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Operating Protocols

GCMRC SCIENCE ADVISORS
FINAL
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INTRODUCTION

The final Environmental Impact Statement on the Operation of Glen Canyon Dam calls for the Secretary of the Interior in consultation with the Adaptive Management Work Group to establish Independent Review Panel(s) (IRPs) (pg. 37-38) to:

(1) annually review resource specific monitoring and research programs initiated by the science center [Grand Canyon Monitoring and Research Center (GCMRC)];

(2) make recommendations to the Adaptive Management Work Group (AMWG) and the GCMRC on the long-term monitoring and research program regarding priorities, integration, and management;

(3) conduct a five-year review of monitoring and research protocols; and

(4) provide other such scientific and technical advice as may be requested by the GCMRC, the AMWG, or the Secretary.

The GCDEIS states that the IRPs should "... be comprised of qualified individuals not otherwise participating in the [GCMRC] long-term monitoring and research studies."

GCMRC has responded to the GCDEIS call for IRPs by:

(1) Establishing an independent, external peer-review process for all proposals received by GCMRC and scientific reports resulting from GCMRC activities.

(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 that resulted in the 1999 NRC report, "Downstream: Adaptive management of Glen Canyon Dam and the Colorado River Ecosystem."

(3) Developing Protocol Evaluation Program (PEP) for reviewing long-term monitoring protocols.

NEED

The current IRPs established by GCMRC do not fully address the responsibilities identified in the GCDEIS. An IRP is still needed:

"... for periodically reviewing resource specific monitoring and research programs and for making recommendations to the AMWG and the Center [GCMRC] regarding monitoring, priorities, integration, and management."

PURPOSE

The group of Scientific Advisors is being established to increase the efficiency and quality of the science being developed by GCMRC and used by the AMWG and the Secretary. The Scientific Advisors will provide independent scientific oversight and technical advice to ensure that GCMRC science programs are efficient, unbiased, objective, and scientifically sound.

The Scientific Advisors 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, the GCMRC, or the Secretary.

Consistent with these tasks, the Scientific Advisors will be asked not only to evaluate "... whether the best methods are used ..." but also to evaluate "... whether the best questions are being asked." (NRC 1999) A multidisciplinary set of Scientific Advisors is essential for

adequate consideration of coordination and balance among resource programs, their combined effectiveness in advancing understanding of the Grand Canyon ecosystem, and progress in defining and testing adaptive management experiments.

The Scientific Advisors will provide independent scientific and technical advice to the GCMRC Chief and program managers, the AMWG, and the Secretary when and as needed regarding program specific scientific and technical issues. In addition, they may lead specific scientific and technical review and evaluation tasks, as appropriate.

The Scientific Advisors will not be asked to 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 AMWG, the Technical Work Group (TWG), or individual member agencies and organizations.

MEMBERSHIP

In any one year, the Scientific Advisors will be comprised of 10 - 12 individuals. Individuals will be selected to serve as Scientific Advisors based on their record of publication in the peer-reviewed literature, or other demonstrable scientific achievements or technical competence. Scientific Advisors will be selected for their scientific or technical expertise and not as representatives of a particular agency, organization, or other stakeholder group. Scientific Advisors may be drawn from other agencies, academia, and the private sector. Scientific Advisors 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.

Scientific Advisors will be selected on the basis of their technical competence, independence, and demonstrated capability to work in an interdisciplinary environment. Balance among expertise in the following areas will be sought:

- 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. Scientific Advisors will be sought for a three-year term, renewable for one consecutive three-year term. AMWG members may provide GCMRC with names of individuals who should be considered for appointment as a Scientific Advisor. Initial Scientific Advisors will be appointed for staggered one-, two-, and three-year terms, to ensure continuity in membership. Scientific Advisors will be selected from among nominees based on the evaluation criteria presented below. GCMRC will seek the consultation of the AMWG in selecting individuals to serve as GCMRC Scientific Advisors. The selection process, requiring them to sign the standard GCMRC conflict-of-interest statement and providing them a fixed term that they will serve will assure the independence of the Scientific Advisors.

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 Scientific Advisors will report through an Executive Secretary. The Scientific Advisors will provide technical advice and scientific oversight, upon request, in writing to the AMWG, the GCMRC, and/or the Secretary; with copies to the TWG.

EVALUATION CRITERIA

- Technical competence as demonstrated by their record of scientific achievement in one of the areas of technical expertise being sought.
- Ability to work in a committee environment.

- Demonstrated capability to work in an interdisciplinary setting.
- Not otherwise participating in the Glen Canyon Dam Adaptive Management Program or GCMRC monitoring and research activities.

ESTABLISHMENT, ADMINISTRATION and BUDGET

GCMRC will establish the Scientific Advisors following consultation with the AMWG. The Scientific Advisors will be required to sign the standard GCMRC conflict-of-interest statement, and other Department of the Interior conflict-of-interest statements, as appropriate. Administrative support (i.e., travel, expenses, report production) for Scientific Advisory activities will be provided for by GCMRC.

Scientific Advisors will be reimbursed for their travel and receive per diem for time spent at meetings or at GCMRC to conduct approved scientific and technical review and advisory activities. In addition, Scientific Advisors will receive a professional fee of $300 per day for time spent on approved activities. Scientific Advisors will be expected to participate in at least one scientific river trip on the Colorado River to familiarize them with the ecosystem.

Operations for the first year of Scientific Advisory activities are estimated at $50,000 - $100,000.

OPERATING PROCEDURES

An Executive Secretary who will be an employee of, or contractor to the GCMRC will lead the Scientific Advisors to GCMRC. In the first year Dr. Lawrence D. Garrett as a contractor will fill this position to GCMRC. The Executive Secretary and the Scientific Advisors will develop operating procedures with respect to resolving disputes and providing scientific and technical advice to the GCMRC, the AMWG, or the Secretary, as appropriate. The Scientific Advisors will meet at least three times per year or as needed. GCMRC will provide a scientist to serve as an Executive Secretary to support the activities of the Scientific Advisors.

FY 2001 TASKS

Scientific Advisors will be asked to provide timely review of:

(1) review the Goals, management objectives and information needs to determine their potential, taken together as a suite, for achieving the Glen Canyon Dam Adaptive Management Program's Vision and Mission,

(2) the structure and responsiveness of RFPs to the management objectives and information needs,

(3) the FY 2001 and 2002 long-term monitoring plans, especially the parameters to be monitored, the protocols to be used, and the overall sampling strategy,

(4) GCMRC's remote monitoring technology proposals, and

(5) GCMRC's budget priorities to ensure that the science program is responding efficiently and effectively to AMWG goals (i.e., management objectives).