

11063680 Devil Canyon Creek near San Bernardino, CA

Santa Ana River Basin

LOCATION.--Lat 34°12'30", long 117°19'50" referenced to North American Datum of 1927, San Bernardino County, CA, Hydrologic Unit 18070203, in Muscupiabe Grant, on left bank, 0.6 mi downstream from confluence of East and West Forks, and 7.5 mi northwest of San Bernardino.

DRAINAGE AREA.--5.49 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--November 1911 to September 1912, October 1913 to September 1914, December 1919 to current year. Monthly figures only for January 1914, published in WSP 1315-B.

REVISED RECORDS.--WSP 1928: Drainage area.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 2,080 ft above NGVD of 1929, from topographic map. Prior to December 1919, nonrecording gage at site 0.5 mi downstream at different datum. December 1919 to July 1969, at site 0.4 mi downstream at different datum. July 1969 to September 1972, present gage used as supplementary gage. Oct. 1, 1973, to Feb. 25, 1974, supplementary gage at site 0.5 mi downstream at different datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. No regulation upstream from station. City of San Bernardino diverts upstream from station at times, with diverted flows routed to recharge basins downstream from station. Natural flow affected by pumping along creek. Records given below are for creek only unless otherwise indicated. See schematic diagram of Santa Ana River Basin available from the California Water Science Center.

EXTREMES FOR PERIOD OF RECORD.--(1913-14 and since 1919) Maximum discharge, 3,720 ft³/s, Jan. 25, 1969, gage height, 5.40 ft, site and datum then in use, on basis of slope-area measurement of peak flow. The peak discharges on Dec. 25, 2003, Oct. 20, 27, 2004, and Jan. 9, 2005, were the result of debris flows, due to intense rain storms occurring where a wildfire had burned over 90 percent of the drainage basin in October 2003. The peak discharges for these events are unknown. Maximum gage height, 15.61 ft, Oct. 27, 2004, from floodmarks left by debris flow; no flow at times in some years.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 50 ft³/s and (or) maximum (*), from rating curve extended above 158 ft³/s:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec 19	1715	261	6.31
Dec 20	2000	*729	*7.01
Dec 22	0515	447	6.64
Feb 26	0300	64	5.73
Mar 25	1015	50	5.67

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

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	1.0	2.2	2.0	11	7.2	11	16	8.5	5.6	3.5	3.4	1.9
2	1.0	2.1	2.0	13	7.0	10	16	8.2	5.5	3.3	3.1	1.9
3	1.0	2.1	2.0	22	6.8	9.5	16	7.9	5.4	3.2	3.0	1.9
4	1.2	2.1	2.0	18	6.6	9.0	15	7.7	5.3	3.2	2.9	1.9
5	1.3	2.1	2.0	17	6.5	8.6	14	7.3	5.3	3.2	2.8	2.1
6	1.5	2.1	2.4	15	6.3	8.3	14	6.9	5.7	3.3	2.8	1.9
7	1.5	2.2	2.2	15	6.2	15	15	7.0	5.2	3.2	2.8	1.9
8	1.4	3.1	2.2	14	6.3	10	14	8.1	5.2	3.1	2.7	1.8
9	1.3	2.5	2.2	14	6.1	8.9	14	7.8	5.3	3.1	2.7	1.8
10	1.2	1.9	2.2	13	6.1	8.5	13	7.4	5.2	3.0	2.8	2.0
11	1.2	1.8	2.1	12	5.9	7.6	13	7.0	5.1	3.0	2.8	2.0
12	1.1	1.8	2.0	11	5.8	7.4	12	6.7	5.1	3.0	2.8	1.9
13	1.1	1.8	2.0	11	5.7	7.1	12	6.4	4.9	3.1	2.7	1.9
14	1.2	1.7	2.1	11	5.7	6.9	12	6.8	4.8	3.2	2.6	2.0
15	1.2	1.7	2.2	10	5.8	6.7	11	9.1	4.7	3.1	2.5	2.0
16	1.3	1.7	2.5	10	11	6.5	11	7.8	4.7	3.1	2.4	2.1
17	1.4	1.7	3.9	9.7	8.1	6.4	11	8.2	4.7	2.9	2.3	2.2
18	1.6	1.7	10	9.5	8.3	6.2	12	9.3	4.6	2.8	2.2	2.0
19	1.6	1.8	88	9.3	13	8.3	12	8.0	4.7	2.7	2.3	1.9
20	1.8	15	131	9.0	12	8.1	11	7.3	4.4	2.6	2.3	1.9
21	2.1	7.9	69	8.7	10	20	11	6.9	4.2	2.6	2.3	1.8
22	2.2	4.6	191	8.5	9.1	12	11	6.8	4.0	2.6	2.2	1.8
23	2.2	3.6	94	8.3	8.6	11	11	7.0	3.9	2.5	2.2	1.8
24	2.2	3.2	73	8.0	8.2	10	11	6.7	3.9	2.4	2.1	1.9
25	2.3	2.6	53	7.8	9.9	28	10	6.3	3.9	2.4	2.1	2.2
26	2.1	2.3	43	7.7	30	22	9.8	6.2	3.7	2.3	2.0	2.1
27	2.0	2.2	26	7.5	15	24	9.4	6.1	3.6	2.3	1.9	1.9
28	2.1	2.2	18	7.4	13	21	9.1	6.0	3.6	2.3	1.9	1.8
29	2.1	2.2	18	7.3	---	20	9.0	6.7	3.7	2.3	1.9	1.8
30	2.4	2.0	15	7.9	---	18	8.8	6.1	3.7	2.3	1.9	1.8
31	2.4	---	12	7.5	---	17	---	5.8	---	3.6	1.9	---
Total	50.0	85.9	879.0	341.1	250.2	373.0	364.1	224.0	139.6	89.2	76.3	57.9
Mean	1.61	2.86	28.4	11.0	8.94	12.0	12.1	7.23	4.65	2.88	2.46	1.93
Max	2.4	15	191	22	30	28	16	9.3	5.7	3.6	3.4	2.2
Min	1.0	1.7	2.0	7.3	5.7	6.2	8.8	5.8	3.6	2.3	1.9	1.8
Ac-ft	99	170	1,740	677	496	740	722	444	277	177	151	115

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1920 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	0.55	1.08	2.27	4.34	7.00	7.32	4.57	2.42	1.19	0.67	0.46	0.42
Max	9.02	12.9	28.4	55.6	108	72.9	28.3	15.2	9.49	5.09	3.83	3.33
(WY)	(2005)	(1966)	(2011)	(2005)	(1980)	(1938)	(1978)	(1983)	(1998)	(1998)	(1993)	(1976)
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)	(1926)	(1926)	(1926)	(1926)	(1948)	(1951)	(1951)	(1951)	(1947)	(1926)	(1925)	(1924)

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SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1920 - 2011	
Annual total	2,165.60		2,930.3			
Annual mean	5.93		8.03		2.65	
Highest annual mean					16.1	1980
Lowest annual mean					0.00	1951
Highest daily mean	191	Dec 22	191	Dec 22	556	Jan 25, 1969
Lowest daily mean	0.92	Sep 28	1.0	Oct 1	0.00	Sep 23, 1921
Annual seven-day minimum	0.99	Sep 25	1.2	Oct 9	0.00	Sep 23, 1921
Maximum peak flow			729	Dec 20	3,720	Jan 25, 1969
Maximum peak stage			7.01	Dec 20	^a 15.61	Oct 27, 2004
Annual runoff (ac-ft)	4,300		5,810		1,920	
10 percent exceeds	8.0		14		5.8	
50 percent exceeds	2.4		4.7		0.30	
90 percent exceeds	1.2		1.8		0.00	

^a The maximum peak stage is associated with a debris flow, which occurred on Oct. 27, 2004.

