Water-Data Report 2012

11109000 Santa Clara River near Piru, CA

Santa Clara River Basin

LOCATION.--Lat 34°24′13″, long 118°44′18″ referenced to North American Datum of 1927, Ventura County, CA, Hydrologic Unit 18070102, in San Francisco Grant, on right downstream bank, on private property owned by Newhall Farms, 0.1 mi south of Highway 126, 3 mi east of Piru, and 8 mi west of intersection of Highway 126 and Interstate Highway 5.

DRAINAGE AREA.--645 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1927 to September 1932, October 1996 to current year.

REVISED RECORDS.--WDR-US 2009: 1997 (maximum discharge).

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 725 ft above NGVD of 1929, from topographic map.

REMARKS.--Records poor. Base flow affected by pumping from wells along stream for irrigation. Flow partly regulated since January 1972 by Castaic Lake (station 11108133), capacity, 323,700 acre-ft. Imported water from California Water Project stored and released at Castaic Dam. See schematic diagram of Santa Clara River Basin available from the California Water Science Center.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,000 ft^3/s, Jan. 10, 2005, estimated based on hydrographic comparison and Castaic Lake release records, maximum gage height, 14.54 ft, Mar. 20, 2011; no flow for many days during the summers of 1929-32.

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

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	15	30	36	52	35	76	58	53	51	22	34	17
2	21	31	40	47	36	57	56	52	36	21	36	18
3	23	31	43	49	37	40	52	51	41	25	41	24
4	29	41	51	45	39	42	53	49	37	23	45	23
5	158	41	47	52	43	44	53	44	35	25	42	22
6	112	84	46	51	47	41	52	44	29	26	40	20
7	69	53	49	49	50	42	57	42	25	22	21	23
8	60	47	51	58	47	41	61	42	27	26	18	23
9	60	51	53	51	41	42	61	40	26	27	15	24
10	56	51	57	52	40	40	63	41	26	24	16	22
11	48	54	68	52	38	46	188	39	27	16	13	25
12	45	104	154	50	42	43	112	38	28	20	12	18
13	37	56	127	41	41	41	386	41	26	29	14	23
14	36	49	62	25	53	44	130	38	27	25	17	17
15	31	45	57	16	49	47	83	36	26	21	16	18
16	31	41	53	15	47	49	70	34	23	25	15	20
17	30	35	50	12	45	211	64	39	28	25	13	26
18	34	35	53	12	45	113	62	39	27	24	12	25
19	33	36	50	11	47	66	61	43	26	22	15	24
20	35	133	50	11	47	55	57	48	26	20	19	18
21	33	90	49	33	44	49	54	45	27	21	18	16
22	31	55	44	22	39	46	57	43	25	23	20	15
23	35	51	43	87	39	43	57	45	23	20	17	22
24	37	53	46	61	39	45	57	47	22	25	16	21
25	40	47	48	52	34	311	58	51	25	29	17	23
26	34	43	45	48	45	187	59	57	23	30	18	21
27	32	44	45	40	70	67	57	57	17	36	23	20
28	28	46	46	36	87	55	53	59	19	38	18	23
29	33	37	45	37	82	50	52	59	20	33	16	25
30	39	38	45	37	---	47	50	56	19	39	15	22
31	35	---	46	37	---	50	---	59	---	40	14	---
Total	1,340	1,552	1,699	1,241	1,348	2,130	2,333	1,431	817	802	646	638
Mean	43.2	51.7	54.8	40.0	46.5	68.7	77.8	46.2	27.2	25.9	20.8	21.3
Max	158	133	154	87	87	311	386	59	51	40	45	26
Min	15	30	36	11	34	40	50	34	17	16	12	15
Ac-ft	2,660	3,080	3,370	2,460	2,670	4,220	4,630	2,840	1,620	1,590	1,280	1,270

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 2012, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	33.8	38.1	69.6	135	257	128	75.4	67.6	37.8	23.6	21.8	22.3
Max	96.1	64.8	255	1,341	1,880	657	198	569	89.3	64.0	57.5	53.4
(WY)	(2005)	(2006)	(2005)	(2005)	(1998)	(2005)	(2006)	(1998)	(2006)	(1998)	(1998)	(2005)
Min	0.00	4.03	7.32	20.4	16.6	15.5	2.93	3.00	0.00	0.00	0.00	0.00
(WY)	(1931)	(1931)	(1930)	(1929)	(1930)	(1931)	(1931)	(1930)	(1930)	(1930)	(1929)	(1930)

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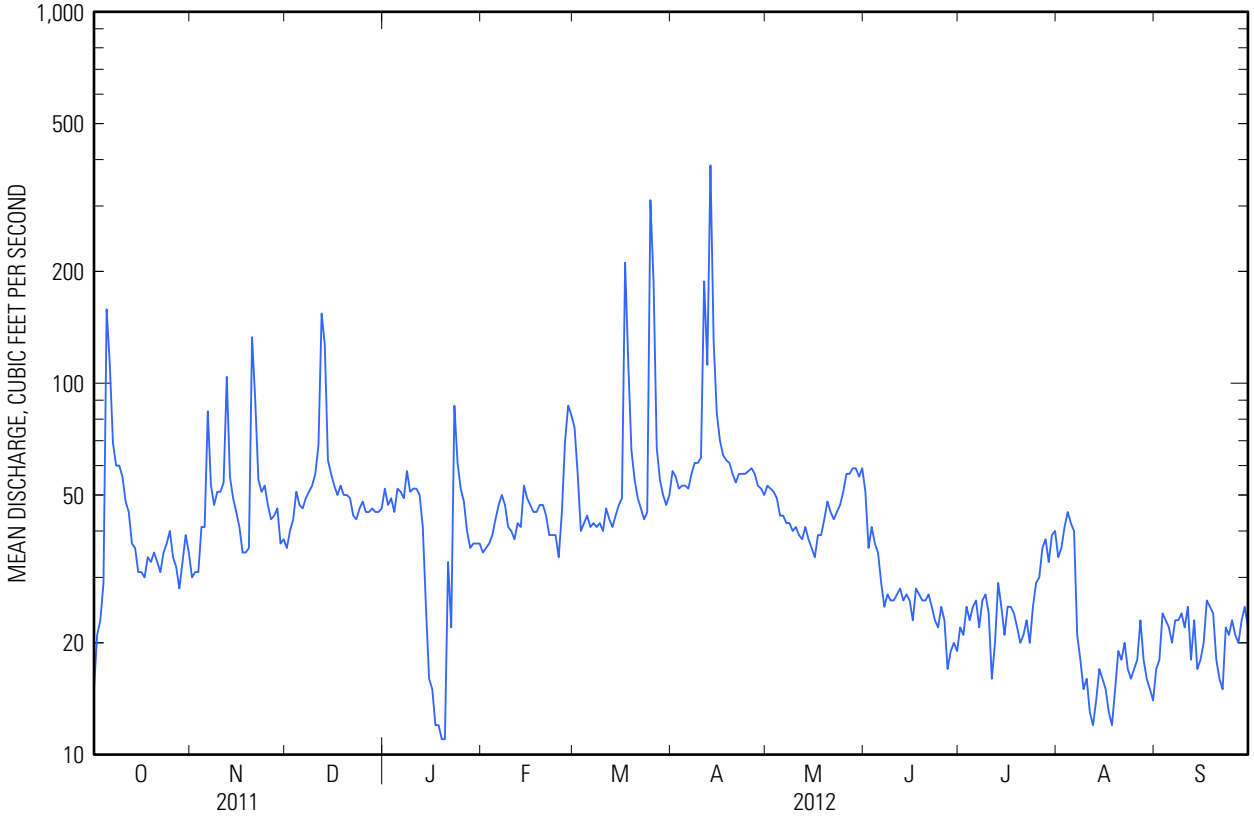
SUMMARY STATISTICS

[e, Estimated]

	Calendar Year 2011		Water Year 2012		Water Years 1928 - 2012	
Annual total	31,387		15,977			
Annual mean	86.0		43.7		74.9	
Highest annual mean					379	2005
Lowest annual mean					8.04	1930
Highest daily mean	2,740	Mar 20	386	Apr 13	16,700	Jan 10, 2005
Lowest daily mean	14	Sep 13	11	Jan 19	0.00	Jun 14, 1929
Annual seven-day minimum	16	Sep 13	14	Aug 12	0.00	Jun 14, 1929
Maximum peak flow			1,520	Mar 25	e32,000	Jan 10, 2005
Maximum peak stage			7.56	Mar 25	14.54	Mar 20, 2011
Annual runoff (ac-ft)	62,260		31,690		54,250	
10 percent exceeds	175		60		100	
50 percent exceeds	55		40		36	
90 percent exceeds	30		18		4.3	



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WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 2005 to current year.
WATER TEMPERATURE: Water year 2005-07.
SEDIMENT DATA: Water year 2005 to current year.

PERIOD OF DAILY RECORD.--
SUSPENDED-SEDIMENT DISCHARGE: October 2004 to September 2007.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATION: Maximum daily mean, 65,100 mg/L, Jan. 10, 2005; minimum daily mean, 9 mg/L, Aug. 21, 2006.
SUSPENDED-SEDIMENT LOAD: Maximum daily, 3,490,000 tons, estimated, Jan. 10, 2005; minimum daily, 0.56 ton, Aug. 21, 2006.

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SUSPENDED SEDIMENT DISCHARGE
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

[ft^3/s, cubic feet per second; mg/L, milligrams per liter; °C, degrees Celsius; A, average]

Sample date-time	Discharge, instantaneous, ft^3/s (00061)	Temperature, water, °C (00010)	Suspended sediment concentration, mg/L (80154)	Suspended sediment discharge, tons per day (80155)
11-02-2011 0850	34	14.2	40	3.6
11-02-2011 0851	34	14.2	A 42	A 3.8
11-02-2011 0852	34	14.2	43	3.9
11-15-2011 1610	40	18.1	154	17
11-15-2011 1611	40	18.1	A 131	A 14
11-15-2011 1612	40	18.1	108	12
12-01-2011 1635	36	15.1	162	16
12-01-2011 1636	36	15.1	A 161	A 16
12-01-2011 1637	36	15.1	160	16
12-14-2011 0950	66	12.0	107	19
12-14-2011 0951	66	12.0	A 100	A 18
12-14-2011 0952	66	12.0	93	17
01-03-2012 1405	42	17.0	77	8.7
01-03-2012 1406	42	17.0	A 68	A 7.7
01-03-2012 1407	42	17.0	58	6.5
01-24-2012 1145	57	15.5	93	14
01-24-2012 1147	57	15.5	A 103	A 16
01-24-2012 1150	57	15.5	113	17
02-08-2012 1335	42	17.7	57	6.5
02-08-2012 1336	42	17.7	A 52	A 5.9
02-08-2012 1337	42	17.7	46	5.2
02-23-2012 0945	42	14.2	67	7.6
02-23-2012 0946	42	14.2	A 54	A 6.1
02-23-2012 0947	42	14.2	42	4.7
03-09-2012 0910	42	13.8	9	1.0
03-09-2012 0911	42	13.8	A 11	A 1.3
03-09-2012 0912	42	13.8	13	1.5
03-21-2012 1510	44	21.8	76	9.1
03-21-2012 1511	44	21.8	A 74	A 8.9
03-21-2012 1512	44	21.8	71	8.5
03-26-2012 1040	142	14.5	578	222
03-26-2012 1042	142	14.5	A 603	A 231
03-26-2012 1045	142	14.5	628	241
04-04-2012 1320	49	22.0	145	19
04-04-2012 1322	49	22.0	A 148	A 20
04-04-2012 1325	49	22.0	151	20
04-11-2012 1215	338	14.4	4,030	3,680
04-11-2012 1216	338	14.4	A 3,310	A 3,020
04-11-2012 1217	338	14.4	2,600	2,370
04-17-2012 1737	61	22.6	158	26

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PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Part 1 of 2

[ft³/s, cubic feet per second; mm, millimeters; °C, degrees Celsius; --, no data; <, less than]

Sample date-time	Number of sampling points, count (00063)	Discharge, instanta-neous, ft³/s (00061)	Tempera-ture, water, °C (00010)	Bed sediment, dry sieved, sieve diameter, percent smaller than 0.0625 mm (80164)	Bed sediment, dry sieved, sieve diameter, percent smaller than 0.125 mm (80165)	Bed sediment, dry sieved, sieve diameter, percent smaller than 0.25 mm (80166)	Bed sediment, dry sieved, sieve diameter, percent smaller than 0.5 mm (80167)	Bed sediment, dry sieved, sieve diameter, percent smaller than 1 mm (80168)	Bed sediment, dry sieved, sieve diameter, percent smaller than 2 mm (80169)
01-03-2012 1300	1	43	17.0	< 1	< 1	< 1	12	44	73
01-03-2012 1302	1	43	17.0	3	6	16	54	81	92
01-03-2012 1304	1	43	17.0	25	44	53	81	96	99
01-03-2012 1306	1	43	17.0	38	78	91	94	98	99
01-03-2012 1308	1	43	17.0	42	75	91	95	97	99
03-09-2012 0918	1	42	13.8	< 1	1	6	29	57	78
03-09-2012 0920	1	42	13.8	< 1	< 1	1	9	18	30
03-09-2012 0922	1	42	13.8	17	46	59	86	99	100
03-09-2012 0924	1	42	13.8	12	21	40	81	95	98
03-09-2012 0926	1	42	13.8	33	46	53	62	73	85
03-09-2012 0928	1	42	13.8	35	67	86	91	95	98
04-17-2012 1800	1	62	22.6	1	3	6	11	17	27
04-17-2012 1803	1	62	22.6	< 1	< 1	1	12	34	54
04-17-2012 1806	1	62	22.6	6	16	42	74	89	94
04-17-2012 1809	1	62	22.6	10	17	25	65	91	98
04-17-2012 1812	1	62	22.6	34	66	76	81	86	93
04-17-2012 1815	1	62	22.6	36	62	77	86	92	96

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PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Part 2 of 2

[ft^3/s, cubic feet per second; mm, millimeters; °C, degrees Celsius; --, no data; <, less than]

Sample date-time	Bed sediment, dry sieved, sieve diameter, percent smaller than 4 mm (80170)	Bed sediment, dry sieved, sieve diameter, percent smaller than 8 mm (80171)	Bed sediment, dry sieved, sieve diameter, percent smaller than 16 mm (80172)	Bed sediment, dry sieved, sieve diameter, percent smaller than 32 mm (80173)	Bed sediment, dry sieved, sieve diameter, percent smaller than 64 mm (80174)
01-03-2012 1300	90	99	100	--	--
01-03-2012 1302	97	99	100	--	--
01-03-2012 1304	100	--	--	--	--
01-03-2012 1306	100	--	--	--	--
01-03-2012 1308	100	--	--	--	--
03-09-2012 0918	90	96	100	--	--
03-09-2012 0920	43	59	78	100	--
03-09-2012 0922	--	--	--	--	--
03-09-2012 0924	100	--	--	--	--
03-09-2012 0926	94	100	--	--	--
03-09-2012 0928	100	--	--	--	--
04-17-2012 1800	42	59	76	94	100
04-17-2012 1803	72	86	98	100	--
04-17-2012 1806	96	99	100	--	--
04-17-2012 1809	100	--	--	--	--
04-17-2012 1812	100	--	--	--	--
04-17-2012 1815	99	100	--	--	--