



# United States Department of the Interior

OFFICE OF THE SECRETARY  
Washington, D.C. 20240

## MEMORANDUM

To: Members  
Glen Canyon Dam Adaptive Management Work Group

From: Mark Limbaugh, Assistant Secretary – Water and Science  
Secretary's Designee for the Glen Canyon Dam Adaptive Management Work Group

*Mark Limbaugh* FEB 02 2007

Subject: Glen Canyon Dam Adaptive Management Work Group

This letter is intended to provide an update regarding our efforts to address one of the agenda items and recommendations that was discussed at our most recent Adaptive Management Work Group (AMWG) meeting held in Tempe, Arizona on December 5-6, 2006.

As you all will recall, AMWG consideration and discussion of a potential January-March 2007 BHBF first took place during the AMWG meeting on September 6, 2006. In that meeting, the AMWG did not endorse the concept of a BHBF in 2007 and noted that the AMWG's Technical Work Group (TWG) had not recommended a BHBF in 2007. Sediment-enriched conditions in Marble and Grand Canyons were noted during that meeting. Subsequently, the TWG met and reconsidered the potential for a spring 2007 BHBF during meetings held in Phoenix on November 8-9, 2006. The TWG recommended that a BHBF be conducted subject to review and approval of a BHBF science plan by the AMWG.

During the Tempe meeting in December, the AMWG was presented with a motion which recommended 1) the Grand Canyon Monitoring and Research Center (GCMRC) develop a science plan for a BHBF, 2) the GCMRC address concerns articulated at the December AMWG meeting, 3) the TWG work with the GCMRC to review the Draft science plan for the proposed BHBF, and 4) all such work be completed in advance of an anticipated January 2007 AMWG Committee meeting via conference call. The AMWG rejected this motion by a vote of 12-7, with three members abstaining.<sup>1</sup> Following the vote, an alternative motion was offered, seconded and passed which recommended further BHBF planning by GCMRC, but without the specific target date identified in the motion that failed to garner a majority of the AMWG.

Since the December AMWG meeting, further BHBF science planning has been prepared by GCMRC, there have been a number of continued expressions of support for a Spring 2007 BHBF, and we have had numerous discussions within the Department on this issue. In addition, consistent with ¶ 11 of the AMWG's Operating Procedures and due to the limited timeframe to address a potential Spring 2007 BHBF, I have discussed this issue in informal phone calls with

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<sup>1</sup> While not able to vote during the December AMWG Meeting, the Hopi Tribe indicated in a January 10, 2007 letter that, had it been able to vote, it would have supported the motion and believes it is important to undertake a BHBF this spring.

nearly all of the members of the AMWG in order to better understand the viewpoints of each member. No clear consensus to pursue a BHBF this spring emerged from those calls and I committed to promptly convey the outcome of our consideration of this issue. Accordingly, this letter explains the Department's decision regarding a potential 2007 BHBF, as well as our ongoing planning efforts for BHBFs in the future.

The AMWG's recommendations, while not binding on the Department, do carry considerable weight, especially those recommendations that represent a consensus of the AMWG members. Here, in the absence of consensus, I have discussed these issues with my colleagues at the Department and from the Interior agencies that participate on the AMWG. One common theme that emerged from these discussions is that the DOI agencies all recognized the benefit of adopting a long-term plan for experimentation. Another theme was the need for a peer-reviewed, BHBF science plan that has had the benefit of both TWG and full AMWG consideration.

The ephemeral nature of the significant and important sand inputs from the Paria River certainly make this a difficult decision. While many, if not all, AMWG members appreciate the function and need for additional BHBFs in the future, there were several important questions raised by AMWG members regarding the appropriate antecedent and subsequent flow conditions, timing, magnitude and duration of high flows, impacts on non-sediment resources, and monitoring protocols to document the results of a BHBF. Thorough AMWG review of the BHBF science plan would allow a more complete opportunity to address these questions. In addition, some AMWG members expressed views that indicate that they do not fully understand the results and recommendations from the November 2004 high-flow BHBF experiment. While DOI and external scientists have briefed the TWG on such results, more work is needed to ensure that all the AMWG members have a comprehensive understanding of that important experiment.

If a BHBF were pursued at this time, it would require that certain actions in GCMRC's FY 2007 work plan, recommended by the AMWG, be delayed or canceled. Importantly, at the December 2006 AMWG meetings, GCMRC noted the difficulty of pulling together the needed compliance,<sup>2</sup> contractual and logistical elements in the limited time before initiation of the proposed experiment. While it is likely that such efforts could be completed within that limited timeframe, it became clear that hurried pursuit of a BHBF in the next few weeks would delay the development of the Long-Term Experimental Plan (LTEP) and the NEPA process already underway.

In contrast to the potential for a hurried execution of a March 2007 high-flow experiment, I believe that the current Departmental effort to design, develop and implement a comprehensive LTEP provides us with the best opportunity for thoughtful, well-planned BHBF high flow experimentation and management actions in coming years. Since the 1990s, participants in the Glen Canyon Dam Adaptive Management process have recognized the importance of sediment management as a tool to benefit a variety of resources along the Colorado River below Glen Canyon Dam. As a result of the 2004 Experimental High-Flow releases, and the important pre- and post-experiment monitoring by GCMRC, we are today in a better position to evaluate the role of BHBFs in the next phase of the Adaptive Management Program. As with many other

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<sup>2</sup> The 2002 Environmental Assessment prepared in support of the 2004 high-flow experiment would not cover any prospective BHBFs in 2007.

elements of the Program, we are interested in ways to move actions, when appropriate, from experimental treatments to management practices.

Given the input from the full AMWG, the compressed time available for planning, the need to perform additional environmental compliance documentation, the amount of resources that would be required to maximize the usefulness of the information derived from such an experiment; and the desirability of having full TWG and AMWG review of a science plan for such an experiment in order to garner fuller AMWG understanding and support for a BHBF, I have asked GCMRC to prioritize further development of the BHBF science plan and to submit the plan to the TWG in advance of consideration by the full AMWG, rather than attempting to pull together such a last-minute, rushed Spring 2007 BHBF experiment. This is consistent with the recommendation of the AMWG in December.

Each of the long-term experimental plans developed over the past year by the Science Planning Group and the TWG, and forwarded by the AMWG for DOI consideration in the NEPA process that is underway, include assumptions regarding implementation of BHBFs in coming years. During NEPA scoping meetings held last month, we received public input on the importance of careful management of the limited sediment in the Grand Canyon below Glen Canyon Dam.<sup>3</sup> Subject to the analysis and consideration in that process, we fully anticipate that targeted, defined BHBF triggers will be included in any final LTEP.

While we fully understand that many members of the AMWG view a spring 2007 BHBF as an important opportunity to advance resource management, the best way to address a number of issues currently affecting the Adaptive Management Program, including the need for additional BHBFs, is through the development of a long-term and carefully planned program of experimental and management actions. In accordance with the AMWG's recommendation, staff at the GCMRC have been working since the December meeting to prepare a draft science plan regarding additional BHBFs. We expect that the draft science plan will be available for initial review and comment in early February.

As I have mentioned in my remarks to the full AMWG, and in many of the conversations I had earlier this week, it is my hope that we can work effectively together to have well-considered, approved, "off-the-shelf" action plans to take advantage of these types of important research opportunities in the future. The Secretary and I remain committed to this Program and we look forward to continuing to work with each of you, particularly on our priorities of the BHBF science plan and the ongoing work on the LTEP.

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<sup>3</sup> In addition, we received information from the public advocating the development of sediment augmentation systems.