Eureka Valley Groundwater Basin

- Groundwater Basin Number: 6-16
- County: Inyo
- Surface Area: 129,900 acres (203 square miles)

Basin Boundaries and Hydrology

This groundwater basin underlies Eureka Valley in northeastern Inyo County. This basin is bounded by nonwater-bearing rocks of the White Mountains on the north, of the Inyo Mountains on the west, of the Saline Range on the south, of the Last Chance Range on the east, and of the Sylvania Mountains on the northeast (Jennings 1958, DWR 1964, Strand 1967). Willow creek and unnamed washes carry runoff to Eureka (dry) Lake at the southeastern end of the valley. Average annual precipitation ranges from about 5 inches on the valley floor to 10 inches on the surrounding mountains (DWR 1964).

Hydrogeologic Information

Water Bearing Formations

The primary water-bearing material consists of younger, unconsolidated alluvial fan material and underlying, semi-consolidated older alluvial deposits. The alluvium reaches at least 640 feet thick and groundwater in it is generally unconfined (Bader 1969, DWR 1964). Like most internally drained basins, the alluvium likely becomes interbedded with lacustrine silt and clay layers near Eureka Lake.

Restrictive Structures.

Some small faults are mapped as cutting Quaternary alluvial deposits in this basin (Strand 1967); however, it is not known whether or not these faults impede groundwater movement in the basin.

Recharge Areas

Replenishment of the basin is from percolation of runoff from the surrounding mountains through alluvial fans (Bader 1969). Groundwater likely flows southward toward Eureka Lake and perhaps southeastward into Saline Valley (Bader 1969, DWR 1964).

Groundwater Level Trends. Unknown.

Groundwater Storage

Groundwater Storage Capacity. Total storage capacity is estimated at 2,070,000 af (DWR 1975).

Groundwater in Storage. Unknown.

Groundwater Budget (Type C)

Information is not available to form a groundwater budget.

Groundwater Quality

Characterization. No water quality data are available for wells in this basin. However, one water sample from Willow Springs, in a canyon tributary to the valley, has calcium bicarbonate water with a TDS content of 554 mg/L (DWR 1964).

Impairments. Unknown.

Active Monitoring Data

Agency	Parameter	Number of wells /measurement frequency
	Groundwater levels	
	Miscellaneous water quality	
Department of Health Services and cooperators	Title 22 water quality	1 well

References Cited

Bader, J.S. 1969. *Ground-Water Data as of 1967 South Lahontan Subregion California*. U.S. Geological Survey. Water Resources Division. Open-File Report. 25 p.

California Department of Water Resources (DWR). 1964. *Ground Water Occurrence and Quality Lahontan Region*. p. 145-148.

_____. 1975. *California's Ground Water.* Bulletin 118. 135 p.

Jennings, C. W. ed. 1958. *Geologic Map of California Death Valley Sheet*. Olaf P. Jenkins Edition. California Department of Conservation, Division of Mines and Geology. Scale 1:250,000.

Strand, Rudolf. ed. 1967. *Geologic Map of California Mariposa Sheet*. Olaf P. Jenkins Edition. California Department of Conservation, Division of Mines and Geology. Scale 1:250,000.

Errata

Changes made to the basin description will be noted here.