

Comprehensive groundwater rules are needed

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An essential part of California's limited water supply is its groundwater.

In an average year, groundwater makes up about 29 percent of California's water supply. That increases to 39 percent in dry years.

In the Central Valley, groundwater is about 80 percent of total water use. Imagine trying to farm in the Central Valley with 80 percent less water. If we fail to protect the quality of our groundwater, or allow it to be overused, that is the future we leave California.

Besides just supplying water, groundwater basins – when managed appropriately – can act as a buffer, providing a secure water supply in times of drought. Long-range climate forecasts suggest that California will see more seasonal droughts in this century, making groundwater buffers essential to California's water security. Protecting our state's groundwater resources should therefore be a high priority for California.

Groundwater and surface water make up a single, functional natural system. Surface water flows into groundwater basins and groundwater flows out of groundwater basins into rivers and streams. Withdraw too much water too quickly in some groundwater basins, and the amount of water in nearby surface streams and rivers will decrease. Pollute groundwater, and over time rivers and streams may become polluted as well.

The physical connection between surface water and groundwater means it is inefficient and often counterproductive to regulate the use of one but not the other.

Yet California continues to regulate surface water under one system while providing little oversight of groundwater use. Among Western states, only California and Texas do not have a state permitting system for groundwater use.

And California lacks good, comprehensive data on water quality in its groundwater basins and use of that groundwater. The last statewide survey to examine overuse of groundwater in California was more than 30 years ago.

California cannot meaningfully protect and secure its entire water supply without comprehensively monitoring and regulating groundwater throughout the state. The Legislative Analyst's Office has suggested that "re-evaluating how groundwater is managed is necessary if it is to achieve its full potential as a reliable source of water." The Association of California Water Agencies recently agreed that managing both surface water and groundwater together, rather than in isolation from each other, would benefit California.

This is not to say that California should impose statewide regulations, overriding years of local groundwater management. Some local districts – but certainly not all – have voluntarily developed innovative and successful groundwater management plans. The state should build on these successes by establishing standards, providing expertise and developing a management framework to be implemented by regional and local agencies.

Regulating groundwater effectively means first understanding the problem. California should first establish

clear standards for the collection of groundwater data and coordinate the collection of this data from regional and local entities.

The state has begun moving toward state-standardized monitoring of groundwater elevation with Senate Bill X7 6, by Sen. Darrell Steinberg, D-Sacramento, but still lacks access to high-quality data on groundwater use and quality. Monitoring should include accurate local metering of all groundwater use. And the state, with assistance from regional and local agencies, should implement real-time monitoring and periodic surveys of groundwater quality.

California then needs a comprehensive framework for regulation of groundwater, wherein local jurisdictions are given clear guidelines and mandatory management goals. The state must do more to enforce legal restrictions on groundwater use and prevent unmonitored withdrawals. And local or regional agencies should determine and enforce a "sustainable yield" that will prevent overuse of groundwater basins over the long term.

Californians will benefit from better groundwater regulation. Farmers stand to gain economically from programs that manage groundwater and surface water together. Better groundwater management can help to protect the quality of our drinking water. And cost-effective groundwater storage can reduce the need for expensive surface water storage projects.

A state-local cooperative framework for groundwater regulation has potential to address groundwater overdraft and groundwater pollution, with the promise of better water security for California's future.