Cholame Valley Groundwater Basin

- Groundwater Basin Number: 3-5
- County: Monterey, San Luis Obispo
- Surface Area: 39,800 acres (62 square miles)

Basin Boundaries and Hydrology

Cholame Valley is an elongate northwest-southeast trending basin in the Coast Range Mountains of southern Monterey County and northern San Luis Obsipo County. The elevation ranges from approximately 1,100 at the southern end to 1,700 feet near the small town of Parkfield. The basin is comprised of Quaternary alluvium and is bounded to the south west by the Plio-Pleistocene nonmarine Paso Robles formation and by Quaternary non marine terrace deposits to the northeast (Jenkins 1968). Cholame Creek and its tributaries drain the valley southeastward and then westward to the Salinas Valley. Average precipitin values range from 11 to 17 inches, increasing northward.

Hydrogeologic Information

Water Bearing Formations

No specific published information on the water bearing deposits was found. San Joaquin District well completion report files contain logs for 18 wells in the basin. These wells ranged in depth from 100 to 665 feet. They appear to penetrate both alluvial materials and consolidated rocks. Most wells are on the fringe of the basin in the upper canyon areas and are used primarily for domestic water supply. Subsurface groundwater inflow and outflow has been reported to occur through the Paso Robles Formation (Bader 1969).

Groundwater Level Trends

Water level data was found for one well in the basin, which was monitored by the USGS from 1979 to 1994. Water levels fluctuated from 15 to 60 feet below the landsurface. This well is located in the upper portion of the basin and may not represent conditions lower in the basin. Groundwater flow direction is down valley to the southeast. A groundwater elevation contour map depicting conditions in the fall of 1954 indicates that Cholame Creek was a gaining stream and that groundwater gradient was approximately 33 feet per mile (DWR 1958). Observations during a field reconnaissance in September 2001, indicated that at the lower end of the basin, near the intersection of highways 41 and 46, groundwater appears to be discharging to the surface. This is evidenced by lush green growth in the valley and base flow in Cholame Creek.

Groundwater Storage

No published information on groundwater storage was found. The information discussed in the Groundwater Level Trends section above would tend to indicate that the basin is presently at or near its maximum storage.

Groundwater Budget (Type C)

There is not enough information to provide an estimate of this basin's budget.

Groundwater Quality

No groundwater quality information was found in the published literature or in DWR files.

Well Production characteristics

Well yields (gal/min)			
Municipal/Irrigation	Range:	to 3,000	Average: 1,000 (Bader 1969)
			These yields are reported but not substantiated or verified. Well log data would indicate much lower yields
Total depths (ft)			
Domestic	Range:	100-665	Average: 226 (DWR Unpublished data)
Municipal/Irrigation	Range:		Average:

Active Monitoring Data

Agency	Parameter	Number of wells /measurement frequency
USGS	Groundwater levels	1 Annually 1979 to 1994
	Miscellaneous water quality	None
Department of Health Services and cooperators	Title 22 water quality	1 Varies

Basin Management

Groundwater management:

Water agencies

Public	None
Private	None

References Cited

Bader, J.S. 1969. Ground-Water Data as of 1967 Central Coast Subregion, California. USGS Open-File Report.

California Department of Water Resources (DWR), San Joaquin District. Well completion report files.

_____. 1958. Bulletin 18. San Luis Obispo County Investigation, Vol. 1.

Jenkins, Olaf P. (compiler). 1968. San Luis Obispo Sheet of Geologic Map of California. California Division of Mines and Geology (CDMG). Scale 1:250,000.

Errata

Changes made to the basin description will be noted here.