

Glen Canyon Dam Adaptive Management Program Annual Reporting Meeting 2020

Hilton Garden Inn

7290 S Price Road, Tempe, AZ 85283

WebEx: <https://usbor.webex.com/usbor/j.php?MTID=m1305fe1a7c787179fb8dff6b223f3f17>

Phone: 877-932-7704 Passcode: 8410783

TIME	Monday, January 13, 2020
9:00 – 9:10 (:10)	Welcome and Administrative: Seth Shanahan, Technical Work Group (TWG) Chair <ul style="list-style-type: none"> • Introductions: Michael Moran, Deputy Chief, USGS, GCMRC
Sediment Resources	
9:10 – 9:35 (:25)	Project A. Streamflow, Water Quality, Sediment Transport, and Sand Budgets in the CRE: Is sand management in Grand Canyon sustainable? David Topping, USGS, GCMRC
9:40 – 10:00 (:20)	Geomorphic change and biogeomorphic feedbacks in the Little Colorado River: Implications for reduced sediment loads and habitat, David Dean, USGS, GCMRC
10:05 – 10:25 (:20)	Effects of dam releases on in-channel sediment storage and sandbar dynamics, Paul Grams, USGS, GCMRC
10:30 – 10:50 (:20)	Changes in sandbars and campsites during the HFE Protocol, Joe Hazel and Matt Kaplinski, NAU
10:50 – 11:05 (:15)	Stakeholder Discussion – Management implications of sediment, sand bars, and geomorphology monitoring and research: moderator Paul Grams, USGS, GCMRC
Tribal Resources	
11:05 – 11:25 (:20)	Hopi monitoring update, Jakob Maase, Hopi Tribe
11:30 – 11:50 (:20)	Navajo Nation tribal preferences for and values of resources downstream of Glen Canyon Dam, Lucas Bair, USGS, GCMRC
11:50 – 12:00 (:10)	Stakeholder Discussion – Management implications of tribal resources monitoring and research: moderator Jakob Maase, Hopi Tribe
12:00 – 1:00 (1:00)	LUNCH
Hydropower and Energy Resources	
1:00 – 1:20 (:20)	Glen Canyon hydropower production and value: status & trends, Clayton Palmer, WAPA
1:25 – 1:45 (:20)	Identifying the total economic value of hydropower at Glen Canyon Dam and implications for adaptive management, Lucas Bair, USGS, GCMRC
1:45 – 2:00 (:15)	Stakeholder Discussion – Management implications of hydropower and energy monitoring and research: moderator Clayton Palmer, WAPA
Natural Processes/Aquatic Food Base	
2:00 – 2:20 (:20)	Lake Powell as a regulator of downstream water quality and ecosystem productivity, Bridget Deemer, USGS, GCMRC
2:25 – 2:45 (:20)	Potential implications of a warmer future for the Colorado River ecosystem, Kim Dibble, USGS, GCMRC
2:50 – 3:00 (:10)	BREAK
3:00 – 3:30 (:30)	Colorado River ecosystem response to the Bug Flow Experiment, Ted Kennedy and Jeff Muehlbauer, USGS, GCMRC
3:35 – 4:15 (:40)	Energetic constraints on fish populations, Charles Yackulic, USGS, GCMRC
4:15 – 4:30 (:15)	Stakeholder Discussion – Management implications of natural processes and aquatic food base monitoring and research: moderator Kim Dibble, USGS, GCMRC
4:30	Adjourn
5:00 – 7:00	POSTER SESSION (list of posters attached)

Poster Session - Hilton Garden Inn, 7290 S Price Road, Tempe, AZ, Monday, January 13, 2020, 5-7 PM

Poster Title	Author
Sediment Resources	
Geomorphic change on the lower Little Colorado River	Joel Unema, USGS
Estimates of sand thickness and total sand storage for west-central Grand Canyon	Dan Buscombe, NAU
Tracing the origin of sandbar deposits in the Grand Canyon of the Colorado River using XRF signatures and Bayesian mixing models	Katie Chapman, NAU
Riparian Vegetation/Archaeological Resources	
5-year status and trends report on vegetation conditions in the Colorado River corridor of the Grand Canyon	Brad Butterfield, NAU Emily Palmquist, USGS, GCMRC
Genetic structure and gene flow in Grand Canyon riparian plants: Implications for Vegetation Management	Emily Palmquist, USGS, GCMRC
Documenting Colorado River Ecosystem changes with repeat photography	Helen Fairley, USGS, GCMRC
Tribal Resources	
Story map of Hualapai connections to the Colorado River/Grand Canyon	Peter Bungart, Hualapai Tribe
Nonnative Invasive Species	
Can Colorado River native fish utilize New Zealand mudsnail as a food source?	Hailey Nelson, Basis High School, David Ward, Laura Tennant, Clay Nelson, USGS, GCMRC
Aquatic Food Base	
Hydropower limits on aquatic invertebrates in the Grand Canyon affect fish biomass	Jan Boyer, David Rogowski, AZGFD, Theodore Kennedy, Jeff Muehlbauer, USGS, GCMRC
Humpback Chub/Other Native Fish	
Tools for discriminating between two sucker species and their hybrids	Pilar Wolters, AZGFD
Modeling abundance and distribution of juvenile Humpback Chub in Colorado River backwaters	Laura Tenant, USGS, GCMRC
Data Stewardship	
Glen Canyon Dam Adaptive Management Program Wiki: A one-stop shop for information	Craig Ellsworth, WAPA

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TIME	Tuesday, January 14, 2020
8:30 – 8:40 (:10)	Welcome and Administrative: Seth Shanahan, TWG Chair <ul style="list-style-type: none"> • Introductions: Scott VanderKooi, Chief, USGS, GCMRC
Riparian Vegetation/Archaeological Resources	
8:40 – 9:00 (:20)	Species-level evaluation of riparian vegetation dynamics using remotely sensed imagery from aerial overflights, Joel Sankey, USGS, GCMRC
9:05 – 9:25 (:20)	Vegetation feedbacks on sandbar deposition and erosion, Brad Butterfield, NAU
9:30 – 9:45 (:15)	Experimental riparian vegetation removals, Lonnie Pilkington, NPS, GRCA
9:50 – 10:10 (:20)	Geomorphic Effects of Dam Operations and Vegetation Management for Archaeological Sites, Joel Sankey, USGS, GCMRC
10:10 – 10:20 (:10)	Stakeholder Discussion – Management implications of riparian vegetation and archeological resources and monitoring and research: moderator Joel Sankey, USGS, GCMRC
10:20 – 10:30 (:10)	BREAK
Rainbow Trout Fishery	
10:30 – 10:50 (:20)	Lees Ferry trout monitoring, Dave Rogowski, AZGFD
10:55 – 11:15 (:20)	Glen Canyon trout populations, Mike Yard, USGS GCMRC
11:20 – 11:40 (:20)	What determines the abundance of rainbow trout near the Little Colorado River confluence? Josh Korman, Ecometric
11:40 – 12:00 (:20)	Stakeholder Discussion – Management implications of rainbow trout fishery monitoring and research: moderator Dave Rogowski, AZGFD
12:00 – 1:00 (1:00)	LUNCH
Other Native Fish/Nonnative Invasive Species	
1:00 – 1:25 (:25)	Grand Canyon systemwide fish monitoring, Jan Boyer, AZGFD
1:30 – 2:00 (:30)	Effects of warmwater invasive species, David Ward, USGS, GCMRC
2:00 – 2:20 (:20)	Stakeholder Discussion – Management implications of other native and invasive fish species monitoring and research: moderator David Ward, USGS, GCMRC
Humpback Chub	
2:20 – 3:20 (:60)	Little Colorado River and mainstem humpback chub population dynamics, Randy Van Haverbeke, USFWS and Maria Dzul, USGS, GCMRC
3:25 – 3:40 (:15)	BREAK
3:40 – 4:00 (:20)	Bright Angel Creek native fish restoration, Brian Healy, NPS
4:05 – 4:25 (:20)	NPS humpback chub translocations, Emily Omana Smith, NPS
4:25 – 4:40 (:15)	Stakeholder Discussion – Management implications of humpback chub monitoring and research: moderator Emily Omana Smith, NPS
4:40	Adjourn