Episode 3 -- "The Big Empty"

For the past five years my job has been to cover the Colorado River, traveling throughout the southwest to interview people about their relationship to water.

And one of the touchiest subjects I talk about with scientists, hikers, and boaters is Lake Powell -- the massive reservoir on the Utah-Arizona border that tens of millions of people depend upon for drinking water and irrigation. To some it's the place that means sun-drenched desert vacations, houseboat barbecues, and water skis. To others Lake Powell embodies everything wrong with the West's relationship to water -- a sickening monument to unending development.

And while both visions of Lake Powell coexist for now. They are on a crash course with one another. Only one will survive.

How do we know that? We can see it plainly. The southwest's growing gap between water supply and demand shows up as a giant white bathtub ring on the walls of Glen Canyon. It shows up in the Colorado River's diminishing ability to generate hydropower. It shows up in the struggles to keep the reservoir's recreation economy viable.

One snowy winter -- like the one the Rocky Mountains just went through -- is not enough to fill the mostly empty reservoir. It won't even come close.

Lake Powell is a lynchpin to the Colorado River system. For those who can't imagine a future without it, this moment is a catastrophe. For those who can't imagine a future with it, it's an opportunity.

From KUNC, this is 'Thirst Gap: Learning To Live With Less On The Colorado River.' I'm Luke Runyon. This is episode three, "The Big Empty."

LUKE RUNYON: "Testing, test, test, test, hello. All right. Walking down to Halls Crossing Marina at Lake Powell. It is hot."

SHERI FACINELLI: "I'm guessing you're Luke? RUNYON: "Yeah, good afternoon. How are ya?" FACINELLI: "Good. This is my husband Randy." RUNYON: "Hi Randy, Luke. Nice to meet you." RANDY REDFORD: "Nice to meet you."

When I met Sheri Facinelli in the summer of 2021 she was in full vacation mode. She had on a highlighter yellow two-piece swimsuit and her blonde hair was pulled through the back of an orange baseball cap. And within minutes of being on her houseboat she offered me a beer.

FACINELLI: "Do you want some water or anything? Water, beer?"

This is the easygoing Lake Powell houseboat vacation vibe. The marina was full of families hauling coolers and pool noodles into boats for the week. I could smell someone, somewhere was making hot dogs.

Sheri's houseboat is from the 90s and still has some of that vintage charm.

FACINELLI: "So yeah, full kitchen, two RV refrigerators, so we're pretty well set up. And then the top deck."

And since it was my first time on a houseboat, I asked for a quick tour.

FACINELLI: "It's too hot to live on it a lot. But we throw sleeping pads up here at night, and we all just sleep up here under the stars."

RUNYON: "Oh, really?"

FACINELLI: "And you look up and go, 'Holy crap, that's why they call it the Milky Way.' I mean, it's just gorgeous."

But as we talked, some of the carefree vacation vibes started to fade. She mentioned an abandoned marina.

FACINELLI: "What's amazing is all the boats and stuff you see here used to be there, used to be like that up at Hite. They had a buoy field and full gas station."

RUNYON: "And what happened to it?"

FACINELLI: "The water level."

REDFORD: "It silted in."

A few minutes later, I said I had seen signs for a ferry on the drive in.

RUNYON: "I think I saw that there was a ferry."

FACINELLI: "Used to be." **RUNYON:** "Used to be." **REDFORD:** "That's closed."

FACINELLI: "Yeah. They can't run on this water level either."

I got in touch with Sheri on an online message board for people who love this reservoir on the Colorado River. Her username is Powell-Bride. And she means that literally. Back in 2001 she and her husband Randy got married atop a houseboat here, guests in black swimsuits, the rings attached to a small flotation device in case they fell off the top deck.

I came to meet her at Powell to learn what draws millions of people here each year to recreate on the water. That summer the lake was declining inches by the day. Boat ramp after boat ramp was closing due to low water.

FACINELLI: "But it's a massive lake. I mean you now think about what it means when a foot of water goes down. I mean, I can't even conceive of how much water that is."

She agreed to take me out on the lake on her speedboat so I could see what she loved about it. And why she was nervous about its future.

FACINELLI: "Throw your shoes right here."

RUNYON: "Okay."

TRACK: So we jumped in her boat.

FACINELLI: "So the first couple of miles is going to be really choppy. So hold on."

RUNYON: "Okay."

To get a closer look.

As we boated up the reservoir's main channel, the white bathtub ring on the canyon walls loomed over our heads. Sheri veered up into a side canyon where the water is calmer so we could chat.

FACINELLI: "You know, places where you've boated for 20 years and gone flying over, all of a sudden now there's big islands and rocks and there's always rocks down here. They're just in different places. And as it gets narrower the chances of finding them are just greater. Plus, when the canyons get narrower, then you've got to worry about other traffic more. So it's a little more nerve racking."

Lake Powell was created in the 1960s when the federal government built a dam on the Colorado River. The dam gave the region a new source of reliable water. It provided new electricity. And the reservoir became a destination for millions of motor-boaters.

In the process Glen Canyon, a stunning maze of red rock and sandstone canyons, was filled to the brim.

Sheri started coming to Powell with her family in 1987, when the reservoir was more than 170 feet higher than it is now. She's seen decades of high highs and low lows. Big swings in water levels are nothing new here because of the dynamic river that feeds it.

FACINELLI: "It's been part of the nature and it's been just what happens because some years it goes up 50 feet and some years it goes up, you know, a couple of years in a row and then it comes down. This is different. This is feeling like we really could stop Lake Powell as we know it."

The reservoir and its dam were key pieces of a decades-long push to harness the Colorado River for southwestern cities and farmers to use. Lake Powell is the nation's second-largest

human-made lake, only eclipsed by Lake Mead further downstream. Sandwiched between them is the Grand Canyon, which the Colorado River carved. Together the reservoirs provide water for tens of millions of people in Arizona, California, Nevada and Mexico, and hydroelectricity for millions more.

FACINELLI: "But the lake, the recreational economic impact is a byproduct. Right? This lake is all about water for downstream, you know, protection, power generation and water for agriculture on the downstream states."

What Sheri is talking about here is how Powell came to be in the first place. The Colorado River's foundational document, the 1922 compact, split the river into two legal entities -- an upper basin and a lower basin. Colorado, Utah, Wyoming and New Mexico in the Upper Basin. Nevada, Arizona and California in the lower. The agreement put the Upper Basin on the hook to deliver a certain amount of water to the downstream states, or risk being sued. Powell's construction was an insurance policy. Put a big bucket of water on the river to make sure those obligations were always met. The fact that it also became a haven for boaters was a side benefit. But that side benefit is what Sheri and her husband Randy say is what makes this place so special to them.

FACINELLI: "You get away from cell phones. There's no Internet. You disconnect for ten days and it's family and friends. You know, every year we have different -- my dad's comes on every trip with us just about. We've brought his dad before his dad passed away. My niece came for years until we lost her. So multi generations, you know, and friends, you just --"

REDFORD: "--share activities that you enjoy and hopefully they'll enjoy when they come down. And spend a couple, you know, a week or so down there with us. We just like to share our happiness with other people."

As we motor through the narrow canyon, Sheri says the crisis at Lake Powell could be turned back if the region's leaders had the courage to change the rules that govern the river.

FACINELLI: "You know, the way the water is allocated and divided in, it's not real. I mean, it was based on numbers that were inflated or not really an average. And nobody seems to know how to adjust it for what is truly a more true likely expectation of water flow."

Later that summer Sheri and her husband were set to celebrate their 20th wedding anniversary on their houseboat at Lake Powell. The reservoir was set to drop low enough that it might not be possible to launch their boat from the marina where I met them. And I asked if they had a backup plan if the lake dropped too low.

FACINELLI: "First of all, it's our 20th anniversary. We've done every anniversary down here. So I almost feel like that's bad karma. We've asked the question, but we don't really want to discuss the answer."

And sure enough weeks after I met them, that marina stopped allowing boat launches due to low water. It's yet to reopen.

While Powell's low water brings up existential dread for boaters like Sheri, for some river rafters and environmental advocates, this current moment isn't a catastrophe.

ERIC BALKEN: "There are a lot of big changes coming to the Colorado River. And this is one that's a good change. To see this canyon come back is really special."

That's coming up after the break.

A year after I visited with Sheri at the marina I made the trek back to Lake Powell, this time to its far upper reaches, where the distinction between the Colorado River and reservoir gets blurry.

RUNYON: "Howdy, good!"

On this trip I'm with Mike DeHoff, a welder, river runner and citizen scientist and Pete Lefebvre, a longtime river guide. Both live in Moab, Utah. For the last five years the two have run a project called Returning Rapids. It's an effort to document the change happening as Lake Powell declines.

On a scorching July afternoon DeHoff and I prepared to pile into his small metal motorboat to take a journey through what you could argue is the weirdest stretch of the Colorado River in all of its 1,400 miles, where the river meets the reservoir.

MIKE DEHOFF: "I mean this is an area where there's 150 feet of mud sediment, and then there's the river sitting on it. It's just wild, spooky area."

Wild and spooky because where we're preparing to launch this boat used to be underwater. In fact, this whole stretch of river at one point was the reservoir. Over decades the muddy Colorado hit Lake Powell's dam more than a hundred miles downstream, it backed up, slowed down and all the dirt suspended within it dropped out right where Mike and I were standing. With the reservoir at an historic low, the river is flowing here again, carving through the former lake bottom creating a mini-canyon of mud. And everywhere we go the old Lake Powell bathtub ring reminds us that where we are now used to be deep underwater.

PETE LEFEBVRE: "I don't know if we need to go go go, or what the program is."

Mike was stoked as he rigged his boat. Every time he comes down here now, the landscape has changed.

DEHOFF: "We may be really geeking out about like, 'Oh, we got to pull over you to get a picture of that. Oh, we've got to get video of this,' because it's a very surreal world."

Unlike river rapids made of rocks, the rapids in this stretch of river are made of mud. They change their contours by the minute. As we prepared to launch, Mike wasn't totally sure what we'd be floating into.

DEHOFF: "The issue would be that it could, the current could torque the boat in such a way where it could actually flip the boat over. So what you might hear from Pete or me is like, 'Everybody lean to the left,' something like that. If we get into a bad case scenario."

The water here is so thick it looks like it could change back into mud at any moment. The river is supercharged with sediment, about the same color as an iced latte. As we floated, craggy, gnarled mud formations rose up from the river channel. The clay "mud-bergs," as Mike called them, were hardened from water pressure when the lake was full.

DEHOFF: "This is like a river on an acid trip right now. The mudbergs that we'll see, defining and changing the river corridor. They change day to day, month to month."

We made it through the rapids unscathed, and set up camp on a sandy beach. Mike took a seat in a wooden fold-up chair next to his project partner Pete Lefebvre. Early on Pete says they found that asking one simple question -- where can we go rafting? -- often led to 20 more, about sediment, water supply, hydropower production and the future of recreation here.

LEFEBVRE: "We just didn't even expect to be studying this area the way that we are right now. Just because of how fast the river is moving downstream in the lake is dropping. It's uncharted waters because it's been under water and mud for so many years. And as the river cleans the mud out, we're discovering the landscape underneath."

Both Mike and Pete guided river trips down Cataract Canyon, the last big whitewater canyon before the Colorado River reaches Lake Powell. And both men say they too have built their livelihoods, their friendships while on trips down the Colorado River. They're just on inflatable rafts instead of houseboats.

LEFEVBRE: "Everybody at the root of it just wants to come out and enjoy the beauty of this area and to commune with nature, to reconnect. And whether it's river people or lake people, I think that at the root of it, they're all looking to do the same thing. They're out to be with their friends in a beautiful setting and have a good time. It's just two different styles or vehicles you're using, you know, motorboats or a raft."

DEHOFF: "Like my grandpa loved Lake Powell, but before he died a regular part of the conversation was, 'When's that reservoir going to fill back up again? So I could go see my favorite places.' And I at some point would be thinking, 'When's the reservoir going to go away? So I could see these rapids coming back?' And so I think there's a big contrast there."

The contrast between a reservoir, full to the brim and teeming with houseboats or the vision Mike prefers, of a flowing Colorado River through Glen Canyon.

With climate change reducing the snow that falls in the river's headwaters, and downstream demands for water going unchecked, Pete says it feels like the whole Colorado River basin is at a breaking point.

LEFEVBRE: "I just think that we don't, as a species, react until it's like, 'Oh man, we need to do something.' And we're getting to the point where people are saying, 'Man, we need to do something."

The next day we floated into the still waters of Lake Powell, and went up into one of its many side canyons for a hike. Years ago, when the reservoir was full, a boat could continue up for miles into this narrow canyon. Now the low level forces us off at a sand bar and requires a hike to see which plants and animals call it home.

We splash through a flowing creek full of tadpoles. Run our hands over towering willows.

BALKEN: "Oh man, that smell. The willows smell so alive."

Today, our guide is Eric Balken. He runs the Glen Canyon Institute, which advocates draining Lake Powell and moving what's left of its waters downstream.

As we hiked we saw artifacts of when this side canyon used to be inundated by Lake Powell. We walk past a sunken speedboat, pairs of sunglasses, and a lifejacket. And through ghost forests of dead cottonwood trees, frozen in time at the bottom of the reservoir since the 1960s, and only recently reemerged. Eric pointed out a high water mark from the reservoir stained on the redrock a hundred feet above our heads.

BALKEN: "There's so much plant life. There's these forests of willows, birds and bugs and life just humming around us. There are a lot of big changes coming to the Colorado River. And this is one that's a good change. You know, to see this canyon comeback is really special. And in looking at the decades ahead I just don't see Glen Canyon playing the role of water storage that it did in the previous decades."

Environmental groups like Eric's want to see Lake Powell's dam decommissioned and the entirety of Glen Canyon behind it restored. He says this current moment of reckoning on the river, where users are collectively trying to figure out how to rely on it less, should be seen as an opportunity.

BALKEN: "I think our vision for Glen Canyon is to see it be restored to its full potential. I don't want to say restored to what it was before the dam, because it'll never be exactly like it was before the dam. But we've seen inside canyons like this that it can get really close and the restoration process happens very quickly. And what's coming back is amazing, and so we know there's so much potential for restoration here, and the vision is to just maximize that. From a policy perspective, it means that we should prioritize water storage elsewhere. We should stop

thinking about Glen Canyon as a place to store water and start thinking about it as a place that has natural values, intrinsic values, values that are similar to other parks around us."

His vision includes moving all of the water from Lake Powell to its downstream sister reservoir, Lake Mead. Both are currently at record lows. It would take some reengineering of Lake Powell's dam to make it happen. That kind of thinking used to be considered fringe and the suggestion of draining Lake Powell, taboo. Now, Eric can make a case that it's hard-nosed pragmatism.

BALKEN: "There's just not enough water to fill up both of these massive reservoirs anymore. And there's a real serious question of how much storage does the basin need. And, you know, advocates for Lake Powell and Glen Canyon Dam have said, 'Look at what this thing has accomplished over the past ten years. It's stored so much excess water.' And it has and it did serve that purpose. But in our new dry reality that we live in, it's not needed for that because we don't have enough water to fill them up. And if we, you know, can acknowledge that Glen Canyon Dam was this massive environmental mistake, why are we still clinging to it? Why are we still accepting that mistake? Let's give it a chance to come back to life."

As the reservoir's decline has become national news, outlets have showcased Glen Canyon's wonders reemerging. Eric says he'll even run into boaters, people like Sheri Facinelli, who will need to find a new place to dock their houseboat if Eric's dream is realized. And they'll tell him how fascinating it is to watch the canyon emerge from the water after being buried underneath it.

BALKEN: "I understand why people love coming here to boat. I mean, as far as reservoirs go, there's no other reservoir like this. Right? This is one of the most incredible canyons in the world. And so, of course, the reservoir is going to be incredible, too. You could say the same thing for the proposed dams in the Grand Canyon, right? If you dammed the Grand Canyon, that would be an incredible reservoir and it would also be a terrible mistake."

Eric likens Glen Canyon to the Grand Canyon just downstream on the Colorado, or to Canyonlands National Park just upstream. He says anyone who tells you it's too late to bring back Glen Canyon is wrong.

BALKEN: "Now we're being given a chance to rethink this place. And we're seeing that some of these values that were the, you know, the reason why it was a mistake was because it had so much value beyond a storage tank. It was national park caliber. And we're starting to see those national park qualities come back to life."

The future of Lake Powell remains uncertain. Big questions still exist over its ability to produce hydropower, and to fulfill all the downstream demands for water. The reservoir will get a significant boost this spring and summer from all the melting snow in the mountains. But all that does is buy us a little time as the debate over the future of Lake Powell continues.

While we spend time hammering out those policies, in public forums and in closed door meetings, the river doesn't seem to care. And in the end, if we can't get our act together the river itself might get the final say and force everyone to use less water.

Next time on Thirst Gap we move downstream to the biggest city on the banks of the Colorado, Las Vegas.

JOHN ENTSMINGER: "Man, once you see it, you can't unsee it, because it had just been kind of normalized here, 80s, 90s, 2000s. But once you see what a truly offensive use of water that is in the Mojave Desert, it's tough to unsee."

Cities that rely on the Colorado River are having to confront scarcity like never before.

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To learn more about the Colorado River, go to kunc.org/thirstgap or check out the show notes for a link.