

Water-Data Report 2011

11073360 Chino Creek at Schaefer Avenue, near Chino, CA

Santa Ana River Basin

LOCATION.--Lat 34°00'14", long 117°43'34" referenced to North American Datum of 1927, San Bernardino County, CA, Hydrologic Unit 18070203, in Santa Ana del Chino Grant, on right bank, 300 ft downstream from old Schaefer Avenue Bridge, 0.8 mi downstream from San Antonio Creek, and 1.5 mi southwest of Chino.

DRAINAGE AREA.--48.9 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1969 to current year.

CHEMICAL DATA: Water year 1998.

SEDIMENT DATA: Water year 1998.

REVISED RECORDS.--WDR CA-84-1: 1983 (instantaneous maximum discharge). WDR CA-95-1: 1992, 1993.

GAGE.--Water-stage recorder and concrete-lined flood-control channel. Concrete dikes formed low-water control from October 1975 to Apr. 16, 1991.

Elevation of gage is 685 ft above NGVD of 1929, from topographic map.

REMARKS.--Records rated good. Since 1997, due to construction in area of gage, Schaefer Avenue no longer extends to the Chino Creek crossing. The Schaefer Avenue Bridge, however, remains. Flow mostly regulated by San Antonio Flood-Control Reservoir, capacity, 7,700 acre-ft. Natural streamflow affected by extensive ground-water withdrawals, diversions for power, domestic use, irrigation, and return flow from irrigated areas. Releases of imported water are made to the basin by the California Water Project at times in some years, via San Antonio Creek from Rialto Pipeline below San Antonio Dam, at a site approximately 11 mi upstream. During the current year, the California Water Project released 12,190 acre-ft to the basin, though a portion of this total bypassed San Antonio Creek and was not recorded at this station. See schematic diagram of Santa Ana River Basin available from the California Water Science Center.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,700 ft³/s, Feb. 27, 1983, gage height, 10.32 ft, from rating curve extended above 560 ft³/s, on basis of slope-conveyance study; no flow May 21, June 30, July 1, Oct. 30, Nov. 3, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 25, 1969, reached a stage of 9.23 ft, present datum, discharge, 9,200 ft³/s, on basis of contracted-opening measurement at site 6.1 mi downstream.

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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	14	0.71	0.51	1.0	1.3	1.2	1.00	0.91	0.95	33	11	56
2	0.72	0.63	0.58	26	1.2	0.99	0.91	1.0	0.89	43	68	66
3	0.67	0.57	0.55	15	1.1	3.1	0.85	1.00	0.82	38	126	66
4	0.72	0.61	0.54	1.2	1.00	0.86	0.87	1.0	0.74	32	111	61
5	1.2	0.59	25	1.0	1.1	0.89	0.87	1.0	0.75	41	83	51
6	16	0.56	51	0.97	2.8	0.89	0.80	1.1	0.96	46	66	51
7	0.90	0.54	0.76	0.93	1.6	2.8	1.0	0.93	0.82	43	61	65
8	0.88	8.3	0.62	0.94	0.92	1.4	0.75	0.93	0.76	66	45	60
9	0.66	0.57	0.59	0.91	0.84	0.91	0.82	1.0	0.79	68	46	62
10	0.77	0.54	0.59	1.0	0.84	0.97	1.1	1.1	0.78	57	44	62
11	0.85	0.50	0.63	1.5	1.0	0.97	0.77	0.99	0.82	60	42	64
12	0.69	0.54	0.58	1.1	0.86	0.90	0.80	1.1	0.84	74	54	65
13	0.74	0.54	0.57	1.1	0.85	0.94	0.78	1.1	0.86	90	54	62
14	0.66	0.52	0.59	1.1	0.87	1.1	0.82	0.95	0.84	88	55	53
15	0.67	0.54	0.58	1.1	0.89	1.0	0.86	4.3	0.78	78	47	32
16	0.67	0.55	13	1.1	46	1.0	0.92	1.0	0.78	108	57	40
17	1.0	0.57	34	1.2	1.1	0.87	0.92	1.5	0.75	109	59	32
18	0.76	0.56	103	1.3	124	0.82	0.82	21	0.78	102	57	27
19	4.4	0.56	599	1.2	41	3.2	0.87	1.1	0.76	102	56	15
20	1.8	125	571	1.2	7.6	268	0.83	1.1	0.89	105	57	1.3
21	7.4	51	360	1.2	1.8	133	0.86	1.0	0.67	100	62	2.8
22	0.77	0.69	863	1.2	1.2	1.3	0.88	0.89	0.70	100	64	1.3
23	0.71	0.61	94	1.2	1.5	49	1.0	0.94	0.69	90	64	1.3
24	0.71	1.5	1.7	1.2	0.93	2.2	0.96	0.95	0.77	101	66	0.92
25	8.0	0.53	47	1.2	102	108	1.0	0.93	0.71	107	65	0.95
26	0.92	0.51	43	1.3	327	1.3	1.1	0.98	0.72	104	65	0.93
27	0.63	0.73	1.5	1.2	1.4	1.0	1.0	0.97	0.72	110	66	0.96
28	0.62	1.6	1.8	1.3	1.1	0.99	1.2	0.83	0.74	109	66	0.97
29	0.63	0.51	139	1.2	---	1.0	0.98	1.00	0.72	108	66	0.91
30	25	0.51	1.7	22	---	1.3	0.96	0.86	26	102	52	0.93
31	0.70	---	1.4	1.6	---	1.1	---	0.89	---	103	48	---
Total	94.85	201.69	2,957.79	95.45	673.80	593.00	27.30	54.35	48.80	2,517	1,883	1,003.27
Mean	3.06	6.72	95.4	3.08	24.1	19.1	0.91	1.75	1.63	81.2	60.7	33.4
Max	25	125	863	26	327	268	1.2	21	26	110	126	66
Min	0.62	0.50	0.51	0.91	0.84	0.82	0.75	0.83	0.67	32	11	0.91
Ac-ft	188	400	5,870	189	1,340	1,180	54	108	97	4,990	3,730	1,990

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	16.3	15.3	25.8	35.0	38.6	25.5	9.25	11.6	15.6	17.9	15.5	13.4
Max	126	113	189	221	193	257	68.6	104	184	176	191	198
(WY)	(1979)	(1976)	(1976)	(2005)	(1980)	(1978)	(1974)	(1997)	(1976)	(1974)	(1974)	(1997)
Min	0.06	0.23	0.53	0.55	0.33	0.30	0.14	0.22	0.06	0.07	0.14	0.13
(WY)	(1978)	(1978)	(1970)	(1972)	(1972)	(1972)	(1977)	(1973)	(1977)	(1977)	(1976)	(1977)

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	Calendar Year 2010	Water Year 2011	Water Years 1970 - 2011	
Annual total	6,775.94	10,150.30		
Annual mean	18.6	27.8	19.9	
Highest annual mean			92.4	1974
Lowest annual mean			2.81	2007
Highest daily mean	863	Dec 22	2,060	Mar 1, 1978
Lowest daily mean	0.27	Aug 1	0.00	May 21, 1977
Annual seven-day minimum	0.32	Jul 27	0.02	Oct 28, 1977
Maximum peak flow			12,700	Feb 27, 1983
Maximum peak stage			10.32	Feb 27, 1983
Annual runoff (ac-ft)	13,440	20,130	14,420	
10 percent exceeds	7.9	76	65	
50 percent exceeds	0.93	1.1	1.3	
90 percent exceeds	0.53	0.63	0.44	

