

WHO'S IN CHARGE OF GREAT SALT LAKE?

Inversion Magazine's Pete Rich sat down with Great Salt Lake Commissioner Brian Steed and Deputy Commissioner Tim Davis in this exclusive QnA.

In 2022, Utah's Great Salt Lake hit disaster levels. Due to a combination of mega-drought and unsustainable human diversions of water from the lake, the water level sank to an elevation level of 4190 feet above sea level, the lowest in recorded history. The people of Utah demanded immediate action and the legislature acted. State lawmakers created the Office of the Commissioner of the Great Salt Lake, an official station from where the lake could be managed, protected, and healed.

With the Office created, the leadership had to be selected. The governor picked Brian Steed for Commissioner and Tim Davis as Deputy Commissioner. Both men carry impressive resumes of fighting for communities, the environment, water, and science. Commissioner Steed has an extensive background in public policy and co-chairs the Great Salt Lake Strike Team, a collaboration of lake researchers from Utah State, the University of Utah, and various government agencies. Tim, meanwhile, has built a career overseeing public drinking water across the West, heading multiple state water agencies across Utah and Montana.



Great Salt Lake Commissioner

Brian Steed

>What are the responsibilities and areas of authority of the Commissioner of the Great Salt Lake?

>So I have two jobs. One of the jobs is the Commissioner of the Great Salt Lake and the other is the executive director of the J.G. Institute for Land, Water, and Air here at Utah State. And on the Commissioner job, it's a relatively new position created in the legislative session two years ago. That job is a coordinating function of all the various different activities that the state has ongoing on Great Salt Lake.

In terms of authorities, it's mixed. It's a really interesting job because there's at least 12 agencies that have jurisdictional authority from the state side on GSL, and that doesn't include any municipalities or anything else. And then we have, in addition to that, at least four federal agencies that have some jurisdictional authority and we sit kind of right in the middle of that. And what we try to do is a) bring people together and make sure we're all on the same page, and b) come up with the lake strategy for the state.

>How closely do you think the short term part of your strategic plan has been followed this year?

>I think that we've been working really hard to do the things we said we were gonna do. One of the things we knew we had to do is have better monitoring. The legislative session did a really good job of saying, 'Hey, we really need to get more resources to those agencies that can monitor flows into the GSL as well as those taking water out. Also, we said we really needed to put a floor on how low the lake can go and we were able to pass legislation this past year to where we could get a floor set. In 2022, we got down below 4190 on the South Arm, North Arm was like 4188.5 and was scary low, the lowest we'd ever seen. And so we set a floor.

We've been relatively successful in getting funding. I think that we'll have some announcements forthcoming regarding help from the federal government. We're looking forward to that, as well as having some investments from the state side. Now, I wish I could say that after all those things, 'We've done it! Let's hang up the banner!' We're just getting started. We are in a huge deficit still on GSL, we still need to have a bunch more water there. That's gonna take resources as well as a lot more coordination with farmers and ranchers as well as with municipal and industrial groups to get water to the lake in the quantities that we need it.

>How has the coordination of all the different lake agencies and interests changed since you became Commissioner?

>Every single one of the saline ecosystems around the nation and around the world has the same problem: Who's in charge? I will say that we've made big improvements. We have regular contact with all the different state agencies that are dealing on GSL. We have been effective at being the state's mouthpiece on talking to the federal government and working together with others and I think that we've done a better job at bringing people together into a shared vision of what we're looking for, what the goals of the state are, and how we can achieve those goals.

>With the lake no longer in crisis, how do you recommend Utahns stay energized about the lake?

>So on all public policy issues, there's this tendency to say if its burning, you really focus on that. If it's not burning then you turn your attention to whatever is. The same is true with water. When we were in true crisis in 2022, there was just a lot of conversation and energy about it. As we got those two water years, there is a tendency for people to say, 'See, problem solved, check that box and we're on.' In truth, that's not where we are on GSL. In fact, if you look at where we are, we're really still dancing around 4192 above sea level, which is not very far

from where we were when we were heading into crisis. We've gained some years, but we haven't solved the problem.

So to keep people focused, I think you have to understand what's at stake. We, as a state, recently went to California where we were able to interact with two other lake ecosystems, one is Owen's Lake and the other is Mona Lake, both of which have had their own unique crisis. Owen's Lake because the city of Los Angeles made the decision in the early 1900s to divert the Owen's River and that ended up drying out that lakebed. And it became a source of tremendous environmental problems, including lots of dust. In fact, they're now putting \$100,000,000 a year into mitigating dust from that. This is an area that is one-sixteenth the size of GSL. \$100,000,000 a year, and they have put in a lot of hard infrastructure that cost \$2.6 billion to control that dust. That's real money, and that's something they're doing in an area where there's really not that high population. In our case, we've got population that's right on the shores of GSL so people have to understand that that desiccated lakebed, if left to its own devices, if we don't get water on it, is gonna have that same weather problem in a lot of areas and we're gonna have dust events.



Owen's Lake Dust Event, California

>You've mentioned Split-Season Leases as a policy idea. Could you describe what those are and whether or not Utah farmers have been receptive to it?

>We're just getting started so it's really too early to say if they are receptive or not receptive. The idea is as follows: Utah as a Western state has developed a system of water rights 'first in time, first in rights'. As long as that water's been put to beneficial use since it was initially developed, people have acquired a water right to it. And that means the vast majority of water rights in the state are held by agriculture.



A Utah alfalfa farm sprinkler system

We're gonna have to work with agriculture to solve this problem. One of the things that's been tried is this process of 'We're gonna go in and buy up the farms and dry 'em out.' They call that Buy and Dry. It's really unpopular for farmers and ranchers and its been pretty devastating to local economies. You get dust coming off the areas that have been disturbed and are now not planted and a bunch of other stuff so we'd like to generally avoid that approach.

That leads us to two different things where we work with existing agriculture. First, we could do seasonal leases. So I could come in and, say you're growing alfalfa, a very common crop here. Generally speaking, alfalfa has a rotational system where you'll have four cuts of alfalfa and then you will plow it under and plant something else for a year. What if we paid farmers to take that next year off and just let that water flow to the GSL? That would be a seasonal lease. An alternative of that is a Split-Season Lease. What if I said a farmer can water for their first two cuts and then we put them not to water for the rest of the season. That actually gets real water to the lake and it gets real water in a way that doesn't put those farmers or ranchers out of business. We have had a number of people express willingness, but we really haven't engaged in that transaction yet. But I expect to do that this upcoming season.

>What is your office's relationship like with the Inland Port Authority and do you agree that it has potential to harm the lake?

>We work with them and yeah, the location where the Port Authority operates is oftentime on the shores of the GSL and wetlands. How they treat those wetlands is gonna be key. I think there's a pathway forward to where they can engage and actually do benefit for the wetland.

I think the Port Authority is in a really touch spot. They've been told by the legislature, 'This is what you shall do.' I think they're aware there's potential for big environmental harms they would like to mitigate. So we hope to treat them as partners in doing that. I think it's always gonna be difficult relationship to a degree, simply because we have different interests. But that's not to say we'll be in conflict.

>What's your personal connection with the lake?

>So I have a weird relationship with the lake. I grew up here in Logan, the Great Salt Lake was an afterthought. It's not within viewshed. And so the only time I would see it was when I was going down to see my grandpa who lived in Syracuse, which is on the shores of GSL. He had a dairy which was out of business by the time I was around, the Lakeview Dairy. When I was a kid I think I can tell you straight up that I wholly took the lake for granted. It was some place that I knew existed, but didn't give it much thought.

I was in DC for a while, came back home to Utah and just started to realize how special this place is, how special the GSL is. And one of the real things that kind of woke me up, my first fall, was when I was the director of the Department of Natural Resources. The Division of Wildlife Resources had put me on a plane, flew me out over the West side of GSL, and I had no idea of the amount of migratory waterfowl. I was looking down out of the lake in a single-engine plane and I say 'What're those black dots?' 'Oh, you wanna know?' And the guy dipped down just a little bit and all those black dots took off. And it went for miles and miles of just wings over water and that was kind of a religious experience for me. It was like being part of a nature documentary. And I knew GSL was important but I saw then how it was important.

And then, if I put on my policy hat, I can see that other places that have dealt with saline ecosystems poorly are in a world of hurt right now. They're spending billions, literally billions of dollars trying to mitigate the negative consequences of those failed lakes. We have the benefit of actually saving that really important ecosystem and doing it at less cost than those billions of collars. Why wouldn't we be engaged in that?



Migratory waterfowl over the Great Salt Lake

>What is a fair amount of time for the public to expect a return to healthy lake levels?

>I think you will find that it will take time. And with what we're really looking at, the lake is a natural variable. We're looking for a natural trend line that keeps increasing rather than the declining line that we've seen since the 1980s. Our plan we're going to release, we're calling it Plan 2034 because we think by 2034 we have to be stabilized about 4195.

Obviously the end goal is 4198, but if we're able to stabilize above 4195, that's a big win for the state and we're seeing that trend line that was on the decline now be on the upswing. It's gonna take some sacrifice on Utah's parts. I mean, we're talking in order to get that best guess from scientific data, we need to get about a ten percent reduction in all of our water use in the GSL Basin. That's a lot easier to accomplish on lawns and gardens than it is on agriculture, but we're gonna need to work with both on that and if we do that by 2030, which is what we're calling for, I think we'll be in a better spot.

I know there's gonna be a lot of people saying that's not fast enough and I am 100% sympathetic to that, but I'm also operating in a world of complicated political dynamics, complicated economic dynamics, and trying to make sure that we can still have all these things aligned to where we're viewing GSL as an asset rather than a liability. I'm not sure anywhere in the world has ever accomplished that on a saline lake ecosystem. We're doing, I don't want to say the impossible, but we're doing something that's not been done before and that's exciting.



Antelope Island and The Great Salt Lake



Great Salt Lake Deputy Commissioner

Tim Davis

>What would you say you are most proud of from this last year? From your time as Deputy Commissioner?

>Probably our proudest endeavor is our efforts to engage everybody across the basin. Brian and I, a large part of what we've done this year is sit and listen to people, get out and meet with farmers and ranchers in conservation districts, meet with city council folks, meet with all the different state and federal agencies, talk to pretty much everybody and anybody about they're concerned about with the lake. Largely the concerns are about either that the lake will continue to fall and the impact that will have on health, the environment, communities, the economy, or concerns about how getting more water to the lake will impact peoples' livelihoods, impact their ability to have water for humans.

I think the number one finding that I've taken away this last year is that it's going to take everybody, all sectors, all water users across the basin, and being able to conserve, dedicate, and deliver water to the lake - and if we do that then we can change the long-term trends of the lake from a downward trend to a positive trend and get the lake back to a healthier level.

>The strategic plan called for scientifically measuring water that gets to the lake. What have the developments on that been like?

>So the legislature gave the State Engineer's Office a one-time million dollars ongoing and funding to work with Utah State University to develop a gaps analysis on measurement infrastructure in the Great Salt Lake Basin. That gaps analysis was completed July of 2024 and they're doing some additional work now.



Installing a water gauge in someplace.

The US Geological Survey in agreement with the U.S. Bureau of Reclamation are putting in 13 new stream gauges across the basin. The State Engineer's Office will be making investments, the Commissioner's Office will be making investments to make sure that we know where water's being used, where it's been conserved, where it's been dedicated to the lake, and how much is getting to the lake. Most of our water gauges we rely on for the lake, or have in the past, were about ten miles from the lake. They're like Plains City on the Weber River system, Corrine on the Bear River system, and we don't have gauges that are at the end of the Jordan River or Goggins Drain or Surplus Canal which are all the main sources of water coming into the lake. So we need those. We've got the date, and now we've got to make the investments to get those gauges in.

>Do you think you'll get those investments done?

>Yeah, I think we have the resources to do it. I think we're moving forward. The Commissioner's Office is trying to figure out where the gap is. So if there's additional resources needed after those agencies make their investments, we can step in and fill that gap.

>Could you describe the process of how the Compass Minerals water deal got made and what other deals with mineral companies we might see coming up?

>House Bill 453 was representative Casey Snyder's bill to create economic incentives to bring direct depletions from the lake, like mineral extraction companies, into the prior appropriation doctrine. It created these economic incentives for those mineral extraction companies - Morton Salt, Compass Minerals, US Magnesium, and others - to enter into voluntary agreements to change how much water they divert from the lake and evaporate, based on the health of the lake. Compass Minerals was the first one. The Division of Forestry, Fire, and State lands has led those negotiations and they've done a great job.

As they're negotiating we've made it clear they need to use the Strategic Plan and the levels that we established as part of their negotiations. Compass Minerals agreed to cut their growth of water by 200,000 acre feet - they had paper water rights they could've grown into - they gave those back to the state. And they've agreed to cut their wet water diversions from the lake based on the health of the lake. So at an elevation of 4190, they will cut their depletions from the lake by 100%.

>In case of another bad water year, what measures does the state have in place to protect Utah's water and the lake?

>So there have been about 70,000 acre feet of water that's been dedicated to the lake through the Great Salt Lake Watershed Enhancement Trust, 20,000 of that was a permanent donation from the church. There's been funding that's flowed through the Commissioner's Office, water leased from Ogden for example, that's a down payment on how much water we need that's going into the lake.

In the Strategic Plan for the lake, we established a floor that we don't want to go past for lake elevations which is elevation 4190. And again in 2022, we hit 4188.5 so that's a foot and a half above where we were. At that level, 4190, by law, the causeway between the North arm and South Arm has to close. So that gives us a whole new tool that's proactive so if we go back into mega-drought like we were in that led up to 2022, we have this emergency action that we can take, that the state has to take.

But the hard thing is, during a mega-drought, everybody's just trying to manage with decreased flows. But we did learn in 2023, when we closed the breach between the North Arm and South Arm, it basically saved the South Arm. That and a huge water year. So there are new tools that we have but if we got back to where we were we'll have to work with everyone to get as much water as we can.



Closing the Union-Pacific Causeway separating the arms

>What can we expect from the 2034 Plan?

>First, we're coming up with a setup of guiding principles - Do No Harm. The Governor adopted an executive order ceasing any new surface water depletions within most of the Great Salt Lake Basin. Build on that going forward. Baseline increased flows. Trying to work with everybody across the basin to cut their depletions by 10% and then dedicate those savings to the lake. That would generate around 250,000 acre feet for the lake and so that's what we're using for modeling purposes.

And then really, how do we adaptively manage both salt and water between the North Arm and the South Arm - we closed the breach in the Union Pacific Causeway by dumping rocks into it in 2023. The Legislature gave the Division of Forestry, Fire, and State Lands money to come up with an engineering solution for the causeway, y'know some kind of gate-type structure, maybe siphons to move salt between the North Arm and the South Arm.

And then we are working with water conservancy districts and others to figure out big water years and what we can do differently - what can we learn during the 2023 water year which was huge with record-breaking snowpack - in order to make sure there's water for people and also water for the lake. ~