Water Is Mined Like Gold, and It's Just as Precious

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Like gold, water is where one finds it. When miners discovered gold in California, they also fund water in seemingly endless quantities. Even in our desert area of Antelope Valley, water was abundant. The quality was exceptionally good for a land locked water basin. The water basin was formed by the alluvium created from the erosion of the bordering Tehachapi, Sierra Pelona, and San Gabriel Mountains.

Colonization has taken place only in the vicinity of fresh water sources; the population in Antelope Valley is a good example of this rule. Like gold, the water in Antelope Valley is mined. More wealth will have been taken from Antelope Valley from mining water than has been removed by placer gold mining in California, because mined water is partially replenished.

High Annual Rate

The value of remaining concentrations of gold found in the ancient miocene gravels is too low to profit from its removal. In contrast, the water deposited in the pleistocene alluvium of Antelope Valley has been mined for three quarters of a century at annual rates as high as 700,000,000 tons.

As late as 1930, the ground water surface which slopes toward Lancaster caused artesian wells to flow. Large streams of water flowing from wells without pumping was a stimulant to a booming agricultural economy which has flourished for three quarters of a century.

Being centrally located in a large valley whose agricultural economy was supported by abundant water, Lancaster became the principal trading center for the cattle and farming activities in Antelope Valley.

In 1950, the census placed the urban population of Lancaster at 3,594; the 1960 census indicated a population of 26,012 for about the same area. The population of Antelope Valley in the same period grew from 23,000 to 70,000. In 1990, the population may be 500,000, or more. Water Agency.

It is estimated that more than 15,000,000 tons of alfalfa have been produced and exported from Antelope Antelope Valley which required for its growth 12,000,000,000 tons or 9,000,000 acre feet of water.

Much of the water from the early artesian wells was wasted by evaporation. The artesian well zone has long since disappeared through the pumping and the expansion of agriculture.

Vast Resources

The surface of the water in the basin will continue to be lowered because mining operations continue. The ground water resources are vast, they are not inexhaustible. More water is annually pumped from the basin than is replaced by rainfall to support the population and agriculture. The great expansion of population during the 1950's greatly increased the urban uses of water. These uses are small, however, compared to agricultural uses. The combined uses of water pumped from the ground water basin continues to lower the water surface at about five feet per year.

Like gold mining, the mining of water will stop when there is no more. The water mine can be restocked though, with imported water. Were it not for the most fortunate prospects of importing water from the California Aqueduct in 1972, real concern would now be felt and the alarm of economic peril to this whole region would be sounded by industrial investors for fear of depletion and possible destruction of the ground water reserves within the foreseeable future.

Trend Noted

"Normal" rainfall in the watershed, theoretically, may be sufficient to support a population between 150,000 and 250,000. However, our concept of what is a normal amount might well be in error. Climatologists offer much evidence to show that the temperature of the earth is becoming warmer. Glaciers are receding, and some have disappeared. Water levels of the ocean are slowly rising, and significant climate changes have taken place in the last century sufficient to warrant modifying the computations used in forecasting the "normal average" for the next fifty years.

For more than fifty years of stream gauging experience, a significant downward trend is noted in the runoff of storm waters entering the Antelope Valley-East Kern water basins.

We have experienced a long dry period. The current year may well be the driest of record. The future is always unpredictable and, of course, exceptions to such a trend will occur. Abundance of rain in some of the immediate future years may also be expected, but the odds at present favor a downward trend in the natural replenishment of the Antelope Valley-East Kern watershed and ground water basin.

In spite of the lowering ground water levels, the Antelope Valley-East Kern region will continue to expand its population, and will continue its trend to broaden and diversify its industry because of the exceptionally well suited climate for human habitation.

Relation Seen

The population in Antelope Valley-East Kern is subtly related to that of the Los Angeles Basin which is overcrowded, congested by traffic and smog ridden. This relationship existed before the aviation industry accelerated the growth of this area.

We must assume that the pressure for expansion by normal population growth taking place in Southern California, and the great desire for people to migrate to this temperate climate, will most certainly continue to expand the population in Antelope Valley-East Kern areas.

This growth will take place whether or not there is an imminent threat to the longevity of local water supplies. This fact is recognized by the Antelope Valley-East Kern Water Agency Board of Directors and its planners and water engineers who realize that provisions for future water supplies must be planned for now.

AVEK as the water agency is called, has entered into a contract with the State Department of Water Resources which will assure delivery of adequate quantities of supplemental water to the Antelope Valley-East Kern County areas. This water will be delivered by the State via the California Aqueduct from the Feather River at Oroville Dam. It will arrive in 1972, by then the Antelope Valley-East Kern Water Agency conveyance system will be in operation to transport water to areas of need.

Some facts remain the same. Water is where one finds it; but, we must now bring the water to the people. The knowledge that water is now assured from the Feather River Project should be reassuring to the property owners and residents that their stake in this area is not jeopardized by attrition of local water resources.

This new assurance in the security of the Antelope Valley-East Kern water basin was a product of the 1959 Legislature which approved the California Water Resources Development Bond Act and the Antelope Valley-East Kern Water Agency.

AERIAL VIEW shows the Edwards Air Force rocket site where the 6593rd Test Group is now conducting development work on the future propulsion systems.