

Little Antelope Valley Groundwater Basin

- Groundwater Basin Number: 6-106
- County: Mono
- Surface Area: 2,500 acres (4 square miles)

Basin Boundaries and Hydrology

Little Antelope Valley is located at the eastern base of the Sierra Nevada, in northern Mono County. It is separated from the southwestern portion of Antelope Valley by a narrow ridge of uplifted metamorphic rock. The Lost Canyon Creek flows just through the southern tip of Little Antelope Valley. Irrigation ditches cross the valley providing water for agriculture. Elevation ranges from approximately 5,600 feet in the Valley to 6,200 feet at the western margins of the basin.

Average annual precipitation in the basin ranges from 14 inches in the northeast to 28 inches in the west.

Hydrogeologic Information

Water Bearing Formations

The primary water-bearing formations are recent valley sediments (DWR, 1964).

Recent Valley Sedimentary Deposits. The valley fill consists largely of alluvial fan deposits with some glacial debris in the upper end of the valley. The depth of this material appears to be limited, as volcanic deposits are exposed in the incised stream channel at the northern end of the valley and along the road which leaves the valley at the south. The southeasterly portion of the valley is composed of a dissected deposit of either glacial or alluvial fan origin.

In view of the widespread occurrence of the fine-grained fan deposits and the possible existence of glacial material in the upper portion of the valley, it is believed that the specific yield of the water-bearing strata is relatively low.

Due to lack of borehole data, descriptions of underlying material are not available.

Groundwater Level Trends

No published data was found for the Little Antelope Valley Basin.

Groundwater Storage

It is believed that the specific yield of the water-bearing strata is relatively low. Because of this and the apparently shallow depth of fill in the valley, only 5,000 acre-feet of storage is conservatively considered to be available between depths of 10 and 50 feet (DWR, 1964).

Groundwater Budget (Type C)

Due to lack of groundwater budget data, inflows, including natural, applied, and artificial recharge and outflows including urban and agricultural extraction have not been included.

Groundwater Quality

Characterization. Excellent quality groundwater of slightly to moderately hard calcium-bicarbonate nature were observed in Little Antelope Valley (DWR, 1964).

Impairments. No published information was found for Little Antelope Valley Basin.

Well Characteristics

Well yields (gal/min)		
Municipal/Irrigation	Range:	Average: Unknown
Total depths (ft)		
Domestic	Range:	Average: Unknown
Municipal/Irrigation	Range	Average: Unknown

Active Monitoring Data

Agency	Parameter	Number of wells /measurement frequency
Department of Health Services and cooperators	Groundwater levels	No wells monitored at this time
	Miscellaneous water quality	No wells monitored at this time
	Title 22 water quality	No wells monitored at this time

Basin Management

Groundwater management:	None identified
Water agencies	
Public	Bridgeport Public Works
Private	

References Cited

Jennings, O.P. and Koenig, J.B., 1963, Geologic map of California: California Division of Mines and Geology, Geologic Map Series Walker Lake Sheet, scale 1:250,000.

California Department of Water Resources, 1991, Walker River Atlas: Sacramento, Calif.

California Department of Water Resources, 1964, Bulletin 64, West Walker River Investigation: Sacramento, Calif.

Errata

Changes made to the basin description will be noted here.