Glen Canyon Dam Adaptive Management Work Group WebEx/Conference Call
May 10, 2012

Conducting: Anne Castle, Secretary's Designee
Facilitator: Mary Orton, The Mary Orton Company, LLC **Convened**: 11:00A MDT

Committee Members/Alternates Present:
Perri Benemelis, State of Arizona
Kerry Christensen, Hualapai Tribe
Ann Gold, Bureau of Reclamation
Jayne Harkins, State of Nevada
Chris Harris, State of California
Amy Heuslein, Bureau of Indian Affairs
Perri Benemelis, State of Arizona
Leslie James, CREDA
John Jordan, Federation of Fly Fishers
Ted Kowalski, State of Colorado
LaVerne Kyriss, WAPA
Nikolai Lash, Grand Canyon Trust
Don Ostler, State of New Mexico
Ted Rampton, UAMPS
John Shields, State of Wyoming
Larry Stevens, Grand Canyon Wildlands Council
Bill Stewart, Arizona Game & Fish Department
Dennis Strong, State of Utah
Dave Uberuaga, National Park Service

Committee Members Absent:
Charley Bulletts, Southern Paiute Consortium
Loretta Jackson-Kelly, Hualapai Tribe
Jennifer Gimbel, State of Colorado
Sam Jansen, Grand Canyon River Guides
Arden Kucate, Pueblo of Zuni
Leigh Kuwanwisiwma, Hopi Tribe
Estevan Lopez, State of New Mexico
Frederick H. White, Navajo Nation

Grand Canyon Monitoring and Research Center:
Helen Fairley, Program Manager
Ted Melis, Deputy Chief
Scott Vanderkooi, Program Manager
Jack Schmidt, Chief

Interested Persons:
Jan Balsom, NPS/GRCA
Janet Bair, U.S. Fish & Wildlife Service
Mary Barger, Bureau of Reclamation
Cliff Barrett, UAMPS
David Bennion, WAPA
Rob Billerback, NPS/GRCA
Tom Buschatzke, AZ Dept. of Water Resources
Shane Capron, WAPA
Lori Caramanian, DOI/AS-WS
Marianne Crawford, Bureau of Reclamation
Craig Ellsworth, WAPA
Dr. Dave Garrett, M^3Research/SAs
Paul Harms, State of New Mexico
Beverley Heffernan, Bureau of Reclamation
Vineetha Kartha, AZ Dept. of Water Resources
Robert King, State of Utah
Glen Knowles, Bureau of Reclamation
Clayton Palmer, WAPA
Colby Pelegrino, SNWA
McClain Peterson, State of Nevada
Seth Shanahan, SNWA
Rod Smith, DOI/SOL
Bob Snow, DOI/SOL
Mark Sogge, USGS
Justin Tade, DOI/SOL
Shauna Tighi, Bureau of Reclamation (LC)
Larry Walkoviak, Bureau of Reclamation

Meeting Recorder: Linda Whetton

Welcome and Administrative. Ms. Orton called the roll and determined there was a quorum. Secretary's Designee Anne Castle welcomed everyone and noted the meeting would focus on early development of the FY2013-14 budget. This is AMWG's first look at the budget. AMWG members will make a budget recommendation to the Secretary of the Interior at their August meeting.

Ms. Castle said she received a response from Secretary of the Interior Ken Salazar to the February 2012 AMWG recommendations (***Attachment 1***). He conveyed his sincere appreciation to the AMWG for finalizing the Desired Future Conditions (DFCs), and asked that the AMWG use them in future

deliberations and when providing recommendations to him. With regard to the Socioeconomic Ad Hoc Group (SEAHG) report, per AMWG's request, he directed a DOI interagency team to determine which studies and activities would be accomplished through the LTEMP EIS. He asked the TWG to work with GCMRC on a plan for addressing information needs or research priorities that would not be addressed in the LTEMP process. Ms. Castle reported the DOI team anticipates completing its analysis in time for the August AMWG meeting.

Proposed FY2013-14 Biennial Budget and Work Plan. (***Attachment 2a*** = AIF).
Bureau of Reclamation Proposed Budget. Mr. Knowles gave a PowerPoint presentation (***Attachment 2a***) identifying the key changes from the previous biennial budget:

- Compliance Documents. This line item has funded compliance for high flow experiments. Assuming the HFE Protocol will be in place, compliance will have been accomplished and will not need to be funded for each experiment. Reclamation proposes to move those dollars to the Non-native Fish Control (NNFC) Contingency Fund.
- Experimental Flow Fund Carryover. This line item presumably will not be needed when the HFE Protocol EA is completed and funding for science associated with HFEs will be in GCMRC's annual budget. BOR proposes to move these funds to the NNFC Contingency Fund for the possible implementation of non-native fish control. The latter line item will be $782,000 in FY13 and $1.3 million in FY14.
- GRCA Treatment Plan. Mr. Knowles said a specific proposal will be brought forward regarding the treatment plan later this year. There is $500,000 in the line item for that purpose. Ms. Castle told the group that the agencies have not finalized their budget for the cultural resources work and so the numbers could change. GCMRC, BOR, and NPS each have a strong cultural resources program with different jurisdictions, authorities, and mission responsibilities. They are making progress towards an agreement on an appropriate division of responsibilities in order that the limited funding can be used most effectively. The tribes will have the first opportunity to offer feedback on the plan, and other stakeholders' feedback will also be sought and welcomed. Mr. Uberuaga and Dr. Schmidt both said they are committed to a multi-year, collaborative approach for cultural resources and addressing tribal concerns.
- Appropriated Funding. Mr. Knowles said the remainder of the budget is funded through appropriated dollars. In FY12, BOR funded NPS at $91,000 for cultural resources monitoring, $25,000 of which was allocated among tribes. Reclamation also manages grants to support the tribes' participation in the program. The tribes have requested BOR index these grants to the CPI rate, and with the increasing spend-down rates by the tribes. BOR is considering this for FY13-14.

Mr. Knowles presented the following information on the DOI cultural resources budget for FY2011-13:

	FY11	FY12	FY13
NPS – NPS Monitoring and Management	120,000	120,000	120,000
GCMRC – Cultural Resources Monitoring	352,000	93,000	300,000
BOR – Tribal Resource Monitoring	144,553	146,856	152,583
Tribal Participation ($95K from each DOI agency)	475,000	475,000	475,000
NPS Cultural Resources Monitoring	0	91,000	0
BOR Administration and Travel for PA	60,273	61,815	64,226
GRCA Treatment Plan and Implementation	505,838	519,500	515,000
Total	**$1,657,664**	**$1,507,171**	**$1,626,809**

GCMRC Proposed FY13-14 Budget. Dr. Schmidt said that, in developing the FY13-14 budget, he encouraged his staff to base their proposals on Ms. Castle's memo from last year on program priorities. He also asked them to combine projects that could comprehensively focus on a key resource or set of questions.

He said the two big questions that GCMRC was attempting to answer with their science program are:

- What is an appropriate rehabilitation goal for the physical habitat of the Colorado River, given the limited supply of fine sediment and the characteristics of the large-scale flow regime?
- How can a non-native trout sport fishery in Glen Canyon co-exist with an endangered humpback chub population in Marble and Grand Canyons?

He noted that each project has a 10- to 15-page science proposal associated with it. The SAs and the TWG will both review the proposal.

He gave a PowerPoint presentation (***Attachment 4***) that included two budgets: one for $8.7 million that included a high-priority monitoring program with required support for HFEP and NNFC EAs, Biological Opinion activities, and other key monitoring activities, as well as resolution of a few key scientific uncertainties in fish ecology; and one for $10.1 million that adds resolution of other key scientific uncertainties, especially in fish ecology and sand bar research. His staff will work with Reclamation to identify additional sources of money because their workplan exceeds the money available for FY13-14.

Project	$10.1M	$8.7M
A. Sandbars and sediment storage dynamics	1,500,000	1,220,000
B. Stream flow, water quality, and sediment transport	1,290,000	1,290,000
C. Lake Powell water quality monitoring	240,000	240,000
D. Mainstem humpback chub aggregation studies	400,000	230,000
E. Humpback chub early life history near LCR	460,000	460,000
F. Long-term monitoring native non-native fishes mainstem Colorado River and LCR	2,340,000	2,340,000
G. Interactions between native fish and non-native trout	280,000	190,000
H. Understanding the factors limiting growth of rainbow trout in Glen Canyon	640,000	70,000
I. Integrated riparian vegetation studies	330,000	280,000
J. Cultural Resources monitoring	300,000	300,000
GCMRC economist and research support	200,000	200,000
Independent Reviews and SAs	170,000	170,000
USGS Administration	1,780,000	1,780,000
Indirect costs	870,000	870,000

Ms. Castle thanked Dr. Schmidt for an excellent presentation on the principles on which the GCMRC budget was based. She said she appreciated the transparency of his budget formulation process and was particularly pleased to see the connection between the DFCs and the budget.

Status of TWG Chair. Ms. Castle informed the AMWG that Mr. Capron would not run again as TWG chair, a position he has held for almost four years. She thanked him for doing a wonderful job in that position. She said she feels the program benefitted from his efforts to develop greater interaction between the AMWG and the TWG, and to increase the TWG's level of responsibility and reporting to the AMWG. She expressed her sincere gratitude to him for everything he has done so well and encouraged everyone to give him a round of applause.

TWG Chair Report on the Proposed FY13-14 Budget. Mr. Capron referenced his April 19, 2012 memo that included the TWG's consensus policy and technical concerns (***Attachment 5***). The group discussed the policy issues, and the next steps were captured, as follows:

1. **Tribes should be included in the process as equal partners in the program. Specifically, tribes, as sovereign governments, should participate at the earliest moments of development of programs, projects, and budgets.**

Resolution: After some discussion, Ms. Castle suggested a group be formed with Kerry Christensen and other interested tribal and AMWG members to further discuss this issue and make a recommendation to the AMWG. There was no objection raised.

2. **Clarifying funding for Lees Ferry Creel surveys. If annual creel surveys are important, funding needs to come from this program [GCDAMP]. AFGD can do only every 3 years. Supplement with AMP; coordinate.**
   Resolution: Ms. Castle asked if there was any objection to the TWG looking into this subject and making a recommendation to the AMWG at the August meeting. No objection was raised.

3. **Identify funding sources and funding amounts for GCMRC and Science Advisors support for LTEMP EIS development and implementation.**
   TWG felt that if additional funding were available for the SAs through the LTEMP process, that funding should be included in the AMP budget to present a more accurate budget picture. Other stakeholders raised questions about the budget and funding sources for the LTEMP process in general.

   Resolution: Ms. Castle said DOI would provide information to the TWG on funding amounts and sources for LTEMP, both for GCMRC and the SAs, before the June TWG meeting.

4. **The budget for FY 2013-14 must have a clear plan for implementing the SEAHG recommendations and set priorities.**
   Resolution: Ms. Castle referenced the direction from the Secretary regarding this subject, and said that the interagency work had not been completed. She noted that the GCMRC budget now includes $250,000 for an economist and his or her workplan, which was not the case at the time the TWG reviewed the budget.

5. **Examine the possibility of using NNFC contingency funds to fund GCMRC for overage.**
   Resolution: Ms. Castle noted that the GCMRC report included the very recent discovery of unexpectedly high trout numbers in the system. Those data will be provided to TWG members for further discussion at their June meeting.

6. **POAHG should re-evaluate the budget needs and reduce accordingly.**
   Resolution: Ms. Castle said Mr. Sam Jansen, the Chair of the POAHG, will engage the Ad Hoc Group in developing a budget prior to the June TWG meeting.

LTEMP EIS Update. Ms. Castle said an ambitious schedule has been set for the LTEMP, and more time will be allowed if needed. She was pleased that Reclamation and NPS had gone beyond the minimum requirements of NEPA in involving the public.

Some of the key points made at the April 4-5, 2012 alternatives workshop held in Flagstaff were as follows:

(1) Removal of Glen Canyon Dam will not be considered. It does not fit the purpose and need of the LTEMP and would be beyond the scope of the EIS.
(2) The LTEMP will not affect the annual amount of water that moves between Lake Powell and Lake Mead. That is governed by the Law of the River and the 2007 Interim Guidelines, and there will be no changes through the LTEMP.

She noted there have been discussions about a wide range of alternatives within this framework. DOI has not completed development of alternatives, and DOI will provide technical assistance to help stakeholders to develop their own alternatives. DOI has provided an extension to July 2, 2012 for stakeholders to provide their alternatives. She emphasized that DOI has not made any decisions, there is no pre-determined outcome, and there is no pre-determined flow regime. DOI is committed to

considering the range of alternatives that is proposed, and no preferred alternative has yet been selected.

Mr. Rob Billerback and Ms. Beverly Heffernan gave a joint PowerPoint presentation (***Attachment 6***). They noted that the quality of the EIS would not be allowed to suffer solely to meet a deadline.

August AMWG Meeting. The next AMWG meeting will be held in Flagstaff, Arizona, on August 29-30, 2012. Reclamation is looking into the feasibility of scheduling a one-day work session before or after the meeting dates. This would include a tour of Glen Canyon Dam followed by a trip on the river from the dam to Lees Ferry. While it is important for the stakeholders to see the resources, there are additional considerations, including cost. She said a request would be sent to the AMWG members and alternates on their availability and more details would be provided later.

Public Comment: None

Adjourned: 2 pm MDT.

Respectfully submitted,

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

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
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
DAHG2 – 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
DOIFF – Department of the Interior Federal Family
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 Center
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
LCRMCP – Lower Colorado River Multi-Species Conservation Program
LTEP – Long Term Experimental Plan
LTEMP – Long-Term Experimental and Management 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 – **S**tate of the **Co**lorado **R**iver **E**cosystem
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
TMC – Taxa of Management Concern
TWG – Technical Work Group
UAMPS: Utah Associated Municipal Power Systems
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)

Updated: Sept. 1, 2011