

**GLEN CANYON DAM ADAPTIVE MANAGEMENT PROGRAM
TECHNICAL WORK GROUP MEETING
NOVEMBER 7-8, 2023**

DAY 1 IN PERSON

Arizona Department of Water Resources
1110 West Washington Street, Suite 310, Phoenix, AZ 85007
Conference Room #3175 on the 3rd floor

DAY 1 WEBINAR

<https://rec.webex.com/rec/j.php?MTID=mf27169ee65afc28353966b334879c4ce>

Call in: 415-527-5035 | Participant Passcode: 2763-681-4739

Meeting Number: 2763 681 4739 | Meeting Password: TWG19 (89419 from video systems)

AGENDA

STARTS AT 8:45 a.m. Pacific Standard Time (PST)/ 9:45 a.m. Arizona Time / 9:45 am Mountain Standard Time (MST)

START TIME (Duration)	November 7, 2023 (Day 1) Topic, Presenter, and Purpose
9:45 MST (:45)	<p>Welcome and Administrative: Seth Shanahan, Technical Work Group (TWG) Chair</p> <ul style="list-style-type: none"> ▪ Introductions and Determination of Quorum (16 members) ▪ Adoption of Prior Meeting Minutes ▪ Next Meeting Date(s): January 23-25, 2024 ▪ Ad Hoc Group Membership and Updates ▪ Review Action Items, Motions, and Votes Form ▪ Update on Monitoring and Research Trips to Occur From Today Until Next Meeting
10:30 MST (:30)	<p>Glen Canyon Dam Adaptive Management Program Budget Priorities: Bill Stewart, Bureau of Reclamation (Reclamation)</p> <ul style="list-style-type: none"> ▪ Q&A and discussion (30 minutes)
11:00 MST (:45)	<p>Socioeconomic Ad Hoc Group Charge: Seth Shanahan, TWG Chair</p> <ul style="list-style-type: none"> ▪ Q&A and discussion (45 minutes) <p><i>Potential charge: The Socioeconomic Ad Hoc Group is charged with working with the Grand Canyon Monitoring and Research Center to recommend a Project N work plan project that, if implemented, might help achieve the LTEMP hydropower and energy resource goal to “maintain or increase Glen Canyon Dam (GCD) electric energy generation, load following capability, and ramp rate capability, and minimize emissions and costs to the greatest extent practicable, consistent with improvement and long-term sustainability of downstream resources.”</i></p>
11:45 MST (1:30)	LUNCH

START TIME (Duration)	November 7, 2023 (Day 1) Topic, Presenter, and Purpose
1:15 MST (:60)	Hydrology, Glen Canyon Dam Operations, and Water Quality Conditions in Lake Powell and Below Glen Canyon Dam: Heather Patno and Robert Radtke, Reclamation <ul style="list-style-type: none"> ▪ Presentation (30 minutes) ▪ Q&A and discussion (30 minutes)
2:15 MST (:45)	Resource Impacts from the Spring High-Flow Experiment: Ben Reeder, Grand Canyon River Guides; Ryan Mann, Arizona Game and Fish Department (AGFD); Paul Grams, GCMRC; Charles Yackulic, GCMRC; Joel Sankey, GCMRC; Nick Williams, Reclamation; Emily Omana and Hannah Chambless, National Park Service (NPS) <ul style="list-style-type: none"> ▪ Presentation, Q&A, and discussion (45 minutes)
3:00 MST (:30)	LTEMP Supplemental Environmental Impact Statement: Bill Stewart, Reclamation <ul style="list-style-type: none"> ▪ Presentation (15 minutes) ▪ Q&A and discussion (15 minutes)
3:30 MST (:15)	BREAK
3:45 MST (:30)	Invasive Fish Surveillance in Lake Powell: Mike Horn, Reclamation; and Barret Friesen, Utah State University <ul style="list-style-type: none"> ▪ Presentation (15 minutes) ▪ Q&A and discussion (15 minutes)
4:15 MST (:45)	Invasive Fish Surveillance in Glen and Grand Canyons: Jeff Arnold, NPS; TBD, AGFD; TBD, GCMRC <ul style="list-style-type: none"> ▪ Presentation (15 minutes) ▪ Q&A and discussion (30 minutes)
5:00 MST (:05)	Public Comment
5:05 MST	ADJOURN

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DAY 2 IN PERSON

Arizona Department of Water Resources
 1110 West Washington Street, Suite 310, Phoenix, AZ 85007
 Conference Room #3175 on the 3rd floor

DAY 2 WEBINAR

<https://rec.webex.com/rec/j.php?MTID=m9fe3cb009f88048f16637afc7197307e>

Call in: 415-527-5035 | Participant Passcode: 2761-656-6975

Meeting Number: 2761 656 6975 | Meeting Password: TWG20 (89420 from video systems)

AGENDA

STARTS AT 8:00 a.m. Pacific Standard Time (PST)/ 9:00 a.m. Arizona Time / 9:00 am Mountain Standard Time (MST)

START TIME (Duration)	November 8, 2023 (Day 2) Topic, Presenter, and Purpose
9:00 MST (:15)	<p>Welcome and Administrative: Seth Shanahan, TWG Chair</p> <ul style="list-style-type: none"> ▪ Introductions and Determination of Quorum (16 members) ▪ Unresolved Issues from Yesterday's Meeting
9:15 MST (:45)	<p>Update on Status of Draft Performance Metrics for the Long-Term Experimental and Management Plan: Helen Fairley, GCMRC</p> <ul style="list-style-type: none"> ▪ Presentation (30 minutes) ▪ Q&A and discussion (15 minutes)
10:00 MST (:45)	<p>Tracking Natal Origins of Brown Trout in Grand Canyon Using Otolith Microchemistry: Michael Akland, SUNY College of Environmental Science and Forestry</p> <ul style="list-style-type: none"> ▪ Presentation (15 minutes) ▪ Q&A and discussion (30 minutes)
10:45 MST (:15)	BREAK
11:00 MST (:45)	<p>Brown Trout Incentivized Harvest Program Status Update: Jeff Arnold, NPS; Charles Yackulic GCMRC</p> <ul style="list-style-type: none"> ▪ Q&A and discussion (45 minutes) <p><i>Background: NPS's Expanded Non-Native Aquatic Species Management Plan lists off-ramps to incentivized harvest action including 1) if actions are ineffective in controlling brown trout, 2) if adequate funding is not available, and 3) if there are long-term unacceptable adverse effects on native fish, rainbow trout or other important resources are expected or observed.</i></p>

START TIME (Duration)	November 8, 2023 (Day 2) Topic, Presenter, and Purpose
11:45 MST (1:30)	LUNCH
1:15 MST (:15)	Informational Updates <ul style="list-style-type: none"> ▪ Southwestern Native Aquatic Resources and Recovery Center follow up: Kerri Pedersen, Reclamation ▪ 2007 Interim Guidelines Supplemental Environmental Impact Statement update: Bill Stewart, Reclamation ▪ A Review of the Implementation Process that Was Used for a Potential Fall High-Flow Experiment and Possible Experimental and Management Actions in the Next 12 Months: Jeremy Hammen ▪ Air injection test opportunities to address low dissolved oxygen at Glen Canyon Dam: Clarence Fullard, Reclamation
1:30 MST (:30)	Fish Propagation Program for the Upper Colorado River Endangered Fish Recovery Program: Julie Stahli, U.S. Fish and Wildlife Service <ul style="list-style-type: none"> ▪ Presentation (15 minutes) ▪ Q&A and discussion (15 minutes)
2:00 MST (:45)	Rapid Response Actions to Address Invasive Fish in the -12 Mile Slough: Jeff Arnold, NPS <ul style="list-style-type: none"> ▪ Presentation (15 minutes) ▪ Q&A and discussion (30 minutes)
2:45 MST (:45)	Other Actions to Prevent Invasive Fish Establishment – Slough Modification Discussion, Thermal Curtain Discussion, and Bypass Tube Generation Discussion: TWG Members <ul style="list-style-type: none"> ▪ Q&A and discussion (45 minutes)
3:30 MST (:15)	BREAK
3:45 MST (:45)	Tribal Monitoring Program and Other Activities: Erik Stanfield, Navajo Nation; Daniel Bullets, Southern Paiute Consortium <ul style="list-style-type: none"> ▪ Presentations (15 minute each; 30 minutes total) ▪ Q&A and discussion (15 minutes)
4:30 MST (:15)	Discussion of Emerging Issues, Updates on Items of Interest That Are in Consideration for Implementation Before Next TWG Meeting, and Request for Agenda Items for Next Meeting: TWG Members <ul style="list-style-type: none"> ▪ Discussion (15 minutes)
4:45 MST (:05)	Public Comment

START TIME (Duration)	November 8, 2023 (Day 2) Topic, Presenter, and Purpose
4:50 MST	ADJOURN