

Antelope Valley Water in Healthy Supply for Now Drought: Officials have been stocking up for years. A farming drop also eased demand. But the outlook wasn't always rosy.

[Valley Edition]

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Although water may soon be rationed for many residents of Southern California, those living in the high desert communities of the Antelope Valley, where one would expect a water crisis, will be spared that fate.

Perhaps because the booming desert communities regard water as a scarce commodity, water officials in the valley planned for this drought and for years have been buying surplus water from the State Water Project, storing it in a natural underground basin for use during shortages.

Another key factor has been the valley's gradual transformation from an agricultural area to suburbs, which has resulted in an estimated 50% drop in water demand.

As a result, underground wells that were in danger of being depleted by the demands of farmers have been recharged, and the once dangerously low water table has begun rising.

Although rationing may be needed in the future, the present supply of ground water satisfies the demand, a water official said.

In contrast, most of Southern California relies heavily on imported water supplied largely by the far-flung Metropolitan Water District. The district has decided to impose a 17% cut in supplies to its 27 agency customers, a decision that came five weeks after a 10% cut in supplies. As a result, many locales will probably make up the shortfalls by rationing water to users.

"Of all the areas in Southern California, the Antelope Valley is sitting about as well as anybody," said Gary Hartley, assistant deputy director for Los Angeles County's Waterworks Division, the largest supplier of water in the area.

And the picture for the future looks bright as well.

"It's looking very good that they'll have an adequate supply past the year 2000," said Charles Brockmeier, an engineering consultant who has worked on water projects for developers as well as for the cities of Palmdale and Lancaster.

The outlook for water in this desert basin was not always so rosy. From the 1920s until the mid-1970s, agriculture, consisting mainly of alfalfa farmers, was the biggest user of water in the area. The water came from ground wells and, during that period, the water table dropped 100 to 150 feet, Hartley said.

"Obviously, if you continue with that kind of operation, you're not going to have any more water left in the basin," he said.

Ground-water pumping also caused areas near Lancaster and the southern portion of the Rogers Dry Lake Bed at Edwards Air Force Base to subside by as much as three to five feet.

The Lancaster area is mostly clay and when ground water is pumped from natural wells, the ground tends to collapse, making depletion of the wells irreversible. In areas such as Palmdale, where the ground is more porous, water can be pumped back in and stored.

The loss of ground water has begun to be remedied in the past 20 years. One factor was formation of the Antelope Valley-East Kern Water Agency, which became the valley's sole supplier of surface water in 1975. AVEK buys water from the State Water Project, then sells it to dozens of water companies in the area.

That gives the five major and other smaller local water agencies an alternative supply so they do not have to rely only on ground water. The agencies buy surplus water during the winter, when demand in the desert is at its lowest, and use it to replenish the underground basin.

"We've delivered in excess of 600,000 acre-feet since 1975," said Wallace Spinarski, AVEK general manager. "All of that water was water that wasn't pumped out of the ground-water basin during that time."

As a result, the water table has risen in recent years by 60 feet on the west side of Lancaster, by 10 to 20 feet on the east side, and by 5 to 10 feet in the city, Hartley said.

And ground-water pumping has fallen off considerably. At present, a little more than 50% of the valley's water supply is pumped from the ground-water basin, and the rest comes from AVEK. Hartley said his long-term goal is to increase the amount of state project water his agency buys to 75%.

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But because of the present drought, such purchases have been limited, making it impossible to further offset ground-water pumping.

The state Department of Water Resources, which allocates water from state aqueducts to local water agencies, has significantly cut deliveries to AVEK for the past two years.

Last year, for example, the state provided only half the amount of water AVEK requested for agricultural use. For the coming year, the state agency made a similar reduction in AVEK's agricultural request and cut AVEK's industrial/residential water request by 15%. The overall amount of water the state will sell to AVEK in 1991 will drop from 47,168 acre-feet to 45,214, about the same amount the agency received in 1989.

Still, water officials have been able to avoid increasing the amount of pumping.

One reason is that "development has really fallen off up there, so we aren't selling as much construction-grading water," Hartley said.

But if the drought continues and a less-than-expected amount of runoff flows from the San Gabriel Mountains, the local water agencies would turn to mandatory cutbacks rather than pump more from wells.

"We would go with some sort of mandatory rationing to protect the underground water supply up there," Hartley said. "It's critical that the underground supply be maintained."

The second factor in the improvement of the ground-water situation is a dramatic decline in agriculture, which is being replaced by an explosion of housing. Residential water needs, however, have "been more than offset by the reduction in agriculture," Spinarski said.

Still, planners are concerned about the amount of water that residents use to keep their lawns green. Hartley said the average residential water customer's usage doubles or even triples during the summer.

Hartley estimates that during the summer the average household uses between 60% and 70% of its water in the yard. That contrasts with Metropolitan Water District figures for outdoor water usage of 23% for coastal areas, 32% for the inland basins of Los Angeles and Orange County, and 40% for the desert regions that include Hemet and Riverside.

Lancaster and Palmdale require developers to landscape public areas near new projects with drought-resistant plants. The cities encourage-but do not require-homeowners to use similar landscaping.

Many developers are taking the hint, however, and are designing landscapes more suited to a desert than to the typical suburban tract house.

"I think your larger, sophisticated developers . . . are looking at this very seriously," Brockmeier said. "You can have a little plot of green, but you can't have an acre of green."

[Illustration]

PHOTO: AVEK's Wallace Spinarski says his agency has provided 600,000 acre-feet to Antelope Valley since 1975. / IRFAN KHAN / For The Times

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