

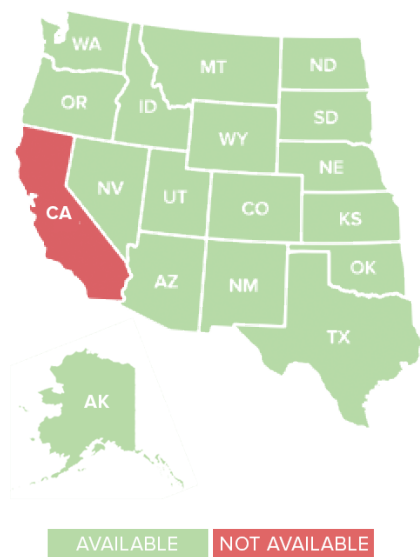
Groundwater Data: California's Missing Metrics

Groundwater Data: We Can't Manage What We Don't Measure

California's groundwater resources are significantly depleted in many areas. With the ongoing drought and less surface water available, groundwater resources are under pressure as never before.

Groundwater data are the critical foundation for decision makers to both prevent problems and formulate solutions. In California, where groundwater makes up between 30% to 60% of the state's water supply system, everyone benefits from good groundwater management, whether through direct use or indirectly from the social, economic and environmental contributions associated with groundwater use.

California Lags Behind Other Western States in Data Collection and Sharing



When it comes to groundwater data collection and sharing, California lags far behind other Western states. For example, well log data is fundamental to understanding groundwater aquifers so that they can be effectively managed. But California is the only Western state to prohibit the sharing of this critical groundwater metric. Yet California pumps more groundwater annually than any other state - nearly one-fifth of all the groundwater pumped in the U.S.

California is the only Western state that does not share well log data, which offers key information for groundwater managers.





Data for California Groundwater Basins

New research from Water in the West evaluated data collection and sharing in 150 of California's highest priority groundwater basins and found them generally lacking. Publicly available plans and documents for each basin were examined and scored. Basin scores were then grouped by hydrologic region. Nine of the 10 hydrologic regions in California scored less than 5 out of a possible 10 points.

9 out of 10 hydrologic regions in California receive a failing score when it comes to collecting and sharing groundwater data

The study showed that in California there is generally good collection of well logs but no sharing of those logs (consistent with the prohibition by California law). Pumps are not metered, nor are these data shared for the most part, with the exception of the South Lahontan and Colorado River regions. Groundwater elevations are collected and shared more often than the other metrics, although public digital accessibility to these data is poor.

Groundwater Data Collection and Sharing Scores by Hydrologic Region

HYDROLOGICAL REGION	 Drilling Logs			 Production Metering			 Groundwater Elevation			 Model	Total Score
	COLLECT	SHARE	DIGITAL	COLLECT	SHARE	DIGITAL	COLLECT	SHARE	DIGITAL	DEVELOP	OVERALL MAX: 10
South Lahontan	89%	0%	0%	89%	89%	0%	89%	83%	78%	89%	6.0
Colorado River	83%	0%	0%	83%	83%	0%	100%	58%	0%	50%	4.6
South Coast	84%	0%	0%	62%	57%	1%	84%	54%	34%	50%	4.3
San Francisco Bay	71%	0%	0%	29%	29%	0%	71%	64%	29%	71%	3.6
Tulare Lake	88%	0%	0%	13%	25%	0%	88%	56%	31%	50%	3.5
Sacramento River	97%	0%	0%	6%	3%	0%	94%	70%	39%	24%	3.3
Central Coast	74%	0%	0%	15%	22%	0%	74%	54%	20%	33%	2.9
North Lahontan	100%	0%	0%	0%	0%	0%	100%	57%	0%	14%	2.7
San Joaquin River	78%	0%	0%	6%	0%	0%	78%	17%	22%	33%	2.4
North Coast	33%	6%	0%	0%	11%	0%	33%	28%	17%	33%	1.6

What Is Necessary for Change?

Water in the West’s assessment determined that the collection and sharing of five metrics is key – at a minimum – to effective management of groundwater resources. Each metric is important on its own, but they are all intertwined in some way.

- Well logs
- Groundwater elevations
- Production metering
- Groundwater quality
- Groundwater modeling

Better Information for Better Outcomes

Some may see greater data collection, monitoring and reporting as a threat to local control of groundwater resources. But better information improves the ability of each local agency to sustainably manage its own groundwater basin, making it is less likely that the state will need to be involved.