## California Faces Its First Big Deadline for Groundwater Law

June 30 is the state's deadline for the creation of groundwater sustainability agencies, the first significant step required to implement California's 2014 Sustainable Groundwater Management Act.

Brett Baker is a sixth-generation pear farmer on Sutter Island in California's Sacramento-San Joaquin Delta. His orchards are surrounded by levees, and water from the Sacramento River regularly percolates inward and upward through the soil.

"We actually have to pump out water that creeps through our levees back into the river – we have to fight to keep groundwater levels down," Baker says.

His situation is unusual. In much of the state, groundwater supplies have diminished precipitously through decades of heavy pumping, which led to the passage of the Sustainable Groundwater Management Act (SGMA) in 2014 to regulate groundwater use and reverse aquifer depletion.

The SGMA will radically overhaul the way Californians have historically used groundwater. Unlike with surface water supplies, which are carefully allocated through a complex system of water rights, groundwater basins have always been a free-for-all resource, from which just about anyone in the state could pump all the water they wanted without reporting their consumption.

This has led to drastic depletion of groundwater basins in areas like the San Joaquin Valley, where land has subsided 20 or more feet because so much water has been pumped from below. In other areas, like coastal Orange County and the Salinas Valley, seawater has crept inland as freshwater has been drawn upward by farmers and municipalities — one impact of groundwater pumping that the new law specifically aims to alleviate.

The SGMA is now kicking into gear as its first major deadline arrives: By June 30, counties and regional water managers must form "groundwater sustainability agencies," or GSAs – the task forces that will eventually be responsible for developing their own sustainable groundwater use plans. Districts that fail or choose not to create a GSA will be subject to intervention by the State Water Resources Control Board.

As of June 25, 138 GSAs had been formed statewide, with about 100 more yet to finalize the process, according to data from the California Department of Water Resources.

The process has not been without its complications. Since the SGMA took effect in 2015, water district managers, farmers, attorneys and many other stakeholders have been attending public meetings around the state, trying to sort out the various logistics and uncertainties that come with the law, such as how to limit groundwater use and how to accurately track consumption.

Mark Nordberg, a senior engineering geologist with the state water agency, says one of the greatest ongoing challenges has been to correctly map the state's groundwater basins. Currently,

the boundaries of many of these basin areas overlap – the peculiar result of mapping inaccuracies.

"If you're drawing on a map of large scale, like 1:250,000, then the pencil line is going to be 2,000–3,000ft wide," he said.

This has created long slivers of land where local stakeholders do not know yet which GSA they will be a part of. Nordberg says in-field meetings and the use of more detailed maps will help sort out the problem.

For those trying to form GSAs, the process has varied across the state depending on how many entities may be involved, the size of the basin and other factors.

In the central Delta, Baker is frustrated by the entire process, which he feels is being unfairly imposed on him and other local farmers who rely entirely on surface water for irrigation.

"Our concern is that someone else who actually has a groundwater overdraft problem is going to benefit from this law, and they'll want us to help pay for management even though I'm not going to see any benefits, since I don't use groundwater," he says.

In San Luis Obispo County, there has been heated disagreement for months about the proposed funding system for the GSAs. There, local landowners will likely be supporting their GSAs by paying fees relative to the size of their respective properties. But county taxpayers might also be chipping in to support groundwater management. This means that those who have agreed to create – and pay for – their own GSA will be paying twice, while landowners who have opted to let state officials manage their groundwater could wind up getting financial support for free – what Paso Robles mayor Steve Martin recently told a reporter is an unfair system.

In the western San Joaquin Valley – one of the most impacted basins – the process may be going a little more smoothly. There, the Westlands Water District will serve as the groundwater sustainability agency for the entire basin. Jose Gutierrez, Westlands' deputy general manager for resources, says the water district is the only water district overlying the local groundwater basin.

"Therefore, deciding to serve as the Groundwater Sustainability Agency (GSA) was the logical and sensible path for our board to take to represent our water users," he said in a statement.

But Gutierrez says local farmers are nervous about how the new law will affect them.

"Especially since their surface water supply dwindled to zero over the last few years prior to 2017, and now their groundwater supply is being reduced, water users believe there is no certainty of supply to support farming," he said.

About 40 miles north of Sacramento, the Glenn-Colusa Irrigation District has acreage in three different GSA zones. So the district's general manager, Thad Bettner, has been attending three different series of meetings.

"It would have been a lot simpler for us if we just created our own GSA," he said.

In the Sacramento Valley, farmers who use a great deal of groundwater are similarly concerned.

"These people typically want to be left alone, off the grid and under the radar, and unfortunately for them, SGMA will require them to report their use the same way we do with surface water," Bettner said. "It's going to be a new world for them, and it's changing overnight."