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Water-Data Report 2011

11062000 Lytle Creek near Fontana, CA

Santa Ana River Basin

LOCATION.--Lat 34°12′44″, long 117°27′26″ referenced to North American Datum of 1927, in NW ¼ SE ¼ sec.36, T.2 N., R.6 W., San Bernardino County, CA, Hydrologic Unit 18070203, on right bank, 25 ft upstream from highway culvert crossing, 0.7 mi upstream from right tributary, 2.3 mi downstream from Lytle Creek Conduit, and 8 mi north of Fontana.

DRAINAGE AREA.--46.6 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1918 to current year. Combined records of Lytle Creek and diversions, October 1898 to December 1899, October 1904 to current year (published as "at mouth of canyon near Rialto" 1898-99, as "near San Bernardino" 1904-18, and as "Lytle Creek and Fontana pipeline near Fontana" 1919-31). Monthly discharge only for some periods published in WSP 1315-B.

REVISED RECORDS.--WSP 1011: 1943. WDR CA-83-1: Drainage area. WDR CA-98-1: 1969 (instantaneous maximum discharge).

GAGE.--Water-stage recorder and crest-stage gage on creek. Elevation of gage is 2,380 ft above NGVD of 1929, from topographic map. October 1918 to Mar. 21, 1938, at site 1 mi downstream at different datum. Mar. 22, 1938, to Nov. 20, 1963, at site 75 ft downstream at datum 4.58 ft lower. Water-stage recorder and sharp-crested weir on conduit since June 3, 1949. Water-stage recorder and sharp-crested weir on infiltration line from Oct. 1, 1971, to Sept. 30, 1992; nonrecording flow meter on diversion pipe since Oct. 1, 1992.

COOPERATION.--Records for Lytle Creek Conduit 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. 1932. Records for Fontana Water Co.'s infiltration line were provided by Fontana Water Co.

REMARKS.--Records poor. No regulation upstream from station. Southern California Edison Co.'s Lytle Creek Conduit (station 11060900) diverts 2.3 mi upstream for power development and Fontana Water Co. collects water from an infiltration line (station 11061000) upstream for irrigation and domestic use. Abrupt changes in the combined discharge of Lytle Creek and diversions occurs at times, due to changes in diversion, the distances between diversion and gage locations, time of travel, and changes in surface and subsurface storage. Spill can occur from Southern California Edison Co.'s Lytle Creek forebay during unusually high flows. Water can be pumped from channel by two pumps at Miller Narrows at a point approximately 2 mi upstream. No water has been pumped out of channel since 1971. For records of combined discharge of Lytle Creek and diversions, see station 11062001. See schematic diagram of Santa Ana River Basin available from the California Water Science Center.

EXTREMES FOR PERIOD OF RECORD.--Creek only: Maximum discharge, 25,200 ft³/s, Mar. 2, 1938, gage height unknown, on basis of slope-area measurement of peak flow; maximum gage height, 15.0 ft, Jan. 25, 1969; no flow at times most years.
Combined creek and diversions: Maximum discharge, 25,200 ft³/s, Mar. 2, 1938; minimum daily, 2.4 ft³/s, Feb. 2, 7, 2003.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft³/s and (or) maximum (*):

[e, estimated]

Date	Time	Discharge (ft³/s)	Gage height (ft)
Dec 19	1645	1,550	6.70
Dec 20	1630	*e8,900	*13.86
Dec 22	0345	2,970	8.56
Dec 23	1030	1,010	5.80
Mar 20	2345	382	4.37

Suggested citation: U.S. Geological Survey, 2012, Water-resources data for the United States, Water Year 2011: U.S. Geological Survey Water-Data Report WDR-US-2011, site 11062000, accessed at http://wdr.water.usgs.gov/wy2011/pdfs/11062000.2011.pdf

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	1.7	e5.5	4.2	125	44	62	91	58	48	41	18	4.5
2	1.9	e5.3	3.6	125	40	61	89	57	49	41	19	4.4
3	1.9	e5.0	3.4	113	40	60	98	52	51	44	26	4.2
4	6.7	5.1	3.1	104	38	60	76	49	49	e41	36	4.6
5	12	5.0	3.3	97	43	56	87	48	47	42	26	10
6	13	5.0	32	91	45	48	84	58	47	e41	18	14
7	13	5.2	22	92	41	44	82	61	40	40	16	21
8	12	5.6	12	88	38	40	89	61	36	38	15	24
9	11	5.3	11	86	36	38	74	59	40	40	16	24
10	12	5.1	9.7	86	33	34	71	56	40	38	17	23
11	11	4.9	8.8	90	30	33	70	55	40	e39	18	20
12	11	4.5	7.9	89	34	32	67	53	41	40	19	19
13	12	4.3	7.6	84	36	27	66	53	41	41	17	19
14	12	3.9	7.1	80	30	25	73	53	40	42	11	19
15	11	3.4	7.4	78	28	21	101	54	38	46	14	19
16	11	3.1	6.9	76	44	29	96	55	39	e44	13	21
17	12	3.0	14	76	35	18	77	59	39	49	13	25
18	11	2.9	38	65	52	19	73	60	39	50	10	24
19	10	3.2	330	54	112	18	84	56	39	50	12	23
20	9.3	19	e2,000	52	97	64	74	54	37	43	13	22
21	8.4	25	1,020	51	91	121	74	53	37	36	13	21
22	8.6	16	e1,250	49	79	79	70	53	37	34	11	24
23	8.6	8.0	e800	51	72	66	71	54	38	38	13	26
24	8.3	7.0	541	51	71	67	70	53	38	36	10	27
25	8.1	6.8	328	43	75	94	67	51	39	24	9.3	27
26	7.7	6.1	295	33	131	72	67	51	38	27	6.7	27
27	7.4	5.6	219	29	90	80	64	49	37	24	6.6	26
28	6.6	5.0	167	33	74	74	62	46	39	23	5.6	26
29	e6.0	5.1	168	39	---	72	57	49	41	22	4.2	27
30	e5.8	4.8	158	37	---	75	56	45	42	19	4.2	27
31	e5.6	---	142	40	---	83	---	46	---	20	4.8	---
Total	276.6	193.7	7,620.0	2,207	1,579	1,672	2,280	1,661	1,226	1,153	435.4	602.7
Mean	8.92	6.46	246	71.2	56.4	53.9	76.0	53.6	40.9	37.2	14.0	20.1
Max	13	25	2,000	125	131	121	101	61	51	50	36	27
Min	1.7	2.9	3.1	29	28	18	56	45	36	19	4.2	4.2
Ac-ft	549	384	15,110	4,380	3,130	3,320	4,520	3,290	2,430	2,290	864	1,200

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1919 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	4.75	7.62	13.0	29.5	43.8	52.0	30.1	20.9	15.3	11.8	8.09	6.14
Max	48.2	275	246	552	633	752	254	189	157	131	91.7	65.7
(WY)	(1984)	(1966)	(2011)	(1969)	(1980)	(1938)	(1978)	(1993)	(1983)	(1983)	(2005)	(1983)
Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	(1919)	(1919)	(1919)	(1919)	(1919)	(1919)	(1919)	(1919)	(1919)	(1919)	(1919)	(1919)

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SUMMARY STATISTICS

[e, estimated]

	Calendar Year 2010		Water Year 2011		Water Years 1919 - 2011	
Annual total	13,535.02		20,906.4			
Annual mean	37.1		57.3		20.3	
Highest annual mean					177	1969
Lowest annual mean					0.00	1919
Highest daily mean	2,000	Dec 20	2,000	Dec 20	8,950	Mar 2, 1938
Lowest daily mean	0.00	Jan 1	1.7	Oct 1	0.00	Oct 1, 1918
Annual seven-day minimum	0.00	Jan 1	3.4	Nov 13	0.00	Oct 1, 1918
Maximum peak flow			e8,900	Dec 20	25,200	Mar 2, 1938
Maximum peak stage			13.86	Dec 20	15.00	Jan 25, 1969
Annual runoff (ac-ft)	26,850		41,470		14,740	
10 percent exceeds	60		87		47	
50 percent exceeds	7.4		38		0.00	
90 percent exceeds	0.00		5.6		0.00