

## **Video: Solar Development the San Joaquin Valley**

Ppic.org, 11/09/22

Hundreds of thousands of acres of San Joaquin Valley farmland may come out of irrigated production in the coming decades to help balance overdrafted groundwater basins under the Sustainable Groundwater Management Act. At the same time, California needs to ramp up clean energy development to meet the goals of SB 100—and the valley has high solar potential. At a virtual event last week, PPIC Water Policy Center research fellow Andrew Ayres moderated a panel of experts and local stakeholders; they explored how solar development could help California meet multiple objectives while overcoming some challenges and delivering lasting benefits to the region.

Annabelle Rosser, research associate at the PPIC Water Policy Center, presented new research on solar development and groundwater in the San Joaquin Valley. The study found a potentially high overlap between valley lands that are suitable for solar and lands likely to be fallowed, which could help provide new sources of revenue and employment on these lands. However, to maximize the benefits of solar development for valley residents, local, state, and federal stakeholders need to better integrate planning, strengthen workforce training efforts, and simplify permitting. With careful planning, Rosser said, solar development in the region could simultaneously support the state's clean energy goals, ease the economic pain of changing land uses, and reduce demands on the region's dwindling groundwater.

The transition is already underway in some places. Lorelei Oviatt, director of Kern County's Planning and Natural Resources department, says her county is pretty far along the renewable path, with some 157,000 acres of wind and solar. The county's solar projects currently hire 90% of their workers locally, she said, but the path forward isn't necessarily easy. Property and sales tax revenues remain a concern. "All we have is land to produce the money that keeps our libraries open, keeps Meals on Wheels going, and law enforcement [going]. When we lose agriculture, we're not just losing jobs," Oviatt said, but also revenue. "Jobs are great," she said, "but nobody wants to live in a community that doesn't have services." Still, Oviatt says, solar does offer the opportunity to "remonetize" lands leaving irrigated production.

Mayor Rey León of Huron concurred with Oviatt, saying that while solar development is attractive, he has some concerns in a traditionally agricultural region. "Acreage that goes out of production is taking out local jobs.... There's some fine-tuning to do to ensure that there's equity." Huron is one of the poorest cities in the state of California, and agriculture has been its economic backbone. Now "[l]ettuce season is all but dead." Training and education, he said, are key to help former agricultural workers and young people make the transition. "Our high schools and community colleges need to...have more resources and provide more opportunities for our kids.... These students need to be the engineers, the attorneys within the clean energy industry, the managers, the trade workers. Those are good jobs."

Dan Kim of Golden State Clean Energy described both the promise and hurdles to solar development in the valley. He said that the company's current project, Westlands Solar Park, is on track to provide over 1,000 MW of electricity when complete. But the industry has been stymied by rising costs and transmission constraints. "When we started, the interconnection process would take about three years from beginning to end," he said. "Currently...the timeframe is upwards of almost seven to eight years."

The difficulty of getting projects online will make it challenging to meet the state's increasingly ambitious renewable energy needs, Kim said. Not long ago, the state's needed annual build-out of renewable capacity was estimated at 4,000 MW annually—but that projection was recently raised to 6,000–7,000 MW annually. "That's going to strain the interconnection timing."

This is where the state comes in. Erica Brand of the California Energy Commission (CEC) said a suite of generation, energy storage, and transmission investments are needed to achieve SB 100's goals. "We need a significant build-out of clean energy in the state over the next 25 years in many regions of the state, including the San Joaquin Valley." While the clean energy transition offers exciting opportunities for the San Joaquin Valley, "we also need to be sure the pathway to achieving SB 100 is affordable, equitable, reliable, and implemented in a way that supports local land-use priorities." She says the CEC is working to integrate more local land-use data into its planning efforts.

## San Francisco cuts deal with California water regulators to avoid severe restrictions

Sfchronicle.com, 11/10/22

Three of California's biggest water suppliers, including the city of San Francisco, have reached a deal with the state that calls for reducing their immense consumption of river water but not as much as the state had initially demanded.

The compromise, announced Thursday, is the latest breakthrough in a years-long effort by state regulators to protect flows in California's once-grand but increasingly overdrawn rivers. The toll on the waterways, where as much as 90% of the water is pumped to cities and farms, has been exacerbated by drought, leaving fabled runs of salmon and other plants and animals at risk of perishing.

Under the new agreement, the San Francisco Public Utilities Commission joins two Central Valley water agencies, the Turlock and Modesto irrigation districts, in committing to scale back draws and restore wildlife habitat in the Tuolumne River, one of the state's most depleted rivers.

The San Francisco PUC, which provides water for the city and about two dozen other Bay Area communities, gets as much as 85% of its supply piped in from the Tuolumne watershed. The river is born of snowmelt from in and around Yosemite National Park, where the city captures the cold, clear river water at Hetch Hetchy Reservoir.

"We've always been willing to do our part to further protect natural habitats, including in times of drought," said Dennis Herrera, general manager of the SFPUC, in a statement. "Now we have a framework agreement that strikes the right balance."

But whether Thursday's deal, known as "voluntary agreements," will meaningfully increase river flows — and protect fish and wildlife — remains uncertain.

Environmental and fishing groups have long said that any loosening of water regulation rolled out by the State Water Resources Control Board in 2018 to maintain the health of the vast Sacramento and San Joaquin river watersheds will be detrimental and leave rivers more akin to trickling streams. The groups have been opposed to giving water agencies much slack in avoiding the restraints.

"The water board and tons of scientists have indicated that we need much more flow in the rivers than what's contained in these agreements," said Jon Rosenfield, senior scientist at the environmental advocacy San Francisco Baykeeper.

Thursday's deal is also officially a memorandum of understanding and not binding.

For nearly a decade, state officials have been working with water agencies across California to reduce draws in the watersheds that feed the Sacramento-San Joaquin River

Delta, which is not only crucial for flora and fauna but also to water supplies for much of the state.

The negotiations, under what's called the Bay Delta Plan, have been particularly tense along the Tuolumne and neighboring rivers, which drain into the San Joaquin.

Unable to win concessions, the state water board mandated four years ago that 40% of the natural flow of the Tuolumne, Merced and Stanislaus rivers would have to remain in the waterways during peak times — not drawn out for human use. Currently, water suppliers sometimes leave just 10% of the water.

San Francisco officials have said that the water board's regulation would force Bay Area residents to cut their water use up to 40% during extreme drought years. The city subsequently joined the largely agricultural water agencies in suing to stop the state's plan. The restrictions have yet to be implemented as the parties had been hopeful of reaching a compromise.

The amount of water that the water agencies would have to leave in the river under the new voluntary agreements varies, depending on how wet or dry the year is, but it's far less than what the agencies would have had to concede under the 2018 regulation — sometimes more than a third less.

San Francisco officials have said before that while they haven't been willing to give up much water, they would adjust the timing of their draws and put money into restoration to ensure the health of the river.

Critics of the deal have been wary of the private negotiations taking place between the state and the water suppliers to resolve the dispute, particularly since Gov. Gavin Newsom has been in office.

Some believe that state regulators, under appointees of the current administration, have been more eager to settle with the suppliers and end the conflict than to protect the watersheds.

But state officials say the give-and-take is necessary to avoid protracted legal fights and get to work on what's needed for the rivers, particularly given the urgency created by drought and climate change.

"This collaborative approach holds the promise to do that (work) more quickly and holistically, while improving water reliability to communities, farms and businesses," said California Secretary for Natural Resources Wade Crowfoot, in a statement.

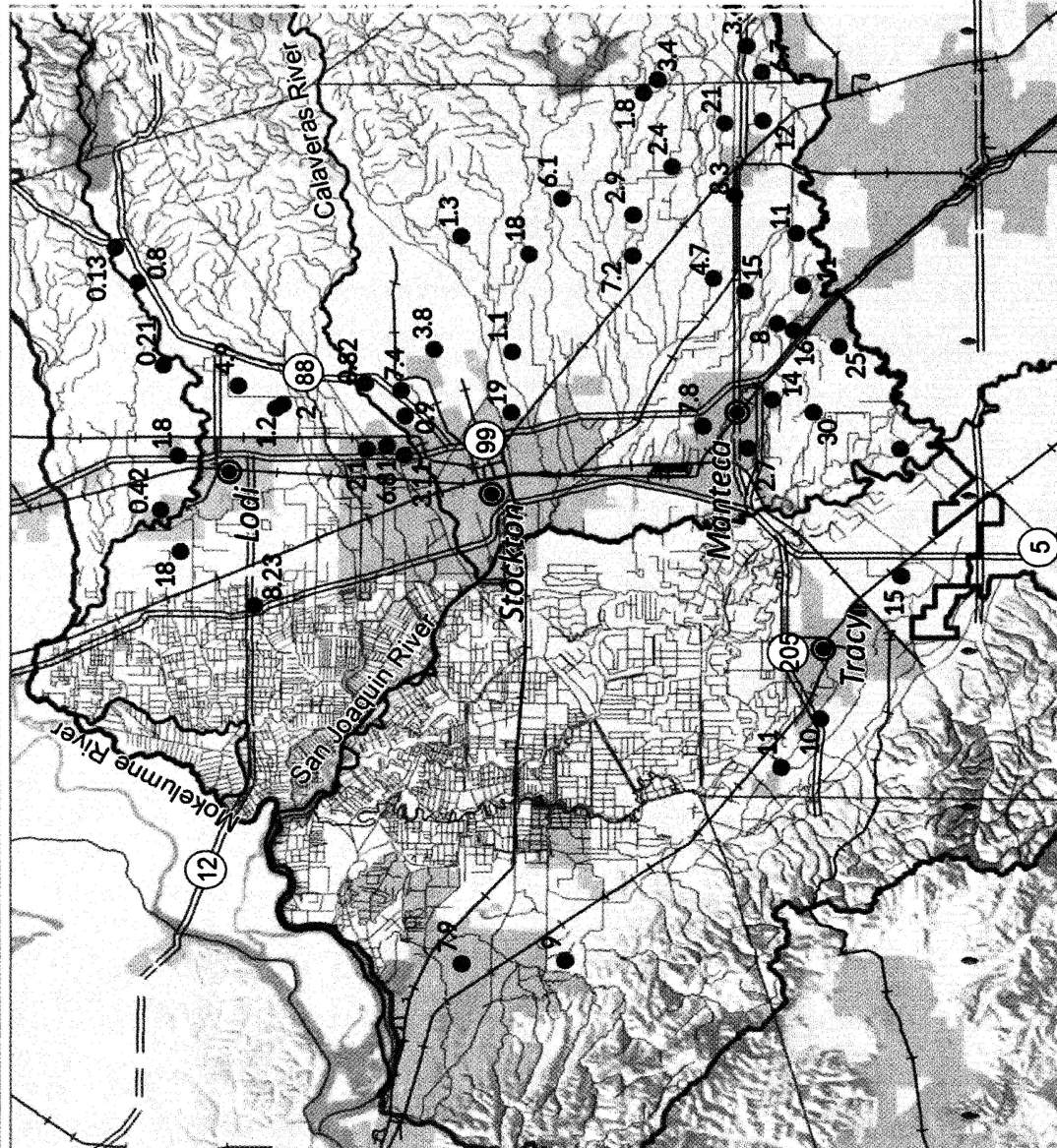
The Contra Costa Water District signed on to the voluntary agreements in September, joining several other water agencies that committed to the deal in prior months.

"Adding parties from the Tuolumne River watershed along with Contra Costa Water District is a huge point of progress in our effort to help adapt to a hotter and drier future," Crowfoot said.



# Groundwater: 2022 Trend Monitoring

- Complete as of 9/1/22.
- Data almost finalized.
- Grower notification packets scheduled for mid-November.
  - 12 wells above MCL
  - 2 new exceedances to drinking water wells



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