

## 11429500 Gerle Creek below Loon Lake Dam, near Meeks Bay, CA

Sacramento River Basin

LOCATION.--Lat 39°00'20", long 120°18'52" referenced to North American Datum of 1927, in NE ¼ NE ¼ sec.5, T.13 N., R.15 E., El Dorado County, CA, Hydrologic Unit 18020128, in Eldorado National Forest, on right bank, 0.3 mi downstream from Loon Lake Dam, and 11 mi southwest of Meeks Bay.

DRAINAGE AREA.--8.01 mi<sup>2</sup>.

### SURFACE-WATER RECORDS

PERIOD OF RECORD.--July 1910 to April 1914 (fragmentary), August 1962 to current year. Prior to August 1962, published as "near Rubicon Springs."

GAGE.--Water-stage recorder and V-notch sharp-crested weir. Elevation of gage is 6,250 ft above NGVD of 1929, from topographic map. Prior to August 1962, nonrecording gage at site 1,400 ft upstream at different datum.

COOPERATION.--Records, including diversion to Loon Lake Powerplant (station 11429340), were collected by Sacramento Municipal Utility District, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2101.

REMARKS.--Beginning in 1884, flow regulated by Loon Lake (station 11429350). Original dam was dismantled during September and October 1962 to permit construction of a new earthfill dam, which was completed Dec. 27, 1963. Loon Lake receives water from Rubicon River via Buck-Loon Tunnel (station 11428300). Since August 1971, most of the water is diverted past the station via Loon Lake Powerplant and returns to Gerle Creek at Gerle Creek Dam. See schematic diagram of Middle Fork American and Rubicon River Basins available from the California Water Science Center.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,240 ft<sup>3</sup>/s, unregulated, Feb. 1, 1963, gage height, 12.65 ft, from rating curve extended above 970 ft<sup>3</sup>/s, on basis of slope-area measurement of peak flow; no flow Oct. 15, 1913.

Maximum discharge since construction of Loon Lake Dam in 1963, 1,050 ft<sup>3</sup>/s, June 5, 1969, gage height, 9.03 ft; minimum daily, 3.6 ft<sup>3</sup>/s, Sept. 27, 28, Nov. 3, 1977.

## 11429500 Gerle Creek below Loon Lake Dam, near Meeks Bay, CA—Continued

**DISCHARGE, CUBIC FEET PER SECOND**  
**WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013**  
**DAILY MEAN VALUES**

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	9.8	10	13	8.6	9.9	10	11	10	10	8.9	8.9	8.6
2	9.8	10	18	8.6	9.8	10	11	10	10	8.9	8.9	8.6
3	9.8	9.9	11	8.6	9.8	11	11	10	9.8	8.9	8.9	8.6
4	9.8	9.8	10	8.6	9.8	10	12	10	9.3	8.9	8.9	8.6
5	9.8	9.8	14	8.4	9.9	11	12	10	9.3	8.9	8.9	8.6
6	9.8	9.8	11	8.3	9.9	10	11	11	9.3	8.9	8.9	8.6
7	9.8	9.8	10	8.3	9.9	10	11	10	9.4	8.9	8.9	8.6
8	9.8	9.8	10	8.2	9.8	10	11	11	9.5	8.9	8.8	8.6
9	9.8	9.9	10	8.3	9.9	10	9.9	10	9.4	8.9	8.8	8.5
10	9.8	9.8	10	8.3	9.8	10	9.8	9.7	9.4	8.9	8.7	8.6
11	9.8	9.8	9.8	8.3	9.8	11	10	9.7	9.2	8.9	8.6	8.9
12	9.8	9.8	9.8	8.0	9.8	10	10	9.7	9.2	8.9	8.6	8.9
13	9.8	9.8	9.8	8.0	9.9	10	10	9.7	9.3	8.9	8.6	8.9
14	9.8	9.8	9.8	8.0	10	10	10	9.8	9.3	8.9	8.6	8.9
15	9.8	9.8	9.8	9.1	10	10	10	9.8	9.3	8.9	8.6	8.9
16	9.8	9.9	9.6	9.8	10	10	10	9.9	9.3	8.9	8.6	8.8
17	9.8	12	10	9.8	10	10	10	9.8	9.3	8.9	8.6	8.9
18	9.8	11	9.9	9.8	10	10	9.8	9.8	9.3	8.9	8.6	8.9
19	9.8	11	9.6	9.8	10	11	9.9	9.8	9.2	8.9	12	8.8
20	9.8	10	9.4	9.8	10	11	9.8	9.8	9.2	8.9	12	8.6
21	9.8	11	9.2	9.8	10	11	9.8	9.8	9.2	8.9	11	9.3
22	10	10	9.2	9.8	10	11	9.8	9.8	9.2	8.9	11	8.9
23	10	10	9.2	9.8	10	10	9.8	9.8	9.2	8.9	9.5	8.8
24	10	10	9.2	9.8	10	10	9.8	9.8	9.7	9.0	9.5	8.9
25	10	10	9.1	10	10	11	9.8	10	10	8.9	9.5	18
26	10	10	9.0	10	10	11	9.8	10	9.4	9.0	10	18
27	10	10	8.9	10	10	11	9.8	10	9.2	9.0	8.7	12
28	10	11	8.9	9.8	10	11	9.8	10	9.2	9.0	8.7	12
29	10	11	8.8	9.8	---	11	9.8	10	9.1	8.9	8.7	12
30	9.9	17	8.9	9.8	---	11	9.8	10	9.0	8.8	8.6	12
31	9.8	---	8.8	9.8	---	12	---	10	---	8.9	8.7	---
<b>Total</b>	305.5	311.5	313.7	283.0	278.0	325	307.2	308.7	281.2	276.2	285.3	294.3
<b>Mean</b>	9.85	10.4	10.1	9.13	9.93	10.5	10.2	9.96	9.37	8.91	9.20	9.81
<b>Max</b>	10	17	18	10	10	12	12	11	10	9.0	12	18
<b>Min</b>	9.8	9.8	8.8	8.0	9.8	10	9.8	9.7	9.0	8.8	8.6	8.5
<b>Ac-ft</b>	606	618	622	561	551	645	609	612	558	548	566	584
<b>Diversion, in acre-feet, to Loon Lake Powerplant</b>	1,240	1,430	22,600	11,890	25	69	2,710	4,890	8,480	7,020	10,440	5,350

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1970, BY WATER YEAR (WY)**

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Mean</b>	112	132	165	74.7	103	192	133	63.0	390	341	232	115
<b>Max</b>	190	356	343	134	261	347	244	209	721	493	351	338
<b>(WY)</b>	(1970)	(1966)	(1966)	(1968)	(1970)	(1970)	(1967)	(1969)	(1969)	(1967)	(1969)	(1967)
<b>Min</b>	7.53	7.93	8.95	8.41	9.13	9.57	8.75	10.5	185	196	50.8	8.20
<b>(WY)</b>	(1965)	(1968)	(1969)	(1965)	(1968)	(1968)	(1965)	(1968)	(1966)	(1965)	(1965)	(1970)

## 11429500 Gerle Creek below Loon Lake Dam, near Meeks Bay, CA—Continued

## SUMMARY STATISTICS

Water Years 1965 - 1970		
Annual mean	171	
Highest annual mean	217	1970
Lowest annual mean	127	1965
Highest daily mean	1,030	Jun 5, 1969
Lowest daily mean	6.0	Dec 2, 1969
Annual seven-day minimum	6.4	Dec 10, 1969
Maximum peak flow	1,050	Jun 5, 1969
Maximum peak stage	9.03	Jun 5, 1969
Annual runoff (ac-ft)	124,100	
10 percent exceeds	394	
50 percent exceeds	28	
90 percent exceeds	8.1	

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 2013, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	9.23	9.07	9.55	9.38	9.33	9.50	9.65	10.9	9.34	9.25	8.88	8.94
Max	13.3	11.8	23.9	13.0	12.8	11.6	13.6	48.7	13.6	15.7	12.0	12.0
(WY)	(1993)	(2000)	(1984)	(1997)	(1996)	(1996)	(2000)	(1996)	(1999)	(1995)	(1999)	(1998)
Min	3.93	4.00	4.45	4.61	5.12	4.67	4.27	4.64	4.13	4.30	4.09	3.99
(WY)	(1978)	(1978)	(1978)	(1978)	(1978)	(1977)	(1977)	(1977)	(1977)	(1977)	(1977)	(1977)

## SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1972 - 2013	
Annual total	3,545.9		3,569.6			
Annual mean	9.69		9.78		9.42	
Highest annual mean					13.5 1996	
Lowest annual mean					6.06 1977	
Highest daily mean	18	Dec 2	18	Dec 2	403	May 17, 1996
Lowest daily mean	8.7	Jan 10	8.0	Jan 12	3.6	Sep 27, 1977
Annual seven-day minimum	8.8	Jan 8	8.2	Jan 8	3.7	Sep 23, 1977
Maximum peak flow			29 Sep 25		510 May 18, 1996	
Maximum peak stage			2.43 Sep 25		6.65 May 18, 1996	
Annual runoff (ac-ft)	7,030		7,080		6,820	
Annual diversion (ac-ft) <sup>a</sup>	94,240		76,140			
10 percent exceeds	10		11		11	
50 percent exceeds	9.5		9.8		9.0	
90 percent exceeds	8.9		8.7		8.0	

<sup>a</sup> Diversion, in acre-feet, to Loon Lake Powerplant (station 11429340).

11429500 Gerle Creek below Loon Lake Dam, near Meeks Bay, CA—Continued

