

## Santa Rosa Flat Groundwater Basin

- Groundwater Basin Number: 6-68
- County: Inyo
- Surface Area: 312 acres (0.5 square miles)

### Basin Boundaries and Hydrology

The Santa Rosa Flat Groundwater Basin underlies a northwest-trending valley in west central Inyo County. Elevation of the valley floor ranges from about 4,800 feet above sea level at the head of Santa Rosa Wash to about 5,800 feet at the northern end. The basin is bounded by nonwater-bearing rocks on the west and southwest of the Inyo Mountains and Talc Hills, on the east and northeast of the Santa Rosa Hills, and on the south of a group of low hills. Elevation of the surrounding mountains and hills range from about 6,000 to 7,700 feet (Jennings 1958; USGS 1987a, 1987b, 1987c, 1987d).

Annual average precipitation ranges from about 8 to 10 inches. Runoff from the surrounding mountains and hills drains towards the eastcentral part of the valley and eastward into Santa Rosa Wash and Panamint Valley (Jennings 1958).

### Hydrogeologic Information

#### ***Water Bearing Formations***

Quaternary alluvium forms the water-bearing materials within the basin, including unconsolidated younger alluvial deposits and underlying unconsolidated to semi-consolidated older alluvial deposits (DWR 1964).

#### ***Restrictive Structures***

The Darwin Tear fault crosses the southern part of the basin (Jennings 1958); however, it is not known whether or not this fault impedes groundwater movement in the basin.

#### ***Recharge and Discharge Areas***

Recharge to the basin is derived chiefly from the percolation of runoff through alluvial deposits at the base of the Inyo Mountains and from the infiltration of precipitation that falls to the valley floor. Groundwater moves towards the eastern margin of the basin and discharges as underflow to Santa Rosa Wash (USGS 1987a, 1987b).

#### ***Groundwater Level Trends***

There are no historical records of wells or groundwater levels in the basin.

#### ***Groundwater Storage***

**Groundwater Storage Capacity.** Unknown.

**Groundwater in Storage.** Unknown.

### **Groundwater Budget (C)**

Groundwater budget information is not available.

### **Groundwater Quality**

**Characterization.** There are no historical records of chemical analyses of groundwater from springs or wells in the basin.

**Impairments.** Unknown.

### **Well Production characteristics**

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| Well yields (gal/min) |  |
|-----------------------|--|
| Municipal/Irrigation  |  |

  

| Total depths (ft)    |  |
|----------------------|--|
| Domestic             |  |
| Municipal/Irrigation |  |

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### **Active Monitoring Data**

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| Agency  | Parameter                      | Number of wells<br>/measurement frequency |
|---|--------------------------------|---|
|   | Groundwater levels             |   |
|   | Miscellaneous<br>water quality |   |
| Department of<br>Health Services and<br>cooperators | Title 22 water<br>quality      |   |

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### **Basin Management**

Groundwater management:

Water agencies

Public

Private

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### **References Cited**

- California Department of Water Resources (DWR). 1964. *Ground Water Occurrence and Quality Lahontan Region*. Bulletin No.106-1. 439 p.
- Jennings, C.W. 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.
- U.S. Geological Survey. 1987a. *Santa Rosa Flat, California*. 7.5' Quadrangle. Provisional Edition. Scale 1: 24,000.
- U.S. Geological Survey. 1987b. *Lee Wash, California*. 7.5' Quadrangle. Provisional Edition. Scale 1: 24,000.
- U.S. Geological Survey. 1987c. *Talc City Hills, California*. 7.5' Quadrangle. Provisional Edition. Scale 1: 24,000.
- U.S. Geological Survey. 1987d. *Darwin, California*. 7.5' Quadrangle. Provisional Edition. Scale 1: 24,000.

## **Errata**

Changes made to the basin description will be noted here.