Middle Creek Groundwater Basin

• Groundwater Basin Number: 5-94

• County: Lake

• Surface Area: 700 acres (1 square mile)

Basin Boundary and Hydrology

The Middle Creek Groundwater Basin is a north-trending basin located west of Pitney Ridge and east of Middle Mountain. The basin consists of Quaternary alluvium and is likely in hydraulic continuity with the Upper Lake Groundwater Basin. Faulting may extend the length of the western boundary. The basin is bounded to the north and east by the Franciscan Formation. Much of the western portion of the basin is bounded by Lower Cretaceous marine deposits. Annual precipitation ranges from 43 to 45-inches, increasing to the north.

Hydrogeologic Information

Hydrogeologic information was not available for the following:

Water-Bearing Formations Groundwater Level Trends Groundwater Storage

Groundwater Budget (Type B)

The estimate of groundwater extraction is based on a 1995 survey conducted by the California Department of Water Resources. The survey included land use and sources of water. Groundwater extraction for agricultural use is estimated to be 28 acre-feet. Deep percolation of applied water is estimated to be 6 acre-feet.

Groundwater Quality

Well Characteristics

Well yields (gal/min)				
	wen yields (gai/illin)			
Municipal/Irrigation		75 (1 well completion report)		
Total depths (ft)				
Domestic	Range: 31 – 250	Average: 108 (31 Well Completion Reports)		
Municipal/Irrigation	Range: 54 – 100	Average: 70 (3 Well Completion Reports)		

Active Monitoring Data

Agency	Parameter Groundwater levels	Number of wells /measurement frequency NKD
Department of Health Services and Cooperators NKD – No known of	Miscellaneous water quality lata.	1

Basin Management

Groundwater management: Lake County adopted a groundwater management ordinance in 1999.

Water agencies

Public None

None

Selected Reference

Private

- California Department of Water Resources (DWR). July 1957. Lake County Investigation. California Department of Water Resources. Bulletin 14.
- California Department of Water Resources (DWR). 1960. Northeastern Counties Investigation. California Department of Water Resources. Bulletin 58.
- Hearn BC, Donnelly JM, Goff FE. 1975. Geology and Geochronology of the Clear Lake Volcanics, California. USGS. 75-296.
- Hearn BC, Jr., McLaughlin RJ, Donnelly-Nolan JM. 1988. Tectonic Framework of the Clear Lake Basin, California. Geological Society of America.
- Jennings CW, Strand RG. 1960. Geologic Map of California [Ukiah Sheet]. California Division of Mines and Geology.
- Ott Water Engineers, Inc. 1987. Lake County Resource Management Plan Update. Lake County Flood Control and Water Conservation District.
- McLaughlin RJ, Ohlin HN, Blome CD. 1983. Tectonostratigraphic Framework of the Franciscan Assemblage and Lower Part of the Great Valley Sequence in the Geysers-Clear Lake Region, California. American Geophysical Union, Eos, Transactions.
- Rymer MJ. 1978. Stratigraphy of the Cache Formation (Pliocene-Pleistocene) in Clear Lake basin, Lake County, California. USGS.
- Rymer MJ. 1981. Stratigraphic Revision of the Cache Formation (Pliocene and Pliestocene), Lake County, California. USGS.
- Rymer MJ. 1983. Late Cenozoic Stratigraphic Setting of the Clear Lake Area, Lake County, California. Geological Society of America.
- Rymer MJ, Roth B, Bradbury JP, Forester RM. 1988. Depositional Environments of the Cache, Lower Lake, and Kelseyville Formations, Lake County, California. Geological Society of America.
- Sims JD. 1988. Late Quaternary Climate, Tectonism, and Sedimentation in Clear Lake, Northern California Coast Ranges. Geological Society of America.
- Soil Mechanics and Foundation Engineers Inc. (SMFE). March 1967. Big Valley Ground-Water Recharge Investigation for Lake County Flood Control and Water Conservation District.

Bibliography

- Bailey EH. 1966. Geology of Northern California. California Division of Mines and Geology. Bulletin 190.
- California Department of Water Resources. 1975. California's Ground Water. California Department of Water Resources. Bulletin 118.
- California Department of Water Resources. 1980. Ground Water Basins in California. California Department of Water Resources. Bulletin 118-80.

Dickinson WR, Ingersoll RV, Grahm SA. 1979. Paleogene Sediment Dispersal and Paleotectonics in Northern California. Geological Society of America Bulletin 90:1458-1528.

Planert M, Williams JS. 1995. Ground Water Atlas of the United States, Segment 1, California, Nevada. USGS. HA-730-B.

Errata

Changes made to the basin description will be noted here.