

REVISED DISCUSSION PAPER¹**Technical Work Group Meeting**

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Phoenix, AZ

SCIENCE ADVISORY BOARD**INTRODUCTION**

The final Environmental Impact Statement on the Operation of Glen Canyon Dam (GCDEIS, p. 37-38) calls for the Secretary of the Interior to establish Independent Review Panel(s) to:

- (1) annually review resource specific monitoring and research programs initiated by the Grand Canyon Monitoring and Research Center (GCMRC);
 - (2) provide advice to the Adaptive Management Work Group (AMWG) and GCMRC on the long-term monitoring and research program regarding priorities, integration, and management;
 - (3) provide other such technical advice that may be requested by GCMRC or the AMWG;
- and
- (4) conduct a five-year review of monitoring and research protocols.

The GCDEIS goes on to say that the Independent Review Panel(s) should "... be comprised of qualified individuals not otherwise participating in the [GCMRC] long-term monitoring and research studies."

The 1992 Grand Canyon Protection Act also requires the Secretary of the Interior to consult with members of the academic and scientific communities.

¹ Prepared by the SAB Ad hoc Workgroup as information for the TWG.

GCMRC has responded to the GCDEIS call for Independent Review Panel(s) by:

(1) Establishing an independent, external peer-review process for all proposals received by GCMRC and scientific reports resulting from GCMRC activities. This process includes identifying qualified peer-reviewers with the assistance of appropriate professional societies. In FY 97 GCMRC developed a roster of over 150 qualified peer-reviewers who were willing to assist GCMRC in its review of proposals and reports. GCMRC has already called on more than 60 of these reviewers for assistance. GCMRC annually up-dates its pool of peer-reviewers. (Peer-review process, See Attachment 1).

(2) Initiating a contract with the National Research Council (NRC) for review of the GCMRC Long-term Strategic Plan and GCMRC FY 98 and FY 99 Annual Plans. (Scope of work, See Attachment 2.)

NEED

The current independent review panel(s) (IRPs) established by GCMRC do not fully address the responsibilities identified in the GCDEIS.

- The peer-review IRP formed by GCMRC in 1997 only provides reviews on an individual project basis, it does not provide programmatic review. It is not constituted as a standing body, but rather is constituted on an individual basis for each specific review task.
- The National Research Council has been contracted with by GCMRC to review the Long-term Strategic Plan and the FY 98 and FY 99 Annual Plans.

An IRP is still needed to address the responsibilities identified in the GCDEIS: "The review panel(s) would be responsible for periodically reviewing resource specific monitoring and research programs and for making recommendations to the AMWG and the Center regarding monitoring, priorities, integration, and management."

PURPOSE

To establish a Science Advisory Board (SAB) as one of the Independent Review Panel(s) outlined in the GCDEIS.

"The intent of the SAB is to allow scientific learning and analysis to occur independently of the political pressures of interest groups. Its job is to increase the efficiency and quality of the science available to inform policy and management decisions." (Upstream: Salmon and Society in the Pacific Northwest, pg. 355.)

The SAB will provide independent scientific oversight and technical advice to ensure that GCMRC science programs are efficient, unbiased, objective, and scientifically sound and that the overall adaptive management program is efficient, effective, and credible.

The SAB together and individually will be expected upon request, among other things, to review and comment on: (1) results of ongoing and completed monitoring and research program activities, as well as any synthesis and assessment activities initiated by GCMRC, (2) the appropriateness of GCMRC's RFPs, especially their responsiveness to management objectives, (3) the protocols used in GCMRC sponsored scientific activities, including a 5-year review of GCMRC monitoring and research protocols, (4) GCMRC's long-term monitoring plan, (5)

GCMRC's annual monitoring and research plans, (6) GCMRC's annual budget proposals, to ensure that the science program is efficiently and effectively responding to AMWG goals (i.e., management objectives) and (7) any other program specific scientific and technical advice it is asked to address by the AMWG or the GCMRC.

The SAB must be available to provide independent advice to the AMWG and the GCMRC Chief and program managers when and as needed regarding program specific scientific issues. In addition, they must be available to lead specific review and evaluation tasks. Both the GCMRC and the AMWG may request the SAB to provide them with advice or scientific oversight.

The SAB will not review, interpret, or otherwise evaluate public policy decisions or assess legal compliance associated with the Glen Canyon Dam Adaptive Management Program and activities of the Adaptive Management Work Group, the Technical Work Group, or individual member agencies and organizations. In addition, the SAB will not substitute for the GCMRC peer-review process. The SAB is designed as an aid in the decision-making process: it is not the decision-making process.

MEMBERSHIP

“Its membership must be chosen in a way that will give it credibility in the eyes of the people and institutions of the region. It must be independent. (Upstream: Salmon and Society in the Pacific Northwest.)

In any one year, the SAB will be comprised of up to 10 members. The SAB will be an interdisciplinary board whose members are qualified, based on their record of publication in the peer-reviewed literature, or other demonstrable scientific achievements or technical competence. Members will be selected for their scientific or technical expertise and not as representatives of a particular agency, organization, or other stakeholder group. Members may be drawn from other agencies, academia, and the private sector. Members will be comprised of qualified individuals not otherwise participating in GCMRC sponsored long-term monitoring and research studies and must recuse themselves from bidding on GCMRC proposals for one-year after their term of service is completed.

Members will be selected on the basis of their technical competence, independence, ability to work in a committee environment, demonstrated capability to work in an interdisciplinary environment and integrate their expertise with those of other members of the SAB, and balance among expertise in the following areas, initially:

- Adaptive management;
- Anthropology / Native American studies;
- Archaeology;
- Fisheries;
- Ecosystem / Riparian ecology;

- Geomorphology;
- GIS / Remote sensing;
- Hydrology;
- Aquatic ecology / Limnology; and
- Socio-economics.

Selection Process and Terms. Members will be sought through an open, competitive RFP process, for a three-year term, renewable for one consecutive three-year term. AMWG members may provide GCMRC with a mailing list of individuals who should receive the RFP. Initial members of the SAB will be selected for staggered one-, two-, and three-year terms, to ensure continuity in membership on the SAB. Members will be selected from among the applicants through the GCMRC peer-review process using a panel of reviewers and explicit evaluation criteria contained in the RFP. Evaluation criteria shall contain specific requirements developed by GCMRC and the TWG. The independence of the SAB will be assured by the selection process, requiring them to sign the standard GCMRC conflict-of-interest statement and providing them a fixed term that they will serve. At the same time the SAB, in developing its operating criteria will be expected to develop criteria for dismissing a member for lack of performance of duties.

REPORTING

“Although it must be independent, it must have a mechanism for being responsive to the concerns of people with local knowledge, interest, and concerns. Finally, its reports must be visible and accessible to all. Although the advisory board will not and should not make policy decisions, its scientific advice must be loud and clear enough that it cannot be ignored by accident.” (Upstream: Salmon and Society in the Pacific Northwest.)

The SAB will report to the AMWG. The SAB will provide technical advice and scientific oversight, upon request, in writing to the AMWG, TWG, and the GCMRC. As a Committee of the AMWG, the TWG may be directed by the AMWG to review technical advice and scientific oversight received from the SAB.

ADMINISTRATION and BUDGET

Administrative support (i.e., travel, expenses, report production) for SAB activities will be provided for by the GCMRC.

Operations for the first year of SAB activity are estimated at \$50,000.

To the extent that there is duplication of effort between the activities of the SAB and the National Research Council, the contract with the National Research Council and the performance of the SAB should be critically reviewed before renewal.

OPERATING PROCEDURES

The SAB will elect their own chairman and develop their own operating procedures with respect to resolving disputes and providing advice to the AMWG and the GCMRC. The

operating criteria will be reviewed and approved by the AMWG. The SAB will meet at least three times per year as needed.

INITIAL TASKS

The SAB would be asked to: (1) review the structure and responsiveness of RFPs to the management objectives, (2) provide timely review of the FY 2000 long-term monitoring plan, especially the parameters to be monitored, the protocols to be used, and the overall sampling strategy, (3) GCMRC's remote monitoring technology proposals, and GCMRC's budget priorities to ensure that the science program is responding efficiently and effectively to AMWG goals (i.e., management objectives).

LEGAL ISSUES

Solicitor is evaluating appropriate mechanism for establishing SAB.