

Op-ed: Partnerships with local water management entities are the key to water data

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A recent article and an editorial in The Salt Lake Tribune have cast doubt on the ability of Utah state agencies to accurately measure water use.

Our interactions with state agency staff suggest that they are interested in improving the availability of water use data, but have been limited mostly by state legislative funding allocations and restrictions on their authority to require submission of timely and accurate data.

As water resource researchers with iUTAH, a federally funded water project led by Utah State University researchers in collaboration with partners around the state, we would be the first to join others in saying that the better we know how water is distributed and used, the better we can help our state manage its water resources and achieve future water sustainability.

Yet it is often municipalities, water districts and irrigation companies that actually make many of the critical water infrastructure development and distribution decisions.

These decisions are not based on “guesswork” as headlines suggest. Instead, most municipalities have a vested interest and work hard to document water use by their customers. Lacking resources, staffing, and technical capacity, a variety of systems for measuring and reporting water use have evolved to meet the needs of different providers.

Our project has found greater success in building partnerships between local water managers and university researchers to improve systems for measuring and explaining variation in water use. USU engineers in collaboration with the Weber Basin Water Conservancy District have developed innovative new water meters that can work under difficult field conditions found in Utah.

Working with nine municipalities from Salt Lake, Cache, and Heber Valleys in Northern Utah, we developed formal agreements with water managers to better understand the characteristics of households and businesses that drive variation in water use across their cities. While protecting the identities of households, this project links information from iUTAH-sponsored surveys conducted in 2014 to measured residential water use data.

Sharing data about household-level water use can be a scary proposition for many. Building relationships of trust is critical so that everyone involved understands how data will be used and reported to protect confidential information.

Yet despite these challenges, it's working! By linking water use data from multiple cooperating cities with carefully gathered survey data on water attitudes and household characteristics, we can now better understand individual and city-level factors that influence water use and conservation. These results will help inform communication strategies and water management decisions.

And better yet, collaboration has created opportunities for municipal water managers to exchange information about their experiences measuring and tracking water use, implementing water pricing strategies, and more.

There remains much to be done. In an era when most public debates have focused on massive state funding for large water resource developments such as the Lake Powell Pipeline, we believe that smaller investments in the capacity of local-level water management organizations offer more impact on the effectiveness of water resource management across our state.

Priorities include state financial support for increasing staffing and technology to improve water use monitoring and data management systems at the local level, investments in innovative water metering systems, and expanding support for partnerships between local water management systems and universities to develop better data to guide their decisions.

When we work together to pool skills, data and other resources, we are better able to understand our water resources to support sound decision-making at different levels — from small towns and cities to statewide efforts.

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