

Salt Wells Valley Groundwater Basin

- Groundwater Basin Number: 6-53
- County: San Bernardino
- Surface Area: 29,500 acres (46.1 square miles)

Basin Boundaries and Hydrology

Salt Wells Valley Groundwater Basin underlies an east-trending valley in northwest San Bernardino County. Surface elevations of the valley floor range from about 1,800 feet in the east, to 2,500 feet above mean sea level in the south. The basin is bounded by nonwater-bearing consolidated rocks of the Argus Range on the north, the Spangler Hills on the south, and low hills on the east and west. Maximum elevations of the Spangler Hills and Argus Range is about 3,550 feet. Salt Wells Valley (dry) Lake is a narrow playa located in the central part of the basin (USGS 1962; DWR 1964).

Annual rainfall in the basin ranges from 4 to 8 inches. Runoff from the surrounding highlands flows eastward through the center of the valley and discharges through Salt Wells Canyon into Searles 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. The maximum thickness of the alluvium is at least 50 feet (DWR 1964).

Recharge and Discharge Areas

Replenishment to the basin is derived from underflow from Indian Wells Valley Groundwater Basin, infiltration of rain that falls to the valley floor, and percolation of runoff. Groundwater moves east to Salt Wells Canyon, then discharges into Searles Valley Groundwater Basin (DWR 1964).

Groundwater Level Trends

At well located in the southeast part of the valley, groundwater was measured at 20 feet below the ground surface in January of 1957. During wet months of the year, groundwater often discharges to the surface in Salt Wells Canyon and flows as a small stream into Searles Valley (DWR 1964).

Groundwater Storage

Groundwater Storage Capacity. Total storage capacity is estimated to be about 320,000 af (DWR 1975).

Groundwater in Storage. Unknown.

Groundwater Budget (C)

Groundwater budget information is not available.

Groundwater Quality

Characterization. Water of sodium chloride character is found in the southeast part of the valley and in surface flow of Salt Wells Canyon.

Impairments. The groundwater is rated inferior for all beneficial uses because of high TDS content that ranges from about 4,000 mg/L to 39,000 mg/L. Other impairments are elevated concentrations of sodium, chloride, and boron (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.
- Jennings, C. W., Burnett, J. L. and B. W. Troxel. 1962. *Geologic Map of California: Trona Sheet*. Olaf P. Jenkins Edition. California Department of Conservation, Division of Mines and Geology. Scale 1: 250,000.

Errata

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