

## Pamo Valley Groundwater Basin

- Groundwater Basin Number: 9-24
- County: San Diego
- Surface Area: 1,500 acres (2.3 square miles)

### Basin Boundaries and Hydrology

This groundwater basin underlies Pamo Valley, an inland valley in central San Diego County. This basin is bounded by impermeable crystalline rocks (Rogers 1965; DWR 1967). Average annual precipitation ranges from 11 to 21 inches. Temescal and Santa Ysabel Creeks drain Pamo Valley.

### Hydrogeologic Information

#### *Water Bearing Formations*

The principal water-bearing deposits consist of alluvium and residuum.

**Holocene Alluvium.** Holocene age alluvium generally consists of gravel, sand, silt, and clay (DWR 1967). These deposits are generally thin (DWR 1967) and may be unsaturated.

**Residuum.** 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). In this basin, the unit is of variable thickness and exposed along the flanks of the basin and underlies the Holocene alluvium. Well yield in this unit is generally low, but this is the most important water-bearing material in this basin (DWR 1967).

#### *Restrictive Structures*

The Temescal fault crosses the valley (DWR 1967), however, it is not known whether or not the fault has an affect on subsurface flow.

#### *Recharge Areas*

Recharge is chiefly from percolation of ephemeral stream flow in Temescal and Santa Ysabel Creeks.

#### *Groundwater Level Trends*

Groundwater levels during the late 1950s through the early 1970s indicate that groundwater flows southward through the basin following drainage of Temescal Creek. During the period of record, water levels measured in individual wells typically fluctuated 10 to 20 feet.

#### *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 calcium bicarbonate in character and rated suitable for domestic and irrigation uses (DWR 1967). TDS content ranges from 279 to 455 mg/L and averages about 369 mg/L (DWR 1967).

### **Impairments.**

### **Well Characteristics**

<b>Well yields (gal/min)</b>		
Municipal/Irrigation	Range:	Average:
<b>Total depths (ft)</b>		
Domestic	Range:	Average:
Municipal/Irrigation	Range:	Average:

### **Active Monitoring Data**

<b>Agency</b>	<b>Parameter</b>	<b>Number of wells /measurement frequency</b>
	Groundwater levels	
	Miscellaneous water quality	
Department of Health Services and cooperators	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.
- 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.

### **Additional References**

- California Department of Water Resources (DWR). 1959. *San Dieguito River Investigation*. Bulletin No. 72. Vol. I. 174 p.

### **Errata**

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