CHANGING COURSE

S.J. COUNTY OFFICIALS SAY RESERVOIR PLANS NO LONGER NEEDED AS WATER USE DOWN, SUPPLY LEVEL, BUT SOME QUESTION IF FUTURE PROBLEMS ARE REASON TO PROCEED

By **Alex Breitler**October 11, 2013
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This access road in 2009 at the far east end of Harney Lane in Clements leads to the state Fish and Game easement and the proposed site of Duck Creek Reservoir.

CLIFFORD OTO/The Record

San Joaquin County officials this week proposed abandoning a plan to build a reservoir in the rolling hills east of Stockton, a project that was touted for years as being critical to the region's future water supply.

Among other reasons to scuttle the plan, officials said groundwater levels beneath the county have stabilized and, on average, are no longer declining - a significant finding close to 80 years after experts first discovered there was a problem. The loss of groundwater has been considered one of the county's most pressing natural resource concerns.

But \$700 million worth of new local water-supply projects have come online in recent decades, pulling water from rivers and streams rather than from underground. Demand has also fallen, with cities and farms using nearly 30 percent less water than they did before.

Those factors combined have allowed groundwater levels to bottom out in a sort of fragile "equilibrium," that has persisted since the 1980s, engineering consultant Bob Wagner told local water leaders this week.

While smaller projects to take river water and store it underground may be warranted, he said a new \$500 million to \$600 million reservoir is likely unnecessary.

"It's good news," said Stockton water attorney Dante Nomellini. "It's correct there has been quite a bit done to bring water into the community since we first started working on this, and I expected it to be helpful."

Wagner's analysis will have to be carefully reviewed, Nomellini added. At a meeting earlier this week, some water managers expressed skepticism.

"It's just kind of a new idea and we'll have to think about it some more," Kevin Kauffman, a consultant for the Stockton East Water District, said afterward. "If it's true, then that's great. But reaching a new equilibrium doesn't necessarily mean you've solved the problem."

Researchers first identified local groundwater as declining in the 1930s. A study in 2001 concluded that the county was pumping groundwater out faster than it could be replenished naturally by rain. The difference was about 150,000 acre-feet of water a year, or enough water to fill New Hogan Lake in about two years.

The proposed reservoir at Duck Creek, discussed for at least a decade, was advertised as the solution.

Water would have been taken from the Mokelumne River during wet years and stored in the reservoir, either to be used by cities or farms or to be put underground for future use.

Things have changed, Wagner said.

Besides the emergence of water from other sources, Wagner said there were practical hurdles to building the Duck Creek reservoir.

A conservation easement protecting fairy shrimp and tiger salamanders is a legal hurdle. Technical studies over the past couple of years also revealed that poor soils might make the reservoir prone to leaking.

Finally, the reservoir is not expected to create as much new water supply as originally expected, making it less cost-effective. About \$14 million in permitting and legal costs would be required before a single shovel hit the ground, Wagner said.

"You'd need to spend a significant amount of money now in order to be in a position to spend lots more money and not necessarily get a lot out of it," he said at a meeting on Wednesday.

Officials stressed that groundwater is still a concern. Even if groundwater levels have stabilized, they remain historically low. More water from rivers would be needed if officials decide they want to actually replenish the groundwater.

But future regulations could restrict how much river water is available. A six-year drought could cause the groundwater to once again plummet.

Brandon Nakagawa, the county's water resources coordinator, said that instead of building the large reservoir, the county might consider a more "surgical" approach, including groundwater recharge projects that would help portions of the east county where groundwater levels are the lowest.

It has taken decades for San Joaquin to stabilize its groundwater. Nakagawa cautioned that a drought or new regulations could upset that. "Once you find that balance, you could still lose it very easily," he said.

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Pulling the plug

After more than a decade of study, San Joaquin County officials are recommending that a large reservoir east of Stockton not be built after all. Groundwater levels in the county have generally stabilized and they say there might be better and cheaper ways to improve our supply moving forward.



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