

Hidden Passage

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Cover: The Glen Canyon Landmark after which this publication was named. Photo by Tad Nichols in 1956, courtesy of the Northern Arizona University Cline Library.

Director's Introduction

by Eric Balken

“The only constant is change.” This oft-repeated axiom seems to encapsulate all that is happening to the Colorado River and the people who have a vested interest in it. What began as an unexpected “drought” on the Colorado two decades ago went on to become a “water shortage” after averaging 15 years of low runoff. With state-of-the-science modeling and a richer understanding of what climate change is doing to the Colorado Plateau, scientists are now using the term “aridification” to describe the driving climatic phenomenon of Colorado River hydrology.

This slow moving, yet powerful transformation of the Colorado has upended many of the preconceived fundamentals of the Law of the River and the operating guidelines that hold states to it. In both the Upper and Lower Basins, states are grappling to establish “Drought Contingency Plans,” whereby they aim to use less water to survive our new reality. The arduous political wrangling around these plans foreshadows the all-important year 2020, when all of the basin states will begin negotiating terms for the next iteration of the “Interim Guidelines”: a basin-wide blueprint for balancing Lakes Powell and Mead in the face of unprecedented aridification.

Meanwhile the battle for “Greater Glen Canyon” has erupted as President Trump illegally slashed the size and protections of Grand Staircase-Escalante and Bears Ears National Monuments—two critically important landscapes surrounding Glen Canyon and its watershed. This unprecedented move has ignited a national uprising of citizens, businesses, conservation groups, and Native American tribes to fight for these monuments. While the eyes of the nation watch, the fate of the monuments and the land encompassing Glen Canyon now rests in the courts, where a decision of their future will be made in the coming years.

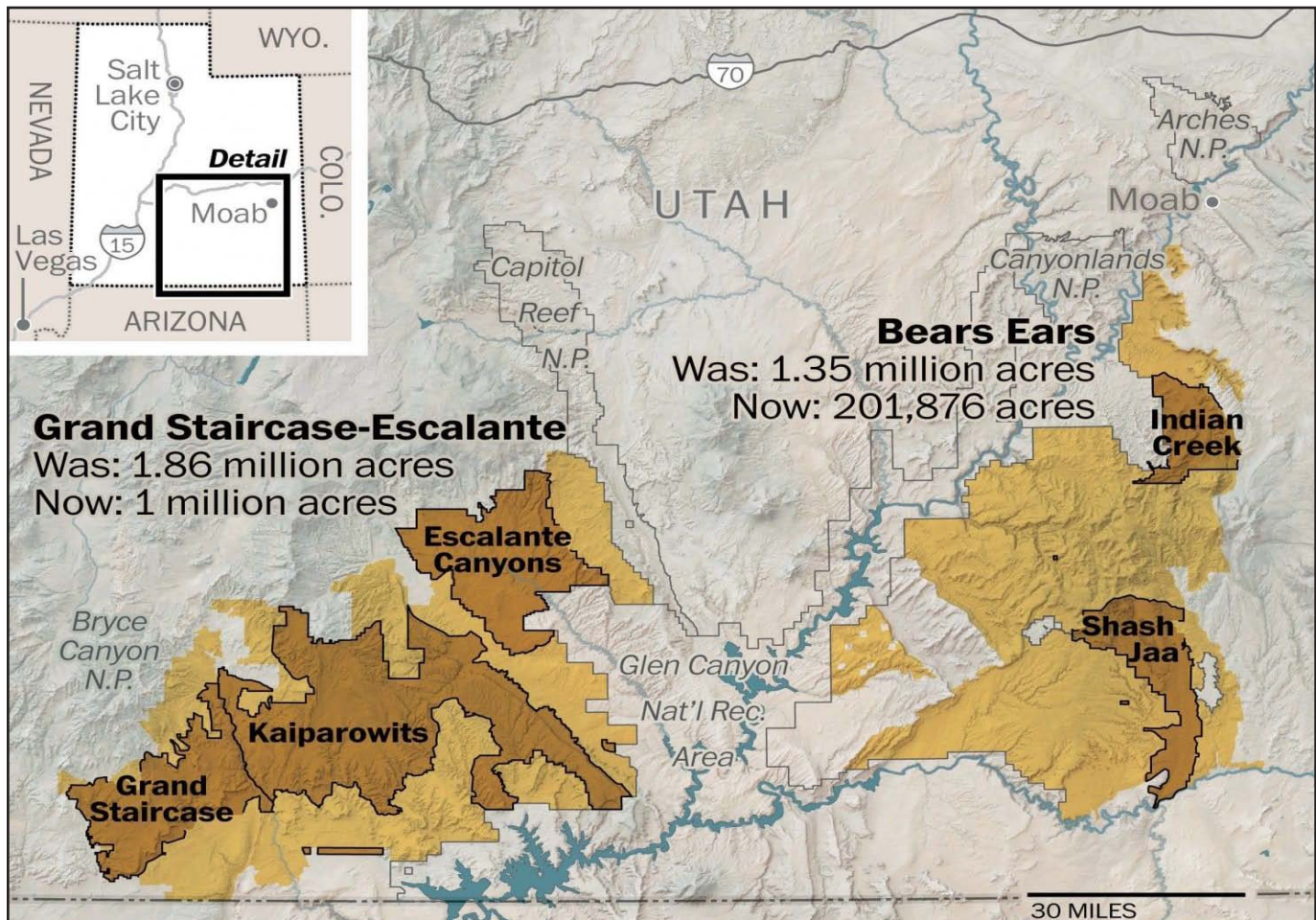
And lest we forget, the never-dying Lake Powell Pipeline boondoggle has continued to lurch forward, albeit under greater public scrutiny and a more complex bureaucratic process than before. The project, which flies in the face of the above-mentioned drought planning, threatens to further stress the river and impede efforts to restore Glen Canyon.

Amidst the apparent chaos of a heating climate, political tensions within and between basin states, the anguish and tumult around Grand Staircase-Escalante and Bears Ears, the consternation of fighting a reckless pipeline project, and a seemingly endless string of challenges and attacks against the environment from the Trump Administration, Glen Canyon Institute is doing what we’ve always done: fight for Glen Canyon and a healthy, free flowing Colorado River.

The change that’s taking place on the river, while presenting major challenges, is opening up an entirely new conversation about Glen Canyon’s restoration. The Fill Mead First proposal has survived new levels of scrutiny and deliberation, and is proving to be a more serious topic of discussion every year. We’re continuing to push the science behind Glen Canyon’s restoration by partnering with Utah State University on an innovative study that’s already breaking new ground on the science of sediment in Glen Canyon. We’ve teamed up with Wild Utah Project, the National Park Service, and scientists from around the region to embark on a Bio Blitz in the newly-emerged landscapes in Glen Canyon next May. We’ve rallied our members and forged alliances with other groups in the fight to protect Glen Canyon’s surrounding national monuments and against the wasteful Lake Powell Pipeline. All of these impediments to a healthy, protected river and landscape are daunting, but they may very well make the movement stronger when we emerge on the other side. Citizens and the conservation community are more fired up than ever to see change happen, and there can be no change without disruption.

The Fight for Greater Glen Canyon

by Michael Kellett



Source: Department of Interior.

To many people, Glen Canyon is synonymous with Glen Canyon National Recreation Area, which covers 1.2 million acres. This is a large area, but it is only a part of a far more extensive Greater Glen Canyon ecosystem. This vast region encompasses more than 5 million acres of land and hundreds of miles of rivers and their tributaries, whose waters flow into the Colorado River in Glen Canyon. The clean water and air, wildlife habitats, scenic values, dark skies, silence, cultural sites, spiritual values, and recreational opportunities offered by these lands are critical to the integrity of Glen Canyon itself.

This is why advocates for Glen Canyon enthusiastically welcomed the presidential designation of Grand Staircase-Escalante National Monument in 1996 and Bears Ears National Monument in 2016. With a total of 3,232,310 acres, these two monuments included much of the Greater Glen Canyon ecosystem. Their designation was a huge step toward strong, permanent protection for this spectacular but fragile region.

Downsized Monuments: What Would Be Lost

Now, both of these great monuments are in serious jeopardy. In December 2017, President Donald Trump issued proclamations that would radically shrink each of these monuments. Grand Staircase-Escalante would be reduced by nearly 50 percent, from 1.85 million acres to 1 million acres and Bears Ears National Monument would be slashed by 85 percent, from 1.35 million acres to 202,000 acres.

In total, Trump's new orders would strip 2 million acres from the two national monuments. This extreme action was unprecedented and probably illegal. Its clear purpose was to open the deleted monument lands to oil and gas drilling, coal mining, and uranium extraction. If allowed to stand, Trump's radical executive orders will not only result in devastating impacts on former monument lands, but also on the entire Glen Canyon ecosystem.

Anti-national monument interests insist that the lands cut

from the monuments should not have been included in the first place, because they have no special value. On the contrary, the entire monuments have superlative natural, historic, and cultural values, and the deleted lands include numerous sites and features of national and global importance. A team of University of Utah geology researchers has mapped and documented 115 arches on lands that Trump's executive orders would eliminate. The loss of these lands would have a devastating impact on both monuments.

The downsizing of Grand Staircase-Escalante National Monument would be a disaster for paleontology, purging hundreds of sites that are a part of the most complete sequences of vertebrate fossils anywhere in the world from the time when dinosaurs still ruled. The Trump order would also delete the Hole in the Rock road, a historic and primitive road used to access canyons above the Escalante River and the Colorado River through Glen Canyon. In addition to its ecological and cultural impacts, the national monument downsizing would undermine local businesses, which have benefited from increased tourism generated by this spectacular protected area.

The original Bears Ears National Monument has long been known for its ancient cliff dwellings, rock art, and ceremonial sites that provide an irreplaceable record of our nation's cultural heritage. A recent study found that Bears Ears is also "one of the most wild and scenic places in the West, on par with some of the country's most iconic national parks." The Trump executive order would gut the monument, including a majority of Cedar Mesa, much of the San Juan River, Valley of the Gods, the trail cut by the San Juan Expedition in 1880, and the entire Grand Gulch Complex. These lands contain a "treasure trove" of fossils, including what one researcher believes could be "the densest area of Triassic period fossils in the nation, maybe the world."

Monumental Threats

The lands removed from the two national monuments were carefully chosen to further the agenda of political and corporate interests that want to exploit our public lands for private profit.

The lands cut from Grand Staircase-Escalante National Monument include the Kaiparowits Plateau, which has among the largest coal deposits in the country. This was an obvious effort to please the coal industry, which lobbied for access to this coal. The protection of the plateau from devastating coal mining was one of the primary reasons for designating the monument. These hard-fought-for lands are now potentially threatened again by the mining of dirty, atmosphere degrading coal.

One of the major reasons for the slashing of Bears Ears was



The River House, within the original boundaries of Bears Ears National Monument Photo: Jack Stauss.

to open lands to expansion of the toxic Daneros uranium mine. The Bureau of Land Management (BLM) has approved a massive expansion of the mine adjacent to Bears Ears National Monument, allowing up to half a million tons of uranium ore to be trucked through the monument to the White Mesa uranium mill. The decision has been appealed by conservationists. Fossil fuel industries also lobbied aggressively to gut the monuments, and huge expanses of former monument land have been opened to oil and gas leasing.

Both Grand Staircase-Escalante and Bears Ears are upstream from the Colorado River through Glen Canyon. Pollution from oil, gas, and mining operations can pose a serious risk to river drainages by flushing contaminants downstream. This would be a major setback for the Glen Canyon's critical fish and wildlife habitats, which are beginning to recover after decades of flooding by Lake Powell reservoir.

Among the biggest dangers of downsizing the two monuments are the vulnerability of the deleted lands to damaging uses, to increased control by narrow special interests, and to the potential loss of public ownership. Lands cut from the two monuments are already feeling the impacts of inadequate protection from overuse. Reports have documented escalating damage to the landscape by off-road motorized vehicles and vandalism of paleontological sites in Grand Staircase-Escalante and grave robbing, looting, and destruction of Native American sites in Bears Ears. The removal of Hole-in-the-Rock Road from Grand Staircase-Escalante increases the possibility that state and county officials will be able to proceed with their longtime dream of paving the road — which would open the region to intensive motorized use and seriously degrade its wild character. Without the added protection of monument designation, there is a real risk that developable lands will be sold for exploitation by private interests.

Monumentally Bad Legislation

Several bills have been introduced by Utah members of Congress that would lock in Trump's executive orders shrinking the monuments and seriously undermine future monument designations. Rep. Chris Stewart's H.R. 4558 would eliminate the original Grand Staircase-Escalante National Monument in favor of three vastly smaller units that would be managed by state and county interests. Similarly, Rep. Curtis' bill, H.R. 4532 would replace Bears Ears National Monument with two tiny units under the control of a "management council" dominated by state and county appointees. In addition, Utah Rep. Rob Bishop has introduced another egregious bill, H.R. 3990, would gut the Antiquities Act by deeming any objects "not made by humans" as ineligible for national monument designation, which—if it had been in place—would have prevented the establishment of many of our most beloved monuments.

The People Fight Back

The Trump Administration's national monument review and the presidential orders downsizing and weakening protection for monuments have been massively opposed by the people. Of more than the 2.5 million public comments on the monument review, 98 percent of commenters opposed any reduction or weakening of any monuments. Opposition was strong in Utah as well, with thousands of citizens rallying in Salt Lake City to protect Trump's decision to shrink Grand Staircase-Escalante and Bears Ears National Monuments. The Hopi, Navajo, Ute and Zuni view the gutting of the two monuments as a human rights violation because it endangers their heritage sites, burials and sacred spaces.

The Trump presidential orders gutting the two monuments are being challenged in court, by a number of parties. Many legal experts say these reductions are illegal and will be reversed by the courts. In September, monument supporters received good news, with the decision that the lawsuits would be heard in Washington DC, rather than in Salt Lake City, where anti-public land interests have greater influence.

In the meantime, the Trump Administration has ordered the BLM—which administers these lands—to rapidly finalize new management plans that open the monument lands in question to unbridled drilling, mining, and other industrial development. The Administration is rushing through the process to finalize these plans before the end of the year, in an effort to pre-empt a rejection by the courts of the monument reductions or public oversight hearings from a newly-elected Democratic majority in the U.S. House of Representatives.

What You Can Do

Not surprisingly, the BLM's draft plans for the lands excised from Grand Staircase-Escalante and Bears Ears National Monuments would allow devastating and widespread exploitation. Moreover, the plans are based on the premise that the monuments are legitimately reduced in size. Most Americans do not accept the cutting of our monuments as legitimate, much less the destructive activities this would allow.

The BLM is accepting public comments on its monument plans until mid-to-late November. We, the people, need to tell the BLM that we want the original boundaries and protection of the two monuments to be maintained. We need to call on the agency to put any planning on hold until there are final decisions on the lawsuits challenging the executive orders shrinking the monuments.

The two monuments have separate planning processes and separate deadlines. **For detailed information on how to comment and what to include in your letter to the BLM, please visit the "Take Action" page of our website, www.glencanyon.org.**

The Future

Glen Canyon Institute is closely monitoring the status of Grand Staircase-Escalante and Bears Ears National Monuments. Regardless of the decision of the courts, we are committed to working for the strongest possible protection for two monuments and in opposition to any harmful development. We will keep our members up to date as the issue continues to unfold.



GCI's 2018 San Juan River group admiring a petroglyph panel in Butler Wash, within the original Bears Ears National Monument. Photo: Bettymaya Foott.

Sediment Movement in Glen Canyon: a New Study

by Madeline Friend, Graduate Research Assistant, Utah State University

In its role as the nation's second-largest reservoir, Lake Powell has fundamentally changed the nature of Glen Canyon. The numerous tributaries, slot canyons, and human history the area was revered for are now inundated with water and fine sediment. The Colorado's flow has been drastically altered, rendering a riverine reprieve now that of a reservoir. In addition to altering local hydraulics and riparian ecosystems through changing reservoir levels caused by dam operations, Lake Powell's intricacies directly affect the downstream ecosystem in Grand Canyon. The back-up of the reservoir also affects ecosystems and geomorphic processes in Cataract Canyon, San Juan River, and all other drowned tributaries.

Projections show a drier, hotter future on the Colorado Plateau. This means less water in an already over-allocated river. The role of Lake Powell, and other reservoirs in the Colorado River Basin like Lake Mead, has consistently been prominent in public policy discourse concerning water in the arid Southwest. Though Lake Powell is a critical water repository for the Upper Basin to meet its treaty obligations to the Lower Basin states, little is known about the processes of fine sediment accumulation and evacuation of tributary side canyons in the reservoir.

At times in public policy debate, there are proposals to drain Lake Powell or preferentially fill Lake Mead. These public policy questions are rooted in fundamental questions in geomorphology and earth sciences about sediment accumulation and remobilization. Fine sediment stored in tributaries has potential to be remobilized as reservoir level changes, but little is understood about these patterns. To understand what is happening to the fine sediment, we first must understand what is happening to the reservoir level.

When Lake Powell is low, the topic of draining it gains more traction. The gates of Glen Canyon Dam closed in 1963, and Lake Powell took 17 years to fill. To explain this extended time, think of filling the reservoir as filling a giant bathtub with the drain open. It filled to its maximum level (called Full Pool, an elevation above sea level of 3,700 feet) in 1980 and was last at Full Pool in 1999. Extended regional drought led to precipitous declines in the early 2000s, with the reservoir reaching its lowest level in 2005. Since then, it has remained around half-full by volume.

A sequence of photos demonstrating how sediment is deposited and washed away in the side canyons of the Glen. From top to bottom: the Escalante River half a mile above Cow Canyon in the fall of 1990, 1991, and 2006. Notice the infill of sediment in the upper photos, and how the original channel cuts through by 2006. This was the result of an extreme flash flood event. Photos: Bill Wolverton.

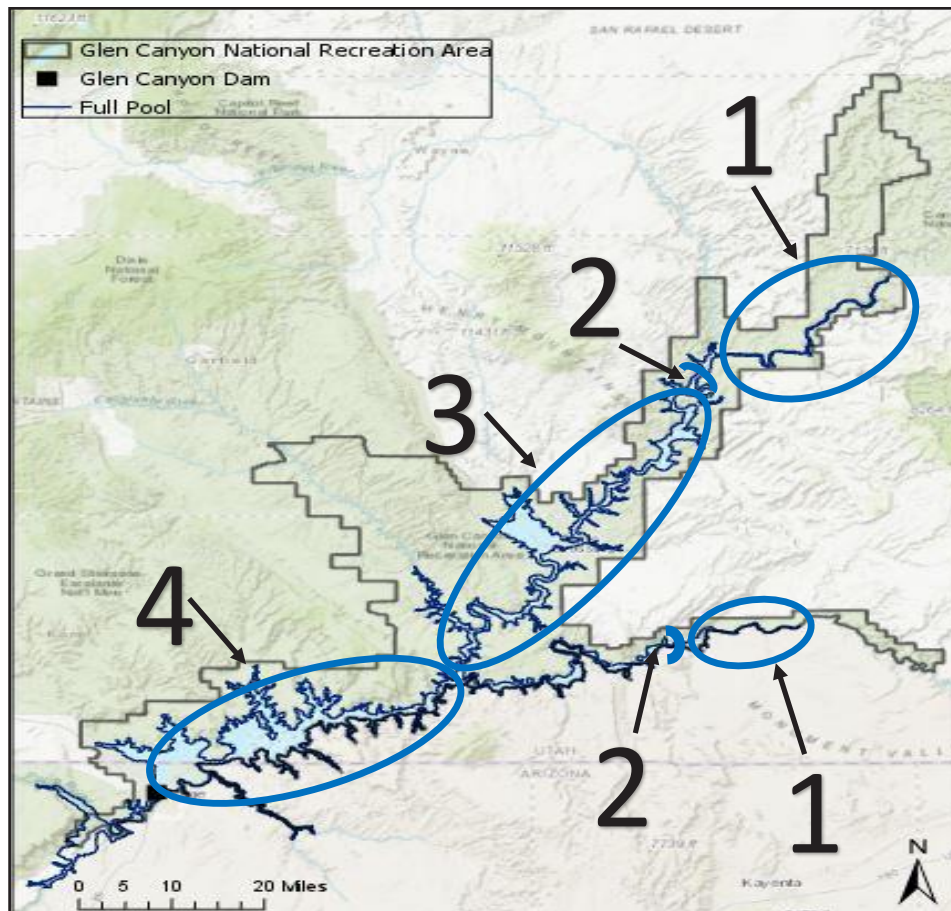


All rivers on a continent erode to the ultimate base level of the ocean. At a local scale, all streams that used to drain into the Colorado River in Glen Canyon have now adjusted their local base level to Lake Powell. As reservoir elevation changes, there is erosion and widening in channels. One question we aim to understand is how these patterns vary spatially across the reservoir. We want to know how much fine sediment is in each tributary, what controls the magnitude and distribution of fine sediment in tributaries, and how and how much fine sediment is evacuated during reservoir low stands.

We hypothesize at a large scale, there are four depositional settings in Lake Powell, and these each have unique patterns of fine sediment accumulation and remobilization: 1) upstream from bedrock ledges that perch reservoir arms at artificially high levels, even when reservoir storage is low—above knickpoints at Hite Marina and Paiute Farms falls on the San Juan River, 2) immediately downstream from these ledges—below

knickpoints at Hite Marina and Paiute Farms falls on the San Juan River, 3) in the central region where side canyons are significantly inundated (Escalante River to San Juan River), and 4) very near Glen Canyon Dam (San Juan River to Glen Canyon Dam). Within each of the four depositional settings, we are researching what factors potentially control fine sediment yield in Lake Powell. These include rock type, drainage area, basin slope and relief, monsoon-season flash floods, and land use.

As the most-regulated river in the United States, much of Colorado River management depends on public policy. These public policy matters have at their foundation, fundamental questions in geomorphology and earth sciences. Ultimately, we hope to understand the process and patterns of fine sediment remobilization in Glen Canyon in order to understand potential recovery in the event of protracted reservoir drawdown.



A map of demonstrating the hypothesis that there are four depositional settings in Lake Powell, each having unique patterns of fine sediment accumulation and remobilization. Map compiled by Maddie Friend, USU.

Katie Lee Remembered

by Dave Wegner and Jack Stauss



A crowd listening to Susan Bush play Katie Lee ballads at Ken Sanders Rare Books. Photo: Jack Stauss.

Last year we lost Glen Canyon's original champion, Katie Lee. After her passing, celebrations of Katie's life took place in her home town of Jerome, as well as in Salt Lake City.

From Jerome by Dave Wegner:

My heart knows what the river knows.

On March 24th, the river community turned out in Jerome, Arizona to celebrate the lives of Ms. Katie Lee and Joey van Leeuwen. These two champions of the Colorado Plateau instilled in all who passed by them a sense of justice for our rivers and canyons, and a deep abiding love of the sandstone and forests of the West. Hundreds of people, including family from Australia, turned out to tell stories, reminisce, cry a bit, laugh a lot and find ways to console each other over the loss of these two champions.

We all know Katie's history of growing up in the Southwest, emigrating to Hollywood and the musical road, getting captured by beauty of Glen Canyon with Frank Wright and Tad Nichols and using her voice to call out the Bureau of Reclamation (and any other bureaucrat that upset her) for the injustice done to the Colorado River. What most people have not realized is the critical role that Joey played in her life. Joey was always in the background supporting, cajoling, and mixing her evening libations and taking care of Katie. This Dutch/Australian mick did not need attention because he was as enamored by the southwest landscape and all its mysteries as Katie was passionate about the stupidity of development. They made an awesome pair. In true Joey fashion, he had arranged

before his death to pay for the wine and other beverages at the celebration—that is just the kind of guy Joey was—magnanimous to the end.

Katie and Joey have been supporters of the Glen Canyon Institute since its inception. Katie always was willing to donate time, talent and her writings to help the Institute get more people engaged in understanding the loss of Glen Canyon and the potential to make the wrongs right. Joey was always there to support, man the table, open a beverage or just talk about the Outback. The heart and soul of the Institute flowed through both Katie and Joey.

As a result of their generosity, Northern Arizona University will house the majority of Katie's Colorado River collection of memorabilia and writings. Proceeds from the sale of their Jerome house will be used to support the collection and its protection. There are some classic handwritten cards from Ed Abbey, writings from her books and songs, and unique handmade art that will be protected for future generations.

I spent considerable time with Katie over the years – float trips on the Green and San Juan rivers, camping in Glen Canyon, driving around the Colorado Plateau and just sitting around a campfire talking about the river, usually with an adult beverage close by. We cannot forget that Katie and Joey kept the fire and passion of Glen Canyon alive so that those that followed would not be resigned to the loss but instead would fight to let the river flow free once again. The greatest legacy they have left to all of us is their passion for life and for Glen Canyon. Goodbye Katie and Joey – see you on the river!

From Salt Lake City by Jack Stauss:

On a chilly December night, Utah's finest river rats gathered at Ken Sanders Rare Books for an evening of song and storytelling to remember one of Glen Canyon's fiercest advocates: Katie Lee.

Since before the dam, Katie lived among the sandstone of the Southwest. She bathed in its turbid waters and walked naked among its sinuous canyons. Her relationship with the place was unlike that of anyone else. She spoke passionately for 60 years about the need to fight for the canyons and the wildness of the desert. At her memorial, her legacy was felt with both sadness and thankfulness.

The night kicked off with opening remarks from Glen Canyon Institute's Eric Balken and Rich Ingebretsen who have worked with Katie for decades as they have progressed the work of the Institute. They told hilarious anecdotes of her life, and the energy she brought to the fight to restore Glen Canyon. Eric introduced short films about Katie. They told the story of Katie's passion for Glen Canyon and her life as "Kick Ass" Katie

Lee in Jerome with her husband Joey.

After the films, the audience was regaled by activist and Holiday Expeditions trip director Lauren Wood as well as local musician Susan Bush playing Katie Lee's ballads. Their guitars twanged as they sang about the ghosts of the old San Juan and shared Katie's River Lullaby.

Ken Sanders shared stories from trips he had done with Katie, and their work publishing her books. "No matter what she did, she did it with a fire," he told us. When her books weren't selling, she cussed out the process and worked to find a solution, she wanted to spread her message wide.

Lauren reflected on growing up on the river, and how much Katie impacted her young life. She was sad to know she was gone, but forever grateful that Katie paved the way for someone like her to make music and fight for the environment. As the hour grew late in the stuffy bookstore, we were all rocked by Katie's songs from the next generation of river advocates. While she is no longer here, her life's dedication to the canyon and to living life to the fullest would live on in all of us.

Lake Powell Pipeline Faces New Permitting Hurdle

—EB

In September, the proposed Lake Powell Pipeline project was dealt a serious blow from federal regulators when the Federal Energy Regulatory Commission (FERC) announced it would not have full jurisdiction over the project permitting process. This means the project will likely face further delay, increased scrutiny, oversight, and cooperation from more federal agencies.

Proponents of the pipeline, namely Washington County Water Conservancy District (WCWCD) and the Utah Division of Water Resources (DWR), had originally chosen the energy agency to lead the permitting hoping it would streamline the Environmental Impact Statement (EIS) process. Since the project entails a number of pumping and hydroelectric stations, the state agencies reasoned that it should be overseen by FERC.

But the Lake Powell Pipeline isn't an energy project, it's a water project—this is the reality with which FERC administrators seem to agree. The Commission ruled that its oversight of the project would be limited to its hydroelectric and pumping stations and that it, "leaves to other state and federal authorities decisions regarding the purpose of and need for the water delivery project, the preferred route for the pipeline, and its cost and financial feasibility, matters that are far removed from the limited purpose of the hydroelectric power developments to be located in and along the pipeline."

What may appear to be a mere bureaucratic slip-up could

prove to be a major hurdle for the project. With FERC acting as a lead agency, the state would have had much less scrutiny about alignment and rights of way. Now the project will see much greater oversight from federal agencies like the Bureau of Land Management, Bureau of Reclamation, National Park Service, and possibly the Bureau of Indian Affairs.

The setback for the Lake Powell Pipeline comes at a time when widespread shortage on the Colorado River has pushed other basin states to consider serious conservation measures. In August of 2018, the Bureau of Reclamation issued a warning that an official shortage could be declared at Lake Mead within the next two years. The lower basin states of California, Nevada, Arizona, and Mexico are developing comprehensive drought plans to prepare for impending curtailments from their Colorado River allotments should a shortage be declared.

Utah is taking the opposite approach: trying its hardest to get a straw in the river before shortages are declared. Utah has the legal right to use the 86,000 acre feet of water, often referred to as "paper water". But with over-allocation, total reservoir storage nearing all-time lows, and climate change putting even more pressure on the river, it's become very clear that the physical water, or "wet water", will likely not be there to pump.

To learn how you can get involved against the fight against the Lake Powell Pipeline, please visit www.glencanyon.org and go to our "take action" page.

Glen Canyon: A River Guide Remembers

An exhibit in Green River Utah

—EB



Guests take in the exhibit on opening night.

Utah's river community came together at the John Wesley Powell River Museum in Green River Utah on May 4th to celebrate the opening of a new exhibit showcasing the river runners of Glen Canyon, paying especial homage to river-running legend "Seldom Seen" Ken Sleight. With Sleight and his wife Jane in tow, the group sang boating songs and collectively revered the generation of rafting guides who floated the canyon and kickstarted a burgeoning new outdoor industry. Martha Ham, the project's team leader, spoke to the group about how many river guides went on to become activists, ultimately playing a significant role in the fight to save America's rivers.

Exhibit curator Ryann Savino comments, "the exhibit strives to remind us that preservation of land is inextricably tied to the preservation of stories." Savino worked closely with Sleight for two years organizing his archives. Now 88 years old, Sleight clearly recalls the fight for Glen Canyon, "Remembering what we lost with Glen Canyon is still relevant today. I can't forget it and I don't want others to forget it." In addition to featuring Ken Sleight, the exhibit also highlights his mentors Bert Loper and Dave Rust.

In addition, the exhibit celebrates several river-running

women who guided in Glen Canyon and became icons of the rafting world. Women like Georgie White, who is known for being the first woman to run commercial trips in the Grand Canyon. Katie Lee, who was also one of the first female river guides on the Colorado. And Gene Field Foster, who was an artist and outdoorswoman who conducted archeological research in Glen Canyon for years, but was not allowed on the Park Service and Museum of Northern Arizona salvage operation because she was a woman.

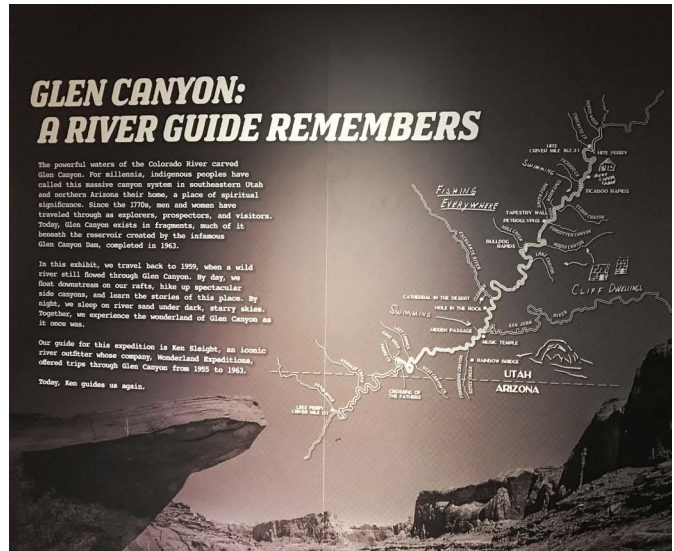
When visiting the exhibit, you are immediately immersed into the experience of a Glen Canyon river trip; maps, packing lists, WWII rubber rafts and all. The journey through the exhibit organically mimics a journey down the Colorado through Glen Canyon. Starting with "Day 1", you are guided by large photos of the canyon as you put in at Hite boat launch and meander toward Lee's Ferry. Perusing a myriad of rare indigenous and river running artifacts along the way, you can almost smell the willows and damp sand of a river camp.

The exhibit drew from a broad collection of artifacts which have never been seen by the public, generously lent by Glen Canyon river guides who opened up their warehouses and archives. Some unique treasures you'll encounter include can-

was canoes from Dave Rust, who ran the first commercial trips in Glen Canyon, a rubber military surplus raft used by Moki Mac Expeditions in Glen Canyon, and a historic recording of Vaugh Short poem read at protest at the dam. There's even a Georgia O'Keeffe print believed to have been inspired by a Glen Canyon trip she took with Kenny Ross in the 1950's.

There are also a number of Native American artifacts that were gathered during the "salvage" operations of the 1950's and 60's. Martha Ham noted that "These artifacts are a very small sample of the abundance of what was lost by inundating Glen Canyon."

The exhibit may be the closest one will get to doing a river trip down Glen Canyon in the 1950's. It's also a chance to see some of the most remarkable river memorabilia in the West. The exhibit will be on display through March of 2019, be sure to spend some time there next time you're passing through Green River.



Greeting visitors at the exhibit entrance is a river map with hand-drawn notes by Ken Sleight.



A cooking pot from Smith Fork.

A canvas canoe belonging to Dave Rust, who was the first commercial outfitter in Glen Canyon.

The Upper San Juan: A Float to Remember

—JS

Photos by Bettymaya Foott

We arrived at the put-in for the Upper San Juan River in the mid-morning sun. As the day's heat began to build and the Holiday River Guides rigged our boats, we walked down the gravel road to see the first of many rock art panels.

GCI board member Wade Graham thanked the group for coming and gave a quick introduction to the place through the panel we stood in front of. It was an explanation of those that lived on and used the river prior to white settlers. But, like us, the people that left those stories on the canyon wall had dealt with a changing world. Around 700 years ago, the Ancestral Puebloans moved out of their canyon homes and all that was left behind were the petroglyphs and dwellings in the desert. Wade described how they suffered from conflict with other tribes and a long-term drought that drastically changed the region, reminding the group that we are currently in another period of change.

Discussing drought was a perfect backdrop to the trip, as it was the reason we had to change the trip from the longer lower section to the shorter upper section. With historically low snow pack, there was not enough water in the river to safely run our originally planned lower San Juan trip. I had never run the upper, so I was excited to see a new place. I was also a little anxious about the shorter distance over the same amount of days.

Back at the boats, I immediately hopped into the cool, chocolate colored water. The San Juan soaked my shirt and hat and refreshed my parched skin. The rivers of the Southwest are a geological blessing, forming amazing canyons and offering a reprieve from the penetrating heat.



Throughout the first 20 miles of the trip, we were completely surrounded by sandstone walls and canyons. This is particularly special because it resembles in many ways what Glen Canyon looked like before the dam. And, like the main Colorado, Ancestral Native Americans spanning thousands of years lived along the shores. Every few miles we would tie our rafts up to a stump on the bank and explore ancient dwellings and rock art. The rock art panels were the largest and most intricate that many of us had ever seen. Huge alien-like forms chipped into the side of auburn desert varnish. From granaries high on the cliffs, to large Kivas, to piles of pottery shards, we explored the living museum and worked hard to leave no trace, and, of course, taking no artifacts.



In the evenings, our featured guest, Chip Ward, and Wade led conversations about the reality of the river and the future of the environmental fight in the Southwest. As always, our group brought a diverse offering of opinions, from Navajo stories to the need for predators. Everyone felt the weight of our discussions and the hope for progressive change across all levels of the environmental and climate movement. The group of GCI members, both decades-long supporters and new recruits, had lots of questions about what was happening to the basin, and offered amazing advice as to how our organization could continue our work in engaging active citizens. Their knowledge and positivity was reinforced by the remarkable trip experience we were all having together. After the sun had fully set, an amateur astronomer helped us in finding planets and constellations. She reminded us about the importance of the night sky in our lives.

One morning we hiked with the sunrise into the last red rock canyon of the upper river. We saw the remains of a Navajo hogan. A member taught us about the sacred stones buried at the north, east, west, and south facing walls of the Hogan. Each stone represents a color, all of which tell the story of the Navajo life cycle. The cycle encompasses every part of the Navajo history and future. It, like the Hogan, is in the shape of a circle.

Further along the canyon, expansive walls narrowed in on us. We wove between the stone facades and willows to see cliff dwellings and rock art from the ancient ancestors. At the wide mouth of the canyon, near our campsite, there was evidence of cattle. A millennia of different uses were present in this one canyon.

Over the next day and a half, the river changed dramatically. We went from an archeological tour to a geological one. The red rock disappeared and we entered an uplift of limestone. With it, the canyon narrowed and provided longer river runs and the only white water of the journey. While there were no more cliff dwellings, we were able to see many bighorn sheep,



eagles, and fossils embedded in the ancient sea bottom. It was a wonderful contrast.

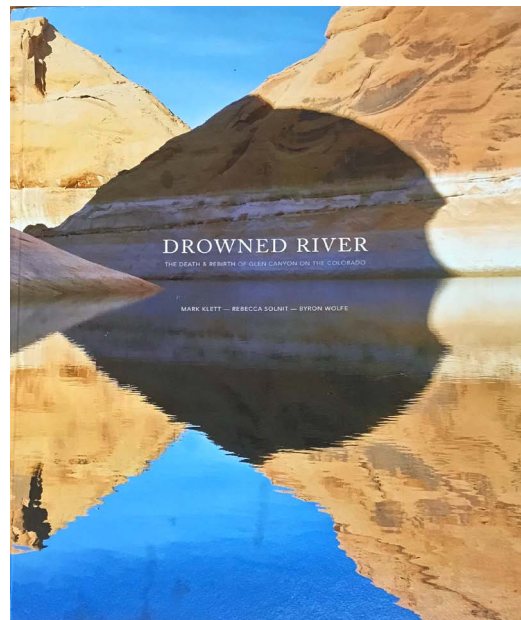
By the end of our trip, I had made new friends and gained a new appreciation for a place I already loved. We experienced history and science as well as heard stories that reflected the beauty of the place. Like with any time spent outdoors, I was sad to leave the caress of the river, but ready to share what I had learned with the rest of the world. On our final morning on the river, I jumped in the water one more time.

Bobbing like a piece of driftwood, I floated past the camp and out of earshot of the quiet conversations. I turned away from our party and gazed downstream at the level of the river. The water was a deep red-brown. Bubbles and boils from the current disrupted the surface. I smiled as I thought about how far we had come, what we had seen and discussed, and the connections I had made with my new friends. I watched the simple movement of sunlight in the canyon in front of me and felt the calm but steady flow of the San Juan.



Review of *Drowned River* By Rebecca Solnit

by Wade Graham



***Drowned River: The Death & Rebirth of Glen Canyon on the Colorado*, text by Rebecca Solnit, photographs by Mark Klett and Byron Wolfe (Santa Fe, N.M., Radius Books, 2018).**

Drowned River, like all deep reflection on Glen Canyon, has been a project years in the making. It is a record and after-image of several trips on the reservoir and its side canyons over the past few years, as the waters of Lake Powell recede and the glories of the river are revealed. The book is a collaboration between writer Rebecca Solnit, one of America’s best, and most impassioned advocates of important landscapes and muckrakers of senseless policy, and Mark Klett and Byron Wolfe, two photographers of rare vision and sensibilities.

And it is a fruitful one: Solnit brings urgency, and unsparing clarity of prose, to telling the story of Glen Canyon’s inundation. She squarely assigns the folly of building Glen Canyon Dam to the militaristic worldview of the 1950s, which declared war on nature, bringing to bear its new panoply of weaponry. It was: “a continuation of the Second World War or as war by other means....fought with new chemicals, like DDT...nuclear bombs...” and dams. She points out that the dam’s construction was symbolically begun on October 15, 1956, when President Lyndon Johnson pressed a telegraph key in the White House to detonate the first TNT blast into the canyon’s walls—“this war-like gesture by the former supreme commander of the Allied forces in Europe.”

That world may be “utterly foreign” to us now, Solnit writes, but we are left to unwind the folly of Lake Powell and mitigate its damage as water-greed and climate change shrink it. And Solnit is hopeful that we are up to the task: “What’s not hard to

say is the Lake Powell is dying and from its corpse the Colorado River is emerging.”

Drowned River documents this beautifully, weaving together the natural context of the place and traces of its human visitors. The photos are thoughtful, powerful, and straightforward: at one level, they narrate the trips the three undertook over several years, on rented houseboats, on the reservoir, purposefully looking for traces of photographer Elliot Porter’s 1963 Sierra Club book, *The Place No One Knew: Glen Canyon on the Colorado*. What they find, of course, are inundated landscapes, their houseboat floating above the sites where Porter captured the doomed beauty of the Glen. The photos are also refreshingly unpretentious, like snapshots we all wish we could take, but 100 times better; not abstracting place to become art as Porter aspired to, but using art to make place and time concrete. They are engaged: there are views from houseboat windows, of beaches, trash, jet contrails reflected in water below towering red sandstone cliffs, smokestacks in the distance, hands holding silty, recovered artifacts of human passage: cassette tapes, bullets, beer cans.

The book’s design is elegant, its changing typography captures the rhythms of the authors’ journeys and how the canyon gradually takes hold of its visitors, shapes thought, experience, and memory. These words and images—this book— now form a necessary link in the chain of reflection on Glen Canyon that began with John Wesley Powell and continued with Katie Lee and Tad Nichols, Elliot Porter, David Brower, and others—many of their images represented on the walls of GCI’s photo exhibition at the Utah Museum of Fine Arts on November 16th.

GCI Partners with Wild Utah Project on 2019 Bio Blitz, May 2019

—EB

As continued water shortage on the Colorado River system exposes more of Glen Canyon's labyrinth of side canyons, a multitude of new questions have emerged about their ecological recovery: What type of species are returning? Are the new ecosystems "healthy"? Glen Canyon National Recreation Area doesn't have a resource management plan for re-emerged areas, and generally manages them as if they were still under water. With hundreds of acres of newly-emerged land and riparian habitat out of water and ecological succession taking effect, there is a serious need to understand how the ecosystem is recovering. To that end, GCI is excited to announce it will be teaming up with Wild Utah Project and the National Park Service to conduct the first ever Bio Blitz in Glen Canyon in May 2019.

The questions surrounding a recovering Glen Canyon are expansive, and the physical landscape even more so. With the 2019 Bio Blitz, GCI aims to begin answering these questions by focusing on a specific area near 50 Mile Canyon, and gathering as much data as possible in the course of a few days. Utilizing citizen-science volunteers and experts alike, the goals of the Glen Canyon Bio Blitz are:

- Gain interest of the region with stakeholders including academia, resource managers, and the public
- Prepare a baseline assessment of biological resources at the site

- Support the development of further study in subsequent years; and
- Support the management and protection of the re-emerged areas.

The recovery of Glen Canyon's emerging habitats may be one of the most unique cases of biological succession on the Colorado Plateau—few ecologically-rich landscapes have been inundated with over a hundred feet of water only to re-emerge decades later. In order to understand the transformation taking place below the old "high water mark", we must gain knowledge about the reestablishment of native plant communities, native wildlife communities, the presence of non-native/invasive species, remaining impacts of reservoir sedimentation, and the overall health and ecological function of emerged landscapes.

Ever since the levels of Lake Powell began declining in the early 2000s and more public attention has focused on the changes taking place at Glen Canyon, many have wondered whether Glen Canyon's unique ecosystems can actually recover to healthy levels. With this undertaking, GCI hopes to take a small but meaningful first step in addressing this question. We'll be updating our members on the exact date and location of the Bio Blitz in the near future, as well as opportunities to participate.

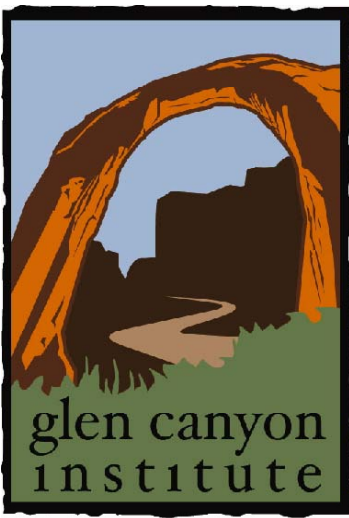


On **Friday, November 16th at 7:00 pm**, GCI will be hosting one of the most extensive Glen Canyon photo exhibits ever assembled under one roof. The event will take place at the Utah Museum of Fine Arts at the University of Utah campus. We'll be featuring historic and modern photography by David Brower, Tad Nichols, Ken Sleight, James Kay, Nick Woolley, Bill Wolverton, Elias Butler, and many more.

We'll also be presenting our David R. Brower Conservation Award to Glen Canyon explorer and former Escalante Ranger

Bill Wolverton, who spent years working to restore the canyons of the Escalante by eradicating invasive Russian Olive trees. We'll be showing a film about Bill, *Love of Place*, as well as *Seldom Seen*, a film about former Brower Award recipient Ken Sleight. Ken will be in attendance to help present the Award.

If you want to take home a piece of Glen Canyon history for yourself, we'll be auctioning off some the photographs at the event. Don't miss this very special event! It will be free and open to the public.



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"A bookkeeping transaction could have served the ostensible purpose of Glen Canyon dam, which without that transaction emerges as a costly device to make sure water will flow downhill. What water this reservoir holds back for credit above the arbitrary division point of Lee's Ferry could be credited in Lake Mead much more economically and far less wastefully "

—David Brower, from *The Place No One Knew*, 1963

Sun sets on the San Juan River. Photo by Bettymaya Foot.

