

San Marcos Valley Groundwater Basin

- Groundwater Basin Number: 9-32
- County: San Diego
- Surface Area: 2,130 acres (3.3 square miles)

Basin Boundaries and Hydrology

This groundwater basin underlies San Marcos Valley in northwestern San Diego County. The basin is bounded by semi-permeable marine and non-marine deposits, and impermeable granitic and metamorphic rocks (DWR 1967). San Marcos Creek drains this valley southwestward into Lake San Marcos. Average annual precipitation ranges from 11 to 15 inches.

Hydrogeologic Information

Water Bearing Formations

The principal water bearing materials are residuum and Quaternary age alluvium. The alluvium is sand, gravel, clay, and silt that reaches a thickness of 175 feet. Residuum is bedrock that has been deeply weathered in place. Wells in the basin yield as much as 60 gpm from alluvium.

Recharge Areas

This basin is likely recharged dominantly by percolation of rainfall to the valley floor and ephemeral stream flow. Some additional recharge may come from percolation of water applied to landscaping.

Groundwater Level Trends

Groundwater likely flows southwestward following the course of San Marcos Creek. Water levels can be within 10 feet of the ground surface.

Groundwater Storage

Groundwater Storage Capacity. Unknown

Groundwater in Storage. Unknown.

Groundwater Budget (Type C)

Not enough information is available to construct a budget. All domestic water delivered to Vallecitos Water District customers is imported (VWD 2000).

Groundwater Quality

Characterization. Groundwater is chiefly magnesium chloride character in the northern part of the basin and sodium chloride in the southwestern part of the basin (DWR 1967). TDS content measured prior to 1967 ranged between 500 and 750 mg/L; groundwater was rated suitable for domestic use and marginal for irrigation in the northern part of the basin, but inferior in the south (DWR 1967).

Impairments. Unknown.

Well Characteristics

Well yields (gal/min)		
Municipal/Irrigation	Range: to 60 gal/min	Average:
Total depths (ft)		
Domestic	Range:	Average:
Municipal/Irrigation	Range:	Average:

Active Monitoring Data

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

Basin Management

Groundwater management:

Water agencies

Public

Vallecitos Water District, San Diego County
Water Authority.

Private

References Cited

California Department of Water Resources (DWR). 1967. *Ground Water Occurrence and Quality: San Diego Region*. Bulletin No. 106-2. 235 p.

Vallecitos Water District (VWD). 2000. Water Quality 2000. Internet site:
http://www.vwd.org/wquality_ie.html. April, 2002.

Errata

Changes made to the basin description will be noted here.