Adaptive Management Work Group (AMWG)

1. **Collaboration and AMP effectiveness.** There are several indications that the level of collaboration among AMP participants have decreased since the inception of the AMP in 1996, including failure of the various AMP groups to reach consensus/agreement on a long term experimental plan, the Monitoring and Research Plan for the AMP, a beach/habitat building flow experiment in 2007, and construction of a temperature control device on Glen Canyon Dam. The Roles Ad Hoc Group believes that ineffective and possibly insufficient collaboration is an underlying cause of contention, litigation threat, diminished efficiency, and confused roles within the AMP. The purpose of the item is to address how collaboration among AMP participants could be increased, consistent with the requirements of the Federal Advisory Committee Act (FACA).

**Background**
The AMWG was created in 1997 as a FACA committee to provide a formal mechanism to provide advice and recommendations to the Secretary of the Interior. In accordance with its operating procedures, the AMWG develops and approves recommendations by a two-thirds majority of the members voting. This requires some level of cooperation, but while consensus is initially attempted, consensus building is often frustrated by the fact that the AMWG can simply develop a recommendation to the Secretary with a vote. As such, the question exists as to what extent collaboration should be pursued to build consensus if a position of the stakeholders can be determined quickly with a vote. Resolution of this question needs take into account that collaborative processes are frequently expensive and time consuming, especially in resolving issues where conflict is extensive.

The Department of the Interior’s (DOI) Adaptive Management Guidebook concludes that for adaptive management to work effectively stakeholders must be willing to work collaboratively in a group environment to plan specific courses of action:

> Consensus on goals and objectives at the beginning of an adaptive management project sets the stage for an iterative, adaptive management cycle (Rogers and Biggs, 1999). However, consensus must continue through the life of the project. Consensus is sustained by ongoing collaboration, through which potential conflicts arising from the inevitable surprises in experiential learning can be resolved. (Lee, 1999; Holling, 1999)

Consensus is promoted by collaborative frameworks that foster mutual learning, relationship building, and the creation of a shared understanding as the basis for agreement and ultimately changed behavior. Collaborative structures are in essence negotiated agreements among stakeholders, which are embraced and sustained because they accept the outcome of a process they perceive to be participatory and fair (Knopp and Caldbeck, 1990; Lauber and Knuth,1997).

For the purposes of this discussion, collaboration means AMP participants working together to achieve a common goal. Collaboration is generally recognized as a necessary approach to resolving complex natural resource management problems. According to Yaffee and Wondelleck (2000), collaboration leads to better decisions that are more likely to be implemented and better prepares agencies and stakeholders for future challenges. By building interpersonal and interorganizational linkages, managers are better informed and make choices about future direction that are more likely to solve the problem at hand. Programs are more likely to be implemented successfully if they are supported and owned by affected groups. Collaborative approaches have also been adopted as a means of building trust and ending policy, institutional, scientific, and legal impasses. There is a very real cost associate with these impasses. Large amounts of energy, human, and financial resources have been spent on resolving issues related to the operation of GCD without a clear sense of resolution or agreed upon direction.

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**Comment [A1]:** The decision of the AMWG on the 2007 BHBF is not an example of a failure. The TWG evaluates technical aspects of proposals. The AMWG makes a policy determination on proposals. These are separate functions. To ask that a science plan be in place prior to a BHBF to ensure a proportionate return on investment is a legitimate policy perspective.

**Comment [A2]:** It is not clear what “failure” if referred to here. The issue has been funding.

**Comment [A3]:** It may be the opinion of some that collaboration has been insufficient. If the authorizing legislation specifies collaboration there is a concern but merely that it would be a better process does not indicate a failure of the present system.

**Comment [A4]:** If desired future conditions are not defined how do you know that we aren’t where we need to be?
“The Grand Canyon is a homeland for some, sacred to many, and a national treasure for all. In honor of past generations, and on behalf of those of the present and future, we envision an ecosystem where the resources and natural processes are in harmony under a stewardship worthy of the Grand Canyon.

We advise the Secretary of the Interior on how best to protect, mitigate adverse impacts to, and improve the integrity of the Colorado River ecosystem (CRE) affected by Glen Canyon Dam, including natural biological diversity (emphasizing native biodiversity), traditional cultural properties’ spiritual values, and cultural, physical, and recreational resources through the operation of Glen Canyon Dam and other means.

We do so in keeping with the federal trust responsibilities to Indian tribes, in compliance with applicable federal, state, and tribal laws, including the water delivery obligations of the Law of the River, and with due consideration to the economic value of power resources.

This will be accomplished through our long-term partnership utilizing the best available scientific and other information through an adaptive ecosystem management process.”

The AMP also approved 12 goals for the various physical, biological, cultural, recreation, and hydropower resources in the Colorado River ecosystem. However, several of the goals are in apparent conflict with one another (e.g., native fish protection, maintenance of a nonnative trout fishery, production of hydropower). Many stakeholders are clearly aligned with certain specific goals and have never committed to defining or achieving specific resources objectives or desired future resource conditions.

It should be noted that while the vision, mission, and goals were finalized and endorsed by the AMWG, it’s unclear whether program participants are willing to work collaboratively and compromise to achieve the mission and goals of the AMP. As a requirement for continued participation, all participants should formally commit (through a resolution/agreement) to work collaboratively to carry out the mission and intent of the AMP.

- Create incentives for participants to work collaboratively to achieve common goals and desired future resources conditions. Incentives are needed for all the involved stakeholders to genuinely want to work to make the collaborative process successful. Without incentives that meet each stakeholder’s self interest, there will not likely be enough motivation and commitment to work through difficult issues and challenges.

- Define desired future resources conditions. The draft AMP strategic plan recognized the importance of specifying desired conditions or targets for resources in the CRE. However, to date quantifiable targets have not been established for AMP goals including the AMWG’s priority resources (humpback chub, sediment, and cultural resources). These targets are needed to guide and focus science and management activities.

- Develop a process for evaluating tradeoffs among conflicting or competing goals. One of the biggest challenges of the AMP is to synthesize the large amounts of scientific and other technical information to evaluate the tradeoffs of alternative courses of action. Adequate time is needed to allow for stakeholders to understand, discuss, and/or rank options. In addition, over the past decade, there have been great advances in the development and application of a suite of decision support tools to assist scientists and managers in understanding the interrelationships, data uncertainty, and relative influence.
of scientific knowledge on resource management decisions. These tools should be evaluated and tested for use in the AMP.

- **Update or develop a charter and operating procedures for all the elements of the AMP (AMWG, TWG, GCMRC, and Secretary’s Designee) to reflect a more collaborative approach.** All parties need to clearly understand the mission and responsibilities of the group they serve on and the protocols or processes for how business will be conducted. Currently the mission, responsibilities, and operating protocols have not been developed for all elements of the AMP. The ones that have been developed have not been formally adopted and/or are not summarized in a single document.

- **Utilize facilitation and mediation expertise more broadly throughout the AMP.** Sophisticated process design, facilitation, and mediation expertise is needed for a collaborative process to effectively address complex controversial issues involving the many diverse interests represented on the AMP and that have a long history of conflict. Currently the AMWG utilizes a professional facilitator for all of its meetings; a professional facilitator should be similarly utilized for all TWG meetings. In addition, river trips, team building exercises, common goal setting, and social interactions should all be used to build trust and foster more effective collaboration.

- **Establish a full time Executive Coordinator/Manager for the Program.** A program as technically, politically, and structurally complex as the AMP needs a lot of care and feeding to be successful. A full time Executive Coordinator/Manager is needed to lead the Program, facilitate timely resolution of differences among parties, and ensure that those operating protocols are fairly and consistently enforced at all levels of the Program. An Executive Coordinator/Manager would also relieve the Secretary’s Designee of the burden for day-to-day management of the AMP. Several models exist for this type of position which should be evaluated to determine what will best meet the needs of the AMP and the Department of the Interior. In addition, the specific duties and authorities of the position would need to be carefully defined.

- **Determine the extent collaboration or cooperation should be used in AMP processes to provide effective operational guidance for the program.** This should include a discussion of whether collaboration need only exist within the AMWG, among scientists and managers, or among all AMP groups. Our view is that the need for collaboration is greatest at the AMWG where there is a necessity to merge science, policy, and societal goals into AMP recommendations. The focus of the TWG should be on evaluating the technical merits and options for consideration by the AMWG. However, significant collaboration is still needed among TWG members and between the TWG and GCMRC to resolve scientific and technical issues contained in proposed recommendations to AMWG.

- **Is there adequate time?** Successful collaboration, especially to resolve controversial issues, takes time. Unrealistic or mandated deadlines can severely handicap the collaborative processes. There are no immediate time constraints for resolving many of the issues related to GCD operations. However, there is an urgency to address the decline of certain resources such as humpback chub and sediment, and there are firm deadlines associated with the completion of the EIS for the long term experimental plan. DOI needs to assess whether effective collaboration is possible within these time constraints.

- **Is there a balanced range of interests willing to participate?** For a collaborative process to be perceived as legitimate, it must involve a balanced range of participants...
with diverse perspectives. All the major interest groups, State and Federal agencies, and Native American tribes are engaged in the AMP, however, some participate more actively than others. The effect that cultural and gender differences have on the ability of stakeholders to participate in the process in an equitable fashion needs to be investigated. In addition, some stakeholders feel disenfranchised because some interests have more representation on the group; this is especially significant when consensus is not achieved and issues get resolved by a vote.

In conclusion, one of the fundamental principles of effective collaboration is that the participants should be directly involved in designing the collaborative process. It is proposed that the issues and recommendation above be discussed and resolved during the "AMP Effectiveness Workshop" planned for August/September 2007.

The primary goals of the workshop are:

1. To get a commitment from all parties to work collaboratively to embrace and support a common mission and processes for the AMP.

2. To get a commitment of all AMP parties to develop and complete critical elements of an action plan over the next 5 years.

The Secretary’s Designee should evaluate the outcome of the workshop, and then determine and actively pursue the most appropriate course of action.

b. Expectations of adaptive management in the AMP – The 1995 EIS cites several key purposes for including adaptive management in the 1996 Record of Decision. These are (1) “…to respond to future monitoring and research findings and varying resource conditions”, (2) “…to provide an organization and process for cooperative integration of dam operations, resource protection and management, and monitoring and research information”, and (3) to “…ensure that the primary mandate of the [GPCA] is met through future advances in information and resource management” (Reclamation, 1995, p. 34). Success of the AMP therefore depends on accurate scientific information to determine if current dam operations and other management actions are accomplishing the protection mandates of Grand Canyon Protection Act (GCPA). The EIS expects the AMP to respond to this new information by making recommendations on these actions to the Secretary of the Interior. Success of the AMP may be judged by (1) how well the group functions in making these recommendations, (2) how well new scientific information is integrated with management decision making, and/or (3) how well the resource protection mandates of the GCPA are being met. To clarify progress in meeting its responsibilities, the AMP should define measures of success. The DOI adaptive management guidebook can be used to assist in this effort.
on policy options and tradeoffs, considering the pros and cons of each option, as recommendations are evaluated. The AMWG will consider and act on TWG recommendations before considering other options for recommendations.

4. Clear timeframe planning is not apparent.

Resolution
A 1-year schedule will be developed for AMWG and TWG, which clearly shows all essential regular items that need to be addressed every year, plus other items that have been added by AMWG. This schedule will include the original timeframe for the tasks plus their status.

Final approval of annual plans of work and meeting schedules for the AMWG, TWG, and SAs will be developed and incorporated into the AMP Annual Work Plan (AWP) which traditionally has only contained the GCMRC Annual Plan of Work. The TWG secretary will have the responsibility to develop and update a composite annual meeting schedule and summary table of annual plans of work for all AMP entities. AMWG will approve the programs and schedule in its summer meeting.

5. CLARITY and WORKLOAD CONCERNS. The AMWG believes that it gives GCMRC and TWG clear guidance when, in fact, there is often room for interpretation. The AMWG may meet too infrequently and expect too much of the TWG and GCMRC between meetings.

Resolution
The GCMRC Chief and TWG Chair will attend all AMWG meetings with a clear understanding of their workload and deadlines so they can respond during discussions to AMWG requests. The AMWG will focus on providing clear recommendations to DOI. As the AMWG considers recommendations or requests to the TWG or GCMRC, the TWG Chair and GCMRC Chief will review any actions that involve them to ensure the action and timeframe is clear. If possible, the GCMRC Chief or TWG Chair will determine at the meeting the feasibility of addressing the AMWG/TWG’s request.

Recommendations that are not addressed directly at the meeting will be reviewed by the TWG Chair and GCMRC Chief and responded to after the meeting. Conflicts in workload that cannot be resolved by the GCMRC or the TWG within current budgeting or staffing will be reported to the Secretary’s Designee who will determine how best to respond to the AMWG request.

6. Some AMWG members seem to believe that GCMRC works for them and that they can direct the day-to-day activities of GCMRC. Some also feel the AMWG has authority over other State and Federal agencies.

Background
The AMWG has no authority over any individual AMP member, including GCMRC.

The Secretary of the Interior established the AMP with four key elements: AMWG, TWG, GCMRC, and the IRP (Independent Review Panel). The four have distinct roles, but ultimately the Secretary of the Interior is responsible for seeing that the monitoring and necessary research is done to evaluate the impacts of adjustments made to dam operations. . . . The AMWG can recommend [emphasis in original] studies and priorities for implementing individual studies during those reviews, preferably by consensus. . . . However, final decisions as to the management of Interior facilities and resources, what studies to implement, when, and using funds from which sources remain, by statute, with the Secretary of the Interior and the appropriate Interior agencies. (Loveless, 2000, p. 6).

The Congress finds and declares that . . . the function of advisory committees should be advisory only, and that all matters under their consideration should be determined, in accordance with law, by the official, agency, or officer involved. (Federal Advisory Committee Act, 1972, Section 2(b)).

AMWG does have authority to charge subcommittees or work groups, such as the TWG, with assignments.

Comment [A9]: This is odd parliamentary procedure.
importance of this, and request that they appoint technically or scientifically competent individuals to
the TWG.

11. RESPONSIBILITY. Some feel that the EIS expectations that the TWG would define core
textual questions for GCMRC to address are not being met.

Resolution
The GCDAMP has adopted a science planning process to develop a credible, objective science
program that is responsive to the goals and priority needs identified by the AMWG. Since 1996, the
AMWG has used a structured process for specifying their information needs. Through a series of
workshops, extensive energy has been expended to develop a hierarchy of goals, objectives, core
monitoring information needs (CMINs), and research information needs (RINs). The AMWG also
specified 12 goals that provide general guidance for planning, monitoring, and research efforts.
However, the list of objectives grew to more than 40 and the various information needs to more than
200 complicating science planning and priority setting.

Given this complexity, the AMWG identified the need for a different approach in 2004 and identified 5
priority questions related to the 12 GCDAMP goals that were to be used to focus science activities. In
2005, to further focus science planning efforts, the GCMRC initiated two Knowledge Assessment
Workshops that identified areas of scientific uncertainty and specified strategic science questions
related to the five priority questions. These questions now form the basis for the Strategic Science
Plan (SSP) and Monitoring and Research Plan (MRP) that were adopted by the AMWG in December
2005. To respond to concerns raised by the AMWG, GCMRC is developing a crosswalk table to
show the relationship between the various information needs (INs) and the proposed strategic
science questions. The SSP and MRP will be updated based on this analysis to ensure that high
priority INs are addressed.

12. TWG often appears as an unnecessary intermediary in the AMP process. The role of TWG is
therefore unclear.

Background
While the AMWG is always free to bring up issues on its own, it mostly serves as a board of directors
for the AMP, charting its general direction and leaving technical details to be worked out between the
TWG and GCMRC. Therefore, it is imperative that there is a highly functional TWG.

As specified in the foundational documents, any issue addressed by TWG must be approved by
AMWG in advance.

The Technical Work Group . . . operates at the direction of the Adaptive Management Work
Group. (Glen Canyon Dam AMWG, 2002, p. 5).

Sub-groups [e.g., TWG] will receive their charges from the AMWG. Sub-groups will work only on
issues assigned them by the AMWG. They will not be empowered to follow other issues on their
own. They are encouraged to submit issues to the AMWG they feel worthy of consideration and
discussion, but the AMWG must approve work on all new issues. (Gabaldón, 2002, p. 5).

The 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. (Johnson, 2001, p. 1).
The TWG’s responsibility is similarly limited, but even more so; it is to carry out only specific assignments within the scope of the AMWG’s responsibility, as directed by the AMWG. (Loveless, 2000, p. 3).

The Operation of Glen Canyon Dam: Final Environmental Impact Statement (FEIS) (Reclamation, 1995, p. 37) specifies the following additional responsibilities for TWG:

- Develop criteria and standards for monitoring and research programs within 3 months of the formation of the group and provide periodic reviews and updates
- Develop resource management questions for the design of monitoring and research by the center
- Provide information as necessary for preparing annual resource reports and other reports as required for AMWG

The AMP Strategic Plan (Glen Canyon Dam AMWG, 2002, p. 5) adds the following TWG responsibilities:

- Reviewing and commenting on the scientific studies conducted or proposed by the program;
- [sic] a forum for discussion by Technical Work Group members, external scientists, the public, and other interested persons;
- Reviewing strategic plans, annual work plans, long-term and annual budgets, and other assignments from the Adaptive Management Work Group.

Resolution
AMWG members will ensure an effective TWG by placing representatives on the TWG who can speak for and represent them on the scientific and technical aspects of the AMP.

The TWG will focus its work on assignments from AMWG and the responsibilities outlined in the FEIS and the AMP Strategic Plan. In addition, the TWG will be proactive in identifying issues that it should address, and present to AMWG its proposed work plan for approval on an annual basis.

13. Many TWG members are unwilling or unable to fully participate in work efforts required to meet deadlines and commitments.

Background
In order to operate effectively, the TWG must include stakeholder representatives who are willing and able to participate in the AMP process. This participation includes participation in TWG votes, attendance of meetings, participation in ad hoc groups, and providing timely reviews of documents.

Resolution
The AMWG and the TWG Chair will be sensitive to the time commitments required of TWG members when making assignments or establishing new ad hoc committees. Assignments will be clearly defined and the scope limited based on an estimated workload that most TWG members can realistically accommodate.

AMWG members will only nominate TWG members who have adequate time and the inclination to fully participate. Lack of full participation is the failure to participate in TWG votes, attend two sequential scheduled TWG meetings, failure to join and work with at least one ad hoc group each year, or to provide timely review of documents. Annually the Secretary’s Designee will consult with the TWG Chair on the effectiveness of the TWG, including the level of member participation.

The Secretary’s Designee will formally notify AMWG and TWG members of this new requirement.

Comment [A11]: What is the legal basis to thus disenfranchise an entity identified in statute? Again many entities have limited staff available.
Committee Participation

Some members of the AMP have expressed concern that in recent months the GCMRC has not been as active in all ad hoc work groups as in the past. They see this as a lack of cooperation by GCMRC and feel that such actions are unacceptable and potentially damaging to the AMP program. GCMRC, on the other hand, has been facing a heavy workload from the November experimental flow, core monitoring plan, and strategic science plan development, FY 06 budget development, SCORE report preparation, ongoing science program administration, and a variety of ad hoc committee meetings. GCMRC is the only AMP element that is expected to serve on every ad hoc committee appointed by the TWG or the AMWG. While the GCMRC recognizes that it must be an active participant on these ad hoc committees, the situation has at times put overwhelming pressure on GCMRC staff due to workload issues. Perhaps the past 2 years have been unusual in having so many ad hoc groups working at once, but if this has become the norm for the AMP, then a more strategic and controlled approach to program workload must be taken. GCMRC does, in fact, want to be a full partner with the AMP participants, but these participants must also be sensitive to GCMRC time limitations.

Resolution

A common understanding of and sensitivity to the workload issue is vital to an efficient and effective AMP process. The 1-year schedule referred to in Issue #4, which shows the essential items that the AMP must do each year, will assist in managing and planning for the GCMRC workload. Any additional task will involve a decision as to whether it can be done in the timeframe requested by AMWG.

In addition, the process described in Issue #5, which allows the GCMRC to resolve concerns about their workload, will ameliorate this problem.

As noted above, when TWG is given an assignment from AMWG, the GCMRC would also usually be involved. Therefore, it elevates the level of that AMWG action to a recommendation to the Secretary.

Deliverables

GCMRC has a history of being late on assignments or not delivering enough products.

Resolution

GCMRC efforts will focus on the most important work products. These may include fieldwork, contracting, budget, SCORE reports, and AMWG/TWG mailings. In the short term, they may also include the core monitoring plan, the experimental flows plan, and the strategic science plan. GCMRC will perform a careful definition of their responsibilities and priorities in the Monitoring and Research Plan and Biennial Work Plan which will be brought to the AMWG for review and recommendation to the Secretary. This can set some parameters and limits for work accepted by the Center.

Parallel with the annual/biennial work plan, GCMRC will develop a completion schedule for each of the major products for which it is responsible. TWG will review, provide input, and recommend a schedule to the AMWG. If completed products cannot be prepared within the needed timeframe, GCMRC will report to the Secretary’s Designee the reasons for the delay and suggest a revised completion schedule. The Secretary’s Designee can affirm the GCMRC suggestion, make a different decision, or consult with TWG, AMWG, or other entities. The Secretary’s Designee will inform the TWG and AMWG of the decision made.

When assigning work to GCMRC, the AMP needs to be more realistic in setting deadlines and should more carefully consider the work capacity and timeframe involved. In addition, from time to time, clarity of assignment is an issue, when GCMRC feels they have delivered a
native fishes, rainbow trout and other nonnative fishes, hydrology and sediment, archaeological resources, and traditional cultural properties. Having these agencies/entities as active partners in the AMP science program helps meet their statutory responsibilities and facilitates the integration of the scientific information into management processes and decisions. The services of these agencies and entities are generally secured through interagency and cooperative agreements, rather than through competitive RFPs.

No matter whom carries out the work of the AMP, Protocol Evaluation Panels (PEPs) are used to provide an independent scientific perspective on the efficacy of all major elements of the science program, including the scope, objectives, methods, past performance, and recommended future direction of science projects. PEP reviews are used to help design new research programs and to evaluate the ongoing work of established projects. In addition, peer reviews of proposals and deliverables provide independent review of specific AMP scientific efforts to ensure high scientific quality.

Resolution
The purpose of open competition through RFPs is to promote cost effectiveness, expanded breadth of ideas, optimal scientific design, and highest levels of scientific expertise. However, this process takes more time, effort, and cost to achieve these objectives. The scientific protocols as described above will contribute to accomplishing many of the same scientific objectives.

The most cost effective mechanisms will be used to accomplish work. In general, GCMRC and BOR will prepare RFPs and use an open, competitive process for awarding funding for new research projects or new initiatives (e.g., food base monitoring and research). For other projects, limited competition, and sole-source contracts in accordance with Federal Acquisition Regulations may be used if cooperators agree to (a) conduct the required work at a fair cost, verified through market research, (b) meet the required technical specifications as determined by GCMRC and implement PEP and SA recommendations accepted by the AMWG and approved by the Secretary, and (c) comply with independent peer review requirements established by GCMRC. Annual evaluations will ensure cooperators are meeting these requirements. GCMRC scientists may conduct field research and monitoring under the same conditions, particularly in time-sensitive cases where a formal RFP or other competitive contracting mechanism would not be practicable. In every case, the USGS will hold its own proposals to the same level of rigorous outside peer review as all others. GCMRC and BOR will annually report to AMWG on how much, by percentage, of their science was contracted through open competitive process and how much was accomplished through each of the other mechanisms (sole source contract, interagency agreement, performed in-house, etc.).

21. COMPLIANCE. There is an open question about whether and/or to what degree GCMRC’s science activities are having adverse impacts on cultural and natural resources of the Colorado River ecosystem. This question has raised the expectation that USGS should be involved in developing and be a signatory to environmental compliance documents covering science activities. However, USGS policy restricts agency involvement in policy issues (such as National Environmental Protection Act (NEPA) compliance documents), believing that this protects the agency’s ability to function as an impartial science provider.

Resolution
GCMRC will use Tribal and NPS Research Permit processes to ensure that any negative impacts from AMP-related research activities are monitored, documented, and addressed in a timely fashion. These processes address NEPA, Endangered Species Act (ESA), and National Historic Protection Act (NHPA) compliance, among others, and the resultant permits can include conditions, restrictions, and mitigation as needed. Such requirements will be considered by DOI when deciding whether to proceed with the proposed actions.

22. PROTOCOL EVALUATION PANELS. Some AMP members believe that fear of causing conflict or ill will is a factor influencing the quality of feedback from the Protocol Evaluation Panels
CREDA COMMENTS

From: "CREDA" <creda@qwest.net>
To: "Randy Peterson" <rpeterson@uc.usbr.gov>
Date: Thu, Jul 12, 2007 4:35 PM
Subject: Draft AMP Roles Document

Attached are CREDA's comments on the AMP Roles document.
Leslie James

CC: "Linda Whetton (E-mail)" <lwhetton@uc.usbr.gov>, <tedr@uamps.com>, <cibarre@attglobal.net>, "Kurt Dongoske" <kdongoske@cableone.net>, "Bill Davis"<wdavis@ecoplanaz.com>

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PREVIOUS E-MAIL INCLUDED THE FOLLOWING CHANGES:

From: "CREDA" <creda@qwest.net>
To: "John F Hamill" <jhamill@usgs.gov>, "Kurt Dongoske" <kdongoske@cableone.net>, <M3research@aol.com>, "Randall Peterson" <RPETSON.4ucro.ibr4dm10@uc.usbr.gov>
Date: Tue, May 15, 2007 3:56 PM
Subject: Roles Document

Gentlemen: Having just completed my first quick review of the document, I wanted to send you a comment for your consideration. I may have further comments at a later date, but since this one is kind of fundamental, I thought I'd pass it along.

I'd suggest that there not be references to specific resources or priorities or status in this type of document. This is intended to map out roles and responsibilities, be a "living" document, and really is not intended to prompt debate over those issues (we have enough other forums for that dialogue!)

Specifically, I'd recommend:
Page 5: delete the parenthetical after the "in conflict with on another" sentence. That sentence stands on its own anyway.

Page 5: delete the parenthetical after "priority resources". The document won't need to be updated if priorities change, and in fact, the premise of this paragraph is to point out that targets/priorities have not been established.

Page 6: Delete this portion of the sentence in the "Is there adequate time?" paragraph: "there is an urgency to address the decline of certain resources such as humpback chub and sediment". Reference to the LTEP firm deadline is a possible "for example", but inclusion of an inherent "priority" for chub and sediment, and particularly, reference to chub "decline" is not appropriate in this type of document.

Thanks for your consideration.
Leslie James

CC: <tedr@uamps.com>
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Adaptive Management Work Group (AMWG)

General Comment: I have attempted to streamline the document by deleting language that may not be constructive in a positive manner to achieve desired outcomes.

1. Collaboration and AMP effectiveness. There are several indications that the level of collaboration among Adaptive Management Program (AMP) participants have decreased since the inception of the AMP in 1996, (is it 1996 or 1997? See first sentence of background). The Roles Ad Hoc Group believes that ineffective and possibly insufficient collaboration is an underlying cause of contention, litigation threat, diminished efficiency, and confused roles within the AMP. (Isn’t this superceded by the AMP Effectiveness Workshop SOW and process?)

Background

The Adaptive Management Work Group (AMWG) was created in 1997 as a FACA committee to provide a formal mechanism to provide advice and recommendations to the Secretary of the Interior regarding the operation of Glen Canyon Dam (GCD) and management actions pursuant to the 1996 Record of Decision (ROD). In accordance with its operating procedures, the AMWG develops and approves recommendations by a two-thirds majority of the members voting. This requires some level of cooperation, but while consensus is initially attempted, consensus building is often frustrated by the fact that the AMWG can simply develop a recommendation to the Secretary with a vote. As such, the question exists as to what extent collaboration should be pursued to build consensus if a position of the stakeholders can be determined quickly with a vote. Resolution of this question needs take into account that collaborative processes are frequently expensive and time consuming, especially in resolving issues where conflict is extensive.

The Department of the Interior’s (DOI) Adaptive Management Guidebook concludes that for adaptive management to work effectively stakeholders must be willing to work collaboratively in a group environment to plan specific courses of action. (NOTE: Could be helpful to have the referenced Guidebook available for review by members so desiring).

Consensus on goals and objectives at the beginning of an adaptive management project sets the stage for an iterative, adaptive management cycle (Rogers and Biggs, 1999). However, consensus must continue through the life of the project. Consensus is sustained by ongoing collaboration, through which potential conflicts arising from the inevitable surprises in experiential learning can be resolved. (Lee, 1999; Holling, 1999)

Consensus is promoted by collaborative frameworks that foster mutual learning, relationship building, and the creation of a shared understanding as the basis for agreement and ultimately changed behavior. Collaborative structures are in essence negotiated agreements among stakeholders, which are embraced and sustained because they accept the outcome of a process they perceive to be participatory and fair (Knopp and Caldbeck, 1990; Lauber and Knuth, 1997).

For the purposes of this discussion, collaboration means AMP participants working together to achieve a common goal. Collaboration is generally recognized as a necessary approach to resolving complex natural resource management problems. According to Yaffee and Wondelleck (2000), collaboration leads to better decisions that are more likely to be implemented and better prepares agencies and stakeholders for future challenges. By building interpersonal and interorganizational linkages, managers are better informed and make choices about future direction that are more likely to solve the problem at hand. Programs are more likely to be implemented successfully if they are supported and owned by affected groups. Collaborative approaches have also been adopted as a means of building trust and ending policy, institutional, scientific, and legal impasses. There is a very real cost associated with these impasses. Large amounts of energy, human, and financial resources have been spent on resolving issues related to the operation of GCD without a clear sense of resolution or agreed upon direction.

The U.S Institute for Environmental Conflict Resolution (2006) recently completed an evaluation of the conditions for a successful collaborative recovery planning process for the threatened desert tortoise.
Based on a review by the Roles Ad Hoc Group, many of the general conditions identified in that review for a successful collaborative process have been met for the AMP. These conditions include:

- **Does leadership support a collaborative approach?** DOI leadership supports the concept of collaboration as the preferred mean to resolve natural resource problems.

- **Is the GCD AMP a high priority?** GCD operations and conservation of resources in the Grand Canyon is a high priority for DOI and AMP stakeholders.

- **Are there adequate funding and staff resources?** The GCD AMP is one of the best funded and staffed efforts of its kind.

- **Is there a shared base of information?** A rich and broad database has been developed for the CRE; the GCMRC was established specifically to provide science support to the AMP.

- **Are solutions negotiable?** While there are certain legal and operational constraints associated with the operation of GCD, many of the important issues are negotiable within established constraints.

- **Are the parties interdependent?** The history of the issues related to GCD operations and the willingness of parties to continue to participate in the AMP clearly suggests that there is a realization that one party cannot get one’s own interests met without accommodating the interests of others. This interdependence is inevitable, since participation in the AMP is established based on resource “categories”, which are also interdependent.

- **Will there be continuing relationships?** All the parties involved in the AMP have a long-term interest in the operation of Glen Canyon Dam and the conservation of resources in the Grand Canyon.

The Committee discussed at length the differences among various adaptive management and recovery implementation programs and how program operating procedures and expectations fundamentally affect the degree of collaboration. Our analysis suggests that many of the ingredients for a successful collaborative process exist for the GCD AMP. However, there are several missing elements or issues that should be addressed to increase the effectiveness of collaboration in the AMP.

**Resolution**

a. The Secretary, in consultation with the AMP, should consider the implications of its basic structure and operating procedures and evaluate whether improved and possibly increased collaboration would be more effective in meeting the charges outlined in the 1996 ROD. The Roles Ad Hoc Group believes the level of collaboration among the AMP participants and the overall effectiveness of the AMP would be improved if the following factors were addressed.

- **Establish and agree to a common mission/goal for the AMP.** By definition a collaborative process involves participants working together to achieve a common goal or solve a shared problem. The draft AMP strategic plan includes a broad vision and mission statement. The combined vision and mission statement reads as follows:

  “The Grand Canyon is a homeland for some, sacred to many, and a national treasure for all. In honor of past generations, and on behalf of those of the deleted: likely to continue into the future. Deleted: 5 Environmental Impact Statement (EIS).
present and future, we envision an ecosystem where the resources and natural processes are in harmony under a stewardship worthy of the Grand Canyon.

We advise the Secretary of the Interior on how best to protect, mitigate adverse impacts to, and improve the integrity of the Colorado River ecosystem (CRE) affected by Glen Canyon Dam, including natural biological diversity (emphasizing native biodiversity), traditional cultural properties’ spiritual values, and cultural, physical, and recreational resources through the operation of Glen Canyon Dam and other means.

We do so in keeping with the federal trust responsibilities to Indian tribes, in compliance with applicable federal, state, and tribal laws, including the water delivery obligations of the Law of the River, and with due consideration to the economic value of power resources.

This will be accomplished through our long-term partnership utilizing the best available scientific and other information through an adaptive ecosystem management process.”

The AMP also approved 12 goals for the various physical, biological, cultural, recreation, and hydropower resources in the Colorado River ecosystem. However, several of the goals inherently conflict with one another. Many stakeholders are clearly aligned with certain goals and some goals lack specificity as to resources objectives or desired future resource conditions.

It should be noted that while the vision, mission, and goals were finalized and endorsed by the AMWG, it’s unclear whether program participants are willing to work collaboratively and compromise to achieve the mission and goals of the AMP. (Comment: I think a formal resolution of this type would be viewed by some as offensive. The fact that parties commit to and participate in the process should be sufficient, unless there is clear evidence of efforts to undermine the collaborative process. In that event, the offending party(ies) should be replaced on the AMWG/TWG). Create incentives for participants to work collaboratively to achieve common goals and desired future resources conditions. Incentives are needed for all the involved stakeholders to genuinely want to work to make the collaborative process successful. Without incentives that meet each stakeholder’s self interest, there will not likely be enough motivation and commitment to work through difficult issues and challenges. (Comment: what are examples of incentives? Suggest incentives not be highlighted unless there are meaningful and applicable incentives available).

- Define desired future resources conditions. The draft AMP strategic plan recognized the importance of specifying desired conditions or targets for resources in the Colorado River Ecosystem (CRE). However, to date quantifiable targets have not been established for all the AMP goals. These targets are needed to guide and focus science and management activities.

- Develop a process for evaluating tradeoffs among conflicting or competing goals. One of the biggest challenges of the AMP is to synthesize the large amounts of scientific and other technical information to evaluate the tradeoffs of alternative courses of action. Adequate time is needed to allow for stakeholders to understand, discuss, and/or rank options. In addition, over the past decade, there have been great advances in the development and application of a suite of decision support tools to assist scientists and managers in understanding the interrelationships, data uncertainty, and relative influence
of scientific knowledge on resource management decisions. These tools should be evaluated and tested for use in the AMP.

- Update or develop a charter and operating procedures for all the elements of the AMP (AMWG, TWG, GCMRC, and Secretary’s Designee) to reflect a more collaborative approach. All parties need to clearly understand the responsibilities of the group they serve on and the protocols or processes for how business will be conducted. Currently the responsibilities and operating protocols have not been developed for all elements of the AMP. The ones that have been developed have not been formally adopted and/or are not summarized in a single document.

- Utilize facilitation and mediation expertise more broadly throughout the AMP. Sophisticated process design, facilitation, and mediation expertise is needed for a collaborative process to effectively address complex controversial issues involving the many diverse interests represented on the AMP and that have a long history of conflict. Currently the AMWG utilizes a professional facilitator for all of its meetings. (Comment: this proposal was rejected by the TWG in the ’06 budget “votes” on June 25-26). In addition, river trips, team building exercises, common goal setting, and social interactions should all be used to build trust and foster more effective collaboration.

  (Comment: personal view is this is not necessary and there would not be sufficient “work” to warrant a full-time position. Also, if a facilitator is already being used by the AMWG, there would be redundancy.)

- Determine the extent collaboration or cooperation should be used in AMP processes to provide effective operational guidance for the program. This should include a discussion of whether collaboration need only exist within the AMWG, among scientists and managers, or among all AMP groups. Our view is that the need for collaboration is greatest at the AMWG where there is a necessity to merge science, policy, and societal goals into AMP recommendations. The focus of the TWG should be on evaluating the technical merits and options for consideration by the AMWG. However, significant collaboration is still needed among TWG members and between the TWG and GCMRC to resolve scientific and technical issues contained in proposed recommendations to AMWG.

- Is there adequate time? Successful collaboration, especially to resolve controversial issues, takes time. Unrealistic or mandated deadlines can severely handicap the collaborative processes. There are no immediate time constraints for resolving many of the issues related to GCD operations. However, there is an urgency to address the decline of certain resources and there are firm deadlines associated with the completion of the EIS for the long term experimental plan. DOI needs to assess whether effective collaboration is possible within these time constraints.

- Is there a balanced range of interests willing to participate? For a collaborative process to be perceived as legitimate, it must involve a balanced range of participants with diverse perspectives. All the major interest groups, State and Federal agencies, and Native American tribes are engaged in the AMP, however, some participate more actively than others. This could be in part due to cultural and gender differences, which should be recognized and considered.

In conclusion, one of the fundamental principles of effective collaboration is that the participants should be directly involved in designing the collaborative process. It is proposed that the issues and recommendation above be discussed and resolved during the “AMP Effectiveness Workshop” (Comment: suggest this document is planned for August/September 2007).
The primary goals of the workshop are:

1. To get a commitment from all parties to work collaboratively to embrace and support a common mission and processes for the AMP.

2. To get a commitment of all AMP parties to develop and complete critical elements of an action plan.

The Secretary’s Designee should evaluate the outcome of the workshop, and then determine and actively pursue the most appropriate course of action.

b. *Expectations of adaptive management in the AMP* – The 1995 EIS cites several key purposes for including adaptive management in the 1996 Record of Decision. These are (1) “…to respond to future monitoring and research findings and varying resource conditions”, (2) “…to provide an organization and process for cooperative integration of dam operations, resource protection and management, and monitoring and research information”, and (3) to “…ensure that the primary mandate of the [GPCA] is met through future advances in information and resource management” (Reclamation, 1995, p. 34). Success of the AMP therefore depends on accurate scientific information to develop recommendations related to dam operations and other management actions consistent with Federal law. The EIS expects the AMP to respond to this new information by making recommendations on these actions to the Secretary of the Interior. Success of the AMP may be judged by (1) how well the group functions in making these recommendations, (2) how well new scientific information is integrated with management decision making, and/or (3) whether the goals of the AMP are being achieved. To clarify progress in meeting its responsibilities, the AMP should define measures of success. The DOI adaptive management guidebook can be used to assist in this effort.
2. ROLE, AUTHORITY, and RELATIONSHIPS. Some AMWG members do not seem to have a clear understanding of their role, in particular pertaining to giving advice and making recommendations to the Secretary of the Interior.

Background
The AMWG Charter makes it clear that AMWG’s role is to make formal recommendations to the Secretary of the Interior regarding the operation of Glen Canyon Dam and management actions consistent with federal law:

The committee will provide advice and recommendations to the Secretary of the Interior . . .

The duties or roles and functions of the AMWG are in an advisory capacity only (Norton, 2004, p. 2).

The Charter and AWMG and TWG Operating Procedures have been established to accomplish this role. The AMP attempts to function and provide recommendations by consensus, but when this is not possible, votes are taken which allow majority recommendations to be made.

Many other collaborative resource management and environmental protection groups have been established which attempt to achieve their goals through collaborative efforts (see Issue 1). Group members often have a sense of ownership in the process and the outcome, using compromise and negotiation to forge a strong group dynamic. Progress is often measured both in terms of protecting/enhancing resources and achieving individual stakeholder interests. (Comment: how many of these examples are subject to FACA Rules?)

Resolution
The AMP must follow the role established by the Charter, making formal recommendations to the Secretary of the Interior using the processes described in the Operating Procedures. However, there is also a role for collaboration in this process.

The AMP would continue to benefit from increased collaboration as recommendations are deliberated, both on the individual level with increased respect and interaction, and on the group level with an effort to meet everyone’s needs.

3. PROCESS. The AMWG often addresses the details of the AMP, sometimes duplicating TWG efforts, instead of focusing on high-level executive issues and recommendations to the Secretary. In addition, the AMWG sometimes does not act on TWG recommendations.

Background
The goal is to have TWG thoroughly discuss all issues that have a technical or scientific component that will come before AMWG. The AMWG should not duplicate the work of the TWG, but rely on their technical expertise and work.

Resolution
As a general rule technical reviews and deliberation will occur at the TWG meetings. As described in Issue #9, this will involve a thorough evaluation of the technical pros and cons of options considered, taking into consideration economic/fiscal impacts. This technical information will help AMWG understand the basis for the TWG recommendations and will serve as companion information to the AMWG evaluation of policy implications. The AMWG will rely on the TWG for technical reviews and recommendations; summaries of those technical discussions and findings will be presented to the AMWG. (Comment: Where should economic/fiscal considerations be addressed, the TWG or the AMWG? It is conspicuously absent in these discussions).
During AMWG meetings, agenda items will be constructed to build on the TWG’s work rather than rehashing previous TWG discussions. The AMWG would thus serve as an executive board, focusing on policy options and tradeoffs, considering the pros and cons of each option, as recommendations are evaluated. The AMWG will consider and act on TWG recommendations before considering other options or recommendations.

4. **Clear timeframe planning is necessary.**

   **Resolution**
   A 1-year schedule will be developed for AMWG and TWG, which clearly shows all essential regular items that need to be addressed every year, plus other items that have been added by AMWG. This schedule will include the original timeframe for the tasks plus their status.

   Final approval of annual plans of work and meeting schedules for the AMWG, TWG, and SAs will be developed and incorporated into the AMP Annual Work Plan (AWP) which traditionally has only contained the GCMRC Annual Plan of Work. The TWG secretary will have the responsibility to develop and update a composite annual meeting schedule and summary table of annual plans of work for all AMP entities. AMWG will approve the programs and schedule in its summer meeting.

5. **CLARITY and WORKLOAD CONCERNS.** The AMWG should give GCMRC and TWG clear guidance. It should meet at an appropriate frequency to facilitate updates from TWG and GCMRC.

   **Resolution**
   The GCMRC Chief and TWG Chair will attend all AMWG meetings with a clear understanding of their workload and deadlines so they can respond during discussions to AMWG requests. The AMWG will focus on providing clear recommendations to DOI. As the AMWG considers recommendations or requests to the TWG or GCMRC, the TWG Chair and GCMRC Chief will review any actions that involve them to ensure the action and timeframe is clear. If possible, the GCMRC Chief and TWG Chair will determine at the meeting the feasibility of addressing the AMWG/TWG’s request. Recommendations that are not addressed directly at the meeting will be reviewed by the TWG Chair and GCMRC Chief and responded to after the meeting. Conflicts in workload that cannot be resolved by the GCMRC or the TWG within current budgeting or staffing will be reported to the Secretary’s Designee who will determine how best to respond to the AMWG request.

6. **REPORTING RELATIONSHIPS.** GCMRC, as a component of the USGS, is responsible to the DOI. However, its GCMRC’s direction as to AMP requirements should be developed by the AMWG, pursuant to its recommendations to the Secretary.

   **Background**
   The AMWG has no authority over any individual AMP member. The AMWG is supported by a monitoring and research center (GCMRC) (FEIS, p. 36). The AMWG is to identify monitoring and research requirements, which will be implemented by designs and proposals developed by the GCMRC (FEIS, p. 37).

   The Secretary of the Interior established the AMP with four key elements: AMWG, TWG, GCMRC, and the IRP (Independent Review Panel). The four have distinct roles, but ultimately the Secretary of the Interior is responsible for seeing that the monitoring and necessary research is done to evaluate the impacts of adjustments made to dam operations. . . . The AMWG can recommend [emphasis in original] studies and priorities for implementing individual studies during those reviews, preferably by consensus. . . . However, final decisions as to the management of interior facilities and resources, what studies to implement, when, and using funds from which sources remain, by statute, with the Secretary of the Interior and the appropriate Interior agencies. (Loveless, 2000, p. 6).
The Congress finds and declares that . . . the function of advisory committees should be advisory only, and that all matters under their consideration should be determined, in accordance with law, by the official, agency, or officer involved. (Federal Advisory Committee Act, 1972, Section 2(b)).

AMWG does have authority to charge subcommittees or work groups, such as the TWG, with assignments.

The Committee may establish such work groups or subcommittees as it deems necessary for the purposes of compiling information, discussing issues, and reporting back to the AMWG. (Norton, 2004, p. 5).

Sub-groups will receive their charges from the AMWG. (Gabaldón, 2002, p. 5).

Resolution
Individual comments, although appreciated and sometimes requested, are advisory only and do not constitute direction to GCMRC or TWG. No formal direction is given to TWG without consensus or a vote by AMWG. No formal direction is given to GCMRC without consensus or a vote by AMWG, and approval of such by the Secretary’s Designee.

Consensus items and votes are clearly distinguishable from individual comments, in that the motion or consensus item is clearly articulated, the language is understood and confirmed with the group, and either votes are counted or the group is asked, usually more than once, if the language as written constitutes a consensus of everyone present. Recommendations or positions of one or even several individuals do not constitute a recommendation in the AMP, unless they are derived through the formal vote of the TWG or AMWG. Formal AMWG recommendations are constituted by a vote of AMWG members, and approval by the Secretary’s Designee as appropriate.

Free-flowing discussion and interaction are important to the program, and informal, individual feedback to GCMRC is welcome, particularly when requested. However, GCMRC follows the direction of the AMWG pursuant to recommendations that have been accepted by the Secretary of the Interior.

This means that in order for AMWG to give direction to GCMRC, it must make a recommendation to the Secretary. See # 8 for a new process for these recommendations.

Note that when TWG is given an assignment from AMWG, the GCMRC would also usually be involved. Therefore, it elevates the level of that AMWG action. (Comment: What does this mean?)

7. CONFLICT OF INTEREST

Resolution
While it would be preferable that stakeholders have no financial interest in TWG or AMWG recommendations, in a practical sense this is impossible. To comply with Federal procurement regulations, the following approach will be used:

1. AMWG will provide Federal agencies with broad program advice and recommendations through the organized FACA process.
2. After program and budget approval by the Secretary of the Interior, GCMRC will issue requests for proposals (RFPs) to solicit specific monitoring and research proposals to meet program needs (except as noted under #19.). However, limited competition and sole-source contracts may be used if cooperators agree to (a) conduct the required work at a fair cost, (b) meet the required technical specifications, and (c) comply with independent peer review requirements.
3. GCMRC will fund proposals based on an independent peer review and comment process.

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Deleted: decides, as an agent of the Secretary of the Interior responsible for the AMP science program, what input to incorporate into its program, unless and until the input is an AMWG

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The Department of the Interior has recently promulgated new ethics guidelines for FACA committees, and the Charter and Operating Protocols have been modified to reflect these guidelines. In general, these guidelines state the AMWG, TWG, or subcommittee members are prohibited in participating in specific matters in which the individual member has a direct financial interest.  (Does this inherently conflict with the first sentence under “Resolution”?)

**Secretary’s Designee**

8. **COMMUNICATION PROCESS**

**Background**
Currently, all AMWG recommendations made to the Secretary are transmitted verbatim in a memorandum from the Secretary’s Designee to the Secretary, with copies to the AMWG.

**Resolution**
Figure 1 illustrates the process that the Secretary’s Designee will use to address AMWG recommendations. The Secretary’s Designee will formally transmit AMWG recommendations to the Secretary within 15 days of the AMWG meeting in which the recommendations were made. Sufficient background information, including a majority and any minority reports, will be provided by the Designee to fully inform DOI staff. Specific guidelines for the development of Majority and Minority reports will be developed.

If the AMWG recommendation was unanimous, the Secretary’s Designee will have the authority to speak for the Secretary and respond positively back to the AMWG. If the Designee sees potential adverse consequences, the Designee can elevate the issue to the DOI agency heads or Assistant Secretaries for formulation of a DOI response to the AMWG.

(Comment: This appears to be micro-managing the Department).

The Secretary’s Designee will convey the outcome of these discussions and the final DOI decision in writing to the AMWG within a reasonable timeframe, but not less than prior to the next AMWG meeting. If this is not feasible, it should be so communicated to the AMWG with an explanation and expected decision timeframe.

(Deleted: Some AMWG members feel there is a lack of clear communication and understanding of how recommendations are relayed to the Secretary’s office and how the Department of the Interior (DOI) responds to these recommendations.)

(Deleted: If the AMWG recommendation was not unanimous, the Secretary’s Designee will convene the DOI AMWG representatives to formulate a proposed DOI position and response. If this group reaches an unanimous position on the issue, the Designee may respond to the AMWG with that position as the Secretary’s decision (based on departmental review). If the DOI AMWG representatives cannot reach consensus on a recommendation, the Designee would convene representatives of the agency heads or Assistant Secretaries to determine a DOI position.

(Deleted: 45 days of the AMWG meeting. A written status report will be provided if a final DOI decision is not reached within the 45 day process.)
Figure 1. Communication Process to Address AMWG Recommendations.

AMWG recommendations → DOI Review → DOI Decision

Minority and Majority Reports

Feedback

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9. ROLES

Background
The foundational documents specify that the TWG’s role is technical in nature:

The Technical Work Group’s main function is to provide technical assistance to the Adaptive Management Work Group (Glen Canyon Dam Adaptive Management Work Group. [Glen Canyon Dam AMWG], 2002, p. 5).

TWG would translate AMWG policy and goals into resource management objectives and establish criteria and standards for long-term monitoring and research in response to the GCPA. (Reclamation, 1995, p. 37).

Resolution
The primary role of the TWG is to translate AMP goals and objectives into resource management objectives, and establish general criteria and standards for long-term monitoring and research consistent with federal law, and the ROD. They should ensure that management needs and targets for resources are clearly defined so that GCMRC can design a research and monitoring program that meets those needs. The TWG should also:

1. Review progress/ accomplishments annually
2. Review and approve general technical guidance for the program and biennial work plan (BWP)
3. Review and update the MRP and BWP to ensure they are responsive to management needs

The TWG will continue to focus primarily on the scientific and technical aspects of the AMP. In addition, the TWG will serve as the interface between science and policy, and integrate science into AMWG requests and recommendations that have been approved by the Secretary. TWG will consider various alternatives for any particular decision, including economic/fiscal impacts. The TWG agenda should allow various viewpoints to be expressed and initially provide an opportunity for TWG members to gain understanding of others’ viewpoints and search for common ground, which would promote consensus recommendations to be made to the AMWG. Group ranking or prioritization may help achieve this goal. If consensus is not possible, then motions would be considered. When making a recommendation to AMWG, all alternatives – including technical pros and cons – will be submitted to the AMWG for its review and consideration. Minority positions may be written and distributed by the advocates for that position.

In order to enhance the decision-making process, a simple alternatives analysis process will be developed for use by TWG and AMWG. The alternatives analysis process will consider pros and cons of a recommendation from both a technical and policy perspective. The TWG will conduct the technical analysis; the AMWG will conduct the policy analysis. (Who does economic/fiscal impacts analysis?)

10. TWG MEMBER CRITERIA

Resolution
TWG members should have a technical background sufficient to adequately evaluate scientific proposals and make technical recommendations to the AMWG. TWG members should have relevant academic and technical qualifications and currently function in a technical capacity for the agency/entity they represent. The Secretary’s Designee will communicate with AMWG members the importance of this, and request that they appoint technically or scientifically competent individuals to the TWG.
Background

While the AMWG is always free to bring up issues on its own, it mostly serves as a board of directors for the AMP, charting its general direction and leaving technical details to be worked out between the TWG and GCMRC. Therefore, it is imperative that there is a highly functional TWG.

As specified in the foundational documents, any issue addressed by TWG must be approved by AMWG in advance.


Sub-groups [e.g., TWG] will receive their charges from the AMWG. Sub-groups will work only on issues assigned them by the AMWG. They will not be empowered to follow other issues on their own. They are encouraged to submit issues to the AMWG they feel worthy of consideration and discussion, but the AMWG must approve work on all new issues. (Gabaldón, 2002, p. 5).

The 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. (Johnson, 2001, p. 1).

The TWG’s responsibility is similarly limited, but even more so; it is to carry out only specific assignments within the scope of the AMWG’s responsibility, as directed by the AMWG. (Loveless, 2000, p. 3).

The Operation of Glen Canyon Dam: Final Environmental Impact Statement (FEIS) (Reclamation, 1995, p. 37) specifies the following additional responsibilities for TWG:

- Develop criteria and standards for monitoring and research programs within 3 months of the formation of the group and provide periodic reviews and updates
- Develop resource management questions for the design of monitoring and research by the center
- Provide information as necessary for preparing annual resource reports and other reports as required for AMWG

The AMP Strategic Plan (Glen Canyon Dam AMWG, 2002, p. 5) adds the following TWG responsibilities:

- Reviewing and commenting on the scientific studies conducted or proposed by the program;
- Provide [sic] a forum for discussion by Technical Work Group members, external scientists, the public, and other interested persons;
- Reviewing strategic plans, annual work plans, long-term and annual budgets, and other assignments from the Adaptive Management Work Group.

Resolution

AMWG members will ensure an effective TWG by placing representatives on the TWG who can speak for and represent them on the scientific and technical aspects of the AMP.

The TWG will focus its work on assignments from AMWG and the responsibilities outlined in the FEIS and the AMP Strategic Plan. In addition, the TWG will be proactive in identifying issues that it should address, and present to AMWG its proposed work plan for approval on an annual basis.
Background
In order to operate effectively, the TWG must include stakeholder representatives who are willing and able to participate in the AMP process. This participation includes participation in TWG votes, attendance of meetings, participation in ad hoc groups, and providing timely reviews of documents.

Resolution
The AMWG and the TWG Chair will be sensitive to the time commitments required of TWG members when making assignments or establishing new ad hoc committees. Assignments will be clearly defined and the scope limited based on an estimated workload that most TWG members can realistically accommodate.

AMWG members will only nominate TWG members who have adequate time and the inclination to fully participate. Lack of full participation is the failure to participate in TWG votes, attend two sequential scheduled TWG meetings, (Comment: How is this last item enforceable and who makes the determination? Suggest it be removed). Annually the Secretary’s Designee will consult with the TWG Chair on the effectiveness of the TWG, including the level of member participation.

The Secretary’s Designee will formally notify AMWG and TWG members of these requirements.

11. TWG COMMUNICATIONS.

Resolution
Individual comments, although sometimes requested from an ad hoc group or from GCMRC, are advisory and do not constitute direction to GCMRC. Direction to individual GCMRC staff members from individual TWG members is not encouraged; TWG members instead are encouraged to bring concerns to TWG meetings or the appropriate ad hoc group meeting for discussion and resolution as a group. However, GCMRC shall make every effort to respond to technical communications from individual TWG members.

In order to help the decision-making process, TWG will follow its Operating Procedures (Johnson, 2001) for consensus building and voting. All TWG recommendations to the AMWG will be acted on by a role call vote. Prior to the TWG role call vote, the TWG Chair will ensure that all TWG members are aware that a roll call vote is pending, that the TWG membership understands the language of the motion before them, and that the TWG is ready for the vote. In all other deliberations of the TWG, consensus is the preferred option, but a vote can be taken when consensus is not possible.

Finally, by developing and publicizing the meeting schedule as discussed under Issues #4, the timeline for decision-making will be clear.

AMWG and TWG members are expected to confer before and after each TWG meeting. This will help to ensure that, as much as possible, the TWG members are in accord with their AMWG members when they present their agency’s technical or scientific concerns and needs at the TWG meeting and should avoid redundant technical discussions at AMWG meetings.
12. COMMITTEE PARTICIPATION: GCMRC will participate in all AMWG, TWG and Ad Hoc Committee meetings. In the event this is not possible, GCMRC will so communicate to the Chair of the relevant committee in advance of the meeting.

Resolution
A common understanding of and sensitivity to the workload issue is vital to an efficient and effective AMP process. The 1-year schedule referred to in Issue #4, which shows the essential items that the AMP must do each year, will assist in managing and planning for the GCMRC workload. Any additional task will involve a decision as to whether it can be done in the timeframe requested by AMWG.

In addition, the process described in Issue #5, which allows the GCMRC to resolve concerns about its workload, will ameliorate this problem.

As noted above, when TWG is given an assignment from AMWG, the GCMRC would also usually be involved. Therefore, it elevates the level of that AMWG action to a recommendation to the Secretary.

13. GCMRC WORK PRODUCTS AND SCHEDULE.

Resolution
GCMRC will report at least annually to the TWG and AMWG the status of all ongoing projects, comparison of actual expenditures to budget (See Communications, below) and in the Core Monitoring Plan, the Monitoring and Research Plan and Biennial Work Plan. In addition, if any schedule and/or budget changes are required, those changes should be discussed at the first opportunity with the TWG.

Parallel with the annual/biennial work plan, GCMRC will develop a completion schedule for each of the major products for which it is responsible. TWG will review, provide input, and recommend a schedule to the AMWG. If completed products cannot be prepared within the needed timeframe, GCMRC will report to the Secretary’s Designee the reasons for the delay and suggest a revised completion schedule. The Secretary’s Designee can affirm the GCMRC suggestion, make a different decision, or consult with TWG, AMWG, or other entities. The Secretary’s Designee will inform the TWG and AMWG of the decision made.

Resolution
See Issue #4 for a description of a 1-year schedule that will be developed to assist in better timeframe planning by all groups in the AMP.

See Issue #5 for a description of a new process designed to ensure directions are clear and workload is considered before an assignment is accepted.

Remember that all direction to GCMRC is made as a recommendation to the Secretary.

14. GCMRC, COMMUNICATION.

Background
It is imperative to the success of the AMP that a positive, affirmative, and accountable relationship exists between GCMRC and the AMWG. One of the challenges presented in this regard is the fact that the AMWG currently meets three times per year and therefore cannot always address issues quickly, particularly with regard to budget-related issues.

Report and Recommendations from the Roles Ad Hoc Group to the Secretary’s Designee
Resolution
The GCMRC will give periodic updates on its operations and budget to the Secretary’s Designee, AMWG, and TWG including an annual accomplishment report, approved budget amounts, actual costs, and the amount over or under budget. The annual/biennial work plan will include contingency projects that will be funded if surplus funds arise. It will also identify projects that will be deferred if cost overruns or other priorities emerge. GCMRC has the latitude to make budget adjustments to accomplish work specified in the AWP up to 5 percent of its total budget. These adjustments will be reported to the TWG at each TWG meeting. No new AMP projects will be implemented by GCMRC or BOR without first consulting with the TWG co-chairs and the Secretary’s Designee. The Secretary’s Designee will determine whether consultation with the AMWG is needed.

15. CONTRACTING.

Background
The foundational documents provide some direction, and some flexibility, to GCMRC with regard to contracting:

The following specific duties would be assigned to the Monitoring and Research Center: ...Administer research proposals through a competitive contract process, as appropriate (Reclamation, 1995, p. 37).

The Center ... shall be composed of a small staff of administrative and scientific personnel, who will be detailed from other Department bureaus. The research program is proposed to be conducted through an open call proposal and (or) contract process, including a competitive request for proposals, with Federal and state agencies, universities, the private sector, and Native American tribes which will result in the selection of research projects based on scientific merit and cost. Required elements of the monitoring program may be proposed as an on-going responsibility of the USGS after an open decision-making process (Deputy Assistant Secretary for Water and Science, 1995, p. 2).

The GCMRC shall be composed of an appropriately sized staff of administrative and scientific personnel with relevant scientific and technical expertise. ... Monitoring and research activities conducted by GCMRC will be implemented primarily through a competitive request for proposals with Federal and state agencies, universities, the private sector, and Native American tribes. The successful proposals shall be selected on the basis of advice provided by an independent external scientific peer-review (Schaefer, 2000, p. 2).

Other functions of the Grand Canyon Monitoring and Research Center are ... Develop research designs and proposals for implementing (by the Grand Canyon Monitoring and Research Center or its contractors) monitoring and research activities in support of information needs; ... (Glen Canyon Dam AMWG, 2002, p. 5).

Bob Snow (Washington Solicitor’s Office) ... reviewed his understanding of the concerns ... [to wit,] if the procurement requirements had changed from using different entities to do work in the Grand Canyon towards a concentration of research being done by GCMRC. Bob said the Department has an opportunity to either avail itself of its in-house resources or ask external groups, cooperators, etc., to take on those tasks. The fact that there is an ongoing FACA process does not change the fundamental nature of being able to task USGS within their organic statutory authority to take on certain studies (Glen Canyon Dam AMWG, 2004, p. 10).

The use of contractors versus in-house staff by GCMRC is clarified in the Strategic Science Plan that was approved by the AMWG on December 5, 2006:

Contractors and cooperators will be utilized to conduct a large measure of the field work and work collaboratively with GCMRC on data analysis, synthesis, and publication. GCMRC scientists will be engaged in the implementation of field research and monitoring when in-house
staff with the appropriate expertise is available and their use is cost effective. In every case the USGS will hold its own proposals to the same level of rigorous outside peer review as all others.

Several land and resources management agencies including National Park Service (NPS), Fish and Wildlife Service (FWS), Arizona Game and Fish Department (AZGFD), and the Tribes have statutory or regulatory responsibilities for long term management of resources in the Grand Canyon. In addition, USGS, the parent organization of GCMRC, includes many leading experts in river science. Having these agencies/entities as active partners in the AMP science program helps meet their statutory responsibilities and facilitates the integration of the scientific information into management processes and decisions. The services of these agencies and entities are generally secured through interagency and cooperative agreements, rather than through competitive RFPs.

No matter whom carries out the work of the AMP, Protocol Evaluation Panels (PEPs) are used to provide an independent scientific perspective on the efficacy of all major elements of the science program. In addition, peer reviews of proposals and deliverables provide independent review of specific AMP scientific efforts to ensure high scientific quality.

Resolution
The purpose of open competition through RFPS is to promote cost effectiveness, expanded breadth of ideas, optimal scientific design, and highest levels of scientific expertise. However, this process takes more time, effort, and cost to achieve these objectives. The scientific protocols as described above will contribute to accomplishing many of the same scientific objectives.

The most cost effective mechanisms will be used to accomplish work. In general, GCMRC and BOR will prepare RFPS and use an open, competitive process for awarding funding for new research projects or new initiatives. For other projects, limited competition, and sole-source contracts in accordance with Federal Acquisition Regulations may be used if cooperators agree to (a) conduct the required work at a fair cost, verified through market research, (b) meet the required technical specifications as determined by GCMRC and implement PEP and SA recommendations accepted by the AMWG and approved by the Secretary, and (c) comply with independent peer review requirements established by GCMRC. Annual evaluations will ensure cooperators are meeting these requirements. GCMRC scientists may conduct field research and monitoring under the same conditions, particularly in time-sensitive cases where a formal RFP or other competitive contracting mechanism would not be practicable. In every case, the USGS will hold its own proposals to the same level of rigorous outside peer review as all others. GCMRC and BOR will annually report to AMWG on how much, by percentage, of their science was contracted through open competitive process and how much was accomplished through each of the other mechanisms (sole source contract, interagency agreement, performed in-house, etc.).

16. COMPLIANCE.

Resolution
GCMRC will use Tribal and NPS Research Permit processes to ensure that any negative impacts from AMP-related research activities are monitored, documented, and addressed in a timely fashion. These processes address NEPA, Endangered Species Act (ESA), and National Historic Protection Act (NHPA) compliance, among others, and the resultant permits can include conditions, restrictions, and mitigation as needed. Such requirements will be considered by DOI when deciding whether to proceed with the proposed actions.

17. PROTOCOL EVALUATION PANELS,

Resolution
As part of the Core Monitoring Evaluation process outlined in the MRP, a TWG information needs workshop will occur prior to each PEP which will provide more specific guidance from stakeholders on what needs should be addressed by the PEP.
It is the responsibility of GCMRC to develop the charge to an upcoming PEP. Once the PEP charge and informational documents have been drafted, they will be sent by GCMRC to the Secretary’s Designee, the SAs, the TWG Chair, and the BOR Program Manager for review and comment before they are finalized and presented to the PEP Chair. The reviewers will evaluate the documents for completeness and clarity, and return their comments, if any, to GCMRC within 15 days of receipt. GCMRC will finalize the documents and distribute them to the Secretary’s Designee, the SAs, the TWG Chair, and the BOR Program Manager.

PEP reports will provide majority or consensus views of the panel members. Where consensus is not reached, minority views will be documented in the report.

18. SCIENCE PERFORMED BY OTHER AGENCIES:

Background
AMP foundational documents specify that GCMRC is the selected provider and coordinator of research for the AMP. The EIS defines the authority and responsibility for conduct of research by the AMP as follows:

All adaptive management research programs would be coordinated through the Center (Reclamation, 1995, p. 36).

Authorities and responsibilities for GCMRC are also documented in the AMP Strategic Plan:
The Grand Canyon Monitoring and Research Center serves as the science center for the Glen Canyon Dam Adaptive Management Program (Glen Canyon Dam AMWG, 2002, p. 5).

The Grand Canyon Monitoring and Research Center leads the monitoring and research of the Colorado River ecosystem and facilitates communication and information exchange between scientists and members of the Technical Work Group and Adaptive Management Work Group (Glen Canyon Dam AMWG, 2002. p. 5).

Expanded science and management activities are being implemented by AMP, as well as by its member agencies, tribes, and other cooperators. Knowledge by all parties of these various activities is important to effectively manage the AMP.

Resolution
GCMRC has approved protocols and procedures for responding to AMP science information needs through its own staff and by contracting with entities external to AMP. If AMWG wishes to advance certain areas of the program more rapidly, it should identify those priorities to the Secretary’s Designee. If approved by the Secretary’s Designee, GCMRC will develop a plan to resolve those concerns in the next 12-month period, perhaps through an accelerated timeline of contracted work with external entities.

With regard to science or management activities performed by other agencies and not contracted by GCMRC, it would be to the benefit of the AMP and the other programs if all information about science and management activities in the CRE were shared. Therefore, AMP stakeholders are invited and encouraged to notify the GCMRC Chief, AMWG and TWG members of all such activities. Information about these activities will be incorporated into the AMP work plan and budget development process.
19. COMMUNICATION.

Resolution
Communication will in part be facilitated by the schedule discussed under #3. This schedule of meetings and tasks will be distributed to AMWG members, with a request to add additional needed agenda items and recommendations to the Secretary.

To facilitate productive AMWG discussions, specific input for AMWG agendas will be solicited sufficiently in advance to allow complete staff work by the TWG and GCMRC. In addition, the TWG Chair and GCMRC Chief will be involved in the AMWG agenda development process, and AMWG will follow its operating procedures for developing the agenda, which involves asking AMWG members for additions to the agenda. Finally, AMWG agendas will be developed to provide sufficient time for careful consideration of workload impacts, option evaluations, and conflict resolution.

For TWG agendas, TWG members will be asked at the end of each meeting for suggestions of agenda items for future meetings. In addition, TWG members are encouraged to request agenda items at any time via e-mail to the TWG Chair or Co-chair. Finally, TWG members can suggest agenda items at the beginning of a TWG meeting when the agenda is reviewed.

20. PROGRAMMATIC AGREEMENT.

Background
The foundational documents provide some guidance on these issues.

Long-term monitoring and research associated with cultural resources would be carried out in accordance with the approved Programmatic Agreement on Cultural Resources (attachment 5). All provisions as agreed upon by the consulting parties would be implemented through the Monitoring and Remedial Action Plan and the Historic Preservation Plan. Activities outlined in these documents would be coordinated through the [monitoring and research] center to ensure integration with other facets of the long-term monitoring and research program (Reclamation, 1995, pp. 36-37).

Monitoring and Protection of Cultural Resources: Cultural sites in Glen and Grand Canyons include prehistoric and historic sites and Native American traditional use and sacred sites. Some of these sites may erode in the future under any EIS alternative, including the no action alternative. Reclamation and the National Park Service, in consultation with Native American Tribes, will develop and implement a long-term monitoring program for these sites. Any necessary mitigation will be carried out according to a programmatic agreement written in compliance with the National Historic Preservation Act. This agreement is included as Attachment 5 in the final EIS (Reclamation, 1996, p. 11).

In regards to the consultation requirements under NHPA, the action federal agencies and affected tribes have signed a programmatic agreement (PA) document and hold periodic meetings. Parties not signatory to the PA are welcome to attend and comment. Here too, however, the ultimate decision on how to proceed rests with the Secretary of the Interior and the federal agencies delegated the responsibility for management of the resources (Loveless, 2000, p. 8).

Roles and responsibilities of BOR, NPS, and GCMRC in carrying out the AMP’s Cultural Resources Monitoring and Research Program are specified in an agreement entered into in January 2006 (Appendix A).
Resolution

DOI agencies will participate in the AMP’s Cultural Resources Monitoring and Research Program in accordance with the roles and responsibilities specified in the agreement shown in Appendix A.

The PA signatories comprise a group separate from the AMP that has the ability to define its own course of action with respect to National Historic Preservation Act (NHPA) requirements. The final decisions regarding NHPA requirements rest with Reclamation, after following the dispute resolution process of the PA, if needed. However, funding for these responsibilities is contained within the AMP, whether funded by power revenues or by other sources, and the AMWG has the responsibility to make recommendations to the Secretary, including the annual budget if so desired. Therefore, the AMWG has no authority to override PA decisions, but can make recommendations to the Secretary counter to PA conclusions that could, in turn, affect Reclamation’s decisions in the PA forum.

Reclamation must make sure that the views of both PA signatories and AMWG recommendations are considered in reaching final decisions in the PA forum and that these decisions are consistent with DOI positions. It should be the intent of each of these groups to work collaboratively to accomplish the purposes of both the PA and federal law.

Reclamation and the NPS are working closely and collaboratively to meet their NHPA obligations.
21. SCIENCE ADVISORS ROLES

Background
The Science Advisors have recognized a trade-off between the number of reviews that are possible each year, and the depth and specificity of those reviews. They have agreed to respond to the AMP by producing many reviews, but those reviews will, of necessity, be less detailed – and perhaps less clear – than if there were fewer reviews requested.

Resolution
The SAs' Executive Director will articulate specific review charges for the SAs that respond to concerns of AMP groups. The SAs' Executive Director will also work with the SAs to create review comments and critiques that explicitly respond to concerns expressed by and review requests of the AMP.

The SAs' Executive Director and the SAs will annually report to the AMP the level of implementation of SA proposals and recommendations. The GCMRC Chief and TWG Chair will review and confirm this report before distribution. The SAs' Executive Director and the SAs will specify in their annual report to the AMP any issues or concerns relating to their independence. The GCMRC Chief, the TWG Chair, and the Secretary’s Designee will review the SA comments in draft and have the opportunity to provide their own perspectives on SA independence in the annual report (Comment: This has already been completed?). The SAs and the SA Executive Director will continue to follow explicit GCDAMP protocols in rescheduling AMWG assigned reviews.

Deleted: Science Advisors (SAs)

CLARITY. Some believe that the Science Advisors (SAs) do not always forward clear critiques, review comments, and recommendations because they may not want to offend GCMRC and contract scientists. However, the lack of clarity causes difficulty among managers in resolving a course of action.

FOLLOW THROUGH. The SAs conduct many reviews over a 2-year period. However, no tracking exists to determine if the AMP responds to these reviews with changes in ongoing programs.

PROTECTING SA INDEPENDENCE. The SAs are authorized to provide ongoing advisory and review functions to the AMP. These activities must be accomplished without conflict of interest or bias on the part of the SAs.

AMP REVIEW. Concern exists over timely completion of the overall AMP review. The SAs have had to delay the AMP review to respond to overall science planning needs of the AMP. This science planning need is considered the SAs' highest priority in FY 2005 and part of FY 2006.

The overall AMP review, although delayed for 6 months, will be complete by the end of FY 2007. All reviews originally planned for FY 2005 and 2006 will be complete by the close of FY 2007. The GCMRC, the TWG, the SAs, and the Secretary’s Designee approved these new completion dates.
APPENDIX A

Glen Canyon Dam Adaptive Management Program (AMP)  
Cultural Resource Monitoring and Research Program Agreement  
Among  
Bureau of Reclamation (BOR), Upper Colorado Region  
National Park Service (NPS), Grand Canyon National Park  
Geological Survey, Grand Canyon Monitoring and Research Center (GCMRC)

Agreement Goals:  
- Address National Historic Preservation Act (NHPA) and Grand Canyon Protection Action (GCPA) information needs and management responsibilities.  
- Answer core monitoring and research questions.  
- Integrate BOR, NPS, GCMRC, and tribal monitoring and research efforts.

Roles and Responsibilities:  
- BOR is responsible for evaluating and treating sites affected by dam operations through Sec. 106 of the NHPA. BOR develops the compliance monitoring and research (for treatment) questions in order to meet its requirements with NHPA Sec. 106.  
- NPS is responsible for evaluating and treating sites affected by visitor use through Sec. 106 of the NHPA. The NPS develops compliance monitoring and research questions in order to meet its requirements with NHPA Sec. 106 and 110. Because of the inherent overlap between the BOR and NPS programs, the NPS may implement 106 monitoring programs for both BOR/AMP and NPS.  
- To assist the DOI agencies, the Cultural Resources Ad Hoc Group of the Technical Work Group (TWG) will provide technical work plan recommendations related to budget and program proposals for TWG consideration. The Programmatic Agreement (PA) signatories are responsible for reviewing and making recommendations to the respective agencies on monitoring and research questions and treatment.  
- GCMRC provides the AMP scientifically credible information for addressing NHPA and GCPA issues within the Colorado River ecosystem for dam operations and visitor use as requested by BOR and NPS. The GCMRC utilizes the monitoring and research questions defined by BOR and NPS for their NHPA compliance, and the AMP for its GCPA responsibilities to formulate a scientifically credible monitoring and research program.  
- Tribes have cultural affiliation to Grand Canyon, have a significant interest in the management process, and are involved as PA signatories and AMP members.

Agreement Objectives:  
- Describe the process for modifying current monitoring and research programs.  
- Describe how monitoring and research programs are administered.  
- Coordinate and integrate activities among Tribes, NPS, BOR and GCMRC.
Glen Canyon Dam AMP Cultural Resource Program Components (see Figure 1)

GCMRC, NPS, BOR, the tribes, and PA signatories, in an expanded Cultural Resources Ad Hoc Group will meet annually to define integrated monitoring and research tasks for inclusion in the work plan and budget for the cultural program. In total, this integrated cultural program is intended to meet the statutory compliance requirements of each of the relevant DOI agencies. Proposed program activities will be reviewed annually by the PA signatories and TWG and revised by the participants if necessary before it goes to the AMWG for approval. The program is reviewed periodically by the GCMRC Science Advisory Board (SAB).

Administration and Oversight (Implementation)
- Each agency has responsibility for program activities that it funds. In the case of AMP-funded activities, GCMRC will implement PEP-review and peer review comments to improve scientific monitoring and research activities.
- Logistics and field efforts are coordinated.
- Data sharing agreements are developed (security and confidentiality).
- Disputes are resolved.
- Duplication and redundancy (sites monitored, variables measured, etc.) are avoided.
- Efforts are documented in annual reports from each agency; a program annual report is compiled by GCMRC.
- Program reviews by TWG, PA Signatories, and SAB are coordinated by GCMRC.
- The parties to this agreement will establish a steering committee to coordinate the cultural resource program activities among DOI agencies. Any of the signatories may call a meeting to discuss aspects of this program.

Approval:

Randall Peterson, Manager
Environmental Resources Division
Upper Colorado Region, BOR

Jeffrey Cross, Director
Grand Canyon Science Center
Grand Canyon National Park, NPS

John Hamill, Chief
Grand Canyon Monitoring and Research Center
Some members of the AMP have expressed concern that in recent months the GCMRC has not been as active in all ad hoc work groups as in the past. They see this as a lack of cooperation by GCMRC and feel that such actions are unacceptable and potentially damaging to the AMP program. GCMRC, on the other hand, has been facing a heavy workload from the November experimental flow, core monitoring plan, and strategic science plan development, FY 06 budget development, SCORE report preparation, ongoing science program administration, and a variety of ad hoc committee meetings. GCMRC is the only AMP element that is expected to serve on every ad hoc committee appointed by the TWG or the AMWG. While the GCMRC recognizes that it must be an active participant on these ad hoc committees, the situation has at times put overwhelming pressure on GCMRC staff due to workload issues. Perhaps the past 2 years have been unusual in having so many ad hoc groups working at once, but if this has become the norm for the AMP, then a more strategic and controlled approach to program workload must be taken. GCMRC does, in fact, want to be a full partner with the AMP participants, but these participants must also be sensitive to GCMRC time limitations.

Efforts will focus on the most important work products. These may include fieldwork, contracting, budget, SCORE reports, and AMWG/TWG mailings. In the short term, they may also include the core monitoring plan, the experimental flows plan, and the strategic science plan. GCMRC will perform a careful definition of their responsibilities and priorities in which will be brought to the AMWG for review and recommendation to the Secretary. This can set some parameters and limits for work accepted by the Center.

When assigning work to GCMRC, the AMP needs to be more realistic in setting deadlines and should more carefully consider the work capacity and timeframe involved. In addition, from time to time, clarity of assignment is an issue, when GCMRC feels they have delivered a product on time and AMWG or TWG may say they are late because the product is not what they thought they requested.

Some feel the GCMRC does not want to be responsive to the needs of the AMP. There are no clearly defined limits of flexibility on GCMRC’s management of science projects without going back to AMWG or DOI for approval. Some AMP members feel that GCMRC appears to have made unilateral changes in approved documents, work plans, and budgets without communicating with AMWG, which has reduced the level of trust between AMP members and GCMRC.

GCMRC has operated under the paradigm that its budget is approved by AMWG in advance, mostly based on GCMRC cost estimates, especially for new projects or projects that are renegotiated on an annual basis. Sometimes these estimates later prove to be accurate, while at other times they prove to be too high or too low. Whenever this happens, GCMRC makes adjustments in its annual program to cover shortfalls or to absorb surplus funds. These changes often result in individual projects at the bottom of the year’s priority list either being postponed until next year (and those funds used to cover cost overruns on other higher priority projects) or being conducted on a larger scale than originally proposed (using funds freed up by lower than expected costs on higher priority projects), if such an action is scientifically justifiable. One can see how GCMRC might perceive this as constituting the normal and routine program adjustments needed to meet financial constraints when implementing the approved annual work plan. However, one can also see how the AMWG
might perceive such actions as constituting unilateral and unauthorized changes by GCMRC to approved budgets and research plans.
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<th>Commentor’s Name / Date</th>
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<tr>
<td>1</td>
<td>Mark Steffen FFF/NAF</td>
<td>8-9-07</td>
<td>5</td>
<td>The report stresses that members should be prepared to compromise, but it does mention that members should also recognize and acknowledge past compromises by stakeholders. Some stakeholders have made or been forced into serious compromises, for example a reduction of about 30% in hydropower capacity and flexibility, 20,000 dead trout killed in Marble Canyon and four more years of planned trout killing by the NPS in Bright Angel Creek. No mitigation has ever been offered for the reduced trout fishing opportunities even though further trout killing is desired by some stakeholders. Grand Canyon National Park visitors have fished for trout since the NPS first stocked Bright Angel Creek in 1920!</td>
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<td>2</td>
<td>Mark Steffen FFF/NAF</td>
<td>8-9-07</td>
<td>general</td>
<td>Many stakeholders do not offer any compromise or mitigation but yet demand further compromises from stakeholders that have already compromised. No stakeholders except FFF, CREDA, WAPA and AGF have expressed any interest in pursuing goal number ten “to increase power generation”</td>
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where feasible and advisable”. In fact the Grand Canyon Trust, the USFWS and the NPS are demanding further drastic restrictions on power generation, demanding steady flows even though the CRE has adapted and evolved and is dependent on daily fluctuating flows to maintain the current aquatic ecosystem. Steady flows would be equivalent to wanting to stop the tides in the ocean!

| 3 | Mark Steffen | 8-9-07 | general | The NPS inappropriately used short briefings to the AMWG and the TWG in their NEPA compliance documents for their Bright Angel Creek trout killing project. The NPS cited TWG and AMWG meetings in their EA as examples of public meetings, when they were not advertised as such and there were no members of the general public present. The NPS (Jeff Cross) had made promises of public meetings for NEPA compliance, yet none ever took place. | Y |

| 4 | Mark Steffen | 8-9-07 | general | Does this report deal with the obligation of the AMP to revisit and reconsider the AMP goals? Goal number four is particularly noxious as it has lead to rampant discrimination against trout anglers making anglers “Pariahs below the Paria”. Goal four has led to the killing of over 20,000 trout in Marble Canyon and a controversial project by the NPS to kill trout in Bright Angel Creek for the next four years. These projects and the general consideration of trout presence below the Paria as a problem to be solved have made participation by recreational anglers in this program almost intolerable. Grand Canyon National Park visitors have been fishing for Trout in Bright Angel Creek since the NPS started stocking the creek in 1920. Goal number four has also led to the defacto prevention of AGF from stocking trout at | Y |
Lees Ferry because goal four requires a “naturally reproducing trout population”. Stocking trout to maintain the Lees Ferry Trout fishery has often been necessary, for example when all the trout in the river even through Grand Canyon were killed, slowly starved to death by the drastic experimental EIS flows of 1990-91 that destroyed the aquatic food base. It was probably not a coincidence that the humpback chub population seems to have declined at about that time also.

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<th>5</th>
<th>Mark Steffen</th>
<th>8-9-07</th>
<th>general</th>
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<td>The USFWS is a stakeholder that has not offered any compromises. They (and other stakeholders) continue to insist on the implementation of their RPAs in their badly written 1995 BO. They further have made the ridiculous claim that the entire Colorado River through the Grand Canyon is “critical habitat” for humpback chubs even though is not even marginally suitable due to too cold of water temperatures and the massive numbers of warm-water predators (catfish, bass, etc.) in close proximity (Lake Mead) that could invade the warm water of the LCR if a Temperature Control Device (Selective withdrawal structure) is constructed on Glen Canyon Dam as desired by the USFWS. The USFWS should compromise and accept the LCR as adequate “critical habitat” for humpback chub in Grand Canyon. It is an almost unarguable yet mostly ignored fact that if Glen Canyon Dam was not built, humpback chubs would have been extirpated from Grand Canyon including the LCR by catfish, bass and other voracious warm water fish that had invaded the Grand Canyon from Lake Mead. We are extremely fortunate and can thank Glen Canyon dam that the humpback chub have their spring fed year round warm water sanctuary in the LCR,</td>
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protected from other warm water non-natives by the cold water released from Glen Canyon Dam. Grand Canyon Trout almost never enter the LCR. The USFWS and the NPS are simply greedy zealots wanting MORE chubs in places that they simply cannot live.

| 6 | Mark Steffen | 8-9-07 | general | The USFWS has not made available to the AMWG any of their reports about their activities capturing and counting humpback chubs four times a year in the LCR even though they are financed by the AMP. They have spring, fall and annual reports but they do not make them available except occasionally when requested by individual AMWG members and even then the FWS procrastinates and claims they have to be properly reviewed first and the result is the AMWG does not get them. | Y |

| 7 | Mark Steffen | 8-9-07 | general | Why does the NPS have two TWG members but only one AMWG member? The consequence seems to be a TWG member ostensibly representing Glen Canyon National Recreation Area but reporting to an AMWG member representing Grand Canyon National Park. How can the Glen Canyon TWG member do a good job if he has no AMWG member from Glen Canyon to report to? Does the Glen Canyon NPS TWG member even report or inform or work with the Glen Canyon Recreation Area Superintendent? In fact the Glen Canyon TWG member often seems to be a second TWG representative for Grand Canyon instead of Glen Canyon. For example the Glen Canyon TWG member does not seem to demonstrate any interest in supporting or protecting or even representing the Lees Ferry Trout fishery or recreational anglers. | Y |

8
9
10
Greetings;

I reviewed the Roles ad hoc document and in general, I feel it addresses the main concerns that I have in a fair and logical manner. However, here are a few additional comments:

a) On page 4 (Are solutions negotiable?) asserts that there are. "....certain legal and operational constraints associated with the operation of GCD...." The language implies that these constraints are agreed upon by the stakeholders when in all likelihood, disagreements over the limits of these constraints may be one of the main obstacles in the TWG.

b) Issue 1. How will the issues and recommendations (e.g., unequal representation on the AMP) be resolved now that the AMP Effectiveness Workshop has been cancelled?

c) Issue 1? It would be useful to address the expected level of civility required for participation in the AMP. Perhaps it would be useful to return to our former practice in the TWG of posting a sheet of agreed upon behaviors during each meeting.

I didn't use the comment/response document as these comments do not necessarily address a specific comment.

Rick
Hello:
I sent an e-mail to you yesterday on the subject draft report. There was a sentence missing. I'm resending our comments with the correction made. I've also done a couple of edits for clarity. Please consider the new attachments as our comments.

(Previous message)
Attached are Western's comments on the April 13th draft.

Also attached is a "balance" document referred to in our comment.

Finally, I've attached our comments to the roles document of 2005. As far as we can tell, these were not incorporated into the revised draft.

THX
Clayton
General Comments
1. Since the initiation of the GCMRC and the AMP committees, stakeholders have disagreed on the resource goals to be accomplished. Discussions and arguments regarding this have pervaded many discussions of the AMP committees since the beginning.

Although the '95 GCD EIS and ROD lay out a clear description of Interior’s resource goals to be accomplished, some AMP stakeholders either have never agreed with the goals or have developed divergent interpretations of the goals. We believe that the Secretary of Interior should clarify the legal and policy boundaries and goals to be accomplished and that it is not within the authority of the AMWG to make these determinations. We feel that it is extremely unlikely that AMP stakeholders will be able to come to agreement on such a fundamental issue as to whether the DOI is asking for recommendations on how to restore the Colorado River in the Grand Canyon through natural processes or how to accomplish a “mix” of benefits in the canyon that includes a sport fishery, recreational beaches with minimum impact to hydroelectric power production.

2. A major problem with the roles and responsibilities is that there is no linear communication from the Secretary’s designee to AMWG to TWG which includes GCMRC. GCMRC is left out of that loop even though GCMRC is considered the “science arm” of the AMP.

Obviously, the GCMRC is responsible to the Secretary of Interior. About this there is no contest. However, the GCMRC is funded almost exclusively by AMP funds and the AMWG serves to recommend to the DOI Secretary how these funds should be used. When recommendations are made by the AMWG regarding the GCMRC work plan, DOI should see that these recommendations are implemented or the Secretary’s designee should communicate reasons for not implementing them to the AMWG and strive to bring the AMWG to an agreement on a different course of action.

An example of an advisory body that includes an institutional framework that respects the legal authorities of DOI agencies is the Upper Colorado River Recovery Implementation Program for Endangered Fish Species. The UC RIP includes the “Section 7 agreement” that clearly describes how the U.S. Fish and Wildlife Service will come to agreement with the participants of the UC RIP while maintaining its legal authorities under the Endangered Species Act.

3. As part of USGS, GCMRC is reluctant to share research data prior to peer review. Further, GCMRC feels that all of its products should be subjected to peer review. We believe that has, at times, complicated the adaptive management process. We recommend that reports on experiments and other programmatic activities be shared with the AMP committees on a timely basis.

4. We believe that the process for developing a budget and work plan is currently “broken”. Related to this, the TWG is less effective than it could be because its meetings are too infrequent and of insufficient length during the process of developing a budget and workplan.

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Western Area Power Administration believes that the general concept regarding resource goals was clearly described in the ’95 GCD EIS and the ’96 ROD. We’ve attached a short description of what we believe the overall goal to be.
The budget and workplan process was established several years ago in order to accommodate sufficient time for the interaction between the TWG and GCMRC. The AMWG was to approve the size of the “pie” for the next fiscal year at its summer meeting. The GCMRC would prepare a draft work plan and budget for TWG review by September. This draft work plan would be detailed and specific. The TWG (and the BAHG) would have until the end of November to come to a TWG recommendation. The AMWG would approve the detailed work plan at its January meeting. This would give the GCMRC time to write RFPs and send them out by March. The responses would be reviewed by an independent panel and by GCMRC and contracts awarded by the end of the fiscal year.

The development of the budget and work plan is not currently following this schedule and the initial draft budgets provided to the TWG for review are insufficiently detailed. This has caused a “crunch” and a situation in which the TWG and AMWG “pass” on the budget because of time constraints.

Specific Comments
5. Page 3, paragraph 1: lists indications of reduced collaboration by AMP participants. Not listed is what we believe to be the single most important reason: that recent science has indicated that MLFF has failed to accomplish some of the resource goals described in the ’95 EIS, leading to various proposals for the modification of GCD operations.

We also suggest an extraction from this list: the beach/habitat building flow experiment for 2007, by an 18 to 4 vote, was not supported by the AMWG. This decision then, while not consensus, is an example of an AMP group reaching a clear decision.

6. Page 3, paragraph 6: See our comment #1 (above). We agree that the AMP participants are not working together to achieve a common goal.

7. Page 4, fourth bullet: See our comment #3 (above).

8. Page 4, Resolution a – first bullet: See our comment #1 (above). The AMWG, as a FACA committee, may establish specific resource goals, targets and management actions, but the legal mandates under which the DOI operates and the legal limits regarding the operation of Glen Canyon Dam, as well as the “big vision” resource goals need to be described to the AMWG by the appropriate governmental authority – in this case, DOI.

9. Page 5, sixth paragraph: as regards Western Area Power Administration, we think that we have acted in good faith, producing suggestions for moving forward in a collaborative fashion. We feel it unnecessary to sign a commitment agreement.

10. Page 5, seventh paragraph: We can’t imagine incentives that would “do the trick” here. Do the authors have some suggestions that we could consider?

11. Page 5, eighth paragraph: See our comment #1 (above).

12. Page 6, third bullet: A person who accomplished the outlined tasks would be valuable. He or she would basically be an assistant to the secretary’s designee if the designee couldn’t focus sufficient attention to AMWG business. We suggest that the secretary’s designee appoint such an assistant for the tasks outlined. We don’t concur with the idea that such a person add to the financial administrative burden of the AMP itself.

13. Page 6, fourth bullet: The UC RIP has a structure that includes a Management Committee”. It is this committee that, on behalf of the stakeholders does most of the “heavy lifting” – of the merging of science, policy and societal goals and bringing stakeholder perspectives together into a consensus work plan. The UC RIP Implementation Committee consists of department heads and others who provide official agency approval and attempt to solve intractable disagreements.
Since the AMWG membership consists of department heads and others whose scope of responsibility normally doesn't allow enough time to produce collaborative agreements, the burden must fall on the TWG. We appreciate that the TWG was envisioned as a technical group. We therefore feel that there are two choices. Direct the TWG to do the “heavy lifting” – of merging science and policy into a work plan and into recommended actions with TWG technical subcommittees, or invite the AMWG members to meet more often in longer meetings.

14. Page 3, Resolution (under 3): See our comment #4 and #13 (above).

15. Page 9, item #6: See our comment #2 (above). From Western’s point of view, there is no question that AMWG has no line authority over GCMRC. However, since GCMRC was established as the “science arm” of the AMP, conducts research and implements management actions in furtherance of the AMP goals, and since the AMP advises DOI regarding the activities, science and research in the canyon, there is a special relationship between the recommendations of the AMWG and the work of the GCMRC. An example of how a problem can arise is the example of the AMWG recommendation regarding the concurrent sampling of Humpback Chub. The AMWG recommended that GCMRC conduct a count of the extant population of HBC in two ways in order to see if an accommodation could be made between the scientific opinion of the GCMRC on how to count fish and the opinion of the regulatory agency (F&WS). The AMWG also provided a funding recommendation. It was a clear example of the merge of science and policy in a collaborative manner. Subsequent to the AMWG vote, the GCMRC wrote to the Secretary’s designee, stating that it would not perform such a concurrent estimate. Neither the GCMRC nor the Secretary’s designee returned to the AMWG to try to reach a subsequent agreement. A HBC count that would “set the clock running” has yet to occur.

This is an example of why, Western suggests that the process for DOI decision making, following an AMWG recommendation be clearly described, that the information come through the Secretary’s designee and that the DOI agree to return to the AMWG when a recommendation cannot be fully implemented and attempt to reach an implementable recommendation.

16. Page 10, item #7: While it may be impractical to avoid having AMP participants avoid voting on decisions in which their agencies have a financial interest, a stakeholder who has a personal financial interest should recuse him or herself from participating in votes that affect that interest. We suggest a clarification document be prepared for the AMWG and TWG regarding conflicts of interest.

17. Page 11, paragraph five: Western believes that the decision making process within the DOI is not a subject for consideration by the AMP participants. It suffices that we know that AMWG recommendations will be implemented unless the DOI Secretary feels that the recommendations cannot be implemented. Then we want to know that the secretary’s designee will return to the AMWG in a timely manner with an explanation. Secondly, that the secretary’s designee will work toward an agreement/recommendation that can be implemented by DOI.

18. Page 11, last paragraph: Western believes that minority and majority reports be filed within 15 days, be we have no reason to limit the response by DOI. It suffices to have an agreement that a response will be timely, that it will be communicated to the AMWG through the secretary’s designee with a commitment to resolve any disagreements.

19. Page 13, last paragraph: TWG participants should be designated by the stakeholder that he or she represents. The qualifications of the TWG member should be those considered important by the institution that he or she represents.

20. Page 16, first paragraph: See our comment #2 (above).

21. Page 16, paragraph two: please add a recommendation that TWG members may prepare a minority report.
22. Page 17, item #17: The GCMRC should be required to produce a report on each experiment (flow or non-flow) in a timely manner. Further, timely information from the GCMRC research and monitoring programs, should be shared with the TWG and/or appropriate sub-committee prior to peer review, in order facilitate adaptive management. We understand that, in the past, some TWG members have reached inappropriate conclusions when data were shared, prior to peer review. On the other hand, important analysis has not been made available in a timely manner because of the requirement to have peer review completed before sharing reports with the TWG. We believe that there is a middle ground in which TWG members can be provided with analysis, with the caveat that the conclusions are subject to change. Once, peer review is complete, the TWG can be briefed on any changes to the data or conclusions.

23. Page 17, item #17: Not all products require peer review. Elements of the work plan are deliberated between the TWG and GCMRC. The proceeding of workshops and symposia are just descriptions of what happened and who said what.

24. Page 17, item #17: Seminal reports and updates regarding the AMP should be products of the AMP and not specifically products of GCMRC. The GCPA requires a report to Congress. The GCMRC prepare this report without AMP participation. This was inappropriate since it was reporting on the progress of the AMP.

25. Page 17, item #17: See our comment #3 (above). While peer-reviewed final reports are often necessary, the TWG and AMWG need to provide periodic and timely reports from the researchers for adaptive management to be effective. We suggest:
   a. An annual report to the TWG from each PI reporting finding for the most recent field season.
   b. A timely (less than a year) draft report on each experiment for TWG review (flow and non-flow)
   c. The continuation of periodic science symposia.

26. Page 21, item #23: We suggest adding a process for GCMRC consideration of science proposals by AMP participants. Our recent experience using a number of noted scientists in the development a proposal to study the impact of fluctuating flows on the aquatic foodbase indicates that a written process would help GCMRC know how to consider and incorporate such proposals.
Background:
The Grand Canyon Protection Act of 1992 (GCPA) requires that the Secretary [of the U.S. Department of Interior] operate Glen Canyon Dam “in such a manner as to protect, mitigate adverse impacts to, and improve the values for which Grand Canyon National Park and Glen Canyon National Recreation Area were established, . . .”

According to the then Secretary of Interior, the preferred alternative, Record of Decision and subsequent operating criteria are the Secretary’s compliance with the GCPA. “These Operating Criteria are promulgated in compliance with section 1804 of Public Law 102-575, the Grand Canyon Protection Act of 1992.”

The selection of the MLFF alternative was intended to achieve an appropriate “balance”, so that the operation of Glen Canyon Dam would conform to the direction given in the GCPA while remaining in compliance with other legal mandates. Specifically, the legal mandate of the CRSP Act (quoted above); He choose the MLFF “. . . to balance competing interests and to meet statutory responsibilities for protecting downstream resources and producing hydropower . . .”

The concept of “balance” was integral to the selection of this alternative and is repeated in several related documents: “The goal of selecting a preferred alternative was not to maximize benefits for the most resources, but rather to find an alterative dam operating plan that would permit recovery and long-term sustainability of downstream resources while limiting hydropower capability and flexibility only to the extend necessary to achieve recovery and long-term sustainability.” (emphasis, ours).

Since the implementation of new Glen Canyon Dam operating criteria, significant new and contrary scientific information has come to light. Analysis presented to the Adaptive Management Working Group (AMWG) concludes that the anticipated benefits to endangered fish species of the MLFF have not been achieved. This was important news to the AMWG and

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2 Grand Canyon Protection Act of 1992, Sec. 1802 (a)
3 Ibid, Sec. 1802 9 (b)
4 Colorado River Storage Act, 1956
7 Ibid, Section VII. Basis for Decision
initiated the development of a humpback chub comprehensive plan and discussions regarding a long-term experimental plan (LTEP). This, indeed is the raison d’être for the LTEP: to attempt to provide the improvement to the Grand Canyon population of HBC anticipated from the implementation of MLFF while keeping the anticipated “balance” of other resources.
General Comments
The establishment of this ad hoc was in response to discussions at the AMWG retreat in Scottsdale in June 2004. At that meeting, AMWG and TWG members expressed different levels of understanding of their roles and responsibilities.

Overall, the problem with roles and responsibilities is that there is no linear communication from the Secretary’s designee to AMWG to TWG which includes GCMRC. GCMRC is left out of that loop even though GCMRC is the tool that helps AMWG meet the goals of the Grand Canyon Protection Act and the Record of Decision. The GCMRC needs to be included in a linear flow of assignments and accountability. The recommendations in the ad hoc report under #7 still keeps this complicated. If the AMWG passes a motion or makes an assignment, whether consensus or not, it should be accepted by the designee and not vetted through the Department of Interior. Adaptive management needs to be done in real time, and the more complicated the authorities are, the more likely there will be miscommunications and delays.

As part of USGS, GCMRC is reluctant to share research data prior to peer reviews. As a result, there is no real time adaptive management possible. Adaptive Management does not work under the guidelines of science for USGS. As an example, the sediment transport paradigm shift took over two years to make it to the AMWG due to the necessary peer reviews. In the mean time, the program was unknowingly moving sediment downstream. There needs to be some sort of negotiated agreement with the USGS for GCMRC to meet the needs of real time adaptive management.

There are issues that come before the AMWG that appear to be out of scope for the AMP (In and Out issues, e.g. HBC recovery, Lake Powell monitoring and research). The Roles Ad Hoc Group should provide some guidance regarding AMWG/AMP/DOI Designee roles and/or responsibilities in addressing such issues within the program.

Specific Comments
#1 Role, Authority, and Relationships. Resolution, the GCMRC is given too much freedom to make decisions that should be meeting AMWG’s legal responsibilities. Somehow, the decisions made by GCMRC should be recommendations, not decisions. Part of this is covered under #4 Clarity and Workload Concerns resolution, in that if there is a timeframe or workload issues, it can be resolved at AMWG. However, historically the GCMRC has made cuts and decisions outside of meetings and conversations with AMWG and the Secretary’s designee.

#3 Clear timeframe planning. This resolution needs to specify which AMP entity(ies) is responsible for developing this two-year schedule as is done for other resolutions.

#8 Technical Focus. This guidance for resolution needs to be more specific. For example, how does this apply to the budget? Should there be more than one alternative for each funded project or more than one budget? Examples should be provided here for better future interpretation. Also, who will lead and what is the timeframe in light of current efforts to develop of the SSP, CMP, and LTEP?

#10 Core Questions. This resolution should include the development of core monitoring and research questions recently developed by GCMRC, Science Advisors, and the Science Planning Group in pursuing the current foundation document development process.

#12 TWG participation. How does this resolution apply to Tribes, and non-agency participants; are all members created equal?
#14 Communication. The last line of the resolution should correct “aired and resolved” to read “aired and addressed.” The TWG does not have the authority to “resolve” (reference #2, #8, and possibly #11).

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#16, Deliverables. The resolution should be changed to state that the designee will consult with AMWG prior to approving delays or changing schedules.

#17. The last resolution needs to be amended, assuming that the designee and AMWG work in concert.

#18 Relationships and Communication. The resolution should be changed to quarterly updates rather than periodic. This should be provided project-by-project (by budgeted item), not overall expense or by program area. Also, the BAHG needs to be involved in the quarterly updates so they can provide input through the TWG. If a proposal comes in underfunded or excess funded, some how the AMWG should be noticed so they are aware a specific project may not go forward as previously approved, realize another project may be adversely impacted or that there are funds available for redistribution (TWG/AMWG recommendation with GCMRC advice – not a GCMRC decision). The process described (going to the designee and BAHG who then run it by TWG and AMWG) could take up to six months, depending on scheduled meetings. Therefore, this process will not be effective and is unlikely to be used.

#19, Contracting. The definition of “open, competitive process” is different for USGS than normal contracting. USGS sees opening a contract to other agencies as open and competitive, whereas most staff believe this process should be open to any and all consulting companies as well as federal and state agencies, and universities. Please have USGS fully define, in writing, their contracting methods. This resolution does not provide adequate guidance on use of “in-house” research performed by GCMRC staff.

#20, Compliance. USGS does have legal responsibilities for their activities affecting resources in the canyon. There was a recommendation by the Advisory Council on Historic Preservation and the Arizona State Historic Preservation Office (SHPO) to include USGS in the Programmatic Agreement for effects to cultural resources. They should be added as a signatory or should be consulting with the SHPO separately on their activities. Will the Tribal and NPS permitting processes cover the entire scope of Program needs, i.e., are there compliance responsibilities outside of Tribal or Park jurisdiction (e.g. KAS research, upper LCR HBC projects)?

#21, Protocol Evaluation Panels. The resolution should include that GCMRC will create a list of all PEP recommendations indicating which have been implemented and which have not. This is valuable for the AMP to track because the project-specific information, as related to PEP recommendations, is not available.

#22, Communication, under resolution. The time frame to request changes to the AMWG agenda should be clear. This should not just be a request at the previous AMWG meeting, but at the least, an email to all AMWG members, requesting items for the agenda prior to a final agenda. This should be the same recommendation for TWG agendas. At least 5 working days before the agenda is sent out, USBR should request additions/amendments to the proposed agenda.

#23 Programmatic Agreement. The resolution section should include the fact that a cultural resources ad hoc group (CRAHG) was created to help facilitate between the PA signatories and the AMP. Also, the last paragraph is not completely correct. There is a dual proposal, one by USBR contracted with Zuni archaeology, and one by NPS contracted with Northern Arizona University, to mitigate archaeological sites in Grand and Glen canyons. Since they are not joined, it is an ineffective use of time and money. These two separate efforts need to be one to be effective and efficient. How to use which funding source for what application should be a collaborative decision for what best advances the needs of the Program, not a funding agency decision (e.g. NPS fee funding of Furnace Flats recovery – not a dam ops or visitor use issue).
# 25 Follow through. This resolution should more appropriately be tracked and reported by the TWG Chair as it should be the TWG acting on and tracking recommendations to the AMWG/GCMRC that implement Science Advisors’ proposals and recommendations in the Program.

Appendix K. GCMRC activities, sixth bullet. This bullet referencing Bob Snow’s assessment does not provide enough information (mid-paragraph) regarding who can task GCMRC with “certain studies” and if there are limits to that function that facilitate the RFP competitive process and balance economic efficiency with the competitive process commitment.

**Offer for a change in reporting responsibilities based on the Upper Basin Recovery Implementation Program (RIP):**

In order for the Adaptive Management Program (AMP) to be effective and efficient, the GCMRC should take advice and direction from the AMWG within existing laws and regulations. The Secretary of Interior, through the Secretary’s designee, should review the advice and direction and provide further clarifications or changes. However, the GCMRC should be implementing tasks identified by AMWG through motions or an approved budget. If the GCMRC believes the direction or tasks are not implementable due to budget or schedules, they should report that to the AMWG and to the Secretary’s designee.

As a member of the AMWG, we have sometimes been frustrated by the process of making a recommendation to the DOI Secretary. While it seems clear that recommendations by the AMWG are communicated to the Secretary’s representatives in DOI, it isn’t always clear what the ultimate decision will be and how DOI justifies decisions that differ from the AMWG recommendations. Examples of this include: the overwhelming vote by the AMWG to continue the GCMRC as an office of USBR, a vote to do “concurrent sampling:” estimating the population of HBC in two different ways and a conversation (not a vote) by AMWG indicating a that it wanted a different approach on the SCORE report than that advocated by GCMRC. The SCORE report is the most recent and illustrative example of this problem. The SCORE report spawned significant media attention and a law suit. The AMWG should have been more involved in the development and preparation of this document. Certainly, DOI should have paid some attention to the misgivings of AMWG members regarding GCMRC’s approach to this document.

We understand that agencies of the DOI have legal mandates that cannot be delegated or usurped. Yet, a clear process describing the development of a DOI decision that is initiated by or related to an AMWG recommendation would be extremely helpful. Any decisions made by DOI should be brought back to AMWG with an explanation.

We suggest the RIP model. Here, interested stakeholders deliberate and decide on actions and budgets related to the recovery of endangered fish species in the Colorado River in the Upper Basin. Yet the U.S. Fish and Wildlife Service gives up nothing of its legal mandate to this group. The Section 7 agreement outlines how the Service will proceed and discharge its duties under the Endangered Species Act in light of decisions by the RIP. Basically, it has agreed that, in the event the F&WS believes some action, other than that agreed to by the RIP needs to take place, the F&WS will bring a proposal and related information to the RIP. The objective is to reach agreement.

For the AMWG, we propose that the DOI agree to implement an AMWG recommendation unless it finds a legal or other compelling reason not to. In this event, the DOI representative would bring this information to the AMWG with any relevant proposal. The objective would be to reach an agreement.