Technical Work Group
Chair Report

Adaptive Management Work Group Meeting
August 17, 2022

Seth Shanahan
TWG Chairperson
Meetings

• Past
  • June 15-16, 2022

• Future
  • October 12-13, 2022
  • January 24-26, 2022 - TWG and AR (in-person??)
Items Reported Elsewhere on AMWG Agenda

- Basin hydrology, operations, and water quality
- Drought operations
- Budget recommendation
- Direction from the Secretary’s Designee
- High risk nonnative fish status
- Programmatic Agreement, science, and experiment updates
Tabletop Exercise Summary

**Purpose**
- Explore agency responsibilities
- Possible ways to respond
- Possible GCDAMP role

**Key Concerns**
- Prioritizing prevention over detection
- Capabilities to detect quickly
- Thresholds for action
- Agency consultation with GCDAMP
- Funding limitations
- Staff and equipment availability
Monitoring Metrics

**LTEMP Performance Metrics: Criteria**

- Reflects the expected performance **outcome** of each LTEMP goal (or measures a performance outcome triggering a legal compliance action or experiment)
- Quantifiable (metric = measurable)
- Technically & financially feasible to measure
- Relevant to the metrics used to select LTEMP preferred alternative

**Next Steps**

- **Today:** Provide input on draft metrics (descriptions - format, content, interpretability, graphical presentations, interpretability, etc.)
- **June 16-30, 2022:** TWG members review draft report; submit written comments NLT 6/30
- **July-August 2022:** Complete discussions re: metrics for Goals 1, 7, & 8; GCMRC revises and finalizes draft metrics for other LTEMP goals
- **September 2022:** Final draft metric descriptions (all goals); present to TWG October 2022
Effects of Bug Flows, Fall HFES, Competition, and Water Quality on Growth Rates of Rainbow Trout in Glen Canyon

Josh Korman
Ecometric Research

Bridget Deemer
Grand Canyon Monitoring & Research Center, Southwest Biological Science Center, US Geological Survey

Charles Yackulic, Ted Kennedy, Mariah Giardina
Grand Canyon Monitoring & Research Center, Southwest Biological Science Center, US Geological Survey

Photo Credit: David Herasimtschuk, ©Freshwaters Illustrated

Funded through Project H. LTEMP Goals: Rainbow Trout Fishery, Humpback Chub, Recreational Experience, and Western Area Power Administration
Very Limited Effects of Annual Implementation of Bug Flows or Fall HFEs on Lifetime Growth

Preliminary Data, Do Not Cite
Water Quality:
Very large negative water temperature effect under drought (2022) conditions

Preliminary Data, Do Not Cite
Trout Management Flow White Paper

Purpose of White Paper
- Not a decision document
- Compilation of information to reference when making a decision
- Review current state of science
  - Design
  - Implementation
  - Effectiveness
- Focus on rainbow trout
  - Brown trout included but not the focus
- *Not a substitute for tribal consultation

Next steps
- Draft paper will be posted on TWG website with June meeting materials
  - Comments focused on topics missing in conversation related to TMFs
- Provide any thoughts/comments to kpedersen@usbr.gov by September 15th, 2022
Martha’s, RM 38.6 left 2021 before and after

State of the Beaches: 2022 Conclusion

- As we know, the monsoon season 2021 deposited the 2nd most sand through the Paria, since we started measuring this deposit.
- No HFE was conducted in 2021
- Camping beaches along the CRE support recreation, but also indicate the health of the ecosystem
- This mega-drought and the Basin Fund were stated reasons for not conducting the fall HFE of 2021
- LTEMP/ HFE protocols allow HFE’s while sending the same amount of water downstream in a water year as not conducting an HFE
- Conducting HFE’s supports science and the Grand Canyon Protection Act
- HFE’s are one of our strongest tools available to mitigate negative impacts from the dam, especially when followed by lower fluctuations
- Climate change will require creative solutions to balance all resources
Future TWG Agenda Items

• Strategic Plan, including operating alternatives
• Project N – hydropower improvement experiment
• Razorback sucker augmentation plans
• Final draft monitoring metrics
• Field conditions and resource status
• Triennial Work Plan and Budget schedule prep.