

Cottonwood Valley Groundwater Basin

- Groundwater Basin Number: 9-27
- County: San Diego
- Surface Area: 3,850 acres (6.0 square miles)

Basin Boundaries and Hydrology

The Cottonwood Valley Groundwater Basin underlies portions of Cottonwood, Cameron, and La Posta Valleys in southern San Diego County. The basin is bounded by crystalline rocks of the Penninsular Ranges, except on the west where it is bounded by Moreno Reservoir (Strand 1965; DWR 1967). Cottonwood and La Posta Creeks drain westward to Moreno Reservoir. Average annual precipitation ranges from 15 to 21 inches.

Hydrogeologic Information

Water Bearing Formations

The primary water bearing deposits are Quaternary alluvium and residuum. Alluvium is composed of gravel, sand, silt and clay in deposits that reach a maximum thickness of about 100 feet (Moyle and Downing 1978). Residuum is bedrock that has weathered in place. This material is found throughout San Diego County and generally considered Quaternary in age, though it is found locally underlying Tertiary sediments in this county (DWR 1967).

Groundwater Level Trends

Water levels measured at one well during 1953 through 1974 ranged four feet (Moyle and Downing 1978).

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 in this basin is dominantly calcium bicarbonate in character with TDS content ranging from about 130 to 645 mg/L (DWR 1967).

Impairments.

Well Characteristics

Well yields (gal/min)		
Municipal/Irrigation	Range:	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	1

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.
- Moyle, W.R., Jr., and D.J. Downing. 1978. *Summary of Water Resources for the Campo, Cuyapaipe, La Posta, and Manzanita Indian Reservations and Vicinity, San Diego County, California*. U.S. Geological Survey Open-File Report 77-684. 43 p.
- Strand, Rudolf. 1962. *Geologic Map of California, San Diego-El Centro Sheet*. Olaf P. Jenkins Edition. California Department of Conservation, Division of Mines and Geology. Scale 1:250,000.

Additional References

- Ellis, A. J., and C. H. Lee. 1919. *Geology and ground waters of the western part of San Diego County, California*. U.S. Geological Survey Water Supply Paper 446. 321 p.

Errata

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