

Humbug Valley Groundwater Basin

- Groundwater Basin Number: 5-60
- County: Plumas
- Surface Area: 9,980 acres (16 square miles)

Basin Boundaries and Hydrology

Humbug Valley is a small down-dropped area within the Penman Peak-Beckwourth Peak horst situated northeast of Mohawk Valley. The valley is approximately 6 miles long and 3 miles wide. The valley is bounded to the north by Pliocene volcanic rocks of Penman Peak, to the southeast by Miocene volcanic rocks of Beckwourth Peak, and to the northeast by Mesozoic granitic rocks. The floor of the river canyon is composed of fairly flat alluvium and sloping lake deposits at the western end of the valley.

Middle Fork Feather River flows southwesterly through the valley to Mohawk Valley. Humbug Creek and Willow Creek are major tributaries to Middle Fork Feather River.

Annual precipitation in the valley ranges from 23- to 29-inches, increasing to the southwest.

Hydrogeologic Information

Water-Bearing Formations

Little information is known about the structure of Humbug Valley. It's believed that the water-bearing formations of Humbug Valley are similar to those of Mohawk Valley. The primary water-bearing formations of Mohawk Valley are Holocene sedimentary deposits and Pleistocene lake deposits. The following summary is from DWR (1963).

Holocene Sedimentary Deposits. Holocene sedimentary deposits include alluvial fans and intermediate alluvium. Alluvial fans consist of unconsolidated gravel, sand, and silt with minor clay lenses. The fan deposits coalesce or interfinger with lake and alluvial deposits. Specific yield ranges from 8- to 17-percent. Intermediate alluvium consists of unconsolidated silt and sand with lenses of clay and gravel. Specific yield is estimated to range between 5- to 25-percent.

Pleistocene Lake Deposits. The deposits consist of slightly consolidated, bedded sand, silt, and diatomaceous clay. Specific yield ranges from 1- to 25-percent.

Hydrogeologic information was not available for the following:

Groundwater Level Trends

Groundwater Storage

DWR (1963) estimates storage capacity to be 76,000 acre-feet to a depth of 100 feet.

Groundwater Budget (Type B)

The estimate of groundwater extraction for the Humbug Valley Basin is based on a 1997 survey conducted by the California Department of Water Resources. The survey included land use and sources of water.

Groundwater extraction for municipal and industrial uses is estimated to be 200 acre-feet. Deep percolation of applied water is estimated to be 200 acre-feet.

Groundwater Quality

Water Quality in Public Supply Wells

Constituent Group¹	Number of wells sampled²	Number of wells with a concentration above an MCL³
Inorganics – Primary	11	0
Radiological	4	0
Nitrates	14	0
Pesticides	2	0
VOCs and SVOCs	2	0
Inorganics – Secondary	11	4

¹ A description of each member in the constituent groups and a generalized discussion of the relevance of these groups are included in *California's Groundwater – Bulletin 118* by DWR (2003).

² Represents distinct number of wells sampled as required under DHS Title 22 program from 1994 through 2000.

³ Each well reported with a concentration above an MCL was confirmed with a second detection above an MCL. This information is intended as an indicator of the types of activities that cause contamination in a given basin. It represents the water quality at the sample location. It does not indicate the water quality delivered to the consumer. More detailed drinking water quality information can be obtained from the local water purveyor and its annual Consumer Confidence Report.

Well Characteristics

	Well yields (gal/min)	
Irrigation	NKD	
	Total depths (ft)	
Domestic	Range: 50 – 725	Average: 215 (346 Well Completion Reports)
Irrigation	Range: 30 – 100	Average: 65 (2 Well Completion Reports)

NKD – No Known Data

Active Monitoring Data

Agency	Parameter	Number of wells /measurement frequency
	Groundwater levels	NKD
	Miscellaneous water quality	NKD
Department of Health Services	Miscellaneous water quality	8

NKD – No Known Data

Basin Management

Groundwater management: No known groundwater management plans, groundwater ordinances, or basin adjudications.

Water agencies

Public City of Portola WSA, Grizzly Lake Resort ID

Private

Selected References

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Errata

Changes made to the basin description will be noted here.