

Technical Work Group Chair Report

Adaptive Management Work Group Meeting

August 22, 2024

Seth Shanahan

TWG Chairperson

Meetings

- Past
 - July 9-10, July 31, August 8
- Future
 - October 9-10 or 29-30, 2024 (virtual)

Items Reported Elsewhere on AMWG Agenda

- TWP and Budget
- Basin hydrology and operations
- LTEMP SEIS and experiments
- Nonnative fish actions

**Glen Canyon Dam Adaptive Management Program
Adaptive Management Work Group Meeting, August 21-22, 2024**
Shrine of the Ages at the South Rim of the Grand Canyon
Grand Canyon National Park, AZ

Wednesday, August 21, 2024

Wednesday WebEx: [August 21 WebEx](#)

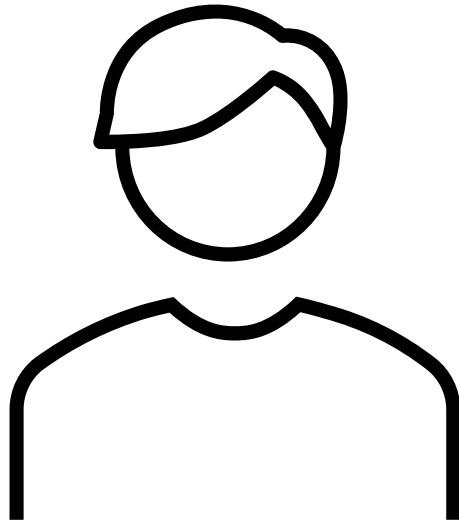
Meeting number: 2826 064 1335 | Password: AMP21

Call in: (415) 527-5035 | Access code: 2826 064 1335

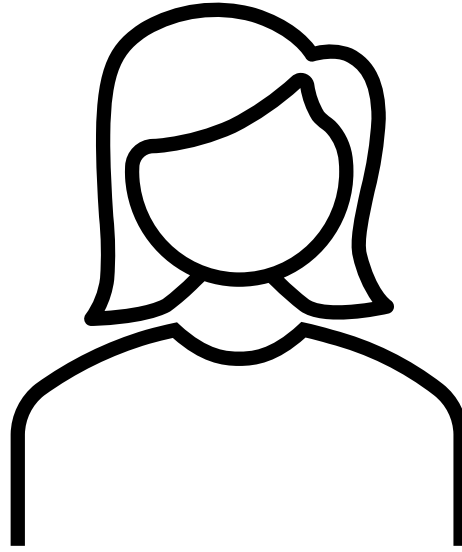
DRAFT AGENDA

START TIME ¹ (Duration)	Wednesday, August 21, 2024 Topic, Presenter, and Purpose ²
9:30 PST (:60)	Welcome and Administrative: Wayne Pullan, Acting Secretary's Designee to the Adaptive Management Work Group <ul style="list-style-type: none">▪ Opening Remarks▪ Introductions and Determination of Quorum (13 members)<ul style="list-style-type: none">○ Facilitator: Terra Alpaugh, Kearns & West

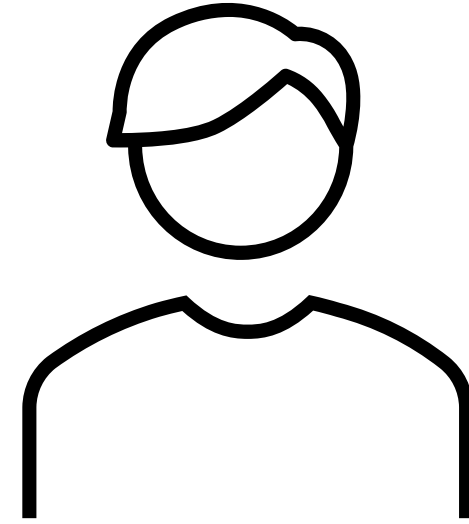
Elections/Appointments



Seth Shanahan,
TWG Chairperson



Michelle Garrison,
TWG Vice-
Chairperson



Jeremy Hammen,
Reclamation
Vice-Chairperson

Ad Hoc Groups

- Steering Committee AHG
- Budget AHG
 - Evaluate lessons learned from TWP
 - Discuss indexing for inflation
 - Discuss 80/20 split
 - Discuss unfunded projects
 - Recommend improvements

Ad Hoc Groups

- Socioeconomic AHG
 - Reclamation Project 4.G hydropower workshop
 - Co-developement of Project J
 - Structured decision analysis workshop
 - Value of information workshop
- Smallmouth Bass AHG
 - Evaluate actions to assess effectiveness; annual report
 - Nonnative workshop
 - Review/recommend plan updates
- Trout AHG
 - Reactivate to address concerns with fishery

Rainbow Trout Fishery: July 2024 Status Update

Brian D. Healy¹, Josh Korman², David Rogowski³, Bridget Deemer¹, Lindsay Hansen¹, Ben Miller¹

¹U.S. Geological Survey, Southwest Biological Science Center, Grand Canyon Monitoring and Research Center

²Ecometric Research

³Arizona Game and Fish Department

Technical Workgroup Meeting
July 10, 2024

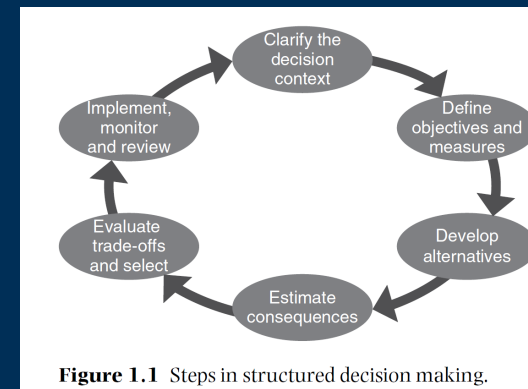


Summary

- Angler catch rates below AZGFD objective
- Abundance low, recent declines in survival observed
 - Suggests unprecedented, extended periods of low dissolved oxygen were a driver (differs from 2014)
- Spring 2024 growth and condition data suggest a rebound is possible
- Uncertainties in drivers of population growth
 - Dependent upon river conditions (e.g., temperature, dissolved oxygen), and biotic factors (food, competitors, predators)

Next Steps

- **Assess causes of decline to inform management and decision-making**
 - Continue AZGFD creel survey (TWP element H.1), TRGD mark-recapture (H.2), and dissolved oxygen monitoring
 - Modeling and analysis (H.3)
 - **Structured decision-making (SDM)?**
 - To inform Rainbow Trout management
 - Rapid prototyping – Multi-criteria decision analysis
 - Recognizing multiple values
 - Time constraints
 - History of SDM use in the Adaptive Management Program





— BUREAU OF —
RECLAMATION

Glen Canyon Dam DO Augmentation

Progress Update July 2024

Alex Walker

WQG, AMWQ Division, UC Region

Currently:

- Initializing project to describe feasibility of DO Augmentation system at GCD
 - Model potential DO increases under a range of conditions
 - Identify a preferred method of augmentation
 - Assess how increased DO would improve downstream fisheries
 - Funding in progress, expected to begin fall 2024
 - Collaborators: GCMRC (Brian Healy and Bridget Deemer), USBR TSC
- Technology Search for DO augmentation methods – follow up to DO State of Science Report
 - Worldwide search for existing and new methods (via a subcontractor, Yet2)
 - Pending final approval, pursuing a project to start July 2024, with a report by end of calendar year
- Discussions with Pacific Northwest National Laboratory
 - 3D modeling of fluid dynamics to predict oxygen mass transfer in water – helpful to determine potential design
 - *Preliminary* discussions – timeline TBD



A large concrete dam with a curved face, likely the Glen Canyon Dam, is shown against a clear blue sky. The dam's surface is light-colored and shows some vertical lines. At the base of the dam, there is a power house with several large turbines visible. The surrounding area is rocky and appears to be a canyon.


Salt River Project Resource Planning

Technical Working Group
Dan Schaefer | July 10th, 2024

Dan.Schaefer@srpnet.com

Overview and Key Takeaways

- One of the fastest growing utilities in the country serving millions of people in the Phoenix Area.
- The growth rate of demand is accelerating at an unprecedented rate.
- Intermittent generation is driving significant changes in operations and planning.
- Bringing on new resources is challenging the ability to meet future demand.
- The grid is changing and the approach to planning is changing with it.

A photograph showing a person's hands holding several small, slender fish (razorback suckers) over a dark, rippling pool of water. The person is wearing a light-colored jacket and a watch. The background is dark and blurry, suggesting an outdoor setting.

Reversing population declines of endangered razorback sucker through adaptive management, 2023-2025

NPS and USFWS

NPS-Natural Resource funding



Razorback sucker released in 2023, recaptured in 2024

Pilot-level augmentation study (3 years) to release juvenile razorback suckers in multiple sites

Increase knowledge of movements and survival of juvenile razorback sucker

Results will allow for adaptation of future translocations and/or augmentation programs to achieve positive population growth rates in GRCA



Razorback sucker released in 2024

2023- released 866 into Havasu Creek. Unfortunately, we've had minimal monitoring, but in May 2024 we recaptured 7. We have some antenna data to look through as well.

2024- released 790 into the Little Colorado River. Will leverage existing monitoring and are planning a separate trip in the fall.

Tune into the 7/18 NPS Fish Stakeholders call for more, or contact Emily (emily_omana@nps.gov)

Future TWG Agenda Items

- Smallmouth bass flow effects monitoring
- Other smallmouth bass and nonnative actions
- -12-mile slough EA status
- Potential for Fall/Spring HFE
- Rainbow trout status
- Pikeminnow transplantations
- Effort and utility of Annual Report
- Cost-cutting opportunities (e.g., WAPA's helicopters)