

11052500 Mill Creek Power Canal Nos. 2 and 3 near Yucaipa, CA

Santa Ana River Basin

LOCATION.--Lat 34°05'23", long 117°00'49" referenced to North American Datum of 1927, in NW ¼ NW ¼ sec.17, T.1 S., R.1 W., San Bernardino County, CA, Hydrologic Unit 18070203, on penstock, 100 ft downstream from Mill Creek No. 3 forebay, and 4.2 mi northeast of Yucaipa.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--January 1919 to September 1938, October 1947 to September 1989, October 1993 to current year. Monthly discharge only for January 1919 to September 1938 and October 1947 to September 1960. Stand-alone records for this station for October 1973 to September 1986 are available in files of the U.S. Geological Survey. See WDR CA-2003-1 for stand-alone records for water years 1987-1989.

GAGE.--Acoustic-velocity meter on penstock. Elevation of gage is 4,840 ft above NGVD of 1929, from topographic map. Prior to October 1993, water-stage recorder and Parshall flume below powerplant at terminus of penstock 1.5 mi downstream, at different datum. October 1993 to September 1995, water-stage recorder and Parshall flume at auxiliary gage near Canal No. 3 intake 4.5 mi upstream, at different datum.

COOPERATION.--Records were provided by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project No. 1934.

REMARKS.--Mill Creek Power Canal No. 3 diverts water from Mill Creek 6 mi upstream from the powerplant. Canal No. 3 also receives up to 1.6 ft³/s of additional water, at times, from Crafton Water Company's groundwater well No. 4, located 1 mi downstream of the diversion. Well water would not have been included in flow records from October 1993 to September 1995, when the gage was located near the Canal No. 3 intake. Diversions to Mill Creek Power Canal No. 2, 3 mi upstream from the powerplant, were included with this record until September 1989. Canal No. 2 was damaged during an earthquake in 1992, has not been used since 1992, and may not be used in the future. Records for this station, prior to water year 1987, are published as a component of the combined flows of Mill Creek and Mill Creek Power Canal Nos. 1, 2, and 3 (station 11054001). See schematic diagram of Santa Ana River Basin available from the California Water Science Center.

EXTREMES FOR PERIOD OF RECORD.--Since water year 1994, maximum daily discharge, 41 ft³/s, May 6, 1995; no flow at times in some years.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	13	13	12	11	10	9.4	8.7	7.8	6.4	7.2	6.7	1.5
2	14	12	12	11	10	9.7	8.6	7.8	6.4	7.1	6.7	1.6
3	14	12	11	11	9.9	9.8	8.6	7.9	6.3	7.3	6.7	1.7
4	13	12	11	11	9.8	9.7	8.5	8.0	6.2	7.2	6.6	1.5
5	13	12	11	11	9.7	9.5	8.4	7.9	6.3	7.2	6.7	1.6
6	14	12	11	11	9.6	9.4	8.5	7.9	6.5	7.2	6.6	1.5
7	14	12	11	10	9.6	9.6	8.4	7.8	6.5	7.2	6.7	1.5
8	14	12	11	11	9.7	9.4	8.4	7.7	6.5	7.2	6.7	1.6
9	13	12	11	10	9.6	9.3	8.3	7.6	6.4	7.2	6.6	1.5
10	13	12	12	10	9.5	9.1	8.2	7.5	6.3	7.2	6.7	1.5
11	13	12	12	10	9.9	9.1	8.4	7.5	6.2	7.2	6.6	1.2
12	13	12	12	11	9.7	9.1	8.6	7.4	6.1	7.2	6.6	1.2
13	13	12	11	9.2	10	9.0	8.5	7.4	6.1	7.2	6.6	5.2
14	14	12	11	9.7	9.8	9.0	8.4	7.3	6.0	7.1	5.1	8.0
15	14	12	11	10	9.8	8.9	8.8	7.2	6.0	7.1	1.3	8.1
16	13	12	11	10	9.7	8.8	8.9	7.0	6.0	7.1	5.2	8.1
17	13	12	12	10	9.5	8.8	8.6	6.9	5.9	7.1	8.6	8.2
18	13	12	11	10	9.5	8.9	8.5	6.8	5.9	7.0	8.4	8.2
19	13	12	11	10	10	8.8	8.5	6.7	6.5	7.1	8.3	8.3
20	13	12	11	10	9.8	8.8	8.9	6.8	8.2	7.0	8.1	8.4
21	13	12	11	10	9.9	9.2	8.8	6.9	8.0	7.0	7.9	8.5
22	13	12	11	10	9.8	9.2	8.8	6.8	6.6	7.1	7.9	8.8
23	13	12	11	10	10	8.9	8.7	6.7	7.4	7.1	7.8	8.8
24	13	12	11	10	9.6	9.0	8.4	6.7	7.3	7.0	7.6	8.5
25	13	12	11	10	9.7	9.2	8.2	6.6	7.3	6.9	7.5	8.4
26	13	12	11	9.9	9.6	9.5	8.1	6.5	7.3	6.9	7.6	8.3
27	13	12	11	9.9	9.9	9.7	8.0	6.5	7.3	6.9	7.6	8.3
28	13	12	11	10	9.7	9.4	7.9	6.5	7.3	6.9	7.4	8.3
29	13	12	11	9.9	---	9.3	7.8	6.6	7.2	6.7	7.3	8.3
30	13	12	11	10	---	9.1	7.8	6.5	7.2	6.8	7.5	8.2
31	13	---	11	10	---	8.8	---	6.4	---	6.8	5.9	---
Total	410	361	347	316.6	273.3	285.4	253.2	221.6	199.6	219.2	213.5	164.8
Mean	13.2	12.0	11.2	10.2	9.76	9.21	8.44	7.15	6.65	7.07	6.89	5.49
Max	14	13	12	11	10	9.8	8.9	8.0	8.2	7.3	8.6	8.8
Min	13	12	11	9.2	9.5	8.8	7.8	6.4	5.9	6.7	1.3	1.2
Ac-ft	813	716	688	628	542	566	502	440	396	435	423	327

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2007, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	14.8	14.2	13.3	13.4	14.1	16.3	19.0	19.0	18.7	16.2	15.0	14.4
Max	26.8	23.5	23.9	26.6	27.8	30.1	33.3	31.8	28.7	29.2	30.2	27.9
(WY)	(1981)	(1979)	(1979)	(1979)	(1979)	(1979)	(1995)	(1995)	(1979)	(1980)	(1980)	(1978)
Min	3.99	4.04	0.00	4.00	4.55	5.33	4.50	5.02	3.67	2.74	3.79	3.01
(WY)	(2005)	(2003)	(2001)	(2005)	(2000)	(2000)	(2000)	(2002)	(2002)	(1999)	(2002)	(1997)

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SUMMARY STATISTICS

	Calendar Year 2006	Water Year 2007	Water Years 1974 - 2007	
Annual total	5,535.26	3,265.2		
Annual mean	15.2	8.95	15.7	
Highest annual mean			26.2	1979
Lowest annual mean			5.07	2002
Highest daily mean	25 Apr 11	14 Oct 2	41	May 6, 1995
Lowest daily mean	0.00 Jan 3	1.2 Sep 11	0.00	Mar 3, 1974
Annual seven-day minimum	0.00 May 1	1.4 Sep 6	0.00	Sep 5, 1997
Annual runoff (ac-ft)	10,980	6,480	11,380	
10 percent exceeds	23	12	25	
50 percent exceeds	15	8.8	16	
90 percent exceeds	7.5	6.5	5.8	

