Water-Data Report 2013

11055500 Plunge Creek near East Highlands, CA

Santa Ana River Basin

LOCATION.--Lat 34°07′06″, long 117°08′27″ referenced to North American Datum of 1927, in NE ¼ NE ¼ sec.1, T.1 S., R.3 W., San Bernardino County, CA, Hydrologic Unit 18070203, on left bank, at mouth of canyon, at crossing of North Fork Ditch siphon, and 1.8 mi northeast of East Highlands.

DRAINAGE AREA.--16.9 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--January 1919 to current year; combined records of creek and diversions, March 1951 to current year.

REVISED RECORDS.--WSP 1635: 1924, 1926, 1935-36 (instantaneous maximum discharge), 1943, 1944 (instantaneous maximum discharge), 1945, 1946 (instantaneous maximum discharge), 1947, 1950 (instantaneous maximum discharge). WSP 1715: 1956-58 (instantaneous maximum discharge). WSP 1928: Drainage area.

GAGE.--Water-stage recorder and concrete control on creek. Since March 1951, water-stage recorder and weir on upper diversion discontinued Sept. 30, 1991, reactivated July 27, 1993; water-stage recorder and concrete-lined canal on middle diversion; crest-stage gage and sharp-crested weir on lower diversion. The crest-stage gage on the lower diversion was removed in June 2008. Elevation of creek gage is 1,590 ft above NGVD of 1929, from topographic map. Prior to Oct. 1, 1969, creek gage at datum 4.00 ft higher. Diversions all at different datums.

REMARKS.--Records fair except for estimated daily discharges, which are poor. No regulation upstream from station. Diversion from Alder Creek to Upper Plunge Creek area was active 1904-67. Diversions for irrigation are made, at times, at sites 0.5 mi (station 11055450), 1.0 mi (station 11055400), and 2.5 mi (station 11055350) upstream from streamflow station. Water has been subject to diversion for irrigation from upstream sites during entire period of record. For combined discharge of Plunge Creek and diversions, see station 11055501. No flow in lower diversion since May 29, 1966. No flow in middle diversion since Feb. 8, 2004. No flow in upper diversion since Oct. 11, 2000. See schematic diagram of Santa Ana River Basin available from the California Water Science Center.

EXTREMES FOR PERIOD OF RECORD.-- Creek only: Maximum discharge, 5,740 ft^3/s, Dec 22, 2010, on basis of independent high water mark; maximum recorded gage height, 11.29 ft, Dec 22, 2010, from flood marks left by a debris flow near gage. The maximum stage for the period of record is not related to the maximum discharge on that day, but rather it is associated with a debris flow at the gage station. The actual discharge associated with the maximum stage is unknown; no flow at times in some years.

Combined creek and diversions: Maximum discharge, 5.740 ft^3/s, Dec. 22, 2010; no flow Nov. 12, 1964, Sept. 29, 1965, Aug. 4, 1987, several days in November 1988, September 1991, many days in 1992, and several days in September 2003.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft^3/s and (or) maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 13	1145	*37	*3.25

Suggested citation: U.S. Geological Survey, 2014, Water-resources data for the United States, Water Year 2013: U.S. Geological Survey Water-Data Report WDR-US-2013, site 11055500, accessed at http://wdr.water.usgs.gov/wy2013/pdfs/11055500.2013.pdf

11055500 Plunge Creek near East Highlands, CA—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0.86	1.2	2.8	3.9	4.2	4.6	3.6	1.7	1.0	0.42	0.70	e0.90
2	0.84	1.2	2.8	3.8	4.0	4.4	3.4	1.6	0.95	0.43	0.60	e1.0
3	0.86	1.3	3.1	3.7	3.9	4.4	3.2	1.5	1.0	0.42	0.56	e0.85
4	0.91	1.2	2.6	3.6	3.8	4.4	3.2	1.5	1.1	0.43	0.51	e0.75
5	0.97	1.2	2.3	3.7	3.8	4.3	3.2	1.7	1.1	0.43	0.47	e0.65
6	1.0	1.2	2.2	4.0	3.8	4.4	3.2	2.2	1.1	0.45	0.44	0.52
7	1.0	1.2	2.0	4.1	3.8	5.1	3.1	2.3	0.96	0.42	0.45	0.56
8	1.1	1.5	1.9	3.9	5.1	8.8	e3.5	2.0	0.91	0.41	0.44	0.70
9	1.1	4.3	1.9	3.9	e4.9	10	3.1	1.9	0.93	0.39	0.46	0.73
10	1.2	2.3	1.9	4.2	4.7	8.1	2.8	1.9	0.89	0.42	0.50	0.71
11	1.3	1.9	1.9	4.1	4.5	7.4	2.8	1.7	0.85	0.62	0.50	0.76
12	1.5	1.7	1.9	4.0	4.3	6.8	2.8	1.5	0.84	0.70	0.47	0.77
13	1.4	1.7	16	3.8	4.4	e6.0	2.6	1.4	0.86	0.55	0.44	0.71
14	1.2	1.6	9.8	3.7	4.6	e5.3	2.7	1.3	0.81	0.51	0.39	0.68
15	1.1	1.5	5.4	3.7	4.6	4.8	2.8	1.3	0.81	e0.52	0.36	0.62
16	1.1	1.5	4.1	3.7	4.5	4.6	2.6	1.4	0.83	0.48	0.34	0.63
17	1.1	2.0	3.6	3.5	4.4	4.5	2.4	1.5	0.81	0.45	0.34	0.65
18	1.1	2.2	8.9	3.4	4.4	4.5	2.3	1.6	0.80	0.43	0.32	0.74
19	1.2	2.0	6.9	3.4	4.9	4.4	2.2	1.5	0.82	0.43	0.35	0.78
20	1.2	1.9	4.8	3.4	7.2	4.3	2.1	e1.3	0.78	0.63	0.36	0.80
21	1.3	1.8	4.1	3.4	6.2	4.4	2.0	1.2	0.74	0.94	0.33	0.71
22	1.4	1.8	3.7	3.4	5.8	4.4	1.9	1.1	0.75	0.97	0.30	0.84
23	1.4	1.8	3.5	3.4	5.7	e4.4	2.0	1.2	0.80	0.81	0.30	0.76
24	1.4	1.8	3.4	4.3	5.3	e4.4	2.0	1.3	0.94	0.75	0.33	0.66
25	1.3	1.7	3.2	5.1	5.2	4.6	2.1	1.3	1.0	0.69	0.45	0.67
26	1.2	1.8	4.4	5.7	5.1	4.4	2.1	1.4	0.79	0.75	0.60	0.80
27	1.1	1.8	4.1	5.2	4.9	4.2	1.9	1.4	0.51	0.73	0.69	0.80
28	1.1	1.8	3.8	5.6	4.7	4.2	1.9	1.5	0.46	0.69	0.59	0.70
29	1.1	1.9	4.0	4.9	---	4.2	1.8	1.4	0.42	0.72	0.55	0.65
30	1.1	2.6	4.3	4.6	---	4.0	1.8	1.2	0.40	0.71	0.70	0.65
31	1.1	---	3.9	4.3	---	3.7	---	1.1	---	0.70	e0.82	---
Total	35.54	53.4	129.2	125.4	132.7	158.0	77.1	46.9	24.96	18.00	14.66	21.75
Mean	1.15	1.78	4.17	4.05	4.74	5.10	2.57	1.51	0.83	0.58	0.47	0.72
Max	1.5	4.3	16	5.7	7.2	10	3.6	2.3	1.1	0.97	0.82	1.0
Min	0.84	1.2	1.9	3.4	3.8	3.7	1.8	1.1	0.40	0.39	0.30	0.52
Ac-ft	70	106	256	249	263	313	153	93	50	36	29	43

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1919 - 2013, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	0.50	2.04	7.05	13.1	21.5	21.5	12.4	4.32	1.32	0.48	0.28	0.42
Max	7.76	44.7	106	170	224	176	74.2	51.7	15.1	5.52	4.87	10.9
(WY)	(2005)	(1966)	(1967)	(1993)	(1969)	(1938)	(1958)	(1998)	(1998)	(1998)	(1983)	(1978)
Min	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	(1920)	(1921)	(1930)	(1963)	(1961)	(1961)	(1961)	(1919)	(1919)	(1919)	(1919)	(1919)

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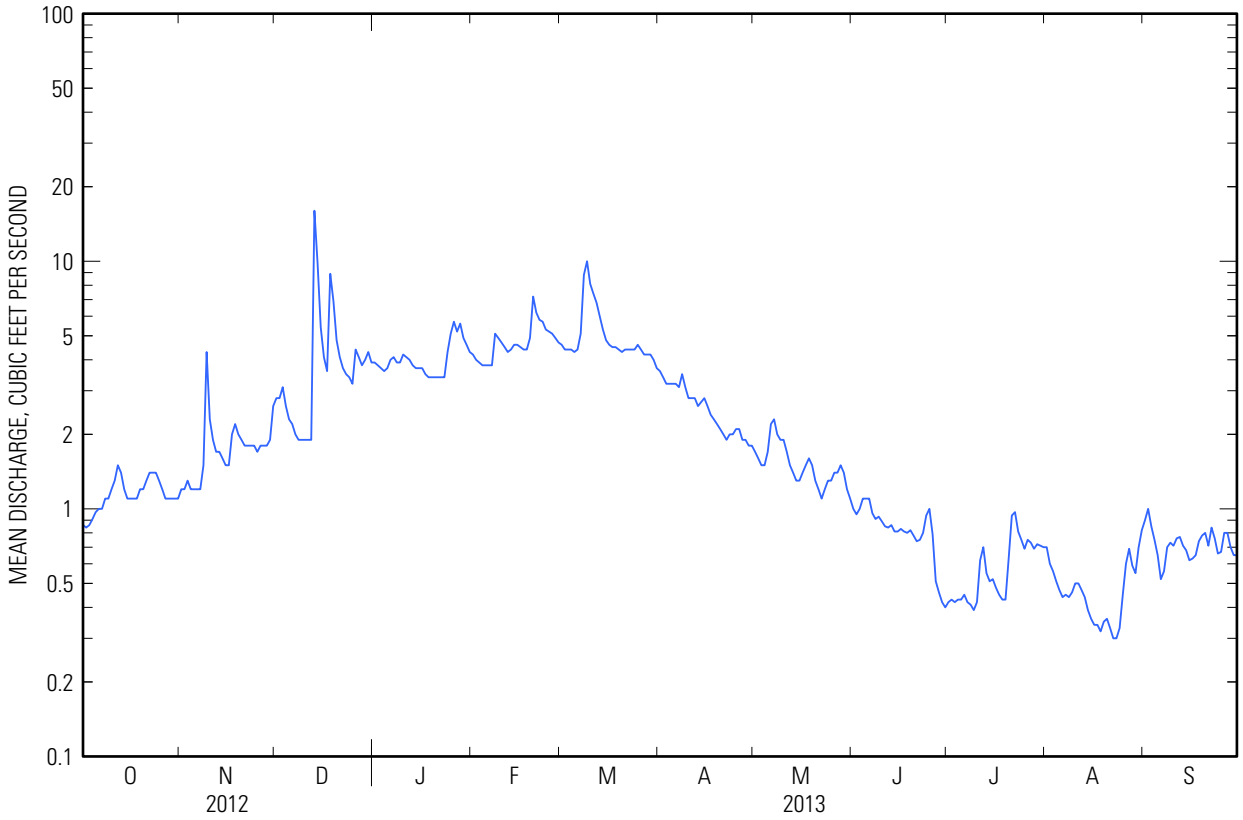
SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1919 - 2013	
Annual total	1,210.81		837.61			
Annual mean	3.31		2.29		7.04	
Highest annual mean					42.5	1969
Lowest annual mean					0.05	1961
Highest daily mean	27	Apr 14	16	Dec 13	1,840	Jan 25, 1969
Lowest daily mean	0.84	Oct 2	0.30	Aug 22	0.00	May 1, 1919
Annual seven-day minimum	0.87	Sep 18	0.33	Aug 18	0.00	May 1, 1919
Maximum peak flow			37	Dec 13	5,740	Dec 22, 2010
Maximum peak stage			3.25	Dec 13	11.29	Dec 22, 2010
Annual runoff (ac-ft)	2,400		1,660		5,100	
10 percent exceeds	7.0		4.6		14	
50 percent exceeds	2.5		1.5		0.43	
90 percent exceeds	0.99		0.49		0.00