Memorandum

To: Members and Alternates
   Glen Canyon Dam Adaptive Management Work Group

From: Deputy Secretary Lynn Scarlett

Subject: Response to Adaptive Management Work Group Recommendations

The Glen Canyon Dam Adaptive Management Work Group last met December 5-6, 2006. At that meeting a number of recommendations were made to the Secretary of the Interior. These recommendations have been considered by the appropriate Departmental officials. The attached document provides responses on behalf of the Secretary to those recommendations.

Attachment

cc: Rick Gold, Alternate Secretary’s Designee
    Jim Cason, Acting Assistant Secretary - Policy, Management and Budget
    David Verhey, Acting Assistant Secretary – Fish and Wildlife and Parks
    Carl Artman, Assistant Secretary - Indian Affairs
    Dale Hall, Director, Fish and Wildlife Service
    Mary Bomar, Director, National Park Service
    Bob Johnson, Commissioner
    Brenda Burman, Deputy Commissioner, External and Intergovernmental Affairs
    Mark Myers, Director, U.S. Geological Survey
    John Hamill, Chief, Grand Canyon Monitoring and Research Center
    Kurt Dongoske, Chair, Technical Work Group
    Dave Garrett, Chair, Science Advisors
    Mary Orton, Facilitator, Adaptive Management Work Group
    Technical Work Group Members
AMWG Recommendations and Responses from the Secretary of the Interior
December 5-6, 2006 AMWG Meeting

*AMWG Recommendation 1*: Recommend to the Secretary of the Interior to accept the GCMRC Strategic Science Plan dated October 27, 2006.

*DOI Response 1*: Approved.

*AMWG Recommendation 2*: AMWG approves the Monitoring and Research Plan (MRP) as a working document to help guide preparation of the FY08-09 Workplan and budget, and recommends to the Secretary of the Interior that the GCMRC be charged with (1) addressing the concerns listed in the TWG Minority Report in a final FY07-11 document, and (2) bringing that document to the AMWG for further consideration in summer 2007.

*DOI Response 2*: The Department concurs with this recommendation. To expedite this process GCMRC should evaluate and address the concerns identified in the TWG Minority Report, identify proposed changes to the TWG for their concurrence, and, upon receiving concurrence, submit the revised MRP to AMWG at their summer 2007 meeting so that the FACA committee can fully consider it as a potential recommendation to the Department.

*AMWG Recommendation 3*: AMWG recommends that the Secretary of the Interior consider the following scope in developing the Long Term Experimental Plan EIS:

The alternatives should maintain the balance of benefits to all resources as described in the ROD of the Glen Canyon Dam EIS, while focusing on humpback chub and sediment resources. Insofar as they are consistent with this balance and focus, the elements of the alternatives should:

- include a range of flow events, patterns, and timing
- include non-flow experiments
- be based on credible science planning
- maximize hydropower capacity and flexibility to the extent possible
- address tribal and cultural resources.

The experiments in the plan should be of adequate (but not excessive) duration to allow the determination of actions needed to sustain and, where possible, improve key resources and the balance of benefits to all resources.

The AMWG also forwards to the Secretary for consideration, four options\(^1\) and the Modified Low Fluctuating Flow regime from the Glen Canyon Dam EIS ROD, as examples of mixtures of flow and non-flow experiments that have been rigorously debated within the Glen Canyon Dam Adaptive Management Program.

\(^1\)GCMRC, 2006, Assessment of the Estimated Effects of Four Experimental Options on Resources below Glen Canyon Dam, table E.1, page 3. USGS, Flagstaff.

*DOI Response 3*: As formally noticed in the Federal Register on November 6, 2006, the Department has commenced a NEPA process, including preparation of an Environmental
AMWG Recommendations and Responses from the Secretary of the Interior
December 5-6, 2006 AMWG Meeting

Impact Statement, regarding the development of a Long Term Experimental (LTEP) Plan (see also Federal Register notice of December 12, 2006). A key aspect of this process includes the work of 16 cooperating agencies who are assisting in the development of the EIS. These cooperators are: Arizona Department of Water Resources, Arizona Game and Fish Department, Bureau of Indian Affairs, Colorado Water Conservation Board, Hopi Tribe, Hualapai Tribe, Kaibab Band of Paiute Indians, National Park Service, New Mexico Interstate Stream Commission, Pueblo of Zuni, U.S. Fish and Wildlife Service, U.S. Geological Survey, Upper Colorado River Commission, Utah Associated Municipal Power Systems, Utah Department of Natural Resources and Western Area Power Administration.

Public scoping has been completed and a public scoping report was issued in March 2007.

With respect to the five elements recommended by AMWG for inclusion in the LTEP alternatives, while the Department has not made any final determination as to the range of alternatives that will be analyzed in the EIS, the Department fully anticipates that the five recommended factors will be considered when designing the suite of alternatives in the EIS.

As the Department previously committed to in its November 6, 2006, Federal Register notice, the AMWG-developed four options will be fully considered in the development of alternatives. The cooperating agencies, with public input through the scoping process, have developed and prioritized a set of core questions and hypotheses, which have been provided to scientists for development of experimental designs that will be incorporated into the EIS alternatives. Additional information on the core questions and hypotheses can be found in the Scoping Report for the Glen Canyon Dam Long-Term Experimental Plan EIS at the following internet site: http://www.usbr.gov/uc/rm/gcdltep/index.html.

Alternatives will have the dual objectives of producing scientific answers to key resource management questions and protecting resources in Glen and Grand canyons in the context of project purposes and affected downstream resources. Our current expectation is that the Department will develop a range of alternatives for analysis this spring and that a Draft EIS will be published by winter 2008.

AMWG Recommendation 4: AMWG recommends to the Secretary of the Interior to charge GCMRC to develop a science plan for a BHBF that addresses the concerns raised at the AMWG meeting on December 6, 2006, and AMWG further charges the TWG to work with GCMRC to review the Draft Science Plan and make a recommendation to the AMWG.

DOI Response 4: As the members of the AMWG are aware, a significant amount of work and attention has been focused on this recommendation since the December 2006, AMWG meeting held in Tempe, AZ. At the direction of the Secretary, the Secretary’s Designee, Assistant Secretary Mark Limbaugh, worked with the members of the AMWG and the relevant Interior agencies to fully review the potential for a 2007 BHBF and the further development of science plans for future BHBF operations.

While high flow events are the only mechanism to redeposit sediment on Grand Canyon beaches, the Adaptive Management Program has not yet addressed the long-term sustainability of beaches
AMWG Recommendations and Responses from the Secretary of the Interior
December 5-6, 2006 AMWG Meeting

using these releases in conjunction with Paria River and Little Colorado River sediment inputs. Critical to this phase of the AMP is the inclusion of BHBF testing as part of the ongoing development of a long-term experimental plan.

Consistent with this recommendation, GCMRC has been actively working to further refine its science plan for a BHBF, which will then be reviewed by the TWG and provided to the AMWG for its further consideration. Further details on the Department’s consideration of the issues raised by this recommendation were thoroughly discussed in a memorandum to Adaptive Management Work Group members from Assistant Secretary Limbaugh dated February 2, 2007.

**AMWG Recommendation 5:** AMWG recommends that the Secretary of the Interior approve as final the content of the public outreach website at [www.gcdamp.gov](http://www.gcdamp.gov); and that the Secretary approve the proposed Website Modification Process for determining what future content or materials for posting to the site need AMWG review and approval; and that the Secretary approve the following five fact sheets as final for public distribution:

1. Lees Ferry Trout Fishery
2. Historical Native Fishes of Glen and Grand Canyons
3. Glen Canyon Dam Temperature Control Device
4. Endangered Species
5. Sand Bars in the Grand Canyon Recovery Implementation Program

**DOI Response 5:** Approved.

**AMWG Recommendation 6:** Because the lack of a recovery program for the humpback chub is impeding the progress of the GCDAMP, AMWG recommends that the Secretary of the Interior charge the Fish and Wildlife Service to lead the development of a Lower Colorado River fish recovery implementation program (LCRRIP), to include the humpback chub in Marble and Grand canyons, by the end of 2008.

**DOI Response 6:** The Department recognizes the importance of efforts that will assist in the conservation of the endangered humpback chub, and agrees with the need for achieving recovery of humpback chub throughout its geographic range. The Department also recognizes that while GCDAMP efforts undertaken pursuant to AMWG recommendations, such as the non-native removal efforts since 2002, have contributed to the stabilization of the humpback chub population in the Grand Canyon, further efforts beyond that of the GCDAMP are desirable. The principal reason for this is that recovery of the humpback chub exceeds the limited authority and role of the GCDAMP, which pursuant to its charter, serves as an advisory committee on the operation of Glen Canyon Dam, and related actions.

Consistent with the goal of the AMWG recommendation, and based on input from the DOI Policy Group, the Department has instructed the Fish and Wildlife Service to take the lead in developing a recovery implementation program for the humpback chub population in Grand Canyon. We believe that this effort should be prioritized and we anticipate considering similar efforts for other endangered Colorado River fish after an appropriate effort to assist in recovery of the humpback chub program has been developed. The recovery implementation program is
AMWG Recommendations and Responses from the Secretary of the Interior  
December 5-6, 2006 AMWG Meeting  

not intended to displace the GCDAMP or the Lower Colorado River Multispecies Conservation Program, but rather complement the efforts of these programs in areas of endeavor beyond their scope or authority. We have asked that by September 2007, the Fish and Wildlife Service provide feedback to the AMWG on a timeline, scope, and development of an outreach program to potentially involved stakeholders, the GCDAMP and LCRMSCP, and will have reported their findings back to the DOI Policy Group. The Service also will identify any information needs to develop the recovery implementation program that they believe should be addressed through the Long-term Experimental Plan EIS process.

AMWG Recommendation 7: The AMWG recommends that the Secretary of the Interior support development of refuges to assist in the conservation of the Grand Canyon population of humpback chub. Developing these refuges needs to be a collaborative effort, among the actions taken for this conservation. Further development and operation of refuges should be led under the auspices of a lower Colorado River fish recovery implementation program when this program is underway.

DOI Response 7: The Department agrees that a recovery implementation program, as is identified in the response to AMWG recommendation 6, is the proper mechanism for addressing the need for refuges in the Lower Basin. While a recovery implementation program is being established, emphasis should be placed on humpback chub translocation, range expansion, and refuge planning and operational establishment efforts currently either in planning stages or already underway.

AMWG Recommendation 8: AMWG approves and accepts the Science Advisors' FY 2007-2008 Review and Advisory Services Program as presented.

DOI Response 8: Approved.