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MEMORANDUM

To: Adaptive Management Work Group, Glen Canyon Dam Adaptive Management Program
From: John Hamill, Chief, GCMRC *John Hamill*
Subject: New information related to Beach Habitat/Building Flows

INTRODUCTION:

During the discussion of the WY 07 hydrograph at next week's AMWG conference call, I will brief you on new information related to high-flow testing and the status of the sediment trigger in WY 2007. I appreciate that the timing of this information is unfortunate, since it came to us after the TWG meeting and before the AMWG conference call, but I believe that it is important for the AMWG to have access to the latest information prior to making a recommendation concerning a Beach Habitat/Building Flow (BHBF) test in FY 07.

BACKGROUND:

The primary strategic science question for sediment resources in the Colorado River ecosystem is as follows:

“Is there a strategy for dam releases, including managing tributary inputs with Beach Habitat/Building Flows, that will restore and maintain sandbar habitats over decadal time scales?”

This is related to the AMWG priority #4 approved in August 2004: “What is the impact of sediment loss and what should we do about it?”

At their August 2006 meeting, a majority (14-8) of the Technical Work Group (TWG) recommended deferring any additional high-flow sediment tests until after WY 2007, even if tributary sediment inputs meet or exceed experimental triggering criteria for such a test during the summer through fall 2006 input season. This vote was associated with an additional motion by the TWG recommending continuation of ROD operations during 2007.

NEW INFORMATION:

The following summarizes new information that has become available since the TWG developed its recommendation in early August 2006.

Sediment Protocol Evaluation Panel Recommendation – A preliminary recommendation of the external peer reviewers during an August 2006 Sediment Protocol Evaluation Panel meeting specifically

addressed future testing of the BHBF concept and the strategic science question listed above. The nine member panel was unanimous in its recommendation that managers consider implementing another test of the “sand enriched” high-flow at the next available opportunity as an attempt to resolve the sand conservation issue.

Status of Sediment Trigger – Ongoing monitoring indicates that new tributary sand inputs have accumulated in the upper third of the system (above Phantom Ranch) to a level approximately one-half of what is needed to meet the sediment triggering criteria for a High-Flow Test in WY 2007. This level of enrichment, through August 2006, is significantly higher than the level estimated for the same period through August 2004. On the basis of recent storm activity in the northeastern Pacific Ocean this summer, scientists estimate that there is a good chance that the sediment trigger may occur this fall.

Additional results from the sediment program since the 2004 High-Flow Test indicate that the river’s capacity to retain new tributary sand inputs during the months following the November 2004 High-Flow Test was enhanced by the 2004 test. This phenomenon is not fully understood, but export of new sand added to the system since the 2004 test has been suppressed relative to export data collected between 1997 and 2004. The increased capacity for the ecosystem to retain new sand inputs following BHBF releases may be a secondary and potentially added benefit associated with repeated implementation of similar short-duration, high-flow releases under sand enriched conditions.

RECOMMENDATION:

Unless the AMWG objects, the GCMRC will bring this recent external peer review recommendation and updated information on the status of the sediment trigger to the attention of the Science Planning Group and Technical Work Group at their upcoming meetings for additional consideration, including the possibility of a BHBF in FY07.

In addition, we recommend the following changes to the proposed motion on your conference call agenda:

The AMWG recommends to the Secretary of the Interior the adoption of the FY2007 hydrograph, budget, and workplan, as recommended by the TWG to the AMWG, *with no recommendation made on a BHBF in FY2007 until the next AMWG meeting.*

cc: Mark Limbaugh, ASWS, DOI
Andrea Alpine, Acting Director, Southwest Biological Science Center, USGS
Rick Gold, Regional Director, Bureau of Reclamation