

# Groundwater: The New Frontier

## Balanced Approach Considers Needs of Farmers, Landowners, Businesses

Changing demands on water supplies, such as new environmental restrictions, the effects of cyclical droughts, and increased urban and agricultural usage, have resulted in more groundwater pumping and subsequently chronic overdrafting of groundwater basins.

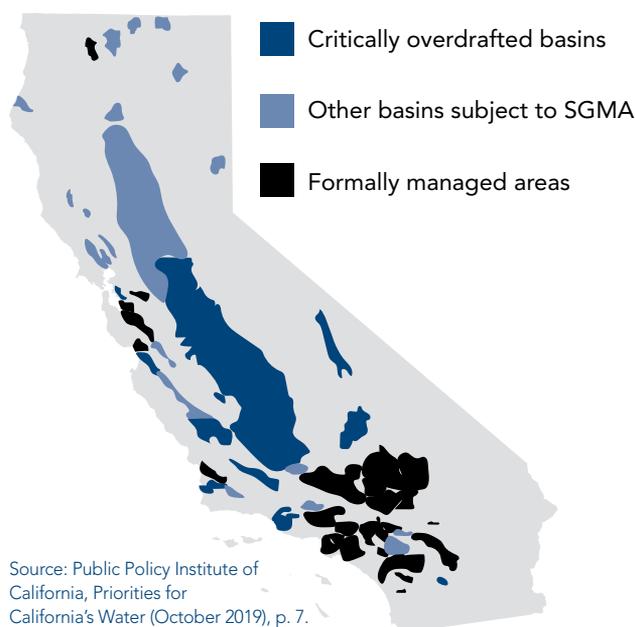
Land subsidence in the San Joaquin Valley has been going on for years, but in 2014 the emergency drought proclamation by Governor Edmund G. Brown Jr. triggered the development of a subsidence monitoring report. That year, California also passed major groundwater legislation. The report included data from a 2017 NASA Jet Propulsion Laboratory paper indicating that land in the San Joaquin Valley has subsided 28 feet since the 1920s. Subsidence is the permanent loss of below-ground water storage capacity.

Water is stored in the cracks of soil, sand and rocks underground called aquifers. Prolonged pumping depletes water in soil, causing the soil to sink, collapsing underground water aquifers. Once that happens, it is not possible to recharge the aquifer. Unlike most Western states, California never has had a state comprehensive system for regulating groundwater until recently.

### KEY POINTS

- California adopted legislation for stabilizing overdrafted groundwater basins in 2014.
- The law allows for groundwater pumping restrictions and the imposition of fees but does not mandate either one.
- Local public agencies with water supply, management and land use obligations will develop a Groundwater Sustainability Plan (GSP) with stakeholder input for approval by the state.
- GSPs must be submitted for the 21 critically overdrafted basins by January 2020 (all reports submitted) and lower-priority basins in 2022 or two years from when a basin is reprioritized.
- There will be less groundwater available in the future.
- Business and agricultural representatives should continue to be engaged in the planning process expressing the impacts a reduced water supply will have on business vitality.

### MAIN GROUNDWATER BASINS



Source: Public Policy Institute of California, *Priorities for California's Water* (October 2019), p. 7.

- New technologies should be explored to use water more efficiently.
- The California Chamber of Commerce continues to reach out and inform businesses of the importance to engage in the process.

### BACKGROUND

Unlike other states, California did not have a system for regulating groundwater pumping until 2014 when the Sustainable Groundwater Management Act (SGMA) was signed into law. Before 2014, management generally had been in the form of plans developed by local agencies that focused primarily on information gathering. Overlying landowners, including agricultural users, domestic well owners, and other groundwater users, pumped without having to obtain government approvals.

SGMA lays out how the state will achieve sustainable groundwater basins. It allows 40 years from the plans' approvals to achieve sustainability. "Sustainable" generally means eliminating overdraft in the basins. Water seeps back into basins through winter floods, water from recharge basins, and rain. Some funding has been

# Agenda for California Recovery

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provided by the state General Fund, but most of the funding was provided in Proposition 1 (2014), from which all funds have been awarded, and Proposition 68 (2018), which has \$47 million uncommitted. Both propositions had several categories that could be used for SGMA planning. Looking at the amount of work needed to design a GSP to achieve basin sustainability and begin implementation, however, fees are going to be necessary.

Designing a GSP entails a tremendous amount of work, including research, surveying, monitoring, reporting, public meetings, development of best practices, finding and purchasing replacement water, evaluating new technologies, and working out groundwater rights. Each basin is unique. Plans need to be tailored to conditions in each overdrafted basin. A further complication is that there can be many local agencies overlying the basins that must agree on a GSP. Schisms in planning agencies are showing up as the deadline approaches.

SGMA does not mandate groundwater pumping restrictions or require the imposition of groundwater fees, but allows both. It's hard to imagine the basins or sub-basins achieving sustainability without imposing some sort of pumping restrictions or limitations.

In 2015, AB 1390 (Alejo; D-Salinas) and SB 226 (Pavley; D-Agoura Hills) went into effect, streamlining the adjudication process to reduce the burden of groundwater adjudications on both the courts and claimants without altering the law of groundwater rights and without disrupting the SGMA process.

Basin adjudications occur when a party initiates a lawsuit against all other users in a groundwater basin so that the court can determine the groundwater rights of all parties overlying the basin and whether others may export water from the basin. Prior to the legislation, adjudications often took decades to resolve, which prompted the legislation because the basins must reach sustainability 20 years after the GSP is adopted. If the planning process becomes too burdensome or the local planning agencies cannot agree, it is likely that there will be a movement to adjudicate the basin. As of 2019, 20 applications for adjudication have been submitted.

### IMPACT ON BUSINESS

Although SGMA does not establish, determine or confirm water rights, it does regulate the exercise of those rights. Reaching and maintaining groundwater sustainability will take many years and require less groundwater pumping, especially in drought or dry years. Business, agriculture and housing development will be adversely affected by reductions in water supplies, not only from SGMA but from environmental demands on surface water and

mandatory conservation measures during droughts. Planning for new supplies or investments in new technologies should begin now. (See *Business Issues* articles on “New Water Future,” “Access to Water,” and “Long-Term Water Strategy.”)

The Public Policy Institute of California predicted in 2019 that at least 535,000 acres of Central Valley farmland could be permanently retired over the next 20 years as farmers curtail their water consumption. The Institute estimated that 50,000 acres go solar, converting some of the world's most productive tomato farms, pistachio orchards and dairies into vast fields of tea-colored photovoltaic panels. Other landowners are working with environmental groups to develop conservation easements to turn some of their land into wildlife habitats.

### ANTICIPATED ACTIONS IN 2021

The Department of Water Resources will continue to review Groundwater Sustainability Plans submitted for critically overdrafted basins. If any plans are found inadequate, there is a six-month window to resubmit the plan with changes. Meanwhile, local Groundwater Sustainability Agencies (GSAs) in high and medium overdraft basins will be developing and submitting plans by 2022 or 2024.

Business and agricultural representatives need to be engaged with their local planning agencies to keep abreast of the plans, offer information on impacts to their companies, and share future strategies to help offset reductions.

The Governor's budget includes \$60 million for local groundwater planning and implementation: \$30 million for 2020–2021 and \$30 million for 2021–2022. The business community should support this budget appropriation.

### CALCHAMBER POSITION

The CalChamber supports a balanced approach to these Groundwater Sustainability Plans that considers the needs of farmers, landowners and businesses. The CalChamber also supports research and development of new technologies and water management practices that promote water use efficiency, recycling and reuse.



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January 2021