



United States Department of the Interior

OFFICE OF THE SECRETARY
Washington, DC 20240

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MEMORANDUM

To: Scott VanderKooi,
Chief, USGS Grand Canyon Monitoring and Research Center (GCMRC)
Katrina Grantz,
Chief, Adaptive Management Group, Reclamation, Upper Colorado Region

From: Jennifer Gimbel, Secretary's Designee, Principal Deputy Assistant Secretary for Water and Science

Subject: Glen Canyon Dam Adaptive Management Program Continuity and Strategic Direction

This memo provides strategic direction to the Glen Canyon Dam Adaptive Management Program (GCDAMP), consistent with the priorities of the Secretary of the Interior and with the Grand Canyon Protection Act. I am providing this guidance to ensure continuity and continued successes within the GCDAMP in anticipation of a new Administration and a change in leadership within the Department of the Interior (Interior) in early 2017. Given the central role of the GCDAMP in meeting our obligations and commitments under the laws governing Glen Canyon Dam operations and related activities, it will be important to maintain workplan development and implementation, and timely exchanges with the Adaptive Management Work Group (AMWG) federal advisory committee, during these transitions.

This memo highlights several issues important to the success of the GCDAMP: (1) a continued commitment to effective adaptive management and efficient administrative practices through the triennial workplan and budget process, focusing on high-priority monitoring and science while retaining the flexibility to adapt to evolving conditions and science; (2) enhancing Tribal involvement and integration with the GCDAMP; (3) integration of the Long-Term Experimental and Management Plan into GCDAMP processes; and (4) further incorporation of input from the Science Advisors Program.

(1) Triennial workplan and budget process

Over the last several years, the new process developed for establishing the GCDAMP's annual workplan, budget, and hydrograph has allowed the program to increase its focus on significant questions and has streamlined the budget process. The new process allows for consultation with basin stakeholders, and supports the AMWG's annual recommendations to the Secretary on dam operations.

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The current GCDAMP workplan (FY2015-2017) was the first to be developed for a three-year timespan. The intent of the triennial workplan was to improve program efficiency and effectiveness by reducing the time and effort spent on the budget process and to allow time for ongoing science from the current workplan to progress sufficiently to inform the next workplan. It was also recognized that mid-course adjustments might be needed to accommodate new scientific information or to adjust to the availability of funding. Although not without its challenges, I believe the development and implementation of the FY2015-17 GCDAMP workplan has been a success. Benefits realized include, as hoped, a more efficient process for the AMWG and its Technical Work Group and Budget Ad Hoc Group, as well as for GCMRC and its cooperating agencies and organizations; and more time at AMWG meetings to learn about issues relevant to the GCDAMP and its role in providing recommendations to the Secretary.

Building on this first triennial workplan, it is important to ensure that in future workplans the GCDAMP continues to target its limited resources to the highest priority projects, with an appropriate balance of near- and long-term priorities; while maintaining the flexibility to respond to changing needs. Specific adjustments based on this first triennial workplan experience include using more conservative budget projections based on recent performance of the Consumer Price Index, and identifying funding for all work included in the workplan to avoid shortfalls. In addition, under the first triennial workplan, mid-course changes were considered and in some cases implemented for several projects. Clarifying the procedures and justifications to propose and make mid-course changes to projects will help ensure consistency in adapting future triennial workplans to emerging science and operational considerations.

As you develop the next triennial workplan and budget, I ask that you continue to work with the AMWG to bring greater efficiency and consistency to the process.

(2) Tribal engagement

Meaningful involvement and integration of Tribal perspectives into the GCDAMP is critical to the continued success of the program. In addition to considering input received from Tribal representatives on the AMWG, the next triennial workplan should also take into consideration results and recommendations from the Science Advisors Program, and in particular from the Science Advisors Program's evaluation of the GCDAMP cultural program. To that end, I ask that the GCDAMP/Science Advisors Program explore ways to co-produce with Tribes a useful definition of what cultural resources require attention, and what approaches to evaluation will be meaningful. This joint effort should ensure that Tribes' input strongly shapes the parameters for the proposed evaluation of the cultural program. I also ask that you establish more regular interactions with Interior's Joint Tribal Liaison(s). Fully staffing those positions is a priority for the Office of the Assistant Secretary for Water and Science.

(3) Long-Term Experimental and Management Plan (LTEMP)

Integrating the LTEMP into GCDAMP processes is a clear priority for the next triennial workplan. The ongoing LTEMP process builds on the science and learning that has occurred over the last 20 years and proposes an updated long-term plan for experimentation, monitoring

and science on the ecosystems downstream from Glen Canyon Dam to inform dam operations and other related AMP activities. Accordingly, Interior, through the Bureau of Reclamation (Reclamation) and the National Park Service, has worked with interested stakeholders through the development of the LTEMP environmental impact statement (EIS). The draft EIS was released in January 2016 and the final EIS and subsequent Record of Decision (ROD) are anticipated in late 2016. We anticipate that implementation of the LTEMP ROD will provide a framework for adaptively managing Glen Canyon Dam and downstream resources over the next 20 years. The preferred alternative identified in the draft LTEMP EIS contemplates a timeline for experimental actions, and a science plan to identify research and monitoring needed to support implementation. While much of this research and monitoring is ongoing and is incorporated in the current triennial workplan and budget, the next phase of planning must be responsive to the anticipated final decision.

Past direction from the Secretary's Designee to the GCMRC identified four high-level priorities for long-term monitoring and science focused on native fish, sediment resources, non-native fish control and recreational fishing, and cultural resources and Traditional Ecological Knowledge. I continue to believe that these priorities should guide future planning, with minor modification as follows:

- Science in support of Endangered Species Act compliance with an emphasis on humpback chub, razorback sucker, and other native fish as well as the resources that support them throughout the Colorado River Ecosystem.
- Science in support of compliance with the Grand Canyon Protection Act, in particular sediment resources.
- Science relating cultural and archaeological sites to modern river processes, as well as the role of traditional knowledges in contributing to scientific understanding and river operations.
- Science on non-native fish (population dynamics, control measures, and the recreational trout fishery) and potentially invasive aquatic species.

These priorities provide focus, but do not preclude other scientific investigation where such investigation has widespread support and furthers the purposes of the GCDAMP.

Our understanding of these issues and the interactions among them has continued to evolve, and these issues have been rigorously analyzed in the draft LTEMP EIS. These topics should continue to be evaluated, in particular to support science and monitoring for LTEMP and with the overlay of changing climate, declining reservoir levels, and the threat of invasive non-native species. The GCMRC has developed an initial high-level science plan in support of the LTEMP. The next GCDAMP workplan needs to provide the details required for implementation of the new ROD. It should also identify the means to collect, analyze, and report information required to support decision-making by Interior leadership and agency resource managers.

(4) Science Advisors Program

In 2015, administration of the GCDAMP Science Advisors Program was transferred from GCMRC to Reclamation and the Science Advisors Program is now gaining momentum. The

Science Advisors Program provides independent, external review of GCDAMP activities in order to provide recommendations to the AMWG and the GCMRC regarding monitoring, priorities, integration, and management of natural, cultural, and recreational resources affected by Glen Canyon Dam operations. The Science Advisors Program's role is purely advisory; the AMWG reviews all products of the Science Advisors Program.

For the Science Advisors Program overall, I ask that you maintain a broad definition of "science advisors" as subject matter experts in all of the major relevant topics, including not only natural sciences and engineering but also socioeconomic expertise and traditional knowledges. I leave it to the Science Advisors Executive Coordinator to make the final determination of what expertise is required for each review undertaken by the Science Advisors Program.

Over the next years, priorities for the Science Advisors Program should include reviewing the GCDAMP cultural resources program and working with Tribal members to identify how Tribal perspectives and traditional knowledges can be better integrated into the GCDAMP. The Science Advisors Program should also identify GCDAMP knowledge gaps to help guide the development of the next triennial budget and workplan, and help organize and implement protocol evaluation panels with GCMRC as needed.

In closing, I greatly appreciate what Reclamation, GCMRC, your sister Interior bureaus, your partners, and your external advisors through the AMWG have accomplished in implementing the first triennial workplan, and in further developing the AMWG as a forthright and collegial community. I urge the GCDAMP to continue in your efforts, and in maintaining communication with the AMWG on workplan development and implementation during the upcoming leadership transitions.

I am confident that your follow-through in the areas described above will continue to strengthen and make the Adaptive Management Program more efficient, effective, and responsive.