

Why Investing in Water and Ecological Data in California Matters

“We can no longer operate such a sophisticated and a complicated system in a time of scarcity without significantly better data information.”
—State Agency Employee

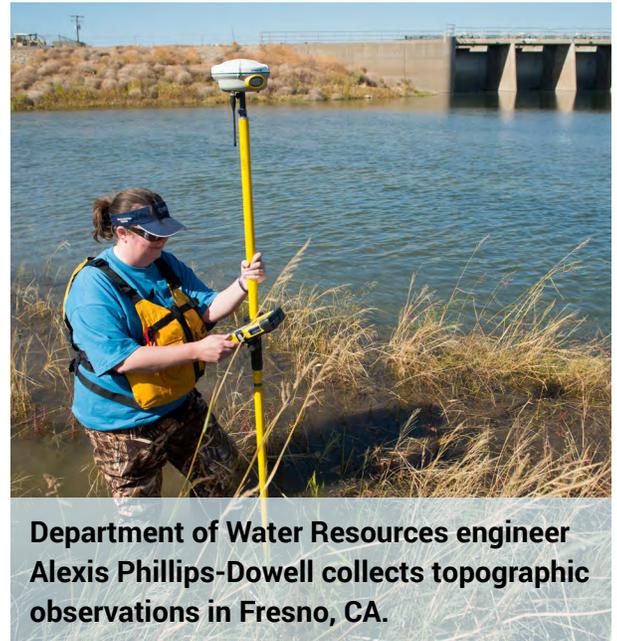
At the peak of California’s 2012-2016 drought, the California Legislature recognized the need for high-quality, accessible water and ecological data that could be integrated statewide to support State and local-level water operations decisions. To resolve this need, The Open and Transparent Water Data Act (AB 1755, Dodd) was passed in 2016 requiring California state agencies to create, operate, and maintain a statewide integrated water data platform to support sustainable water planning, support business management, advance water equity, and protect vulnerable communities, species and individuals.

Since the passage of AB 1755, California has made significant progress in developing publicly available, open-access data platforms. Despite this progress, work remains to ensure these data better inform water management decisions. Interviews with leaders from state government, non-governmental organizations, Tribal governments, growers, philanthropy, academia, urban water suppliers, and irrigation districts highlight the need for improved data quality and access to support decision-making that is equitable, inclusive, and resilient in the face of climate change.

Water challenges of the past were overcome by building physical water infrastructure that delivered water to cities, farms, and communities. Maximizing the sustainability of past investments in infrastructure and addressing the new water challenges of today will require not only updating physical water infrastructure, but also modernizing water data infrastructure. To better understand the data challenges facing California’s water planners, and to develop recommendations to address these issues, interviews were conducted with water leaders from a variety of sectors across the state. Interviewees articulated how California’s existing data infrastructure issues are affecting their ability to make informed water management decisions, plan for long-term supply reliability, and support their communities. They consistently voiced an urgent need to accelerate the adoption of modern water data systems to better support better equitable and resilient water stewardship for everyone living and working in California.

Learn more about why investing in water data matters and read the full report here:

<https://cawaterdata.org/putting-data-to-work/>



Department of Water Resources engineer Alexis Phillips-Dowell collects topographic observations in Fresno, CA.

Photo Credit: CA Department of Water Resources

Better Water Data Supports Improved Community Outcomes

During the 2012-2016 drought, thousands of individuals and households saw their wells – their sole source of household water - dry up. [Insufficient information on domestic well locations](#) made it challenging and time consuming to support individuals experiencing water emergencies.

To mitigate this challenge, the California Partnership for the San Joaquin Valley Water Work Group developed a communication and outreach strategy called “My Well Went Dry” to educate residents on where to find resources when their well goes dry and who to contact during water resource-related emergencies. Having well location information would have enabled state and local government, NGOs, and others to more quickly and proactively provide emergency services to households without drinking water.

Why Does California Need Better Water Data?



Insufficient water data impairs decisions about water resources when climate change and natural disasters are destabilizing water systems.

*“How can you even try and manage for drought when you’re off by 86 percent?”
– State Agency Employee*



Water management is stymied by inadequate data, imperiling ecosystems.

“A lack of water rights enforcement and lack of data on flow in some of these very remote areas makes it really difficult to establish targets to enforce for species protection.” – NGO Employee



Better water data helps communities understand, monitor, and address water issues.

*“Having good data really helps us to dig down and think about how to be effective about the water we are using.”
– Tribal Representative*



The need for improved collaboration is felt across sectors.

*“There are climate impacts that are happening... The old ways can’t work anymore, so how do we get people to start talking more collaboratively?”
– Grower*



Insufficient resources to collect water data can perpetuate societal inequities.

*“Some of these vulnerable communities don’t have the resources to provide their own data and information so it gets left out or it’s dominated by other interests.”
– State Agency Employee*



Inadequate water data sows mistrust and misinformation.

“I drive around in the Southern Central Valley, and I see these signs about... dumping our water out into the ocean. It doesn’t happen. It’s almost physically impossible. Sometimes the decisions that we make on water are against the backdrop of misinformation.” – Irrigation District Representative

Recommendations to Improve California Water Data

- 1. Invest in water data infrastructure**
State and local agencies should continue to prioritize and invest in water data infrastructure to modernize California’s data systems.
- 2. Continue empowering cross agency collaboration**
State and local agencies should be encouraged to work collaboratively across all agencies and with interdisciplinary teams that include data experts.
- 3. Create open data standards and protocols**
State agencies, in partnership with non-State partners, should create and facilitate the adoption of open data standards and protocols.
- 4. Automate data collection and reporting of critical water datasets**
State agencies should automate data collection and reporting systems for critical water datasets, including groundwater elevation data, water diversion data, and stream gage data.
- 5. Streamline procurement processes to enable innovation**
State agencies, in partnership with non-State partners, should simplify procurement processes to encourage more small business applications and reduce burden.
- 6. Expand public awareness and accessibility of water data**
State agencies, in partnership with non-State partners, should expand public awareness, bolster public engagement, and improve community access to data and decision-making spaces to promote transparency and support more equitable water stewardship.