

Glen Canyon Dam Adaptive Management Plan Annual Reporting Meeting 2017

Wyndham Garden Phoenix Midtown
3600 N. 2nd Avenue
Phoenix, AZ 85013
602-604-4900

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Phone: 877-913-4721 Passcode: 3330168

TIME	Tuesday, January 24, 2017
9:30 – 9:35 (:05)	Welcome and Administrative: Seth Shanahan, Technical Work Group (TWG) Chair <ul style="list-style-type: none"> • Introductions: Scott VanderKooi, Chief, GCMRC
Water Quality, Sediment Transport, and Geomorphology	
9:35 – 10:10 (:35)	Streamflow, water quality, sediment transport, and sand budgets in the Colorado River ecosystem, David Topping, USGS, GCMRC
10:15 – 10:30 (:15)	Hydrologic Change, and the Geomorphic Transformation of the Little Colorado River. Implications for Sediment Delivery to the Grand Canyon, David Dean, USGS, GCMRC
10:35 – 11:05 (:30)	Status of sandbars and sand storage, Paul Grams, USGS, GCMRC
11:10 – 11:30 (:20)	Lake Powell's influence on water quality outflows from Glen Canyon Dam, Robert Radtke, USBR
11:35 – 12:00 (:25)	Stakeholder Discussion: Management Implications of Water Quality, Sediment Transport, and Geomorphology Monitoring and Research: Paul Grams, moderator
12:00 – 1:00 (1:00)	L U N C H
Riparian and Terrestrial Resources	
1:00 – 1:20 (:20)	Fluvial-aeolian sediment connectivity during the current HFE protocol: effects for dunefields and archaeological sites, Joel Sankey, USGS, GCMRC
1:25 – 1:40 (:15)	Individual and additive effects of vegetation encroachment and hydrologic alteration on fluvial-aeolian sediment connectivity in grand canyon, Alan Kasprak, USGS, GCMRC
1:45 – 2:15 (:30)	Zuni Grand Canyon Film, Kurt Dongoske, Pueblo of Zuni
2:20 – 2:45 (:25)	Historical Changes to Culturally-Important Riparian Plants along the Colorado River: A Progress Report on Project 12: Helen Fairley, USGS, GCMRC
2:45 – 3:00 (:15)	B R E A K
3:00 – 3:30 (:30)	Kinship to the Canyon: Hualapai stories of success, Carrie Cannon and Bennett Jackson, Hualapai Tribe
3:35 – 4:05 (:30)	Placeholder, Navajo Nation
4:10 – 4:30 (:20)	Stakeholder discussion: Management implications of riparian and terrestrial resource monitoring and research, Helen Fairley, moderator
4:30	Adjourn
4:45 – 6:45	POSTER SESSION (list of posters attached)

Poster Title	Author
Placeholder	David Topping & David Dean
Placeholder	David Topping & David Dean
Ground-based riparian vegetation monitoring and research	Emily Palmquist
Efforts to Establish a Long-Term Monitoring Protocol of Alluvial Sandbars using 'Structure-from-Motion' Photogrammetry	Rebecca Rossi and others
Recreational-Grade Sidescan Sonar: Transforming a Low-Cost Leisure Gadget into a High Resolution Riverbed Remote Sensing Tool	Daniel Hamill and others
Estimating bedload from gage data to improve flux-based sediment budgets	Thomas Ashley and others
Geomorphic process from topographic form: automating the interpretation of repeat survey data for monitoring fluvial-aeolian sediment connectivity	Joshua Caster and others
Beyond Compliance: Evolution and Design of a Program to Monitor Downstream Dam Effects at Archaeological Sites in Glen and Grand Canyons, Arizona	Helen Fairley and others
Hopi Long-term Monitoring Program - 2016 Results	Mike Yeatts
Citizen Science monitoring of aquatic insects in the upper Colorado River basin	Anya Metcalfe, Ted Kennedy, Jeff Muehlbauer
Aquatic invertebrate response to brown trout removal in Bright Angel Creek: study design and preliminary results	Megan Daubert, Jeff Muehlbauer, Ted Kennedy
Terrestrial-aquatic linkages in the Grand Canyon; preliminary results	Christina Lupoli
Trophic ecology of native fishes in the Little Colorado River (Completed MS Thesis)	Kate Behn
HFE 2016 photographs and other online data	Tom Gushue
Economic analysis of Glen Canyon angler and Grand Canyon whitewater visitor surveys	Lucas Bair
Patterns of invertebrate prey selection by Rainbow Trout in the Colorado River	Mike Dodril and Charles Yackulic
Placeholder	Mike Yard and Josh Korman
Modeling primary production in the Colorado River	Bridget Deemer
Green sunfish eradication at Lees Ferry	David Ward
Southern Paiute Consortium vegetation and cultural resource monitoring	Charley Bullets
CO ₂ dynamics and implications for fish in the Little Colorado River	David Ward

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TIME	Wednesday, January 25, 2017
8:15 – 8:30 (:15)	Welcome and Administrative: Seth Shanahan, TWG Chair <ul style="list-style-type: none"> • Introductions: Scott VanderKooi, Chief, USGS, GCMRC
Fisheries in Glen Canyon and Lees Ferry	
8:30 – 8:50 (:20)	Lees Ferry monitoring, Dave Rogowski, AZGFD
8:55 – 9:15 (:20)	Lees Ferry rainbow trout dynamics, Mike Yard, USGS, GCMRC
9:20 – 9:45 (:25)	A synthesis of what we have learned about rainbow trout movement, growth, survival over the study period that has implications to management, Josh Korman, EcoMetric Inc.
9:45 – 10:00 (:15)	B R E A K
Aquatic ecology and fisheries in Marble and Grand Canyon	
10:00 – 10:30 (:30)	Fluvial aquatic ecology of the Colorado River, Jeff Muehlbauer, USGS, GCMRC
10:35 – 10:55 (:20)	Floods, Fluctuating Flows, and the Foodbase, Ted Kennedy, USGS, GCMRC
11:00 – 11:20 (:20)	It's not just about temperature and flow: the potential role of nutrients as a driver of Colorado River ecosystem dynamics, Charles Yackulic, USGS, GCMRC
11:25 – 11:45 (:20)	Brown trout in Glen Canyon: Insights from an Expert Elicitation Survey, Jeff Muehlbauer, USGS, GCMRC
11:50 – 12:15 (:25)	Stakeholder Discussion: Management implications of HFEs effects and brown trout, Ted Kennedy moderator
12:15 – 1:30 (1:15)	L U N C H
1:30 – 1:50 (:20)	Humpback Chub aggregations, Kirk Young/Randy VanHaverbeke/Mike Dodrill, USFWS, USGS, GCMRC
1:55 – 2:15 (:20)	System wide mainstem monitoring, Dave Rogowski, AZGFD
Little Colorado River and other tributaries	
2:20 – 2:40 (:20)	Little Colorado River population monitoring, Randy VanHaverbeke, USFWS
2:45 – 3:10 (:25)	Humpback chub that spawn in the LCR: Status, trends and potential drivers, Charles Yackulic, USGS, GCMRC
3:10 – 3:25 (:15)	B R E A K
3:25 – 3:45 (:20)	Is rainbow trout control necessary, and if so what is the most cost-effective approach? Lucas Bair, USGS, GCMRC
3:50 – 4:15 (:25)	Bright Angel brown trout removal and humpback chub translocations, Brian Healy, NPS
Hydropower and Energy	
4:20 – 4:40 (:20)	Status and trends of hydropower and energy, Craig Ellsworth, WAPA
4:45-5:00 (:15)	Stakeholder Discussion and closing thoughts, Scott VanderKooi moderator
5:00	Adjourn

**GLEN CANYON DAM ADAPTIVE MANAGEMENT PROGRAM
TECHNICAL WORK GROUP MEETING**

JANUARY 26, 2017

12/16/2016 Draft Agenda

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DRAFT AGENDA

START TIME (Duration)	Thursday, January 26, 2017 Topic, Presenter, and Purpose	Materials/ Tabs
8:15 (:30)	Welcome and Administrative: Seth Shanahan, Technical Work Group (TWG) Chair <ul style="list-style-type: none"> ▪ Introductions and Determination of Quorum (16 members) ▪ Approval of October 18-19, 2016, Meeting Minutes ▪ Review of Action Items ▪ Introduction of Superintendent for the Glen Canyon National Recreation Area ▪ Introduction of Deputy Chief for the Grand Canyon Monitoring and Research Center (GCMRC) ▪ Next Meeting Date, April 20-21, 2017 ▪ Ad Hoc Group Updates ▪ Science Advisors Program Update ▪ Update on Plan for Controlling High Risk Aquatic Invasive Fish Species, Ken Hyde, National Park Service ▪ Update on High Flow Experiment Reporting 	
8:45 (:30)	Review of the 2017 Annual Reporting Meeting and Discussion of Knowledge Assessment: Seth Shanahan, TWG Chair <ul style="list-style-type: none"> ▪ Presentation (10 minutes) ▪ Q&A and discussion (20 minutes) 	
9:15 (1:15)	Update on the Long-Term Experimental and Management Plan (LTEMP) Record of Decision (ROD) Including a Discussion of Any Changes to Operations or Any Experimental and Management Actions that May be Implemented for the Remainder of WY17: Katrina Grantz, Reclamation <ul style="list-style-type: none"> ▪ Presentation (30 minutes) ▪ Q&A and discussion (45 minutes) 	
10:30 (:15)	Update on Hydrology and Operations: Paul Davidson, Reclamation <ul style="list-style-type: none"> ▪ Presentation (10 minutes) ▪ Q&A and discussion (5 minutes) 	
10:45 (:15)	As Requested by the Adaptive Management Work Group, Review the FY17 Budget to Determine if Budget or Work Plan Changes May be Needed as a	

START TIME (Duration)	Thursday, January 26, 2017 Topic, Presenter, and Purpose	Materials/ Tabs
	<p>Result of the LTEMP ROD: Seth Shanahan, TWG Chair; Shane Capron, BAHG Chair</p> <ul style="list-style-type: none"> ▪ Presentation (5 minutes) ▪ Q&A and discussion (10 minutes) 	
11:00 (:15)	BREAK	
11:15 (:30)	<p>Review of Funding Guidance and Other Guidance for the Glen Canyon Dam Adaptive Management Program: Rod Smith, Department of the Interior</p> <ul style="list-style-type: none"> ▪ Presentation (15 minutes) ▪ Q&A and discussion (15 minutes) 	
11:45 (:15)	<p>Discuss Upcoming Budget and Conduct Group Exercise to Develop Initial Budget Guidance for GCMRC and the Bureau of Reclamation – Part 1: Seth Shanahan, TWG Chair; Katrina Grantz, Bureau of Reclamation (Reclamation); Scott VanderKooi, GCMRC; Shane Capron, BAHG Chair; and TWG Members</p> <ul style="list-style-type: none"> ▪ Presentation (15 minutes) 	
12:00 (1:00)	LUNCH	
1:00 (1:30)	<p>Discuss Upcoming Budget and Conduct Group Exercise to Develop Initial Budget Guidance for GCMRC and the Bureau of Reclamation – Part 2: Seth Shanahan, TWG Chair; Katrina Grantz, Bureau of Reclamation (Reclamation); Scott VanderKooi, GCMRC; Shane Capron, BAHG Chair; and TWG Members</p> <ul style="list-style-type: none"> ▪ Q&A and discussion (90 minutes) 	
2:30 (:30)	<p>Update about Brown Trout Management Considerations: Brian Healy, NPS</p> <ul style="list-style-type: none"> ▪ Presentation (10 minutes) ▪ Q&A and discussion (20 minutes) 	
3:00 (:05)	Public Comment	
3:05	ADJOURN	