Water-Data Report 2012

11055800 City Creek near Highland, CA

Santa Ana River Basin

LOCATION.--Lat 34°08′38″, long 117°11′16″ referenced to North American Datum of 1927, in SW ¼ NW ¼ sec.27, T.1 N., R.3 W., San Bernardino County, CA, Hydrologic Unit 18070203, on right bank, 0.6 mi upstream from Highland Avenue, and 1.5 mi northeast of Highland.

DRAINAGE AREA.--19.6 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1919 to current year; combined records of creek and City Creek Water Co.'s canal, June 1924 to September 1986, October 1988 to current year.

REVISED RECORDS.--WSP 1635: 1920 (instantaneous maximum discharge), 1923 (instantaneous maximum discharge), 1937 (instantaneous maximum discharge), 1939 (instantaneous maximum discharge), 1946. WSP 1928: Drainage area.

GAGE.--Water-stage recorder on creek; water-stage recorder on canal. Elevation of creek gage is 1,580 ft above NGVD of 1929, from topographic map. Prior to Mar. 1, 1939, at site 0.2 mi downstream at different datum. Canal gage at different datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor. No regulation upstream from station. City Creek Water Co.'s canal (station 11055700) diverted from a site 0.5 mi upstream from station for irrigation throughout period of record until Sept. 30, 1986, and resumed diversion on Mar. 31, 1989. Diversion canal damaged by storms of January 1993, with no flow in canal from Jan. 14, 1993, to Apr. 5, 1995. For combined discharge of City Creek and canal see station 11055801. See schematic diagram of Santa Ana River Basin available from the California Water Science Center.

EXTREMES FOR PERIOD OF RECORD.--Creek only: Maximum discharge, 9,900 ft^3/s, Jan. 10, 2005, gage height, 10.68 ft, on basis of slope-area measurement of peak flow, at site 0.50 mi downstream; maximum gage height, 11.06 ft, Dec. 25, 2003, from floodmark left by a debris flow near the gage; no flow for many days in some years. The maximum stage for the period of record is not related to the maximum discharge on that day, but rather is associated with a debris flow at the gaging station. The stage associated with the maximum discharge on Dec. 25, 2003, is unknown. The maximum discharge on Dec. 25, 2003, (8,000 ft^3/s) is based on hydraulic computations that were applied to a possible hyper-concentrated flow event. The peak flow was the result of an intense rain storm that occurred less than two months after a wildfire burned over 90 percent of the drainage basin.
Combined creek and canal: Maximum discharge, 9,900 ft^3/s, Jan. 10, 2005; no flow at times in some years.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 110 ft^3/s and (or) maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr 13	2252	*104	*3.77

11055800 City Creek near Highland, CA—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012
DAILY MEAN VALUES
[e, estimated]

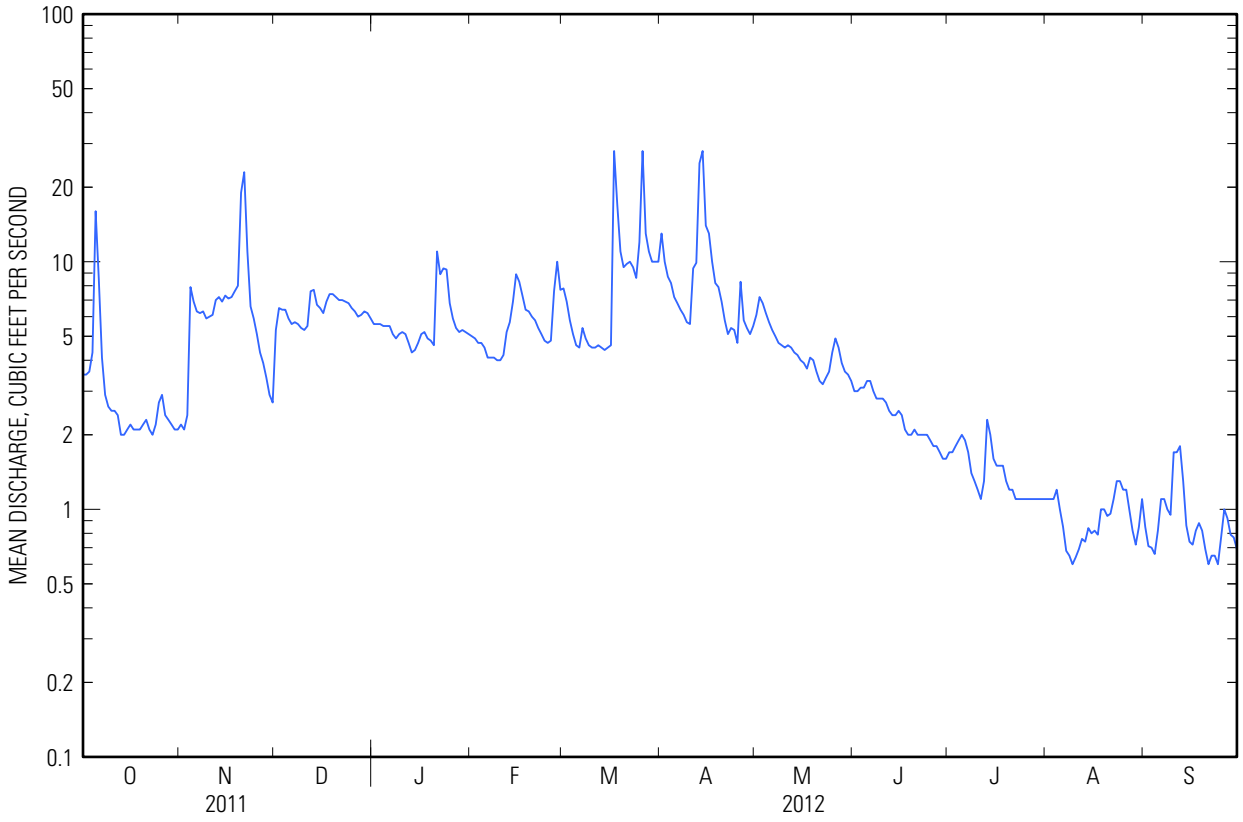
Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	3.5	2.2	5.3	5.6	5.0	7.8	e13	e6.1	3.0	1.7	1.1	0.85
2	3.5	2.1	6.5	5.6	4.9	6.9	e10	e7.2	3.0	1.7	1.1	0.71
3	3.6	2.4	6.4	5.6	4.7	5.8	e8.7	6.8	3.1	1.8	1.1	0.70
4	4.3	7.9	6.4	5.5	4.7	5.1	e8.2	6.2	3.1	1.9	1.2	0.66
5	16	6.9	5.9	5.5	4.5	4.6	7.2	5.7	3.3	2.0	1.0	0.82
6	8.5	6.3	5.6	5.5	4.1	4.5	6.8	5.3	3.3	1.9	0.85	1.1
7	4.1	6.2	5.7	5.1	4.1	5.4	6.4	5.0	3.0	1.7	0.68	1.1
8	2.9	6.3	5.6	4.9	4.1	4.9	6.1	4.7	2.8	1.4	0.65	1.0
9	e2.6	5.9	5.4	5.1	4.0	4.6	5.7	4.6	2.8	1.3	0.60	0.95
10	e2.5	6.0	5.3	5.2	4.0	4.5	5.6	4.5	2.8	1.2	0.64	1.7
11	e2.5	6.1	5.5	5.1	4.2	4.5	9.4	4.6	2.7	1.1	0.69	1.7
12	e2.4	7.0	7.6	4.7	5.2	4.6	9.9	4.5	2.5	1.3	0.76	1.8
13	2.0	7.2	7.7	4.3	5.7	4.5	25	4.3	2.4	2.3	0.74	1.3
14	2.0	6.9	6.7	4.4	6.9	4.4	28	4.2	2.4	2.0	0.84	0.86
15	2.1	7.3	6.5	4.7	8.9	4.5	14	4.0	2.5	1.6	0.80	0.74
16	2.2	7.1	6.2	5.1	8.3	4.6	13	3.9	2.4	1.5	0.82	0.72
17	2.1	7.2	6.9	5.2	7.3	28	10	3.7	2.1	1.5	0.79	0.82
18	2.1	7.6	7.4	4.9	6.4	17	8.2	4.1	2.0	1.5	1.0	0.88
19	2.1	8.0	7.4	4.8	6.3	11	7.9	4.0	2.0	1.3	1.0	0.82
20	2.2	19	7.2	4.6	6.0	9.5	6.9	3.6	2.1	1.2	0.94	0.69
21	2.3	e23	7.0	11	5.8	9.8	5.8	3.3	2.0	1.2	0.96	0.60
22	2.1	e11	7.0	8.9	5.4	10	5.1	3.2	2.0	1.1	1.1	0.65
23	2.0	6.6	6.9	9.4	5.1	e9.5	5.4	3.4	2.0	1.1	1.3	0.65
24	2.2	5.9	6.8	9.3	4.8	e8.6	5.3	3.6	2.0	1.1	1.3	0.60
25	2.7	5.1	6.5	6.8	4.7	e12	e4.7	4.3	1.9	1.1	1.2	0.77
26	2.9	4.3	6.3	5.9	4.8	28	e8.3	4.9	1.8	1.1	1.2	1.0
27	2.4	3.9	6.0	5.4	7.6	e13	e5.8	4.5	1.8	1.1	0.99	0.92
28	2.3	3.4	6.1	5.2	10	e11	e5.4	3.9	1.7	1.1	0.82	0.79
29	2.2	2.9	6.3	5.3	7.7	e10	e5.1	3.6	1.6	1.1	0.72	0.77
30	2.1	2.7	6.2	5.2	---	e10	e5.5	3.5	1.6	1.1	0.85	0.69
31	2.1	---	5.9	5.1	---	e10	---	3.3	---	1.1	1.1	---
Total	98.5	204.4	198.2	178.9	165.2	278.6	266.4	138.5	71.7	44.1	28.84	27.36
Mean	3.18	6.81	6.39	5.77	5.70	8.99	8.88	4.47	2.39	1.42	0.93	0.91
Max	16	23	7.7	11	10	28	28	7.2	3.3	2.3	1.3	1.8
Min	2.0	2.1	5.3	4.3	4.0	4.4	4.7	3.2	1.6	1.1	0.60	0.60
Ac-ft	195	405	393	355	328	553	528	275	142	87	57	54

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1920 - 2012, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	1.43	3.46	10.1	18.9	30.2	28.1	17.6	7.70	3.19	1.37	0.83	0.81
Max	19.2	43.4	152	269	451	219	148	52.3	26.1	11.7	9.56	6.60
(WY)	(2005)	(1966)	(2011)	(2005)	(1969)	(1938)	(1926)	(1998)	(1998)	(1980)	(1983)	(2005)
Min	0.00	0.00	0.00	0.13	0.35	0.18	0.03	0.00	0.00	0.00	0.00	0.00
(WY)	(1927)	(1922)	(1930)	(1936)	(1924)	(1926)	(1934)	(1934)	(1924)	(1924)	(1920)	(1920)

11055800 City Creek near Highland, CA—Continued

SUMMARY STATISTICS

	Calendar Year 2011		Water Year 2012		Water Years 1920 - 2012	
Annual total	5,741.2		1,700.70			
Annual mean	15.7		4.65		10.2	
Highest annual mean					75.3	1969
Lowest annual mean					0.46	1961
Highest daily mean	102	Feb 26	28	Mar 17	3,360	Feb 25, 1969
Lowest daily mean	2.0	Oct 13	0.60	Aug 9	0.00	Jul 18, 1920
Annual seven-day minimum	2.1	Oct 13	0.68	Aug 7	0.00	Jul 18, 1920
Maximum peak flow			104	Apr 13	9,900	Jan 10, 2005
Maximum peak stage			3.77	Apr 13	[a]11.06	Dec 25, 2003
Annual runoff (ac-ft)	11,390		3,370		7,390	
10 percent exceeds	35		8.4		20	
50 percent exceeds	10		4.4		1.8	
90 percent exceeds	3.6		0.93		0.00	

[a] Maximum stage for the 2004 water year and period of record is not related to the maximum discharge on that date, but rather is associated with a debris flow at the gaging station.