

Pescadero Valley Groundwater Basin

- Groundwater Basin Number: 2-26
- County: San Mateo
- Surface Area: 2,904 acres (5 square miles)

Basin Boundaries and Hydrology

The Pescadero Valley Groundwater Basin is located in southern San Mateo County along the Pacific Ocean about 30 miles south of San Francisco. It is bounded by Pomponia Creek and Alpine road on the north, the Pacific Ocean on the east, Butano Creek on the south, and Butano Ridge on the southwest. Pescadero Creek and Butano Creek originate in the Santa Cruz Mountains and flow west through the basin to the Pacific Ocean. Bradley and Honsinger Creeks flow into the basin from the north before joining Pescadero Creek and flowing west to the Pacific Ocean. The basin is a narrow discontinuous strip of gently sloping marine terrace and alluvium that varies from 1,000 to 2,500 feet above sea level. Average annual precipitation in the region ranges from 20 to 25 inches, increasing from east to west.

Hydrogeologic Information

Information was not available for the following subsections:

Groundwater Storage ***Groundwater Budget (Type C)***

Water-Bearing Formations

The water-bearing formations in the basin were deposited in the Late Cenozoic and include Pleistocene marine terraces as well as recent alluvium. The water-bearing formations are generally medium to fine grained and consist of sands and silts with some pebbles and gravels. Groundwater in the basin is recharged from precipitation and surface runoff (County of San Mateo 1986). There are limited data regarding the occurrence and movement of ground water in the basin.

Recent Alluvium. The Recent Alluvium is composed of unconsolidated sands, silts, and clays with some gravel. This includes stream channel, stream terrace, and marine terrace deposits (Brabb 1980).

Pleistocene Marine Terrace Deposits. Marine terrace deposits can be found at the western boundary of the basin along the coastline. The deposits consist of poorly to moderately consolidated marine, eolian, and alluvial sand, silt, gravel, and clay (Brabb 1980).

Groundwater Level Trends

Hydrographs of DWR wells in the basin show stable conditions. The depths to groundwater fluctuate annually and are generally greatest in summer months and shallowest in winter months.

Groundwater Quality

Characterization. According to the General Plan (County of San Mateo 1986), over 60 percent of wells around the town of Pescadero have been impacted by fecal coliform bacteria, and the groundwater also has high concentrations of nitrates. Historical data from 4 wells in the basin indicate total dissolved solids values range from 403 to 1790 milligrams per liter (mg/l), averaging 901 mg/l.

Well Characteristics

Well yields (gal/min)		
Municipal/Irrigation	Range: 5 – 150	Average: 99 (based on 12 well completion reports [WCRs])
Total depths (ft)		
Domestic	Range: 42 – 500	Average: 180 (based on 44 WCRs)
Municipal/Irrigation	Range: 65 – 805	Average: 289 (based on 19 WCRs)

Active Monitoring Data

Agency	Parameter	Number of wells / measurement frequency
DWR	Groundwater levels	1 well/semi-annually
DWR	Miscellaneous water quality	None
Department of Health Services and cooperators	Title 22 water quality	2 wells/annually

Basin Management

Groundwater management:	No known water management agency
Water agencies	Pescadero Community Water System

References Cited

- Brabb, E.E. 1980, Preliminary geologic map of the La Honda and San Gregorio quadrangles, San Mateo County, California, Open-File Report OF-80-245, scale 1:24,000.
- California Department of Water Resources (DWR). 1965. Bulletin No. 138, Coastal San Mateo County Investigation.
- California Department of Water Resources (DWR). 1972. Bulletin No. 130-71, Volume III Central Coastal Area.
- California Department of Water Resources (DWR). 1980. Bulletin No. 118-80, Ground Water Basins in California.
- County of San Mateo. 1986. Planning and Building, General Plan.

Errata

Changes made to the basin description will be noted here.