Buck Ridge Fault Valley Groundwater Basin

- Groundwater Basin Number: 7-54
- County: Riverside
- Surface Area: 6,930 acres (10.8 square miles)

Basin Boundaries and Hydrology

This basin underlies a small montane valley along the Buck Ridge fault in southern Riverside County. The valley lies within the Santa Rosa Mountains, south of Toro Peak and east of Buck Ridge. Surface water drains southeastward across the valley in a tributary to the main drainage of Clark Valley. Annual precipitation ranges from about 10 to 14 inches.

Hydrogeologic Information

Water Bearing Formations

Holocene alluvium and Pleistocene age terrace and nonmarine sedimentary deposits are mapped as the surficial deposits in this valley (Rogers 1965). Water-bearing materials of this basin probably consist of alluvium composed of boulders, gravel, sand, silt, and clay.

Restrictive Structures

Two splays of Buck Ridge fault displace Quaternary deposits in this basin; however, it is not known whether or not these fault splays impede the flow of groundwater through the basin.

Recharge Areas

Recharge to the basin is likely from percolation of runoff from the surrounding mountains through alluvial fans and stream channels.

Groundwater Level Trends

Unknown.

Groundwater Storage

Groundwater Storage Capacity. Unknown.

Groundwater in Storage. Unknown.

Groundwater Budget (Type C)

Unknown.

Groundwater Quality

Characterization. An analysis of water from one well in this basin indicates sodium-calcium sulfate-chloride character. In 1959, the water from this well had a concentration of TDS of 4,677 mg/L, sulfate of 2,049 mg/L, and a chloride content of 765 mg/L.

Impairments. Groundwater in the basin is likely impaired by high TDS, sulfate, and chloride concentrations for domestic and irrigation uses.

Well Characteristics

	Well yields (gal/min)	
Municipal/Irrigation	Range:	Average:
	Total depths (ft)	
Domestic	Range: to 120 ft.	Average:
Municipal/Irrigation	Range:	Average:

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	

Basin Management

Groundwater management:

Water agencies

Public

Private

References Cited

Rogers, T. H. 1965. *Geologic Map of California: Santa Ana 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.