



The Mary Orton Company
TRANSFORMING HOW PEOPLE WORK TOGETHER

Glen Canyon Dam Adaptive Management Program Assessment Report

prepared under contract to the Bureau of Reclamation for the
benefit of the GCDAMP participants and stakeholders



by

Mary Orton, The Mary Orton Company, LLC

19582 Hollygrape Street, Bend, OR 97702

mary@maryorton.com ☎ 702.210-9642

February 9, 2016

Table of Contents

Introduction.....	1
Background on the Glen Canyon Dam Adaptive Management Program	1
Background on FACA.....	2
Role of The Mary Orton Company.....	2
Purpose and Desired Outcomes	2
Methodology	3
Overall Impressions	4
Recommendations and Partial Synthesis.....	5
Areas that Stakeholders Agreed Are Going Well	5
Overall Functionality.....	5
Facilitation.....	5
Recommendations for Improvements	6
Recommendation: AMWG Discussion of Several Fundamental Issues.....	6
Recommendation: Decide Whether to Update Goals and Objectives.....	8
Recommendation: Discuss the Future of the Program After the LTEMP ROD is Signed	8
Recommendation: Clarify Policies of “DOI Speaking With One Voice” and “Non-Voting Status of DOI Agencies”	9
Recommendations: How to Address Other Issues	10
Interviewees’ Comments.....	11
Department of the Interior Perspectives	11
Concerns and Interests	11
Assessment of What is Going Well and What Needs Improvement	11
Environmental and Recreational Interests’ Perspectives	18
Concerns and Interests	18
Assessment of What is Going Well and What Needs Improvement	18
Hydropower Interests’ Perspectives.....	23
Concerns and Interests	23
Assessment of What is Going Well and What Needs Improvement	23
Native American Tribes’ Perspectives	26
Concerns and Interests	26
Assessment of What is Going Well and What Needs Improvement	26
States’ Perspectives.....	31
Concerns and Interests	31
Assessment of What is Going Well and What Needs Improvement	32
Others’ Perspectives.....	36
Concerns and Interests	36
Assessment of What is Going Well and What Needs Improvement	36
Expand Scope	41
Retreat	42
Conclusion	44
Attachment A: Interview Questions	45

Attachment B: Interviewees 47
Attachment C: Abbreviations and Acronyms 49

Introduction

BACKGROUND ON THE GLEN CANYON DAM ADAPTIVE MANAGEMENT PROGRAM

Unless otherwise noted, quotes in this section are from the Glen Canyon Dam Adaptive Management Work Group (AMWG) Charter signed August 24, 2015.

According to the Bureau of Reclamation (Reclamation) website on the program, (<http://www.usbr.gov/uc/rm/amp/background.html>), “The [Grand Canyon Protection] Act (GCPA), and the [Final Glen Canyon Dam] Environmental Impact Study (EIS) [March 1995] are the guiding documents for development of the [Glen Canyon Dam] Adaptive Management Program (GCDAMP). The program meets the purpose and strengthens the intent for which the EIS was prepared, and ensures the primary mandate of the Act is met through future advances in information and resource management.”

The GCDAMP “provides for monitoring the results of the operating criteria and plans adopted by the Secretary of the Interior (Secretary), and for research and studies to suggest appropriate changes to those plans and operating criteria.”

According to the AMWG Charter, the authority for the establishment of the AMWG is from the GCPA and Federal Advisory Committee Act (FACA). The AMWG “provide[s] advice and recommendations to the Secretary relative to the operation of Glen Canyon Dam (GCD). The Secretary’s Designee is the Assistant Secretary for Water and Science (Assistant Secretary) who will serve as the Chair and the Designated Federal Officer to the AMWG. The AMWG will recommend suitable monitoring and research programs and make recommendations to the Secretary.”

(Consistent with the paragraph above, the role of the AMWG is to provide recommendations to the Secretary. References to “decision-making” by AMWG in this report refer to decisions regarding recommendations, or internal decisions left to AMWG.)

The Technical Work Group (TWG) consists of one person from each entity represented on the AMWG, plus a representative from Glen Canyon National Recreation Area. According to the TWG’s operating procedures, “[t]he TWG shall perform those tasks charged to them by the AMWG. Additional responsibilities of the TWG are to develop criteria and standards for monitoring and research programs; provide periodic reviews and updates; develop resource management questions for the design of monitoring and research by the Grand Canyon Monitoring and Research Center; and provide information, as necessary, for preparing annual resource reports and other reports, as required, for the AMWG.” The TWG makes recommendations to the AMWG and does not make recommendations directly to the Secretary.

The Grand Canyon Monitoring and Research Center (GCMRC), according to its website (<http://www.gcmrc.gov>), “is the science provider for the GCDAMP. In this role, the research center provides the public and decision makers with relevant scientific information about the status and trends of natural, cultural, and recreational resources found in those portions of Grand Canyon National Park and Glen Canyon National Recreation Area affected by Glen Canyon Dam operations.”

BACKGROUND ON FACA

As noted above, the AMWG is a Federal Advisory Committee. The role of a Federal Advisory Committee is to provide group advice and recommendations to the federal department or agency based on the federal agency's need for guidance on a specific issue. Under FACA, advisory committees are created to perform an essential duty or responsibility conveyed upon the executive branch by law or Presidential Direction. The Department or Agency has the role of "tasking" the Federal Advisory Committee, through its charter, meeting agendas, and meeting management, in order to get useful and targeted advice and recommendations, and ensure that the Advice received is relevant and objective to the issue.

The Designated Federal Officer (in the case of the AMWG, the Secretary's Designee) has the role of keeping the Federal Advisory Committee running smoothly and producing a work product that is of value to the Department of agency by preparing and approving clear, specific meeting agendas, attending all meetings, and working (sometimes with a facilitator) to manage meetings, keep on topic and within the role of the Federal Advisory Committee.

Please see <http://www.gsa.gov/portal/content/101010>, the General Services Administration's FACA website, for more information.

ROLE OF THE MARY ORTON COMPANY

The Mary Orton Company, LLC (TMOC) is a Bend, Oregon firm that provides conflict prevention and management services, primarily for environmental and public policy issues and conflicts. TMOC also provides facilitation, public involvement, and organization development services.

TMOC is under contract to the Reclamation to provide facilitation services for the GCDAMP, including the AMWG and TWG. Mary Orton served as the program's first mediator and facilitator from late 1999 through late 2012, and was engaged under contract again as facilitator starting in early 2015. Her scope of work for 2015 included this situation assessment, for which she completed all the interviews and wrote this report.

The role of TMOC is to provide a thorough, accurate, and impartial analysis of the situation, in order to assist the stakeholders of the GCDAMP to increase their mutual understanding of the interests and concerns of the other participants and to identify and mitigate any concerns with the program. TMOC is not an advocate for any particular outcome or interest except good process, and conducts its work in a fair, deliberate, and impartial fashion. TMOC staff is bound by the code of ethics of the Association of Conflict Resolution that reads, in part, "Impartiality means freedom from favoritism, bias, or prejudice." To that end, without endorsing any interviewees' opinions, all points of view expressed by interviewees were included in this report.

PURPOSE AND DESIRED OUTCOMES

The purpose of the interviews and this report, as noted in the interview protocol (Attachment A) is:

- To allow all interviewees to understand others' concerns and interests, which can help the group collaborate on substantive issues.
- To invite concerns about structure and process to be expressed so they can be addressed.

After working with the program for more than a decade, Mary had been gone for two years and many of the AMWG members had changed, so the interviews also allowed them to become acquainted with Mary and vice versa.

Specifically, in her task order, Mary was directed to:

- Interview by telephone AMWG members (and perhaps other key people) to determine their goals, what they think is going well with the AMWG/GCDAMP, what they think could be improved, and what they think could be accomplished with a retreat in FY16.
- Produce a public assessment report from the results of the interviews, without attributing comments to named interviewees, and including suggestions for improvements.

METHODOLOGY

This report is based upon data collected through voluntary interviews of AMWG members and others. AMWG members were invited to include their alternates and TWG members in their interviews. Mary Orton conducted 33 telephone interviews from October 1 through December 8, 2015. The average length was 78 minutes, and the range was from 36 to 121 minutes.

The interview questions (see Attachment A) were developed in response to the charge given the TMOG in the task order, and the protocol was reviewed and suggestions made for improvement by members of the group TMOG engages to plan AMWG meetings: the Secretary's Designee or her representative, the TWG chair, Reclamation staff, and the GCMRC chief.

The original list of interviewees included all AMWG members plus five additional persons. All interviewees were asked to suggest others who should be interviewed. Based on those recommendations, Mary chose five additional interviewees. TMOG thanks the interviewees who took the time to share their thoughts, opinions, concerns, and aspirations. All interviewees are listed in Attachment B.

The interviews and report structure were designed to encourage frank and open answers to interview questions. Interviewees were told that a report would be written, that their names would be listed as interviewees, and that their comments would be included in the report. They were also told that their comments would not be attributed to them or their organization. In addition, interviewees were invited to designate any part of their interview as confidential, in which case it would not be used in the report or shared outside TMOG.

To be more manageable and useful, comments are organized by stakeholder group. The groups are (in alphabetical order):

1. Department of the Interior (DOI)
2. Environmental and recreational interests
3. Hydropower interests
4. Native American Tribes
5. States
6. Others

Environmental and recreational representatives were grouped together because it is preferable to avoid groups of three or less to protect non-attribution. The groupings were reviewed with stakeholders and some changes were made in response to their preferences. For example, a member of the hydropower group asked that they be in a separate group and the other members of that group agreed.

TMOOC encouraged feedback on the report. Interviewees were sent a draft version of the report and invited to alert Mary if something important they said was inadvertently not included in the report, and to provide feedback on any other aspect of the report.

See Attachment C for a list of abbreviations used in the report.

OVERALL IMPRESSIONS

As noted above, Mary worked with the GCDAMP for more than a dozen years starting in the late 1990s. Her strong impression from the current interviews was that the program is working well, and much better than in prior years when open hostility and harsh comments were the norm. Without prompting, many interviewees said the program used to be dysfunctional and is not any more, and provided specific examples of how and why the program was better than before. (See the “Interviewees’ Comments” section for the details.) It is clear to Mary that the group has done a lot of hard work to get to the current level of positive interactions and productive meetings.

In addition, as was anticipated, the report documents areas in which stakeholders believe the program could be improved. From the standpoint of having done many of these reports for various collaborative groups, Mary assures stakeholders that this is not unusual and it does not mean that the program is broken or dysfunctional. It simply points the way for possible improvements in the program.

The “Recommendations” section that immediately follows contains Mary’s suggestions for areas that the group could focus on for improvements. These include concerns that were both shared across several stakeholder groups and that she believed were important for the group to address.

Recommendations and Partial Synthesis

This section highlights certain issues that were mentioned by interviewees and synthesizes comments regarding those issues across stakeholder groups. (More information about each of these issues will be found in the “Interviewees’ Comments” section.) This section also contains recommendations for action to be considered by the GCDAMP participants from the interviewer and report author, Mary Orton.

Mary chose issues to highlight in this section when she (a) found them important or fundamental to the group and its functioning, (b) when they had strong positive or negative reactions from interviewees, and (c) when they were mentioned in at least four of the six stakeholder groups. Unless stakeholders’ comments are cited, this section consists of the author’s opinions.

Please note that because Mary focused in this section only on issues raised across multiple stakeholder groups, she notes in each section in how many stakeholder groups the issue arose, e.g., “five of six stakeholder groups.” Also, the terms “interviewee,” “interviewees,” and “some interviewees” should be viewed as interchangeable. The term “interviewees” is not intended to mean all interviewees and could mean one interviewee.

Mary acknowledges that interviewees and other stakeholders may find other issues more compelling and other courses of action more sensible than those she identifies in this section, and she encourages that discussion.

AREAS THAT STAKEHOLDERS AGREED ARE GOING WELL

There were two areas that interviewees across all or most stakeholder groups thought were going well, and about which no “needs improvement” comments were received.

Overall Functionality

At least some interviewees in five of six stakeholder groups, without prompting, said that collegiality among participants has greatly improved, contrasting it with high levels of conflict in prior years. They said the participants communicated well, talked about differences openly, and worked hard at collaboration. They said the level of trust, respect, and mutual understanding was much higher than earlier years, and the number of decisions made by consensus had greatly increased.

Related to this, interviewees in three stakeholder groups (DOI, Native American tribes, and states) had positive comments about how many of the decisions made by AMWG were by consensus. (AMWG’s operating procedures say that when consensus is not possible, a decision can be taken by supermajority vote.) Interviewees noted that, despite the fact that the AMWG operating procedures establish consensus as the preferred decision-making method, in earlier years voting had predominated. Now that consensus is emphasized, interviewees reported less frustration, more meaningful discussion, more mutual listening, and more decisions that took everyone’s points of view into account. Interviewees also said that DOI has been particularly responsive to AMWG recommendations when they were made by consensus.

Facilitation

At least some interviewees in all six stakeholder groups rated facilitation as “going well” and said that having facilitation increased productivity for AMWG and TWG. However, the interviewer was

the facilitator, and interviewees may have been reluctant to discuss problems with her directly. And, as one reviewer of the draft report noted, “the AMWG and TWG operated for two years without a facilitator, and the AMWG and TWG were able to continue to function.”

Mary recommends that participants be asked to evaluate her work in the coming year.

RECOMMENDATIONS FOR IMPROVEMENTS

The following section includes discussion and recommendations that reflect the point of view of the author.

Recommendation: AMWG Discussion of Several Fundamental Issues

Discussion and Recommendation

Mary recommends AMWG discuss the following four issues during the time set aside for that purpose at the February 2016 AMWG meeting, or at another venue. She makes this recommendation because these issues are important, there is dissatisfaction across several stakeholder groups, and there is disagreement among stakeholders. These four issues have similarities and could benefit from a simultaneous or sequential discussion. A retreat may be a good venue; interviewees were open to the idea of a retreat if the subject matter(s) and potential outcomes were important and relevant.

Synthesis of Views: Adaptive Management Approach

At least some interviewees in each of five stakeholder groups (DOI, environmental and recreational, hydropower, Native American tribes, and “others”) indicated dissatisfaction with how adaptive management is administered in the program. Specifically, they said that change comes too slowly.

By contrast, stakeholders in the states group explained why they prefer experimentation to new or modified management actions: because otherwise, the delicate balance of agreements among states and between states and the federal government could be upset.

As noted above, Mary recommends that AMWG members discuss this topic. Discussion on this topic could help clarify the different points of view, reduce frustration, and perhaps indicate a way forward that would be more satisfactory to stakeholders.

Synthesis of Views: Open Discussion and Making Recommendations

At least some interviewees in five of six stakeholder groups—all but hydropower—identified open discussion and/or making recommendations as issues of concern, even though this issue was not specifically asked about or prompted. Concerns included lack of discussion of important issues, lack of input into recommendations, and the feeling that recommendations to the Secretary by the AMWG had already been decided by the time the AMWG acted.

With regard to lack of creative open discussion, some interviewees said they were not comfortable talking about certain things in front of AMWG or TWG. Some cited the recent lawsuits as having developed stakeholder habits of not saying much in public. Others said that, particularly after the lawsuit, stakeholders might be valuing harmony over straight talk, which they said would be detrimental. Still others cited the formality of the meetings, and the various pre-meetings held by stakeholder groups, as a potential damper on open discussion.

As noted above, Mary recommends that AMWG members discuss this topic. Discussion could illuminate which issues stakeholders feel are important and not being discussed, and recommendations that could or should be made by the AMWG, and perhaps point the way to agreement on how to improve discussion and the process of making recommendations.

Some reviewers of the draft of this report recommended that a review of laws and organizational documents would assist in this discussion.

Synthesis of Views: All Interests Heard

While interviewees in some groups said they thought everyone had the opportunity to participate and everyone was heard, at least some DOI, hydropower, tribal, and “other” interviewees said they had concerns about all interests not being heard or not having equal influence at the table. At least some DOI and tribal interviewees specifically had concerns about how tribal representatives are treated. At least some “other” interviewees said that those who had difficulty compromising would feel less heard.

As noted above, Mary recommends that AMWG members discuss this topic. Discussion could open the door to understanding how to make sure everyone around the table feels heard, if possible; and perhaps lead to actions that could make it happen.

Synthesis of Views: Tribal Relationships and Participation

Though no question was asked on this subject, and neither was there a prompt, at least some interviewees in five stakeholder groups raised the issue of tribal relationships and participation, and interviewees in four said the issue needed improvement. This could be viewed as a subset of the “all interests heard” issue. Concerns raised included:

- Because of the cultural differences between tribal members and Westerners, communication and mutual understanding can be difficult.
- Specifically, Traditional Ecological Knowledge (TEK), or how tribal members understand and experience their environment, is so different from Western ways of knowing that some tribal representatives will not speak of it. Some have been told by their tribes to be silent, and others feel they will be ignored or ridiculed.
- Non-tribal interviewees said they wanted to hear more from tribal representatives and said they seemed not to be engaged. (The author wonders if the previous bullet point might help explain why.)
- Tribal and non-tribal interviewees said lack of engagement on the part of the tribes means less understanding of tribal points of view by non-tribal representatives.

As noted above, Mary recommends that AMWG members discuss this topic. Discussion, and especially listening to tribal representatives about what they want and need to fully participate, could lead to better understanding and possible improvements.

Synthesis of Views: Disagreements About Facts

Some reviewers of the draft report said that some assumptions or facts stated by interviewees were erroneous; such as that the Desired Future Conditions (DFCs) were not used in the Long-Term Experimental Management Plan (LTEMP) EIS. Mary encourages those reviewers to bring up those misconceptions and clarify them during the time set aside at the February AMWG meeting or at another venue.

Recommendation: Decide Whether to Update Goals and Objectives

Synthesis of Views

At least some interviewees in four of the six groups said that the program needs some kind of guiding document(s) to establish the direction of the program. They noted that AMWG and TWG spent years developing a Strategic Plan and DFCs, along with other guidance documents, which are now largely disregarded. Suggestions included finishing Phase 2 of the DFCs (quantification of the qualitative DFCs), a new or updated Strategic Plan, and reviewing the nine guiding documents in the GCMRC workplan (some of which date to 2004) to see which should be updated or eliminated.

Some interviewees said that priorities for the program need to be established and the program “could not do everything.” They often saw development of a guiding document or Strategic Plan as a way to establish those priorities. Others felt strongly that all resources should be valued and addressed in the program.

By contrast, at least some DOI interviewees said the only goal or objective AMWG has is to implement the LTEMP 20-year adaptive management plan. States interviewees thought the goals and objectives were shared and clear.

Discussion and Recommendation

Interviewees raised two fundamental questions with regard to goals, objectives, and priorities:

1. Should AMWG only respond to requests from the Secretary, or should it establish its own goals and objectives?
2. Should all resources of interest be of high priority in the program, or should the program (or the Secretary) decide which resources should be focused on?

If the Secretary wishes the AMWG to respond to the Secretary’s goals, objectives, and priorities, it may not make sense for AMWG to spend time on planning. Perhaps some direction from the Secretary or Secretary’s Designee is needed before action is taken.

Recommendation: Discuss the Future of the Program After the LTEMP ROD is Signed

Synthesis of Views

At least some interviewees in five of the six stakeholder groups brought up issues or concerns about the period after the LTEMP EIS Record of Decision (ROD) is signed. In their views:

- Participants will need to understand changes to the direction and operation of the program as well as their role in the future.
- Goals and purpose of the program should be reviewed.
- More AMWG and TWG meetings will be needed.
- There will be less need for the GCDAMP.
- Any damage to relationships may need to be addressed because some stakeholders were cooperating agencies and others were not.
- Reclamation should consider hiring a GCDAMP coordinator/ executive director.
- An outside entity should review the long-term need, intent, and effectiveness of the program, and develop an ongoing method to make sure everyone is listened to and is heard—and not only at the microphone.

Discussion and Recommendation

Based on the interviewees' comments, it appears there is uncertainty about the program because of uncertainty about what LTEMP will bring. Once the LTEMP ROD is signed, these issues and questions should be revisited and potentially considered as subjects for a retreat or other discussion venue.

Recommendation: Clarify Policies of “DOI Speaking With One Voice” and “Non-Voting Status of DOI Agencies”

Synthesis of Views

At least some interviewees in four stakeholder groups brought up the policy of DOI speaking with one voice. DOI agencies and states had mixed views (some were positive while others suggested improvement), while tribes and environmental and recreational interviewees suggested improvements were needed. While some interviewees believed the DOI pre-meetings were as benign as those of other stakeholder groups who meet to agree on strategy, others thought that more transparency would be a benefit to the program. Other comments were:

- when DOI agencies agreed on a policy, it means that a decision had already been made;
- DOI representatives are not supposed to speak or be asked questions; and
- transparency regarding technical differences is more important than regarding policy differences.

At least some interviewees in three stakeholder groups mentioned the non-voting status of DOI agency representatives. Some of the issues related to the policy of “DOI non-voting status” seem to be the same as those related to the policy of DOI speaking with one voice. Some felt that it was working well, that DOI representatives were fully participating, not exercising undue influence, and still able to influence policy through their chains of command. At least some DOI representatives were concerned that they were not supposed to speak up or were confused about their roles, and other interviewees were concerned that DOI representatives might not be speaking up as much and AMWG and TWG were missing important information as a result.

Discussion and Recommendation

When the non-voting policy for DOI representatives was first agreed to during the February 2011 AMWG meeting, it was made clear by the then-Secretary's Designee that it was desired and expected that DOI representatives would speak up about the issues under discussion. The minutes of that meeting say, “Speaking as a DOI representative, [the Secretary's Designee] said the DOI agencies understand the need for their active participation, and they would make that commitment to the AMWG.” The Secretary's Designee can clarify whether that is still the case.

The Secretary's Designee can clarify whether a DOI policy decision has finally been made when the DOI agencies agree.

The Secretary's Designee can also clarify roles: whether DOI agencies are viewed as stakeholders at the AMWG table, whether they are receiving advice from other stakeholders, or whether they have a different role.

The AMWG and TWG should clarify their operating procedures with issues such as whether non-voting members can make or second motions. Meanwhile, the author recommends that non-voting members refrain from making or seconding motions. The next time the Charter is considered for

renewal by Interior, AMWG can consider whether to make a recommendation regarding the non-voting status of the DOI agencies.

Recommendations: How to Address Other Issues

Unless AMWG wants to discuss them, the author recommends that issues raised with regard to meeting schedule, meeting location, and meeting management should be reviewed by the Secretary's Designee (or her designee), TWG chair, Reclamation staff, and the facilitator. Results of their discussion, including decisions or recommendations on actions, should be reported to GCDAMP participants.

Although the issue was not asked about or prompted, stakeholders in four groups said that the program needs an orientation for new members. The Secretary's Designee (or her designee), Reclamation staff, and the facilitator can discuss establishing an ad hoc group to design an orientation for approval by AMWG.

While concerns regarding the Science Advisors were expressed across all six stakeholder groups, no recommendation for action is made here because the new Science Advisors' Executive Coordinator has just been engaged and will be presenting at the February 2016 AMWG meeting.

With regard to the other issues needing improvement that were mentioned by interviewees in four or more stakeholder groups, AMWG members should bring up any of those issues during the time set aside for that purpose at the February 2016 AMWG meeting or in another venue. From Mary's perspective,

- Issues raised under "GCMRC and science" are mostly feedback for the GCMRC and U.S. Geological Survey.
- Issues raised under "DOI responsiveness" are mostly feedback for DOI.
- Some issues raised under "Stakeholders mix"—specifically, whether academic and scientific representation should be added to the AMWG—have already been discussed by AMWG and an agreement reached for the next two years until the Charter is up for renewal again. Per the Agenda Item Form for the Charter Ad Hoc Group (AHG) agenda item at the May 2015 webinar, "During the discussion on academic representation, it was determined that at this time, the group would like to see the results of DOI's commitment, explained on the call, to increase the desired academic presence over the near term via invited guests and appropriate use of the new Science Advisors contract. There was a consensus that at this time, the Charter Ad Hoc Group does not recommend the addition of an academic representative to AMWG, but does recommend that AMWG consider this proposal to remain 'active' and follow up on considering it during the charter renewal process that will be required by August 2017."
- Issues raised with regard to specific representatives and the process for choosing members is mostly feedback for the Secretary.
- The specifics of issues raised under "Stakeholders getting what they need" are addressed under other issues.
- Issues raised under "Secretary's Designee's position" are mostly feedback for the next Secretary.

Interviewees' Comments

The section describes, without attribution, the comments and opinions of the interviewees. It is intended to include the full range of opinions shared by interviewees, without indicating how many made one comment or another. As above, the terms “interviewee,” “interviewees,” and “some interviewees” should be viewed as interchangeable. The term “interviewees” is not intended to mean all interviewees and could mean one interviewee.

Neither Mary Orton nor TMOC endorses the following comments and opinions; they are reported here because one or more interviewees said them.

DEPARTMENT OF THE INTERIOR PERSPECTIVES

Concerns and Interests

DOI interviewees said they were interested in making sure the GCPA is carried out, and in having GCD operate as a benefit to downstream resources while allowing Interior to carry out water delivery and hydropower production. Interviewees said that while environmental compliance was once viewed as a nuisance to be endured, now, due to situations such as that in the Klamath basin, stakeholders and water users understand that it is in everyone’s best interests to comply, not only because of the environmental benefit but because it is the only way water users can continue to receive the water they need.

Because Interior is also responsible for the management of the AMWG as a FACA committee, DOI interviewees mentioned they were interested in having a FACA committee that functions smoothly and provides good collaborative advice from a broad partnership of stakeholders to the Secretary.

DOI interviewees also mentioned the goals of their individual bureaus and whether and how their participation in AMWG helps further those goals. Interviewees said that they wanted to find solutions that work for everyone as much as possible, while ensuring that their point of view was understood by others. Finally, interviewees who said they receive funding from the GCDAMP said that status adds to their concerns and interests with regard to the program.

Assessment of What is Going Well and What Needs Improvement

Adaptive Management Approach

At least some DOI interviewees said they were frustrated at the pace of change in management of the system. They said while AMWG exists to advise the Secretary on adoption of criteria and operating plans consistent with the GCPA, and adaptive management is intended to implement changes to management as more is learned about the ecosystem, little has changed since the 1996 ROD. Other interviewees mentioned that the 1995 Biological Opinion included triggers that, when met, should have resulted in changes in flows, but those changes never happened. (That Biological Opinion has since been revised.) Still other interviewees expressed the delicate nature of working within “The Law of the River” and said adaptive management actions can be approached through experimentation.

All Interests Are Heard

At least some DOI interviewees said participants should continually find ways to make sure all parties have equal influence or are listened to equally. For example, they said, meetings in a conference room are not the tribes' natural forum to express their opinions. Others thought an outside entity should periodically review the long-term need, intent, and effectiveness of the program after the LTEMP is finished, and develop an ongoing method to make sure everyone is listened to and is heard—and not only at the microphone.

Interviewees questioned whether stakeholders at the table were speaking from their own point of view, or speaking for the leadership of their organizations. Interviewees also said they thought the non-governmental representatives might believe they do not get what they need from the program because the government needs to run the dam according to “The Law of the River.”

Clear Goals and Objectives

At least some DOI interviewees said the GCDAMP's goals and objectives are clear because AMWG's sole goal is to provide good advice to the Secretary, and when the LTEMP ROD is signed, the program's sole objective will be to advise DOI on how to best implement that 20-year adaptive management plan.

Others said that the program lacked a shared vision to guide the program and aid in decision-making. Interviewees said there was a need for stronger strategic direction, perhaps in the form of a single Strategic Plan. At least some DOI interviewees noted the GCMRC budget and workplan document lists nine guidance documents, dated from 2004 to 2014. They said that this number of guidance documents is virtually the same as no guidance: everything can be a priority, the program can fund everyone's ideas, and no hard decisions need to be made.

DOI Non-Voting Status

At least some DOI interviewees said that, when the policy was first instituted that DOI representatives would not participate in AMWG and TWG decision-making, they had concerns. Specifically, they were concerned that those representatives would no longer participate in AMWG and TWG discussions. However, they said, they found that DOI representatives' participation has continued.

At least some interviewees said they became more comfortable with the policy of DOI bureaus speaking with one voice because of the DOI non-voting policy: it makes DOI representatives' roles clearer with regard to advising the Secretary.

Other DOI interviewees felt that their influence was lessened because of their non-voting status. They also reported confusion as to their role: were they stakeholders or were they being advised by stakeholders? Still others were confused about whether they were supposed to offer their opinions. Questions were also raised about whether DOI agencies could make a motion or second another's motion.

DOI Responsiveness

At least some DOI interviewees believe that DOI has been appropriately responsive to AMWG recommendations, particularly when the recommendations are made by consensus. They said that DOI has listened well and received much valuable input on important decisions. Interviewees said that the Secretary always explains when s/he was not able to adopt a recommendation, which they

viewed as part of being responsive. DOI interviewees also mentioned responsiveness by Reclamation and GCMRC, and that whenever a question is asked, the response is provided by the next meeting or before.

Others said that the level of involvement in this program exceeds the normal federal process. They felt that AMWG has too much influence with the Department because so many of its recommendations have been adopted. They suggested that the AMWG should respond to requests from the Secretary, instead of proposing recommendations on its own.

Interviewees said that if a proposal were anticipated from AMWG that a DOI bureau could not live with, DOI agencies are at the table so they can explain their objections and perhaps offer alternative proposals. They opined that this probably reduces the number of recommendations sent to the Secretary that are not implemented.

DOI Speaking With One Voice

At least some DOI interviewees said that while the intention of having all DOI agencies speak with one voice was designed to reduce conflict, the unintended consequence was that individual bureau opinions and internal DOI discussions have become opaque to the rest of the stakeholders. Others thought that non-DOI stakeholders now believe they cannot ask DOI bureau representatives their opinion, which many felt was antithetical to good discussion and decision-making. Some DOI interviewees also said they thought they were not supposed to speak up and that harmony was more valued than substance. Others said that the DOI pre-meeting was as benign as other stakeholder groups meeting in advance of an AMWG meeting to agree upon strategy.

Facilitation

At least some DOI interviewees said that facilitation improves productivity of the AMWG and TWG. They said that while some Secretary's Designees have facilitation skills, that may not always be the case, so facilitation support is important. Interviewees also said that with the reduced level of conflict in the program, there might be less of a need for facilitation; however, if personalities change, the level of need could change. DOI interviewees also mentioned that while work between meetings was vital for the success of the program, this would more likely be accomplished by the facilitator and not the Secretary's Designee.

GCMRC and Science

At least some DOI interviewees said they viewed GCMRC as an outstanding provider of data and information.

At least some interviewees noted that in the past, the results from GCMRC research would not be available for several years, which was frustrating for the stakeholders who felt decisions needed to be made based on up-to-date science. Now they feel that GCMRC has a more efficient publication cycle and is also willing to share draft data pre-publication. Interviewees specifically noted as beneficial the before-and-after photos on high flows which are posted on the GCMRC website, along with other website tools.

At least some DOI interviewees credited former GCMRC Chief Jack Schmidt for invigorating the program and the staff. They praised his willingness and ability to be open and direct about what is known and not known about the river system. Interviewees also credited Jack with strong outreach

to stakeholders, useful explanations of the science during and between meetings, and involving AMWG and TWG more deeply with GCMRC's budget and workplan formulation.

At least some DOI interviewees said that the recognition of the importance of, and willingness to use, science in decision-making in the GCDAMP was stronger than they had seen in any other program, and they credited GCMRC as well as its partners such as the U.S. Fish and Wildlife Service (FWS) and Arizona Game and Fish Department (AGFD).

At least some DOI interviewees had concerns about the sustainability of the GCMRC budget. They pointed out that the agency used to be primarily a contracting entity, and is now primarily doing its work in-house. Hiring full-time personnel to do the work means a budget that needs to grow every year. They expressed concern that the quality of the science will decline, both because less funding would be available for in-house work and also because less funding would be available for contractors. These interviewees felt diversity of science providers results in better science.

At least some interviewees said that GCMRC and Reclamation are producing lots of research and describing the system well, but not providing solutions to the issues and problems faced by the program. They felt that they should, at some point, move from research to solutions.

At least some DOI interviewees felt that the program needed to ensure the monitoring of critical resources. They said that there does not seem to be a consistent priority in the budget for monitoring, and that monitoring should be intentionally included in the program.

At least some interviewees suggested having someone from outside the program determine the purpose of the program, how the money is being spent, whether there are efficiencies that could be instituted, and whether money is being spent in an area that is no longer needed. At least some DOI interviewees also said that the budget development process should include asking contractors whether the proposed budget amount would adequately support their workplan.

Meeting Frequency and Modality

At least some DOI interviewees believed that there are a sufficient number of meetings. Others thought that when the LTEMP ROD is signed, there might need to be more, at least in the beginning. These interviewees felt that much coordination could be needed in the first five to ten years to establish each year's experimental program, as well as to coordinate with stakeholders and obtain their input. After that period, however, perhaps fewer meetings would be required; e.g., one face-to-face and one webinar per year. Still others thought that the program might be less needed after the LTEMP ROD is signed.

Meeting Management and Location

At least some DOI interviewees praised presentations at meetings regarding important discoveries and results of monitoring; as well as the meeting microphones, sound system, and webinar option. They mentioned that the meetings were well structured, with ample time for discussion and questions while keeping track of the time. They said that the federal family meetings before the AMWG help them work through internal issues.

Interviewees said they appreciated the brainstorming discussion at the August 2014 meeting, and suggested that it could be scheduled on an annual basis. If the minutes are taken in such a way that

comments are not attributed, people could express their concerns and have a discussion without forcing anyone into an uncomfortable position.

Interviewees also suggested improvements, including the following.

- Voting members have microphones, but there is not an opportunity during the meeting for the audience to participate verbally. Some felt that it might be acceptable if the process were designed to focus more time on the stakeholders at the table, while others felt that five minutes at the end for public comment is not true participation.
- Encourage stakeholders to send in their proposed motions early so they can be included in the agenda. If motions are proposed at a meeting, it slows things down and can lead to contentiousness. Postpone consideration of those motions to the next meeting.
- Set meeting dates earlier in order to procure hotels in preferable cities.
- Serve refreshments, if possible. This is a traditional tribal practice and it helps with productivity during the meeting.
- Ensure that AHGs meet only at the request of the larger body, whether AMWG or TWG.
- Make sure TWG is operating at the request of AMWG and not on its own.

Open Discussion and Making Recommendations

At least some DOI interviewees said they felt that people spoke openly and positively, and there were no discernible hidden motives.

Others said that open, creative discussion was in large part missing from AMWG meetings. They speculated that a defensive position on the part of some stakeholders was a habit born from the years the program operated with members engaged in a lawsuit, when stakeholders were probably being advised not to say much in public.

Interviewees suggested that having new ideas presented by outside speakers might help get people out of their “defensive shells” and voice their true opinions. Interviewees also said small group discussions, or brainstorming sessions in which comments are noted in minutes but not attributed, might be a way to encourage open discussion.

Orientation

At least some DOI interviewees indicated that they would like to have a basic agreed-upon orientation to GCDAMP for new members. This could include why the AMWG exists, various laws that affect the program, the history of the GCPA, the 1996 Glen Canyon Dam EIS ROD, and other information.

Overall Functionality

At least some DOI interviewees mentioned that in the recent past the AMWG and TWG were in quite a bit of conflict, evidenced in part by disagreements among DOI bureaus, minority reports to the Secretary, and a lawsuit that had been filed by a stakeholder against another stakeholder at the table. However, they said, the situation is quite different now with much less conflict. Interviewees credited the former Secretary’s Designee, Anne Castle, and her former Deputy, Lori Caramanian, with improving the situation. Interviewees also said facilitation of the TWG had helped in that venue.

DOI interviewees noted that the AMWG works well and productively together, and that most recent decisions have been decided by consensus instead of a divided vote. One interviewee remarked, “When people are not feeling threatened, they can really listen.”

Relationship Building

At least some DOI interviewees said that relationship building is important. They said they were interested in getting to know everyone better and were looking for ways to do so. The recent river trip was valuable for that purpose. Others said finding ways to be with each other during meetings would also be valuable.

Science Advisors

At least some DOI interviewees had a variety of views regarding Science Advisors. Some said they were not clear on what the Science Advisors do. Others felt that peer-reviewed science from GCMRC is good enough that the Science Advisors may not be needed. Still others looked forward to seeing how Science Advisors would be integrated and hoped that, instead of just peer review, they could provide a forum for discussion with the GCMRC scientists.

Secretary’s Designee Position

Some DOI interviewees said they did not have an opinion on whether the Secretary’s Designee should be an Assistant Secretary or someone at another level. Others said that the Secretary’s Designee should have natural resources background.

Still others said that the Secretary’s Designee should remain at the Assistant Secretary level. They had several reasons for this:

- It conveys the level of importance of this process—the only official multi-stakeholder dialogue on the Colorado River—and it deserves a high level of attention from DOI.
- It functions better when the Assistant Secretary leads it; it shows the stakeholders and all DOI agencies that this is the Secretary’s committee and the Secretary is involved and engaged.
- By law, it is the Secretary’s advisory committee, so the Secretary should be involved.
- The Assistant Secretary can direct the AMWG more effectively because of the level of authority.
- Sometimes DOI agencies do not agree, and in those cases, it is good to have someone in charge at that level.
- If the Secretary’s Designee were to be a high-level Reclamation person as in the past, the information exchange might be perceived as more biased or subject to sway from stakeholders.

Others thought that the GCDAMP does not need that level of oversight because of how far they have come. Still others said that the Secretary’s Designee should be a Regional Director from Reclamation.

Stakeholder Mix

Some DOI interviewees said that the AMWG and TWG currently have a good mix of stakeholders, and that everyone is represented. They also said there are extraordinarily bright people involved in the GCDAMP.

Others said the language in the GCPA directing the Secretary to consult with “[t]he general public, including representatives of the academic and scientific communities” means that Congress intended that AMWG seats should be provided for those two communities. They felt that it would be

important for these representatives to provide consistent feedback and to participate in decision-making.

Others felt that the compromise reached by the last iteration of the Charter AHG was a good one: that while seats for the academic and scientific communities would not be added, speakers from those communities would regularly be invited to address the AMWG. The thinking behind this was that outside perspectives would be helpful.

Finally, DOI interviewees said that there should be a formal process for choosing organizations representing the recreational, environmental, and hydropower marketing interests. They suggested the Secretary should ask if there is anyone in that community who is interested, and provide the opportunity for different entities to be part of the AMWG.

Stakeholders Getting What They Need

Some DOI interviewees indicated that they were getting what they needed from the GCDAMP. Others offered a more qualified affirmation: “we are making progress,” “things are getting better,” “I think we are getting what we need.” Others felt improvements were needed in order to answer that question affirmatively: making sure non-voting members fully participated in TWG, for example.

Structure

At least some DOI interviewees said that after the LTEMP ROD is signed, the idea of hiring a coordinator/ executive director should be reconsidered. This is because the job that Glen Knowles held was already more than one person could handle, and even more stakeholder involvement would be needed at that time.

Substantive Accomplishments

At least some DOI interviewees noted that AMWG has shown good progress in recommendations to the Secretary in recent years. These include the DFCs, high flow experiment (HFE) protocol, and the non-native fish control program. One said, “We saw an evolution from focus on process to positive steps forward on substantive items where we found consensus.”

Slow progress, interviewees said, is due to the inclusiveness of the process and the time it takes to include the disparate interests around the table.

Tribal Relationships and Participation

At least some DOI interviewees said that while the relationship between the Department and the tribal representatives had improved, it should be an “area of constant vigilance.” They said tribes often feel underappreciated, “in part because they are,” so this should be a focus for consciousness raising and continued improvement.

Other interviewees said that it is difficult to credibly incorporate TEK into the scientific process in a way that both scientists can respect and tribes can feel honored. They said that outreach to tribes by the Secretary’s Designee or the Secretary’s Designee’s staff, as well as by all federal agencies, was important, including separate meetings, visiting the reservations, and joining tribal river trips.

DOI interviewees said that AMWG should address what tribes consider most important, not what the AMWG wants to do for the tribes, and suggested the tribes want protection of archeological

sites. Others said that the tribal point of view was given too much weight, and that the tribes should expect consultation but not deferment to their wishes.

ENVIRONMENTAL AND RECREATIONAL INTERESTS' PERSPECTIVES

Concerns and Interests

Environmental and recreational interviewees said that their primary concerns are harm reduction for and protection of the entire Grand Canyon, and in some cases the entire Colorado River basin, including its natural processes, native fish, trout fishery, vegetation, beaches, and the visitor experience. Other concerns included making sure the adaptive management process works well and supporting the management agencies to do their jobs well. As you might expect with the diversity inherent in this group, each interviewee emphasized some of these concerns over others.

Environmental and recreational interviewees said that they are at the table to represent their constituents and represent them well. They said they were looking for a balance of power production with tribal, cultural, recreational, and native fish protection. Others mentioned the ongoing drought and impacts from a changing climate, and the importance of making sure the resources of interest continue to be protected during these difficult times.

Interviewees emphasized the importance of peer-reviewed science as a basis for decision-making and for adaptively managing the ecosystem. They also mentioned the need to better understand the interactions between trout and humpback chub.

Environmental and recreational interviewees also mentioned the importance of connections and networking with others with an interest in the Grand Canyon. They said it is important to understand the perspectives of and have a personal connection with all stakeholders.

Assessment of What is Going Well and What Needs Improvement

Adaptive Management Approach

At least some environmental and recreational interviewees said that the GCDAMP is more of a science project than adaptive management, because much science is produced but changes in management come more slowly than normal in adaptive management processes. They said that in a true adaptive management program, when something new is learned, a change is made in management, the results evaluated, and then more action is taken. Interviewees also said that more could be changed besides dam management, and gave the crisis work on the green sunfish as an example.

Some said that other adaptive management processes have scientists and technical people who evaluate the science, rather than (as in the GCDAMP) a second body of stakeholders, the TWG. Others suggested that some of the \$10 million per year being spent on science could be spent on management, with management changes made as soon as feedback is received.

All Interests Are Heard

Some environmental and recreational interviewees said that the program is open enough so that if someone has something to say, it is welcomed; and if a stakeholder is not contributing, it is because they choose not to. They said that it is stakeholders' responsibility to speak up and advocate. While stakeholders will not get everything they want, they definitely have the ability to participate.

Others pointed out that their resources can be extremely limited, particularly compared to other stakeholders, and sometimes they cannot participate to the extent that they would like to. Therefore, it might be more accurate to say that they definitely have the **opportunity** to participate.

Clear Goals and Objectives

At least some environmental and recreational interviewees said the program needs strategic management, strategic questions, and science guidelines. (“Science guidelines” would identify the key science questions and how the program will approach them, and the result of such guidelines should be consistency in data collections and long-term datasets.)

DOI Non-Voting Status

At least some environmental and recreational interviewees said they had concerns when DOI members became non-voting that the Interior representatives would not participate as much. However, they have not seen a reduction and are satisfied with the level of participation and responsiveness.

DOI Responsiveness

At least some environmental and recreational interviewees said DOI had been either responsive to recommendations from AMWG or “as responsive as they could be.”

DOI Speaking With One Voice

At least some environmental and recreational interviewees hoped that the DOI bureau representatives could share the diversity of thought and opinion among them with the larger AMWG.

Experience in Grand Canyon

At least some environmental and recreational interviewees said that the experience of being in the Grand Canyon was important for GCDAMP participants, and that more have had this experience in the last few years thanks to the recent tribal river trip and the Glen Canyon trip with dinner at Lees Ferry. However, they said, some managers have not had personal interaction with Grand Canyon.

Interviewees said that river trip opportunities should be offered annually or bi-annually, and should highlight more than the science. People on the trips should also have ample time to experience the Canyon and relationships with others through hiking and other exploration.

Facilitation

At least some environmental and recreational interviewees said it was important to ensure future AMWG meetings were facilitated. Interviewees said that it was too much to ask the Secretary’s Designee to provide all the facilitation functions, including meeting preparation and management. Interviewees cited benefits of facilitation including clear motions, inclusive discussion, and keeping the meetings on point and on time. They said that when discussions were emotionally and economically charged, the use of facilitator has been particularly valuable. Interviewees also said the right facilitator was as important as facilitation in general.

At least some environmental and recreational interviewees said that when budget was being discussed and some of the parties at the table were potential recipients of funding, it would be

particularly important to have facilitation at TWG. At other times, advice from a facilitator might be useful for the TWG chair.

GCMRC and Science

At least some environmental and recreational interviewees said that GCMRC is filling a critical role and is an important resource and benefit to the stakeholders. They noted that the understanding of the Colorado River ecosystem and how it works, especially in the realm of sediment and fish, has progressed to a point where it is useful in policy decisions and can ensure those decisions have a basis in reality. They also praised the responsiveness of the GCMRC personnel to questions from stakeholders.

Areas of possible improvement were also noted. Environmental and recreational interviewees suggested that long-term monitoring should be a stronger emphasis in the program, to be able to detect change and support adaptive management. While research may be easier, an adaptive management program must have a solid, long-term monitoring program.

At least some interviewees said the science program was focused on fish and sediment, and a broader understanding of the ecosystem and human interactions with it should be obtained. Interviewees said it has made sense to focus on fish and sediment as resources that could help improve the entire ecosystem; however, after the LTEMP ROD is signed, there should be a review of the goals and purpose of the program and possible re-direction of the science.

At least some environmental and recreational interviewees said that voices external to GCMRC are usually not included, and more projects should be performed by outside contractors. They said that the GCMRC had created a bureaucracy larger than envisioned in the 1996 ROD. Because of this, major themes and impacts could be missed because GCMRC does not have the expertise on staff; e.g., long-term nutrient impacts from the dam or ecosystem modeling.

Some environmental and recreational interviewees said that there is a lack of knowledge in the program of ecosystem processes, and thus uncertainty about how to improve them. This was attributed to including too much in the GCMRC workplan without a sense of priority. Interviewees said that the program needs to improve the connection with the rest of the basin, especially the reservoirs that bound the Colorado River ecosystem, and that the lack of monitoring data from those reservoirs was impeding good decision-making in the GCDAMP.

Others pointed out that they were focused on making sure that any scientific pronouncements of relationships between trout and humpback chub were valid and proven and not just hypotheses.

Written reports were also requested, even if they were much shorter than the traditional papers, for those who are unable to attend the two-day annual reporting meetings. Interviewees also suggested using other areas as controls for experiments.

Meeting Frequency and Modality

At least some environmental and recreational interviewees thought the number of meetings, and the mix of two face-to-face and one webinar annually, were appropriate. They mentioned that the TWG meetings held by telephone in the past were difficult because you cannot understand people as well without the personal interaction. Also, it is easier for a few people to dominate on a conference call. One said, “You have to sit across the table for a truly collaborative process.”

Meeting Management and Location

At least some environmental and recreational interviewees praised how the meetings are organized and managed, mentioning specifically that information is regularly sent out (including on emerging issues like green sunfish), lists are kept of what has been done and not done, and meetings are run openly. Linda Whetton was specifically mentioned as filling a critical role and communicating well. Interviewees also mentioned that consensus is too slow, but it works as well as it can.

Some suggestions were made for improvements, including:

- Distribute PowerPoint presentations the morning of the day of the presentation, because afterwards is less useful.
- Have photos of the Grand Canyon in the meeting rooms.
- Do not hold meetings in Phoenix in the summer.
- Test different meeting locations, including Grand Canyon and Flagstaff for AMWG and Grand Canyon, Williams, and Tusayan for TWG meetings.

Open Discussion and Making Recommendations

Some environmental and recreational interviewees said there was openness and good communication among all the parties.

Others said the meetings are “too tightly scripted and defined.” They feel that as a result, they are precluded from discussing important or core issues. Diverse voices might encourage more meaningful dialogue and honest discussions about what stakeholders want to achieve and want to protect. Interviewees also said that there needed to be more time for questions during the meeting.

Orientation

At least some environmental and recreational interviewees said the program should provide an orientation for new members.

Overall Functionality

At least some environmental and recreational interviewees said they believed the GCDAMP functioned well. They thought it served as a model for other large federal-state programs. The regular meetings and carefully structured organization were cited as positive and beneficial.

At least some of these interviewees noted some uncertainty about whether the National Park Service (NPS) and Reclamation would cooperate in management of the GCDAMP in the future as they have been doing for the LTEMP EIS.

Public Outreach

At least some environmental and recreational interviewees said that while the GCDAMP Wiki website was a good start, more needs to be done to strengthen the program’s public outreach. There are few to no public voices at the TWG or AMWG meetings. The public still does not know about the program, and it will probably take a professional public relations effort to do the job well.

Relationship Building

At least some environmental and recreational interviewees said that relationship building was an important aspect of their participation in the GCDAMP. This occurs during meetings at which all the interested parties are together, and also during river trips.

Science Advisors

Some environmental and recreational interviewees said they found the Science Advisors to be very valuable, looked to them for important outside commentary, and that they depended on what Science Advisors have to say. Others said they did not understand the role of the Science Advisors, even after several years. Still others said that the Science Advisors have not been functioning at all for the last year or two and it will take the new Science Advisors' Executive Coordinator a couple of years to get up to speed. This was viewed as a negative situation because there has been no recent external review of the science.

Secretary's Designee Position

When asked whether the Secretary's Designee should remain at the Assistant Secretary level, at least some environmental and recreational interviewees agreed that the Secretary's Designee should be a person holding a high level position, and most said it should be in the Secretary's office. Reasons given for this include:

- The Grand Canyon is important place, and the GCDAMP consists of diverse and high-level stakeholders.
- The subject matters discussed are serious and important and have national implications.
- There is no other place like the Grand Canyon and no other river system has such a diverse set of users.
- The more access to the higher levels of DOI, the more the program can accomplish.
- It ensures that the program is meaningful and appealing.
- Reclamation would not be viewed as a neutral party.

Stakeholder Mix

Some environmental and recreational interviewees said that AMWG consisted of a fair and broad set of stakeholders and the right people were at the table. Others felt that academic and scientific representatives should be at the table, as they were listed in the GCPA and their voices would be valuable.

Stakeholders Getting What They Need

Some environmental and recreational interviewees, asked whether they were getting what they needed from the program, said they were getting a little, or as much as they could. Others said the important thing was that they had a respected seat at the table, and it was incumbent upon them to be at the table and make their case clearly and effectively. One commented, "It is our responsibility to get what we need, not the program's responsibility to give it to us."

Some environmental and recreational interviewees noted that they do not have the same level of resources and ability to communicate outside the meetings as other stakeholders, and while that was challenging, they still felt heard. They also said that they were gaining incremental improvements and, while they would want more, they are gaining enough to stay at the table.

By contrast, others said that DOI appears to selectively ignore their comments and suggestions, even suggestions that would assist the bureaus to advance their missions.

Substantive Accomplishments

At least some environmental and recreational interviewees would like to see the AMWG have a similar record of restoration, conservation, and habitat development as the Lower Colorado River

Multi-Species Conservation Program (MSCP), and suggested that more support from the NPS would promote that goal.

Tribal Relationships and Participation

While there was some concern expressed by environmental and recreational interviewees that the Havasupai Tribe does not participate in the GCDAMP, interviewees were pleased that there was good representation and participation from the other affected tribes.

HYDROPOWER INTERESTS' PERSPECTIVES

Concerns and Interests

Hydropower interviewees were interested in maintaining and enhancing the availability, affordability, and value of hydropower generated from the dam. They were also interested in maintaining the flexibility of that hydropower.

The value of hydropower increases when it is generated at peak demand times. Cost, usefulness, and value are interchangeable terms. Hydropower is inherently flexible because it can quickly react to changing loads (demand) and system disturbances. This is important because use and generation need to be equal in electricity production. While a natural gas turbine is almost as flexible as hydropower, it cannot always be operational as hydropower can.

Hydropower interviewees also were interested in responsible stewardship of the Colorado River through compliance with the various environmental and cultural resource laws, such as National Historic Preservation Act (NHPA), GCPA, and Endangered Species Act (ESA). They said hydropower facilities could not continue to operate if they are irreparably damaging the environment and resulting in a jeopardy opinion.

Cost effectiveness was also important to hydropower interviewees, as their customers (tribes, municipalities, and other non-investor-owned utilities) pay all the costs of the Colorado River Storage Project, including the costs of the GCDAMP, other environmental programs, and irrigation assistance. The Congressional cap on funding for the GCDAMP was important to hydropower interviewees because they wanted to ensure prioritization and focus of the program. They emphasized that the program cannot be all things to all people.

Hydropower interviewees also were interested in making sure the GCDAMP process was a fair and good one. As one interviewee said, "Sometimes what is best for power is not the best for endangered species, and vice versa. We work hard to achieve a balance and make sure decisions are fair and equitable with no one resource bearing the brunt."

Assessment of What is Going Well and What Needs Improvement

Adaptive Management Approach

At least some hydropower interviewees said while this was an adaptive management program, AMWG is not making recommendations that result in change. As one stakeholder said, "The presentations are good and then nothing happens."

All Interests Are Heard

Some hydropower interviewees said all stakeholders have the opportunity to share their thoughts and views, and the facilitator ensures that happens. Others said that there is much political influence and everyone is looking out for their own interests, so it is difficult to take everyone's point of view into account. Interviewees said that while everyone has a voice, it is not clear that everyone believes their voices are heard; and sometimes a decision needs to be made despite opposition.

Clear Goals and Objectives

At least some hydropower interviewees were concerned about the lack of direction for the program. They said that the goals and objectives that had been agreed to were no longer being followed, and the science questions that once directed the program were outdated. As a result, the program seems to focus on the "important issue of the day."

At least some hydropower interviewees said that the program needs to do a better job of tradeoff analysis or cost-benefit analysis, and to acknowledge that the program cannot do everything. They suggested completing Phase 2 of the DFCs, the development of quantifiable DFCs. Phase 1 of the DFCs development took two years, and as one hydropower interviewee said, "We do not want to lose all that effort." During Phase 2, the trade-offs among the DFCs could be identified; for example, how would the operations to reach one goal affect the others? Others said the program seems to be focused on HFEs, but instead the main focus should be to preserve the humpback chub; and a consensus Strategic Plan would re-focus the program.

At least some interviewees also said the LTEMP EIS ROD could completely change the direction of the program, and it would be a challenge for the program participants to understand that change and how their role could transform in the future.

At least some hydropower interviewees said clarity is needed about the driver of the GCDAMP: is it bottom up, from the stakeholders; is it from the scientists; or is it top down from the Secretary? They remarked that in the space of two to four years, the AMWG and TWG agreed on science questions and DFCs, and then a memorandum from the Secretary's Designee established different priorities. Either the Secretary should send AMWG her/his priorities, or AMWG needs to complete the DFCs or a Strategic Plan.

DOI Responsiveness

Some hydropower interviewees felt that DOI was responsive to recommendations from AMWG, and that there was good information flow from Interior to the GCDAMP. Others said they thought issues were influenced by politics, and some issues were handled differently depending on the Administration. Still others said that the Secretary's office does not need to be quite so engaged, and the TWG chair and the GCMRC chief should be allowed to operate without as much oversight.

Facilitation

At least some hydropower interviewees said facilitation was of benefit to the program.

GCMRC and Science

At least some hydropower interviewees were positive about the science provided by the GCMRC and expressed respect for the scientists. It was important to them that people understand that every action has a result, and it may not be immediate. The possibility of green sunfish being pushed downstream by an HFE was an example of unintended consequences. One said, "The program is

useful for understanding relationships and consequences, understanding that actions equal consequences, and that the latter come over a long period of time.”

At least some interviewees also suggested that opposing or contrasting viewpoints to those of GCMRC could be brought into the AMWG meetings so members could hear other opinions.

Meeting Frequency and Modality

At least some hydropower interviewees said they prefer face-to-face meetings to webinars, particularly when decisions need to be made, because one can understand the other participants better when everyone is in the same room. Also, the AMWG has more time to make decisions during face-to-face meetings. Some would like to have three face-to-face meetings each year, and others would like to avoid the third trip. However, if there is no decision to be made, interviewees suggested that there be no meeting at all or a webinar. Some suggested the meeting schedule should depend on what was on the docket for the year, instead of being on a regular schedule. Some also felt that TWG could meet more frequently were it not for budget constraints.

Meeting Management and Location

At least some hydropower interviewees made two suggestions for improvements for meeting management:

- Make it clear why each item is on the agenda, and what participants are supposed to do with information.
- As one interviewee said, “Never, ever meet in Phoenix in August again.”

Science Advisors

At least some hydropower interviewees said the Science Advisors’ role, and the idea of independent eyes on the science program, was very important. They also mentioned that the Protocol Evaluation Panels were essential, and that it had been a long time since the last one. There was some uncertainty about whether the positive contributions to the program would continue under the new contract because the new contractor is unknown.

Secretary’s Designee’s Position

Some hydropower interviewees said the level of the Secretary’s Designee did not matter to them. Others thought it should remain at the Assistant Secretary level because of the gravity of the responsibility of the GCDAMP and the relative lack of bias at that level.

Stakeholder Mix

At least some hydropower interviewees said the representation on the AMWG and TWG was balanced and included representatives from all stakeholders who have an interest in the Grand Canyon. At least some hydropower interviewees expressed concern about whether the National Parks Conservation Association and NPS had divergent interests, and whether two national environmental organizations might provide better representation on the AMWG. Others said that the changes in environmental representation were a detriment to the program because the new organizations have different interests and priorities and the program and its participants had to adjust to the change.

Stakeholders Getting What They Need

At least some hydropower interviewees said they were getting what they needed from the program: they had the opportunity to provide their perspectives, felt free to speak and were heard, and

acknowledged that sometimes decisions need to be made despite opposition. As one interviewee said, “You do not always get everything you want from a collaborative process.”

Tribal Relationships and Participation

At least some hydropower interviewees said they would like to hear more from the tribes, and were disappointed that some do not attend or do not participate in discussions.

NATIVE AMERICAN TRIBES’ PERSPECTIVES

Concerns and Interests

Tribal interviewees said that, just like the other groups of stakeholders, Native American tribes have different points of view, and they cannot be viewed as having the same opinions or sensitivities.

Tribal interviewees said that their connections to the Grand Canyon and the Colorado River ecosystem are profound and wide, and their experience of the area can be religious, spiritual, cultural, and historic, as well as scientific. Some said the Grand Canyon is sacred ground, so the impact of management actions (or their absence) reverberates perhaps in different ways than for other stakeholders. Others noted that tribes do not try to manage natural systems like Western culture does. Still others pointed out that many Native Americans were forcibly removed from the Grand Canyon, and while this is rarely if ever mentioned at the AMWG or TWG tables, it is in the forefront of many of their minds. They noted that although for Westerners that seems like ancient history, for Native Americans the past is very much experienced in the present.

Tribal interviewees said that being at the table, and being respected and heard by the other stakeholders and the Department of the Interior, are important interests for them. Regardless of the issue being discussed, they want their points of view to be considered and taken seriously. Interviewees said that respect is a major component of any adaptive management program, and being able to look at issues from other perspectives can help the AMWG or TWG make difficult decisions. Interviewees said that part of consultation with tribes that is required by law for federal agencies is not only to involve tribal representatives in the GCDAMP, but also to talk with elected and religious leaders on the reservation. Consistent with tribal culture and joint decision-making by tribal leaders, interviewees pointed out that not all the tribal representatives are authorized to speak or act for their tribe.

Tribal interviewees also said that they were interested in better understanding of human and environmental relationships, ongoing learning, and flexible adaptation. They said that the entire Grand Canyon as well as its constituent parts were of vital interest to them. Specific resources of interest included sacred sites, shrines, salt mines, the salt trail, human remains, birds, wildlife, vegetation, plants and animals associated with springs and water, water quality, riparian areas, and all natural resources affected by GCD. Tribal interviewees indicated that some of these—the salt mines and trail and human remains, for example—were of utmost importance and the tribes might request to be the final decision-makers. Others said that their tribal interests include non-use values.

Assessment of What is Going Well and What Needs Improvement

Adaptive Management Approach

At least some tribal interviewees said that the original intent of the GCDAMP was to make changes to the preferred alternative in the 1996 ROD, Modified Low Fluctuating Flows (MLFF), if the

science indicated they were warranted. However, as one interviewee said, “The MLFF became more of a box than a starting point,” and changes have not been made.

All Interests Are Heard

Some tribal interviewees said that program participants have done well taking into account the different positions of the stakeholders, noting that it has been a number of years since they had a divisive discussion. Some said that others at the table tend to understand the tribes’ positions, even if they do not agree.

Some tribal interviewees also said that the change toward a consensus approach helped the tribes and the program. When all decisions were made by voting, many were frustrated because they did not feel heard or believe that they had the power to do anything. Also, it seemed there was no need for discussion because the votes had already been counted before the meeting.

Others said that while they are encouraged to speak up, suggestions and opinions from the tribes are ignored at times in ways that other stakeholders are not ignored. This was in part attributed to the difficulties of integrating TEK into a process where Western science has such a strong influence. Interviewees said TEK could offer reasons why something is happening in the ecosystem: why the humpback chub are here and not there, or why the environment is reacting in a particular way. However, sometimes it is not comfortable to mention it, and sometimes it is not accepted when it is mentioned. One interviewee said, “I do not bring up our traditional knowledge in the meetings because no one wants to hear it. ‘Old wives’ tales’ is how they see it.” Another said, “I shared this kind of thing [TEK] on the river trip. I have always been told, ‘Do not tell them certain things; they do not need to know about them.’ But I said I would tell them because if they do not hear it, they will not understand what I have to say at the stakeholder table. Maybe the five who were there will now understand. But what is that compared to the other 20 who were not there?”

These interviewees said that understanding culture is important in understanding people’s opinions and how they interact at the table, and it was important not to assume all stakeholders share the same worldview. For example, some tribes view even rocks and water as sentient: not with the consciousness of a human, but with self-awareness.

At least some tribal interviewees said that the concerns of the states were respected, listened to, and responded to by the Secretary more than the tribes. Interviewees also said that FWS and NPS have more influence at the table than anyone else, evidenced by two things: the focus on HFEs even though the only benefit is to river runners (NPS), and decisions made counter to tribal values because of the ESA (FWS).

At least some tribal interviewees suggested that researchers and the members of AMWG and TWG should participate in cultural and historic training regarding tribes, to increase their sensitivity to tribal perspectives about their associations with the Grand Canyon and to better understand the different points of view among the tribes.

Clear Goals and Objectives

At least some tribal interviewees said that the AMWG and TWG had been involved in development and approval of a Strategic Plan, DFCs, and strategic science questions, but they were no longer being used for guidance. They suggested looking at how relevant these guidance documents are

today, how things might have changed, and what might be done with these documents. As one interviewee, said, “If it was a good idea to have goals and objectives then, why not now?”

DOI Responsiveness

At least some tribal interviewees said DOI had been responsive to recommendations from the AMWG. Some tribal interviewees felt that some DOI employees had the tribes’ best interests at heart while others did not. Positive comments were offered about the DOI Tribal Liaison, Sarah Rinkevich, who was seen as genuinely trying to assist tribes.

DOI Speaking With One Voice

At least some tribal interviewees said that the decision to have DOI agencies speak with one voice had an unintended negative impact on tribes. They wondered if the Bureau of Indian Affairs, for example, was being asked not to speak in behalf of tribes. They suggested that more transparency would be a better policy.

Some thought it would be informative to understand the policy differences among the bureaus. Others thought that understanding the differences in technical issues would be even more important, even if they had policy unanimity.

Experience in Grand Canyon

At least some tribal interviewees said river trips were very important for a deep understanding of the Grand Canyon and of the tribal positions. They said they wished more AMWG members had participated in the 2015 tribal river trip. Others said DOI should fund a tribal river trip every two years, so the representatives could see the landscape about which they are making decisions. They said that the true meaning of the place does not appear by looking at photos or graphs on a screen in a meeting room. As one interviewee said, “The only way we can all understand is to be in the ecosystem and point out the situations.”

Facilitation

At least some tribal interviewees said facilitation greatly helps the program. Even when there is no overt conflict, it can help keep the meeting on track and on time. Interviewees said that the use of colored cards and posting ideas on the wall, as has been done at TWG, helps organize discussions so participants can be more productive.

GCMRC and Science

Some tribal interviewees said that GCMRC produces high-quality, cutting-edge science, and that the amount of science that is produced to help make decisions is a true benefit for the program. There was concern expressed about whether AMWG gives GCMRC adequate direction, and whether as a result the scientists study more of what they are interested in rather than what would benefit the program.

Other tribal interviewees said they believed that, instead of science driving decision-making in the program, political decisions are made and the science community is asked to support them. Interviewees mentioned, for example, that while trout predation on and competition with humpback chub has not been well tested, anecdotal and inferential evidence has become the basis for trout management actions that are not supported by adequate science.

Still other tribal interviewees were troubled by the focus on HFEs, because their benefit is only for beach building and they have a negative impact on other resources. Interviewees also said that there is still no cultural resources monitoring at the level of compliance with existing Programmatic Agreement, and they anticipate that the LTEMP process will not meet NHPA guidelines.

Meeting Frequency and Modality

At least some tribal interviewees said there was an adequate number of meetings now, and that more meetings might be needed when the budget is being developed. Interviewees said they prefer face-to-face meetings to webinars, because on a webinar they do not feel heard and are not as able to understand others.

Orientation

At least some tribal interviewees said that an introduction to the program for new AMWG and TWG members and alternates should be developed. It should cover substantive as well as process issues, the different interests, how AMWG and TWG function, and role of the Secretary's Designee and Secretary, among other items.

Overall Functionality

At least some tribal interviewees said that the collegiality of the GCDAMP was positive, and the longevity of the people involved was also of benefit to the program. Interviewees said the administrative history project would be helpful, particularly for newer appointees, as it is important to build on the program's history instead of forgetting it and risk repeating it.

Science Advisors

At least some tribal interviewees said they supported the Science Advisors and found their products useful, particularly to TWG members. They pointed out that the tribal representatives are not expert in all the resources, so a summary report is useful and helps them bring the tribal perspective.

At least some tribal interviewees said they were disappointed with the ineffectiveness of the previous Science Advisors and are hoping for more open engagement and discussion between TWG and Science Advisors. Previous reports went through the filter of the Executive Coordinator, which limited an open and constructive exchange. Tribal interviewees said that the AMWG should be better informed about what Science Advisors are supposed to be doing and should have input on what they do. Tribal interviewees also said that there often has been no Science Advisor in the cultural area.

Secretary's Designee Position

Some tribal interviewees had no opinion regarding whether the Secretary's Designee should remain at the Assistant Secretary level, while others thought it should remain there. They said that more involvement from the Secretarial level could help focus the program and keep it running smoothly. Without that involvement, there is more decision-making based on who can dominate the meetings. If the Secretary's Designee is in the Secretary's office, members can be assured that the information is getting to the Secretary. Also, at that level, the person is more likely to be neutral than a Reclamation appointee could be.

Still others thought the most important criterion was a Secretary's Designee who cares about the program and its stakeholders and who would be engaged in the program.

At least some tribal interviewees said that if the Assistant Secretary does not address an issue of importance to the tribes, the Secretary should step in and address that issue.

Stakeholder Mix

At least some tribal interviewees said it was helpful to have diverse interest groups involved. They also said that this was one of the few programs where tribes have been at the table since its initiation.

At least some tribal interviewees were concerned about the turnover in the AMWG and TWG, and said that it stymies progress when there are often new stakeholders at the table. Others urged that the appointees have management of the Grand Canyon in mind before being appointed, since the point of the AMWG was to solve problems.

At least some tribal interviewees were concerned that some stakeholders might care only about one resource and do not have the health of the resources of the Grand Canyon at the top of their priorities. Instead, they said, all resources should be considered equally important.

Stakeholders Getting What They Need

When asked if they were getting what they needed from the program, some tribal interviewees said they believed they had made an impact through the program and had mostly met their goals. Others said that they were not getting what they needed because tribes are not as valued as other stakeholders are.

At least some interviewees pointed out that Western science and tribal philosophy come from completely different worldviews in many cases. They said that tribal representatives want to see tribal opinions and positions valued and used in the decision-making process. However, as one interviewee said, “If it just becomes another check-the-box, ‘we talked to a tribe and we can move on,’ that would not achieve what the tribes are interested in.”

At least some tribal interviewees said that there was a lack of attention to tribal resources, and when experiments have negative impacts on tribal resources, mitigation is promised but not delivered.

Tribal Relationships and Participation

At least some tribal interviewees said that, while Native American participation in the program is still lacking, there have been improvements through encouraging more tribal presentations, mostly at TWG.

At least some tribal interviewees explained how difficult it was to explain TEK and relate it to Western science. They said that their way of knowing is often viewed as “old wives’ tales” and not taken seriously. For this reason, interviewees said, they do not speak up in the conference rooms. To counteract this, they suggested that tribes should be able to talk about it at the beginning of each meeting. They said the Stakeholder’s Perspective agenda item should also come early in the meeting.

At least some tribal interviewees said that those things of interest to the tribes (e.g., compliance with NHPA) are not integrated in the program in the same way as are, for example, ESA issues. As one interviewee said, “If it is cultural or tribal, people’s eyes glaze over and it is dealt with somewhere else.” Tribal interviewees said ESA compliance is coordinated through the GCDAMP, with research and monitoring performed by the GCMRC and outcomes fully integrated in the program. By

contrast, compliance with NHPA is unilaterally completed by Reclamation, and while it is reported to the GCDAMP to some extent, it does not seem to have the same level of discussion within GCDAMP. While the history is complicated, and there may have been good reasons years ago to keep the programs separate, they said the science and monitoring of cultural issues should be better integrated into GCMRC and the program.

At least some tribal interviewees also said that the development of a tribal consultation plan (TCP) is not going well. After the tribes recommended a very detailed TCP 15 years ago, DOI's current proposal is very short and commits federal agencies to nothing. These interviewees saw this as symptomatic of the GCDAMP, where tribes are treated as second-class citizens.

At least some tribal interviewees said that funding for tribal participation was established at \$95,000 per tribe in 1997. While costs have increased every year, the amount has never changed. Also, some tribes participate more than others. They suggested that tribes should propose an annual scope of work and budget for a scope of work that is not limited to \$95,000, and if they do what they said they would do, they should be compensated.

STATES' PERSPECTIVES

Concerns and Interests

State interviewees noted that water supply and delivery was a primary interest. Interviewees also said it was important for them to be able to fully develop their allocation of Colorado River water, in order to meet future water needs and obligations such as Native American water rights settlements. While many laws, regulations, court rulings, settlements, and interstate compacts (often collectively called "The Law of the River") govern allocation and delivery, state interviewees noted that AMWG recommendations to the Secretary could affect water delivery.

With regard to water delivery, state interviewees noted the issue of equalization flows, which some GCDAMP stakeholders have advocated spreading over multiple years (when the flows are large) to minimize negative impact on sediment or to maximize power generation. However, interviewees felt strongly that those flows need to be completed in a single year, in order to comply with the law and to ensure the right amount is delivered to the Lower Basin states (Arizona, California, Nevada). In addition, there is concern about the level of Lake Mead, which interviewees said is in constant deficit because 1.2 million acre-feet more is taken out each (normal) year than is delivered through "The Law of the River." As one interviewee said, "The Interim Shortage Guidelines were not set up for multiple-year equalization."

State interviewees also mentioned the importance of ensuring power generation and revenues are not diminished; for some this included both Glen Canyon and Hoover dams. They said that many in their states depend on hydropower for electricity. They also said that programs important to the states, such as the Upper Basin (Colorado, New Mexico, Wyoming, Utah) recovery programs, and the GCDAMP (as well as salinity control and repayment of projects) all are paid for by hydropower revenues. For that reason, interviewees said, it is critical that the activities in these programs are efficient and prioritized.

State interviewees also said that the health and well being of the river and its stakeholders is an important interest. They said that, for example, ESA compliance must be maintained in order for water delivery to continue. They prefer to address it through the GCDAMP rather than through

litigation or other methods that would be less effective and could dramatically upset the management of the Colorado River and the balance of interests. As one interviewee said, “I want to make sure that nothing the Secretary does jeopardizes the existence of humpback chub populations.” State interviewees also mentioned protecting the health of the Grand Canyon for tourism.

In addition to these issues, state interviewees noted that they need to pay attention to any venue in which the Colorado River is discussed and decisions could be made, because of the importance of the river to their states. They said their goal is to see that GCD is operated according to the Law of the River and all that entails. While there are other venues where they have direct input (such as Annual Operating Plan meetings), the GCDAMP is a major venue for oversight of dam operations.

State interviewees also said that the GCDAMP is a valuable setting for getting to know other stakeholders interested in the Colorado River and its dams. Here, they can ensure others understand their positions and their interests, and they can understand the positions and interests of others. They said they want to collaborate and be partners with the other stakeholders. GCDAMP gives them a venue to assure they know what is happening, they understand the science, their interests are considered, and they can offer options for action. Interviewees specifically mentioned getting to know tribal representatives as one of the benefits of the program.

Assessment of What is Going Well and What Needs Improvement

Adaptive Management Approach

At least some state interviewees said that they could live with some actions as experiments rather than management actions, even though they know this is frustrating for other stakeholders. This is because of serious underlying legal positions between the states and the federal government and between the Upper Basin and Lower Basin states. If management actions are adopted, states will need to evaluate whether they have to challenge them to protect their legal positions.

All Interests Are Heard

At least some state interviewees said that the interests of all members are taken into account, and they believed people feel they are heard.

Clear Goals and Objectives

Some state interviewees said that the program is operating under goals and objectives that participants largely accept. Others said it could be helpful to quantify the goals as presently articulated in the DFCs.

DOI Non-Voting Status

Some state interviewees said that the non-voting status of DOI agencies has worked out well: the AMWG and TWG have access to their expertise and involvement, and DOI representatives do not as strongly influence AMWG recommendations as they used to. As one interviewee said, “They still have the opportunity to influence the Secretary directly through their chain of command.”

Others said they were not sure they were hearing all the DOI agencies’ perspectives. They believed the bureaus had become quieter and offered less feedback since becoming non-voting. They wondered if the stakeholders were missing important information as a result.

DOI Responsiveness

At least some state interviewees said, in their opinion, “responsiveness” does not mean that DOI always does what is asked, but rather that they acknowledge and consider the recommendation.

State interviewees were mixed in their assessment of whether the Department of the Interior was responsive to recommendations from the AMWG. Some said DOI was very responsive, others said their responsiveness was adequate, and still others said the record was mixed. An example of non-responsiveness was when some objected to the Structured Decision-Making exercise in the context of the LTEMP EIS process, but it went forward anyway. Examples of responsiveness included accepting suggested changes to the charter, and revising an HFE plan due to concerns about the cost to hydropower.

DOI Speaking With One Voice

Some state interviewees said that the collegiality of the AMWG was enhanced when the Secretary’s Designee began to align the DOI bureaus on policy before AMWG meetings. Other interviewees said that when the DOI agencies spoke with one voice, it gave the stakeholders in the GCDAMP less of a role in the recommendation-making process.

Facilitation

At least some state interviewees said that having facilitation was helpful, and having a facilitator with extensive knowledge of the program was even more helpful.

GCMRC and Science

At least some state interviewees said they were pleased that the program is driven by science instead of policy agendas. They said the annual reporting meetings were useful and valuable.

At least some interviewees said that while research is important, there will never be perfect knowledge of any natural system, and thus there will never be perfect management.

At least some state interviewees also would prefer faster turnaround on the results of monitoring and experimentation. As one interviewee said, “If we are going to continue to implement an HFE protocol, we need more timely feedback on the results of previous HFEs so they can inform us as we plan for future HFEs.”

Meeting Frequency and Modality

Some state interviewees thought the current AMWG meeting schedule worked well; others said there were too many meetings. Several suggestions were made:

- Make sure two face-to-face meetings per year are needed before scheduling them.
- Do not schedule too many webinars. As one interviewee said, “Too many webinars, and we will never get to know each other.”
- Have more webinars and conference calls as appropriate (they are getting better) in addition to one or two face-to-face AMWG meetings. Be mindful of budgets.
- More TWG meetings could be done via webinar.
- Maybe alternate webinars and face-to-face meetings, presenting information during the webinar and having the policy discussion and decision during a face-to-face meeting.

Meeting Management and Location

At least some state interviewees praised and appreciated certain aspects of ongoing meeting management:

- Opportunities for stakeholder groups to make presentations so others can understand their points of view.
- Keeping the AMWG and TWG on schedule while giving everyone the opportunity to have their say, making sure different points of view are expressed.
- The development and distribution of agendas and documents.
- Putting motions on screen for editing in real time.

State interviewees also offered suggestions for improvement:

- Keep to the agenda; it is important to have materials in advance to allow everyone to prepare. Unexpected agenda items may disadvantage those stakeholders most who are not focused on the Colorado River all the time.
- Avoid last-minute motions that come up at the meeting; participants need time to review those ideas in advance.
- Clearly mark on the agenda when decisions are to be made.
- Separate the functions of reporting and policy-making at AMWG meetings, and make sure the information they need to act on policy recommendations comes to them before they act on it. Give them time to reflect on the information before they have to make a decision.

With regard to the location of meetings, some state interviewees said they would prefer to never meet in Phoenix in August, while others said that they prefer Phoenix, even in the summer. They also said, if the meeting is held in Salt Lake City, make sure it is not at the federal building because of the distractions for those who work there.

Open Discussion and Making Recommendations

At least some state interviewees said that they had not been able to speak freely in prior years because of lawsuits. While pleased that there was no more open conflict, interviewees said that they saw some tendency to avoid a full discussion for the sake of harmony, and warned that this would be detrimental to the process.

At least some state interviewees also expressed concern that AMWG had no real input into important recommendations and no real debate about issues, and that when recommendations were made, it seemed to be a “rubber-stamp formality” with major decisions made in advance or elsewhere.

Overall Functionality

At least some state interviewees said that the open conflict and dysfunctionality of prior years had largely dissipated, and differences are now worked through collaboratively. As one interviewee said, “The disagreements are still there but we have learned to accept each other and understand each other’s positions. We should cultivate that culture of respect, understanding, and working together since we [as individuals] will not be here forever.”

At least some state interviewees said that the move from voting to consensus was a benefit for the program, and that the AMWG and TWG have improved in their consensus-building skills.

At least some state interviewees also said that the budget development process had greatly improved, with a three-year budget cycle and less attention paid to small budget items. They also indicated there was some uncertainty about how the program would operate after implementation of the LTEMP.

Relationship Building

Some state interviewees said that the GCDAMP stakeholders have a better understanding of stakeholder interests and concerns due to opportunities given to stakeholders to present their goals in the “Stakeholder’s Perspective” agenda item. They said this understanding is important in a collaborative process.

Others noted that some stakeholders were cooperating agencies for the LTEMP EIS while others were not, and the former had much more information about the LTEMP than the latter. They were concerned that non-cooperating agencies might feel left out, and suggested that attention be paid to bringing everyone together after the ROD is signed.

Science Advisors

While some state interviewees said they were not clear about the role of the Science Advisors, others said the role of independent science review gives good value and has been helpful to the program. Still others said they would reserve judgment on the Science Advisors until they could assess the new Executive Coordinator.

Secretary’s Designee Position

Some state interviewees said that the Secretary’s Designee should remain at the Assistant Secretary level, for several reasons:

- The need to have someone close to the Secretary, as the AMWG is making recommendations to the Secretary.
- Authority, connection to the Secretary, and influence over all the DOI agencies.
- Engagement at the Secretarial level greatly changed the program for the better.
- The program is more influential and effective.
- The diversity of the stakeholders.
- Stakeholders take the program more seriously.

Others suggested that future Assistant Secretaries might not have a high level of knowledge, engagement, and skill. In those cases, a high-level Secretary’s Designee with the knowledge and time, even if at a lower level than Assistant Secretary, would be preferable.

Stakeholder Mix

At least some state interviewees said that the right stakeholders were at the table, and if more were added, they could lose effectiveness and productivity.

Stakeholders Getting What They Need

At least some state interviewees said they were getting what they needed from the program, even if, as one interviewee said, “Sometimes it seems painful; dealing with the Colorado River is an exercise in patience.”

Structure

At least some state interviewees said changing AHGs to smaller standing committees should be considered. For example, the Budget AHG is an ongoing committee, so it should not be called an ad hoc group. As works well in other programs, these standing committees could do a lot of the work on issues before bringing them to TWG and AMWG. Interviewees also recommended assigning members to committees instead of inviting everyone to be members. Another suggestion was to consider how GCMRC is organized and have technical subcommittees that mirror that: sediment, biology, etc.

OTHERS' PERSPECTIVES

Concerns and Interests

Given the disparate roles of the people in this category, it is not surprising that their interests are disparate, as well. Interviewees in the “other” category were interested in:

- Opportunities for stakeholders to give input on dam operations and other management actions.
- Ensuring stakeholders understand operational constraints and logistics as well as flexibility.
- Understanding stakeholders’ concerns.
- Good relationships among stakeholders as well as between stakeholders and those staffing the program.
- Unified vision and goals, and agreed-upon priorities for spending funds.
- Clarity about the important decisions to be made by stakeholders.
- Good processes for discussion and making recommendations, including open and transparent decision-making.
- Good science to support recommendations for management of Grand Canyon resources.
- Ensuring science and other information is shared, clear, and understandable.
- Good review of science and planning documents.
- Compliance with GCPA and other laws and regulations.

Assessment of What is Going Well and What Needs Improvement

Adaptive Management Approach

Some interviewees in the “other” category said that the GCDAMP may satisfy legal requirements, but it is not truly adaptive management that would improve downstream resources as described in the GCPA. Others said the most important part of adaptive management is having good stakeholder involvement, input, and communication, and the GCDAMP had succeeded at that.

All Interests Are Heard

At least some interviewees in the “other” category said they felt heard. They also noted that others feel under-represented, and that it was important to listen to those stakeholders and their ideas of how to make their voice heard. They speculated that tribes and the recreational community might not feel they have strong voices at the table.

At least some interviewees said that how members approach the collaborative process would have an impact on how satisfied they are. One interviewee said, “Members who are driven toward only one outcome may not feel they are heard. People who seem to make the most progress for their interests are those who are the most willing to listen and compromise. If they compromise, they feel more vested. So all interests are taken into account, but compromise has to happen.”

Clear Goals and Objectives

At least some interviewees in the “other” category said the program has no agreed-upon common direction. They said that after spending much time developing DFCs, they have not been brought up since, and were not even part of the LTEMP EIS. As one stakeholder said, “That is shameful. It is sad to see the DFCs go away after all that effort.” They said that there are many older planning documents that need to be consolidated or replaced, based on what is known today. They said there needs to be a guiding document that will help define where the program is going, including a long-term science guiding document.

At least some interviewees said that AMWG needs to complete Phase 2 of the DFCs effort, and establish consensus quantifiable DFCs. While that will be difficult, it is necessary in order to have a credible adaptive management program. Others said the product of Phase 1 of the DFCs was not very useful because it provided no sense of trade-offs. As one interviewee said, “The DFCs say, ‘Restore populations of extirpated fish,’ and ‘Produce as much hydropower as you can.’ You just cannot have it all.”

DOI Responsiveness

At least some interviewees in the “other” category said that DOI has been involved, engaged, and responsive to the GCDAMP stakeholders, and that it has provided outstanding leadership for the program in recent years. While some said that sometimes they wished DOI were not so involved, they added that it was better than no involvement because more can be accomplished. Interviewees said that even when DOI disagrees with stakeholders, they are respectful and offer explanations. Other interviewees said that an example of non-responsiveness was the fact that the AMWG-approved DFCs were not included in the LTEMP EIS.

Facilitation

At least some interviewees in the “other” category said that facilitation improved the productivity of both AMWG and TWG. They mentioned the importance of the skill level and the knowledge of the program of the current facilitator. They also said the Chair needs the support of a facilitator, and that both TWG and AMWG should be facilitated by the same person.

GCMRC and Science

At least some interviewees in the “other” category said GCMRC produces good science by highly skilled personnel. They called it one of the best science organizations in the country. They said that a well-funded, dedicated science center is the key to success of the GCDAMP.

The current and former Chiefs of the GCMRC (Scott VanderKooi and Jack Schmidt) were praised for being responsive to stakeholders, able to help stakeholders of varying scientific backgrounds understand the science, and good with science provision.

At least some interviewees said it is important to make the science simple enough for the stakeholders to understand and not be overwhelmed. They also said that it would be important to keep looking at the biological side of questions and do a better job of explaining cause and effect (not just correlations). A good monitoring program and assessment of monitoring information is important, in addition to good hypotheses and experiments.

At least some interviewees in the “other” category also said that GCMRC needs to help the AMWG and TWG understand which science questions are important for the program and which are not.

While the stakeholders make the recommendations to the Secretary, GCMRC can help them distinguish between trivial questions and vital ones. GCMRC should also make sure the stakeholders address questions of values and public policy, while the scientists address questions of natural and social science.

At least some interviewees said that stakeholders understood the fundamental management dilemma was how to address issues of rehabilitation of the sand resource in managing the fish resources. Others said it is known what is happening with sediment and what would happen under different regimes; they have good predictive models in this area. Still others said that AMWG should not have detached Lake Powell from the program because the way that reservoir moves and changes is critical to water quality downstream, and it is the connecting link between Upper Basin and Lower Basin systems.

At least some interviewees also said that communication during GCDAMP meetings should be conducted at a more rigorous level of scientific and technical understanding, so that innovative solutions could be developed. Stakeholders need to understand the science because if they are overwhelmed by it, they will have a tendency to revert to their traditional points of view.

Meeting Frequency and Modality

At least some interviewees in the “other” category said that the number of meetings, and the number of face-to-face meetings vs. webinars, was about right for TWG, AMWG, and the AHGs. They said that face-to-face meetings are important because they foster collaboration.

They mentioned that the TWG meetings via webinar during the sequester were not satisfying for most stakeholders. However, one webinar per year for AMWG was seen as positive in reducing travel. Interviewees also said that webinars were getting more effective.

At least some interviewees said that TWG might meet more often than it needs to. They also expressed concern that the more access stakeholders are given, the more they seem to want.

Open Discussion and Making Recommendations

At least some interviewees in the “other” category said that the recommendations the AMWG sends to the Secretary are not addressing the important issues facing the Colorado River or the Grand Canyon. They said there does not seem to be a lot of real negotiation at the GCDAMP table, and that most decisions were already made before the AMWG makes a recommendation.

At least some interviewees also said that the important decisions are made outside the GCDAMP, such as the interim shortage criteria, administrative decisions on equalization, the Basin Study, and the LTEMP EIS. They characterized these issues as a struggle between the states and the federal government over who controls the river, and were concerned that environmental concerns were not strongly considered in that struggle. They were worried that the ability to make recommendations afforded the AMWG would be even more restricted after the LTEMP ROD is signed. Interviewees also said the equalization flows mandated by the interim shortage criteria could reverse all the sandbars built by HFEs.

While some interviewees said there was open and good communication among all the parties, others said there was little candid exchange of critical information. They said the formality of the meetings, and the pre-meetings held by various stakeholder groups, preclude open creative communication

during meetings. As one interviewee said, “When stakeholders say something openly, it is because they want to go on record. It is difficult then to reverse or change that position.” However, they said, brainstorming often happens on the breaks.

At least some interviewees in the “other” category said that a challenge to multi-stakeholder programs is that people can begin to believe it is more important for everyone to get along than to make tough courageous decisions, and this can have an impact on honest discussion.

Orientation

At least some interviewees in the “other” category said the program needs an orientation for new members.

Overall Functionality

At least some interviewees in the “other” category said the GCDAMP participants were engaged and involved and were willing to do the hard work of collaboration. They said there was good communication in the program and people meet frequently to discuss important issues, noting that there are other basins in which even those small things never happen. They also noted that there is much trust and stakeholders are respectful of each other.

Public Outreach

At least some interviewees in the “other” category said that many people who could benefit from the program know nothing about it. They suggested that someone outside the Secretary’s office publish a policy paper about the importance of the program.

Relationship Building

At least some interviewees in the “other” category said it is important to give stakeholders opportunities for building relationships, such as social activities during their meetings, and they suggested the program offer more such opportunities. When you can talk to others in social settings, as one interviewee said, “You can realize the other person as a human being, not just see them as a position they hold.”

They also noted that some stakeholders know far more about what is going on than others, and were concerned about the possible negative impact on cohesiveness and effectiveness.

Science Advisors

Some interviewees in the “other” category did not know what Science Advisors do. Others said the past Science Advisors seemed not to be very involved. Still others saw significant successes with the previous program.

At least some interviewees said the role of the Science Advisors as originally envisioned was an important one and attention should be paid to it. There was interest and uncertainty about how the new contractor would fill the role. Interviewees expressed hope that Science Advisors would be useful and that there would be more structure to the program. Interviewees said that the scientists could benefit from interaction with the reviewers. They also said that review of a plan every three years is not sufficient.

Secretary's Designee Position

Some interviewees in the “other” category had no opinion on the issue of the position of the Secretary's Designee. Others thought it was important for the Secretary's Designee to remain at the Assistant Secretary level, for these reasons:

- The importance of the Colorado River and dam operations warrants it.
- With a Secretary's Designee at that level, the program will have the attention of the Secretary.
- The key to good adaptive management is good, clear leadership and understanding who the decision-makers are.
- DOI agencies do not always agree, and a DOI agency Secretary's Designee could be seen as biased.

Still others said the Secretary's Designee does not need to be at the Assistant Secretary level, and that Reclamation and others can manage the various elements of the program. However, someone from the Assistant Secretary's office should oversee its direction. Another point of view was that it should be up to the Assistant Secretary to decide.

Others said that if the Secretary's Designee were disengaged, certain stakeholders would be likely to control the program. For that reason, whether it is the Assistant Secretary or not, the Secretary's Designee should be a fully-engaged representative of the Secretary who has the full support of the Assistant Secretary.

Stakeholder Mix

At least some interviewees in the “other” category said the mix of stakeholders around the table was appropriate. One possible missing interest was recreation enterprises in Lake Powell. They supported the idea of having speakers at AMWG meetings representing differing points of view.

At least some interviewees also mentioned that, given the importance of the work and the Grand Canyon, the environmental community might be better served with two national organizations at the table, instead of one national and one local entity.

Stakeholders Getting What They Need

Some interviewees in the “other” category said they were achieving their goals within the program, and others said they were not.

Substantive Accomplishments

At least some interviewees in the “other” category said the program is not making much of a difference, and it might be time to assess the assumptions under which the program was initiated.

Tribal Relationships and Participation

At least some interviewees in the “other” category said that they were concerned that the tribes were not engaged in the process, resulting in less understanding of their points of view around the table.

At least some interviewees also expressed concern that the points of view shared at the table by tribal representatives did not fully represent the points of view of the tribes as a whole.

EXPAND SCOPE

There was a diversity of opinion among interviewees, and within every stakeholder group, about whether GCMRC should expand its scope to cover the rest of the Colorado River basin.

The primary reasons for opposing the idea are:

- Insufficient funding. (Some said that with additional funding, they might support expansion if the GCDAMP were not negatively impacted.)
- Funding is dedicated to the GCDAMP and cannot and should not be spent elsewhere; other programs are not a function of GCD.
- It would exceed the statutory mandate of the program.
- GCDAMP is already a cumbersome program and would become more complex if it were expanded.
- Nothing in the GCDAMP stops GCMRC from doing work elsewhere or from collaborating with other programs.
- The program needs to focus on its current scope, goals, and critical science needs.
- The scientists from the different programs already coordinate and collaborate sufficiently, or could increase their coordination and collaboration to be sufficient.

The primary reasons for supporting the idea are:

- There are many connections between the different stretches of the river; what happens in the Upper Basin affects the Lower Basin and vice versa; it is all one basin and the science needs to address the basin holistically.
- Issues are similar throughout the basin, especially with listed populations. A true recovery program has to include both Upper Basin and Lower Basin.
- The science being done in the Upper Basin and below Hoover Dam could enhance the science provided by GCMRC, and vice versa.
- It is difficult to justify spending \$10 million per year on a small stretch of river covered by the GCDAMP.
- There is a better return for the investment elsewhere, and it is in the national interest to do so.
- Sometimes the scientists need to work outside Grand Canyon to figure out what was going on inside Grand Canyon.
- Other parts of the basin would benefit from the GCMRC's expertise if they became a portable shop.
- GCMRC is already doing work outside the Grand Canyon reach.
- Because of the LTEMP evaluation of what has happened and where the problems are, it would make sense for decisions to be made in context of the entire basin.
- GCMRC could add value to the overall basin effort, and it is not duplicated elsewhere.

Some interviewees noted that new legal authority and/or new funding would be needed to make such a change. Some also said the stakeholder groups that oversee the various programs are not interchangeable and thought would need to be given to whether they should be combined or remain separate.

Some of those opposed said that work outside the Grand Canyon would be acceptable if it would directly help understand the Colorado River ecosystem in Grand Canyon, such as using other areas as controls.

There were interviewees on both sides of this question who said that enough communication already occurs among the programs, and who said that more needed to occur. At least some interviewees also suggested that the goals of the various programs should be more consistent, if possible.

RETREAT

When interviewees were asked whether AMWG and/or TWG should meet periodically in retreat, responses ranged from yes, to qualified yes, to only if necessary (and it is not clear it is necessary), to no opinion.

Suggested purposes and outcomes included:

- Figure out what LTEMP means for the GCDAMP, where the program is going, what is the role of the AMWG and TWG.
- Improve relationships and mutual understanding.
- Stakeholder presentations from each stakeholder organization.
- Clarify goals and objectives; review all guidance documents, put some to rest, update others; review the vision and mission statement.
- Before working on goals, clarify DOI's intention to implement them. Will goals set by AMWG change the program? Or will the program change only based on changes to the Secretary or the Secretary's goals?
- Kick off DFCs phase 2 (quantification).
- Update the Strategic Plan.
- Agree on what participants want the organization to look like in five years and develop a map to get there.
- Big-picture creative thinking.
- Take off our stakeholder hats and reflect on what to do for the river and how this program can help get true science and implement true things.
- Discuss core issues and core challenges; have an honest discussion about the challenges and possible solutions. Make it discussion-based and challenge-based, not information-based.
- Evaluate progress.
- Only for a really specific purpose, e.g., to fix some problem with the program.
- If conflict arises.
- Look at purpose and need of the TWG and the time it invests in reviewing the GCMRC workplan and budget.

Timing suggested included:

- After the LTEMP ROD is signed.
- Every once in a while, and probably soon because of all the new people.
- Every few years at the most, and needed soon, after LTEMP is finished.
- Every 1, 2, or 3 years.
- Every 3-5 years.
- Every 5-10 years.
- Not regularly scheduled and no need today.

Other comments made included:

- Do not do it just to do it; have very specific goals and outcomes.
- It should be in a place other than a conference room.

- It should be on the river; maybe on a short trip such as Diamond down.
- It should be informal. River trips are great for relationship building.
- Having AMWG and TWG together would be the most effective retreat.
- Include TWG members if implementation is discussed.
- TWG should have a separate retreat because they are focused on science.
- Only TWG should meet in retreat.
- The process is working well; no need to discuss process. However, this could change rapidly under new leadership.
- A third party, not AMWG, should evaluate the goals and accomplishments of the AMWG.

Conclusion

This report contains detailed results from interviews of 33 current and former participants in the GCDAMP. The majority of the interviewees' comments relate to questions about what the interviewees think is going well in the program and what they think might be improved.

Without being prompted, many interviewees noted that the program is going much better than before, in terms of improved collegiality, better communication among stakeholders, more understanding among stakeholders of each other's views and interests, and an improved process of making recommendations to the Secretary.

In the "Recommendations and Partial Synthesis" section, the author recommends that GCDAMP participants discuss a number of issues because of their importance to the process and the level of disagreement and dissatisfaction among participants. She believes that discussion can enable mutual understanding, ease frustration, and perhaps point the way to resolving disagreements.

In addition, a number of other actions are recommended to enable the GCDAMP and its participants to be more productive and satisfied with the program: some clarifications from the Secretary's Designee about the role of the FACA committee and expectations for DOI representatives, a determination after the LTEMP EIS ROD is signed about the future of the program and the role of the AMWG and TWG, and how to handle other ideas that were suggested by interviewees.

TMOC is hopeful that this report is helpful and informative, and that it provides a way forward for those who want to address these issues.

Attachment A: Interview Questions

Please see below for the interview protocol that was sent to all interviewees in advance, and then used to conduct the interviews.

You will see that the questions asking about what was going well and what needed improvement—answers to which form the bulk of this report—were preceded by a list of optional prompts that some interviewees used to form their answers. In addition, three follow-up questions were asked of everyone who had not already addressed them:

1. Do you think DOI has been responsive to recommendations from the AMWG?
2. Do you think the Secretary's Designee should continue to be the person in the Assistant Secretary position?
3. Considering the reasons you are at the AMWG table, are you getting what you need from the program?

Glen Canyon Dam Adaptive Management Work Group 2015 Situation Assessment—Interview Protocol

The following questions will be used as a guide; additional questions may be asked during the interview depending on the conversation. Questions will be sent to interviewees in advance.

1. Overview of the Situation Assessment
 - Purpose and desired outcomes
 - Allows all interviewees to understand others' concerns and interests, which can help the group collaborate on substantive issues.
 - Invites concerns about structure and process to be expressed so they can be addressed.
 - An assessment report will be shared with all interviewees and the public.
 - The report will not quote any interviewees by name.
 - To be more manageable and useful, the report will group comments by stakeholder group:
 - States, Western Area Power Administration, Colorado River Energy Distributors Association, and Utah Associated Municipal Power Systems
 - Environmental groups, recreational groups, and AGFD
 - Tribes
 - DOI agencies
 - Interviewees can designate any part of their interview confidential, in which case it will neither be shared with anyone outside the interviewers nor included in the report.
2. Mary will share her background, role, and any potential conflicts of interest.
3. The interviewee will be invited to introduce him/herself, including how long they have participated in the GCDAMP.
4. What are your agency/organization's interests and goals in participating in the GCDAMP?

NOTE: When answering the following two questions, 5 and 6, you may want to consider the following areas:

- Clear goals and objectives for the program
- The "right" stakeholders invited to participate

- *Adequate level of engagement and responsiveness by DOI*
 - *(FYI: An Assistant Secretary of the Interior chairs the AMWG, and DOI agencies are non-voting members of the AMWG.)*
 - *The interests of all members are taken into account when reaching consensus*
 - *How often AMWG, TWG, and the Ad Hoc Groups meet*
 - *The normal mix of two face-to-face meetings and one webinar each year for AMWG*
 - *Whether the use of a professional facilitator increases AMWG productivity*
 - *Science Advisors' contributions to the program*
 - *GCMRC's contributions as science provider*
5. What do you think is going well in the program?
 6. What can be improved? How should it be improved?
 7. Do you think the Program should expand its geographic scope to assist other programs in the basin, such as the Upper Colorado River Endangered Fish Recovery Program and the MSCP?
 8. Should AMWG and/or TWG members periodically assemble to discuss the goals of the program through an invitation-only retreat?
 9. Should we interview anyone else besides AMWG members, the current and former GCMRC Chief, the current and former Secretary's Designee, the TWG chair, and Glen Knowles (Reclamation staff)?
 10. Is there anything else you would like to say?

Attachment B: Interviewees

The interviewees, organized in their groups, are listed below. Note that the New Mexico AMWG seat was vacant; however, the New Mexico alternate (Don Ostler) was interviewed. The Navajo Nation AMWG and TWG seats and their alternates were vacant.

DEPARTMENT OF THE INTERIOR

- Bureau of Indian Affairs: Chip Lewis (AMWG member)
- Bureau of Reclamation: Daniel Picard (AMWG member) and Beverley Heffernan (AMWG alternate)
- National Park Service: Dave Uberuaga (AMWG member)
- U.S. Fish and Wildlife Service: Steve Spangle (AMWG member), Jess Newton (involved in LTEMP), Kirk Young (TWG member and AMWG Alternate) Lesley Kirkpatrick (TWG alternate)
- Jennifer Gimbel, Principal Deputy Assistant Secretary, Water and Science and Secretary's Designee
- Anne Castle, immediate past Secretary's Designee
- Lori Caramanian, immediate past Deputy Assistant Secretary, Water and Science
- Jane Lyder, National Park Service contractor and former Deputy Assistant Secretary of the Interior for Fish and Wildlife and Parks

ENVIRONMENTAL AND RECREATIONAL

- Arizona Game and Fish Department: Jim deVos (AMWG member)
- Grand Canyon River Guides: Sam Jansen (AMWG member and TWG alternate)
- Grand Canyon Wildlands Council: Larry Stevens (AMWG and TWG member)
- International Association of Flyfishers/Trout Unlimited: John Jordan (AMWG member)
- National Parks Conservation Association: David Nimkin (AMWG member and TWG alternate) and Kevin Dahl (TWG member and AMWG alternate)

HYDROPOWER

- Colorado River Energy Distributors Association: Leslie James (AMWG member and TWG alternate)
- Utah Associated Municipal Power Systems: Ted Rampton (AMWG member)
- Western Area Power Administration, Department of Energy: Lynn Jeka (AMWG member)

NATIVE AMERICAN TRIBES

- Hopi Tribe: Mike Yeatts (AMWG alternate and TWG member)
- Hualapai Tribe: Kerry Christensen (AMWG alternate and TWG member)
- Pueblo of Zuni: Kurt Dongoske (TWG member)
- Southern Paiute Consortium: Charley Bullets (AMWG member)

STATES

- Arizona: Tom Buschatzke (AMWG member)
- California: Tanya Trujillo (AMWG member), Chris Harris (AMWG alternate and TWG member), Jessica Neuwerth (TWG alternate)
- Colorado: John McClow (AMWG member) and Ted Kowalski (AMWG alternate and TWG member)

- Nevada: Jayne Harkins (AMWG member)
- New Mexico: Don Ostler (AMWG alternate and TWG alternate, interviewed with Steve Wolff)
- Utah: Eric Millis (AMWG member) and Robert King (AMWG alternate and TWG member)
- Wyoming: Steve Wolff (AMWG member) and Don Ostler (AMWG alternate)

OTHERS

- Roger Clark, Grand Canyon Program Director, Grand Canyon Trust
- Dave Garrett, immediate past Executive Coordinator of the Science Advisors
- Katrina Grantz, Hydraulic Engineer, Operator of Glen Canyon Dam, Bureau of Reclamation
- Vineetha Kartha, TWG Chair and Shane Capron, TWG Co-Chair
- Glen Knowles, immediate past Chief of the Adaptive Management Group, Reclamation (staff to the program)
- Jack Schmidt, immediate past Chief of GCMRC
- Scott VanderKooi, Chief of GCMRC

Attachment C: Abbreviations and Acronyms

AGFD	Arizona Game and Fish Department
AHG	Ad Hoc Group
AMWG	Adaptive Management Work Group
Assistant Secretary	Assistant Secretary of the Interior, Water and Science
DFCs	Desired Future Conditions
DOI	Department of the Interior
EIS	Environmental Impact Statement
ESA	Endangered Species Act
FACA	Federal Advisory Committee Act
FWS	Fish and Wildlife Service
GCD	Glen Canyon Dam
GCDAMP	Glen Canyon Dam Adaptive Management Program
GCMRC	Grand Canyon Monitoring and Research Center
GCPA	Grand Canyon Protection Act
HFE	High Flow Experiment
LTEMP	Long-Term Experimental Management Plan
MLFF	Modified Low Fluctuating Flows
MSCP	Lower Colorado River Multi-Species Conservation Program
NHPA	National Historic Preservation Act
NPS	National Park Service
Reclamation	Bureau of Reclamation
ROD	Record of Decision
Secretary	Secretary of the Interior
TCP	Tribal Consultation Plan
TEK	Traditional Ecological Knowledge
TMOG	The Mary Orton Company, LLC
TWG	Technical Work Group