Moab May Be Running Out Of Water. That’s Prompting Residents To Rethink Conservation And Development.

Kate Groetzinger / KUER

Snowpack on the La Sal mountains seeps into the ground and flows down toward Moab through layers of sandstone, until it reaches the Glen Canyon Group Aquifer. New research shows that the aquifer may be split into two sections by an impermeable layer of rock.

Moab’s drinking water starts as snow on the nearby La Sal
mountains. It trickles into an underground aquifer and toward the town over thousands of years. Then, it flows through faucets in homes and hotel rooms in the tourism hot spot.

But no one knows exactly how much water is in the aquifer, or how much is coming out.

A 2020 report found there may be as little as 4,000 acre-feet of water entering the aquifer each year, which is close to what Moab is withdrawing annually right now. That’s prompting a conversation in the community about limiting development and requiring water conservation, as well as whether Moab should wait for confirmation that it’s running out of water or act now.

Marc Stilson, regional engineer for Southeastern Utah with the Utah Division of Water Rights, is currently working to set a safe yield number for Moab’s aquifer.

Figuring out whether Moab is running out of water or not is Marc Stilson’s job. He’s a regional engineer with the Utah
He met up with some colleagues and local residents on an empty lot in a neighborhood above Moab in early March to scope out an old well. They put a camera down the 150-foot hole to figure out if they could use the well to track the level of the aquifer.

“There's a pretty good groundwater monitoring system in the valley run by [the U.S. Geological Survey],” Stilson said. “But we don't have any monitoring wells up here.”

Ultimately, Stilson will need to figure out how much water can be withdrawn from the aquifer each year. That’s called safe yield, and it needs to match the amount that’s entering the aquifer so it’s not overdrawn, like a bank account.

Once that number is set, the city has a legal requirement to protect the aquifer. But until then, anything could happen.

**To Conserve Or Not To Conserve?**

John Weisheit leads the Moab-based nonprofit Living Rivers, and he said he’s really worried about the aquifer.
John Weisheit, director of the Moab-based nonprofit Living Rivers, stands in front of a natural spring at a park in Moab. His group helps pay for research related to the Colorado River and Moab’s groundwater resources.

He likes to keep an eye on the natural springs in Moab, where water comes straight out of the aquifer, like the one in a grassy park on the south side of town.

“This spring is flowing, and even though that's not connected to a satellite or electricity, it's telling us right now things are okay,” he said.

But that may not be the case for long.

He said the new study confirmed his fear that Moab is much closer to overdrawing it’s aquifer than most people want to admit. He described several observations that led him to that belief. For one, the monsoon season is not nearly as long as it used to be. And the mountain snowpack is also patchier than when he moved to Moab in 1987, which follows a well-
documented trend across the southwest.

But he opposes the water saving measures the city council is currently exploring, arguing they aren’t enough on their own.

“Of course we need to conserve water,” he said. “A tree only needs 10 gallons, not 20. But if they take those 10 gallons and build another house, then why should I conserve?”

Instead, he thinks the responsible option is for the city to stop new development before implementing any conservation requirements.

No Time To Waste
Roslynn McCann teaches a course on sustainable communities at Utah State University Moab. She is advocating for the city of Moab to adopt water conservation requirements or incentives.

Moab is going to have less water in the future regardless of what happens with development, according to Roslynn McCann, a professor of sustainability at Utah State University Moab.

That’s because it’s in the middle of a global warming hotspot. Even with growth caps, supplies will shrink, so she thinks people need to start conserving water now.

Her solution? Do more with recycled water, like the system she has in her yard.

Used water from her sinks and laundry machine is piped into her garden, which is full of flowering plants and fruit trees. She has a Utah Giant Cherry Tree and an Alberta Peach Tree, along with yarrow, sage, currant, iris and lavender plants, just to name a few. She has a switch in her house that allows her to direct the water to her garden or to the sewer.

“We've seen amazing growth with our fruit trees with the greywater system, and now we have a large harvest every year,” she said.

McCann thinks systems like this should be required on all
new developments, along with systems to capture rainwater. But she said she understands why people are hesitant to conserve, especially if there’s no transparency about where that water is going.

“I think that falls on the shoulders of government employees to communicate what the plan would be if X amount of water is conserved,” she said. “Where is that water going to go?”

That’s the question — how much is going to stay in the aquifer, and how much is going to go to new growth?

But in order to find an answer, the city needs to know how much water it’s giving out to new users. And right now there’s no system in place to do that.

**Accounting For Water**

Mike Duncan is trying to create a system. He’s a city council member in Moab who’s becoming an expert on water issues, and he agrees that Moab’s aquifer is in danger.

He said the city has ample water rights on paper, so Moab officials have never worried about keeping track of how much water it is promising to developers. But those water rights are based on old estimates of the aquifer’s capacity, so it may turn out that the water on paper doesn’t exist.
Mike Duncan is on the Moab City Council. He has become an expert on Moab’s aquifer and is pushing the city council to adopt a water-metering system.

“Every time we accept a new application from a new hotel or a new subdivision and so forth it is basically a promise that we're going to have water for you indefinitely far into the future,” he said. “I'm feeling queasy about that.”

To address the issue, he wants the city to start attaching a set amount of water to every building application it approves. He said that would allow Moab to track how much water it’s promising to new users, and it could force them to conserve, because they’d only get a set amount.

“Basically, we're going to put water conservation controls in there for everybody,” he said. “So the burden of conserving water is shared equitably across the board between businesses and residences and so forth.”

But he said what the city and its residents really need is that
safe yield number. Because until Moab knows how much water is in its bank account, there's no way to avoid going broke.

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