



September 19, 2006

Mr. John Hamill  
Grand Canyon Monitoring & Research Center  
2255 North Gemini Dr.  
Flagstaff, AZ 86001

Dear John,

Grand Canyon River Guides commends the Grand Canyon Monitoring and Research Center on the comprehensive and thorough **Draft Monitoring and Research Plan to support the Glen Canyon Dam Adaptive Management Program, FY 2007 – 2011**. As the recreational stakeholder for the GCDAMP, we offer the following observations and recommendations for your consideration prior to the finalization of this plan:

**Biennial timetable for sediment monitoring**

No rationale is presented for the change from annual to biennial measurements of sand storage changes. Several factors lead us to a firm belief in the necessity of retaining an annual sediment monitoring program (at a minimum):

- Sediment is crucial to the health of multiple resources in Grand Canyon: recreation, fragile cultural resources, aquatic and terrestrial ecosystems including near-shore habitat and backwater ponds.
- The conclusions drawn from the EIS team, which are not supported by recent data, “resulted from a lack of continuous data in the post-dam era.” (SCORE report).
- Sediment monitoring requires consistency and cohesiveness between a variety of efforts (campsite monitoring, sandbar volume studies, and an assessment of increasingly problematic vegetation encroachment).
- “Conservation of Grand Canyon’s fine-sediment resources is a primary environmental goal of the Glen Canyon Dam Adaptive Management Program.” (SCORE report).
- Ongoing, annual sediment monitoring is integral to the understanding of AMWG priority #4, approved in August 2004: “What is the impact of sediment loss and what should we do about it?”
- The recently convened (August 2006) Sediment Protocol Evaluation Panel has not delivered its recommendations for future monitoring of the sediment resources. Why change monitoring protocols before receiving a recommendation from the panel?

Grand Canyon River Guides therefore strongly recommends restoring sediment monitoring and all associated programs to an annual basis.

### **Beach Habitat Building Flow plans**

The Draft plan indicates that two additional BHBF tests be conducted during the FY07 – FY11 period, provided the sediment triggers are reached. Grand Canyon River Guides contends that such rigidity could be to the detriment of the downstream resources that the Glen Canyon Dam Adaptive Management Program is charged to protect, for the following reasons:

- New information related to BHBF's as described in your September 1, 2006 memorandum to the Adaptive Management Work Group included a unanimous recommendation from the nine member Sediment Protocol Evaluation Panel 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. (Emphasis ours).
- A recent assessment of tributary sand inputs indicates a likelihood of reaching the sediment trigger this year, yet TWG and AMWG votes to date preclude a BHBF in FY 07. Declining to act in a year when conditions appear to be optimal and sufficient experimental funds are available does not inspire confidence that the program will be able to "restore and maintain sandbar habitat over decadal time scales" -- the primary strategic science question for sediment resources as outlined in your September 1, 2006 memorandum.
- ROD operations will continue to erode sediment deposits and prevent multi-year accumulation in the main channel.
- Sediment experiments such as Beach Habitat Building Flows are integral to the protection of the natural geomorphic features of Grand Canyon as guaranteed by the National Park Service Organic Act of 1916.
- Monitoring results (Kaplinski and others, 2005; Kaplinski and others, in prep) show that total campsite area decreased by an average of 15% each year between 1998 and 2003. This monitoring also shows a system-wide increase in campsite area following the November 2004 BHBF – clearly demonstrating the benefits of BHBF's to the recreational resources. Furthermore, during the post-dam era, ALL of the monitoring conducted from 1973 to 2005 (10 separate studies) show a similar pattern in the number and size of campsite in Grand Canyon; significant increase after a BHBF, significant decrease without
- Currently no other mechanism exists for bringing sufficient sediment into the Colorado River system below Glen Canyon Dam.

Grand Canyon River Guides therefore recommends retaining BHBF's as a possible management action *for each given year*, should the sediment trigger be met so as to not waste these valuable opportunities that benefit the resource while building on knowledge previously gained. This in turn, allows the Glen Canyon Dam Adaptive Management Program to be fully adaptive and responsive to evolving conditions in Grand Canyon.

### **Sediment Dynamics**

The brief section on sediment dynamics on Page 7 fails to discuss sediment supplies as being additionally crucial to the recreation resource. The Grand Canyon Protection Act charges this program to,

*"...mitigate adverse impacts to, and improve values for which Grand Canyon National Park and Glen Canyon National Recreation Area were established, including, but not limited to natural and cultural resources and **visitor use.**"* (Emphasis ours)

Any full understanding of sediment dynamics must therefore take the recreational resource into consideration as part of an integrated scientific research effort.

### **Scope of the GIS/Atlas Program**

The SCORE report considered campsite inventory to be one of the largest gaps in current knowledge. We therefore commend the MRP for the inclusion of a comprehensive campsite inventory and GIS Atlas program to 1) develop a baseline inventory as a basis for determining systemwide changes and 2) assist in the evaluation of recreation impacts. In our view, the GIS/Atlas project should serve as a comprehensive “umbrella program” where the *integration of other reports, data, and photographic records could contribute to the greater understanding of the recreational resource as a whole*. Towards this end, our discussions with the Program Manager at GCMRC have validated the necessity of incorporating valuable datasets such as Grand Canyon River Guides’ Adopt-a-Beach Program into this monitoring program in order to maximize efficiency through information sharing.

The Recreation Protocol Evaluation Panel noted that recreation monitoring heretofore is,

*“...not performed at regular intervals, does not always occur concurrently with flow experiments, and does not provide comprehensive coverage of key recreational resources.”*

Yet, Adopt-a-Beach has been consistently monitoring over 40 beaches in three critical reaches since 1996, generating over 1,500 photographs plus an annual “State of the Beaches” report. A preliminary photo gallery incorporating the photographic record from the period 1996 – 2003 (approximately 1,200 images) has been developed and can be refined to maximize usefulness to researchers studying both campable area and vegetation encroachment. GCRG therefore recommends the inclusion of the Adopt-a-Beach campsite monitoring/photo-matching program within the scope and boundaries of this GIS Atlas program in order to provide the most comprehensive view possible of beach changes over time.

Grand Canyon River Guides greatly values our continuing participation in the Adaptive Management Program governing operations of Glen Canyon Dam as we strive to satisfy the intent of the Grand Canyon Protection Act. We are hopeful that the recommendations outlined above will serve to build in the consistency, flexibility and efficiency necessary for the success of this five-year Monitoring and Research Plan. If you should have any questions, please feel free to contact us.

Respectfully,

Lynn Hamilton	Executive Director, Grand Canyon River Guides
Andre Potochnik	Adaptive Management Work Group representative
John O’Brien	Technical Work Group representative