

Ranchita Town Area Groundwater Basin

- Groundwater Basin Number: 9-25
- County: San Diego
- Surface Area: 3,130 acres (4.9 square miles)

Basin Boundaries and Hydrology

This basin underlies Montezuma Valley in the Penninsular Ranges of eastern San Diego County. The basin is bounded by impermeable crystalline rocks (Rogers 1965; DWR 1967). Average annual precipitation ranges from 11 to 21 inches. The valley is drained by Buena Vista Creek into Lake Henshaw and then to the San Luis Rey River.

Hydrogeologic Information

Water Bearing Formations

The principal water bearing deposits are residuum and two ages of alluvium (DWR 1967). Sediments reach at least 130 feet thick in the basin and well yield ranges to 125 gpm and averages about 22 gpm (DWR 1971).

Holocene Alluvium. The Holocene age alluvium is composed of boulders, gravel, sand, silt, and clay (DWR 1971). These deposits are generally thin, above the water table, and unsaturated (DWR 1971).

Pleistocene Alluvium. Pleistocene age alluvium underlies the Holocene alluvium and is the most important water-bearing unit in the basin (DWR 1971). This alluvium consists of poorly sorted arkosic gravel, sand, silt, and clay. It is generally unconsolidated, but locally cemented. This unit includes materials described as or similar to the Temecula Arkose and the Pauba Formation (DWR 1971).

Residuum. Residuum is bedrock that has weathered in place. This material is found throughout San Diego County and generally is considered Quaternary in age, though it is found locally underlying Tertiary sediments in this county (DWR 1967). In this basin, residuum is of variable thickness and exposed along the flanks of the basin and underlies the Quaternary alluvium. Well yield in this material is generally low, but locally water derived from it is important (DWR 1967).

Restrictive Structures

Although no restrictive structures are recognized in this basin, splays of the Caliente fault are mapped traversing parts of the basin (DWR 1967) and it is unknown whether these faults are barriers to groundwater flow.

Recharge Areas

Recharge is derived mainly from infiltration of runoff (DWR 1971).

Groundwater Level Trends

Groundwater levels dropped about 24 feet in one well in the western part of the basin during 1950 through 1965, but only dropped about 1 foot in a well in the eastern part of the basin during 1957 through 1965 (DWR 1971).

Groundwater Storage

Groundwater Storage Capacity. Unknown.

Groundwater in Storage. Unknown.

Groundwater Budget (Type C)

Not enough information is available to construct a budget.

Groundwater Quality

Characterization. Groundwater extracted from wells in this basin is of sodium bicarbonate character and ranges in TDS content from about 250 to 500 mg/L (DWR 1967). The water is classified as suitable for domestic and irrigation uses (DWR 1967).

Impairments.

Well Characteristics

Well yields (gal/min)		
Municipal/Irrigation	Range: to 125 gal/min	Average: 22 gal/min (DWR 1971)
Total depths (ft)		
Domestic	Range: - at least 130 ft	Average:
Municipal/Irrigation	Range:	Average:

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). 1967. *Ground Water Occurrence and Quality: San Diego Region*. Bulletin No. 106-2. 235 p.
- _____. 1971. *Water Wells in the San Luis Rey River Valley Area, San Diego County, California*. Bulletin 91-18. 347 p.

Rogers, T. H. 1965. *Geologic Map of California, Santa Ana 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.