

Water-Data Report 2011

11044250 Rainbow Creek near Fallbrook, CA

Santa Margarita River Basin

LOCATION.--Lat 33°24'27", long 117°12'00" referenced to North American Datum of 1927, in NW ¼ SE ¼ sec.9, T.9 S., R.3 W., San Diego County, CA, Hydrologic Unit 18070302, on left bank, 1.0 mi upstream from the confluence with Santa Margarita River, and 3.4 mi northeast of Fallbrook.

DRAINAGE AREA.--10.3 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--November 1989 to current year.

REVISED RECORDS.--WDR CA-91-1: 1990 (instantaneous maximum discharge).

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 540 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. No regulation upstream from station. Undetermined amount of water upstream from station used for irrigation by a local nursery. Natural flow affected by return flow from irrigated areas. Water is imported for domestic use and irrigation. See schematic diagram of Santa Margarita River Basin available from the California Water Science Center.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,000 ft³/s, estimated, Jan. 16, 1993, gage height unknown, on basis of slope-area measurement of peak flow, maximum recorded gage height, 10.41 ft, Jan. 11, 2005, Dec. 22, 2010; minimum daily, 0.01 ft³/s, Sept. 22, Nov. 3, 2002.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft³/s and (or) maximum (*), on basis of slope-area measurement of peak flow and from rating curve extended above 712 ft³/s:

[e, estimated]			
Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct 19	1715	208	5.51
Dec 22	0200	*e4,010	*10.41
Dec 29	1400	141	6.36
Feb 19	0145	118	6.24
Feb 26	0545	198	6.62
Mar 21	0200	139	6.35

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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	0.05	0.35	0.45	15	3.5	11	4.8	1.1	0.40	0.24	0.48	1.2
2	0.05	0.30	0.43	17	2.6	9.7	4.9	1.1	0.41	0.22	0.29	1.6
3	0.05	0.27	0.45	28	3.0	8.6	4.4	1.0	0.40	0.25	0.19	1.2
4	0.07	0.28	0.44	15	2.7	7.8	4.2	1.0	0.43	0.30	0.14	0.43
5	0.09	0.29	0.37	12	2.3	6.7	3.8	0.91	0.38	0.25	0.14	0.34
6	0.11	0.33	0.36	11	2.1	5.7	4.6	1.0	0.86	0.21	0.14	0.61
7	0.10	0.34	0.37	10	2.1	7.8	4.2	1.1	0.55	0.52	0.14	0.85
8	0.08	0.39	0.35	9.1	2.6	6.4	4.7	0.89	0.47	0.49	0.14	0.98
9	0.07	0.29	0.39	7.5	2.1	5.0	5.8	0.99	0.50	0.40	0.15	0.70
10	0.06	0.21	0.36	7.5	1.8	4.9	3.5	1.1	0.56	0.57	0.14	1.1
11	0.06	0.15	0.35	6.5	1.7	4.8	3.5	0.78	0.58	0.37	0.14	1.1
12	0.06	0.11	0.35	6.1	2.0	4.8	3.3	0.68	0.53	0.39	0.14	1.2
13	0.07	0.11	0.38	5.6	1.7	4.1	2.8	0.69	0.47	0.37	0.15	4.3
14	0.08	0.12	0.43	5.0	1.6	4.0	3.4	0.72	0.38	0.28	0.14	2.4
15	0.09	0.11	0.40	5.2	1.6	3.7	3.3	1.2	0.38	0.20	0.13	1.7
16	0.13	0.11	0.63	4.4	6.5	3.3	2.6	1.0	0.41	0.22	0.14	1.6
17	0.14	0.12	1.2	4.2	3.4	3.3	2.5	1.8	0.35	0.18	0.12	0.90
18	0.14	0.13	11	4.5	9.5	3.2	2.5	4.8	0.34	0.14	0.11	0.52
19	30	0.17	79	4.0	38	3.6	2.3	1.5	0.36	0.14	0.12	0.39
20	3.0	4.2	181	3.4	23	6.0	2.3	1.1	0.34	0.14	0.13	0.94
21	2.4	5.8	e424	3.2	8.2	46	2.2	1.1	0.34	0.13	0.14	1.3
22	0.70	1.6	e917	3.1	5.7	9.5	2.1	0.86	0.34	0.13	0.12	1.3
23	0.50	0.84	68	2.7	4.7	13	1.9	0.81	0.31	0.13	0.12	1.4
24	0.45	0.96	36	2.5	4.4	17	1.8	0.67	0.39	0.12	0.14	1.4
25	1.2	0.61	23	2.6	4.0	14	1.7	0.58	0.30	0.16	0.11	1.4
26	0.70	0.51	36	2.5	76	9.1	1.6	0.54	0.32	0.15	0.10	1.3
27	0.50	0.58	18	2.2	22	7.8	1.5	0.50	0.28	0.13	0.10	1.3
28	0.34	0.53	14	2.2	14	7.1	1.3	0.47	0.34	0.22	0.09	1.2
29	0.28	0.44	55	2.3	---	6.9	1.4	1.2	0.32	0.31	0.09	1.3
30	0.48	0.52	35	3.6	---	5.9	1.3	0.80	0.35	0.29	0.10	1.3
31	0.41	---	21	4.0	---	5.0	---	0.49	---	0.40	0.37	---
Total	42.46	20.77	1,925.71	211.9	252.8	255.7	90.2	32.48	12.39	8.05	4.75	37.26
Mean	1.37	0.69	62.1	6.84	9.03	8.25	3.01	1.05	0.41	0.26	0.15	1.24
Max	30	5.8	917	28	76	46	5.8	4.8	0.86	0.57	0.48	4.3
Min	0.05	0.11	0.35	2.2	1.6	3.2	1.3	0.47	0.28	0.12	0.09	0.34
Ac-ft	84	41	3,820	420	501	507	179	64	25	16	9.4	74

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	0.69	1.03	4.70	14.0	12.5	7.17	2.44	1.06	0.54	0.29	0.24	0.35
Max	5.31	7.08	62.1	101	58.9	55.4	9.20	5.73	2.07	0.90	0.75	1.25
(WY)	(2005)	(2008)	(2011)	(2005)	(1998)	(1995)	(1998)	(1998)	(1998)	(1990)	(1995)	(1995)
Min	0.03	0.13	0.20	0.25	0.22	0.18	0.10	0.08	0.04	0.03	0.03	0.02
(WY)	(2003)	(2004)	(2000)	(2003)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)

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[e, estimated]

	Calendar Year 2010	Water Year 2011	Water Years 1990 - 2011	
Annual total	2,978.87	2,894.47		
Annual mean	8.16	7.93	3.83	
Highest annual mean			15.7	2005
Lowest annual mean			0.14	2002
Highest daily mean	e917	Dec 22	1,250	Jan 11, 2005
Lowest daily mean	0.03	Aug 20	0.01	Sep 22, 2002
Annual seven-day minimum	0.03	Aug 20	0.02	Oct 28, 2002
Maximum peak flow		e917	e8,000	Jan 16, 1993
Maximum peak stage		10.41	10.41	Jan 11, 2005
Annual runoff (ac-ft)	5,910	5,740	2,770	
10 percent exceeds	7.0	9.1	4.6	
50 percent exceeds	0.29	0.90	0.44	
90 percent exceeds	0.04	0.13	0.06	

