

AGRICULTURE

Water recharge: opportunities, complications

By Kevin Hecteman

Ag Alert

Nearly everyone agrees groundwater recharge is a great idea, but how should it be done? Where should it be done? Who should do it?

Those were the questions swirling around the Sacramento Convention Center as agricultural, environmental and regulatory professionals explored the subject at a public forum sponsored by the California Department of Food and Agriculture and the State Board of Food and Agriculture.

“We know that we have an overdraft problem throughout California,” said Don Cameron, vice president and general manager of Terranova Ranch in Fresno County and a Food and Agriculture board member. “Now, with sustainable groundwater management, we’re going to have to address this. We have to have our plans in place by 2020.”

The Sustainable Groundwater Management Act, enacted in 2014, mandates local agencies and groundwater users to come up with ways to manage aquifers within their jurisdictions. Plans for local Groundwater Sustainability Agencies were due in June.

California Farm Bureau Federation Associate Counsel Jack Rice, who participated in the forum, said groundwater recharge generally involves three basic types of activities:

- Groundwater banking, which moves surface water underground for specific users’ later use, such as the Kern Water Bank;

- Groundwater replenishment, which uses various approaches to move surface water underground for the general benefit of a groundwater basin;

- Practices that slow the flow of water to increase percolation, using tools such as cover crops, swales, stockpiles and floodplains.

“It’s going to be in (farmers’) interest to invest in



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The unlined Winters Canal was the site of an experiment to recharge groundwater by the Yolo County Flood Control and Water Conservation District. Farmers have mixed feelings about efforts to recharge the aquifer.

groundwater recharge or participate in groundwater recharge,” Rice said during a panel discussion at the forum. “They do need to be careful about what it means for them as far as impacts to their crops, potential regulatory effects or whether they have complied with various permitting requirements. With that in mind, we know groundwater recharge is one of the only ways to add water to the system.”

Could this mean taking a back-to-the-future approach?

“When we used to flood-irrigate much of the San Joaquin Valley,” Rice said, “we had adequate groundwater levels.”

CFBF President Paul Wenger, who attended the forum, said farmers with generations of experience can be a valuable resource.

“We’ve been on the same ground for 106 years,” said Wenger, a third-generation farmer near Modesto. “If you want to talk about a vision and what can be sustainable, then you come to farmers and ranchers who have been on this ground, who understand the idiosyncrasies of the microclimates and the situations

they’re in. They know the soil. They know the water.”

Irrigation districts should be in the game as well, Cameron said.

“We have to measure the water we’re bringing in so we can account for it, and we need to see if there’s any effects that we’re not expecting,” he said.

At the heart of the forum, held earlier this month, was the question of whether groundwater recharge should be considered a beneficial use of water.

“Groundwater recharge is not considered a beneficial use in California and at the federal level,” Cameron said. “We need to change that. What’s more beneficial than rebuilding your water supply?”

Representatives of the state Environmental Protection Agency and State Water Resources Control Board indicated government agencies are working to streamline the permitting process.

Forum organizers said the event was intended to identify benefits, opportunities and barriers to groundwater recharge, and come up with ways to implement recharge projects.

Tim O’Halloran, general manager of the Yolo County Flood Control and Water Conservation District, called the topic “complex.”

“You have to approach it from a very long-term perspective,” O’Halloran said. “It’s not a matter of just opening the gate and letting the water flow. You have to have your water rights, your permits. You have to have your infrastructure set up so you can reach it during the winter.”

The Yolo County district has had a temporary permit for high-water diversion from the State Water Resources Control Board for the past two years. That represents an additional water right, O’Halloran said, and is junior to all others.

“We haven’t been able to bring in enough water to put it on farm fields; we just get enough to fill up our canal system,” he said.

“I’ve had a lot of discussions with our farming community, our farmers, about what would work for them, and what wouldn’t work,” O’Halloran added. “There’s no-one-size-fits-all for the farmers. Their participation will depend on their specific circumstances.”