Big Meadows Valley Groundwater Basin

- Groundwater Basin Number: 8-7
- County: San Bernardino
- Surface Area: 14,200 acres (22.2 square miles)

Basin Boundaries and Hydrology

This basin underlies a mountain valley in the upper reach of the Santa Ana River. The basin is bounded on the west by Seven Oaks Valley Groundwater Basin along the Slide Peak fault (Rogers 1967) and elsewhere by impermeable crystalline rocks of the San Bernardino Mountains. The valley is drained by the Santa Ana River and receives an average annual precipitation ranging from 24 to 36 inches.

Hydrogeologic Information

Water Bearing Formations

Groundwater in the basin is found in alluvium that typically consists of clay, silt, sand, and gravel. Alluvial material appears to reach about 400 feet in thickness in some parts of the basin.

Restrictive Structures

The Slide Peak, Santa Ana, and San Gorgonio faults are mapped as cutting through basin materials (Rogers 1967); however, it is not known whether or not these faults impede groundwater movement.

Recharge Areas

Recharge is probably derived principally from percolation of precipitation and stream flow in the Santa Ana River.

Groundwater Level Trends

Average water level for wells drilled in the 1990s was about 25 feet below ground surface.

Groundwater Storage

Groundwater Storage Capacity. The total storage capacity is estimated at 10,000 af (DWR 1975).

Groundwater in Storage. No information is available.

Groundwater Budget (Type C)

No information is available.

Groundwater Quality

Characterization. Water sampled from 4 public supply wells show an average TDS content of approximately 152 mg/L with a range of 119 to 218 mg/L.

Impairments. No information is available.

Water Quality in Public Supply Wells

Constituent Group[1]	Number of wells sampled[2]	Number of wells with a concentration above an MCL[3]
Inorganics – Primary	4	0
Radiological	3	0
Nitrates	4	0
Pesticides	3	0
VOCs and SVOCs	3	0
Inorganics – Secondary	4	0

[1] A description of each member in the constituent groups and a generalized discussion of the relevance of these groups are included in *California's Groundwater – Bulletin 118* by DWR (2003).
[2] Represents distinct number of wells sampled as required under DHS Title 22 program from 1994 through 2000.
[3] Each well reported with a concentration above an MCL was confirmed with a second detection above an MCL. This information is intended as an indicator of the types of activities that cause contamination in a given basin. It represents the water quality at the sample location. It does not indicate the water quality delivered to the consumer. More detailed drinking water quality information can be obtained from the local water purveyor and its annual Consumer Confidence Report.

Well Characteristics

	Well yields (gal/min)	
Municipal/Irrigation	Range: to 120 gal/min	Average: 34 gal/min (9 Well Completion Reports)
	Total depths (ft)	
Domestic	Range:	Average:
Municipal/Irrigation	Range:	Average:

Active Monitoring Data

Agency	Parameter	Number of wells /measurement frequency
	Groundwater levels	
	Miscellaneous water quality	
Department of Health Services and cooperators	Title 22 water quality	8

Basin Management

Groundwater management:

Water agencies

Public

Private

References Cited

California Department of Water Resources (DWR). 1975. *California's Ground Water*. Bulletin 118.

Rogers, T. H. 1967. *Geologic Map of California, San Bernardino Sheet.* Single map sheet, scale 1:250,000.

Additional References

California Department of Public Works (DPW). 1934. South Coastal Basin Investigation, Ground Water Storage Capacity of Valley Fill. Bulletin 45. 279 p.

Shaefer, D. H., and Warner, J. W. 1975. Artificial Recharge in the Upper Santa Ana River Area, San Bernardino County, California. U. S. Geological Survey: Water Resources Investigations 15-75. 27p.

Errata

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