

Water-Data Report 2011

11072100 Temescal Creek above Main Street, at Corona, CA

Santa Ana River Basin

LOCATION.--Lat 33°53'21", long 117°33'43" referenced to North American Datum of 1927, Riverside County, CA, Hydrologic Unit 18070203, in La Sierra Grant, on right bank, 500 ft upstream from Main Street Bridge in Corona, and 1.5 mi upstream from topographic boundary of Prado Flood-Control Basin.

DRAINAGE AREA.--224 mi², excludes 768 mi² above Lake Elsinore.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1980 to July 1983, February 1984 to current year.

GAGE.--Water-stage recorder and concrete-lined flood-control channel. Elevation of gage is 600 ft above NGVD of 1929, from topographic map. December 1967 to September 1974, water-stage recorder at site 1.2 mi downstream at different datum (published as station 11072200, "Temescal Creek at Corona"). October 1980 to July 1983 at site 500 ft downstream at different datum.

REMARKS.--Records fair above 500 ft³/s and poor below. Flow regulated by several small storage reservoirs. Many diversions upstream from station for irrigation. Water discharged to channel from Arlington Desalter at times since September 1990; records for water years 1981 to 1990 and 1991 to current year are not equivalent. See schematic diagram of Santa Ana River Basin available from the California Water Science Center.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,290 ft³/s, Dec. 22, 2010, gage height, 7.27 ft, from rating curve extended above 305 ft³/s, on basis of step-backwater analysis; minimum daily, 0.27 ft³/s, Sept. 25, 1981.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 8,850 ft³/s, Feb. 25, 1969, gage height, 8.17 ft, from floodmark, at old site (station 11072200) 1.2 mi downstream on basis of slope-area measurement of peak flow.

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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	1.8	2.5	2.9	51	20	69	96	15	9.5	5.1	3.8	2.6
2	4.9	2.6	2.5	96	20	63	86	14	6.9	5.4	5.3	3.0
3	3.4	2.9	3.1	94	30	61	66	12	6.5	5.2	6.6	3.0
4	3.0	2.8	4.2	43	42	63	49	11	8.5	5.1	4.6	3.1
5	4.1	2.6	26	40	47	67	37	14	8.2	11	5.0	5.1
6	3.8	2.6	75	48	49	67	31	11	8.9	4.5	5.2	3.0
7	5.0	3.0	5.2	73	50	70	30	9.6	7.1	4.0	5.3	3.2
8	2.3	4.9	2.9	83	55	69	31	11	6.7	3.9	4.6	3.4
9	2.7	3.4	3.5	83	60	69	38	15	8.8	3.7	4.7	2.9
10	2.7	3.3	3.4	78	62	87	31	14	8.7	4.0	3.5	2.7
11	2.5	3.1	2.9	81	65	109	31	18	4.4	3.8	3.5	2.7
12	2.7	2.7	3.1	79	66	110	35	10	6.4	4.4	3.6	2.7
13	3.0	3.6	3.6	73	58	105	39	11	11	4.2	3.8	3.1
14	3.1	3.5	3.8	68	49	95	41	8.9	16	4.2	3.7	3.6
15	3.6	4.4	4.4	69	47	85	41	12	16	4.5	3.7	2.7
16	3.5	4.6	24	70	63	76	39	9.0	14	4.1	3.7	3.5
17	3.6	5.8	32	67	40	74	37	14	14	4.0	3.6	3.1
18	11	5.6	65	64	97	74	36	45	14	4.5	3.2	3.5
19	28	6.5	301	65	229	78	36	12	15	4.3	3.6	3.5
20	4.3	65	580	61	144	214	37	11	15	4.0	3.5	3.2
21	3.1	38	985	59	78	327	34	12	15	4.6	3.4	3.8
22	2.7	3.7	2,870	60	66	111	34	11	13	5.4	3.3	3.8
23	2.3	3.2	647	58	59	168	35	14	9.1	4.4	2.6	4.7
24	3.0	7.4	263	54	55	115	33	12	8.1	4.2	2.6	3.7
25	5.7	2.5	181	47	72	119	31	11	8.4	4.4	2.7	3.9
26	2.3	2.4	163	41	427	78	26	11	8.4	7.6	3.0	3.9
27	2.2	2.2	90	36	96	72	22	11	8.0	3.7	3.2	3.5
28	1.8	4.6	76	34	75	73	18	10	6.6	4.5	2.7	3.7
29	2.2	2.9	313	25	---	85	17	12	6.8	4.5	2.6	3.8
30	15	2.5	92	56	---	92	15	13	7.1	4.4	3.2	3.6
31	2.6	---	62	23	---	96	---	11	---	46	2.9	---
Total	141.9	204.8	6,890.5	1,879	2,221	3,041	1,132	405.5	296.1	187.6	116.7	102.0
Mean	4.58	6.83	222	60.6	79.3	98.1	37.7	13.1	9.87	6.05	3.76	3.40
Max	28	65	2,870	96	427	327	96	45	16	46	6.6	5.1
Min	1.8	2.2	2.5	23	20	61	15	8.9	4.4	3.7	2.6	2.6
Ac-ft	281	406	13,670	3,730	4,410	6,030	2,250	804	587	372	231	202

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 1990, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	7.62	15.1	23.8	23.0	14.5	40.9	13.1	12.0	9.35	7.15	6.45	6.99
Max	16.1	55.9	126	116	25.5	237	39.3	43.7	30.0	10.9	13.4	11.3
(WY)	(1986)	(1981)	(1981)	(1981)	(1981)	(1983)	(1983)	(1983)	(1983)	(1985)	(1990)	(1985)
Min	2.36	4.67	2.53	7.01	7.42	6.26	4.02	3.77	1.12	1.20	1.79	1.09
(WY)	(1985)	(1987)	(1982)	(1989)	(1982)	(1990)	(1989)	(1982)	(1982)	(1982)	(1982)	(1981)

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Water Years 1981 - 1990			
Annual mean	12.4		
Highest annual mean	33.7	1981	
Lowest annual mean	6.10	1987	
Highest daily mean	1,720	Mar 1, 1983	
Lowest daily mean	.27	Sep 25, 1981	
Annual seven-day minimum	.56	Sep 23, 1981	
Maximum peak flow	4,720	Mar 1, 1983	
Maximum peak stage	11.67	Mar 1, 1983	
Annual runoff (ac-ft)	8,990		
10 percent exceeds	27		
50 percent exceeds	6.1		
90 percent exceeds	2.7		

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	14.5	17.6	31.5	61.9	94.6	63.6	37.8	20.5	12.4	10.7	10.2	10.7
Max	52.5	58.2	222	335	400	349	190	100	34.3	24.9	20.7	30.4
(WY)	(2005)	(2006)	(2011)	(2005)	(2005)	(1995)	(1995)	(1995)	(1995)	(1993)	(2005)	(2005)
Min	4.22	4.66	9.35	10.7	10.5	5.19	2.89	3.24	3.25	3.56	2.79	2.38
(WY)	(2009)	(2010)	(1999)	(2003)	(2002)	(2001)	(1991)	(1992)	(2003)	(1994)	(2010)	(2010)

SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1991 - 2011	
Annual total	15,857.0		16,618.1		31.8	
Annual mean	43.4		45.5		104	2005
Highest annual mean					12.5	2004
Lowest annual mean						
Highest daily mean	2,870	Dec 22	2,870	Dec 22	2,870	Dec 22, 2010
Lowest daily mean	1.5	Sep 25	1.8	Oct 1	0.34	Jul 3, 1992
Annual seven-day minimum	1.6	Sep 25	2.7	Oct 31	0.89	Jan 13, 1992
Maximum peak flow			5,290	Dec 22	5,290	Dec 22, 2010
Maximum peak stage			7.27	Dec 22	7.27	Dec 22, 2010
Annual runoff (ac-ft)	31,450		32,960		23,060	
10 percent exceeds	77		83		63	
50 percent exceeds	3.8		10		12	
90 percent exceeds	2.5		2.9		3.6	

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