

Salinas Valley's thriving crops mask fears over the area's lone water source

By Rosanna
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In this farming valley, often known as "America's salad bowl," the climate is cool and consistent, the soil is fertile, and an abundance of water has allowed a diverse set of crops to flourish.

Farmers here produce almost two-thirds of the nation's lettuce and half of its broccoli and celery. One town calls itself the artichoke capital of the world.

It is also a place that has seemed to be immune to the state's pervasive drought.

For Rick Antle, the shortage in his fields this summer is of workers, not water. Harvest machines roar to life as 2,000 people cut, wrap and pack thousands of boxes of lettuce each day for Tanimura & Antle, a major family-run farm. They could use 120 more workers.

Salinas oasis

Caption Salinas oasis

Michael Robinson Chavez / Los Angeles Times

Sprinklers water a field in the early morning hours at the Tanimura & Antle farm outside Salinas. The Salinas Valley, one of California's agricultural gems, has been spared the worst of the drought unlike the neighboring San Joaquin Valley.

Salinas oasis

Caption Salinas oasis

Michael Robinson Chavez / Los Angeles Times

An abundant aquifer has helped Salinas weather the drought. Above, workers harvest iceberg lettuce at the Tanimura & Antle farm.

At a time when lakes have hit bottom, wells have run dry, and farmland 100 miles away in the Central Valley has gathered dust, the Salinas Valley remains an oasis — a green patchwork quilt of farmland unfurling roughly 90 miles along U.S. 101 north of Paso Robles to Monterey Bay, where the Salinas River meets the ocean.

But the verdant landscape hides long-term troubles with the region's only water source.

Unlike the Central Valley, which depends on snowmelt transported from faraway reservoirs, the Salinas Valley has prospered for decades relying solely on the groundwater hundreds of feet below.

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Isolated from state and federal aqueducts, the region can't afford to run out of local water. Changes need to be made, but agreement on what to do and how to pay for it has been elusive.

"The problems of other areas is they have no water," said Norm Groot, executive director of the Monterey County Farm Bureau. "Our problem here is we still have water. And to some degree, that presents a different set of challenges."

Foremost among them is how to preserve the massive, but overdrafted, aquifer — one of the most stressed groundwater basins in the state, according to the California Department of Water Resources.

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No one knows exactly how deep it goes or how much water is left. A county report estimates there are about 5.3 trillion gallons of water stored underground. About 3% to 4% of that amount is pumped out each year.

"It's a good aquifer, it's really deep, but we're essentially slowly mining it over time," said Michael Cahn, a University of California water resources advisor who helps local farmers improve irrigation. "The reality is, you can't take too much out."

The overdraft is not obvious. Unlike parts of the Central Valley, where the clay soil sinks as water is pumped out, the Salinas Valley's more porous soil tends to maintain its form, Cahn said.

But the soil presents a different problem: saltwater intrusion. The more fresh water is drawn out, the more room for seawater to flow in and contaminate the remaining supply.

In the 1950s and '60s, Lake Nacimiento and Lake San Antonio were built to help push back seawater by replenishing the groundwater through the Salinas River. Creating this water system enabled the valley to produce all its varied crops despite its many microclimates, officials said.

But the drought has drained the reservoirs — San Antonio is down to 4% of capacity — stressing the aquifer even more. Wells are starting to go dry in some areas, and seawater continues to push into farmland near the coast.

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"The problem is, where is that breaking point?" said Bardin Bengard, whose family has farmed here since the 1850s, when the valley was mostly cattle and grain. "Our main water supply is underground. It's not like you've got a reservoir where you can just look at it and go, 'It's empty.'"

Bengard's family has seen how water transformed the region. After cattle, it was sugar beets, white beans and potatoes. Today, it's mass production of leafy greens and strawberries. Agriculture contributes about \$8.1 billion a year to the economy, according to a recent county report.

"We're so lucky in Salinas," said his daughter Bridget, who manages the family's celery fields. "You can't farm any of this stuff here, for as long as the season, anywhere else in the world."

The Bengards worry about water quality. And how much longer this way of life can last.

Our main water supply is underground. It's not like you've got a reservoir where you can just look at it and go, 'It's empty.' - Bardin Bengard, whose family has farmed in the Salinas Valley since the 1850s

In 2013, they lost a well because it got salty. Then two other wells needed to be replaced — at \$500,000 each. But such problems don't compare to what they faced at their San Joaquin Valley operation, where they had to fallow 1,000 acres of cotton after even their backup drought plan failed.

The Bengards know there are few backups to count on in the Salinas Valley, so like other farmers in the region, they're thinking ahead. Instead of traditional flooding methods, 80% of their crops are on drip tape, which feeds water

directly to the roots.

Agriculture would be harder hit right now if it weren't for these water-saving efforts and a number of infrastructure projects already in place.

"One dry year is not that devastating, because we've been prepared for decades," said Groot, the farm bureau executive. "This saltwater intrusion issue really scared the community into reacting and doing something and paying for some fairly big projects that were way ahead of their time."

A \$75-million project in 1998 began treating sewage to irrigate 12,000 acres of farmland near the coast. Taking many of these farmers off groundwater was a monumental step in slowing the seawater intrusion, officials said.

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In 2010, two inflatable rubber dams were installed to capture more rain during wet months. Officials could then release this extra water and move it through the Salinas River to where it needs to be.

Releasing about 1,200 acre-feet per day keeps the seawater from creeping farther inland, said Robert Johnson, deputy general manager of the Monterey County Water Resources Agency.

This worked for two years, he said, but officials could release only 60 acre-feet per day last year and about 130 this year. Many farmers have argued that more water needs to be released, while officials cite the need to store some water in the event of another dry winter.

It's not easy coming to a consensus on what still needs to be done, in part because of geography. Farmers closest to the coast worry more about seawater contamination, while those farther south, where the climate is hotter and the soil different, are concerned about access to enough water. Fish and other environmental issues are also at play, and even though the valley is largely agricultural, there is an urban population that needs to be considered.

There's talk of increasing storage by building a tunnel between the two reservoirs. Using more recycled wastewater is also a possibility, although this gets tricky when drought-conscious residents are flushing their toilets less.

And looming over everything is Gov. Jerry Brown's mandate to form a groundwater sustainability agency by 2017 to regulate pumping. In the Salinas Valley, where agriculture uses about 90% of the water, the question boils down to: Who will control the groundwater basin?

Groot, who represents about 400 farms, acknowledged there will be changes to the rules and the cost of water in the years ahead. But, he added: "We want to have a sustainability agency that recognizes we've done a lot already."

Experts say there needs to be stronger regulation of wells and a clearer understanding of how much water the region actually has. County officials are working on a more detailed groundwater estimate, which will be completed in the next few years.

Until then, hope in El Niño is the more popular answer. Farmers remind one another that in past storms Lake Nacimiento filled up in a matter of days.

"Everything cycles," said Antle, whose family has farmed in the valley for generations. "It's going to rain this year."

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