

Water Deeply

Why Southern Nevada Is Fighting to Build a 250-Mile Water Pipeline

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IN 2015, ALBUQUERQUE delivered as much water as it had in 1983, despite its population growing by 70 percent. In 2016, Tucson delivered as much water as it had in 1984, despite a 67 percent increase in customer hook-ups. The trend is the same for Phoenix, Las Vegas and Los Angeles, said longtime water policy researcher Gary Woodard, who rattled off these statistics in a recent phone interview. Southwestern cities boomed during these decades, yet water demand fell far below projections. Efficiency and conservation worked better than water managers could have hoped.

“Everyone assumed that water demand was proportional to population,” said Woodard, a former University of Arizona professor who works for the water resource consultants Montgomery & Associates.

In the 1980s, before increased efficiency and conservation efforts, cities across the West saw an immediate need to secure reliable water resources for future growth. This thinking in part was what drove the Southern Nevada Water Authority, which serves the Las Vegas area, to propose in 1989, a 250-mile pipeline that would pump billions of gallons of rural groundwater to Las Vegas. Farmers, ranchers and local officials near the targeted groundwater basins in rural northern Nevada called it a “water grab.”

The pipeline was never built, and Las Vegas, which gets 90 percent of its drinking water from the Colorado River, never experienced a water shortage. The opposite happened. As

population boomed in the early 2000s, Southern Nevada pulled less and less Colorado River water from Lake Mead.

Decades later, Southern Nevada Water Authority is still actively pursuing the pipeline, despite legal challenges from a diverse coalition of ranchers, tribes and environmental groups. In a new round of state engineer hearings last week, opponents are again pushing to limit the scope of the water authority's groundwater rights.

They believe that the project would undermine the area's environment. And they often find themselves asking the same question: Las Vegas grew, and its per capita demand decreased without the \$15 billion pipeline, first proposed decades ago. So how necessary is it?

The Falling Reservoir

“At some point, it is the only choice,” said Pat Mulroy, a legendary Colorado River deal maker and a forceful advocate for the project as the water authority's first general manager until 2014.

Most of Southern Nevada's drinking water comes from Lake Mead, the shrinking manmade reservoir that stores Colorado River water for the southwest. Compared to its neighboring states, Nevada is entitled to only a sliver of the river's allocation. The Colorado River Compact, a treaty inked long before Las Vegas sprouted resorts, casinos, golf courses and vast master-planned communities, gives Nevada about 2 percent of the water.

This leaves the Southern Nevada Water Authority at a constrained starting point. Where many water agencies have a diversified portfolio – groundwater, Colorado River water, maybe in-state surface water – Southern Nevada is almost entirely reliant on one source, Mulroy argues.

And a changing climate is only expected to place additional stress on the Colorado River, according to recent academic studies.

Thanks to higher temperatures, more water is expected to evaporate off the surface of Lake Mead while projections suggest that a shrinking snowpack will decrease supplies – all this, before the backdrop of further population growth not only in Las Vegas, but also across much of the southwest. Under those situations, having one source “is a very risky proposition,” Mulroy said.

But there is still a big economic incentive driving the push to build the pipeline. Las Vegas is projected to grow, and builders might be unwilling to back new developments if they don’t know that there will be a secure supply of water. The project’s backers point out that the state’s economy depends on Southern Nevada, which in turn depends on water. The 2.1million people who populate Southern Nevada comprise most of Nevada’s population, about 70 percent.

Las Vegas officials see the pipeline as a form of hedging, to prepare for a time when getting 90 percent of its water from Lake Mead might not be sustainable. “When you live in the driest state in the union, you don’t take options off the table,” said John Entsminger, the water authority’s current general manager. “Whether something really is necessary is a question of time.”

Conserving What You Have

Joined by a coalition of farmers, ranchers and local officials, the Center of Biological Diversity has sued over the Southern Nevada pipeline twice, and the organization has had some success in delaying the project. Judges have ordered federal and state officials to consider narrow revisions to environmental impact statements and limiting the water authority’s groundwater rights.

Patrick Donnelly, the center’s Nevada representative, said the project and desert pipelines like it could dry ecosystems critical to sustaining wildlife in the deserts scattered across the southwest.

“These projects propose the wholesale dewatering of entire landscapes,” he said of groundwater pumping. “Before we start having the discussion about whether we sacrifice millions of acres of habitat [to adapt to growth and climate change], we need to reduce our consumption.”

With more efficient homes and conservation programs, most Western cities have reduced their consumption, but researchers and water managers agree that, in many cases, people are still using more water than they need. Since 2002, Las Vegas cut its per capita water consumption by about 40 percent, according to Bronson Mack, a water authority spokesman. In the mid-1990s, Las Vegas was consuming more than 200 gallons per capita, higher than many other cities.

That number is now at about 123 gallons per capita. The drop is not unique to Las Vegas. Most cities in the region have seen their per capita daily consumption drop as a result of efficient appliances, homebuilders placing a new emphasis on sustainability and conservation efforts. The Southern Nevada Water Authority, for its part, runs a cash-for-grass program that pays its customers to replace turf with desert landscaping. It credits the rebate program with saving billions of gallons of water.

Donnelly at the Center for Biological Diversity said such statistics can be misleading.

“They have cut their water consumption a lot, but they are still using water like crazy,” he said.

Las Vegas is lagging behind other cities, he argued. In July, Los Angeles’ average residents’ daily water consumption was at 59 gallons, according to KPCC. And San Francisco residents use about 50 gallons per day, according to its water agency. Howard Watts, a spokesman for the Great Basin Water Network, a coalition opposing the pipeline, said his organization has sparred with the water agency over whether its efforts are stringent enough. He said the agency should consider requiring customers

to phase out front lawns or retrofit homes with more efficient appliances.

“They have been really hesitant to force requirement on older homes,” Watts said.

The uncertainty for water managers is how far they can push it.

“For any particular case, it’s different,” said John Fleck, who directs the Water Resources Program at the University of New Mexico. But he added that “conservation has continually outpaced water managers’ projections of what their customer’s conservation would be.”

The incentive for water managers, Fleck said, is to plan for the worst and hope for the best.

Politics on the Colorado River

There are also larger forces at play.

Arizona, California and Nevada are in the late stages of negotiating a drought contingency plan to voluntarily cut the amount of water they take from Lake Mead during shortages. In the past, Colorado River negotiations have played into Southern Nevada’s calculation that it needs to continue pushing for the pipeline. For years, Arizona, which banked a portion of Nevada’s Colorado River water, was “extremely adamant” that Las Vegas find a long-term water source.

“It doesn’t really matter that growth isn’t there,” Mulroy said. “The other states are not going to let Southern Nevada [Water Authority] draw its full allocation out of a reservoir that is crashing to zero.” Falling water levels in Lake Mead have come close to triggering a federal shortage declaration. Under such a designation, the basin states would be required to cut their usage.

Watts, with the Great Basin Water Network, said that underestimates the leverage Nevada has on the river. In 2015, the water authority uncapped a third intake in Lake Mead that would

ensure deliveries for Southern Nevada even if the reservoir fell so low that water stopped flowing to California and Arizona.

California and Arizona would want to keep that from happening, Watts said. As a result, their incentive is to conserve the Colorado River and keep more water in Lake Mead. There are ways to mitigate dropping lake elevations: water banking, conservation or investing in desalinization.

“The only new source of water that we’re going to get that is going to have the most minimal amount of conflict is going to be from the ocean,” he said, noting that costs have come down for desalination. And even though Nevada is a long way from the ocean, more desalination could reduce California’s reliance on the Colorado River and leave more water in the lake.

Among water managers along the river, there is an increasing recognition that infrastructure in one state can affect water planning in another state. They are watching the Southern Nevada pipeline project, along with another large infrastructure project in California. Gov. Jerry Brown and Southern California’s wholesale water agency, Metropolitan Water District, is pushing to approve a \$17.1 billion plan to build two tunnels through the Sacramento-San Joaquin Delta. The tunnels, meant to create more reliability in California’s water supply, play into how the state will position itself in the final negotiations of the drought contingency plan. If California can’t rely on water from the Sacramento-San Joaquin Delta, it might be less inclined to accept cuts in Lake Mead deliveries.

“In general, projects that increase the water supplies ... are good for the potential management of the [Colorado River],” said Tom Buschatzke, director of the Arizona Department of Water Resources. “It would create another water supply for them that they could use in a conjunctive and flexible way that could potentially conserve water and keep water in Lake Mead.”

About the Author

Daniel Rothberg

Daniel Rothberg is a reporter covering energy and the environment. You can reach him at rothbergdaniel@gmail.com or on Twitter at [@danielrothberg](https://twitter.com/danielrothberg).