## Glen Canyon Dam Adaptive Management Program Annual Reporting Meeting 2021

WebEx: https://bor.webex.com/bor/j.php?MTID=mb12e3159360158cb8099dac6cbc22c74

Meeting # 199 863 7739

Password: AR20

Phone: (415) 524-5035 Access code: 199 863 7739

TIME	Wednesday, January 20, 2021	
8:30 - 8:40	Welcome and Administrative: Seth Shanahan, Technical Work Group (TWG) Chair	
(:10)	Introductions: Michael Moran, Deputy Chief, USGS GCMRC	
Modeling Tools for Management		
8:40 – 9:00 (:20)	Mike Runge, USGS Patuxent Wildlife Research Center, Introduction to modeling tools for adaptive management	
9:00 – 9:15 (:15)	Brad Butterfield, NAU, Riparian vegetation	
9:20 – 9:35 (:15)	Charles Yackulic, USGS GCMRC, Fish populations in Lees Ferry and the Little Colorado River	
9:40 – 9:55 (:15)	Kim Dibble, USGS GCMRC, Fish populations in the Western Grand Canyon	
10:00 – 10:20 (:20)	BREAK	
10:20 – 10:35 (:15)	Paul Grams, USGS GCMRC, Sediment in the Grand Canyon	
10:40 – 10:55 (:15)	Lucas Bair, USGS GCMRC, Recreational use in Glen and Grand Canyons	
11:00 – 11:15 (:15)	Clayton Palmer, WAPA, Hydropower	
11:20 – 12:00 (:40)	Panel Discussion, Modeling Tools for Management: Mike Runge, Charles Yackulic, and Lucas Bair, moderators	
12:00 – 12:45 (:45)	LUNCH	
	Humpback Chub and Other Native Fish	
12:45 – 1:45 (:60)	Maria Dzul, USGS GCMRC, Randy VanHaverbeke, USFWS, Humpback chub in the Grand Canyon	
1:50 – 2:10 (:20)	Brian Healy, NPS, Humpback chub translocations	
2:15 – 2:35 (:20)	<b>Dave Rogowski, AGFD,</b> Colorado River native and nonnative fish abundance and distribution including Pearce Ferry rapid	
2:35 – 2:50 (:15)	Stakeholder Discussion: Management implications of humpback chub and other native fish monitoring and research: TBD, moderator	
2:50 – 3:05 (:15)	BREAK	
Water Quality/Ecosystem Drivers/Aquatic Food Base		
3:05 – 3:25 (:20)	Bridget Deemer, USGS GCMRC, Flows and phosphorus: the influence of Lake Powell on primary production dynamics in the Colorado River	
3:30 – 3:50 (:20)	Jeff Muehlbauer and Ted Kennedy, USGS GCMRC, Bug flows 2020	
3:50 - 4:05 (:15)	Stakeholder Discussion: Management implications of water quality, ecosystem drivers, and aquatic food base monitoring and research, TBD, moderator	
	Rainbow Trout Fishery	
4:05 – 4:25 (:20)	Jan Boyer, AGFD, Lees Ferry fishery monitoring	
4:30 – 4:50 (:20)	Mike Yard, USGS GCMRC, Rainbow trout in Glen and Grand canyons	
4:50 – 5:05 (:15)	Stakeholder Discussion: Management implications of rainbow trout fishery monitoring and research: TBD, moderator	
5:05	Adjourn	
5:30 - 7:00	POSTER SESSION (list of posters attached)	

Poster Session: 5:30 – 6:30 PM Click Here for Poster Session			
Poster Title	Author		
Water Quality/Ecosystem Drivers/Aquatic Food Base			
Sources and forms of phosphorus in the Colorado River in Grand Canyon: Lightning talk at 5:30 PM	Somer Morris, USGS GCMRC		
Thermal tolerance and riverbed drying resistance of a pestiferous net-spinning caddisfly, <i>Smicridea fasciatella</i> , below the Davis Dam: <b>Lightning talk at 5:45 PM</b>	Michael Cavallaro, Bullhead City, AZ		
Archaeological Resources/Riparian Vegetation/Hydropower and Energy			
Vegetation monitoring, status and trends: Lightning talk at 6:00 PM	Emily Palmquist, USGS GCMRC, Brad Butterfield NAU, and Erica Fraley, USGS GCMRC		
Nonnative Invasive Species			
Effects of common carp predation on survival of humpback chub eggs and larvae: Lightning talk at 6:15 PM	David Ward, USGS GCMRC		

## Glen Canyon Dam Adaptive Management Program Annual Reporting Meeting 2021

WebEx: https://bor.webex.com/bor/j.php?MTID=maf32ead06e432fa4935ec92e3b393c8e

Meeting Number: 199 678 0474 Password: **AR21** Phone Number: 415-527-5035 Access Code: 199 678 0474

TIME	Thursday, January 21, 2021		
8:30 - 8:40	Welcome and Administrative: Seth Shanahan, TWG Chair		
(:10)	Introductions: Scott VanderKooi, Chief, USGS, GMCRC		
Tribal Resources			
8:40 – 9:00 Lucas Bair, USGS GCMRC, Incorporating tribal knowledge and preferences into adaptive			
(:20)	management: A survey of the Hualapai Tribe		
9:00 - 9:15	Kurt Dongoske, Pueblo of Zuni, Place, time, and consciousness in the Glen Canyon Dam Adaptive		
(:15)	Management Program (Session organizer), Introduction to session		
9:15 - 9:35	<b>Giorgio Hadi Curti, San Diego State,</b> What does science do? A disparate dance of states of affairs and		
(20)	cartographic events		
9:35 – 9:55 (20)	Edward Wemytewa, Pueblo of Zuni		
9:55 - 10:15 (20)	Lucas Bair, Emily Palmquist, and Charles Yackulic, USGS GCMRC		
10:15 - 10:35 (20)	Simone Athayde, Amazon Dams Network		
10:35 - 10:55 (20)	Claire Smith, Flinders University, Australia		
10:55 - 11:15 (20)	Rebecca Tsosie, James E. Rogers College of Law, University of Arizona, Discussant		
11:15 - 101:45	Panel Discussion: Place, time, and consciousness in the Glen Canyon Dam Adaptive		
(:30)	Management Program, Kurt Dongoske, Pueblo of Zuni		
11:45 – 12:30 (:45)	LUNCH		
	Sediment, Sandbars, and Geomorphology		
12:30 - 12:50	David Topping, USGS GCMRC, The long-term sustainability of sand resources in the Colorado River		
(:20)	ecosystem remains an open question		
12:55 – 1:15	Paul Grams, USGS GCMRC, The effects of high-flow experiments and dam releases on sandbar		
(:20)	erosion and deposition in Marble and Grand Canyons		
1:20 - 1:40	Alan Kasprak, Fort Lewis College, Future regulated flows of the Colorado River in Grand Canyon		
(:20)	foretell decreased areal extent of sediment and increases in riparian vegetation		
1:40 – 1:55 (:15)	Stakeholder Discussion: Management implications of sediment, sand bars, and geomorphology		
	monitoring and research: TBD, moderator		
	ogical Resources/Riparian Vegetation/Hydropower and Energy		
1:55 – 2:15 (:20)	Lonnie Pilkington, NPS and Joel Sankey USGS GCMRC, Vegetation management in the Grand Canyon		
2:20 - 2:40	Helen Fairley, USGS GCMRC, Using repeat photography to document dam operation effects on sand		
(:20)	supply, aeolian landscapes, and terrestrial ecology in the Colorado River Ecosystem		
2:45 – 3:05 (:20)	Clayton Palmer, WAPA, Glen Canyon Dam hydropower production – status, trends, and experiments		
3:05 - 3:20	Stakeholder Discussion: Management implications of archeological resources, riparian		
(:15)	vegetation, and hydropower and energy monitoring and research: TBD, moderator		
3:20 - 3:40	BREAK		
(:20)	Normating Langeing Species		
	Nonnative Invasive Species		
3:40-4:00	David Ward, USGS GCMRC, Assessing relative predation risks to native fishes from introduced		
(:20)	warm-water predators		
4:05 – 4:25 (:20)	Brian Healy, NPS, Brown trout control		
4:30 – 4:50 (:20)	Charles Yackulic, USGS GCMRC, Brown trout population modeling		
4:50 - 5:05	Stakeholder Discussion: Management implications of nonnative invasive fish monitoring and		
(:15)	research: TBD, moderator		
5:05	Adjourn		