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Farmers and water districts hope storm runoff can help replenish underground supplies

By Robert Rodriguez
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While some farmers lament the release of thousands of acre-feet of water from Friant Dam, others are putting it to good use: recharging groundwater supplies.

The main channel of the rising San Joaquin River, left, splits into smaller waterways above the Highway 41 bridge, Tuesday morning, Jan. 10, 2017.
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Last week, the U.S. Bureau of Reclamation began releasing water from Millerton Lake to make room for a deluge of storm runoff. The move frustrated some farmers, who say spilling water into the river and eventually the ocean is a prime example of why the state needs to build a dam at Temperance Flat. Farming advocates are pushing for state and federal funding to build the $2.8 billion project.

But other farmers and irrigation districts are taking a different tact. They are sinking the excess water into the ground as a preventive measure against future droughts.

Madera Irrigation District began taking some storm runoff from Friant Dam and using it for groundwater recharge in its region. The district will be taking water through the Madera Canal through mid-February.

Landowners within the district are being encouraged to sign up at the district office and begin taking the water. The district's board was scheduled to meet Tuesday to discuss what price, if any, it will charge district landowners who want to use the surface water.

In other parts of the central San Joaquin Valley, the recent storms have allowed other districts to deposit water into recharge basins.

Depletion of the region's groundwater has been a major outcome of the state's five-year drought. Without a regular supply of surface water, farmers turned to pumping groundwater, causing the levels to plummet in some areas.

Water districts hope to put some of that water back.

"We are trying to capture everything we can for recharge," said Gary Serrato, general manager of the Fresno Irrigation District.

The district has 300 acres of groundwater recharge basins between Fresno and Kerman that it is using.

Although the district has not formally told its growers that the water is available, Serrato said it is there for the taking. All growers have to do is ask.

Scott Sills, general manager of the Laguna Irrigation District in Riverdale, said his district has about 160 acres of ponds for recharging the groundwater, including a 52-acre project in south Fresno County.

The rising San Joaquin River passes by a mobile home park above the Highway 41 bridge, Tuesday morning, Jan. 10, 2017.
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The recharge basin will direct flood water from the nearby Kings River and add approximately 2,600 acre-feet, or nearly 850 million gallons of water, a year to the aquifer.

Project organizers say that is enough water to irrigate about 1,300 acres of farmland for the growing season.

Sills said that with the recent release of water from Friant Dam, some of that water is being dumped via canals into the Kings River, where the district will be taking it.

“Once that water arrives we will try and fill as many ponds as we can,” Sills said.

Researchers also are welcoming the recent rains. Gabriele Ludwig, director of sustainability and environmental affairs at the Almond Board of California, said these are exactly the types of storm events that will test how effective projects aimed at groundwater recharge are working.

The Almond Board of California is working with several farmers, University of California scientists and a San Francisco-based group called Sustainable Conservation.

The plan is to apply water from the Kings River to several orchards to see how well it recharges the aquifer without damaging trees or vineyards. Researchers say recharge could reduce overdrafting – when more water gets pumped from an underground basin than gets replenished – by 12 percent to 20 percent.

Questions that remain are: Does the flooding of orchards cause leaching of nitrates or salts into the groundwater? Are there systems in place to take advantage of major rain events?

“These are exactly the kind of storms that this concept is set up for,” Ludwig said.

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