

San Ramon Valley Groundwater Basin

- Groundwater Basin Number: 2-7
- County: Contra Costa
- Surface Area: 7,120 acres (11 square miles)

Basin Boundaries and Hydrology

The San Ramon Valley Groundwater Basin occupies a structural trough in the central Coast Range east of the San Francisco Bay. The basin is located in southern Contra Costa County and is nearly 30 miles east of San Francisco. It is bounded by Stone Valley on the north, on the west by Las Trampas Ridge, on the east by the foothills of Mt Diablo, and on the south by the Livermore Valley Groundwater Basin. The cities of Danville and San Ramon overlie the basin, while Sycamore Creek and San Ramon Creek are the principal streams flowing through it.

Mean annual precipitation in the basin ranges from 17 to 20 inches.

Hydrogeologic Information

Water Bearing Formations

Groundwater-bearing, alluvial deposits comprise the entire floor of San Ramon Valley and portions of the upland areas on all sides of the valley. (DWR 1966).

Holocene Alluvium. The basin is comprised primarily of Holocene alluvial fan deposits. These sediments are deposited onto the valley floor by streams. In addition, fine-grained alluvial fan deposits can also be found throughout the basin. Alluvial fan sediments include sand, gravel, silt, and clay. These sediments are both consolidated and unconsolidated. (CCCPD 1975).

Restrictive Structures

Within the San Ramon Valley groundwater basin, faults are the major structural features known to have marked affect on the movement of groundwater. Several northwest-trending faults divide the San Ramon Valley. Faults in this region tend to act as barriers to the lateral movement of groundwater. (DWR, 1974)

Groundwater Level Trends

No published data was found for the San Ramon Valley groundwater basin.

Groundwater Storage

Groundwater Storage Capacity. No published data was found for the San Ramon Valley groundwater basin.

Groundwater in Storage. No published data was found for the San Ramon Valley groundwater basin.

Groundwater Budget (Type C)

Due to lack of groundwater budget data, inflows, including natural, applied, and artificial recharge and outflows including urban and agricultural extraction have not been included.

Groundwater Quality

Characterization. No published data was found for the San Ramon Valley groundwater basin.

Impairments. No published data was found for the San Ramon Valley groundwater basin.

Well Production characteristics

Well yields (gal/min)		
Municipal/Irrigation		
Total depths (ft)		
Domestic	Range: 80 - 450	Average: 233 (25 Well Completion Reports)
Municipal/Irrigation	Range: 43 - 665	Average: 241 (41 Well Completion Reports)

Active Monitoring Data

Agency	Parameter	Number of wells /measurement frequency
Department of Health Services and cooperators	Groundwater levels	No wells monitored at this time
	Mineral, nutrient, & minor element.	No wells monitored at this time
	Coliform, nitrates, mineral, organic chemicals, and radiological.	3 wells as required in Title 22, Calif. Code of Regulations

Basin Management

Groundwater management:

Water agencies

Public	Contra Costa WD, Dublin San Ramon CSD, , Contra Costa Co WA, Contra Costa Co FC&WCD
Private	California Water Service Company

References Cited

- California Department of Water Resources, Bulletin No. 118-2, Evaluation of Groundwater Resources: Livermore and Sunol Valleys, Appendix A: Geology, August 1966.
- California Department of Water Resources, Bulletin No. 118-2, Evaluation of Groundwater Resources: Livermore and Sunol Valleys, June 1974.
- California Department of Water Resources, Memorandum Report, Livermore and Sunol Valleys, Evaluation of Groundwater Resources through 1968, June 1970.
- Contra Costa County Planning Department, Seismic Safety Element, being a part of the Contra Costa County General Plan, December 1975.

Additional References

California Department of Water Resources, Bulletin No. 118-80, Ground Water Basins in California, January 1980.

California Department of Water Resources, Bulletin No. 130-72, Volume II Northeastern California, December 1973.

California Department of Water Resources, Bulletin No. 62-5, Sea-Water Intrusion in California, October 1975.

California Department of Water Resources, Bulletin No. 77-58, Ground Water Conditions in Central and Northern California 1957-58, October 1959.

Jennings, O.P. 1973, Geologic map of California: California Division of Mines and Geology, Geologic Map Series, San Francisco Sheet, scale 1:250,000.

Jennings, O.P. 1973, Geologic map of California: California Division of Mines and Geology, Geologic Map Series, Santa Rosa Sheet, scale 1:250,000.

Oakeshott, G.O. 1973, Geologic map of Contra Costa County: California Division of Mines, Journal Vol. 54, No. 4, Plate 5.

Errata

Changes made to the basin description will be noted here.