SESQUICENTENNIAL COLORADO RIVER EXPLORING EXPEDITION

1869-2019

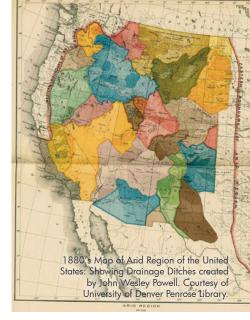
Top: Second Powell River Expedition launch crew, May 1871. Photo Credit: E.O. Beaman, LOC. Bottom: SCREE launch crew, May 24, 2019. Photo credit: Mike Vanata.

SESQUICENTENNIAL COLORADO RIVER EXPLORING EXPEDITION

On May 24th, 1869, the ten men of the Colorado River Exploring Expedition stood at the banks of the Green River in the Wyoming Territory prepared to enter into a region of the United States known only as "unexplored territory." The expedition was to enter into the "Great Unknown," take scientific measurements, chart the region, and effectively complete our nation's maps. To John Wesley Powell, unexplored territory was unacceptable and unknowns were opportunities for greater understanding. Powell and his crew traveled nearly 1000 miles from Green River City, Wyoming Territory to the mouth of the Virgin River, in present day Lake Mead, through a wild and sparsely inhabited system of river canyons. The West was a new and final frontier, ripe for development and lacking only a system for the control and manipulation of the Colorado River's water. By erasing empty space and, in turn, leaving only defined place, Powell's journey fueled a western migration that continues today.

The unexplored territory of 1869 through which the Colorado River Exploring Expedition was the first to travel in a continuous, deliberate progression continues to be explored by adventurous boatmen and boatwomen. Powell's unknown has become a highly visited, studied and managed environment encompassing seven states, two U.S. Forest Service units, three Bureau of Land Management field offices, three U.S. Bureau of Reclamation reservoirs, two U.S. Fish and Wildlife Service refuges, and five National Park Service units. The Colorado River Basin also continues to support indigenous communities on five Native American reservations.

In many ways, experiences similar to those of the Colorado River Exploring Expedition are available through the stewardship of public land management agencies. However, our perception of place and the resulting relationship to the environment of the arid West are easily distinguished from Powell's time. The Colorado River Exploring Expedition embarked from Green River, Wyoming armed with "two sextants, four chronometers, a number of barometers, thermometers, compasses, and other instruments" (Powell 1875, pg. 8) and began a process of complete geographic, geologic, and topographic surveys of the American West. The linear progression of the systematic and methodological utilization of water resources - a process commenced by Powell's surveys of the arid region of the United States—has led to a contemporary Great Unknown, one in which we have inherited a system of management built upon incomplete scientific knowledge and techniques better



applied in more humid regions. This system has begun to show weaknesses and has forced reactive management as pressures increase from climatic uncertainties, increased populations, compact obligations for water allocations, and most recently a move to privatize 640 million acres of public lands. Today, 150 years after Powell, a methodological lineage exists between his systematic inquiry into the unexplored territory of the arid West and the complex plumbing of the modern Colorado River system that supports over 40 million Americans through storage reservoirs, irrigation and trans-basin diversions.

The 150th anniversary of the Colorado River Exploring Expedition offered an opportunity to once again begin a systematic and deliberate expedition into the unexplored territory of Western economies, politics, and ideologies as they relate to the water resources of the Colorado River Basin. Powell was able to travel through a continuous, natural riparian ecosystem. This experience is no longer possible, as the system is now separated into two basins, with three major dams, 15 management areas, and over 20 significant laws governing the allocation of Colorado River water. Because of these major differences, the expedition was not a reenactment of the past, but rather a re-envisioning of our future that engages traditional, historic, and contemporary river ecosystem perspectives to derive proactive management strategies, integrating community values, science, and humanities through an analysis of culture, informed management, and traditional ecological knowledge.

TRIP PARTICIPANTS -

DATES ON EXPEDITION	NAME (FIRST & LAST)	ROLE
May 24 - August 1	Tom Minckley	Expedition Leader, thru-tripper, co-editor of "Vision & Place: John Wesley Powell and Re-imagining the Colorado River Basin", plus SCREE crew member.
May 24 - August 1	Patrick Kikut	Lead Artist, thru-tripper, organizer of Expanded Art Exhibition "Contemporary Views of the Arid West: People, Places and Spaces" and SCREE crew member.
May 24 - August 1	Ben Kraushaar	Lead Videographer & Photographer, thru-tripper and SCREE crew member.
May 24 - June 4 June 21 - August 1	Jessica Flock	Outreach & Education Coordinator, camp kitchen manager and SCREE crew member.
May 24 - June 4 June 22-23 June 28 - July 10 July 19 - July 31	Cody M. Perry	Co-founder of Rig to Flip, videographer and SCREE crew member.
June 11-23 June 28-July 5 July 11-12	John Weisheit	Co-founder of Living Rivers-Colorado Riverkeeper and SCREE crew member.
June 5-21 July 19-31	Austin Alvarado	SCREE crew member.
June 11-21	Ben Capelin	SCREE crew member.
June 23-July 5	Matt Cuzzocreo	SCREE crew member.
July 13-August 1	David Jones	Contributing artist and SCREE crew member.
July 13-31	Lynn Bryson	SCREE crew member.
July 13-31	Troy Richardson	SCREE crew member.
May 24-June 4	Noel Richardson	SCREE crew member.
May 31-June 4	Nate Talkington	SCREE crew member.
May 25-28	Brandon McElroy	SCREE crew member.
May 24 - June 1	William Gribb	Contributing author to "Vision & Place" and SCREE crew member.
May 24 - June 4	Bailey Russel	Contributing artist and SCREE crew member.
June 11-21 June 28-July 31	Dan McCool	Contributing author and co-editor of "Vision & place", plus SCREE participant.

DATES ON EXPEDITION	NAME (FIRST & LAST)	ROLE
June 11-21 June 28-July 12	Janet Winniford	SCREE participant.
July 11-31	Weston McCool	Contributing author to "Vision & Place" and SCREE participant.
June 11-23 July 11-12 July 14-31	Paul Hirt	Contributing author to "Vision & Place", Page, AZ outreach event coordinator and SCREE participant.
July 13-31	Amorina Lee-Martinez	Contributing author to "Vision & Place" and SCREE participant.
July 13-31	Ben Masters	SCREE participant and media collaborator.
June 23-July 5	Erika Osborne	Contributing artist and SCREE participant.
June 11-21	Matthew McKinney	Director, University of Montana Center for Natural Resources & Environmental Policy and SCREE participant.
June 11-21	Linda Jaske	SCREE participant.
June 11-21	Paul Larmer	Publisher & Executive Director of High Country News and SCREE participant.
June 11-21	Daryl Vigil	Water administrator for Jicarilla Apache Nation and SCREE participant.
June 28 - July 5	Kate Hudson	SCREE participant.
June 22 - June 28	Tracey Kikut	SCREE participant and Cyanotype Photo processor.
July 5-11	Jason Robison	Lead editor for "Vision & Place: John Wesley Powell and Re-Imagining the Colorado River Basin" and SCREE crew member.
July 14-19	Will Wilson	Contributing artist and SCREE participant.
June 1-4	Rachel St. John	Contributing author to "Vision & Place" and SCREE participant.
June 1-4	Louis Warren	Contributing author to "Vision & Place" and SCREE participant.



USGS PARTICIPANTS

DATES ON EXPEDITION	NAME (FIRST & LAST)	ROLE
May 24-28	Robert Barth	SCREE participant and scientific data collector.
May 24-28	Janis LeMaster	SCREE participant and scientific data collector.
May 24-28	Russell Sherman	SCREE participant and scientific data collector.
May 28-31	Jason Alexander	SCREE participant and scientific data collector.
May 28-31	Anne Ballmann	SCREE participant and scientific data collector.
May 28-31	Sharon Borland	SCREE participant and scientific data collector.
May 28-31	Melissa Lombard	SCREE participant and scientific data collector.
June 1-4 July 19-31	Bret Bruce	SCREE participant and scientific data collector.
June 1-4	James Prairie	SCREE participant and scientific data collector.
June 5-10	William Burton	SCREE participant and scientific data collector.
June 5-10	Jaime Delano	SCREE participant and scientific data collector.
June 5-10	Mitchell Eaton	SCREE participant and scientific data collector.
June 5-10	Nicholas Hammond	SCREE participant and scientific data collector.
June 5-10	Graham Lederer	SCREE participant and scientific data collector.
June 5-10	Anya Metcalfe	SCREE participant and scientific data collector.
June 5-10	John Parks	SCREE participant and scientific data collector.
June 11-21	Kathy Conn	SCREE participant and scientific data collector.

 Image: Contract of the contract

DATES ON EXPEDITION	NAME (FIRST & LAST)	ROLE
June 11-21	Nigel Pepin	SCREE participant and scientific data collector.
June 24-July 5	Tess Harden	SCREE participant and scientific data collector.
June 24-July 5	Rick Moscati	SCREE participant and scientific data collector.
July 5-7	James Reilly	Director of USGS, SCREE participant and scientific data collector.
July 5-10	Dee Williams	SCREE participant and scientific data collector.
July 5-10	David Nail	SCREE participant and scientific data collector.
July 5-10	Jessica Lucido	SCREE participant and scientific data collector.
July 5-10	Genevieve Barron	SCREE participant and scientific data collector.
July 5-10	William Harmon	SCREE participant and scientific data collector.
July 14-19	Christina Bryant	SCREE participant and scientific data collector.
July 14-19	Katie Walton-Day	SCREE participant and scientific data collector.
July 19-31	Heather Kerkering	SCREE participant and scientific data collector.



CREE

SCIENCE

In 1869, John Wesley Powell and crew set out to map the entirety of the expedition and study the natural environment as they floated from Green River City, WY Territory to the confluence of the Colorado & Virgin Rivers. They carried two sextants, four chronometers, an assortment of barometers, thermometers, and compasses to help complete these objectives. 150 years later, we carried modern equipment with GPS information that allowed us to pinpoint our location on a map with precision Powell could not have imagined. During our expedition, USGS personnel and the myriad of SCREE participants collected scientific data at each camp along our nearly 1000 mile journey. Our surveys included:

- Dusk & dawn bird song survey.
- Overnight bat call survey.
- Beach sand sampling for micro-plastics.
- Water clarity samples

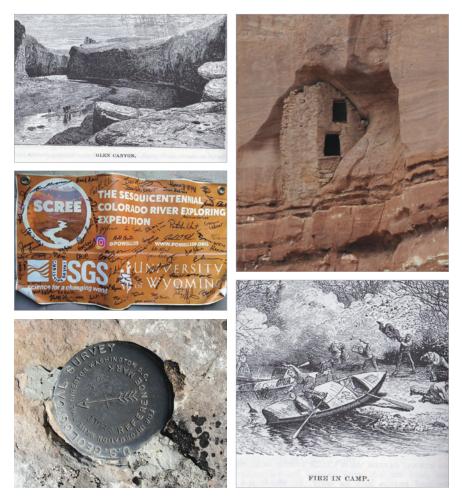
- Water conditions survey; temperature, pH and conductivity.
- Cyanotype photography of dominant vegetation.



Science photos courtesy of Jaime Delano, Anya Metcalfe and Robert Barth.

HISTORY

John Wesley Powell's expedition made a profound impact on and greatly influenced the American West. His influence can be seen in the mapping of the region, development of major water systems that supply and promote the settlement/growth of major cities and through his popular writing the basis of major recreational activities on public lands and waterways.

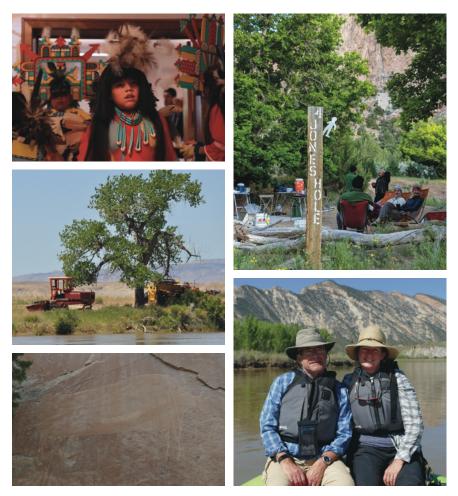


Clockwise from upper left: Illustration of "Glen Canyon" from Powell's book, "The Exploration of the Colorado River and Its Canyons"; Granary in Stillwater Canyon on the Green River; Illustration of "Fire in Camp" from Powell's book; USGS Bench Mark Split No.2; SCREE flag signed by participants.



CULTURE

A wide variety of cultures have occupied the landscapes of what would become the American West for thousands of years. Our public lands in the region hold evidence of the success and failure of great civilizations and people from the Puebloans, to European-American settlers during the 1800's and beyond.



Clockwise from upper left: Hopi dancers at Moab, UT outreach event; Campground at Jones Hole 4 on Green River through Dinosaur National Monument; Louis Warren and Rachel St. John on Green River through Dinosaur National Monument; Large bison petroglyph near Island Park on Green River; Agricultural machinery along the banks of the Green River, south of Green River, UT.

THE FUTURE

John Wesley Powell spent much of his career working on policies that would, for better or worse, determine how water and lands in the West would be allocated to the people and retained by the government. The power of his work resonated for many decades through the 20th century and is still reflected today. The agrarian West he envisioned existed for a while, but has transformed into major cities where commerce and industry prevail. This new West requires a re-visioning and redefinition of the value and distribution of resources that make up the 21st Century. How we address the challenges of population pressure on the land, over-allocation of our water resources and the crises of the future can be lessened with forward planning much in the way Powell envisioned.



Clockwise from upper left: View of Glen Canyon Dam from below; Sunset in Uintah Basin; Mixing sediment from Red Canyon with the Green River below Flaming Gorge Dam; Pat Kikut rowing through Grand Wash Cliffs towards the take-out at Pearce Ferry.

ART

Major Powell understood that art was one of the most effective ways to communicate the value of our western landscapes to a wide audience. During the 1869 expedition there were no artists or photographers along thus during subsequent expeditions in the 1870's Powell included artists, topographers and scientists. Images of the second expedition were composed by John K. Hillers (photographer), Francis M. Bishop (topographer), Steven V. Jones (topographer), E.O. Beaman (photographer) and Frederick S. Dellenbaugh (topographer/artist). Dellenbaugh became the lead artist and Thomas Moran (who was a late add on) served as a guest artist. The goal on the second expedition was to gain a deeper understanding of the unique geology, map the region and capture the majesty of the Green and Colorado Rivers.

Sharing accounts from the field, scientific data and images produced by the explorers fed the imagination of a curious public in the East. Breathtaking scenes created on the 1871 expedition played a major role in selling the West and the concept of Manifest Destiny. Along with Powell's popular (yet historically unreliable) journals, photographs, drawings, etchings, and paintings helped turn the West from a blank spot on the map into an approachable and attractive space to settle. Together, the written word and the images helped promote the West as a "promised land" to a country in the mire of reconstruction.

While creating in the field, SCREE artists reflected upon the beauty of the canyons while also being cognizant of the many challenging issues confronting communities and ecosystems in the American West. We took a contemplative approach to the actualities of John Wesley Powell's recommendations to congress and the myths embedded in Manifest Destiny. Today, the value of the land lies with the aesthetic as much as the natural resources, minerals, or agricultural value. A narrative of the land is etched within the rock art panels, historical and contemporary paintings on canvas, lines on topographical maps and written words on paper. Our expanded art exhibition, "Contemporary Views of the Arid West: People, Places and Spaces" offered new and varied perspectives about our relationship with the land and water throughout the Colorado River Basin. We anticipate our post-SCREE Art Exhibitions may serve as an effective means by which to facilitate conversations about challenges the American West will face over the next 150 years, much like artists on Powell's expeditions guided the dialogue, community decision-making and policies for the past 150 years.



Clockwise from upper left: Expanded art exhibit poster; Field drawing, Full Moon-Desolation Canyon, by Patrick Kikut; Patrick sketches the view downstream from the camp at Fern Glen in the Grand Canyon; Amorina sketches the view upstream from the beach at Soap Creek; David Jones creates a driftwood sculpture on the beach at Fern Glen.



VISION & PLACE

Human visions have shaped fundamental contours of the sui generis place in western North America called the Colorado River Basin. Diverse and often conflicting, such visions have been held collectively and individually, embodying wide-ranging aspirations and imaginings as to how the basin proper and its vast outlying areas should be inhabited. One-armed Civil War veteran John Wesley Powell was a seminal visionary in this realm—leader of the 1869 Colorado River Exploring Expedition, author of the 1878 Report on the Lands of the Arid Region of the United States, Founding Director of the Smithsonian Institution's Bureau of Ethnology (1879-1902), and Second Director of the U.S. Geological Survey (1881-1894). It would be difficult to overstate the influence of Powell, his ideas, and successors thereto on the character of the basin. For good or ill, it bears his name with Lake Powell, as just one testament.

2019 marks the sesquicentennial of Powell's epic 1869 Expedition down the Green and Colorado rivers—a celebratory occasion for both a Sesquicentennial Colorado River Exploring Expedition (SCREE) and earnest scholarly revisitation of Powell's legacy. Powell regarded the 1869 Expedition as a journey "into the great unknown." Yet myriad aspects of how the basin and adjacent environs are currently being inhabited suggest this phrase applies with equal force to the basin's future and our navigation of it. This basic premise underpins the multi-author volume being prepared in conjunction with the SCREE project—tentatively entitled, Vision and Place: John Wesley Powell and Re-imagining the Colorado River Basin. It is a multi-disciplinary collaboration involving 16 authors, 8 visual artists, 2 cartographers and 3 editors hailing from the Colorado River Basin states and beyond. The volume aims not only to shed light on Powell's visionary ideas upon the sesquicentennial, but also to consider the contemporary influence of those ideas in and around the basin, and ultimately to prompt dialogue about what we wish this beloved place to become. "Vision and Place: Re-imagining John Wesley Powell and the Colorado River Basin" is under contract with the University of California Press scheduled for publication in late 2020.

CONTRIBUTING AUTHORS & ARTISTS

Jason Robison, Lead Editor and Contributing Author Thomas Minckley, Co-Editor and Contributing Author Dan McCool, Co-Editor and Contributing Author William deBuys, Contributing Author Emiline Ostlind, Contributing Author William Gribb, Contributing Author Paul Hirt, Contributing Author Amy Cordalis, Contributing Author Daniel Cordalis, Contributing Author Patty Limerick, Contributing Author Amorina Lee-Martinez, Contributing Author Robert Keiter, Contributing Author Robert Adler, Contributing Author

Autumn Bernhardt, Contributing Author Robert Glennon, Contributing Author Weston McCool, Contributing Author Jack Schmidt, Contributing Author Rachel St. John, Contributing Author Louis Warren, Contributing Author Patrick Kikut, Lead Artist David Jones, Artist Will Wilson, Artist Erika Osborne, Artist Chip Thomas, Artist Bailey Russel, Artist Brandon Gellis. Artist Kate Aitchison, Artist James E. Meacham, Cartographer Bill Limpisathian, Cartographer



Bailey Russel utilizes "collodion wet plate process" from the late 1800's to create tintype of Flaming Gorge Dam. Photo credits: Ben Kraushaar.





Milky Way in Lodore Canyon on Green River. Photo Credit: Ben Kraushaar.



DIALOGUE

Through the diverse group of 63 participants on the SCREE trip, we sought to capture forward thinking conversations about the Arid West. The purpose of SCREE was to provide a platform to discuss the History, Culture and Science of the region that can inform stakeholders and managers about possible Futures the region can have. Our Conversations of the River, captured the expertise, opinions and philosophical soundings of why the West matters as a place and as a resource for the world (https://www.powell150.org/screepodcasts). Participants were asked to share their expectations coming onto the river with us (https://www.powell150.org/expedition-news) and many offered their thoughts leaving the trip.

SCREE was more than a river expedition. It was a multifaceted attempt to meet with those who live in the West, along it's major rivers and are most impacted by the changes in the landscape, quality of the resources and policies that affect their lives. We began and continue to discuss the History of the Region though outreach events and presentations that now total over a dozen. Highlights have included Hopi Water Dancers, learning about how adaptive management of river flow helps endangered species recovery, the management of dams in light of drought contingency planning, and how the reins of conservation can be handed over to the next generation. We are excited about what is still to come with invitations to speak to the Colorado River Water Users Association and other stakeholder groups, the Expedition into the future continues.



Left: Peregrine falcon near Grand Wash Cliffs. Photo Credit: Jessica Flock. Right: Pat, Ben K. Jessica, David and Tom waiting for motor rig at South Cove boat ramp, July 31, 2019.



Top: SCREE Outreach event posters from Green River, WY and Moab, UT. Middle: Members of SCREE discussing Water in the West while camped in Desolation-Gray Canyon on the Green River. Photo Credit: Paul Hirt. Bottom: "Pumpjack" Pat serenades an oil rig in the Uintah Basin. Photo Credit: Ben Kraushaar.



SCREE DOCUMENTARY

Filming on a river for 70 days was not an easy feat. Safeguarding the production equipment from the elements was a daily concern and a top priority. For power, we utilized Goal Zero portable power stations and solar panels. We relied entirely on the sun to keep the cameras rolling. Our power system contained electrical components and was vulnerable to extreme heat and water, both of which were ever-present during the expedition. Filmmakers, Ben Kraushaar and Cody M. Perry documented the river expedition and outreach events to help tell the modern-day story of the Colorado River Basin. While on the river they conducted interviews, hauled jibs up ridge lines, backed up numerous terabytes of data and captured the glory of our journey. Ben and Cody operated the "Media Boat", an 18' NRS E-180 Self-Bailing Raft provided by Ceiba Adventures, which had a full production house on-board including laptops, hard drives, gimbals, microphones, plus 10 cameras, some of which were more valuable than a new car. From the banks of Expedition Island to the remote corners of Lake Mead, our film crew recorded the Sesquicentennial Colorado River Exploring Expedition from many angles, utilizing diverse voices. We look forward to sharing our documentary with the world beginning in the fall of 2020.



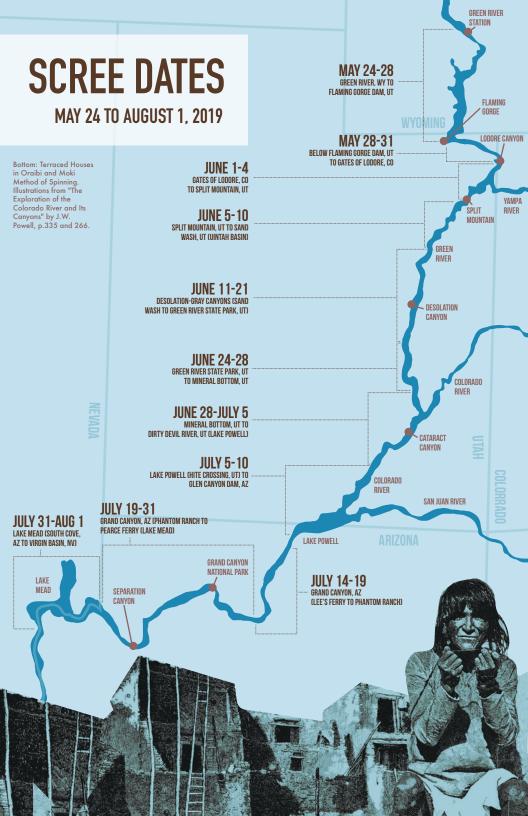
Clockwise from upper left: Cody and Ben K. below Triplet Falls. (Photo by Rachel St. John); Cody and Ben K. filming while motoring across Flaming Gorge Reservoir; Ben K. operating the jib while perched atop Brandon McElroy's research vessel on Flaming Gorge Reservoir (Photos by Jessica Flock); Austin and Ben K. filming in Matkatamiba Canyon (Photo by Paul Hirt)

Ben Masters, Cody Perry and Ben Kraushaar filming near the upper falls of Stone Creek in the Grand Canyon. Photo Credit: Amorina Lee-Martinez



Amorina, Austin, Ben K., Cody and Ben M. document the view looking upstream from Deer Creek Falls during an afternoon roinstorm in Grand Canyon. Photo Credit: David Jones





SPECIAL THANKS

J.J. Shinker, University of Wyoming Brie Blasi and Dave Mead, Sweetwater County Historical Museum Amanda Cavez, City of Green River, WY Phyllis Flock, Laramie, WY Dewey Gallegos, Laramie, WY Brandon McElroy, University of Wyoming Roger Varley, JWP Impersonator David Jones, University of Wyoming Mike Vanata, Square State Film Tracey Kikut, Laramie, WY Valerie Cook, Washington D.C. Cindy Bandow, Eugene, OR Scott Davis and Rachel Schmidt, Ceiba Adventures Dave, Nate, Shawn and Marilyn; Ceiba Adventures Phil Walczynski, Down River Equipment Travis Helms, Down River Equipment Alexandra Aldecoa, AIRE Inflatables Annie Scott, USGS YES Program Kristen Hamilton, USGS YES Program Eleanour Snow, USGS YES Program Nicholas Crane, University of Wyoming Jason Alexander, University of Wyoming Chen Xu, University of Wyoming Sonya Popelka, Dinosaur National Monument Mark Wilson, Dinosaur National Monument Noel Richardson, Jelm, WY Nate Talkington, Craig, CO Keith Balleck, Craig, CO Ben Capelin, Durango, CO Austin Alvarado, Austin, TX Cody M. Perry, Rig to Flip

Matt Cuzzocreo, Lander, WY Lynn Bryson, Portland, OR Troy Richardson, Jelm, WY Jason Robison, University of Wyoming John Weisheit, Living Rivers/Colorado Riverkeeper Holiday River Expeditions Serena Suplee, Moab, UT Tom Wesson, Moab, UT Jeff Campbell, Moab, UT Abby Lozano, Laramie, WY BLM: Jennifer, Ray and Todd James Reilly, Director of USGS Martin Stamat, Glen Canyon Conservancy Amanda Boston, Glen Canyon Conservancy Jan Balsam, Grand Canyon National Park Ronda Newton, Grand Canyon National Park Aksi & Rene Kikut, Manhattan Beach, CA Pete Gannon, Tempe, AZ Temple Bar Marina; Michele, Sue and Lora Jessica Perry, Creative Blue Yonder Paul Hirt, Arizona State University Ben Masters, Fin & Fur Films Shannon Vandiver, Austin, TX Howard Dennis, Second Mesa, AZ Rica Fulton, RiversEdge West Jonathan Bowler, MT Institute on Ecosystems Grand Canyon River Guides New Belgium Brewing John P. Ellbogen Foundation UW American Heritage Center Colorado River Basin Communities ALL of our sponsors and partners!

MAJOR UNDERWRITERS

U.S. Geological Survey UW Geography Department UW College of Arts & Sciences Klaenhammer Foundation HAUB School of Environment & Natural Resources Anonymous



SCREE SPONSORS













































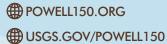


View of Navajo Generating Station near Page, AZ from Lake Powell. Photo Credit: Jessica Flock

Granite Rapid on CO River through Grand Canyon. Photo Credit: Paul Hirt.



Marble Canyon on the Colorado River. Photo Credit: Jessica Flock.



@MAJORJWPOWELL
@POWELL_150

CREE

