

Malibu Valley Groundwater Basin

- Groundwater Basin Number: 4-22
- County: Los Angeles
- Surface Area: 610 acres (1.0 square miles)

Basin Boundaries and Hydrology

Malibu Valley Groundwater Basin is a small alluvial basin located along the Los Angeles County coastline. The basin is bounded by the Pacific Ocean on the south and by non water-bearing Tertiary age rocks on all remaining sides. The valley is drained by Malibu Creek to the Pacific Ocean. Average annual precipitation ranges from 14 to 16 inches.

Hydrogeologic Information

Water Bearing Formations

Groundwater is found principally in Holocene alluvium which consists of clays, silts, sands, and gravels. Thickness of the alluvium ranges from 90 feet at the upper end to more than 140 feet at the lower end (DWR 1975).

Restrictive Structures

The Malibu Coast fault crosses the valley but is not a groundwater barrier (DWR 1975).

Recharge Areas

Recharge of the basin is from percolation of precipitation, runoff, and effluent from domestic septic systems.

Groundwater Level Trends

Groundwater moves south towards the Pacific Ocean.

Groundwater Storage

Groundwater Storage Capacity. No information is available.

Groundwater in Storage. No information is available.

Groundwater Budget (Type C)

No information is available.

Groundwater Quality

Characterization. Analysis of water from one well sampled in 1967 shows a TDS content of 1,310 mg/L (DWR 1975).

Impairments. Seawater intrusion occurred in 1950, and again in 1960, when seawater advanced 0.5 miles inland (DWR 1975). In December 1954 and April 1969, chloride concentrations exceeding 100 mg/L were found in groundwater in the coastal part of the basin (DWR 1975).

Well Production characteristics

Well yields (gal/min)		
Municipal/Irrigation	Range: 1,000– 1,060 gal/min	Average: 1,030 gal/min (2 Well Completion Reports)
Total depths (ft)		
Domestic	Range: 104-550 ft	Average: 293 ft (7 Well Completion Reports)
Municipal/Irrigation	Range: 150-158 ft	Average: 154 ft (2 Well Completion Reports)

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

Los Angeles County Department of Public Works

Private

Malibu Water Company

References Cited

California Department of Water Resources (DWR). 1975. Sea-Water Intrusion in California: Inventory of Coastal Ground Water Basins. Bulletin 63-5.

Additional References

California Department of Water Resources (DWR). 1975. *California's Ground Water*. Bulletin 118. 135 p.

Errata

Changes made to the basin description will be noted here.