

**Technical Work Group
May 10, 2000
Phoenix, Arizona**

Presiding: Rick Johnson, Chairperson

FINAL

Committee Members Present:

Clifford Barrett, CREDA

Andres Cheama, Pueblo of Zuni

Dave Cohen, Trout Unlimited

Wayne Cook, UCRC

Wm. Davis, Eco Plan Assoc/CREDA

Kurt Dongoske, The Hopi Tribe

Brenda Drye, So. Paiute Consortium

Christopher Harris, ADWR

Norm Henderson, NPS/GCNRA

Amy Heuslein, BIA

Rick Johnson, GCT

Matt Kaplinski, GCRG

Robert King, UDWR

Phillip Lehr, Colo. River Comm./Nevada

Don Metz, FWS

S. Clayton Palmer, WAPA

Bill Persons, AGFD

Randall Peterson, USBR

Randy Seaholm CWCB

Robert Winfree, NPS/GCNP

Committee Members Absent:

Robert Begay, Navajo Nation

Nancy Hornewer, USGS

Kerry Christensen, Hualapai Tribe

John Shields, WY State Engr. Office

Fred Worthley, CRBC

Alternates Present:

Wayne Cook

Loretta Jackson

Tim Begay

Pam Hyde

Alternate for:

John Shields, WY State Engr. Office

Kerry Christensen, Hualapai Tribe

Robert Begay, Navajo Nation

Mindy Schlimgen-Wilson, Am. Rivers

Other Interested Persons Present:

Garry Cantley, BIA

Nancy Coulam, USBR

Barry Gold, GCMRC

Dennis Kubly, USBR

Ruth Lambert, GCMRC

Mike Liszewski, GCMRC

Mary Orton, Mary Orton Company

Barbara Ralston, GCMRC

Recorder: Linda Whetton, USBR

Meeting Opening and Administrative Items

May 10, 2000: Convened: 9:30 a.m.

Welcome and Introductions

The Chairperson welcomed the TWG members, alternates, and guests. All introduced themselves. The Chairperson determined there was a quorum established.

The Chairperson recognized Wayne Cook. Wayne requested the LSSF Science Plan discussion scheduled for tomorrow's meeting be moved to today's meeting as he would not be present tomorrow. There were no objections and it was decided to switch it with the Tailwater Workshop presentation scheduled for today's meeting.

Attendance: Attendance Sheets were distributed (Attachment 1 - List of Attendees)

Motion: Approve March 2-3, 2000, meeting minutes (Attachment 2)

Matt Kaplinski clarified Action Item #2. During the course of the meeting, Dennis Kubly had talked about the basinwide recovery plan. Matt said that he mentioned that he thought we should see a copy of that plan or have a copy of it. Matt said the action item could be deleted from the minutes but he doesn't want it ignored.

Without objection the minutes were approved pending the above change.

Review of Action Items

1. Discussion of payment of travel expenses for TWG members/alternates at next meeting - Reclamation.
Randy Peterson said this would be rescheduled for a future TWG meeting.
2. Deleted. See comment under above motion.
3. Send MO BIN items to everyone - Mary Orton
Completed.
4. Re-draft language for MO's 47, 48, and 49 and turn into ad hoc group - Bill Persons
Completed.

5. Upcoming TWG & AMWG meetings - Randy Peterson
Scheduled for discussion today.
6. Power economics presentation - Cliff Barrett
Cliff will present at next TWG meeting.
7. TWG River Trip - Barry Gold
This is an agenda item for tomorrow's meeting.

Clayton said there was an action item from the January 20, 2000 TWG minutes relating to the Kanab ambersnail expert panel report. That hasn't been done and he would like to see that action item carried over.

ACTION: KAWG response to expert panel report and report to TWG (refer to TWG Minutes, January 19 & 21, 2000).

Barry Gold said a process needs to be developed in order to move this forward to the AMWG. Randy said that when the expert panel concluded their presentation, TWG discussed the next steps, including reconsultation with FWS using the new information. The consultation would be delayed until the KAWG had an opportunity to meet, review the report, and offer their response. At that time, the TWG would take action. The TWG is still waiting for the KAWG report. It was stated in the meeting that the KAWG solicited clarification from the expert panel on their report, but the expert panel refused to respond to KAWG inquiry. This has been a factor holding up the KAWG analysis. Randy commented that the TWG should consider the reports rather than having another review group in the process. Once the TWG receives a report, it should be reviewed and/or debated, and then a recommendation made directly to AMWG.

MOTION: The TWG consider KAS expert panel report and KAWG response at next TWG meeting and make recommendation to AMWG.
Motion passed.

MOTION:

1. Expert reports and responses or recommendations by other receiving bodies are presented to the TWG.
2. TWG considers recommendations.
3. TWG summarizes and forwards all recommendations, including their own, to AMWG.

Motion passed.

Ground Rules. Amy Heuslein reviewed the TWG Ground Rules (Attachment 3) for Meetings.

Presentation of future MO Process, Key Issue Papers, and Response to Comments

Rick directed the members to the MO document mailed to them on April 17, 2000 (Attachment 4a – Principles & Goals, 4b – MO's) and said today's discussion would focus on the responses. Some of the ad hoc group members were present and Rick invited them to respond as necessary. For substantial comments, Rick asked the members to write them down and send to the ad hoc group members (Cliff Barrett, Kerry Christensen, Wayne Cook, Barry Gold, Amy Heuslein, Rick Johnson, Randy Peterson, Andre Potochnik, Robert Winfree, and Gerry Zimmerman) by **May 24, 2000**, for further action.

The Issue Papers (Attachment 5) which accompanied the MO's were reviewed and members who had substantial comments were asked to send their comments to the ad hoc group. Refer to flip charts (Attachment 6).

Cultural Protocol Evaluation Panel Report - Ruth Lambert introduced Dr. William H. Doelle. Dr. Doelle is an archaeologist and has a cultural resource contracting firm, Desert Archaeology, in Tucson. He has a Ph.D. from the University of Arizona and is well known throughout the Southwest. Dr. Doelle compiled the PEP report and was here to present the panel's preliminary findings and answer questions. He reviewed the strengths of the program and provided a summary of panel recommendations (Attachment 7). The report should be ready by early June.

GCMRC FY 2002 Budget - Barry Gold presented the GCMRC portion of the FY 2002 budget (Attachment 8). The GCMRC developed their 2002 budget by looking at their monitoring and research needs developed from recommendations contained in the draft PEP reports and experience gained from planning the Low Steady Summer Flows and preliminary evaluation of the native fish monitoring and research activities. This resulted in a total GCMRC funding request of \$7,893,000. Consistent with the language in the Mark Schaefer memo, which transferred the GCMRC to the USGS, the portion of the GCMRC 2002 budget request to be financed by power revenues will be capped at FY 2000 levels adjusted by the Consumer Price Index (CPI), essentially the inflation factor. Additional GCMRC budget needs will be sought through appropriated funds. Barry indicated that funding needs in excess of power revenues will be sought through a request to the USGS for appropriated funds in 2002.

Clayton expressed concern about the money being proposed, specifically \$250,000 for administrative support by the USGS, when Reclamation's program costs don't change. He also had some concerns about the total budget cost. Randy Peterson explained that the GCMRC line item for Bureau support

services was the amount officially billed to the GCMRC for Bureau personnel, computer support, and contracting support for GCMRC contracts. This is a different charge than for program administration shown in Reclamation's part of the budget. Reclamation's AMP administration will not change even though the GCMRC is under a different organization.

AMP FY 2002 Budget - (Attachment 9). Randy Peterson stated the salary costs for Reclamation's administration of the AMP were inflated by 2.2% but that Reclamation is trying to make a conscious effort to reduce the administrative costs. Also included in this part of the budget is the PA funding of \$973,000, which includes funding for tribal participation. With the conclusion of the Cultural PEP review, that amount will be addressed in the next few months.

Motion:

Recommend supporting the funding budget for	
\$6,576,000	power revenues
\$ 307,000	O&M funding for Lake Powell water quality monitoring
<u>\$1,010,000</u>	appropriated funds
\$7,893,000	for the GCMRC, and recommend
\$1,399,000	power revenues
<u>\$ 75,000</u>	appropriated funds for tribal participation
\$1,474,000	for USBR administration for FY 2002

Vote: 17 in favor

Abstained: 1 (Cliff Barrett because there is no backup to support the \$1M for appropriated money for the GCMRC. He can't vote for it today.)

Runoff Forecast, LSSF Status - Randy Peterson said this presentation would be done in two parts: 1) hydrology update, and 2) LSSF science plan by Barry Gold. Randy displayed a snow map which indicated that we have had almost three months of no precipitation in the fall, three months where it was 150-200% of normal in the winter, and now basically no rain since mid-March. The snowpack has gone from 91% to 41% in the last month and there has been very little runoff to speak of in April. If not for the high releases last fall, this would be close to an 8.23 maf year.

He passed out a revised flow schedule (Attachment 10) for the remainder of the year. After the forecast drop of 1.25 maf in early May, a decision was made to reduce May releases from 19,000 cfs for most of the month down to 17,000 cfs to conserve water. In keeping with the intent of the study plan, it did not compromise the research. To support the LCR confluence ponding measurements, we will release 19,000 cfs on May 23-27 and then 13,500 cfs from May 28-31.

Amy mentioned that some people aren't on the Tom Ryan's list server for receiving GC Dam updates, so if they want to receive the monthly forecasts, they should give their names to Randy.

LSSF Science Plan - (Attachment 11). Barry Gold said in the January 2000 Adaptive Management Work Group meeting, Randy raised the possibility of a test of low steady summer flows and got a sense from the AMWG that if the hydrology presented itself, it made sense to undertake this. Around February 4, Randy called the GCMRC and said the February forecasts looked like the remainder of this year's releases would be structured as a 8.23 maf release year and requested that the GCMRC prepare the science plan for a LSSF. A meeting was scheduled at the GCMRC on Feb. 8 with all the fisheries biologists to work on data consolidation with respect to native fish data, and on Feb. 9, they held a meeting with all the fisheries biologists to discuss the science plan for a LSSF. They began with eight assumptions that they felt underpinned the rationale the FWS had used in proposing seasonally adjusted steady flows. They took those eight assumptions and broke them down into a set of about 20 hypotheses, things that could be tested this year if we released low steady flows. They held another meeting on Feb. 16 where GCMRC opened it up to more of the scientists and stakeholders and following that meeting, they sent those hypotheses out by e-mail to all of the scientists and asked them to prioritize the hypotheses so we would end up with a very focused set of studies. The criteria they were asked to use in prioritizing the hypotheses were: a) was it a meaningful hypothesis, was it something that related to the assumptions and that we really needed to understand, and b) was it testable, could we actually go in the field and get measurements that could be used to test that hypothesis. With that criteria in mind, they rated the hypotheses and focused the broader set down to the set that is in the science plan.

They then went to the biologists and scientists and asked them to propose studies that relate to the hypotheses. It was a rigorous and focused effort. In order to support the studies, GCMRC added 13 new trips and have rescheduled about 8 trips. The GCMRC reprogrammed some of their existing monitoring and other activities to support the work, and had a few contracts which became de-obligated. The final total was \$3,450,038 with \$932,000 from the GCRMC power revenue funded program and \$2,518,038 of additional power revenues requested from WAPA.

Randy pointed out that this has been an extraordinary process in a short amount of time for a lot of scientists, the GCMRC staff, and Reclamation staff and the work effort is a great accomplishment in itself.

Bill Davis questioned if this was a done deal and if the work was underway. Barry responded that many of the studies have been started and that is why there are committed funds in a lot of areas. Barry said initial approval was given by WAPA to spend \$1.8M but they haven't received a firm word

on the remaining funding requests. Bill suggested the **Contributed Funds** column be renamed to **Reprogrammed funds**. Barry concurred.

Clayton expressed concern over the socio-economic studies proposed for the test, but was willing to support the monitoring and research activities in the GCMRC plan. As a prerequisite to approving the additional contingency funding, he expects Reclamation to search for appropriated funds in their FY 2000 budget. He commended GCMRC for reprogramming approximately \$900,000 for studying the LSSF test.

Institutional Home of the GCMRC – (Attachment 12). Randy reported that Charley Calhoun (BOR) and Denny Fenn (USGS) sent out a memo about a month ago requesting input from the AMWG members and the transfer of the GCMRC to the USGS. This came in a response to the House and Senate Subcommittees on Interior Appropriations for they sought comments and feedback from the AMWG on this proposed transfer. As a result of those discussions, the Department of the Interior is preparing a reprogramming letter for the subcommittees to enact the the transfer of the GCMRC to the USGS. There may be a discussion at the upcoming AMWG meeting in July. There were a number of important concerns raised by AMWG members. Those concerns were carefully tabulated and analyzed, and will be factored into the processes to effect the transfer. The request letter from Charley Calhoun and Denny Fenn indicated a summary would be transmitted to the subcommittee and the AMWG. A copy of that summary will also be sent to the TWG.

Timing of TWG and AMWG Meetings. Rick said an ad hoc group was formed at the January TWG meeting to look at different meeting options. The group met (Barry Gold, Rick Johnson, Clayton Palmer, Bill Persons, Randy Peterson) and recommended the following:

- S TWG meetings will be held when they are needed, rather than automatically held before or after an AMWG meeting.
- S However, they will be held sequentially with an AMWG meeting whenever possible to save on time and money.
- S Under special circumstances, a TWG meeting may be combined with an AMWG meeting.

There was no opposition expressed. Having completed its assignment, the ad hoc group was disbanded.

Public Comment

None.

Meeting adjourned at 4:30 p.m.

**Technical Work Group
May 11, 2000
Phoenix, Arizona**

Presiding: Rick Johnson, Chairperson

Committee Members Present:

Andres Cheama, Pueblo of Zuni
Dave Cohen, Trout Unlimited
Kurt Dongoske, The Hopi Tribe
Brenda Drye, So. Paiute Consortium
Christopher Harris, ADWR
Norm Henderson, NPS/GCNRA
Rick Johnson, GCT
Matt Kaplinski, GCRG

Robert King, UDWR
Phillip Lehr, Colo. River Comm./Nevada
Don Metz, FWS
Bill Persons, AGFD
Randall Peterson, USBR
Randy Seaholm, CWCB
Robert Winfree, NPS/GCNP

Committee Members Absent:

Cliff Barrett, CREDA
Robert Begay, Navajo Nation
Kerry Christensen, Hualapai Tribe

Wm. Davis, EcoPlan Assoc./CREDA
John Shields, WY State Engr. Office
Fred Worthley, CRBC

Alternates Present:

Gary Burton
Pam Hyde
Loretta Jackson

Alternate for:

Clayton Palmer, WAPA
Mary Schlimgen-Wilson, Am. Rivers
Kerry Christensen, Hualapai Tribe

Other Interested Persons Present:

Nancy Coulam, USBR
Barry Gold, GCMRC
Dennis Kubly, USBR

Ruth Lambert, GCMRC
Mike Liszewski, GCMRC
Barbara Ralston, GCMRC

Recorder: Linda Whetton, USBR

Meeting Opening and Administrative Items

May 11, 2000: Convened: 8:00 a.m.

Welcome and Introductions

The Chairperson welcomed the TWG members, alternates, and guests. All introduced themselves. The Chairperson determined there was a quorum established.

Tailwater Workshop Update: (Attachment 13). Bill Persons summarized the Tailwater Workshop he attended on April 25-28, 2000. He thanked those individuals/agencies involved in funding the workshop. He said out of 26 papers, there were 9 academics, 9 state agencies, 3 from GCMRC, 2 private consultants, and 2 from the Fed. Govt. He felt that it was probably a good cross-section of people. They started out with case histories from a variety of tailwaters (Tennessee, Missouri, Oklahoma, Utah, Arkansas, Arizona, and New Mexico), mostly big rivers. A lot of them have similar problems with what we have but there are a lot of differences. Some of the similarities is that we're all dealing with regulated, highly altered systems. Many of them do not have control of their flows; they are managed by whatever agency runs the facility. They are trying to meet with the agency that manages the flows and in some cases are building and trying to manage flows using re-regulation dams. Another difference is that we've got native/non-native fish issues here, especially in the Colorado River Basin.

He has received abstracts from the meeting and will be putting together some proceedings. There was some thought about sending the proceedings to a peer review journal. However, that might be difficult to do because out of the 25-26 papers, only 4-5 might pass peer review. He will be working with Barbara Ralston in the coming weeks to figure out how to publish the proceedings.

Terrestrial PEP Review. Barbara Ralston introduced Scott Urquhart, Doug Bolger, and David Lightfoot who were part of the Terrestrial Protocol Evaluation Panel. Scott was the chairman of the panel. He reviewed the qualifications of the other panel members and distributed copies of the Draft Report (Attachment 14).

The panel's charge wasn't very specific and after a discussion with Barbara and given the length of time they had to interact, their charge evolved. Their focus was on the Grand Canyon, from Glen Canyon Dam through Lake Mead, below the old high water mark, perhaps with some work in side canyons. It appeared to them that there hasn't been very much integration across disciplines, no mechanism in place to ensure long-term comparability of monitoring data, some modeling of the terrestrial ecosystem, and

that the Kanab ambersnail receives too much effort. He said he would talk about those in more detail and proceeded to review the findings in the report.

Research & Monitoring Update - Barry said that in addition to the reports provided at yesterday's meeting and the Terrestrial PEP this morning, there are three more upcoming reviews: 1) the Trout PEP review will be coming out later this month, 2) the Lake Powell PEP review is scheduled for October 2000, and 3) the Native Fish and Aquatic Foodbase PEP review which was originally scheduled for October will probably be delayed until March 2001 because all the fishery biologists are engaged in the LSSF.

On April 21, 2000 Ted Melis sent TWG members abstracts from 4-5 recent papers on sediment research. These papers basically say that the current thinking about how sediment storage worked in the system is changing. This relates to whether the system was or is sediment-limited, and whether sediment inputs were accumulated in the system, and then every few years as those storage sites were filled, a BHBF could occur. He said he wasn't sure sending the technical report brings the information forward in a way that there can be a meaningful discussion about it. Matt Kaplinski and his group are updating a Fact Sheet which will be done in a couple of weeks.

- S The Bishop Report (recreation study) is now final.
- S Fish monitoring reports from Owen Gorman and others will be coming in soon.

Barry posed two questions: *How do we do an effective job in making presentations?* and *What is the framework for having dialogue around this?* As the program continues and work is completed, how should results be brought to the TWG? Barry questioned sending out five technical reports vs. an integrated summary. It was determined that summaries would be sent out and that if members wanted the full report, they could request it from the GCMRC. The GCMRC will also continue to post reports on their website. It was also suggested that the GCMRC put out a publication list and people could check off the reports they want and return it to the GCMRC. Rick also suggested that report summaries be put out earlier at TWG meetings and that if individuals want the full report, they could request from the GCMRC.

TWG River Trip Update - Barry presented the results of a possible TWG River trip originally scheduled for Sept. 2-9, 2000. As of March 10, **16** members said they could go, **8** said no, and **1** maybe. He also received a couple of requests that if there were space, could they go. This trip was discussed prior to conducting the LSSF and it now has become almost logistically impossible for the GCMRC to schedule the trip. The GCMRC would use all the boats and river guides around the spike so Rick asked him to propose some other dates. Barry proposed the following dates:

July 8-15, 2000

July 22-29, 2000

March 24-31, 2001.

There is a real drawback to canyon temperatures in July. He said that advantage for scheduling the trip in March 2001 would be the opportunity to do more observing (effects of the 8,000 and 31,000 cfs spike) and provide a longer opportunity to plan. One of the original concepts behind the trip was to work on the Strategic Plan and to become more informed about cultural resource issues in the canyon. Barry also pointed out that there are a number of trips going over the summer and fall and there are opportunities for members to volunteer.

Action: Barry will send out an e-mail message advising which river trip dates are available.

Ad Hoc Reports - The only ad hoc group that is the Experimental Flows Ad Hoc Group and it was decided the last time the issue was discussed, that the group would be idle until the Strategic Plan is done.

Upcoming Agenda Items:

1. KAS expert panel and work group recommendations
2. Dave Speas' update on trout monitoring (Fall)
3. TWG develop comments on Cultural PEP review. TWG should wait until the PA group provides an opinion to the TWG on the Cultural PEP. Trying to plan a meeting in July (Kurt). By Fall, comments would be available.
4. Power revenues
5. USGS presentation on what to expect after the transfer of GCMRC to USGS
6. Terrestrial PEP Review
7. MOs and INs that are going to the AMWG.
8. AMP Strategic Plan - develop a process/direction
9. EIS on Surplus Criteria associated with the California plan. Get a presentation from Bureau of Reclamation.
10. Follow up on 2002 budget? - Barry says people want more details on new initiatives.
11. At next TWG meeting, get preliminary results on LSSF.

Meeting Review - Bill Persons

Positive

Negative

agenda (format) meeting materials
kept to agenda do your homework
liked the budget tables More lead time on budget
PEP presentations good

rushed on Mos & Ins

More discussion on budget
Strange budget vote process
Mark agenda for decision items

Next TWG Meeting

August 2-3, 2000 (Wed-Thu)

Tentative TWG Meeting:

Sept. 20-21, 2000 (Wed-Thu)

Action Items:

1. KAWG response to expert panel report and report to TWG
(Carry over from January 2000 TWG Meeting)
2. Barry will send an e-mail message advising which river trips dates are available.

Meeting adjourned at 11:15 a.m.

General Key to Adaptive Management Program Acronyms

ADWR - Arizona Department of Water Resources	IT - Information Technology (GCMRC program)
AF - Acre Feet	KAS - Kanab ambersnail (endangered native snail)
AGFD - Arizona Game & Fish Department	KAWG - Kanab Ambersnail Work Group
AGU - American Geophysical Union	LCR - Little Colorado River
AMP - Adaptive Management Program	
AMWG - Adaptive Management Work Group	LCRMCP: Little Colorado River Multi-Species Conservation Program
AOP - Annual Operating Plan	MAF - Million Acre Feet
BA - Biological Assessment	MA - Management Action
BE - Biological Evaluation	MO - Management Objective
BHBF - Beach/Habitat-Building Flow	NAAO - Native American Affairs Office
BHMF - Beach/Habitat Maintenance Flow	NAU - Northern Arizona University (Flagstaff, AZ)
BHTF - Beach/Habitat Test Flow	NEPA - National Environmental Policy Act
BIA - Bureau of Indian Affairs	NGS - National Geodetic Survey
BO - Biological Opinion	NHPA - National Historical Preservation Act
BOR - Bureau of Reclamation	NPS - National Park Service
CAPA - Central Arizona Project Assn.	NRC - National Research Council
cfs - cubic feet per second	NWS - National Weather Service
CRBC - Colorado River Board of California	O&M - Operations & Maintenance (USBR funding)
CRCN - Colorado River Commission of Nevada	PA - Programmatic Agreement
CREDA - Colorado River Energy Distributors Assn.	PEP - Protocol Evaluation Panel
CRSP - Colorado River Storage Project	Powerplant Capacity - 31,000 cfs
CWCB - Colorado Water Conservation Board	Reclamation - United States Bureau of Reclamation
DBMS - Data Base Management System	RFP - Request For Proposals
DOI - Department of the Interior	RPA - Reasonable and Prudent Alternative
EA - Environmental Assessment	SAB - Science Advisory Board
EIS - Final Environmental Impact Statement	Secretary(=s) - Secretary of the Interior
ESA - Endangered Species Act	SWCA - Steven W. Carothers Associates
FACA - Federal Advisory Committee Act	TCD - Temperature Control Device (for Glen Canyon Dam water releases)
FEIS - Final Environmental Impact Statement	TCP - Traditional Cultural Property
FRN - Federal Register Notice	TES - Threatened and Endangered Species
FWS - United States Fish & Wildlife Service	TWG - Glen Canyon Technical Work Group (a subcommittee of the AMWG)
FY - Fiscal Year (Oct 1 to Sept 30 each year)	UCR - Upper Colorado Region (of the USBR)
GCD - Glen Canyon Dam	UCRC - Upper Colorado River Commission
GCMRC - Grand Canyon Monitoring and Research Center	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
HBC - Humpback Chub (endangered native fish)	WAPA - Western Area Power Administration
HMF - Habitat Maintenance Flow	WY - Water Year (a calendar year)
HPP - Historic Preservation Plan	
IEDA - Irrigation and Electrical Districts Association of Arizona	
IN - Information Need (stakeholder)	