

11075800 Santiago Creek at Modjeska, CA

Santa Ana River Basin

LOCATION.--Lat 33°42'46", long 117°38'39" referenced to North American Datum of 1927, in NE ¼ NE ¼ sec.30, T.5 S., R.7 W., Orange County, CA, Hydrologic Unit 18070203, on right bank, on upstream side of Santiago Canyon Road Bridge, 0.9 mi northwest of Modjeska, 1.0 mi downstream from Harding Creek, and 1.5 mi downstream from Modjeska Reservoir.

DRAINAGE AREA.--13.0 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1961 to current year.

REVISED RECORDS.--WDR CA-73-1: 1969. WDR CA-86-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 1,210 ft above NGVD of 1929, from topographic map. Prior to Sept. 10, 1969, at site 0.6 mi upstream at datum approximately 48 ft higher. Sept. 10, 1969, to Feb. 6, 1985, at site 0.6 mi upstream at datum approximately 44 ft higher.

REMARKS.--Records poor. Slight regulation by Modjeska Reservoir on Harding Creek. Santiago County Water District diverts water at Modjeska Reservoir on Harding Creek. See schematic diagram of Santa Ana River Basin available from the California Water Science Center.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,520 ft³/s, Feb. 25, 1969, gage height, 6.18 ft, site and datum then in use, from rating curve extended above 840 ft³/s, on basis of slope-area measurement of peak flow, maximum gage height, 12.03 ft, Feb. 23, 1998; no flow at times in most years.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft³/s and (or) maximum (*), from rating curve extended above 444 ft³/s:

[e, estimated]

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec 22	unknown	*e3,000	*8.39
Feb 27	0030	180	6.14

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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	0.00	0.00	0.16	e36	9.9	41	9.1	3.9	2.5	e0.44	0.24	0.05
2	0.00	0.00	0.10	e50	8.2	38	8.9	3.7	2.4	e0.44	0.23	0.04
3	0.00	0.00	0.12	e86	6.8	36	8.6	3.5	2.6	e0.43	0.21	0.03
4	0.00	0.00	0.16	e40	6.6	32	8.0	3.3	2.4	e0.42	0.20	0.04
5	0.00	0.00	0.23	e33	6.4	30	8.3	3.1	1.9	e0.41	0.19	0.03
6	0.00	0.00	0.34	e29	6.1	27	8.8	3.1	1.7	e0.40	0.17	0.02
7	0.00	0.00	0.41	e25	5.9	29	8.4	3.2	1.9	e0.40	0.17	0.01
8	0.00	0.00	0.38	22	5.9	27	8.9	3.2	1.5	e0.40	0.16	0.01
9	0.00	0.00	0.34	22	5.5	24	8.6	3.5	1.6	e0.39	0.15	0.01
10	0.00	0.00	0.31	23	5.3	22	7.5	3.6	1.4	e0.39	0.14	0.01
11	0.00	0.00	0.24	23	5.3	19	7.0	3.8	1.3	e0.39	0.14	0.00
12	0.00	0.00	0.18	23	4.9	19	6.6	3.7	1.3	e0.39	0.13	0.01
13	0.00	0.00	0.18	23	4.7	15	6.5	3.9	1.2	e0.39	0.12	0.00
14	0.00	0.00	0.19	19	4.7	13	6.4	4.3	1.1	e0.39	0.12	0.00
15	0.00	0.00	0.17	18	4.7	13	6.1	4.7	0.81	e0.40	0.11	0.00
16	0.00	0.00	0.34	17	6.6	12	5.6	4.5	0.79	e0.40	0.11	0.00
17	0.00	0.00	0.55	17	6.5	12	5.8	4.6	0.78	e0.40	0.11	0.00
18	0.00	0.00	9.0	16	6.9	13	5.7	5.5	0.69	e0.39	0.09	0.00
19	0.00	0.00	81	16	18	14	5.5	4.6	0.84	e0.39	0.10	0.00
20	0.01	0.15	e511	14	20	14	5.4	4.2	0.78	0.41	0.11	0.00
21	0.00	0.00	e473	13	19	14	5.0	4.1	e0.63	0.41	0.11	0.00
22	0.00	0.00	e1,220	13	17	9.7	4.8	4.1	e0.59	0.37	0.10	0.00
23	0.00	0.05	e176	12	16	9.7	4.7	4.2	e0.53	0.35	0.09	0.00
24	0.00	0.55	e87	12	15	9.2	4.5	4.2	e0.49	0.34	0.07	0.00
25	0.00	0.22	e60	11	15	12	4.6	3.7	e0.46	0.32	0.07	0.00
26	0.00	0.15	e99	11	111	11	4.7	3.8	e0.46	0.32	0.06	0.00
27	0.00	0.16	e56	10	99	11	4.7	3.5	e0.45	0.33	0.05	0.00
28	0.00	0.15	e45	10	50	11	4.5	3.1	e0.44	0.31	0.04	0.00
29	0.00	0.16	e151	9.6	---	10	4.4	3.4	e0.44	0.30	0.04	0.00
30	0.00	0.16	e58	12	---	9.8	4.1	3.0	e0.44	0.29	0.05	0.00
31	0.00	---	e41	11	---	9.3	---	2.6	---	0.29	0.04	---
Total	0.01	1.75	3,071.40	676.6	490.9	566.7	191.7	117.6	34.42	11.70	3.72	0.26
Mean	0.00	0.06	99.1	21.8	17.5	18.3	6.39	3.79	1.15	0.38	0.12	0.01
Max	0.01	0.55	1,220	86	111	41	9.1	5.5	2.6	0.44	0.24	0.05
Min	0.00	0.00	0.10	9.6	4.7	9.2	4.1	2.6	0.44	0.29	0.04	0.00
Ac-ft	0.02	3.5	6,090	1,340	974	1,120	380	233	68	23	7.4	0.5

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	0.25	1.43	6.55	16.4	33.6	20.4	5.88	3.26	1.25	0.33	0.11	0.05
Max	5.36	33.5	99.1	179	404	137	33.7	27.0	8.76	2.84	1.68	1.07
(WY)	(2005)	(1966)	(2011)	(1993)	(1998)	(1978)	(1983)	(1983)	(1998)	(1983)	(1983)	(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)	(1962)	(1962)	(1963)	(1963)	(2002)	(2002)	(2002)	(1992)	(1987)	(1963)	(1962)	(1962)

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SUMMARY STATISTICS

[e, estimated]

	Calendar Year 2010		Water Year 2011		Water Years 1962 - 2011	
Annual total	4,833.01		5,166.76			
Annual mean	13.2		14.2		7.32	
Highest annual mean					47.2	1969
Lowest annual mean					0.00	2002
Highest daily mean	e1,220	Dec 22	e1,220	Dec 22	3,590	Feb 24, 1969
Lowest daily mean	0.00	Jul 1	0.00	Oct 1	0.00	Oct 1, 1961
Annual seven-day minimum	0.00	Jul 1	0.00	Oct 1	0.00	Oct 1, 1961
Maximum peak flow			e3,000	Dec 22	6,520	Feb 25, 1969
Maximum peak stage			8.39	Dec 22	12.03	Feb 23, 1998
Annual runoff (ac-ft)	9,590		10,250		5,300	
10 percent exceeds	23		22		10	
50 percent exceeds	0.31		0.78		0.12	
90 percent exceeds	0.00		0.00		0.00	

