

San Gregorio Valley Groundwater Basin

- Groundwater Basin Number: 2-24
- County: San Mateo
- Surface Area: 1,074 acres (2 square miles)

Basin Boundaries and Hydrology

The San Gregorio Valley Groundwater Basin is located in southern San Mateo County along the Pacific Ocean about 25 miles south of San Francisco. It is bounded by Highway 84 on the north, on the east by the confluence of Bogess Creek and San Gregorio Creek, on the south by the rise of Deer Park Ridge and on the west by the Pacific Ocean. San Gregorio Creek originates at the crest of the Santa Cruz Mountains and flows west through the basin to the Pacific Ocean. El Corte de Madera, Clear and Coyote creeks flow into the basin from the north before joining San Gregorio Creek and flowing west to the ocean. Average annual precipitation in the basin ranges from 24 to 28 inches.

Hydrogeologic Information

Information was not available for the following subsections:

Groundwater Storage

Groundwater Budget (Type C)

Groundwater Quality

Water-Bearing Formations

The basin is filled by the Purisima Formation and alluvial fan and stream terrace deposits (USGS 1998). Several northwest trending faults intersect the basin and can act as conduits or barriers to groundwater flow (Zatkin and Hecht 2009).

Pleistocene Alluvial Fan and Stream Terrace Deposits

These deposits are poorly consolidated and consist of gravel, sand, and silt (USGS 1998).

Mio-Pliocene Purisima Formation

The Purisima Formation is composed of several different sedimentary units, in the San Gregorio Valley Groundwater Basin it consists of fine to medium silty sandstone (USGS 1998). In general the formation is not considered water bearing, but some portions may produce groundwater in sufficient quantities to meet domestic requirements (Zatkin and Hecht 2009).

Recharge Areas

There is limited information on recharge areas in the basin. A broader study of the San Gregorio Creek Watershed concluded that most groundwater is recharged by precipitation in the higher elevation areas (Zatkin and Hecht 2009).

Groundwater Level Trends

Hydrographs from two DWR monitoring wells indicate that the overall groundwater level trends in the basin are stable during the period of record (1989 to 2013).

Well Characteristics

Well yields (gal/min)		
Irrigation	Range: 6 – 15	Average: 10 (based on 5 well completion reports [WCRs])
Total depths (ft)		
Domestic	Range: 31 – 305	Average: 146 (based on 9 WCRs)
Irrigation	Range: 60 – 430	Average: 204 (based on 9 WCRs)

Active Monitoring Data

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

Basin Management

Groundwater management:	No known water management agency
Water Agencies	
Public	Unknown
Private	Unknown

References Cited

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- California Department of Water Resources (DWR). 1965. Bulletin No. 138, Coastal San Mateo County Investigation.
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- Brabb EE, Graymer RW, and Jones DL. 1998. Geology of the onshore part of San Mateo County, California: A digital database: U.S. Geological Survey Open-File Report 98-137, U.S. Geological Survey, Menlo Park, California.
- Stillwater Sciences. 2010. Stockholm Environmental Institute, San Gregorio Environmental Resource Center, San Gregorio Creek Watershed Management Plan.
- Zatkin R and Hecht B. 1999. Groundwater Influences Affecting Aquatic Habitat Potential, San Gregorioa Creek Watershed

Errata

Changes made to the basin description will be noted here.