

Testing under way on plan to prevent saltwater intrusion

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WATSONVILLE — A 14-day test is under way to determine whether a project that pumps fresh water into underground basins at College Lake should be included in a wider plan to stave off saltwater intrusion in the area.

Observing how fast water pumped into the ground is absorbed into the basins will help the Pajaro Valley Water Management Agency determine whether a similar but larger-scale long-term project would be cost effective.

The test began May 20 on private property adjacent to College Lake where it meets Salsipuedes Creek behind the St. Francis Cemetery.

Overpumping from farm and municipal wells over the past 50 years has depleted the fresh water in the Pajaro Valley's underground basins, causing seawater intrusion that threatens the quality of the area's drinking water.

The College Lake injection test is the first phase of one of two ground recharge projects included in the Agency's long-term plan to halt intrusion.

After a rocky start — equipment failure postponed the test's beginning date for more than a week — all systems are working well, said the Agency's water resources specialist, Charles McNeish.

At the test site, lake water is filtered and treated with chlorine after it is pumped out of Salsipuedes Creek where it joins

the lake. It is then pumped into a 210-foot well at 300 gallons per minute.

A 300-foot deep "observation" well 50 feet away allows observers to measure how quickly the water is absorbed into the surrounding aquifer, or groundwater basin. The testing project will cost \$193,000.

If successful, the test could pave the way for a \$5 million project on the same site. The final project would include several wells that would pump 1,800 acre feet of water into the ground during the winter when storm runoff is plentiful. Water would then be available for pumping during the summer for crop irrigation.

After the test is over, the water injected into the ground will be pumped back out. In the final project, the injected water will enter aquifers and be available for pumping.

Final plans include a permanent water treatment plant, which will clean the lake water before it is injected into the ground's water supply.

Saltwater intrusion is regarded as one of the most serious environmental threats to the Pajaro Valley. Area water users currently pump 70,000 acre feet out of area wells in a year, said McNeish. Yet only 50,000 to 55,000 acre feet of the fresh water pumped from the ground are naturally replenished, he said.

Looking ahead to greater water demand by 2040, the Agency's Basin Management Plan from 1993

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estimates a 28,000 acre feet deficit.

Its largest project, a pipeline designed to import water from outside areas, is slated to bring 14,000 acre feet of water to the Valley yearly.

But the much smaller College Lake injection well project could come on line long before plans for the pipeline are in place, McNiesh said.

"It's part of the whole thing — it's kind of a small part," he said.

CH2M Hill, an engineering firm

from San Jose is conducting the test for the Agency.

College Lake is normally drained in early May and the lake bottom is used for the cultivation of lettuce and other short season row crops during the summer. But late season rains this year have kept the lake full into the end of May.