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# Utahns may be pouring even more water on their lawns and gardens than previously thought

By Emma Penrod

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Utah has a pretty accurate measure on its residents' use of drinking water, but estimates on how much unmetered water they sprinkle on their lawns and gardens could be off by as much as 30 percent.

Those and other findings came from an official double-checking of Utah's water numbers by two independent engineer firms, in a report presented Wednesday to state lawmakers.

The state Division of Water Resources uses water usage data to project the future needs of Utah's roughly 500 water systems and to determine whether to invest in massive new water projects, such as the Lake Powell pipeline and a system of dams on the Bear River.

But several past investigations have revealed flaws and inaccuracies in the state's system for gauging water consumption, and this latest report found that some state figures continue to miss the mark, highlighting a need for meters on hundreds of water systems.

Lawmakers, meanwhile, are resistant to requiring water meters, preferring instead to leave that decision to municipal leaders.

Utah seemed to have a pretty good handle on how much drinking-quality water is consumed, which is almost universally monitored by water meters. When two engineering firms, Bowen Collins & Associates in Draper, and Hansen, Allen & Luce, based in South

Jordan, teamed up to recreate the state's calculations on culinary water, they came up with numbers more or less matching Utah's official figures.

But secondary water — largely untreated water some Utahns use to irrigate lawns, gardens and pastures — was a different story. The engineers' consumption numbers were as much as 34 percent higher than those produced by the state, the engineers' report found.

Keith Larson, project manager and an engineer with Bowen Collins, said the state's underestimates stemmed from a lack of raw readouts from water meters. Private engineers, though, were able to access meter readings from several water systems that had them installed, and used that data to “make a better estimate.”

But that kind of analysis would be impossible for all of Utah's secondary systems, Larson said, because few currently have meters. And without water meters, he said, it's not possible to “get any more detailed numbers there than what the state had.”

That problem has long vexed the state Division of Water Resources in its quest for accurate water use data. A 2015 legislative audit also suggested that installing meters on those systems would improve the state's handle on its water use — while also reducing water waste.

Todd Adams, deputy director of the Utah Division of Water Resources, said the latest study only underscored the need for “universal secondary water metering.”

In fact, data from systems that had installed meters suggest that action alone could reduce water use by 34 percent, Adams said.

State experts currently estimate secondary water use using calculations based on the number of properties a system serves and the sizes of those lots — with an assumption that these water

customers use about as much water as residents who use culinary water to maintain their yards.

But they don't, said Rachel Shilton, who oversees river basin planning for the state Division of Water Resources.

"When using secondary water," Shilton said, Utahns' use of water is "higher than when you use culinary water."

Lynn de Freitas, executive director of Friends of Great Salt Lake, which advocates for water conservation, said nobody should be surprised at Utah's high rate of unmetered secondary water consumption. Utah Gov. Gary Herbert's statewide water strategy, released earlier this year, has identified it as a major challenge.

"The general sense was, we need to do a better job and improve the way that we inventory this resource, and [Wednesday's] report confirms that," de Freitas said.

But universal water metering is a tough sell on Utah's Capitol Hill.

State lawmakers have encouraged voluntary installation of water meters, but water managers have generally been slow to adopt the practice. Many legislators are reluctant to resort to added mandates, and at Wednesday's meeting, several said metering was best left with local governments.

But even if state leaders don't require more water meters, Wednesday's report also identified new techniques Utah might try to improve usage estimates.

Shilton said infrared cameras could be deployed to measure just how much of a given property is "green space" to more accurately measure irrigation patterns.

"We are really looking at improving what we do," she said, and the engineers' "recommendations will probably result in a better estimate than what we used."