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## Proposed \$171 million Central Valley groundwater bank faces TCP contamination

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*A recharge pond in Rosedale-Rio Bravo Water Storage District in 2019. CREDIT: Lois Henry*

A Kern County groundwater bank proposal just at the starting blocks has been hit with 1,2,3-TCP contamination.

Irvine Ranch Water District and Rosedale-Rio Bravo Water Storage District had just begun the environmental review process for their joint banking project this past April when TCP reared its head.

“It doesn’t appear TCP is an existential threat to the program,” said Todd Robins, an attorney representing both Rosedale-Rio Bravo and Irvine Ranch. “But there is a

likelihood there will be damages. Either wells will need to be replaced or the water will need to be treated to fully restore flexibility for the project.”

TCP (trichloropropane) is a carcinogenic leftover from a nematode pesticide made by Shell Oil and Dow Chemical companies that was liberally applied to Central Valley farmland from the 1950s through the 1980s.

The chemical is now rife in valley groundwater.

Consequently, imported water stored in valley aquifers is coming back tainted with TCP.

TCP contamination has already caused Metropolitan Water District of Southern California to abandon water it has stored in the Arvin-Edison Water Storage District south of Bakersfield and instead retrieve those supplies via exchange.

The pervasiveness of the chemical has Metropolitan rethinking future banking operations in the valley overall.

“This may make storage for ag and urban uses less viable, no doubt,” Jeff Kightlinger, General Manager of Metropolitan, said last week.

The issue could be far-reaching as water managers have turned to groundwater banking as their main solution to the state’s mandate that California’s depleted aquifers come into balance by 2040 under the Sustainable Groundwater Management Act.

Building groundwater banks and buying water to fill them isn't cheap and several agricultural water agencies have sought funding through partnerships with municipalities and other private investors.

It's unclear what effect TCP may have on those plans.

Dow and Shell have declined to comment on this subject.

Drinking water agencies have been dealing with TCP since the state set the maximum level at five parts per trillion (about five grains of sand in an Olympic pool) in 2017.

But this is the first dry year when municipal banking partners have had to call on their stored supplies from valley groundwater banks.

While drinking water standards don't apply to agricultural water, they come into play when that water is slated for municipal uses or is moved through mixed-use canals.

Which is why TCP in Rosedale-Rio Bravo's groundwater could pose a problem for its project with Irvine Ranch, known as the Kern Fan Groundwater Storage Project.

The water must be moved through the California Aqueduct and the Cross Valley Canal in Kern County.

Both of those canals require water being pumped in to adhere to drinking water standards, including for TCP, which could limit how and when Kern Fan can move water. Or it could require the banking partners to find other sources for blending.

Either way, it's an added wrinkle.

The \$171 million project was approved for \$67.5 million in Proposition 1 funding by the California Water Commission in 2018.

It won approval, in part, based the project's "public benefits," including reserving some of its water for ecological interests in the Sacramento-San Joaquin Delta, according to Eric Averett, General Manager of Rosedale-Rio Bravo.

"It gives regulatory agencies the ability to call on this water and use it to meet quality and temperature standards," Averett said. "Maybe there's a salinity standard they need to meet by releasing more water. Under this program, that water won't come out of (State Water Project) contractors' allotment, it will come out of this project."

Irvine Ranch will bring water in to Kern County during wet periods through various outside purchases and exchanges, according to a statement from Irvine Ranch. A portion of that water will stay in Kern for use locally. Both entities stressed the project will increase valley water supplies, despite concerns that it will do the opposite.

"Principally, this project will be capturing and storing high flow Article 21 water (excess water on the State Water Project," Averett said. "That's new water, new to the basin."

In order to get the \$67.5 million from the state, the Kern Fan project has to complete its environmental review, a feasibility study, get permits and funding commitments for the remainder of the project not covered by the state.

And it has to do all that by Jan. 1, 2022, according to a California Water Commission spokesman.

Though TCP contamination is a problem, Attorney Robins said in a statement that both Rosedale-Rio Bravo and Irvine Ranch felt the project would hit the Water Commission deadline.



*Lois Henry*