

Goldstone Valley Groundwater Basin

Groundwater Basin Number: 6-48
County: San Bernardino
Surface Area: 28,100 acres (43.9 square miles)

Basin Boundaries and Hydrology

Goldstone Valley Groundwater Basin underlies a north-trending valley in northwest San Bernardino County. Surface elevations range from 3,025 feet at Goldstone (dry) Lake to a maximum elevation of about 3,700 feet above mean sea level at the valley's southern end. The basin is bounded by consolidated nonwater-bearing rocks of the Goldstone Hills on the west and southwest. On the north, east, and south, the basin is bounded by nonwater-bearing of unnamed low hills (DWR 1964; USGS 1986).

Annual rainfall ranges from 4 to 8 inches. Runoff from the surrounding hills drains towards Goldstone Lake located in the north-central portion of the valley (DWR 1964).

Hydrogeologic Information

Water Bearing Formations

Quaternary alluvium forms the principal water-bearing unit within the basin. This includes unconsolidated younger alluvial deposits and underlying unconsolidated to poorly consolidated older alluvial deposits. Thickness of the alluvium reaches at least 330 feet (DWR 1964).

Recharge and Discharge Areas

The Goldstone Valley is a closed basin without external drainage. Recharge to the basin is derived primarily from the percolation of occasional runoff from the surrounding hills through alluvial fan deposits fringing the valley. There is no subsurface inflow to the basin. Groundwater in the younger and underlying older alluvium moves toward Goldstone Lake (DWR 1964).

Groundwater Level Trends

Depth to water at a well in the southeastern part of the basin was measured at 230 feet in 1943 (DWR, 1964).

Groundwater Storage

Groundwater Storage Capacity. Total storage capacity is estimated to be about 210,000 af (DWR 1975).

Groundwater in Storage. Unknown.

Groundwater Budget (C)

Groundwater budget information is not available.

Groundwater Quality

Characterization. Groundwater from a well shows calcium-sodium chloride character (DWR 1964).

Impairments. Groundwater in the basin is rated as inferior for irrigation purposes and marginal for domestic use because of elevated concentrations of chloride, fluoride, and TDS. Water from a well in the southeastern part of the basin had a chloride concentration of 613 mg/L with TDS content of 1,820 mg/L. Fluoride concentration was 1.0 mg/L (DWR 1964).

Well Production characteristics

Well yields (gal/min)	
Municipal/Irrigation	
Total depths (ft)	
Domestic	
Municipal/Irrigation	

Active Monitoring Data

Agency	Parameter	Number of wells /measurement frequency
Department of Health Services and cooperators	Groundwater levels	
	Miscellaneous water quality	
	Title 22 water quality	

Basin Management

Groundwater management:

Water agencies

Public

Private

References Cited

- California Department of Water Resources (DWR). 1964. *Ground Water Occurrence and Quality Lahontan Region*. Bulletin No. 106-1. 439 p.
- _____. 1975. *California's Ground Water*. Bulletin No. 118. 135 p.
- U. S. Geological Survey. 1986. *East of Goldstone, California*. 7.5 Quadrangle. Provisional Edition. Scale 1: 24,000.
- _____. 1986. *Goldstone, California*. 7.5 Quadrangle. Provisional Edition. Scale 1: 24,000.
- _____. 1986. *West of Nelson Lake, California*. 7.5' Quadrangle. Provisional Edition. Scale 1: 24,000.

Errata

Substantive changes made to the basin description will be noted here.