



— BUREAU OF —
RECLAMATION

AMWG/FACA 101

Bill Stewart and Jill Nagode, Bureau of Reclamation
AMWG August 22, 2024

Intro to AMWG - Outline

- **GCDAMP**
 - ❖ Background & Statutory Drivers
 - ❖ NEPA
 - ❖ GCDAMP Scope and Structure
- **AMWG**
 - ❖ Charter
 - ❖ Membership
 - ❖ Operating Procedures
- **TWG**
- **GCMRC**
- **Science Advisors**
- **Reporting and Reference**



Background

References

- [How It's Made: The Glen Canyon Dam](#)
- ["Bridge to the Future" – Interior](#)

- 1956 – Colorado River Storage Project Act
- 1964 - Glen Canyon Dam completed
- 1968 – Colorado River Basin Project Act
- 1982 – Glen Canyon Environmental Studies (GCES) began
- 1992 - Grand Canyon Protection Act of 1992



Grand Canyon Protection Act (1992)

- **REQUIRES** the operation of Glen Canyon Dam in a manner to (SEC 1802):
 - Protect, mitigate adverse impacts to, and improve the values for which the Grand Canyon National Park and Glen Canyon National Recreation Area were established including natural and cultural resources and visitor use
 - Operations must remain in compliance with and subject to federal laws and requirements (Colorado River Storage Project Act – 1956, Colorado River Basin Project Act -1968)
- **REQUIRED** Glen Canyon Dam Environmental Impact Statement (SEC 1804)
- **REQUIRES** long-term scientific monitoring and research (SEC 1805)
- **REQUIRES** the Secretary of Interior consult with certain stakeholders on the operation of Glen Canyon Dam (SEC 1805)



Grand Canyon Protection Act (1992)

106 STAT. 4672

PUBLIC LAW 102-575—OCT. 30, 1992

SEC. 1805. LONG-TERM MONITORING.

(a) **IN GENERAL.**—The Secretary shall establish and implement long-term monitoring programs and activities that will ensure that Glen Canyon Dam is operated in a manner consistent with that of section 1802.

(b) **RESEARCH.**—Long-term monitoring of Glen Canyon Dam shall include any necessary research and studies to determine the effect of the Secretary's actions under section 1804(c) on the natural, recreational, and cultural resources of Grand Canyon National Park and Glen Canyon National Recreation Area.

(c) **CONSULTATION.**—The monitoring programs and activities conducted under subsection (a) shall be established and implemented in consultation with—

- (1) the Secretary of Energy;
- (2) the Governors of the States of Arizona, California, Colorado, Nevada, New Mexico, Utah, and Wyoming;
- (3) Indian tribes; and
- (4) the general public, including representatives of academic and scientific communities, environmental organizations, the recreation industry, and contractors for the purchase of Federal power produced at Glen Canyon Dam.



Glen Canyon Dam Adaptive Management Program (AMP)

- Initiated following 1996 Record of Decision (ROD) on Operation of Glen Canyon Dam
- Reaffirmed with 2016 ROD on Long-Term Experimental and Management Plan (LTEMP)

Organization. The Adaptive Management Program would be administered through a senior Department of the Interior official (designee) and facilitated through an Adaptive Management Work Group organized as a Federal Advisory Committee. The AMWG would be chaired by the designee and supported by a monitoring and research center and technical work group.

(1995 EIS)

References

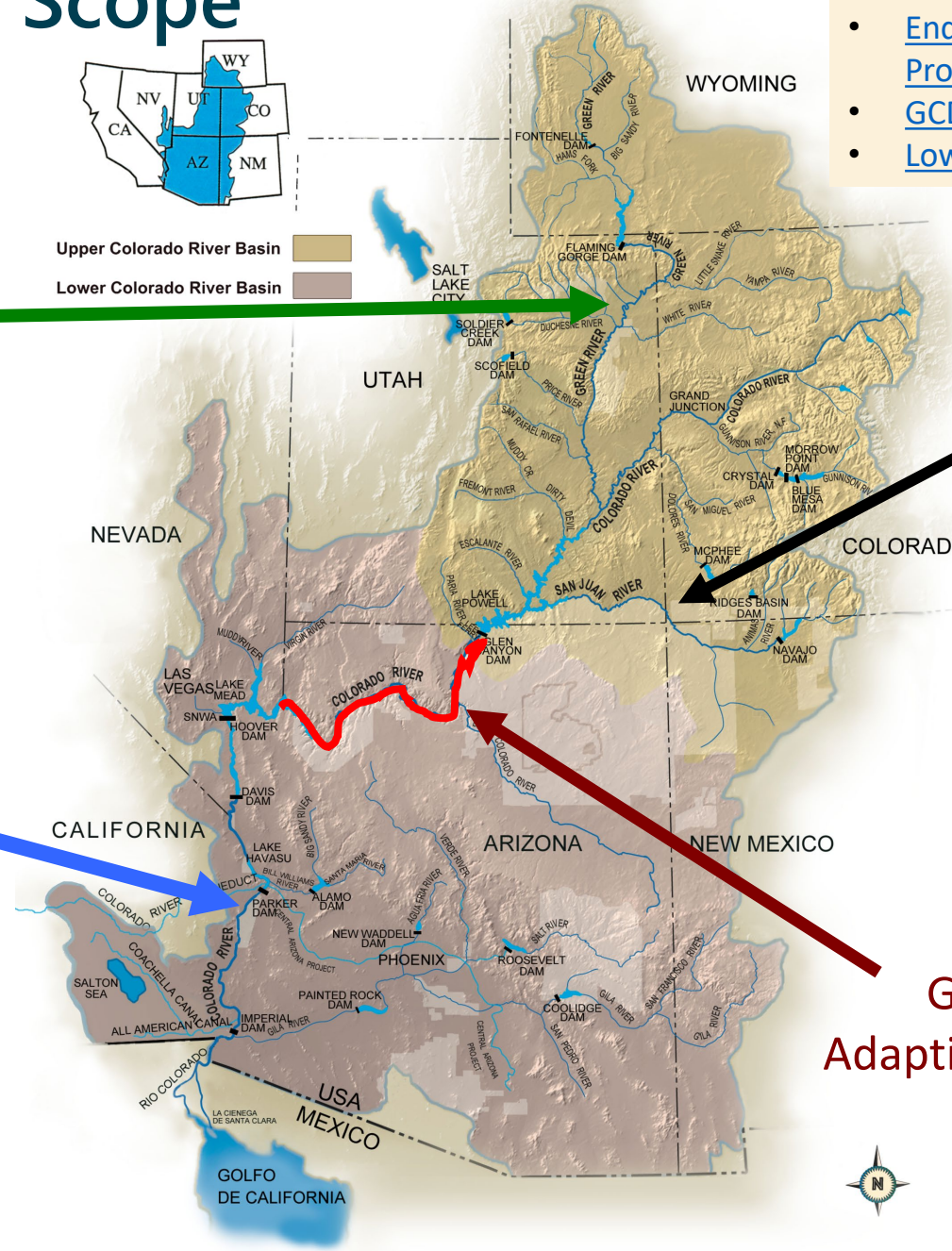
- [1996 ROD on Operation of GCD](#)
- [2016 ROD on the LTEMP](#)
- [Adaptive Management Tech Guide – Interior](#)

Geographic Scope

Upper Colorado River Endangered Fish Recovery Program

Lower Colorado River Multi-Species Conservation Program

- ### References
- [Endangered Fish Recovery Programs](#)
 - [GCDAMP](#)
 - [Lower Basin MSCP](#)



San Juan River Basin Recovery Implementation Program

Glen Canyon Dam Adaptive Management Program

Guidance, Compliance & Other Considerations



- “Law of the River”

- Colorado River Compact of 1922
- 2007 Interim Guidelines (annual releases)

- **Other Statutory Obligations**

- Grand Canyon Protection Act (GCPA, 1992): → Consultation, Research, Monitoring
- National Environmental Policy Act (NEPA, 1969): → LTEMP FEIS and ROD
- Endangered Species Act (ESA, 1973): → LTEMP Biological Opinion
- National Historic Preservation Act (NHPA, 1966): → LTEMP Programmatic Agreement and Historic Preservation Plan

Glen Canyon Dam Long-Term Experimental and Management Plan (LTEMP)

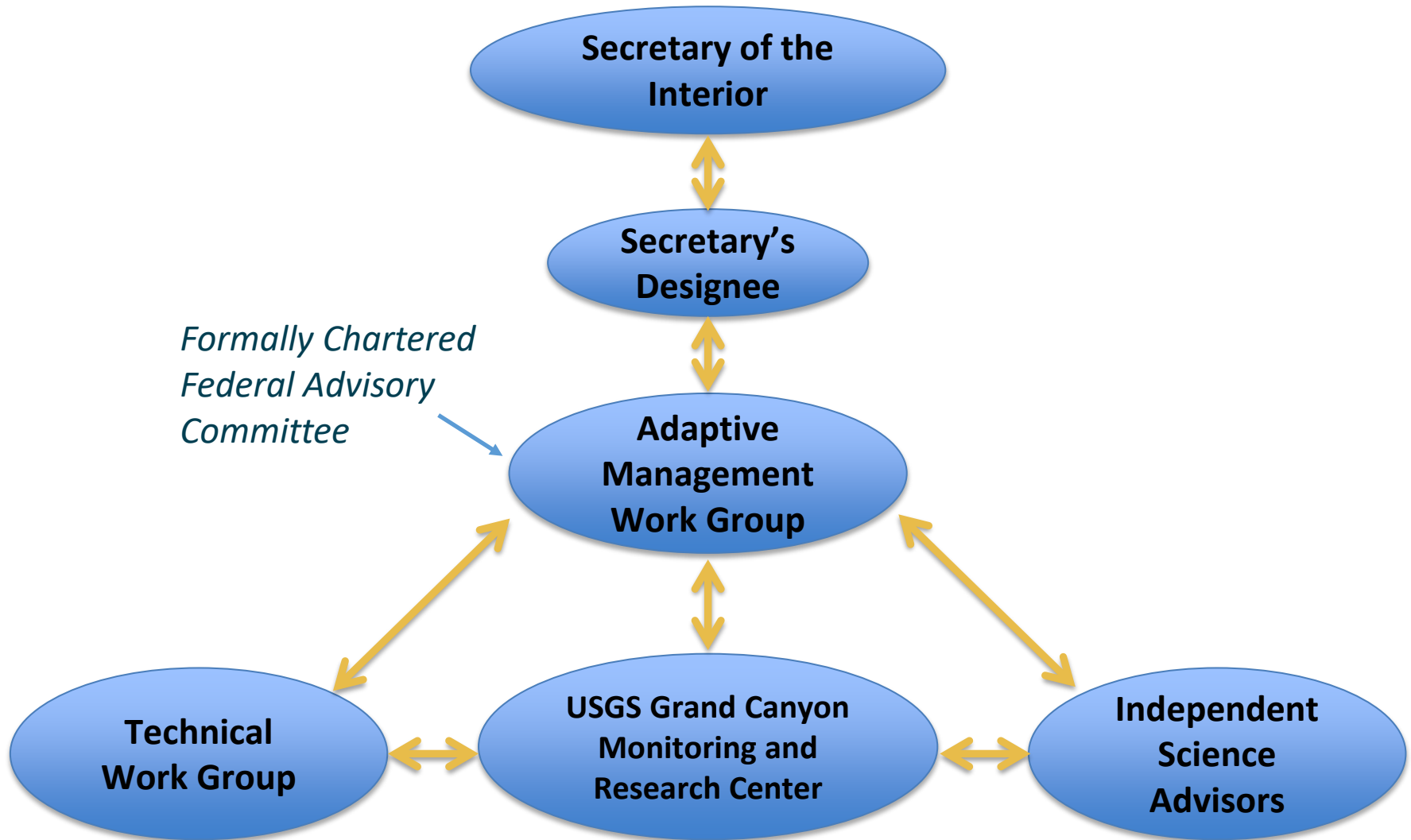
- LTEMP is a framework for adaptively managing Glen Canyon Dam (20 years)
- Sub annual operations
 - Monthly patterns
 - Minimum flows
 - Max (non-experimental) flows
 - Daily range
 - Ramp rates
- Experimental Flows
 - Planning and Implementation Process
- Continuation of GCDAMP
- Protection, Mitigation, and Monitoring of cultural resources
- Endangered Species Act Compliance (LTEMP BO)

Resource Goals of LTEMP

1. Archeological and cultural
2. Tribal resources
3. ESA listed species
4. Sediment
5. Hydropower and energy
6. Nonnative invasive species
7. Other native fish
8. Rainbow trout fishery
9. Recreational Experience
10. Riparian vegetation
11. Natural processes



GCDAMP Structure



Adaptive Management Work Group

- Primary purpose: is a Federal Advisory Committee that makes recommendations to the Secretary of the Interior on operation of Glen Canyon Dam and other research and management actions to protect resources downstream of Glen Canyon Dam
- Fulfills the consultation requirements of Grand Canyon Protection Act
- Forum for cooperative integration of diverse viewpoints
- Includes subcommittee & ad hoc groups
- Charter renewed every 2 years



References

- [Member Status & Nominations](#)

AMWG Membership

Federal Agencies

Bureau of Indian Affairs
Bureau of Reclamation
National Park Service
Fish and Wildlife Service
Western Area Power Administration

Tribes

Hopi Tribe
Hualapai Tribe
Navajo Nation
Southern Paiute consortium
Pueblo of Zuni
San Juan Southern Paiute

State Agencies

Arizona
California
Colorado
New Mexico
Nevada
Utah
Wyoming
Arizona Game and Fish

Federal Power Contractors

Colorado River Energy Distributors Association
Utah Association of Municipal Power Systems

Environmental Interests

Grand Canyon Wildlands Council
American Rivers



AMWG Operating Procedures

• Meetings

- Target semi-annually
- Noticed in the Federal Register, open to public
- 13 of 25 members required for quorum
- Robert's Rules of Order

References

- [AMWG Operating Procedures](#) (Feb 2011)

• Voting

- Preference for concise motions submitted in advance of meeting
- Presentation, discussion and questions
- Attempt to seek CONSENSUS
- If a vote is necessary, approval requires 60% of voting members

• Meeting Minutes – certified 90 days after meeting

Technical Work Group

TWG is a subcommittee that provides technical assistance to the Adaptive Management Work Group

• Meetings

- Quarterly
- Chairperson elected by TWG
 - TWG Vice-Chairperson
 - Reclamation Vice-Chairperson

• Membership is similar to AMWG

• Ad Hoc Groups (Past and Present)

- Administrative History
- Budget
- Core Monitoring
- Cultural Resources
- Flow
- Operating Procedures
- Socioeconomics
- Smallmouth bass
- Species of Management Concern
- Steering Committee
- Trout

References

- [TWG Operating Procedures](#) (Feb 2011)

USGS Grand Canyon Monitoring and Research Center (GCMRC)



1. *Monitoring and Research Center:* To support the designee and the AMWG, it is recommended that the Secretary establish a research center within the U.S. Geological Survey (USGS) and/or National Biological Service with a small permanent staff in Flagstaff, Arizona. The center would be responsible for developing the annual monitoring and research plan, managing all adaptive management research programs, and managing all data collected as part of those programs. All adaptive management research programs would be coordinated through the center.

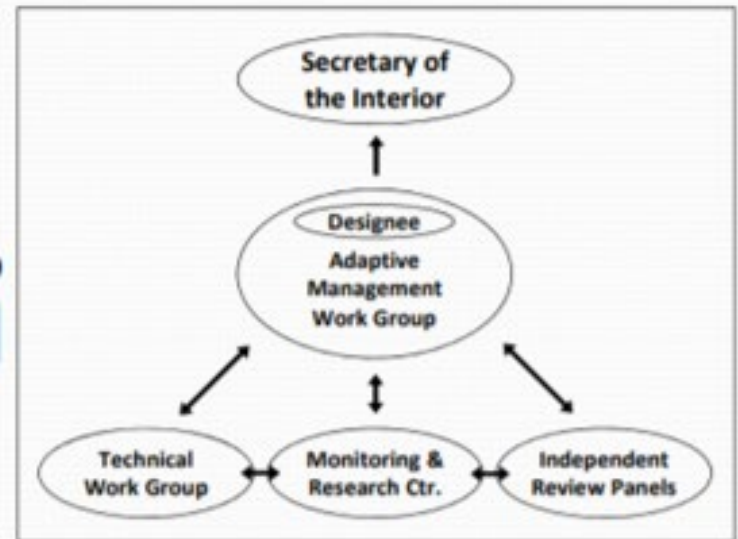
*1995 EIS

- Provides the research and monitoring necessary for AMP and AMWG to make informed recommendations to the Secretary
- Fulfills research and monitoring requirements of GCPA (SEC 1805 Long-Term Monitoring)

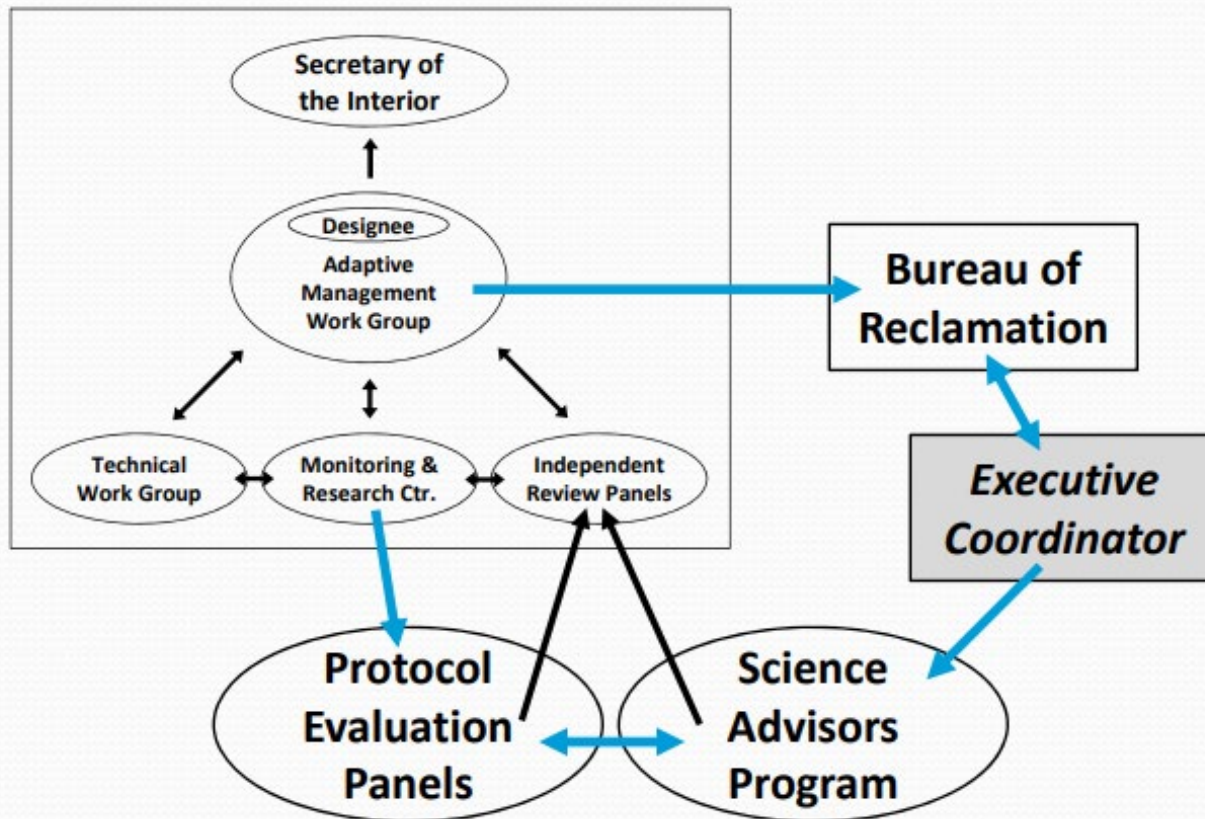
Independent Review Panel

- SA program established 2000 as one component of “Independent Review Panels” established by 1995 FEIS & 1996 ROD, coequal with TWG and GCMRC

IRPs “... responsible 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” (1995 FEIS)



Independent Review Panel



- Contractor to Reclamation (not federal staff)
- Manages SAP planning, actions, reports, archives
- Responds to priorities per Secretary, AMWG, TWG, GCMRC, BoR
- Carries out tasks only as authorized per BoR Task Orders
- Assembles separate panel for each review task (per Task Order)

GCDAMP / AMWG Reporting

- Annual Report and Recommendations to the Secretary
- Annual Report to Congress
- GCMRC Annual Project Reports
- GSA / FACA Annual Comprehensive Review ([database](#))
 - GSA / FACA 30-day Meeting Reports
- Reports to USFWS re LTEMP Biological Opinion
 - USFWS Letters of Sufficient Progress

Additional References

- [GCDAMP](#) – Reclamation website
 - [AMWG website](#)
 - [TWG website](#)
 - Reports
- [GCDAMP Wiki](#) - stakeholder website
- [Grand Canyon Monitoring and Research Center](#)
- [GCDAMP Administrative History](#)
 - [New Member Orientation](#)



Questions



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