Memorandum

To: Michael Gabaldón, Secretary’s Designee
Glen Canyon Dam Adaptive Management Program (AMP)

From: AMP Roles Ad Hoc Group
       Denny Fenn, GCMRC
       Dave Garrett, Science Advisors
       Norm Henderson, TWG
       Randy Peterson, AMWG

Date: January 6, 2006

Subject: Report from the Roles Ad Hoc Group

At the August 2004 AMWG meeting, as a result of the AMP Retreat in June 2004, you charged us, the AMWG Roles Ad Hoc Group, to define roles, responsibilities, and functions of the AMWG, TWG, GCMRC, and Science Advisors (SAs).

We forwarded a draft report to you on August 7, 2005. At your direction, later in August, a draft version of this document was forwarded to the AMWG and TWG mailing list for comment. Two TWG members sent in comments. We have reviewed and addressed their comments, and we have responded to them with our responses to their comments.

The attached report contains our final recommendations to you. We believe these recommendations will clarify AMP roles and responsibilities as well as streamline AMP functions. We look forward to hearing from you regarding your acceptance of these recommendations.

Finally, should you accept some or all of these recommendations, there may be a number of implementing actions that need to be taken, such as recommendations for changes to the operating procedures and memoranda to the AMWG or TWG. The Roles Ad Hoc Group is willing to develop recommendations for implementation actions to assist the decision-makers, if you wish us to do so. Please let us know if you want us to proceed.

Thank you for your consideration. We look forward to hearing from you soon.
Report and Recommendations to the Secretary’s Designee

From the Roles Ad Hoc Group of the Glen Canyon Dam Adaptive Management Work Group

January 2006
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Introduction

The attendees of the Glen Canyon Dam Adaptive Management Program retreat in June 2004 identified the most urgent issue facing the AMP: the clarification of roles, responsibilities, and functions of the various program components. At the August 2004 meeting of the Adaptive Management Work Group (AMWG), the Secretary’s Designee formed the Roles Ad Hoc Group, and charged it to define roles, responsibilities, and functions of the AMWG, Technical Work Group (TWG), Grand Canyon Monitoring and Research Center (GCMRC), and Science Advisors (SAs). This report is the fulfillment of that charge.

The Ad Hoc Group was composed of Randy Peterson, Secretary’s Designee’s representative; Norm Henderson, Chair, Technical Work Group; Jeff Lovich, Chief, Grand Canyon Monitoring and Research Center; and Dave Garrett, Executive Director, Science Advisors. Denny Fenn replaced Jeff Lovich when Jeff left his position as GCMRC Chief.

The main body of the report has six sections: AMWG, Secretary’s Designee, TWG, GCMRC, Bureau of Reclamation (BOR or Reclamation), and Science Advisors. Statements of issue or concern are numbered and in bold-faced type. These statements were culled from the issues raised at the 2004 AMP Retreat and from members of the Roles Ad Hoc Group. A Background section sometimes precedes the recommended Resolution. If foundational documents are quoted, the quotes are in Italics. The Appendix contains a review of AMP foundational documents as they inform these questions. A list of References concludes the report.
Adaptive Management Work Group (AMWG)

1. 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. Because of this, 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 they have authority over other State and Federal agencies.

Background
The AMWG Charter makes it clear that AMWG’s role is to make formal recommendations to the Secretary of the Interior:

The committee will provide advice and recommendations to the Secretary of the Interior . . . (Norton, 2004, p. 1).

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

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 workgroups, such as the TWG, with assignments.

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

Subgroups will receive their charges from the AMWG (Gabaldón, 2002, p. 5).

Resolution
Free-flowing discussion and interaction are important to the program, and informal, individual feedback to GCMRC is welcome, particularly when requested. However, GCMRC 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 recommendation that has 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 #7 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 to a recommendation to the Secretary.
2. **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.

   **Background**
   The goal is to have TWG thoroughly discuss all issues that have a technical or scientific component that will come before AMWG. The better job TWG does, the less likely AMWG will need to duplicate their efforts.

   **Resolution**
   See #8 for a description for a new process whereby TWG will review several alternatives, perhaps even some that are technically or scientifically unattractive, and give thorough reports and recommendations on those options to AMWG.

3. **Clear timeframe planning is not apparent.**

   **Resolution**
   A two-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.

4. **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, and will be prepared with a clear understanding of their workload and deadlines so they can respond to AMWG requests. As soon as practical during the meeting, the TWG Chair and GCMRC Chief will review any assignments that involve them and determine if the assignment is clear and the timeframe specified realistic. If there are issues with clarity or timeframe, they will address them during the same AMWG meeting, by reporting concerns to the Secretary’s Designee who will bring them back to the AMWG for resolution. If the issue is timeframe or workload, either the deadline could be extended, or the AMWG could specify what other tasks would be delayed in order for the new task to be completed in the timeframe requested. The Secretary’s Designee will summarize all assignments made at the end of the AMWG meeting to ensure that the responsible entities are fully aware of their charges.

   If questions or concerns arise after the AMWG meeting, the GCMRC Chief or TWG Chair will communicate the issue to the Secretary’s Designee, who will resolve it. If needed, the Secretary’s Designee will determine whether to clarify or make a change, or if the AMWG, a subcommittee, or other body will be involved.

5. **Recommendations are sometimes not consolidated, but instead represent individual, and often diametrically opposed, views of individual stakeholders.**

   **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 generally written on flipchart paper at the front of the room, the language is
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.

See #1 for more information about requirements for direction given to GCMRC.

6. CONFLICT of INTEREST. AMWG members often vote on issues or make budget recommendations where there is a potential conflict of interest.

Resolution
While it would be preferable that stakeholders have no financial interest in AMWG recommendations, in a practical sense this is impossible. To comply with Federal procurement regulations, an approach will be used that is based on that used in the Upper Colorado Recovery Implementation Program:

(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 RFPs to solicit specific monitoring and research proposals to meet program needs (except as noted under #19), and

(3) GCMRC will fund proposals based on an independent peer review and comment process.

The Department of the Interior has recently promulgated new ethics guidelines for FACA committees, and might provide additional ethical guidance in the near future.
7. **PROCESS.** 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.

**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**
The Secretary’s Designee will continue to formally transmit these recommendations to the Secretary within two weeks of the AMWG meeting in which the recommendations were made. Sufficient background information, including any minority reports, will be provided by the Designee to fully inform DOI staff.

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.

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 a 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.

The outcome of these discussions and the final DOI decision will always be conveyed to the AMWG, either formally by letter or by verbal report of the Designee.
Technical Work Group (TWG)

8. TECHNICAL FOCUS. Some believe the TWG demonstrates a lack of focus on truly technical issues, and that their emphasis on policy issues impedes the effectiveness of the group.

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).


Resolution
While TWG’s role is primarily scientific and technical, it is unrealistic to expect that the members of the TWG can disregard policy and political implications of their technical deliberations.

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, perhaps including some that are not technically or scientifically attractive. When making a recommendation to AMWG, all alternatives fully considered and their analyses – including technical pros and cons – will be submitted to the AMWG for its review and consideration. Minority positions will be written and distributed by the advocates for that position, if they wish to do so.

In order to enhance the decision-making process, the GCMRC, TWG, and AMWG will develop a new formal alternatives analysis process, to include both science and policy, and the technical pros and cons, to be part of each TWG analysis and recommendation to AMWG.

9. Some TWG members appear to lack technical training that would enhance their contribution toward success of the group.

Resolution
TWG members should have a technical background sufficient to adequately evaluate scientific proposals and make technical recommendations to the AMWG. 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.

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

Resolution
The TWG defined the core questions when it put the Research Information Needs in sequence order, and the TWG is extending that effort by addressing CMINs and experimental flows.
11. 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 program 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 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 them and protect their interests, as well as address the scientific and technical details of the AMP.
The TWG will focus its work on assignments from AMWG and the responsibilities outlined in the FEIS and the Strategic Plan. In addition, the TWG will be proactive in identifying issues that it should address, and present to AMWG its proposed workplan for approval on an annual or semi-annual basis. In emergencies, when there is no time to consult with the full AMWG, the TWG Chair can request permission from the Secretary's Designee to add an item to the TWG agenda.

12. 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 both attendance at meetings and participation in ad hoc groups.

**Resolution**
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 attend two sequential scheduled TWG meetings, or failure to join and work with at least one ad hoc group each year. The TWG Chair will identify any member who does not fully participate and formally notify the Secretary's Designee and that TWG member's AMWG representative. After review, the Secretary's Designee may cancel membership of the TWG member.

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

13. TWG is sometimes unwilling to make decisions or give recommendations to AMWG, resulting in unconsolidated recommendations to GCMRC representing individual, and often diametrically opposed, views of stakeholders.

**Resolution**
Individual comments, although sometimes requested from an Ad Hoc Group or from GCMRC, are advisory and do not constitute direction to GCMRC. As noted above (see #1), the GCMRC ultimately answers to the Secretary of the Interior, not to the TWG or the AMWG. Direction to individual GCMRC staff members from individual TWG members is not encouraged, and GCMRC is not obligated to respond to these communications. 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.

In order to help the decision-making process, TWG will follow its Operating Procedures (Johnson, 2001) for consensus building and voting. These specify (p. 4) that consensus is the preferred option, but a vote can be taken when consensus is not possible. In addition, TWG will add to its Operating Procedures a provision for a motion to end debate and vote on a motion. This motion to end debate will not be debatable, and will require a two-thirds vote of those voting to pass.

Finally, by developing and publicizing the meeting schedule as discussed under #3, the timeline for decision-making will be clear.

14. COMMUNICATION. It appears that many TWG members do not have regular interaction with their AMWG members, creating information gaps and confusion.

**Resolution**
Both AMWG and TWG members will be reminded by the Secretary’s Designee that they have the responsibility to communicate thoroughly with each other on AMP issues. 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 concerns and needs at the TWG meeting. In addition, AMWG members will be fully informed as to TWG discussions and actions before the next AMWG meeting. This will make it more
likely that the issues are resolved at the TWG level, where the members meet more often, and that concerns of all AMWG members are aired and resolved at TWG meetings, and thus will not need to be revisited at the AMWG meeting.
15. COLLABORATION. 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 collaboration 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 two years have been unusual in having so many ad hoc committees 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 collaborative partner with the AMP agencies, but these agencies must also be sensitive to GCMRC time limitations.

**Resolution**
A common understanding of and sensitivity to the workload issue is vital to continued collaborative efforts. The two-year schedule referred to in #3, that shows the essential items that the AMP must do each year, will assist in managing and planning for 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 #4, which allows the GCMRC to immediately resolve concerns about 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.

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

**Resolution**
GCMRC efforts should 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, perhaps in their strategic science plan. This 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.

GCMRC will develop and recommend to the TWG a completion schedule for each of the 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 agreed-upon 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.

17. 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.
**Resolution**

See #3 for a description of a two-year schedule that will be developed to assist in better timeframe planning by all groups in the AMP.

See #4 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 (see #1).

18. **RELATIONSHIPS and COMMUNICATION.** 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, workplans, and budgets without communicating with AMWG, which has reduced the level of trust between AMP members and GCMRC.

**Background**

It is imperative to the success of the AMP that a positive, affirmative, and accountable relationship exist between GCMRC and the AMWG. If issues of trust have arisen, it is vital that solutions be found that will restore that trust. One of the challenges presented in this regard is the fact that the AMWG only meets three times per year and therefore cannot always address issues quickly. 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 workplan. 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.

**Resolution**

The GCMRC will give periodic updates on its operations and budget to the Secretary’s Designee, AMWG, and TWG, including approved budget amounts, actual costs, and the amount over or under budget. When a proposal comes in enough above the approved budget amount that an approved project(s) cannot be funded, or enough under the budget that an additional project can be funded, GCMRC will consult with the Secretary’s Designee and the Budget Ad Hoc Group (BAHG) and propose a recommended action. The BAHG will develop a recommended action that will be forwarded to the TWG Chair, who will decide whether to involve the full TWG in a formal review. The TWG Chair will communicate the final recommended action to the Secretary’s Designee, TWG, and AMWG. If GCMRC disagrees with the recommendation, the GCMRC Chief will raise the issue with the Secretary’s Designee, who can affirm the recommendation, make a different decision, or consult with TWG, AMWG, or other entities.

19. **CONTRACTING.** The AMWG feels that GCMRC has drifted in recent years from full compliance with the original and long-standing agreement that it use an open, competitive process to award research contracts or to enter into cooperative or interagency agreements for scientific work in support of the AMP. GCMRC acknowledges that competitive procedures were not used in the recent mechanical removal and experimental high flow studies due to time and logistical constraints arising from the time it took to complete the environmental compliance in juxtaposition with when work had to be underway in the field. This was not
intended to be a repudiation or abandonment of the long-term agreement to openly compete much of the scientific work of the AMP.

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

*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).

*Others 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).

Resolution
In general, GCMRC will prepare RFPs and use an open, competitive process for awarding funding, both for new scientific work undertaken and for renewing a contract for the next multi-year phase of ongoing scientific work. These competitive processes will be structured whenever possible to allow Federal and State agencies, including USGS scientists outside of GCMRC, to submit proposals in response to the competitive solicitation. The GCMRC RFP process will be fully explained in a future strategic plan document. 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.).

20. 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 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, ESA, and 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.

21. 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 (PEPs). Therefore, this feedback is not always as clear and definitive as the AMP desires and needs. AMP members want to ensure that the charge to each PEP clearly spells out what is desired and expected from the PEP panel.

Resolution
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.

22. SCIENCE PERFORMED BY OTHER AGENCIES: From time to time, it has been suggested that science support should be obtained through science organizations other than GCMRC. In addition, some AMP stakeholders perform research, monitoring, or management activities that could have an impact, positive or negative, on the AMP and its work, and these activities are not always known to AMWG or the GCMRC.

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 planned and implemented by AMP agencies, tribes, and other collaborators through GCMRC. Some of these agencies, tribes, and collaborators are also conducting expanded independent science. 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 all 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 to GCMRC its issues of concern and jointly develop a plan to resolve those concerns, perhaps through an accelerated timeline of contracted work with external entities.
With regard to science or management activities performed in the CRE 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 these activities in the CRE were shared. Therefore, AMP stakeholders are invited and encouraged to notify the GCMRC Chief of all such activities. Requests for information about these activities will be incorporated into the AMP workplan and budget development process.

Comment: Page: 1
Doesn't make sense if the sentence is "benefit of AMP and the other programs."
23. COMMUNICATION. The Bureau of Reclamation needs to collaborate and coordinate more closely with GCMRC, especially in developing TWG and AMWG agendas, formulating multi-year budget proposals, and tracking financial expenditures and transfers. The Bureau also needs to be open and available to all AMP stakeholders and groups.

Resolution
The solution to this problem is in part addressed 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.

In addition, agendas will be formulated to meet the intent of the AMP strategic plans, including the AMWG strategic plan, the GCMRC strategic science plan and associated science plans, budget and workplans, and other approved planning and operational documents. Specific input for AMWG agendas will be solicited sufficiently in advance to allow complete staff work by the TWG and GCMRC, thus facilitating potential AMWG recommendations. Specifically, the TWG Chair 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, careful consideration of workload planning, option evaluation, and conflict resolution will be a core part of AMWG agenda formulation.

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 email 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.

24. PROGRAMMATIC AGREEMENT. Cultural properties or resources, particularly archeological sites, are affected by numerous factors including dam operations, dam existence, visitor impacts, and natural wind and water erosion. It is difficult or impossible to determine the various causes of individual site erosion to assign responsibility for mitigation or treatment. With respect to determining treatments for adverse effects, it is unclear who makes the decision, what criteria are used in making that decision, and how treatments will be funded. It is also unclear how the Programmatic Agreement (PA) signatories and the AMWG interact and with what respective responsibility.

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).

Resolution
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 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.

It is clear that the PA signatories must work closely with the AMP groups in developing the products required by the PA. 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 the Grand Canyon Protection Act (GCPA).

Recently, Reclamation and the NPS have agreed to work more closely and collaboratively in meeting their NHPA obligations. They are exploring the concept of conjoining their Section 106 responsibilities (Reclamation for effects of dam operations and NPS for effects of permitting visitor use) and of adopting a “no fault” approach to treating sites in the Colorado River Ecosystem that are subject to effects from dam operations and visitor use. This approach would use a combination of NPS appropriations, NPS fee funds, and power revenues to finance treatment for these sites. The accomplishment of this effort is intended to meet both the specific requirements of the PA and the general requirements of the NHPA and GCPA.
Science Advisors (SAs)

25. 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.

Background
The Science Advisors have recognized a trade-off between the number of reviews that is 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.

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

Resolution
The SAs Executive Director and the SAs will annually report to AMP the level of implementation of SA proposals and recommendations. The GCMRC Chief and TWG Chair will review and confirm this report before distribution.

27. 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.

Resolution
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 provide their own perspectives on SA independence in the annual report.

28. AMP REVIEW. Concern exists over timely completion 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.

Resolution
The overall AMP review, although delayed for six months, will be complete by the end of FY 2006. All reviews originally planned for FY 2005 and 2006 will be complete by the close of FY 2006. GCMRC, TWG, the SAs, and the Secretary’s Designee approved these new completion dates. The SAs and the SA Executive Director will continue to follow explicit GCDAMP protocols in rescheduling AMWG assigned reviews.
Appendix: Foundational Document Review

This appendix is the result of a review by the Roles Ad Hoc Group of several foundational documents, to determine if they gave direction on issues of roles, responsibilities, and function. The documents are in the list of references, on the last page of this report.

Each question asked is in bold face type. When one of the documents addressed one of the questions, it is cited and quoted below the appropriate question. Words in italics indicate a direct quote.

A. What is the relationship between AMWG and TWG? How do they interact? How should they?

- **Strategic Plan:** “The Technical Work Group . . . operates at the direction of the Adaptive Management Work Group” (Glen Canyon Dam AMWG, 2002, p. 5).
- **Strategic Plan and FEIS:** A graphic shows a hierarchy with AMWG above TWG. Undefined arrows indicate a two-way flow of something between the two entities (Glen Canyon Dam AMWG, 2002, p. 3; Reclamation, 1995, p. 36).
- **FEIS:** The AMWG would be . . . supported by a . . . technical work group (Reclamation, 1995, p. 36).
- **AMWG Charter:** The Committee may establish such workgroups or subcommittees as it deems necessary for the purposes of compiling information, discussing issues, and reporting back to the AMWG (Norton, 2004, p. 5).
- **AMWG Operating Procedures:** 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).
- **TWG Operating Procedures:** Recommendations to the . . . AMWG will be summarized in report form, will contain relevant background material on the issues, and will include a brief summary of previous discussions related to the issue (e.g., ad hoc group or TWG discussions). Requests for actions associated with a briefing document will be posed as a specific written recommendation that can be approved as written, approved with modification, or not approved (Johnson, 2001, pp. 4-5).

B. Is there a distinction between the “policy” role of AMWG and the “technical” role of TWG? If so, please articulate it. Is that the way it should be?

- **FEIS:** [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).
- **Strategic Plan** (see also Reclamation, 1995, p. 36): Responsibilities of AMWG.
  - Provides the framework for Glen Canyon Dam Adaptive Management Program policy, goals, direction, and priorities;
  - Develops recommendations to the Secretary of the Interior for modifying operating criteria and other resource management actions, policies, or procedures;
  - Facilitates coordination and input from interested parties;
  - Reviews and forwards the annual report to the Secretary of the Interior and his/her designee on current and projected year operations;
  - Reviews and forwards annual budget proposals; and
Ensures coordination of operating criteria changes in the Annual Operating Plan for Colorado River Reservoirs and other ongoing activities (Glen Canyon Dam AMWG, 2002, p. 4).

Strategic Plan: Technical Work Group functions may include (Reclamation 1995:37):
- Developing, with the Grand Canyon Monitoring and Research Center, criteria and standards for monitoring and research programs and providing periodic reviews and updates of these;
- Developing, with the Grand Canyon Monitoring and Research Center, resource management questions (i.e., information needs);
- Reviewing and commenting on the scientific studies conducted or proposed by the program;
- Provide a forum for discussion by Technical Work Group members, external scientists, the public, and other interested persons;
- Providing information as necessary for preparing annual resource reports and other reports as required by the Adaptive Management Work Group; and
- Reviewing strategic plans, annual work plans, long-term and annual budgets, and other assignments from the Adaptive Management Work Group (Glen Canyon Dam AMWG, 2002, p. 5).

C. Does AMWG have a responsibility to provide clear direction to TWG?

AMWG Operating Procedures: Sub-groups [e.g., TWG] will receive their charges from the AMWG (Gabaldón, 2002, p. 5).

AMWG Operating Procedures: Formation. The AMWG may form sub-groups in order to facilitate the mission of the AMWG as identified in the Act and the AMWG Charter. Sub-groups will be formed for completion of specific tasks or for specified periods of time (Gabaldón, 2002, p. 4).

D. Does TWG have any responsibilities beyond responding to the AMWG? If yes, what are they? What should they be?


AMWG Operating Procedures: Sub-groups shall report only to the AMWG (Gabaldón, 2002, p. 5).

TWG Operating Procedures: 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).

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

AMWG Operating Procedures: 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).

Guidance Document: 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).
E. What is the relationship between AMWG and GCMRC? What should it be? How does information flow? Does AMWG have authority over GCMRC? Is guidance given to GCMRC from AMWG general or specific?

- Strategic Plan: The graphic shows a hierarchy with AMWG above GCMRC. It also shows an undefined double arrow that may indicate two-way flow of something (Glen Canyon Dam AMWG, 2002, p. 3).

- FEIS: The AMWG would be . . . supported by a monitoring and research center (Reclamation, 1995, p. 36).

- FEIS: To support the designee and the AMWG, it is recommended that the Secretary establish a research center . . . The center would be responsible for developing the annual monitoring and research plan, managing all adaptive management research programs, and managing all data collected as part of those programs. All adaptive management research programs would be coordinated through the center (Reclamation, 1995, p. 36).

- FEIS: The following specific duties would be assigned to the Monitoring and Research Center:
  - Develop research designs and proposals for implementing monitoring and research identified by the AMWG

- Guidance Document: 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. In doing so, all members of the AMWG are assumed to be equal in importance when voting on recommendations, including federal agencies. 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).

- AMWG Charter: The duties or roles and functions of the AMWG are in an advisory capacity only. They are to:
  a. Establish AMWG operating procedures.
  b. Advise the Secretary in meeting environmental and cultural commitments of the Record of Decision.
  c. Recommend the framework for the AMP policy, goals, and direction.
  d. Define and recommend resource management objectives for development and implementation of a long-term monitoring plan, and any necessary research and studies required to determine the effect of the operation of Glen Canyon Dam on the values for which the Grand Canyon National Park and Glen Canyon National Recreation Area were established . . .
  e. Review and provide input on the report required in Section 1804 (c)(2) of the Act to the Secretary, the Congress, and the Governors of the Colorado River Basin States. The report will include discussion of dam operations, the operation of the AMP, status of resources, and measures taken to protect, mitigate, and improve the resources defined in the Act.
  f. Annually review long-term monitoring data to determine the status of resources and whether the AMP Strategic Plan goals and objectives are being met. If necessary, develop recommendations for modifying the GCDEIS ROD, associated operating criteria, and other resource management actions pursuant to the Grand Canyon Protection Act.
g. Facilitate input and coordination of information from stakeholders to the Secretary to assist in meeting consultation requirements under Section 1804 (c)(3) and 1805 (c) of the Act.


- Memorandum from the Acting Assistant Secretary for Water and Science, March 31, 2000: A DOI Managers Committee composed of the Assistant Secretary for Water and Science or his/her designee, the Director of the U.S. Geological Survey or his/her designee, the Commissioner of the Bureau of Reclamation or his/her designee and the Director of the National Park Service or his/her designee shall provide policy and programmatic guidance to the GCMRC Chief. . . . The Managers Committee shall review the policies and protocols contained in this directive that govern the operations of the GCMRC at least every five years (Schaefer, 2000, p. 3).

F. What is the relationship between TWG and the SAs? What should it be? How does information flow?

- Strategic Plan: Responsibilities of the [independent review] panels include:
  - Reviewing Glen Canyon Dam Adaptive Management Program monitoring and research programs and protocols;
  - Providing reports based on their review to the Grand Canyon Monitoring and Research Center, Technical Work Group, and Adaptive Management Work Group;
  - Making recommendations and providing advice to the Adaptive Management Work Group, Technical Work Group, and Grand Canyon Monitoring and Research Center regarding science activities;
  - Assessing proposed research plans and programs, technical reports and publications, and other program accomplishments; and
  - Conducting five-year reviews of Grand Canyon Monitoring and Research Center monitoring and research protocols (Glen Canyon Dam AMWG, 2002, p. 6).

- FEIS: Responsibilities of this [independent] review panel would include:
  - Annual review of the monitoring and research program
  - Technical advice as requested by the center or AMWG
  - Five-year review of monitoring and research protocols (Reclamation, 1995, p. 38).

- Strategic Plan and FEIS: The graphic shows a hierarchy with GCMRC at an equal level to TWG, both below AMWG, and with a double arrow between the GCMRC and TWG. The arrow is undefined but seems to indicate two-way flow of something (Glen Canyon Dam AMWG, 2002, p. 3; Reclamation, 1995, p. 36).

- Science Advisors Operating Protocols: ...the Scientific [sic] Advisors will be asked not only to evaluate “. . . whether the best methods are used . . .” but also to evaluate “. . . whether the best questions are being asked” (Garrett, 2004, p. 2). It appears to be part of the TWG’s responsibility to develop the questions: Developing, with the Grand Canyon Monitoring and Research Center, resource management questions (i.e., information needs)(Glen Canyon Dam AMWG, 2002, p.5).

- Science Advisors Operating Protocols: The Scientific [sic] Advisors will provide technical advice and scientific oversight, upon request, in writing to the AMWG, the GCMRC, and/or the Secretary; with copies to the TWG (Garrett, 2004, p. 3).

- Science Advisors Operating Protocols: The protocols specify that AMWG will approve a 24-month schedule of reviews by the Science Advisors every year. They go on to say, This does not preclude review requests from GCD AMP parties after AMWG approval of the Science Advisors Annual Program of Work (Garrett, 2004, p. 4).
Science Advisors Operating Protocols: Several roles for TWG leaders are outlined, as follows:

- The Science Advisors or Executive Secretary are to present to the Secretary’s Designee, AMWG Chair, GCMRC Chief and TWG Chair 30 days prior to the AMWG budget meeting a verbal and written annual report of accomplishments including specific documentation of all formal activities of the Advisors . . . (Garrett, 2004, p. 5).

- The Chief of the GCMRC, TWG Chair, and Executive Secretary of the Science Advisors are responsible for providing all necessary inputs to the Chair of the AMWG 30 days prior to the annual budget meeting to permit development of the new Science Advisors charge (Garrett, 2004, p. 4).

- Science Advisor review requests identified after the annual review program is approved by AMWG, will be provided to the GCMRC Chief, who will request the review from the Executive Secretary. The Executive Secretary is to notice immediately the AMWG Chair (Secretary Designee), the TWG Chair, the TWG Budget Committee Chair, and the GCMRC Chief of the objectives of the review request, its potential Science Advisor time requirement, and its potential impact on the AMWG approved Annual Review Program. Should issue(s) exist regarding the review with the TWG Chair, TWG Budget Chair or GCMRC Chief, a conference call is to be held immediately to resolve the issue(s). If the issue(s) cannot be resolved, the Secretary’s Designee is to be consulted by the group, to decide if the review should be conducted (Garrett, 2004, pp. 4-5).

G. What is the role of GCMRC in the Adaptive Management Program? Specifically, is GCMRC the sole source of scientific research for the program?

- FEIS: All adaptive management research programs would be coordinated through the center (Reclamation, 1995, p. 36).

- 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).

- Strategic Plan: Technical Work Group functions may include (Reclamation 1995:37):
  - Developing, with the Grand Canyon Monitoring and Research Center, criteria and standards for monitoring and research programs and providing periodic reviews and updates of these;
  - Developing, with the Grand Canyon Monitoring and Research Center, resource management questions (i.e., information needs);
  - Reviewing and commenting on the scientific studies conducted or proposed by the program;
  - Provide a forum for discussion by Technical Work Group members, external scientists, the public, and other interested persons;
  - Providing information as necessary for preparing annual resource reports and other reports as required by the Adaptive Management Work Group; and
  - Reviewing strategic plans, annual work plans, long-term and annual budgets, and other assignments from the Adaptive Management Work Group (Glen Canyon AMWG, 2002, p. 5).

- Strategic Plan: 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).

H. Is the role of AMWG executive and advisory, or more that of a Board of Directors? Specifically, into how much detail should the AMWG delve in developing its
recommendations? Is this related to how much detail the TWG and GCMRC address in their recommendations to AMWG?

- **Strategic Plan:** Responsibilities of AMWG:
  - Provides the framework for Glen Canyon Dam Adaptive Management Program policy, goals, direction, and priorities;
  - Develops recommendations to the Secretary of the Interior for modifying operating criteria and other resource management actions, policies, or procedures;
  - Facilitates coordination and input from interested parties;
  - Reviews and forwards the annual report to the Secretary of the Interior and his/her designee on current and projected year operations;
  - Reviews and forwards annual budget proposals; and
  - Ensures coordination of operating criteria changes in the Annual Operating Plan for Colorado River Reservoirs and other ongoing activities (Glen Canyon Dam AMWG, 2002, pp. 3-4).

- **AMWG Charter:** The duties or roles and functions of the AMWG are in an advisory capacity only. They are to:
  a. Establish AMWG operating procedures.
  b. Advise the Secretary in meeting environmental and cultural commitments of the Record of Decision.
  c. Recommend the framework for the AMP policy, goals, and direction.
  d. Define and recommend resource management objectives for development and implementation of a long-term monitoring plan, and any necessary research and studies required to determine the effect of the operation of Glen Canyon Dam on the values for which the Grand Canyon National Park and Glen Canyon National Recreation Area were established. . .
  e. Review and provide input on the report required in Section 1804 (c)(2) of the Act to the Secretary, the Congress, and the Governors of the Colorado River Basin States. The report will include discussion of dam operations, the operation of the AMP, status of resources, and measures taken to protect, mitigate, and improve the resources defined in the Act.
  f. Annually review long-term monitoring data to determine the status of resources and whether the AMP Strategic Plan goals and objectives are being met. If necessary, develop recommendations for modifying the GCDEIS ROD, associated operating criteria, and other resource management actions pursuant to the Grand Canyon Protection Act.
  g. Facilitate input and coordination of information from stakeholders to the Secretary to assist in meeting consultation requirements under Section 1804 (c)(3) and 1805 (c) of the Act.

- **FEIS:** The following specific duties would be assigned to the Monitoring and Research Center:
  - Develop research designs and proposals for implementing monitoring and research identified by the AMWG . . . (Reclamation, 1995, p. 37).

- **AMWG Charter:** The AMWG will facilitate the AMP, recommend suitable monitoring and research programs, and make recommendations to the Secretary (Norton, 2004, p. 1).

- **Federal Advisory Committee Act** The Congress further 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)).
FACA Regulations (41 CFR Part 102-3.95):

Agencies are encouraged to apply the following principles to the management of their advisory committees:

(a) Provide adequate support. Before establishing an advisory committee, agencies should identify requirements and assure that adequate resources are available to support anticipated activities. Considerations related to support include office space, necessary supplies and equipment, Federal staff support, and access to key decisionmakers.

(b) Focus on mission. Advisory committee members and staff should be fully aware of the advisory committee's mission, limitations, if any, on its duties, and the agency's goals and objectives. In general, the more specific an advisory committee's tasks and the more focused its activities are, the higher the likelihood will be that the advisory committee will fulfill its mission.

(c) Follow plans and procedures. Advisory committee members and their agency sponsors should work together to assure that a plan and necessary procedures covering implementation are in place to support an advisory committee's mission. In particular, agencies should be clear regarding what functions an advisory committee can perform legally and those that it cannot perform.

(d) Practice openness. In addition to achieving the minimum standards of public access established by the Act and this part, agencies should seek to be as inclusive as possible. For example, agencies may wish to explore the use of the Internet to post advisory committee information and seek broader input from the public.

(e) Seek feedback. Agencies continually should seek feedback from advisory committee members and the public regarding the effectiveness of the advisory committee's activities. At regular intervals, agencies should communicate to the members how their advice has affected agency programs and decisionmaking (Federal Register, 2001, pp. 37740-37741).

I. What are the technical expectations of TWG? Is the TWG confined to technical issues, or is it also to address the political and policy issues of the program? Should there be a technical requirement for TWG membership?

- Strategic Plan: The Technical Work Group is comprised of technical representatives of Adaptive Management Work Group members (Glen Canyon Dam AMWG, 2002, p. 5).

- Strategic Plan: The Technical Work Group’s main function is to provide technical assistance to the Adaptive Management Work Group. Technical Work Group functions may include (Reclamation 1995:37):
  - Developing, with the Grand Canyon Monitoring and Research Center, criteria and standards for monitoring and research programs and providing periodic reviews and updates of these;
  - Developing, with the Grand Canyon Monitoring and Research Center, resource management questions (i.e., information needs);
  - Reviewing and commenting on the scientific studies conducted or proposed by the program;
  - Provide a forum for discussion by Technical Work Group members, external scientists, the public, and other interested persons;
  - Providing information as necessary for preparing annual resource reports and other reports as required by the Adaptive Management Work Group; and
  - Reviewing strategic plans, annual work plans, long-term and annual budgets, and other assignments from the Adaptive Management Work Group (Glen Canyon Dam AMWG, 2002, p. 5).

- TWG Operating Procedures: The TWG shall perform those tasks charged to them by the AMWG (Johnson, 2001, p.1).
J. How are work products completed? Is there a typical or normal way that work product
development flows through the four entities? If so, what is it? Is that the way it should be?
How, if at all, does AMWG / TWG / GCMRC / SAs assist the other three in doing their work?

- FEIS: 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.
  These would then be used by the [monitoring and research] center in developing appropriate
  monitoring and research (Reclamation, 1995, p. 37).

- FEIS: The following specific duties would be assigned to the Monitoring and Research Center:
  - Develop research designs and proposals for implementing monitoring and research identified
    by the AMWG . . . (Reclamation, 1995, p. 37).

- TWG Operating Procedures: Recommendations to the . . . AMWG will be summarized in report
  form, will contain relevant background material on the issues, and will include a brief summary of
  previous discussions related to the issue (e.g., ad hoc group or TWG discussion). Requests for
  actions associated with a briefing document will be posed as a specific written recommendation
  that can be approved as written, approved with modification, or not approved (Johnson, 2001, pp.
  4-5).

- TWG responsibilities, per Strategic Plan (the first, second, and fifth bullets are also in
  Reclamation, 1995, p. 37, with slight changes):
  - Developing, with the Grand Canyon Monitoring and Research Center, criteria and standards
    for monitoring and research programs and providing periodic reviews and updates of these;
  - Developing, with the Grand Canyon Monitoring and Research Center, resource management
    questions (i.e., information needs);
  - Reviewing and commenting on the scientific studies conducted or proposed by the program;
  - Provide a forum for discussion by Technical Work Group members, external scientists, the
    public, and other interested persons;
  - Providing information as necessary for preparing annual resource reports and other reports
    as required by the Adaptive Management Work Group; and
  - Reviewing strategic plans, annual work plans, long-term and annual budgets, and other
    assignments from the Adaptive Management Work Group (Glen Canyon Dam AMWG, 2002,
    p. 5).

- GCMRC responsibilities, per Strategic Plan:
  - Advocate quality, objective science, and the use of that science in the adaptive management
    decision process;
  - Provide scientific information about resources in the Colorado River ecosystem;
  - Support the Secretary of the Interior’s Designee and the Adaptive Management Work Group
    in a technical advisory role;
  - 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;
  - Coordinate review of the monitoring and research program with independent review panels;
  - Coordinate, prepare, and distribute technical reports and documentation for review and as
    final products;
  - Prepare and forward technical management recommendations and annual reports, as
    specified in Section 1804 of the Grand Canyon Protect Act, to the Technical Work Group;
Manage data collected as part of the Adaptive Management Program and serve as a repository for other information about the Colorado River ecosystem;

- Administer research proposals through a competitive contract process, as appropriate;
- Develop, with the Technical Work Group, criteria and standards for monitoring and research programs; and
- Develop, with the Technical Work Group, resource management questions (i.e., information needs).

Produce the State of the Colorado River Ecosystem Report (Glen Canyon Dam AMWG, 2002, pp. 5-6).

- AMWG responsibilities, per Strategic Plan:
  - Provides the framework for Glen Canyon Dam Adaptive Management Program policy, goals, direction, and priorities;
  - Develops recommendations to the Secretary of the Interior for modifying operating criteria and other resource management actions, policies, or procedures;
  - Facilitates coordination and input from interested parties;
  - Reviews and forwards the annual report to the Secretary of the Interior and his/her designee on current and projected year operations;
  - Reviews and forwards annual budget proposals; and
  - Ensures coordination of operating criteria changes in the Annual Operating Plan for Colorado River Reservoirs and other ongoing activities. (Glen Canyon Dam AMWG 2002, p. 4).

- Memorandum from the Acting Assistant Secretary for Water and Science, March 31, 2000: The annual budget for funds provided through the Bureau of Reclamation for activities of the GCMRC shall be proposed by the GCMRC Chief with the concurrence of the Director of the USGS and the Commissioner of the Bureau of Reclamation, and after consultation with the Adaptive Management Work Group (Schaefer, 2000, p. 3).

K. For GCMRC, please address conducting synthesis vs. collecting data, and contracting out vs. self-performing.

- FEIS: The center would be responsible for developing the annual monitoring and research plan, managing all adaptive management research programs, and managing all data collected as part of those programs. All adaptive management research programs would be coordinated through the center (Reclamation, 1995, p. 36).

- Memorandum from Deputy Assistant Secretary for Water and Science, November 9, 1995: The Center, co-located with the USGS facility in Flagstaff, Arizona, 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).

- Memorandum from the Acting Assistant Secretary for Water and Science, March 31, 2000: The GCMRC shall be composed of an appropriately sized staff of administrative and scientific personnel with relevant scientific and technical expertise. The staff shall be composed of permanent, term, and temporary employees, as appropriate; program staff shall be employees or contractors of the USGS. In addition, the GCMRC may use post-doctoral appointments and detailees to complete its staffing needs.
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).

- Strategic Plan, GCMRC responsibilities: 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).

- FEIS: To support the designee and the AMWG, it is recommended that the Secretary establish a research center . . . with a small permanent staff in Flagstaff, Arizona (Reclamation, 1995, p. 36).

- Minutes, October 2004 AMWG meeting: Bob Snow (Washington Solicitor’s Office) was brought into the meeting via speakerphone. Bob reviewed his understanding of the concerns brought up by Bruce Taubert at the April 2004 AMWG meeting. In that meeting Bruce questioned 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. Once and if the Dept. chooses non-Federal entities to take on that research, then a number of procedural regulatory and statutory provisions apply, such as the Federal Acquisition Regulations (FAR), etc., but they haven’t been able to find anything that would indicate that the mere existence of a FACA committee pursuant to a charter would change the Secretary’s ability to task research internally. They also haven’t seen anything that gives rise to a conflict of interest and so the fundamental conclusion is that this is not a conflict of interest set of issues. Bob said he hasn’t gone over to the Government Services Administration (GSA) or the Department of Justice to see if the same issues are being treated differently elsewhere within the Executive Branch (Glen Canyon Dam AMWG, 2004, p. 10).

- FACRA Regulations (41 CFR Part 102-3, Appendix A to Subpart C)
  Key Points and Principles: IV. Agency heads are responsible for ensuring that the interests and affiliations of advisory committee members are reviewed for conformance with applicable conflict of interest statutes and other Federal ethics rules.

  Section: 102-3.105(h)
   Questions:
   1. Are all advisory committee members subject to conflict of interest statutes and other Federal ethics rules?
   2. Who should be consulted for guidance on the proper application of Federal ethics rules to advisory committee members?

   Guidance:
   A. The answer to question 1 is no. Whether an advisory committee member is subject to Federal ethics rules is dependent on the member’s status. The determination of a member’s status on an advisory committee is largely a personnel classification matter for the appointing agency. Most advisory committee members will serve either as a “representative” or a “special Government employee” (SGE), based on the role the member will play. In general, SGEs are covered by regulations issued by the U. S. Office of Government Ethics (OGE) and certain conflict of interest statutes, while representatives are not subject to these ethics requirements.

   B. The answer to question 2 is the agency’s Designated Agency Ethics Official (DAEO), who should be consulted prior to appointing members to an advisory committee in order to apply Federal ethics rules properly (Federal Register, 2001, p. 37744).
FEIS: The follow specific duties would be assigned to the Monitoring and Research Center:

- Develop research designs and proposals for implementing monitoring and research identified by the AMWG
- Manage all monitoring and research on resources affected by dam operations
- Manage and maintain the GCES information data base, monitoring and research programs, and other data sources as appropriate
- Administer research proposals through a competitive contract process, as appropriate
- Coordinate, prepare, and distribute technical reports and documentation for review and as final products
- Coordinate review of the monitoring and research program with the independent review panel(s)
- Prepare and forward technical management recommendations and annual reports, as specified in section 1804, to the AMWG (Reclamation, 1995, p. 37)

L. What is the relationship of the AMWG / TWG / GCMRC / SAs with the Programmatic Agreement and its signatories? What should it be?

- FEIS: 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).
- Record of Decision: 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).
- Guidance Document: 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).

M. How are formal recommendations of the AMWG formally transmitted to the Secretary of the Interior? How do responses to these recommendations occur?

- FACA Regulations (41 CFR Part 102-3.120):
  Sec. 102-3.120 What are the responsibilities and functions of a Designated Federal Officer (DFO)?

  *The agency head or, in the case of an independent Presidential advisory committee, the Secretariat, must designate a Federal officer or employee who must be either full-time or...*
permanent part-time, to be the DFO for each advisory committee and its subcommittees, who must:
(a) Approve or call the meeting of the advisory committee or subcommittee;
(b) Approve the agenda, except that this requirement does not apply to a Presidential advisory committee;
(c) Attend the meetings;
(d) Adjourn any meeting when he or she determines it to be in the public interest; and
(e) Chair the meeting when so directed by the agency head (Federal Register, 2001, p. 37741).

FACA Regulations (41 CFR Part 102-3.95):
Agencies are encouraged to apply the following principles to the management of their advisory committees:

(e) Seek feedback. Agencies continually should seek feedback from advisory committee members and the public regarding the effectiveness of the advisory committee's activities. At regular intervals, agencies should communicate to the members how their advice has affected agency programs and decisionmaking (Federal Register, 2001, p. 37740-37741).
References

Deputy Assistant Secretary for Water and Science. (November 9, 1995). Establishment of the Grand Canyon Monitoring and Research Center. Memorandum to Director, U.S. Geological Survey; Acting Commissioner, Bureau of Reclamation; and Chairperson, Glen Canyon Dam Transition Work Group.


