

Arroyo del Hambre Valley Groundwater Basin

- Groundwater Basin Number: 2-31
- County: Contra Costa
- Surface Area: 730 acres (1.3 square miles)

Basin Boundaries and Hydrology

The Arroyo del Hambre Valley Groundwater Basin is located in northern Contra Costa County along the south shore of Suisun Bay. The basin is about 35 miles northeast of San Francisco. It is bounded by Suisun Bay on the north, the Berkeley foothills on the west, the Ygnacio Valley groundwater basin on the east and the City of Martinez on the south.

The topography of the area consists of gentle sloping lowlands ranging in elevation from sea level to 100 feet. The floor of the valley slopes gently to the northwest. Average annual precipitation in the basin is about 18 inches.

Hydrogeologic Information

Water Bearing Formations

Due to the lack of published data the descriptions of the Arroyo del Hambre Valley groundwater basin hydrogeology is limited. The basin is underlain by Alluvium. The water bearing units in the basin are Recent alluvium and Older alluvium valley fill deposits. There are limited data regarding the occurrence and movement of groundwater in the basin. (DWR 1975).

Quaternary Alluvium. The water bearing unconsolidated Quaternary alluvium deposits have unknown physical characteristics and thickness (DWR 1975).

Alluvium. Modern alluvial sediments are located along the Suisun Bay shoreline of the basin. These sediments are characterized by soft, water-saturated muds, peat and loose sands (CCCPD 1975).

Groundwater Level Trends

No published data was found for the Arroyo del Hambre Valley groundwater basin.

Groundwater Storage

Groundwater Storage Capacity. No published groundwater storage capacity data for the basin was found.

Groundwater in Storage. No published groundwater in storage data for the basin was found.

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 groundwater quality data for the basin was found. Although, DWR examined sea-water intrusion in Bulletin 63-5.

Well Production characteristics

Well yields (gal/min)	
Municipal/Irrigation	
Total depths (ft)	
Domestic	Average: 70 (based on 1 well)
Municipal/Irrigation	

Active Monitoring Data

Agency	Parameter	Number of wells /measurement frequency
DWR	Groundwater levels	NKD
	Miscellaneous water quality	KND
Department of Health Services and cooperators	Title 22 water quality	NKD
NKD- No known data		

Basin Management

Groundwater management:	
Water agencies	
Public	Contra Costa WD, East Bay MUD
Private	

References Cited

California Department of Water Resources (DWR), Bulletin No. 63-5, Sea-Water Intrusion in California, October 1975.

Contra Costa County Planning Department (CCCPD), Seismic Safety Element, being a part of the Contra Costa County General Plan, December 1975.

Additional References

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

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.

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

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

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

Errata

Changes made to the basin description will be noted here.