



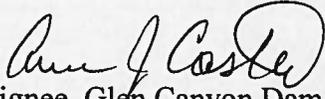
# United States Department of the Interior

OFFICE OF THE SECRETARY  
WASHINGTON, D.C. 20240

## MEMORANDUM

To: Secretary

DEC 5 2011

From: Anne J. Castle   
Secretary's Designee, Glen Canyon Dam Adaptive Management Work Group  
Assistant Secretary—Water and Science

Subject: Report and Recommendations from the Glen Canyon Dam Adaptive Management Federal Advisory Committee, May 18, 2011, and August 24-25, 2011, Meetings

The Glen Canyon Dam Adaptive Management Work Group (AMWG) convened most recently on August 24-25, 2011, in Phoenix, Arizona. The meeting was well attended and positive, and we continue to make progress on many tough issues surrounding the operations of Glen Canyon Dam (Dam) and protection of the Colorado River, including Grand Canyon National Park and Glen Canyon National Recreation Area. One highlight of the meeting was the approval of a recommendation to you for a revised hydrograph (water release schedule) for the Dam, which builds on the new procedures we put in place last year to better conserve sediment resources below the Dam and incorporates what we learned over the past twelve months. That recommendation is set out in detail below for your consideration and approval. We also reconstituted a subcommittee on the Desired Future Conditions for the operations of the Dam to put the final touches on a product that has undergone multiple reviews and revisions. The AMWG and its subgroups are continuing their hard work to address the complex questions surrounding management of the Dam.

I am particularly pleased to report that the Interior agencies are making strong progress in working together collaboratively, and with the Western Area Power Administration, to reach consensus and move forward on these challenging issues. While the issues are complex, the leadership and staff of the various Interior agencies are actively working to speak with one voice and implement your vision of Colorado River operations that reflect the multi-faceted missions of all the Interior agencies.

On July 5, 2011, we announced that the Bureau of Reclamation and the National Park Service are starting the development of a Long-Term Experimental and Management Plan (LTEMP) for Glen Canyon Dam on the Colorado River. The Environmental Impact Statement (EIS) process that will be used to develop the LTEMP will be the first comprehensive review of Glen Canyon Dam operations in fifteen years, and is intended to ensure that flow regimes on the Colorado

River meet the goals of supplying water for communities, agriculture and industry, protecting the resources of the Grand Canyon, and providing clean hydropower. The LTEMP effort is an historic undertaking, and having the Bureau of Reclamation and the National Park Service as co-leads of the EIS is a tangible demonstration of our efforts to improve internal coordination and effectiveness.

As I begin my third year as the Secretary's Designee, I am pleased to be able to report that the members of the AMWG have continued to bring tremendous knowledge, expertise, and passion to bear on the effort to provide you with the best possible advice.

The Operating Procedures of the AMWG require the Secretary's Designee to provide the Secretary with a report on all meetings, and to transmit recommendations. The following issues and actions were taken at the meeting:

### **August 24-25, 2011 Meeting**

***Proposed 2012 Hydrograph:*** AMWG recommends to the Secretary of the Interior his approval of the DOI-DOE Proposed Hydrograph for Water Year (WY) 2012 as follows:

- Monthly Release Volumes will be adjusted each month based on the most current forecast of the annual release required by the 2007 Interim Guidelines.
- Monthly Release Volumes are anticipated to vary within the targets identified for each month as set forth below. This monthly operational flexibility will be used for existing power production operations under the Modified Low Fluctuating Flow (MLFF) alternative selected by the 1996 ROD and contained in the 1995 FEIS. The targeted operation will also be adjusted as necessary to accommodate a targeted release volume for the month of August 2012 based on the schedule below:
  - January: August 2012 Volume target set to greater of 800 kaf or 10% remaining annual release volume.
  - February: August 2012 Volume target set to greater of 800 kaf or 10% remaining annual release volume.
  - March: August 2012 Volume target set to greater of 800 kaf or 12% remaining annual release volume.
  - April: August 2012 Volume target set to greater of 800 kaf or 15% remaining annual release volume.
  - May: August 2012 Volume target set to greater of 800 kaf or 20% remaining annual release volume.
  - June: August 2012 Volume target set to greater of 800 kaf or 25% remaining annual release volume
  - July: August 2012 Volume target set to greater of 800 kaf or 40% remaining annual release volume.
  - August: Release volume established as 100% of remaining annual release volume (release could be less than 800 kaf in some cases).
- In some Equalization release scenarios, the release volume required in August could be as high as the full capacity of the powerplant.
- Steady flows will occur in September 2012 (and October 2012) per the 2008 High Flow Event Environmental Assessment (EA).

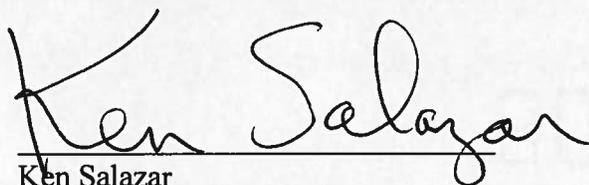
- Monthly release volumes will be modified each month in consultation with Western Area Power Administration.
- The remaining annual release volume will be computed as the projected WY 2012 annual release volume pursuant to the Interim Guidelines less volume already released in WY 2012 less the September 2012 projected Steady Flow Experiment release volume.
- Additionally, the Bureau of Reclamation will continue to apply best professional judgment in conducting actual operations and in response to changing conditions throughout the water year. Such efforts will continue to be undertaken in coordination with the DOI/DOE agencies to consider changing conditions and adjust projected operations in a manner consistent with the objectives of these parameters as stated above and pursuant to the Law of the River.

This recommended hydrograph received broad support and passed by a vote of 16 to 1, with 1 abstention.

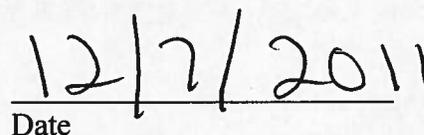
***Fiscal Year 2012 Budget and Work Plan:*** The AMWG recommends to the Secretary of the Interior adoption of the USGS and Reclamation FY12 Budget and Work Plan (as approved by the Secretary of the Interior on September 22, 2010 as the second year in the FY 2011-2012 plan) with changes described in the table in the memorandum from Ted Melis and Glen Knowles to Anne Castle dated August 5, 2011.

This motion was adopted by consensus.

I approve:



Ken Salazar  
Secretary



Date

cc: Acting Assistant Secretary, Fish and Wildlife & Parks  
Assistant Secretary, Indian Affairs  
Commissioner, Bureau of Reclamation  
Director, National Park Service  
Director, Fish and Wildlife Service  
Director, U.S. Geological Survey  
Director, Bureau of Indian Affairs

Acting Assistant Director, Wildlife Management, Arizona Game and Fish Department,  
2221 W. Greenway Road, Phoenix, Arizona 85023-4399  
Attention: Mr. Larry Riley

Bureau of Indian Affairs, PO Box 10, Phoenix, Arizona 85001  
Attention: Ms. Amy L. Heuslein

Department of Energy-WAPA, Western Area Power Administration,  
150 E. Social Hall Avenue, Suite 300, Salt Lake City UT 84111  
Attention: Ms. LaVerne Kyriss

The Hualapai Tribe, PO Box 310, Peach Springs AZ 86434  
Attention: Ms. Loretta Jackson Kelly

Director, Cultural Preservation Office, The Hopi Tribe, PO Box 123,  
Kykotsmovi AZ 86039  
Attention: Mr. Leigh Kuwanwisiwma

National Park Service, Grand Canyon National Park, PO Box 129,  
Grand Canyon AZ 86023  
Attention: Ms. Jane Lyder

Executive Director, Department of National Resources, Navajo Nation, PO Box 9000,  
Window Rock AZ 86515  
Attention: Mr. Frederick H. White

Pueblo of Zuni, PO Box 339, Zuni NM 87327  
Attention: Mr. Arden Kucate

San Juan Southern Paiute Tribe, PO Box 2656, Tuba City AZ 86045

Southern Paiute Indian Consortium, Kaibab Paiute Indian Reservation,  
Tribal Affairs Bldg., HC 65 Box 2, Pipe Springs AZ 86022  
Attention: Mr. Charley Bullets

State Supervisor, U.S. Fish and Wildlife Service, Arizona Ecological Services  
Office, 2321 W. Royal Palm Road, Suite 103, Phoenix AZ 85021-4951  
Attention: Mr. Sam Spiller

Arizona Department of Water Resources, 3550 N. Central Avenue, Phoenix AZ 85012  
Attention: Ms. Perri Benemelis

Executive Director, Colorado River Board of California, 770 Fairmont Avenue,  
Suite 100, Glendale CA 91203-1035  
Attention: Mr. Christopher Harris

Colorado Water Conservation Board, 1313 Sherman Street, Room 718,  
Denver CO 80203-2279  
Attention: Ms. Jennifer Gimbel

Colorado River Commission of Nevada, 555 E. Washington Avenue, Suite 3100,  
Las Vegas NV 89101-1048

Attention: Ms. Jayne Harkins  
New Mexico Interstate Stream Commission, PO Box 25102, Santa Fe NM 87504  
Attention: Mr. Estevan López

Interstate Streams Engineer, Herschler Building, 4-E, 122 W. 25<sup>th</sup> Street,  
Cheyenne WY 82002  
Attention: Mr. John W. Shields

Director, Division of Water Resources, PO Box 146201, Salt Lake City UT 84114  
Attention: Mr. Dennis Strong

Grand Canyon Wildlands Council, PO Box 1315, Flagstaff AZ 86002  
Attention: Mr. Larry Stevens

Grand Canyon Trust, 2601 North Fort Valley Road, Flagstaff AZ 86001  
Attention: Mr. Nikolai Lash

Grand Canyon River Guides, 453 W. Mulberry Drive, Phoenix, AZ 85013-4349  
Attention: Mr. Sam Jansen

Colorado River Energy Distributors Association, 14029 S. 51<sup>st</sup> Street, Suite 230,  
Phoenix AZ 85044  
Attention: Ms. Leslie James

Utah Associated Municipal Power Systems, 2825 E. Cottonwood Parkway,  
Suite 200, Salt Lake City UT 84121  
Attention: Mr. Ted Rampton

Federation of Fly Fishers, 4510 E. Joshua Tree Lane, Paradise Valley, AZ 85253  
Attention: Mr. John Jordan

Deputy Regional Director, Upper Colorado Region, U.S. Bureau of Reclamation,  
125 S. State Street, Salt Lake City UT 84138  
Attention: Ms. Ann Gold

Regional Director, Upper Colorado Region, U.S. Bureau of Reclamation,  
125 S. State Street, Salt Lake City UT 84138  
Attention: Mr. Larry Walkoviak

Adaptive Management Work Group alternates  
Technical Work Group members and alternates  
(via e-mail)