

# Dry year causes concern

By MARY BETH LIBBEY  
(First of two articles)

Aromas water district manager Royce Bolton stood in the street outside his office on a dry, hot afternoon. "We'll make it through the summer one way or another," he said with resolve.

Bolton's district supplies water to 330 customers. He has one well which has dropped 35 feet since last July and in spite of his stoic attitude, he is worried.

"This is the worst drought we've ever seen," Bolton says. "I wouldn't be surprised if I draw salt on that well any day now."

Bolton's problems might sound familiar to people in Monterey, Santa Cruz, or farther north in Marin County, but running out of water is not a prospect that keeps Watsonville residents awake at night.

"The people who are in trouble this year are those who depend on surface water supplies," city manager Ron Bartels says. "It would take longer than one or two years of drought before we would begin to feel it."

Nevertheless, both Bartels and Bolton draw water for their customers out of the Pajaro Valley basin. It is only the accident of geological formation of the valley which means plenty of water for one and a limited supply for the other.

The city's water system services 34,000 people, drawing water primarily from nine wells, eight of whose bottoms are 23 feet above sea level, relatively safe from intrusion of sea water, Bartels says. Aromas lies in a part of the valley which is blocked from wealthy water deposits to the west by a range of hills.

City water officials are confident their system is a good one. All but the Pajaro Dunes well are interconnected by booster pumps so if one well fails, the city can pump from another.

Bolton, on the other hand, heads the only district in the immediate area where water use restrictions were placed on users in June. Bolton says that in May, his customers used 4.5 million gallons of water and he told them that if they continued to use that much water, the well would start drawing salt water before the summer was over.

Meanwhile, in his search for another source of water, Bolton became enmeshed in a political tangle with the Local Agency Formation Commission (LAFCO). LAFCO says he cannot acquire an existing well in a nearby subdivision because it is not contiguous to his district. But the state tells Bolton he has to have more than one source of water if he is to service more than 250 water hookups.

"We used to have springs to help supplement domestic use of water but most of them are dry now, so people have turned to us for all their water," Bolton says. "With the new people moving in, and only one well, the drought hurt us but it's more of a political problem now."

The dry period has hurt, too, in the agricultural areas around Watsonville, especially those near the ocean, according to both Santa Cruz and Monterey county water officials. Jim Palabay, who monitors wells in the valley for Santa Cruz County, says that in April, when the water table should have been high after winter rains,

several wells in the Pajaro Dunes area were showing a high content of chlorides, the telltale sign that sea water is making its way inland.

Palabay says sea water moves inland through underground troughs when enough fresh water has been taken out of the aquifer (the underground water carrying stratum of sand and gravel) to drop the water level below sea level. And because, as the old saying goes, "water seeks its own level," the ocean flows in to take the place of fresh water.

Brown and Caldwell, an engineering research firm hired by the city, said in a groundwater report last month that sea water intrusion of wells is evident up to three miles inland. Palabay says that although city wells are still out of range of an underground invasion by the sea, technically they can be affected if people overdraw from wells pumping water out of the same aquifer as the city uses.

"Once the salt is there, you can't do anything about it unless everyone stops using that aquifer," Palabay says. He worries that demands for irrigation water during August may drop wells to a dangerous new low.

The city pumps about 5,500 acre feet of water a year or 10 per cent of the 55,000 acre feet used in the valley. About 80 per cent of the water is pumped by growers for irrigation, with the balance used by packing sheds and other industry. Strawberries alone soaked up about 18,000 of those acre-feet last year, according to Brown and Caldwell.

Joe Crosetti, owner of one of the largest vegetable growing and shipping companies in the area, has about 30 wells in the Pajaro and Salinas Valleys. Crosetti says that finding water for his crops is "no big emergency" but that another year with less than normal rainfall could mean trouble.

From eight to 16 inches of rain fell here last year, six to 14 inches below average. In 1974, about 20 inches fell, slightly short of average.

Monterey County water officials call salt water intrusion "a real problem" but so far the local agencies that supply water in the North County see little reason to worry. The 12 wells that the county monitors monthly for water levels and salt content in the Prunedale-Springfield area, dropped 4½ feet from last year's June level, according to county engineering technician Gene Taylor.

According to Taylor's figures, the wells to the west of Highway 1 have fared better in the last six years than those to the east. Yearly measurements of about 30 wells show that those near Moss Landing have actually gained a half-foot while those in the Prunedale area have dropped a total of five feet from the 1970 levels.

Castroville's water manager, Mateo Ceralde, says the city's three wells are in good shape. "I don't foresee any rationing in the near future," Ceralde says. His 800 residential hookups used 129 million gallons of water last year.

Bill Wimmer of the Moss Landing Harbor District that supplies water to the town's fish canneries and to homes in Moss Landing Heights is just as confident of his water

supply. "We're sitting on a large reservoir of water," Wimmer says of the groundwater also pumped by the Pacific Gas and Electric and Kaiser plants.

In mid-Santa Cruz County, Soquel Creek County Water District Manager Bob Johnson says it is not the quirks of the area's geology which sometimes means tight water for his 22,700 customers, it is the district's lack of sufficient water storage and conveyance.

Johnson says he has the underground resources to meet demand until 1977 if he gets five proposed storage tanks built. But he does not rule out eventually buying water from the city of Santa Cruz, already in short supply of the precious stuff, or building new reservoirs in the Aptos hills. Sea water intrusion, however, is not a threat because the district is only tapping 75 per cent of the available 10,000 acre feet it would be safe to draw each year, according to Johnson.

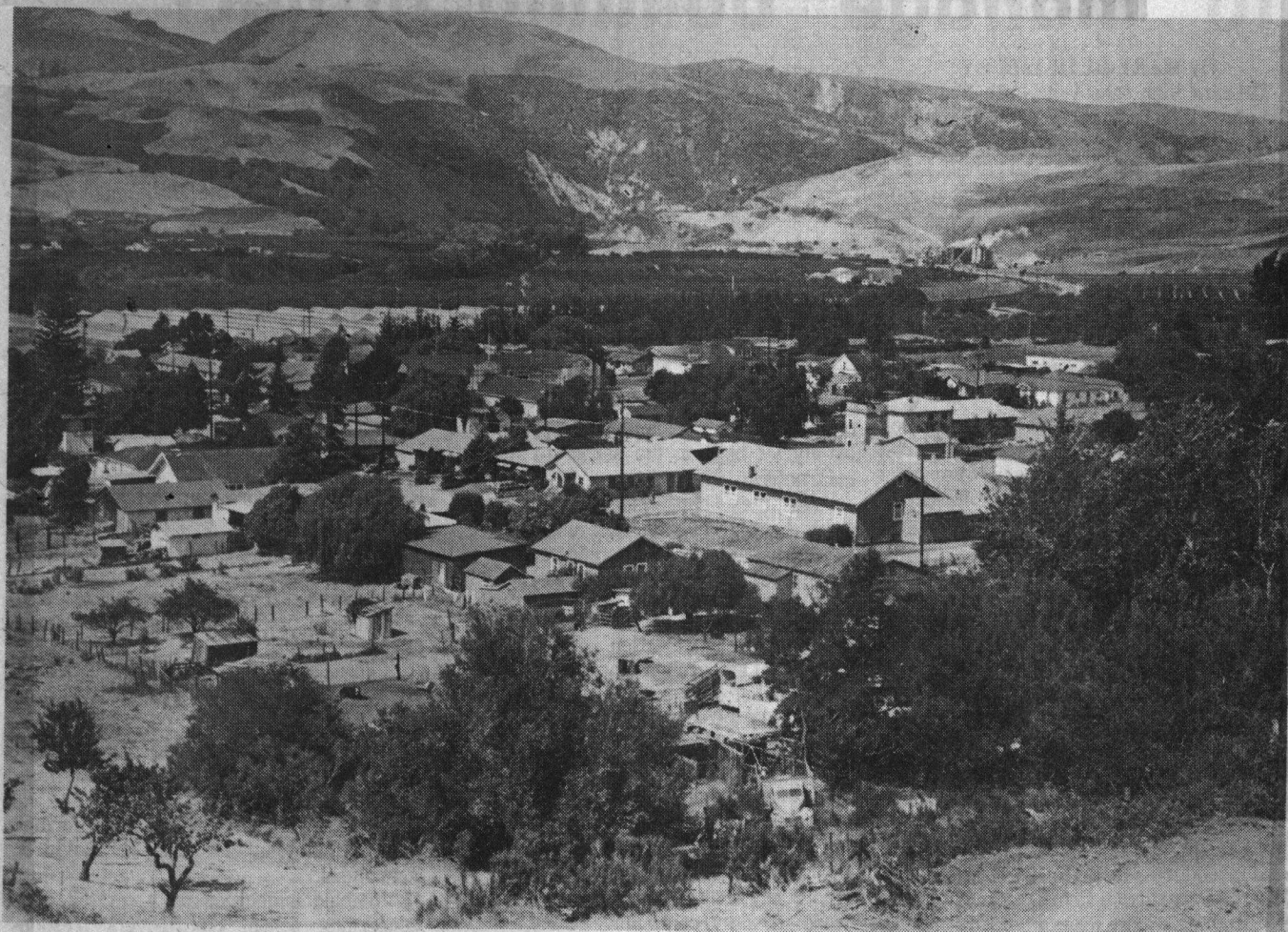
George Silva at the central county Water District that services 522 hookups in the Corralitos-Day Valley area, says his wells are also at good levels. Silva says he pumps an average of 700,000 gallons of water a month.

Watsonville public works director John Cooper, meanwhile, wonders whether people will understand the future implications of Brown and Caldwell's sea water intrusion findings in the Valley. "The report will tell the policy makers there's a problem, but the average citizen of Watsonville probably won't get excited about it," Cooper says. "Who cares if there is an underground water overdraft if the water still comes out of the faucet?"

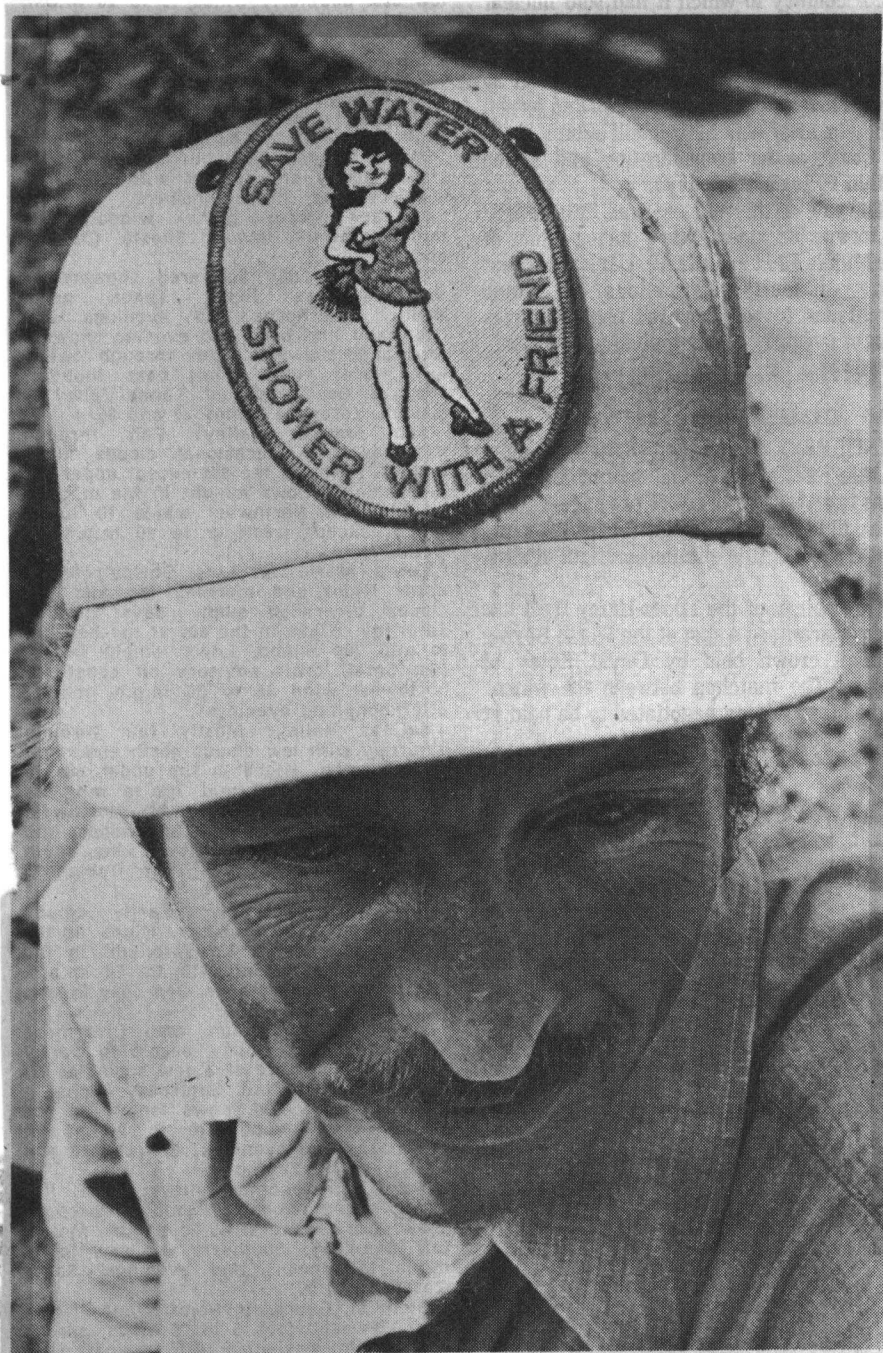
over water supply







The village of Aromas faces water problems



Aromas manager Royce Bolton has advice on his cap