

ADAPTIVE MANAGEMENT PROGRAM

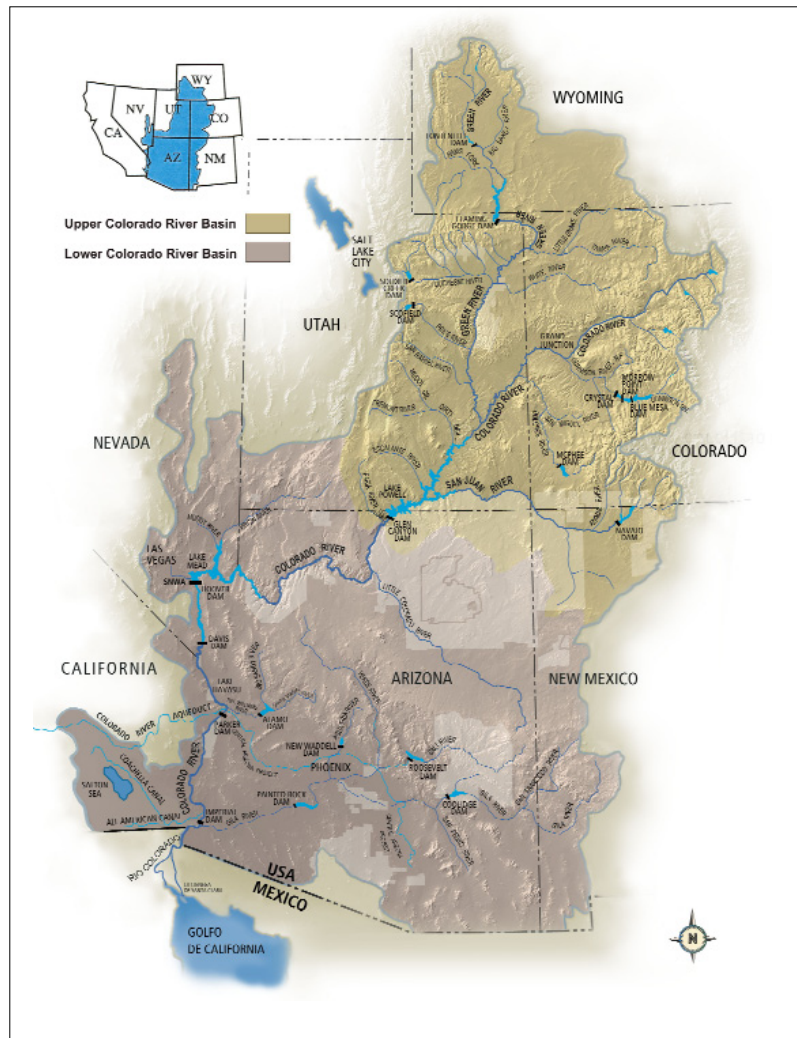
Using Science to Manage River Resources in Grand Canyon



Adaptive Management Program Purpose and Goals

The Glen Canyon Dam Adaptive Management Program (AMP) was formed in 1997 to advise the Secretary of the Interior on actions to improve resources in Glen and Grand Canyons of the Colorado River in Arizona. The AMP provides a process through which the effects of dam operations on downstream resources are monitored and assessed and operational adjustments are recommended to the Secretary of the Interior based on those assessments. This approach allows for scientific experimentation that adds to the understanding of the effects of the operation of Glen Canyon Dam.

The AMP provides the latest scientific and resource information to Department of the Interior decision-makers and others concerning Glen Canyon Dam operations and protection of the affected resources consistent with existing laws including the provisions of the Law of the River, the Colorado River Storage Project Act of 1956 and the Grand Canyon Protection Act of 1992. A diverse group of stakeholders with interests in the operation of Glen Canyon Dam and impacts to downstream resources is involved in the AMP.



Colorado River Basin

The AMP focuses on the Colorado River ecosystem and uses the following adaptive management approach and process:

- Models are developed to reveal the potential effects of policies, activities, or practices that are being considered for implementation;
- Questions are formulated as testable hypotheses regarding the expected responses of the Colorado River ecosystem to dam operations and other management actions;
- Experiments are conducted to test hypotheses and answer questions;
- Management activities reveal, through monitoring and evaluation of results, the accuracy or completeness of the earlier predictions; and
- New knowledge and information produced through experimentation are incorporated into management options and recommendations to the Secretary of the Interior

Adaptive Management Work Group (AMWG)

AMWG is a Federal Advisory Committee appointed by the Secretary of the Interior with representatives

from federal agencies, states, Native American tribal governments, environmental groups, recreation interests, and contractors for federal electrical power from Glen Canyon Dam. The main responsibilities of the AMWG are to: 1) annually review long-term monitoring data to determine the status of resources and whether program goals and objectives are being met; 2) develop recommendations to the Secretary for modifying operating criteria for Glen Canyon Dam and other management actions; and, 3) facilitate input and recommendations from interested parties.

Technical Work Group (TWG)

TWG is a subcommittee of the AMWG. This group translates AMWG policy and goals into resource management objectives and establishes criteria and standards for long-term monitoring and research. Additional tasks include providing review and updates, developing resource management questions for research and monitoring, and preparing reports as requested or required by the AMWG.

Grand Canyon Monitoring and Research Center (GCMRC)

GCMRC, a division of the U.S. Geological Survey, is the science arm of the AMP. GCMRC develops and administers plans for long-term monitoring and research of the Colorado River from Glen Canyon Dam through the Grand Canyon to Lake Mead. The GCMRC oversees data collection and analysis and is guided by research needs specified by the AMWG and TWG.

Independent Scientific Review

The AMP incorporates an independent, external peer review process to maintain the highest quality scientific results for the program. The program draws from a pool of external peer reviewers that ensure the scientific integrity of research/monitoring proposals and reports. An external, permanent board of Science Advisors periodically reviews resource specific monitoring and research programs and makes recommendations to the AMWG and GCMRC regarding monitoring, priorities, integration and management.