Lake Powell's record low levels confound tourists, businesses, Park Service

Tony Davis 13 hrs ago

Editor's note: This is the third of six stories for "Colorado River reckoning: Not enough water," an investigative series by the Arizona Daily Star that observes, at length, the future of the Colorado River.

Bullfrog Marina is the getaway point for houseboaters, ski boaters, water skiers and fishing enthusiasts to tour some of Lake Powell's less visible but still beloved side canyons,
which stretch out like a series of finger lakes along the main lake body that encompasses the Colorado River.

The marina anchors Lake Powell's north end, lying nearly 100 miles and a four- to five-hour powerboat ride upstream of Glen Canyon Dam. It rents out houseboats and smaller power boats along with ski tubes, paddleboards and kayaks. Its environs play host to a restaurant, a convenience store, a gift shop and a post office.

But Bullfrog's boat ramp has been closed off and on over the last year and a half due to low water, leaving its usually bustling parking lot virtually empty at times. And all signs are that the ramp — and Lake Powell in general — are in for an extended period of hard times starting in December.

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Then, federal forecasters predict Powell's water level most likely will again fall below 3,525, at which the ramp stops short of reaching the water and can't be used at all, and will stay that way for at least another five months. The ramp was closed to houseboats and other large vessels in mid-November, when the lake dropped to 3,529 feet. The lake's lowest level ever was 3,522 this May, a drop of 178 feet, or more than 16 stories, since Powell was last full in the mid-1980s.
A more pessimistic forecast has Powell staying below 3,525 for all of the next 20 months starting in December. That same forecast, which federal officials say has a 10% chance of coming true, shows Powell falling below 3,490 feet — the lowest level at which Glen Canyon Dam can generate electricity for its 5 million customers in the West — starting in October 2023 and staying below there for 10 of the next 12 months.

Those are the realities confronting managers of the Colorado River and the millions of tourists who flock every year to Lake Powell, which straddles the Arizona-Utah border. Already, the lake has become a less enjoyable place for many tourists than it used to be, due to the shrinkage from drought and climate change. Some formerly key recreation sites are less accessible or virtually inaccessible, although some boaters say they still enjoy the lake as much as ever.

Without major curbs in water use across the Colorado River Basin, particularly in Lower Basin states including Arizona and California, the lake seems likely to keep falling, tightening the screws on a multi-billion-dollar recreation economy that had already shrunk due to the pandemic.
Boaters on Lake Powell during the official dedication of Glen Canyon Dam on Sept. 22, 1966. In 2021 the lake drew more than 3 million recreators, the 25th highest annual visitor total at any National Park Service unit.

Mark Godfrey / Tucson Citizen

The continuing decline of Powell has raised an almost endless list of questions about how authorities should respond. The lake is so low that most of its boating ramps are closed. Several popular attractions are either inaccessible or difficult to reach by boat. A heavily used marina is closed due to the low water and no one can say when it will reopen. Millions of visitors still flock there every year, but attendance last year was well below pre-pandemic levels.

The crisis at Powell has environmentalists asking: When does it become a losing game to keep extending boat ramps, moving marinas and moving houseboats around as the lake shrinks?
It has also triggered calls by environmental activists for the federal government to modify Glen Canyon Dam — whose construction created the lake — so it can deliver water to the Grand Canyon and Lake Mead downstream even if and when Powell’s levels are too low to pass water through the turbines to generate power.

Federal officials, however, seem determined to do whatever it takes to keep the lake above 3,490 feet, out of concern the dam's facilities could be damaged if water is run through it at excessively low levels.

Many boaters and other recreationists want the lake kept at higher elevations to insure usage of the few boat ramps still open. But many scientists say that won't be feasible if river flows stay as low as they are or continue declining.

'Might break my heart'

Near the Bullfrog ramp, when the Star visited in May to see the record-low water, lay a sea of dead salt cedar branches. The lake itself was about 50 feet wide at that point, and the canyon walls were colored a medium to deep chocolate. Whitish streaks indicated the lake’s famed bathtub ring, areas recently exposed to air due to the lowering water. In areas along the lake, the canyon walls were interrupted by a line of rounded and rectangular red rock structures, known as hoodoo style, carved over the eons by the Colorado River.
Looking northeast from Wahweap Marina public boat ramp at Lake Powell in 1986, top, and 2022.

Benjie Sanders (top) Kelly Presnell / Arizona Daily Star
At the marina, already launched boats were parked and able to come in and out of the water. One was a power boat owned by Jennifer Matamoros of Paonia, Colorado, who had just returned from a trip to Lost Eden Canyon, lying a little less than a mile away. The canyon serves as a hideaway for many like herself, loaded with slot canyons, amphitheaters, 100-foot-high canyon walls and caves.

Matamoros was clearly displeased at the lower water but determined to carry on.

"Overall, it sucks, but we have to enjoy what we're seeing," said Matamoros, chief of staff for sales and operations for an accounting software firm, who had just celebrated her 45th birthday.

"The last time I was here was this same weekend, two years ago," when the lake was 70 feet higher, she said. "Before that, it was every five years I came here. When I was 10 to 14, it was every summer."

A birdwatcher, she said she visits the lake to enjoy nature, even though it’s not completely natural, having been created in the 1960s by the damming of Glen Canyon on the Colorado River.
"You get lost in the canyon. In Eden Canyon, it seemed like we were in another planet. The moment we got back there, it was complete silence, like nothing else existed," she said. "I felt safe and protected in a corner of the world, surrounded by nothing but rocks and cliffs."

Matamoros showed ambivalence when hearing about the return to view of historic Glen Canyon attractions that were underwater for decades, such as Cathedral in the Desert, a
massive sandstone grotto with a long waterfall.

“It’s really a Catch-22. With all the BS going on in the world, it’s nice to have more nature. But it might break my heart to see the (lake) water draining,” she said.

'Asking too much' of the river

Michael Winn, 45, an attorney from Torrey, Utah, who had parked his fishing boat at Bullfrog, has no ambivalence about his vision for Lake Powell's future. Winn spoke while standing on a walkway to the marina from the parking lot.

“I want it to go back to being wild,” said Winn. "I don’t think the dam should have been built in the first place. It’s the Colorado. It’s not the Nile. It’s never been the Amazon. It’s never been meant to be sustain all this crop production. It’s just a river that runs through.”

Winn was at Powell to catch largemouth and smallmouth bass, northern pike and walleye. While many of his old fishing holes have dried up, it’s easier to catch fish than before, he said. Less water means “there’s less places for them to hide,” Winn said.

“Once you get into the main canyon, you still have plenty of room, plenty of water,” he said. “The side canyons are more dried up.”
Looking southeast from above the Wahweap Marina rental docks on Lake Powell in 1986, top, and 2022.

Benjie Sanders (top) Kelly Presnell / Arizona Daily Star

It was Winn’s first trip to Powell in at least five years, although he had been coming to the lake off and on since
growing up in the Salt Lake City area.

Winn’s grandfather saw and loved the original Glen Canyon before the dam went in, but he also liked Lake Powell and fishing there, his grandson said. He used to launch a 14-foot-long houseboat at the end of the Hite marina on the lake's far northeastern edge.

As for Winn, he’d like to see Glen Canyon through the eyes of explorer John Wesley Powell, who led two major expeditions through the Colorado River’s canyons in the 1860s-'70s, a century before the dam changed the landscape.

Today, the Colorado's "only got a fraction of the flow it had, and we are asking so much of that. It’s unfair to the river," he said. “Do we really need Lake Powell to still satisfy the water needs for winter crop production?

“You guys built those cities in the middle of the desert," he said, referring to Lower Basin urban development. “I love you all, but seriously.”

'Our favorite vacation spot'

For Damian DiFeo of Golden, Colorado, the lake’s decline has been “devastating — I’ve never seen it this low.” But he hopes it can be salvaged through a strong water
conservation plan.

Now 50, he’s visited Powell regularly since he was 18. When interviewed, he and his wife Lynette were sitting in their gray pontoon boat, preparing for a day of fishing. Then, they would park their houseboat, with the pontoon boat in tow, at a suitable beach and detach the pontoon boat to explore side canyons and fish.

"We love this place. It’s our favorite vacation spot of the year," DiFeo said.

He's disconcerted that the low water keeps his boats from accessing tributaries and side canyons he once visited regularly: the Escalante River, Clear Creek and Lake, Lost and Iceberg canyons.

The DiFeos couldn’t get their power boat back as far as they used to.

As water in one of the nation's largest reservoirs recedes, geologic features hidden for nearly 50 years are revealed in Glen Canyon National Recreation Area in Northern Arizona. Video courtesy of Glen Canyon Institute, 2022

Glen Canyon Institute, 2022

“What this place is kind of known for are canyons off the main channel. You used to be able to go back miles in some of those canyons. Now you get one-half mile, three-quarters of a mile in, it’s sand,” he said.
“There’s a bay there — Hall’s Creek Bay, around the creek from Bullfrog. It’s a beautiful bay — tons of beaches and places to park houseboats.

“But it’s completely gone,” he said. "There may be water back there, but you can’t get back there. The entrance to get there is dried up."

Other than that, “the fishing has been good,” he said. “There’s still a lot of water in the lake. There’s a lot of good beach spots — the only good thing about low water.”

But now, to park a houseboat, you have to go farther south on the lake, towards Page, Arizona — 93 miles downstream of Hall’s Creek Bay, DiFeo said.
“If people would just conserve water west of here, and not put so much water on golf courses and lawns. You know it’s all the western states of California, Arizona and Las Vegas — look at how much water they’re using,” he said.

He added that during dry periods in the Denver area, where he lives, many cities limit outdoor watering to two or three days a week.

“You can’t just keep taking and taking and taking. At some point there has to be some give and take,” DiFeo said.

**Rainbow Bridge access dramatically reduced**

Only three years earlier, in 2019, Lake Powell was on a temporary roll. After heavy winter snows produced the river basin's highest spring runoff in eight years, water levels were so high that boaters were warned not to park too close to the shoreline, so vehicles wouldn't be surrounded by water and need towing.

That year, Glen Canyon National Recreation Area and the adjoining Rainbow Bridge National Monument drew 4.4 million visitors. It was the third straight year of 4 million-plus visitation, and more than double the number of total visitors in 2013. The visitors spent $427 million in communities near the park, led by neighboring Page, supporting 5,243 local jobs, the National Park Service said.
But in 2020, the pandemic dropped visitation to about 2.5 million. A very poor monsoon season in 2020 and two years of low spring runoff pushed Powell down around 50 feet in a single year to a then-record low level of 3,555 feet in July 2021. It kept falling, bottoming at 3,523 in May 2022, then rising to almost 3,540 feet before starting another decline in mid-July.
Aerial image of Rainbow Bridge in 1962-'64 before flooding of Forbidding Canyon and Lake Powell. Ironically, that flooding improved access to the natural wonder. But today —conversely — as the water recedes, getting to the bridge is much harder again.

Phil Pennington / Courtesy of Grand Canyon Institute

Despite a lifting of pandemic restrictions in 2021, visitation
barely rebounded to about 3.1 million, although that was still the 25th highest annual visitor total at any National Park Service unit.

One of the most prominent spots to which the low water has dramatically reduced access is Rainbow Bridge, the flaming reddish-sandstone arch structure lying more than halfway up the lake from Glen Canyon Dam.

At 297 feet tall with a 270-foot-wide span, it’s one of the world’s largest natural bridges. It also has enormous cultural significance to Indigenous people. It has inspired origin stories, pilgrimages and ceremonial rights for centuries if not millennia, says the Park Service, which designated it a Traditional Cultural Property five years ago.

Protecting Rainbow Bridge and the national monument in which it lies was a hot-button issue during the controversy over building the dam in the 1950s, with environmentalists fighting, ultimately unsuccessfully, to keep the lake’s waters from intruding past the Rainbow Bridge National Monument’s boundaries. Congress first approved, then rescinded legislation aimed at preventing that.

Easy boat access to the bridge was a prime selling point in a 1965 promotional pamphlet for the lake authored by then-Bureau of Reclamation Commissioner Floyd Dominy. Dominy, probably the dam’s most vociferous promoter, noted that
before the dam, only “the rugged few who packed in” could reach Rainbow Bridge. They approached it by a 10-mile hiking trail from Navajo Mountain to the south.

“Now, all of you can see it — easily,” Dominy wrote in the pamphlet. “Your boat will moor to floating docks at the entrance to Rainbow Bridge Canyon. Then you can take a walk along a trail to the canyon’s side. You’ll find the bridge undamaged by Lake Powell’s waters. And you can marvel at its arched and graceful beauty of its natural setting.”

More than 100,000 visitors saw the bridge annually from 2017 through 2019. You could park your boat at a dock right at the shore and walk a mile or so to the bridge. During very high water years in 1983 and 1984, boats could travel directly underneath it. It lies a two-hour boat ride upstream from Wahweap Marina near the dam.

But the pandemic and the low water sent annual visitation tumbling to a little less than 3,600 and 3,300 in 2020 and 2021, respectively. Visitation was particularly hurt by the cancellation of scheduled tours to Rainbow Bridge by private operators.
A stranded buoy sits on the cracking silt on the bottom of Lake Powell near Bullfrog Bay Marina in Glen Canyon National Recreation Area. Bullfrog's boat ramp has been closed off and on over the last 18 months as the lake shrinks.

Kelly Presnell / Arizona Daily Star

Since October 2021, visiting the bridge has become even more difficult, due to low water and mud and debris from big storms. The dock at the bridge where boaters traditionally parked hasn’t been connected to the monument’s shoreline since then. The dock system and its restroom, still accessible to boats, are being moved further out to prevent the restroom from getting stuck, said Park Service spokeswoman Mary Plumb.

“Boats and small vessels may beach at their own risk” at the shore, Plumb said.
Aramark Management Services, which runs the lake's Wahweap, Bullfrog and Hall’s Crossing marinas under contract with the Park Service, has for some time offered "truly one of a kind excursions" by boat to Rainbow Bridge National Monument. But its website now says, “The Rainbow Bridge Tour will not run until further notice.”

**Used to be '10,000 people here for spring break'**

The low water also has cut access to other popular areas.

The Castle Rock Cut, for instance, was a popular shortcut, dug by the Park Service, that created a mile-long, two houseboat-wide channel between swaths of desert, said Bob Wilkes, a longtime boat rental business owner. Lying just east of Wahweap Marina, it saved about an hour of travel time, connecting that area to the main Lake Powell channel. But the cut is dried up, forcing boaters to detour for a long distance.

It has been deepened four times since it was first dug in the 1970s, but even with that it runs dry when Powell falls below 3,580 feet. That's been the case since January 2021.

A similar fate has befallen Lone Rock, a huge, rectangular stone monolith jutting close to 150 feet high from the desert in Utah, about 12 miles north of Page.
It was for years a popular site for circling by boat and the hub of a public beach and campground. But when the Star visited Lone Rock on a sunny May afternoon, it sat in an open field, at least a half-mile from the main Lake Powell as it wrapped around a bend. The rock itself, adorned by alternating light and dark brown bands, stuck out starkly in the desert.

In October 2021, when veteran Lake Powell fishing guide Mike McNabb took a Star reporter to Lone Rock, water was still close to the lake but the area was virtually deserted, with a handful of people on the beach. He recalled that decades ago, “there’d be 10,000 people here for spring break.”
“For me, it hurts to see it like this. There’s nothing we can do. It’s Mother Nature,” McNabb said.

'A real conundrum'

More troubling for boaters and boat rental companies has been the indefinite closure of Dangling Rope Marina. It was the only refueling stop for the 100-mile distance between the Wahweap and Bullfrog marinas. It lies about 40 miles up the lake from Wahweap.

For years, it had a fueling dock, minor boat repair services, a supply store and snack bar, a ranger station and restrooms. But the park service closed it in May 2021 after it was severely damaged by a windstorm.

Since then, reopening has been put on indefinite hold.

The main lake channel there is expected to narrow to 100 feet wide as the lake drops, and the Dangling Rope Marina complex is much wider than that, Glen Canyon National Recreation Area Superintendent Billy Shott told local media outlet Lake Powell Life in fall 2021. That means officials have to look at possibly moving it farther out into the main lake channel, “and that’s a big undertaking as well.”

“You have to power these facilities. And even if it’s just a fuel dock, have to power the fuel pumps and power the fire
suppression system that goes along with it,” he said. “All of that power comes from the shore.”

The problem is that the generator that would power the marina’s facilities is served with fuel that is normally delivered by a fuel truck that uses a ramp to access the generator — and that ramp “is high and dry, just like our other ramps in the water,” Shott said.

“We have right now a real conundrum,” Shott said.

A veteran Lake Powell boater called the Dangling Rope Marina closure “a huge deal,” one that can severely limit how far up the lake boaters can travel.

“We don’t go as far as we used to,” said John Ryder, a project manager for the Yavapai County Probation Office in Prescott who has been boating on the lake for 30 years. “I really like the Escalante River (tributary of the Colorado River). “It’s beautiful. Very shiny.

“But unless I haul gas (separately) up there, I can’t get back. I probably won’t do that. It can’t be done safely,” he said at the Wahweap Marina. “We talked to a guy on the way up here who said he burns 28 gallons an hour. This guy had six five-gallon jugs of fuel. You can’t put enough gas in the boat’s fuel system, and hauling gas is dangerous.”

The problem is this lake is so huge, if someone wants to go
to Rainbow Bridge, the majority of boats cannot make the trip there and back, roughly 100 miles, without a fuel stop, said Page Mayor Bill Diak. "The marina was placed there to have a fuel stop between Wahweap and Bullfrog." Losing it has "eliminated the middle portion of the lake" as a place to go.

Dangling Rope's closure forced Bob Reed, owner of Uplake Adventures boat rentals, to cancel all his overnight boat trips last year. "I lost 50% of my business," he said.

In his Lake Powell Life interview, Superintendent Shott said there’s a fear in the community that the Park Service has decided to abandon Dangling Rope, "and I can assure you that’s not the case. Having that facility midlake is in our general plan. It is a high priority for the park. The idea of abandoning that service forever is not in the cards.

"With that said, we don’t have a solution yet for how we get this online."
Robert Wilkes, owner of Skylite Rentals in Big Water, Utah, says closure of boat ramps at nearby Lake Powell is a drain on the economy. “Last year I was down $230,000 in cancellations,” he says.

Kelly Presnell / Arizona Daily Star

'I was down $230,000 in cancellations'

As of now, 9 of 12 boat ramps into the lake are closed because they stop above the water. A 10th ramp at Antelope Point Marina is open only to smaller boats. A tenth ramp, at Bullfrog, is now partially closed.

The closures hit particularly hard in July 2021, when the National Park Service shuttered the main boat ramp at Wahweap Marina to houseboats after the lake plunged, leaving all ramps into the lake closed at least a few weeks.
Full access was restored in early fall that year when the Park Service finished a three-month project that extended, rehabilitated and reopened the Legacy Stateline Auxiliary Ramp — built in the 1960s — near the shuttered Wahweap ramp.

Work continued on extending the ramp farther this year by adding more concrete. The Park Service’s goal is to keep the ramp usable until the lake drops below 3,490 feet.

At the neighboring Antelope Point Marina, the main public boat launch ramp was closed most of 2021 because the low water made it end at a point where it hit a cliff that dropped straight into the water. A second ramp at Antelope Point was available last year for boaters willing to pay a $40 fee just to put their boat in the water. It was closed by the start of 2022 although it’s now open for boats no longer than 22 feet.

Because of the ramp closures, “last year I was down $230,000 in cancellations,” said Wilkes, owner of Skylite Boat Rentals, located in Big Water, Utah, about 12 miles north of the lake. “In the last eight years I never laid any of my staff off in winter. Last year, we shut down for the winter. We had to cancel insurance on everything. We couldn’t pay it.”

While Wilkes’ smaller boats could still enter the water, negative publicity about ramp closures scared off
customers, he said.

“People didn’t want to chance it. They didn’t trust it would work out,” he said. “They are putting their huge vacation with all their family in the hands of the Park Service. They didn’t want to.”

Five other boat rental business owners said the ramp closures dramatically hurt their businesses. Overall, sales tax revenue to Page from tourism fell about 32% in summer and early fall 2021 compared to pre-pandemic totals, said Diak, the town's mayor.

One of Wilkes' cancellations was by Dr. Randall Metsch, a San Diego dentist who was in the process of renting jet skis from Wilkes as part of a trip planned with several other families for the end of July 2021.

“I was concerned with the water levels, wondering could we get boats in the water and once we got in the water would we be restricted by crowds and the shallow water? We all got together and decided it was not worth the risk and we cancelled.”

Then, Metsch and his friends got into the lake through an unexpected backup plan. After cancelling their first trip, they received an invitation from a college roommate to spend five nights at his houseboat that was already docked in the water
Metsch was glad afterward that he did it, but the trip had its glitches. He had trouble getting his ski boat in and out of the low water. Twice the boat’s propeller got bent.

“My roommate was showing us these cool areas, and all of a sudden we hit a sandbar. In places, the water was 30-40-50 feet deep. We made it, but it was hard getting it out of the water,” Metsch said.

Still, Metsch finds Powell “one of the most beautiful places on earth."

“It’s like being in the Grand Canyon on water. The water is beautiful. You are out isolated, away from civilization. You’re living off what you brought on your houseboat. You’re cooking, barbecuing and you have all the fun with ski boats and jet skis.”
A shrinking lake reveals its secrets

Stretching 386 miles upstream of Glen Canyon Dam, Lake Powell draws more than 3 million boaters, fishers, and other recreators annually. But low water has made access to the lake increasingly tough. Ten of 12 ramps leading from marinas now are at least partially closed. Some visitors lament they’ve lost access to certain side canyons where the water is too low for boats. Environmentalists, however, are cheering the return to public view of treasured Glen Canyon sites exposed by the receding water such as Cathedral in the Desert. Other sites flooded by Lake Powell, such as Music Temple and Hidden Passage, remain underwater.

Chiara Bautista

Still more water than 'most can even fathom'

Last year, the Park Service and Shott, the Glen Canyon...
National Recreation Area superintendent, took huge criticism from recreators and Mayor Diak for failing to start sooner in creating a low-water boat ramp and for what they felt was failing to provide enough advance notice that the main Wahweap Marina ramp would close.

"The Park Service used an excuse that they got bad information from the Bureau of Reclamation. They've been here as long as everyone else and saw the pattern that was going on that indicated they should have moved quicker," Diak said.

In an interview with Lake Powell Life, Shott replied that the park service was up against "a really unique situation," in which the lake fell far faster than any federal forecasters had predicted. Climate change "is occurring at a rate beyond our comprehension."

"To say my confidence has been shook based on the projections that we've gotten would be grossly underestimating my reaction," said Shott, who left that job over the summer of 2022 to take a higher-ranking post overseeing Park Service operations in eight states.

This year, with two boat ramps at Powell still operating and lake levels less volatile, the business climate appears to have stabilized or improved. Business for many boat rental companies has rebounded, as have sales tax revenues,
although not to pre-COVID levels, said Diak.

A longtime Powell boater, Thor Odinsun, maintains the lake’s negative image is due mainly to media “fearmongering.” He sees the lake’s future as bright.

“We will always have a ramp to launch and retrieve at. We have to have one. I have also had online friends inform me that they cancelled their trip to Lake Powell because they seriously believe that there is not enough water in Lake Powell, which is insane,” Odinsun said. "The amount of water out here is more than most can even fathom," said Odinsun, who runs a cruiser boat on the lake dozens of hours a week.

By contrast, longtime Lake Powell fishing guide McNabb said that while his business is surviving, “The bottom line is if this (drought) weather pattern doesn’t change, we’re done.”
Moving marina and other expensive options

There's no question more change lies ahead for Lake Powell — the question is how much.

Mary Plumb, the Park Service spokeswoman, noted in a statement to the Star, “All conventional methods of maintaining access have been exhausted, necessitating new locations and design for current unprecedented lake levels.”

“Over the past two years, we have been extremely busy responding to low water levels by moving marinas, docks, slips and walkways, and utility line chaseways (fuel, electricity, wastewater, water), the Park Service added in a recent newsletter.

The Park Service has hired a contractor, Jacobs Government Solutions, to explore long-term, low-water solutions and options for “sustainable access,” including at four public launch ramps across the lake.

The huge array of upgrades needed to make the ramps accessible will require difficult decisions, Shott said before leaving his post there.
“If I want to replace every ramp we have, move every marina, every utility, to keep same level of service we have now at 3,450 feet, that would be in the cost of hundreds of millions of dollars,” Shott told the Star. “That’s not money I expect to get next year or any other year.”

For one, Bullfrog Marina “is running out of water,” sitting in a shallow basin off the main lake channel, and “will essentially become unusable when the lake gets to 3,515 or 3,520 feet,” he said. The Park Service’s contractor is looking at what it would take to move the marina to an adjacent location lying in much deeper water.

“It’s not that big a deal to move the marina. A bigger deal is how we provide it with electricity and drinking water, and how we remove wastewater, the sewage; gasoline. We need to figure out what this will cost,” Shott said.

But, “if we keep Bullfrog the way it is right now, and we fail to do anything, it will be sitting on mud flats, potentially, in two years.”

At Antelope Point Marina, extending the closed public boat ramp to operate at 3,450 feet is estimated to cost $14 million to $15 million, he said. That’s because the ramp “is built on the side of the canyon, and is literally on the edge of a cliff now.”
Shift to land-based recreation

Eric Balken, director of the environmentalist Glen Canyon Institute, said if he could talk directly to the National Park Service, he’d ask first, at what elevation does it become impossible to operate the reservoir as a lake-based recreation destination?

“At what point do you tell everyone to get their houseboats off the water before they become beached?” Balken asked. “What plans are in the works for modifying the canyon for its river recreation potential? Will new boat ramps be built for rafting groups at Bullfrog? If sediment or waterfall hazards appear on the main river channel, will the park service dredge and clear those so that people can run the river?

“The writing is on the wall. The likelihood of this reservoir filling again is very low. The likelihood of it dropping more is high,” Balken said.

If any of the scenarios Balken discusses comes to pass, Plumb responded, “the park and subject matter experts will assess the situation and address possible solutions in accordance with law and policy and in consultation with our partners.”

For now, the Park Service's efforts to maintain existing services at Powell show no signs of retrenching. Using "$26
million in federal disaster funds, it’s designing a new ramp for Bullfrog that’s aimed at lasting down to 3,450 feet at the lake, the service wrote in a newsletter in August.

It will work with a contractor to design new ramps at Antelope Point, Halls Crossing, a now-closed ferry terminal lying directly across the lake from Bullfrog, and at Hite Marina at the lake’s north end. It’s also seeking federal funds to explore ways to provide fuel and other services to replace what was provided by Dangling Rope Marina, along with a long-term access method for Rainbow Bridge.

A possible vehicle for financing these fixes is a proposed federal disaster relief program for National Park Service sites that includes $320 million for the Glen Canyon and Lake Mead National Recreation areas — of which the Glen Canyon would get about $200 million. The proposal is pending before the Senate Appropriations Committee.

“It gives our team at the National Park Service in Glen Canyon a reason to stay positive, because we see a bright future,” Shott said.

At the same time, Shott has said the majority of the recreation area’s 80% increase in visitation since he arrived there in 2015 has been in land-based activities such as hiking, backpacking and off-road vehicle use.
“In many ways, it’s even better right now because it looks different. There are places you can see that haven’t been seen since you could raft the river. And those are all documented,” Shott told the Lake Powell Chronicle a year ago. “There are some phenomenal beaches now that are opened up that weren’t open before. You have to be careful, but there are some great hikes now too because you can hike in these slot canyons.”

In 2016, Glen Canyon’s Strategic Plan identified land-based recreation as a high-priority activity “that was already seeing exponential growth,” Plumb said.

The worst-case scenario would be if officials ever remove the dam, making the boat ramps useless, Shott told the Chronicle.

“But you know what? We’ll have more people coming here to raft than they have in the Grand Canyon. It’ll be a different place, but people will still enjoy it. It’s just change. We just have to adapt to it.”

Operators of Aramark-owned Lake Powell Resorts and Marinas, which run the Wahweap and Bullfrog marinas, seem to get Shott’s point. In the past year, the resorts have used full-color photos of newly visible slickrock in Glen Canyon in glossy ads to lure visitors.

“Access spectacular new sights including the breathtaking Cathedral in the Desert and the dazzling landscape of the Anasazi Canyon. It's truly an extraordinary other world.”

Photos: The receding waters of Lake Powell, Glen Canyon National Recreation Area

Tom Wright hikes past the beached marker for Willow Canyon where it joins with the Escalante River, Glen Canyon National Recreation Area, Utah.

Kelly Presnell Arizona Daily Star
Tony Davis

Reporter

Tony graduated from Northwestern University and started at the Star in 1997. He has mostly covered environmental stories since 2005, focusing on water supplies, climate change, the Rosemont Mine and the endangered jaguar.