

**Whetton, Linda A**

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**From:** Stacey\_L\_Walters@blm.gov  
**At:** Tuesday, May 11, 2010 4:52 PM  
Whetton, Linda A  
**Cc:** Behm, Joe; Prado, Tim; Baines, Everett R; Dent, Tammie; Bailey, Colleen D  
**Subject:** ROOM CONFIRMATION - GLEN CANYON DAM ADAPTIVE MANAGEMENT MEETINGS - WASHINGTON A,B, & C, AND WYOMING ROOM - AUGUST 23-25, 2010.

Hi Linda,

We will be able to have a total of 9 wireless microphones that would be available for your meeting, and as far as we can tell from your drawing, the set up should work also. We can adjust the set up, once you arrive and see how it looks to you. I believe we talked about having a conference set up for 40 in the Wyoming room. We can do it, but it would be cramped. We could set it up for 30 comfortably, if you feel that would work, or we could set it up in a workgroup setting to fit 40. The set up for this room can also be adjusted as you see fit. We also have 6-8 power strips available for the Washington room, along with a variety of extension cords.

I spoke to Tim about your AV needs. He said if you wanted to bring your own projector, that would be fine. His concern is how it would present on our screens, because they're very large, and our projectors are designed to show a picture that fits the screens in the room. He recommends that you contact our IT department about a week before you come in, to discuss with them what you'll be presenting. This way, we can determine what your AV needs are, and how your presentation programs will work with our systems. Then we can configure the AV system so things run smoothly for you, and you feel comfortable with how AV will work in the room. You could speak with either Tammie Dent at 602-906-5586 (Tammie\_Dent@blm.gov) or Colleen Bailey at 602-906-5575 (Colleen\_Bailey@blm.gov).

If you decide that you'll be needing vans, Everett Baines will be able to assist you. His phone number is 602-906-5503 (Everett\_Baines@blm.gov, if you prefer email). He will need to know how many vehicles you would need, the hotel that your group will be staying at, and name of the federal employees that would be driving the vans.

Also, if you feel that Assistant Secretary Castle would need space for privacy, we can arrange an area for her too. Just let us know of any special needs that she may have, and we'll do our best to accommodate her. I believe that's everything, unless you have any other questions or concerns. I've confirmed your reservation in our scheduling system. Here is your official room confirmation. It has our security procedures at the bottom, for your reference.

Thank you Linda, for choosing our facility, and I look forward to meeting you in August. Please feel free to contact us with any questions.

Sincerely,

Stacey Walters  
Support Services Clerk  
BLM National Training Center  
602-906-5600

As of 05/11/10

NTC Meeting Room Confirmation

Bureau of Land Management  
National Training Center  
9828 N. 31st Ave. Phoenix, AZ 602-906-5500

Event Date: August 23-25, 2010  
Name of Event: Glen Canyon Dam Adaptive Management Work Group Number of Attendees: 100  
Hours: 7:00 AM to 5:00 PM  
Requestor: Linda Whetton  
Phone #: (801) 524-3880  
Fax No#: (801) 524-3858  
Organization: Bureau of Reclamation  
Room Reserved: Washington A, B, and C; Wyoming  
Set-up: Washington Rooms: Conference for 30, audience for 50; Wyoming Room:  
Conference for 30

Security procedures for visitors at the BLM National Training Center The BLM National Training Center has implemented the following security requirements, which will be strictly enforced during your visit:

Our meeting rooms are available from 7:00 AM - 4:30 PM. All visitors must vacate the premises no later than 5:00 PM each day.

1. Government employees- must bring their government identification card. Upon check-in, visiting personnel will be required to display their Government ID card with photo: Badge must be visibly displayed at all times while on the premises.
2. Non-government personnel will be assigned an NTC visitor badge.
3. All visitors will be required to enter through the main entrance on the north side of the building no earlier than 7:00 AM. All visitors are also required to exit through the main entrance area.

"Whetton, Linda  
A"  
<LWhetton@usbr.gov>

05/10/2010 12:11  
PM

"Walters, Stacey L"  
<Stacey\_L\_Walters@blm.gov>

To

cc

Subject  
Confirmation for GCDAMP Meeting

received a message back from Anne Castle, AS-WS for DOI and she thinks having our meetings at the BLM NTC will be great. As such, please lock in the meeting rooms for August 23-25 per our discussion. If you need more information, please let me know. I think you were going to check on the room setup and microphones available. Thanks again for your assistance. I look forward to working with you and meeting you on August 23.

Linda Whetton  
Environmental Resources Division  
125 S. State Street, Room 6107  
Salt Lake City UT 84138-1147  
Tel: 801-524-3880  
Fax: 801-524-3858  
EM: lwhetton@usbr.gov

## Whetton, Linda A

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**From:** Whetton, Linda A  
**Sent:** Tuesday, May 25, 2010 10:24 AM  
**To:** Archuleta, Deanna; 'Battle, Gladys'; 'Benemelis, Perri'; 'Caan, George M.'; 'Callaway, Catherine P.'; 'Caramanian, Lori'; 'Castle, Anne'; 'Charley Bullets'; 'Downer, Alan'; 'Gimbel, Jennifer'; Gold, Anamarie; Gourley, James L (Lonnie); 'Groseclose, Jay C.'; 'Hamilton, Lynn'; 'Heuslein, Amy'; 'Irvine, Mary'; 'Jackson-Kelly, Loretta'; 'James, Leslie'; 'Jansen, Sam'; 'Jordan, John'; 'Kinsinger, Anne'; 'Kucate, Arden'; 'Kuwanwisiwma, Leigh J.'; 'Kyriss, LaVerne'; 'Landers, Mary Jo'; 'Lash, Nikolai'; 'Lopez, Estevan'; Lucero, Jeffrey M; 'Lyder, Jane'; 'Martin, Steve P.'; 'Nimkin, David'; 'Orton, Mary'; 'Patterson, Daniel R.'; 'Potochnik, Andre'; 'Rampton, Ted'; 'Senn, Michael J.'; 'Shields, John W.'; 'Shulters, Michael V.'; 'Spiller, Sam'; 'Stevens, Larry'; 'Stewart, Cheryl'; 'Strong, Dennis J.'; 'Trujillo, Laura'; Walkoviak, Larry P.; 'Wegner, David'; 'Zimmerman, Gerald R.'; 'Balsom, Janet R.'; 'Barrett, Clifford'; 'Bills, Debra'; 'Cantley, Garry'; 'Christensen, Kerry'; 'Cox, Jerry'; Crawford, Marianne; 'Davis, William'; 'Dongoske, Kurt'; 'Hahn, Martha'; 'Harris, Christopher'; 'Joe, Tony'; 'Johnson, Rick'; 'King, Robert'; Ostler, Don; 'Palmer, S. Clayton'; 'Peterson, McClain'; Ryan, Thomas P; 'Skrzynski, LeAnn'; 'Stewart, Bill'; 'Yazzie, Curtis'; 'Yeatts, Michael'; 'Barger, Mary'; 'Capron, Shane'; 'Henderson, Norm'; Knowles, Glen W; 'Kowalski, Ted'; 'Kubly, Dennis'; 'Mietz, Steven'; 'O'Brien, John'; 'Persons, Bill'; 'English, Jeff'; 'Kaplinski, Matt'; 'Makinster, Andy'; 'Omama, Emily'; 'Thiriot, James'  
**Cc:** 'M3Research L.D. & P.J. Garrett'; Walters, Stacey L; 'Alpine, Andrea E'; 'Andersen, Matthew'; 'Bennett, Glenn'; 'Daugherty, Mary'; 'Fairley, Helen'; 'Grams, Paul'; 'Hamill, John'; 'Kitchell, Kate'; 'Mankiller, Serena'; 'Melis, Ted'  
**Subject:** Upcoming GCDAMP Meetings  
**Attachments:** GCDAMP Meefings\_10may12.docx  
**Importance:** High

### WG Members/Alternates:

See attached sheet for information on the next AMWG meeting on August 24-25 in Phoenix, Arizona. Also, note there is information at the bottom of the sheet with instructions on how to book online at the Four Points by Sheraton Phoenix North. You will need to plan on using the SuperShuttle to/from the airport/hotel and allow for extra time getting to/from the airport during peak Phoenix traffic times.

DOI staff can transport AMWG members to/from the BLM National Training Center to the hotel, however, those details haven't been worked out yet. The hotel is approximately .43 miles from the BLM NTC and I've been told that a lot of people just walk through the Metro Center parking lot to get to the hotel. Of course, holding the meeting in August will test our ability to walk too far in one of the hottest months of the year in Phoenix. This will be the first time an AMWG meeting has been held at the BLM NTC and was selected to save on program dollars. All services are free of charge to DOI agencies.

BLM National Training Center website:

<http://www.blm.gov/ntc/st/en.html>

SuperShuttle link for making reservations (includes a coupon for discounted rate):

[http://www.blm.gov/ntc/st/en/ntc\\_information/super\\_shuttle\\_information.html](http://www.blm.gov/ntc/st/en/ntc_information/super_shuttle_information.html)

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mary@maryorton.com  
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**To:** AMWG members and alternates  
**From:** Mary Orton, Principal  
**Date:** August 9, 2010  
**cc:** TWG members and alternates, interested parties  
**Re:** Proposed changes to the TWG-recommended FY11-12 budget, workplan, and hydrograph

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With this memorandum, I am transmitting the two sets of proposed changes to the TWG-recommended FY11-12 budget, workplan, and hydrograph that I have received. One set of changes came from LaVerne Kyriss at Western Area Power Administration, and the other came from Nikolai Lash at Grand Canyon Trust. The Trust's proposal for the hydrograph is attached; Western's proposed changes are below. Don't hesitate to call Nikolai, LaVerne, or me if you have any questions.

### Western Area Power Administration's Proposal

1. Change the source for the additional \$20,000 for the Science Advisors (SAs) to FY2010 carryover. The money is to be used for improved decision-making processes in the GCDAMP.
  - This supports the TWG recommendation for an additional \$20,000 for the SAs, and changes the source from Administrative Support (publications) to carryover.
2. Move \$275,138 from line 156 (forego preparing a SCORE Report) in FY 11 and FY12 to the Experimental Flow Fund.
  - This proposal was considered and failed at the TWG. We support having substantial money in the experimental fund to support HFEs.
3. Fund recommendations by the Socioeconomic TWG ad hoc, accepted by the TWG (\$55,000 in FY2011 and \$45,000 in FY2012):
  - Power economics base case and change case analyses, to begin in FY 2011 and complete change case in FY 2012.
  - "Economics 101" for TWG and AMWG (FY 2011)
  - Recreation expenditure study (FY 2012)These will be paid for by eliminating the following:
  - GCMRC angler recreation survey study (\$25,000 in 2011 and \$25,000 in 2012)
  - GCMRC review of GT Max model. (At the last AMWG meeting, Dave Garrett indicated that he could manage the peer review within the current SA budget. Then this study becomes irrelevant and can be eliminated, leaving \$30,000 in 2011 and \$20,000 in 2012.)
4. Include a budget line item for Power Economics studies to be completed by Western.
  - Cost of Base case analysis (FY 2011) \$106,950
  - Additional power economic studies may be identified and completed by Western in FY 2011

**Grand Canyon Trust's Proposal:**

**Recommendation for the WY2011 hydrograph:  
Grand Canyon Trust**

The purpose of this recommendation is to advise the Secretary of the Interior on how best to meet the intent of the Grand Canyon Protection Act. The Act states that the Secretary is to operate the dam, and implement other actions, to protect, mitigate adverse impacts to, and improve park values.

Sediment, *per se*, is one of the many park values addressed by the GCPA. Current implementation of MLFF results in the long-term erosion of sediment and does not meet the GCPA's intent to protect, mitigate adverse impacts to, and improve park values. Under the 11.5 maf annual volume currently forecast for WY 2011, modeling suggests that implementation of MLFF would result in the loss of approximately 575,000 metric tons of sediment in Marble Canyon and Eastern Grand Canyon.

The intent of these WY2011 proposed hydrographs is to experiment with an alternative flow regime to achieve a neutral or positive mass balance of sediment in the Colorado River Ecosystem, and improve, or at least not harm, other park values such as humpback chub and other native fish. These proposed hydrographs are consistent with the Grand Canyon Protection Act, the Law of the River, and the duty and discretion of the Secretary to operate Glen Canyon dam to protect park resources. In contrast, MLFF, and the 2011 hydrograph proposed by the Department of the Interior, are likely to result in a negative mass balance of sediment, and are not consistent with the intent of the Grand Canyon Protection Act.

These hydrographs are likely to reduce the value of hydropower produced at Glen Canyon Dam by shifting some on-peak production to off-peak production, and by altering the pattern of monthly volumes. The legislative history and the 1996 ROD demonstrate that protecting park resources by reducing hydropower value is the trade-off envisioned by Congress when they passed the GCPA.

***Monthly volumes and daily fluctuations (8.23 – 9.25 maf Annual Release Volume)***

Mass balance sediment modeling by GCMRC suggests that with an 8.23 maf annual release volume, and average sediment inputs, all six of the modeled operating scenarios will result in a positive mass balance in Marble Canyon and Eastern Grand Canyon. Under these conditions, we recommend testing SASF because it not only retains sediment, but it is the only scenario that attempts to mimic the natural hydrograph, another park value addressed by the GCPA. The Trust recommends that:

*If the annual release volume for WY 2011 is forecast to be between 8.23 and 9.25 maf in the 2011 AOP, then test SASF as it is described in the 1995 EIS on Glen Canyon Dam operations. If the forecast changes, and the annual volume needs to be adjusted, then pro-rate monthly volumes to maintain the same pattern of monthly volumes.*

***Monthly volumes and daily fluctuations (Annual Release Volume > 9.25 maf)***

Mass balance sediment modeling by GCMRC suggests that with 11.0 maf release years, only Year-Round Steady Flows will result in a positive mass balance of sediment in Marble Canyon and Eastern Grand Canyon. The Trust recommends that:

*If the annual volume forecast in the 2011 AOP is greater than 9.25 maf, then test Year-Round Steady Flows as it is described in the 1995 EIS on Glen Canyon Dam operations. If the forecast changes, and the annual volume needs to be adjusted, then pro-rate monthly volumes to maintain the same pattern of equal monthly volumes. Finally,*

AMWG members and alternates, August 9, 2010

*adjust September and October monthly volumes as recommended by GCMRC to accommodate the nearshore ecology research program.*

***Beach/Habitat-Building Flow***

The criteria for triggering a HFE, and the season, magnitude, and duration of the flow will be determined by the HFE protocol EA decision. If that is not available, then utilize either the criteria used to trigger the 2008 HFE, or revised criteria recommended by GCMRC. The Trust recommends that:

*Regardless of annual volume forecast for WY 2011, test an HFE under enriched sediment conditions as frequently as those conditions may recur.*

***Other actions***

It may be necessary to control non-native predators and competitors that may benefit from a HFE. Specifics of any needed non-native control effort will be recommended by GCMRC.

It is anticipated that GCMRC and other agency scientists will review this and any hydrographs for WY 2011 to determine their effect on park resources. Modifications to improve the scientific merits and/or increase the potential benefits to park values are welcome and anticipated to be included in the science plans for WY2011.

## Whetton, Linda A

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**From:** Whetton, Linda A  
Wednesday, August 11, 2010 3:57 PM  
'Benemelis, Perri'; 'Caan, George M.'; 'Castle, Anne'; 'Charley Bullets'; 'Downer, Alan'; 'Gimbel, Jennifer'; Gold, Anamarie; 'Heuslein, Amy'; 'Jackson-Kelly, Loretta'; 'James, Leslie'; 'Jansen, Sam'; 'Jordan, John'; 'Kucate, Arden'; 'Kuwanwisiwma, Leigh J.'; 'Kyriss, LaVerne'; 'Lash, Nikolai'; 'Lopez, Estevan'; 'Martin, Steve P.'; 'Orton, Mary'; 'Rampton, Ted'; 'Senn, Michael J.'; 'Shields, John W.'; 'Spiller, Sam'; 'Stevens, Larry'; 'Strong, Dennis J.'; Walkoviak, Larry P.; 'Zimmerman, Gerald R.'; 'Balsom, Janet R.'; 'Barrett, Clifford'; 'Bills, Debra'; 'Cantley, Garry'; 'Christensen, Kerry'; 'Cox, Jerry'; 'Davis, William'; 'Dongoske, Kurt'; 'Hahn, Martha'; 'Harris, Christopher'; 'Joe, Tony'; 'Johnson, Rick'; 'King, Robert'; Ostler, Don; 'Palmer, S. Clayton'; 'Peterson, McClain'; Ryan, Thomas P; 'Skrzynski, LeAnn'; 'Stewart, Bill'; 'Yazzie, Curtis'; 'Yeatts, Michael'

**Cc:** 'Barger, Mary'; 'Capron, Shane'; 'Caramanian, Lori'; Crawford, Marianne; 'Harms, Paul'; 'Henderson, Norm'; Knowles, Glen W; 'Kowalski, Ted'; 'Kubly, Dennis'; 'Noojbail, Gopaul'; 'Sponholtz, Pam'; 'Wegner, David'; 'Makinster, Andy'; 'Omama, Emily'; 'Thriot, James'; 'Andersen, Matthew'; 'Bennett, Glenn'; 'Daugherty, Mary'; 'Fairley, Helen'; 'Grams, Paul'; 'Hamill, John'; 'Kitchell, Kate'; 'Mankiller, Serena'; 'Melis, Ted'; 'Sogge, Mark'; 'Battle, Gladys'; 'Cherry, Cathryn'; 'Gourley, James L. (Lonnie)'; 'Hamilton, Lynn'; 'Johnson, Lynn'; 'Landers, Mary Jo'; Lucero, Jeffrey M; 'Lyder, Jane'; 'Nimkin, David'; 'Patterson, Daniel R.'; 'Pellegrino, Colby'; 'Shulters, Michael V'; 'Stewart, Cheryl'; 'Sucec, Rosemary'; 'Trujillo, Laura'

**Subject:** Message from Assistant Secretary Anne Castle

**Importance:** High

Dear Members of the Adaptive Management Work Group,

As you know, on July 27, 2010, TWG passed a motion recommending to AMWG the DOI/DOE recommendation for the 2011 hydrograph to be considered as proposed by the Federal agencies along with a more detailed explanation of the expected resource results, the anticipated impacts of energy and capacity for each of the three scenarios, and operational concerns of any of the three scenarios. DOI and DOE are actively working to develop that information, and have considered various approaches that have been suggested by a number of stakeholders following the TWG's action on July 27th. We will provide the AMWG with additional information in advance of the AMWG meeting about the expected resource results, the energy generation and capacity operations, and any potential operational concerns for each of the three scenarios in the DOI/DOE proposal, based on the ongoing work of the Interior agencies and WAPA.

However, as John Hamill explained in his email of August 6, some of the approaches to additional analysis that have been suggested are not likely to provide meaningful information, given the limitations of the models and the modest scope of the changes in operations proposed in the DOI/DOE recommendation. Such analyses will not be undertaken.

At the TWG meeting, the Grand Canyon Trust also proposed a revised hydrograph for 2011 and has requested that it be modeled as well. Please recall that GCRMC recently modeled the equal monthly volume and steady year round operation scenarios and published the results in the Wright and Grams study (Open File Report 2010-1133). The analysis of the GCT's approach as analyzed in the open file report remains available to provide a basis to evaluate the relative sediment benefits of the Trust's proposed 2011 hydrograph. We do not believe that further modeling of the GCT's latest request is the best use of our limited resources or limited time in advance of the August AMWG meeting.

We appreciate the AMWG's willingness to engage on these important issues, and look forward to seeing you on August 24-25.

## Whetton, Linda A

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**From:** Whetton, Linda A  
**Sent:** Monday, August 16, 2010 4:58 PM  
**To:** 'Benemelis, Perri'; 'Caan, George M.'; 'Castle, Anne'; 'Charley Bullets'; 'Downer, Alan'; 'Gimbel, Jennifer'; 'Gold, Anamarie'; 'Heuslein, Amy'; 'Jackson-Kelly, Loretta'; 'James, Leslie'; 'Jansen, Sam'; 'Jordan, John'; 'Kucate, Arden'; 'Kuwanwisiwma, Leigh J.'; 'Kyriss, LaVerne'; 'Lash, Nikolai'; 'Lopez, Estevan'; 'Martin, Steve P.'; 'Orton, Mary'; 'Rampton, Ted'; 'Senn, Michael J.'; 'Shields, John W.'; 'Spiller, Sam'; 'Stevens, Larry'; 'Strong, Dennis J.'; 'Walkoviak, Larry P.'; 'Zimmerman, Gerald R.'; 'Balsom, Janet R.'; 'Barrett, Clifford'; 'Bills, Debra'; 'Cantley, Garry'; 'Christensen, Kerry'; 'Cox, Jerry'; 'Davis, William'; 'Dongoske, Kurt'; 'Hahn, Martha'; 'Harris, Christopher'; 'Joe, Tony'; 'Johnson, Rick'; 'King, Robert'; 'Ostler, Don'; 'Palmer, S. Clayton'; 'Peterson, McClain'; 'Ryan, Thomas P'; 'Skrzynski, LeAnn'; 'Stewart, Bill'; 'Yazzie, Curtis'; 'Yeatts, Michael'  
**Cc:** 'pwicker9@msn.com'; 'Barger, Mary'; 'Capron, Shane'; 'Caramanian, Lori'; 'Crawford, Marianne'; 'Harms, Paul'; 'Henderson, Norm'; 'Knowles, Glen W'; 'Kowalski, Ted'; 'Kubly, Dennis'; 'Noojibail, Gopaul'; 'Sponholtz, Pam'; 'Wegner, David'; 'Makinster, Andy'; 'Omama, Emily'; 'Thiriot, James'; 'Andersen, Matthew'; 'Bennett, Glenn'; 'Daugherty, Mary'; 'Fairley, Helen'; 'Grams, Paul'; 'Hamill, John'; 'Kitchell, Kate'; 'Mankiller, Serena'; 'Melis, Ted'; 'Sogge, Mark'; 'Battle, Gladys'; 'Cherry, Cathryn'; 'Gourley, James L. (Lonnie)'; 'Hamilton, Lynn'; 'Johnson, Lynn'; 'Landers, Mary Jo'; 'Lucero, Jeffrey M'; 'Lyder, Jane'; 'Nimkin, David'; 'Patterson, Daniel R.'; 'Pellegrino, Colby'; 'Shulters, Michael V'; 'Stewart, Cheryl'; 'Sucec, Rosemary'; 'Trujillo, Laura'  
**Subject:** Memo from Assistant Secretary Anne Castle  
**Attachments:** Reports\_Status\_Memo\_10aug16.pdf  
**Importance:** High

See attached memo, Subject: Status of Compliance to the Requirements of the Grand Canyon Protection Act (GCPA) and the AMWG.

## Memorandum

To: Glen Canyon Dam Adaptive Management Work Group (AMWG) and Technical Work Group members

From: Anne J. Castle  
Assistant Secretary – Water and Science  
Secretary’s Designee to the AMWG

Subject: Status of Compliance to the Requirements of the Grand Canyon Protection Act (GCPA) and the AMWG

Date: August 16, 2010

I am writing to provide an update on one of the items that has been pending before the AMWG and the Department of the Interior for some time. When Secretary Salazar asked me last year to serve as his designee to the AMWG, there were a number of issues requiring review or action that AMWG members brought to my attention. As we’ve moved forward, the Department has been working with the AMWG to address a number of these issues. Since the February 2010 meeting in Phoenix, I have been particularly impressed by the willingness of the AMWG members to participate in the ad hoc groups that are addressing the Charter and the Desired Future Conditions for the Adaptive Management Program.

At the February 2010 AMWG meeting in Phoenix, some members expressed concern that specific requirements of the Grand Canyon Protection Act and the AMWG Charter and Operating Procedures are not being met. We take these concerns seriously and have looked into these issues. This memorandum addresses those concerns, which related to: (1) Development of operating criteria for Glen Canyon Dam, (2) Periodic review of the operating criteria, (3) Annual report to Congress required by the GCPA, (4) Annual Plan of Operations as required by GCPA, (5) Annual allocation of cost report as required by GCPA, (6) Annual review of resource status, (7) Review of program status as required by the AMWG Charter, (8) Coordination between the Glen Canyon Dam Adaptive Management Program (GCDAMP) and the Annual Operating Plan (AOP), and (9) Annual review for a Federal Advisory Committee Act (FACA) Committee.

*1. Development of Operating Criteria for Glen Canyon Dam:* Section 1804(c)(1)(A) of the Grand Canyon Protection Act (GCPA) requires the Secretary to “adopt criteria and operating plans separate from and in addition to those specified in section 602(b) of the Colorado River Basin Project Act.” This requirement has been satisfied since 1997 when the Bureau of Reclamation, acting on behalf of the Secretary, adopted operating criteria for Glen Canyon Dam (GC Operating Criteria). The GC Operating Criteria were published in the Federal Register on March 3, 1997 (62 Fed. Reg. 9447) and have not been changed.

*2. Periodic Review of the Operating Criteria:* Section 2 of the GC Operating Criteria contains a provision that the GC Operating Criteria be reviewed at least every five years. There has been continuous compliance with this requirement since 1997. Since 1997, the Glen Canyon

Dam Adaptive Management Program (GCDAMP) has continually conducted research and monitoring activities to evaluate the effects of dam operations on resources in the Grand Canyon. The GCDAMP generally refers to the GC Operating Criteria as modified low fluctuating flow (MLFF) operations based on the 1996 ROD. Experimental releases from Glen Canyon Dam that deviated from the GC Operating Criteria/MLFF were proposed and put in place through the GCDAMP in 2002 (five years after adoption of the Operating Criteria) and were again proposed five years later in 2007 (with the approval occurring in Feb. 2008). Formal environmental compliance pursuant to the National Environmental Policy Act and the Endangered Species Act was completed for these experimental plans. These environmental compliance efforts included public notice and comment with other Federal agencies, the members of the AMWG and the general public. In addition, the Department is beginning development of a protocol for future high flow experiments when appropriate conditions occur. Formal NEPA and ESA compliance will be completed for this proposed action. The periodic (i.e., five-year) modifications to Glen Canyon operations through approved and publicly-reviewed GCDAMP experiments, as well as the GCDAMP's continuous evaluation of the effects of operations of the Dam on Glen Canyon and Grand Canyon resources satisfy the requirement of Section 2 of the GC Operating Criteria.

Current operations are conducted pursuant to the above-referenced experimental plan approved by the Department in February 2008. These operations cover a five-year period through 2012, and it is anticipated that Glen Canyon operations will again be reviewed prior to 2012. The high flow protocol will be incorporated into ongoing dam operations once compliance has been completed. Under section 2 of the published Operating Criteria, the Secretary is identified as the responsible official, though formal changes to Glen Canyon Dam operations are proposed by Reclamation in consultation with other Federal agencies, the members of the AMWG and the general public.

3. *Annual Report to Congress Required by the GCPA:* Section 1804(c)(2) of the GCPA requires that "Each year after the date of the adoption of criteria and operating plans pursuant to paragraph (1), the Secretary shall transmit to the Congress and to the Governors of the Colorado River Basin States a report, separate from and in addition to, the report specified in Section 602(b) of the Colorado River Basin Project Act of 1968, on the preceding year and the projected year operations undertaken pursuant to the GCPA." As stated above, the GC Operating Criteria were adopted in 1997, making 1998 the first year a report to Congress was required. The annual report to Congress for water year 2009 (October 2008 through September 2009) was completed and submitted on February 2, 2010. A draft of the report for water year 2010 has been provided to the AMWG for review and comment, and completion is anticipated by the fall of 2010. Under the current procedure, the reports are being completed by each of the five DOI agencies involved and submitted to the Secretary's Designee, who finalizes and submits it to Congress.

In addition, Section 3(e) of the Glen Canyon Dam Adaptive Management Work Group Charter provides that the 1804(c)(2) Annual Report to Congress (described above) "will include discussion of dam operations, the operation of the GCDAMP, status of resources, and measures taken to protect, mitigate, and improve the resources defined in the Act." This reporting requirement is an addition to the annual report to Congress. It is a requirement of the AMWG Charter that goes beyond the statutory GCPA requirements. These elements were included in all

the annual reports that were submitted, and will be included in the water year 2010 report in process.

4. *Annual Plan of Operations as Required by GCPA*: Section 1804(c)(1)(A) of the Grand Canyon Protection Act requires that the Secretary shall “adopt ... operating plans separate from and in addition to those specified in Section 602(b) of the Colorado River Basin Project Act of 1968...” To meet this requirement initially, prior to establishment of the AMWG processes, the Department published an Annual Plan of Operations as part of its March 3, 1997 Federal Register notice adopting the GC Operating Criteria described in paragraph 1 above. After establishing the structure of the AMWG and under GCDAMP’s current and ongoing processes, we continue to meet the requirement. Annually the AMWG, through the AMWG and GCDAMP processes, recommends a budget, work plan and hydrograph for the operation of Glen Canyon Dam in the subsequent year, which is the plan of operations. Following input from the AMWG, each year this plan of operation is reviewed and has been adopted by the Secretary (or a subordinate officer). In recent years, the Department has memorialized responses to AMWG recommendations in a letter back to the AMWG.

5. *Annual allocation of Cost Report as Required by GCPA*: Section 1804(e) of the GCPA requires that “The Secretary shall determine the effect of all the provisions of this Act [i.e., the GCPA] and submit a report to the appropriate House and Senate committees by January 31 of each fiscal year, and such report shall contain for that fiscal year a detailed accounting of expenditures incurred pursuant to this Act, offsetting receipts generated by this Act, and any increase or reduction in net offsetting receipts generated by this Act.” Although no reports have yet been submitted to Congress, the following actions are being taken to obtain the information to fulfill this requirement.

- In February 2009, Argonne National Laboratory completed a study which evaluated the diminished economic benefits of hydropower produced at Glen Canyon Dam as a result of operational restrictions implemented pursuant to Section 1802 of the GCPA. This report is expected to be finalized in 2010.
- Western Area Power Administration manages the Colorado River Basin Fund and tracks non-reimbursable expenses pursuant to the GCPA.
- The Grand Canyon Monitoring and Research Center (GCMRC) sponsored an economic symposium for the Glen Canyon Dam Technical Work Group (TWG) in December, 2009. At the symposium there was a discussion of the economics that have been analyzed to date and possible future expansion of the analysis. A presentation was made to the AMWG members at the February, 2010, meeting. A final report from the Socioeconomic Research Review Panel (a panel convened at the December 2010 workshop) was released to the GCDAMP on February 26, 2010.
- Reclamation and GCMRC report annually on expenditure of hydropower revenues to the AMWG.

The agencies identified are working on a process to collect and compile the data and prepare the identified report to Congress.

6. *Annual review of resource status:* Section 3(f) of the AMWG Charter states, “Annually review long-term monitoring data to determine the status of resources and whether the AMP Strategic Plan goals and objectives are being met.” There has been continuous compliance with this requirement. Since 1997, numerous and detailed presentations have taken place at AMWG and TWG meetings on the status of the GCDAMP. These presentations have covered physical, cultural, biological and other relevant resources. They have involved GCMRC, AMWG members, and the science advisors, as well as members of the general public. In addition, detailed budget, monitoring and work plans have been presented, along with the results of ongoing monitoring and research. Presentation of information that monitors and reports on program activities has been a priority and a key element of the ongoing business of the GCDAMP. GCMRC annually provides a fact sheet on Status and Trends of Resources below Glen Canyon Dam, and has produced a comprehensive report on the State of the Colorado River Ecosystem in Grand Canyon, which is anticipated to be updated every five years.

7. *Review of Program Status as Required by the AMWG Charter:* Section 3(h) of the AMWG Charter states, “Monitor and report on all program activities undertaken to comply with applicable laws, permitting requirements, and the Act.” As with the review of resource status, there has been continuous compliance with this requirement since the formation of the AMWG. Since 1997, numerous and detailed presentations have taken place at AMWG and TWG meetings on the status of the GCDAMP. These presentations have covered physical, cultural, biological and other relevant resources. They have involved GCMRC, AMWG members, and Science Advisors, as well as members of the general public. In addition, detailed budget, monitoring and work plans have been presented, along with the results of ongoing monitoring and research. Presentation of information that monitors and reports on program activities has been a priority and a key element of the ongoing business of the GCDAMP.

8. *Coordination between the GCDAMP and the AOP:* Section 3(g) of the Charter states that one of the functions of the AMWG is to “[F]acilitate input and coordination of information from stakeholders to the Secretary to assist in meeting consultation requirements under Section 1804(c)(3).” The section on the Adaptive Management Work Group in the 1995 EIS (incorporated by reference in the 1996 ROD) states that the AMWG would, “Ensure coordination of operating criteria changes into the Annual Operating Plan for Colorado River Reservoirs and other ongoing activities.” There has been continuous compliance with this requirement since the formation of the AMWG, as discussed below.

The Annual Operating Plan (AOP) for Colorado River Reservoirs (separate and apart from the report on Glen Canyon operations) is prepared each year by Reclamation in consultation with the seven Colorado River Basin States Governors’ representatives, the Upper Colorado River Commission, Native American tribes, appropriate Federal agencies, representatives of the academic and scientific communities, environmental organizations, and the recreation industry, water delivery contractors, contractors for the purchase of Federal power, others interested in Colorado River operations, and the general public, through the Colorado River Management Work Group (CRMWG). Numerous members of the CRMWG are also GCDAMP participants (AMWG or TWG members).

The annual development of the AOP usually includes three consultation meetings with the CRMWG. The AOP consultation meetings are open to the public. The AOP consultation

meetings typically commence in late spring and conclude in early autumn. The final AOP is typically approved by the Secretary of the Interior in December. The AOP is developed in a manner that is fully consistent with approved recommendations that emerge from the AMWG. A discussion of the relationship between the GCDAMP and the AOP was conducted at a September 1997 AMWG meeting. Most recently, at the March 2010 meeting of the TWG, there was an agenda item on the AOP which included a discussion about the relationship between the GCDAMP and the AOP.

9. *Annual Review for a FACA Committee:* Section 7 of the Federal Advisory Committee Act states

The Administrator shall, immediately after October 6, 1972, institute a comprehensive review of the activities and responsibilities of each advisory committee to determine--(1) whether such committee is carrying out its purpose; (2) whether, consistent with the provisions of applicable statutes, the responsibilities assigned to it should be revised; (3) whether it should be merged with other advisory committees; or (4) whether it should be abolished. The Administrator may from time to time request such information as he deems necessary to carry out his functions under this subsection. Upon the completion of the Administrator's review he shall make recommendations to the President and to either the agency head or the Congress with respect to action he believes should be taken. Thereafter, the Administrator shall carry out a similar review annually. Agency heads shall cooperate with the Administrator in making the reviews required by this subsection.

The responsibility to review the AMWG lies with the Administrator of the General Services Administration (GSA) and is outside the authority of the Department of the Interior. On an annual basis, Reclamation provides information on the AMWG to the General Services Administration. GSA has provided input in the most recent renewal of the AMWG Charter and these comments are currently being considered by the Charter Ad Hoc Group.

While it is important to meet the reporting requirements, one must not lose sight of the overall objective of the Adaptive Management Program: finding collaborative solutions for the improvement of resources in the Grand Canyon National Park and areas of the Glen Canyon National Recreation Area. There are obvious challenges to management of these resources, which include balancing multiple interests, such as carrying out the Law of the River, endangered species protection, implementation of the Grand Canyon Protection Act, and upholding the Department's trust responsibility to Indian tribes, as well as considering the interests of the seven Colorado River basin states, consumers and distributors that depend on water and power from Glen Canyon Dam, recreational, environmental, and agricultural communities, and our national interest in clean energy production from hydropower. It is our view that these challenges are best addressed through the on-going stakeholder collaboration within the GCDAMP. We are working to improve the overall efficiency and effectiveness of this program.

## Memorandum

To: Glen Canyon Dam Adaptive Management Work Group (AMWG) and Technical Work Group members

From: Anne J. Castle  
Assistant Secretary – Water and Science  
Secretary's Designee to the AMWG

Subject: Status of Compliance to the Requirements of the Grand Canyon Protection Act (GCPA) and the AMWG

Date: August 16, 2010

I am writing to provide an update on one of the items that has been pending before the AMWG and the Department of the Interior for some time. When Secretary Salazar asked me last year to serve as his designee to the AMWG, there were a number of issues requiring review or action that AMWG members brought to my attention. As we've moved forward, the Department has been working with the AMWG to address a number of these issues. Since the February 2010 meeting in Phoenix, I have been particularly impressed by the willingness of the AMWG members to participate in the ad hoc groups that are addressing the Charter and the Desired Future Conditions for the Adaptive Management Program.

At the February 2010 AMWG meeting in Phoenix, some members expressed concern that specific requirements of the Grand Canyon Protection Act and the AMWG Charter and Operating Procedures are not being met. We take these concerns seriously and have looked into these issues. This memorandum addresses those concerns, which related to: (1) Development of operating criteria for Glen Canyon Dam, (2) Periodic review of the operating criteria, (3) Annual report to Congress required by the GCPA, (4) Annual Plan of Operations as required by GCPA, (5) Annual allocation of cost report as required by GCPA, (6) Annual review of resource status, (7) Review of program status as required by the AMWG Charter, (8) Coordination between the Glen Canyon Dam Adaptive Management Program (GCDAMP) and the Annual Operating Plan (AOP), and (9) Annual review for a Federal Advisory Committee Act (FACA) Committee.

1. *Development of Operating Criteria for Glen Canyon Dam:* Section 1804(c)(1)(A) of the Grand Canyon Protection Act (GCPA) requires the Secretary to "adopt criteria and operating plans separate from and in addition to those specified in section 602(b) of the Colorado River Basin Project Act." This requirement has been satisfied since 1997 when the Bureau of Reclamation, acting on behalf of the Secretary, adopted operating criteria for Glen Canyon Dam (GC Operating Criteria). The GC Operating Criteria were published in the Federal Register on March 3, 1997 (62 Fed. Reg. 9447) and have not been changed.

2. *Periodic Review of the Operating Criteria:* Section 2 of the GC Operating Criteria contains a provision that the GC Operating Criteria be reviewed at least every five years. There has been continuous compliance with this requirement since 1997. Since 1997, the Glen Canyon

Dam Adaptive Management Program (GCDAMP) has continually conducted research and monitoring activities to evaluate the effects of dam operations on resources in the Grand Canyon. The GCDAMP generally refers to the GC Operating Criteria as modified low fluctuating flow (MLFF) operations based on the 1996 ROD. Experimental releases from Glen Canyon Dam that deviated from the GC Operating Criteria/MLFF were proposed and put in place through the GCDAMP in 2002 (five years after adoption of the Operating Criteria) and were again proposed five years later in 2007 (with the approval occurring in Feb. 2008). Formal environmental compliance pursuant to the National Environmental Policy Act and the Endangered Species Act was completed for these experimental plans. These environmental compliance efforts included public notice and comment with other Federal agencies, the members of the AMWG and the general public. In addition, the Department is beginning development of a protocol for future high flow experiments when appropriate conditions occur. Formal NEPA and ESA compliance will be completed for this proposed action. The periodic (i.e., five-year) modifications to Glen Canyon operations through approved and publicly-reviewed GCDAMP experiments, as well as the GCDAMP's continuous evaluation of the effects of operations of the Dam on Glen Canyon and Grand Canyon resources satisfy the requirement of Section 2 of the GC Operating Criteria.

Current operations are conducted pursuant to the above-referenced experimental plan approved by the Department in February 2008. These operations cover a five-year period through 2012, and it is anticipated that Glen Canyon operations will again be reviewed prior to 2012. The high flow protocol will be incorporated into ongoing dam operations once compliance has been completed. Under section 2 of the published Operating Criteria, the Secretary is identified as the responsible official, though formal changes to Glen Canyon Dam operations are proposed by Reclamation in consultation with other Federal agencies, the members of the AMWG and the general public.

3. *Annual Report to Congress Required by the GCPA*: Section 1804(c)(2) of the GCPA requires that "Each year after the date of the adoption of criteria and operating plans pursuant to paragraph (1), the Secretary shall transmit to the Congress and to the Governors of the Colorado River Basin States a report, separate from and in addition to, the report specified in Section 602(b) of the Colorado River Basin Project Act of 1968, on the preceding year and the projected year operations undertaken pursuant to the GCPA." As stated above, the GC Operating Criteria were adopted in 1997, making 1998 the first year a report to Congress was required. The annual report to Congress for water year 2009 (October 2008 through September 2009) was completed and submitted on February 2, 2010. A draft of the report for water year 2010 has been provided to the AMWG for review and comment, and completion is anticipated by the fall of 2010. Under the current procedure, the reports are being completed by each of the five DOI agencies involved and submitted to the Secretary's Designee, who finalizes and submits it to Congress.

In addition, Section 3(e) of the Glen Canyon Dam Adaptive Management Work Group Charter provides that the 1804(c)(2) Annual Report to Congress (described above) "will include discussion of dam operations, the operation of the GCDAMP, status of resources, and measures taken to protect, mitigate, and improve the resources defined in the Act." This reporting requirement is an addition to the annual report to Congress. It is a requirement of the AMWG Charter that goes beyond the statutory GCPA requirements. These elements were included in all

the annual reports that were submitted, and will be included in the water year 2010 report in process.

4. *Annual Plan of Operations as Required by GCPA*: Section 1804(c)(1)(A) of the Grand Canyon Protection Act requires that the Secretary shall “adopt ... operating plans separate from and in addition to those specified in Section 602(b) of the Colorado River Basin Project Act of 1968...” To meet this requirement initially, prior to establishment of the AMWG processes, the Department published an Annual Plan of Operations as part of its March 3, 1997 Federal Register notice adopting the GC Operating Criteria described in paragraph 1 above. After establishing the structure of the AMWG and under GCDAMP’s current and ongoing processes, we continue to meet the requirement. Annually the AMWG, through the AMWG and GCDAMP processes, recommends a budget, work plan and hydrograph for the operation of Glen Canyon Dam in the subsequent year, which is the plan of operations. Following input from the AMWG, each year this plan of operation is reviewed and has been adopted by the Secretary (or a subordinate officer). In recent years, the Department has memorialized responses to AMWG recommendations in a letter back to the AMWG.

5. *Annual allocation of Cost Report as Required by GCPA*: Section 1804(e) of the GCPA requires that “The Secretary shall determine the effect of all the provisions of this Act [i.e., the GCPA] and submit a report to the appropriate House and Senate committees by January 31 of each fiscal year, and such report shall contain for that fiscal year a detailed accounting of expenditures incurred pursuant to this Act, offsetting receipts generated by this Act, and any increase or reduction in net offsetting receipts generated by this Act.” Although no reports have yet been submitted to Congress, the following actions are being taken to obtain the information to fulfill this requirement.

- In February 2009, Argonne National Laboratory completed a study which evaluated the diminished economic benefits of hydropower produced at Glen Canyon Dam as a result of operational restrictions implemented pursuant to Section 1802 of the GCPA. This report is expected to be finalized in 2010.
- Western Area Power Administration manages the Colorado River Basin Fund and tracks non-reimbursable expenses pursuant to the GCPA.
- The Grand Canyon Monitoring and Research Center (GCMRC) sponsored an economic symposium for the Glen Canyon Dam Technical Work Group (TWG) in December, 2009. At the symposium there was a discussion of the economics that have been analyzed to date and possible future expansion of the analysis. A presentation was made to the AMWG members at the February, 2010, meeting. A final report from the Socioeconomic Research Review Panel (a panel convened at the December 2010 workshop) was released to the GCDAMP on February 26, 2010.
- Reclamation and GCMRC report annually on expenditure of hydropower revenues to the AMWG.

The agencies identified are working on a process to collect and compile the data and prepare the identified report to Congress.

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