Utah vastly overstating future water shortages

State projections downplayed what conservation and agriculture can provide.

Sarah Gilman  |  May 7, 2015  |  Web Exclusive

Utah’s Division of Water Resources has painted a bleak picture for the state’s hydrological future. Even if water use is cut through conservation, officials project that demand will outstrip available supplies by 2040, as the population nearly doubles to 6 million people by 2060. A whopping $33 billion in upgrades, maintenance of existing water systems and development of new supplies will be needed to make up the shortfall.

Set against a backdrop of a few difficult drought years, reservoirs dropping and some communities overpumping aquifers, the scenario can seem a pretty compelling argument for two massive and controversial water projects that the state wants to build: A 6-foot-diameter, 140-mile-long pipeline that would allow Utah to draw its remaining share of Colorado River water from Lake Powell and pump it to Kane and Washington Counties; and a new dam on the Bear River system, which feeds into the Great Salt Lake, that would supply 220,000 acre-feet of water to surrounding communities.

Trouble is, that scenario may be flat wrong, or at the very least overstated.

On May 5, Utah’s Legislative Auditor General released a damning (damming?) report revealing that the water agency’s forecasts are based on unreliable data and failed to adequately account for the possible contributions of conservation and irrigation water freed up as new homes consume farmland. “By excluding this added water supply,” the auditors write, “the projections accelerate the timeframes for developing costly, large-scale water projects.” Zach Frankel of the Utah Rivers Council, which opposes the pipeline and stumped for the audit along with several other groups, puts it more bluntly: “We are not,” he says, “running out of water.”

The data problems are partly driven by inefficiency and inadequate resources. The division obtains information about water use from 468 local water providers secondhand through another agency. Just one staffer is devoted to this task, and though that person attempts to verify data by calling local officials directly
every five years, errors slipped through. Sometimes, water providers made mistakes because they weren’t properly trained or didn’t understand the instructions or purpose of the data. One city even reported water use for 2012 by submitting data from a city in New York with an identical name.

“We agree with many of the audit conclusions and recommendations and believe that (they) will enable us to strengthen our processes,” Division of Water Resources Director Eric Millis told lawmakers at a hearing the day the report was released. “We tried to do the best we could with what we had available.”

The audit’s conclusions about conservation are even more troubling. Despite being one of the nation’s most arid states, Utah consistently tops nearly every other state in per capita water use. And yet the division assumes that conservation can only drop statewide consumption by 25 percent. Its projections have water use flattlining at 220 gallons per person, per day after 2025 – still much higher than current use in many other Western states.

“We find one regional comparison that is insightful,” the auditors write. “The Southern Nevada Water Authority, which serves the Las Vegas region, has a goal to reduce water use to 199 (gallons per person per day) by 2035. In contrast, the communities in Southwestern Utah, which have a climate similar to that of Southern Nevada, have a goal to reduce water use to 292 by the year 2060.”
That's the area that would be served by the Lake Powell Pipeline. Given the project’s expected cost of $1 billion to $3.5 billion, Frankel calls southwestern Utah’s conservation goals “appalling for a state that claims to value water and fiscal conservatism.”

The audit identifies numerous areas for improvement, not least of which are Utah's incredibly cheap water rates, which are heavily supported by property taxes. “We subsidize water more than any other state,” says Republican state Senator Howard Stephenson, president of the Utah Taxpayers Association. “When my neighbor is running his garden hose down the gutter while he's washing his car, there's no impact to his pocket book because he's socializing the waste among all of his neighbors. If people actually bear the cost of their choices, you'd assure more conservation.” The state could also implement tiered rate structures in which heavy users pay more, and actually meter “secondary” — or outdoor — water systems, which, unlike several other Western states, Utah has yet to tackle.

Figure 3.5 Property Taxes and Charges for Service as a Percent of Total Budget, Selected Local Entities. One reason water prices in Utah are low is that many water conservancy districts rely heavily on local property taxes and other fees unrelated to water use.

And though much of Utah’s expected residential growth will gobble up farmland on the Wasatch Front, the Division appears to vastly underestimate the amount of freed up irrigation water that would be shifted over to residential use. In the Weber River Basin, for example, the auditors found that 52,000 more acre-feet would be available than the state has projected. That's roughly equivalent to the share of water that communities there would receive from the $1.5 billion Bear River Project.
Department of Natural Resources Executive Director Mike Styler, who oversees the Division of Water Resources, told lawmakers at the May 5 hearing that the audit was “a great help” for predicting future water use and that his staff was already looking into implementing recommendations. If anyone should be nervous about the report, he added, it’s “you in the Legislature. (This audit) is suggesting that you look at ways to alter water demand. That’s saying, ‘Folks, we want you to consider changing your way of life.’ … That will take great courage.”

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