Grand Canyon Trust
John Whipple, NM Interstate Stream Comm.

Alternates Present:

Jan Balsom
Rick Johnson
Glen Knowles

For:

Cole Crocker-Bedford, NPS/GRCA
Nikolai Ramsey, Grand Canyon Trust
Don Metz, USFWS

Interested Persons:

Tim Begay, Navajo Nation
Gary Burton, WAPA
Nancy Coulam, USBR
Lee Failing, Ecometric
Helen Fairley, GCMRC/USGS
Denny Fenn, GCMRC/USGS
Steve Gloss, GCMRC/USGS
Chris Kincade, NPS/GLCA
Lisa Leap, NPS/GLCA
Mike Liszewski, GCMRC/USGS
Ted Melis, GCMRC/USGS
Fred Niles, private consultant
Mary Orton, The Mary Orton Company
Randy Peterson, USBR
Ted Rampton, UAMPS
Carl Walters, Ecometric

Recorder: Linda Whetton, USBR

Meeting Opening and Administrative Items

Convened: 1:05 p.m.

Welcome and Administrative Items: Kurt Dongoske welcomed the TWG members, alternates, and guests. All introduced themselves. A quorum was established and attendance sheets (***Attachment 1***) were distributed.

Review of Action Items from Feb. 26-27, 2003, meeting. Update to #3: No lawsuit has been filed following the 60-day notice.

Review of Minutes from Feb. 26-27, 2003, meeting. Pending some minor edits and without objection, the minutes were approved.

Gully Erosion of Cultural Sites – Joel Pederson (geomorphologist at Utah State University) began his presentation by saying that during the last couple of decades archeologists and geologists working in the Grand Canyon have noted and to some degree documented increases in erosion associated with gullies. Two years ago he received some funding from GCMRC to do a study of gully erosion. He proceeded with a PowerPoint presentation (***Attachment 2a***) and also distributed a handout (***Attachment 2b)***.

Synopsis of Target Setting Workshop – Ted Melis introduced Lee Failing (Ecometric) and said she would explain the process that was used at the workshop.

Lee said the purpose of the workshop was to look at how to develop a multi-attribute evaluation framework and then to start one. Prior to the workshop, she worked with Josh Korman and Carl Walters in putting together a set of end points and attributes which were discussed at the February TWG meeting. She explained the end points are the resources actually being managed for and the attributes are the specific measurable, quantifiable metrics that would be used to assess the impacts of any management options on the end points. They created a preliminary set of estimates of what the impacts of those management options would be on each of the attributes and prepared a consequence table. She said the exercise is helpful in going through a large number of management options, focusing on which ones are losers and which ones have potential to be explored further, and identify where people are agreeing or disagreeing and why. She demonstrated with a PowerPoint Presentation (***Attachment 3***).

Ted related some of his perceptions for going through the process:

- It helps clarify stakeholder profiles in a semi-quantitative way relative to a range of operating regimes for options.
- It's a multi-attribute approach so one doesn't get stuck on one resource attribute.
- It's a framework for assessing and evaluating uncertainty associated with the consequence tables.
- It provides for multiple revisions based on stakeholder values and perceptions through time.
- It provides a useful interactive venue for evaluating consequence and certainty with both the stakeholder groups as well the scientists.
- Assists in identifying risks and potential benefits for various management options.

TWG Comments

- Would like to see it done in a cooperative manner with all the stakeholders where the stakeholders develop the flow scenarios as well as the attributes that are used to evaluate the impacts/end points of what we want to see in the system. It's also an opportunity to interact with the scientists to try and fill out the table on what we know about the range of what the TCD is

going to do to the humpback chub population at the LCR - actually get some people in there that are within the program and ask the questions. (Kaplinski)
- Think the process could be used to focus on management actions for the strategic plan. (Henderson)
- Found this very useful on a number of levels, one level where we could individually and collectively look at the range of values that we either know or don't know that we're assigning to the resources and to the particular attributes that help us look at the resources. It slices these problems so many different ways that it gives you a pretty complete picture of what we have all been looking at for so many years but in a really overt way. This has a lot of potential for getting us past some of the problems we've had and combining more tools for us to get to efficient management options. (Hyde)
- Supportive. It gives us a structured way to look at other stakeholder values and avoid a "free for all" between some of the competing interests. (Persons).

Ted said he would ask Lee, Josh, and Carl to summarize what they did during the workshop and send a briefing document to the TWG between now and July so the TWG could have something more tangible to understand the process.

Ted said he would like to give some direction to Ecometric as to what the TWG would like to have them do next. Steve Gloss suggested a decision should be postponed until tomorrow morning after the TWG has heard his presentation on long-range planning.

→ Further discussion postponed until after Steve's presentation tomorrow morning.

Humpback Chub Ad Hoc Group Interim Report – Steve Gloss said there were updates made to the HBC AHG Report (***Attachment 4a***) and directed the members to Appendix B of the report. He said Carl Walters would explain the background of the various population dynamics and quantitative results over the past couple of decades. Carl gave a PowerPoint presentation (***Attachment 4b***).

Recovery Implementation Plan (RIP) Concept – Gary Burton said he would lay out the concepts of a RIP program as used in the Upper Basin RIP (***Attachment 5***) as an example for explaining the RIP concept. He stated there are no institutional arrangements for a recovery program or any focus on recovery goals for doing things to benefit the humpback chub. He mentioned the 21 projects listed in the HBC AHG Report and said some are outside the AMP and feels the AMWG needs to make some recommendations to the DOI Secretary on how to implement things that are outside the scope of the AMP. He also wants the TWG to consider additional options.

TWG Comments:

- Allow those entities who have responsibility to figure out what their management responsibilities are and work on those things specifically. (Seaholm)
- Why split off into a different program? Why establish another whole bureaucracy? (Henderson)
- HBC recovery is not a compliance issue. Where do we get recovery support? (Spiller).
- Need to think more broadly about individual contributions to HBC recovery. (Peterson)

Gary said the purpose for presenting the topic on today's agenda was for the TWG members to speak with the AMWG representatives as the concept would be introduced to the AMWG tomorrow .

Tribal Consultation Plan (TCP) - Loretta Jackson introduced Dean Saugee as the author of the TCP and said there was a lot of input from the tribal representatives who also participated in the Programmatic Agreement (PA) Group. Mr. Saugee said he is an attorney with a firm in Washington, D.C. and has been representing the Hualapai Tribe in this matter. He said the draft plan (***Attachment***

6a) has been worked on for over a year and six tribes have been engaged in its development - Hopi, Hualapai, Kaibab Paiute, Navajo Nation, Shivwits Paiute, and Zuni Pueblo. He distributed a handout of his PowerPoint presentation (***Attachment 6b***).

Mr. Saugee said he and Loretta met with the PA Group this morning and will be getting comments from the PA signatories. They would like input from the TWG at the same time they receive comments from the PA Group and then would come back with another draft but don't want to do two separate drafts. Loretta said the plan still requires input from the tribal entities, federal agencies, etc. in order to make it a well-rounded document. She doesn't anticipate it would go to the AMWG until January 2004.

Since the TCP will be incorporated into the Strategic Plan, it was suggested that it be forwarded to the Strategic Plan Ad Hoc Group (SPAHG) for a review as well. It was decided Pam Hyde would make the referral at tomorrow's AMWG meeting. Loretta will forward any comments she receives to Nancy Coulam for distribution to the PA Group as well as to Mr. Saugee.

ACTION: TWG Members should submit their comments on the Tribal Consultation Plan to Loretta Jackson by June 30, 2003. (lorjac@citlink.net)

GCMRC Survey PEP Report (*Attachment 7a*) - Mike Liszewski introduced Raad Saleh who did a review of their survey group and ancillary GIS and remote sensing activities that dealt with spatially positioning scientific data in the canyon. Raad passed out copies of his PowerPoint presentation (***Attachment 7b***).

Adjourned: 5:05 p.m.

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May 30, 2003

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Committee Members Present:

Mary Barger, WAPA
Kerry Christensen, Hualapai Tribe
William Davis, CREDA
Brenda Drye, So. Paiute Consortium
Norm Henderson, NPS
Amy Heuslein, BIA
Pamela Hyde, Southwest Rivers
Matt Kaplinski, GCRG
Robert King, UDWR
Dennis Kubly, USBR
Phillip Lehr, Colo. River Commission/NV
Bill Persons, AGFD
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John Shields, WY State Engineer's Ofc.
Mark Steffen, Federation of Flyfishers
Michael Yeatts, The Hopi Tribe

Committee Members Absent:

Robert Begay, Navajo Nation
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Christopher Harris, CRB/CA
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Alternates Present: **For:**

Jan Balsom — Cole Crocker-Bedford, NPS/GRCA
Rick Johnson — Nikolai Ramsey, Grand Canyon Trust

Interested Persons:

Gary Burton, WAPA
Nancy Coulam, USBR
Jeff English, public
Helen Fairley, GCMRC/USGS
Denny Fenn, GCMRC/USGS
Steve Gloss, GCMRC/USGS
Mike Kearsley, NAU
Lisa Leap, NPS/GRCA
Mike Liszewski, GCMRC/USGS
Ted Melis, GCMRC/USGS
Randy Peterson, USBR
Ted Rampton, UAMPS
Rich Valdez, public

Recorder: Linda Whetton, USBR

Meeting Opening and Administrative Items

Convened: 8:10 a.m.

Welcome and Administrative Items: Kurt Dongoske welcomed the TWG members, alternates, and guests. All introduced themselves. A quorum was established and attendance sheets were distributed.

Status of Paria River Early Alert Network – Ted Melis said that about 18 months ago when the AMWG made a motion to do a sediment experiment to answer questions about sustaining the remaining 10% of the sand below the dam primarily from the Paria and LCR, there were four different scenarios that could've happened last year and could occur this year as well as in the future. They are still trying to get through testing scenario one which is inputs coming in during the summer or fall and are immediately followed by a re-operation of the powerplant to low flows in an effort to try and retain those inputs until they get into January at which time there is a high flow experiment proposed that will take the new sediment and presumably put it up on the banks in a more efficient and effective way than what they saw happen in 1996. Another scenario is that the inputs would occur sometime between January and May and would be followed immediately with the high flow experiment. The other scenario that was proposed by Western Area Power Administration which they are planning to test is that individual inputs from the Paria that might come in July-October are immediately followed by not a spill flow but a peak powerplant type flow. The idea being that they are trying to take the new sand inputs and temporarily bank them as efficiently as possible into dozens or hundreds of eddies through Marble Canyon in anticipation of a January high flow in the range of 45,000 cfs. That scenario is a bit complicated and provides more challenge than they have dealt with before in terms of trying to coordinate operations from the dam with Mother Nature. The proposal they made for that scenario was to install another gage on the Paria River in southern Utah at the location of the Highway 89 bridge which would be more than a typical stream gage or sediment station. It would actually be an early or advanced alert system that would tell them when large floods are actually coming toward Lees Ferry, presumably some hours to a half-day in advance. They contacted Jeff Phillips with the Utah District and for the past two years have been trying to get the new station up and running. The proposal this year is to shake down the protocol on how it would be used to support the experimental scenario. The proposal isn't to actually do it this summer as an experiment but demonstrate its utility as part of the experimental plan this summer. It is all contingent upon whether or not there are any flood flows from the Paria.

Jeff Phillips said he started with the USGS in 1988 and managed the office in Tempe. In 1998, he took a 3-year hiatus to Honduras to help with reconstruction efforts after Hurricane Mitch. He proceeded with a PowerPoint presentation (***Attachment 8***).

TWG Concerns:

- A high flow could cause upriver campers (in the Lees Ferry Reach) to lose lives, boats, and equipment. (Persons)
- Downriver campers need 2-3 days notice. (Steffen)
- Outreach is necessary. If the rafters know what to expect, they can factor in how to use the system and establish safe camps. (Hyde)

Budget AHG Update - Dennis Kubly said that in January, Denny identified to the AMWG there would be a new 15% overhead on all transfers from other DOI agencies to the USGS with 11% going to Washington and 4% going to ecological cost systems. They are already charging 4% as a direct cost so the net effect of that overhead would've been an 11% charge on all transferred funds. In reaction to that, the Budget Ad Hoc Group looked at options to reduce that cost and cam up with the following:

- Take no action. The program would simply have to suffer the cost,

- Transfer the contracting function back to the USBR or possibly to WAPA and pay non-USGS contracts directly out of the other agencies so there would not be the transfer of funds,
- Look at a pass-through exemption that might work whereby a 4% overhead would be assessed, 2% of which would already occur as directs costs with a net overhead to the program on non-USGS contracts of 2%,
- Look at the Cooperative Ecosystems Studies Unit (CESU), which is a cooperative agreement among federal agencies primarily with universities which does not have any transfer costs and has an agreement that the overhead rate from the receiving entity would be 15%. This option would save on the second level of overhead charge which is typically incurred by GCMRC with the contractor.

In looking at those four options, the Budget AHG selected the 2% pass-through as the best choice. In doing an internal assessment of transferring the contacting function from GCMRC to USBR, there would be a minimum cost of $100,000 to administer the contracts. The 2% transfer results in a non-USGS total amount of about $3M or $66,000 cost as opposed to the 11% of $330,000 for a savings of about $270,000. The Budget AHG recommended that option.

The second item the Budget AHG considered was an additional cost that might be incurred from humpback chub studies recommended in the comprehensive plan for 2004. Randy went over the timeline yesterday and identified some of those costs. Dennis said that since the AMWG hasn't accepted the projects, it doesn't make sense to go through them. However, he said the costs would be around $300-400K.

The Budget AHG also discussed the cost of the experimental flows and the uncertainty of funds for the second year of the experiment. As a result, they are going to have to wait for additional information.

FY 2004 Budget – Denny said the Budget AHG has met three times since the AMWG meeting and has held two conference calls in an effort to make the appropriate revisions to the work plan. He gave a PowerPoint presentation (***Attachment 9a***). He referenced Table 2.3 (***Attachment 9b***) as being more specific and provides a better understanding of where monies are being allocated. He also distributed copies of a comparison table (***Attachment 9c***) and GCMRC Project Narratives (***Attachment 9d***). He said there are five different things putting pressure on the remaining $276,000:

1 – Experimental flows shortfall
2 – HBC plan needs
3 – Fund the next Information Need and start a new project
4 – Restore some of the cuts, and
5 - Some combination of the above

He talked about the experimental flows shortfall and referenced page 136 of the previous workplan (***Attachment 9e***). He recapped what has transpired on the fund. He said the Asst. Secretary had a conference call in late November to discuss the proposed environmental assessment and the funding pending a decision he wanted to make in terms of recommending to the Secretary whether to proceed with approving the EA and authorizing the implementation of the first two years that the EA covered. After a lengthy discussion of the technical aspects of the experimental flows and the EA, they turned to discussing the financial aspects of it. There was enough money from USGS carryover and USBR funding with carryover and new money to fund the $1 million for the first year. However, they were $1 million short for FY03 at that point in time so it didn't make a lot of sense to approve the EA and the project if they weren't going to have the money to implement the work. If it couldn't be figured out how to fund the effort, then the EA wasn't going to be approved. One of the proposals presented by the Asst. Secretary was that since USGS, USBR, FWS, and NPS were all engaged in the process, they should each transfer $250,000 to the GCMRC for FY03. After a few minutes of discussion, Denny (who had

previously been authorized by Director Groat) said the USGS would put in $500,000 because the USGS had the primary role in the effort. After further discussion, that was the option the Asst. Secretary approved. Therefore, FY03 was covered by taxing the USGS with $500,000 and $170,000 being elicited from the remaining three agencies. They returned to talking about the second year of the study (FY04). At that point in the time the USGS budget was before the Secretary and being prepared as part of the President's budget. Director Groat had identified $1 million and had authorized Denny to commit to it if Congress appropriated $1 million and he would then apply it all to the GCMRC for all activities to cover the research in the future. The $1 million is in the President's budget and is before Congress now. The risk is that just because it is in the President's budget doesn't necessarily mean that Congress will approve. Consequently, FY04 funding is still very uncertain.

In reviewing page 136, Denny said that $2,538,000 is needed to fully implement the experiment. Denny said the USGS had assumed that the USBR's $500,000 put into the FY03 account would also be available in FY04 but during the Budget AHG meeting last night, that was only wishful thinking. Randy added that that was the power revenues put in. Denny said it was his mistake in not communicating with Randy. They discovered that their $500K shortfall was really $1 million. If the other agencies don't provide their portions, then they will be short by $2 million. Denny said he didn't include the experimental flows portion in the FY04 work plan because there has been so much uncertainty. Implementing the experimental flows in FY04 is dependent on the $1 million that Congress will actually appropriate and the USGS being able to carry over a significant portion of this year's money since there wasn't a sediment input this year. It will be a few more weeks before they will start to have a clear indication of what the FY03 expenses have been and what will be carried over. As the year continues, they will be able to bring more accurate information back to the TWG.

Review of FY04 Projects - Steve Gloss said the $1.2M reduction is the right perspective rather than the net reduction of $922,000 which is for the overall budget but advised there is $276,000 remaining for the other purposes. He proceeded with a PowerPoint Presentation (***part of Attachment 9a***).

Comments/Concerns:

- Prefer to not start new habitat mapping until other projects are finished. (Christensen)
- Concern with eliminating the herps and insects. Recommend any of the funds being reprogrammed from the $276,000 go back into this area. (Yeatts)
- Concern with reductions hindering future ability in outyears to detect change. (Kaplinski)
- If we knew what core monitoring was going to be for each of the programs, it would be easier to understand and see that it is not affecting core monitoring. (Barger)
- Some vegetation sampling needs to continue from year to year. (Seaholm)
- Sampling can be reduced but 50% cut is steep. Contractors need travel and salary money. (Kearsley, public)
- Are there some projects that can be put on hold and not hurt overall objectives? (Davis)

Denny said the GCMRC would like a recommendation from the TWG for approval of the FY 04 budget so they can get approval from the AMWG in August and begin working on the Requests for Proposals.

Ted Melis reviewed some of the reductions to the sediment budget.

Pam Hyde expressed dissatisfaction with the budget because it is incomplete and doesn't feel the TWG can approve a partial budget. She wants the GCMRC to provide a list of projects that are being done in-house as well as provide a salary review of GCMRC staff.

Dennis said there are factors beyond the GCMRC's control and he suggested that perhaps there needs to be another TWG meeting prior to an AMWG meeting to review the budget again.

Bill Persons asked if the GCMRC could start working on the RFPs so they are not going to be delayed. He feels the longer they are advertised, the more competitive the process and the better it is for the program.

ACTION: GCMRC will revise the FY04 budget and send to the TWG for review.

The Chairman asked if they wanted to dedicate a certain amount of time in the next TWG Meeting to address the budget in more detail.

John Shields commented that he attended the Budget AHG meeting last night and feels the GCMRC has done the best they can do at this point in time. There are a lot of uncertainties and he feels it is unrealistic to think the TWG will be able to make a more informed recommendation a month from now.

Dennis reminded the TWG they could consider voting on whether to use the pass-through to address the USGS overhead.

MOTION: The TWG recommends to the AMWG that all future GCMRC overhead costs for non-USGS contracts and cooperative agreements be covered as pass-through funds assessed at a rate not to exceed 4%.
Motion seconded.
Call for the question.
Voting Results: Yes = 16 No = 0
Motion passed.

MOTION: The GCMRC will make changes to the budget based on comments received and will present at next TWG Meeting. GCMRC will issue RFPs with the understanding that they may be modified based on budget changes.
Motion seconded.

Matt said that since the TWG hasn't seen the entire presentation by the GCMRC or been able to comment on it, comments should be sent to GCMRC by next Wednesday.

AMENDED MOTION: The GCMRC will make changes to the budget based on comments received ***at the meeting or by June 4, 2003***, and will present at the next TWG Meeting. The GCMRC will issue RFPs with the understanding that they may be modified based on budget changes.

Steve Gloss said the practical effect of RFPs being included in the motion in the next 30-60 days is nil. The GCMRC will not issue any RFPs before they know the status of the budget.

AMENDED MOTION: The GCMRC will make changes to the budget based on comments received at the meeting or by June 4, 2003, and will present at next TWG Meeting. The GCMRC ~~will~~ ***may*** issue RFPs with the understanding that they may be modified based on budget changes.

Dennis said that it is not just the GCMRC's budget and that if the program is going to suffer major budget cuts, then the TWG should be looking at the whole budget. He said the Federal Government uses walkdown tables as a way to look at 5, 10, or 15% cuts. He feels it may be more work for GCMRC but it would give the TWG a better idea of the different levels of cuts. He also asked if the above needed to be a motion vs. an action item.

Motion withdrawn.
Motion seconded withdrawn.

Long-Range Planning – Steve Gloss said his presentation was in response to the AMWG motion passed in April 2002 which included one of four elements: *"GCMRC, in consultation with the TWG and science advisors to develop a long-term plan for experimentation."* GCMRC went through a planning process last year which has led to some of the current budget difficulties. He wants to advocate a process now to develop a long-term experimental plan and feels that the multi-attribute workshop that was held earlier in the week was a good mechanism for doing that. He would like to have GCMRC bring a list of potential experimental treatments to be considered to the TWG and then try to reduce those, not necessarily using the formal attribute process, but get agreement in terms of management options and policies. The GCMRC would then try and go back and develop a consequence table(s) for all of those and then at a subsequent meeting try and reduce those down to a workable group that they could focus on sequencing and timing. He feels they need to start something soon.

Matt said he agreed with Steve but feels something else needs to be done to inform AMWG on how the process works. He suggested a short presentation be made to the AMWG at their next meeting with the intent of receiving direction on how to proceed further.

Pam said that both TWG and AMWG need to be involved in the process. She feels that if only the TWG does it and then the AMWG tries to understand what the TWG did, they will lose some of the utility of it. She supports a multi-day workshop for the AMWG in the fall.

Steve asked if there would be time at the June 30 meeting for the TWG to do an initial cut on the list of management policy actions/treatments. Steve said what he thought they could do at the next meeting would be to agree on everything that ought to populate the potential management actions as well as how to describe the attributes that may be associated with those. It will be based on what some of the TWG saw earlier in the week in the existing attribute table and they would probably expand on that.

AMP AHCIO Report – Mary Orton said at the January meeting the AMWG adopted criteria for whether information needs (INs) should not be included in the Strategic Plan, if: (1) it contributes nothing to the vision or mission, and (2) if it describes how an agency should develop information for the program as opposed to just saying here is the needed information. AMWG also approved three categories (page 3) of the recommended ACHIO Report (***Attachment 10***) She reviewed those for the TWG. The AMWG also directed the ACHIO to apply those criteria to the draft INs and then categorize all of the INs into categories A, B, or C. She said the documents in the packet show the results of the ACHIO work and all but two of the INs were categorized for the TWG's approval and recommendation to the AMWG. Some edits were made to the INs based on the discussion of the ACHIO in applying the criteria and other clarifying edits. The ACHIO will be presenting their recommendations back to the AMWG but the AMWG wanted it to be presented to the TWG so the TWG could also send a recommendation to the AMWG. The ACHIO would like the TWG to recommend to the AMWG that the information needs, as edited in the report, be approved with the categories and sequence order as indicated.

Randy Seaholm, ACHIO Chair, thanked Mary for helping to facilitate the process. He said the group came up with a new principle (#6, page v) that they would like to recommend to the AMWG. They found by adding the new principle it helped them resolve the conflicts they had with how to categorize many of the Research INs. They really wanted to look at cause and effect relationships and status and trends equally. Randy said he also wanted to highlight Goal 12 (page 44) and the added language to address the "research on research" issue. They felt by putting that language there it allowed them to delete several of the resource INs and they made progress on many of the issues.

Mary asked the members if they had any questions, comments, or concerns about any of the changes or categories that are in the document. The ACHIO was not able to agree on what categories INs 2.6.1 and 2.6.2 should be in and anticipated the TWG may want to make that decision.

Comments:

- Need to incorporate some of the INs and MAs from the HBC AHG Report into the ACHIO Report before forwarding it to the AMWG. (Davis)
- Re: MO 2.6 and RIN 2.6.1. Need to address viable population. Some tribes have jurisdictional boundaries and they need to be included (Hualapai and Navajo). (Heuslein)
- Need to consider putting the IN back in Principle #6. (Kubly)

Mary advised that since there wasn't a quorum present, the TWG wouldn't be able to make a recommendation to the AMWG today. She said the ACHIO could have one more meeting to complete work on 2.6.1 and 2.6.2 before the August meeting if the TWG so desired. The TWG agreed to consider the report at its August meeting.

NEXT MEETING:

June 30 – (9:30 – 5:00)
July 1 – (8 a.m. – noon)

LOCATION:

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

Adjourned: 12:25 p.m.

General Key to Adaptive Management Program Acronyms

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