Adaptive Management Work Group Meeting
May 18, 2022

Michelle Garrison
TWG Vice Chairperson
MEETINGS

Past
• October 13-14, 2021
• January 11-13, 2022 - TWG and AR
• April 12-13, 2022

Future
• June 15-16, 2022
• October 12-13, 2022
ITEMS REPORTED ELSEWHERE ON AMWG AGENDA

• Basin hydrology, operations and drought response, and water quality
• Non-native aquatic species establishment risk
• WY22 LTEMP experiments – Bug Flows
• Program funding
• Science updates
• Monitoring metrics (action item tracking)
RECENT THEMES AT THE TWG
(SETH’S OPINION)

• Satisfaction with roles and responsibilities
• Developing a common understanding about resource status and progress toward reaching goals
• Knowing when the evidence may suggest a different course of action
• Satisfaction with exploring ideas consistent (or not) with the LTEMP ROD
• Satisfaction with nimbleness
• Concerns about consequences of continuing drought: water quality, high temperatures, low flows, low reservoir elevations, etc.
- Lees Ferry: 40-250 m segments + hotspots + 2 TRGD sites — electrofishing
- LCR: 13 km, hoop-netting, angling for catfish
- BAC stream-wide electrofishing, HAV, SHI + inflow hoop-netting, Kanab seining, -12-mile slough — multiple gears
- HBC aggregation: 14-2-mile sites, seining/hoop-netting
- JCM — hoop-netting/electrofishing
Scope of Investigation

1. A synthesis or literature review of low DO issues at other Reclamation and non-Reclamation facilities (USACE, TVA, etc.).


3. Risk analysis to resources downstream.

4. Potential tools for addressing low D.O. events at CGD.
**IMPROVE COMMUNICATION AND COORDINATION**

**Expanded SCAHG charge**
- Emerging issues notifications

**Tabletop exercise concept**
- Facilitated by Science Advisors Program
Tabletop Exercise Purpose:

Help the Technical Work Group (TWG) identify areas of potential importance to the Adaptive Management Work Group (AMWG), concerning:

(a) agency responsibilities for monitoring and responding to such events,

(b) possible ways in which these agencies may respond to such events and ways in which these actions may affect the river and its canyons and biota, and

(c) possible roles for the AMWG and its TWG in the decision-making process for such actions.
TWG MEETING AND TABLETOP EXERCISE

Background Information

- **Smallmouth Bass: Lessons Learned from the Upper Basin**
- **Non-Native Fish Studies in Lake Powell**
- **Near-Term Threat of Smallmouth Bass Establishment below GCD**
  - Team organized to understand threat and explore mitigation opportunities
  - Non-native aquatic species management actions available to NPS
TWG TABLETOP EXERCISE

**Background Information**
- Breakout Group Brainstorming Session:
  - Priorities
  - Concerns
  - Ideas
  - Data Gaps
  - Decision Processes

**Breakout Group Topic Session:**
- Remediation Action Options
- Detection and Alert Systems
- Decision Making Processes and Information Needs

**Hypothetical Emergency Scenario**
- Large Group Discussion:
  - Gaps
  - Management and Resource Issues
  - Response Speed
  - Unacceptable Outcomes

**Large Group Discussion:**
- How can TWG be a responsive asset and resource to GCDAMP in emergency situation?

**Survey**

**Report**
AMWG motion approved on February 10, 2022: The Adaptive Management Work Group (AMWG) directs the Technical Work Group (TWG), with support from the Grand Canyon Monitoring and Research Center and Reclamation, to identify the scope of work, potential funding sources and priorities, schedule, and staffing needed to evaluate water quality released from Glen Canyon Dam and potential effects on resources in the Colorado River ecosystem (CRE) on a short-term and long-term basis. To address short-term needs, the TWG and GCMRC will prepare an assessment report that focuses on water quality parameters and impacts, including potential thresholds, on affected resources throughout the CRE, subject to available funding. (Estimated cost: $250,000). In the long-term, this evaluation will inform any future AMWG recommendations to the Secretary of the Interior regarding infrastructure modifications.

SOW under development
FUTURE TWG AGENDA ITEMS

- Budget and workplan recommendation
- Monitoring metric next steps
- Monitoring and reporting conditions, e.g., non-native fish passage, DO, temp., declining lake levels
- Tabletop exercise summary and report
- Chair and Vice Chair election
- Science updates