Water-Data Report 2011

08172000 San Marcos River at Luling, TX

Guadalupe Basin
San Marcos Subbasin

LOCATION.--Lat 29°39′58″, long 97°39′02″ referenced to North American Datum of 1927, Caldwell County, TX, Hydrologic Unit 12100203, at downstream side of bridge on State Highway 80, 0.9 mi south of U.S. Post Office at Luling, and 9.5 mi upstream from Plum Creek.

DRAINAGE AREA.--838 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Apr. 1939 to current year.

PERIOD OF RECORD, Water-Quality.--

CHEMICAL DATA: Feb. 1944 to Feb. 1959, Sept. 1961 to Apr. 1966, Nov. 1968 to Aug. 1999.
BIOCHEMICAL DATA: Mar. 1963 to Aug. 1973.
PESTICIDE DATA: June 1986 to May 1999.
RADIOCHEMICAL DATA: Nov. 1980 to May 1981.
SEDIMENT DATA: Oct. 1960 to Apr. 1966.

REVISED RECORDS.--WSP 958: 1940. WSP 1312: 1940(M), 1945(M), 1947(M). WSP 2123: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 322.05 ft above NGVD of 1929. Prior to Oct. 21, 1988, at site 390 ft downstream at same datum. Satellite telemeter at station.

REMARKS.--Records good. Since 1984, at least 10% of contributing drainage area has been regulated by discharge from the flood-detention pools of at least 18 floodwater-retarding structures. These structures control runoff from 105 mi^2 in the Town, Sink, and York Creek drainage basins. Some records listed in the "Period of Record" for surface water and water quality may not be available electronically.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--44 years (water years 1939-83), 370 ft^3/s (268,100 acre-ft/yr).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1859, 40.4 ft in 1869 or 1870, from information by Texas Department of Transportation. Flood of May 29, 1929, reached a stage of 37.1 ft and is the second highest known.

EXTREMES FOR PERIOD PRIOR TO REGULATION.--WATER YEARS 1939-1983: Maximum discharge, 57,000 ft^3/s Sept. 12, 1952 (gage height, 34.95 ft); minimum daily, 43 ft^3/s Aug. 12, 1951.

Suggested citation: U.S. Geological Survey, 2012, Water-resources data for the United States, Water Year 2011: U.S. Geological Survey Water-Data Report WDR-US-2011, site 08172000, accessed at http://wdr.water.usgs.gov/wy2011/pdfs/08172000.2011.pdf

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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	362	247	211	204	195	168	160	130	110	103	89	75
2	345	257	210	201	194	167	159	133	105	101	90	74
3	330	241	208	199	189	165	157	131	102	100	87	73
4	321	233	209	202	191	163	153	129	101	99	84	73
5	320	232	210	200	195	160	155	130	100	102	82	70
6	314	235	211	196	195	166	156	129	102	100	84	72
7	309	233	212	193	188	167	156	127	101	100	83	74
8	306	233	213	193	186	165	154	126	100	100	84	74
9	301	235	210	234	191	163	152	123	102	97	80	73
10	298	235	209	263	192	163	145	123	100	96	80	75
11	298	232	210	232	189	e151	145	125	96	97	80	73
12	297	234	209	216	188	e149	145	136	97	95	80	74
13	292	258	209	209	190	159	143	146	96	92	72	75
14	286	238	209	206	188	159	140	129	93	89	75	73
15	279	231	211	220	183	159	140	123	92	89	74	75
16	272	229	207	333	181	157	144	124	90	90	73	75
17	271	225	205	403	183	154	141	125	90	91	74	77
18	268	222	204	266	181	154	140	125	93	91	74	89
19	265	218	205	231	176	156	139	126	93	91	71	96
20	264	216	204	219	172	156	136	125	93	96	73	85
21	261	221	203	214	174	156	134	128	94	93	76	81
22	256	219	203	209	174	156	131	142	139	87	76	79
23	253	219	200	206	173	156	133	123	174	87	75	79
24	252	218	205	206	174	157	132	121	116	92	74	80
25	248	218	217	203	173	156	131	121	112	88	72	78
26	248	213	210	202	167	157	131	119	109	87	77	79
27	243	214	208	201	170	156	132	115	109	92	77	79
28	238	213	203	199	170	159	131	110	108	91	74	75
29	236	216	206	197	---	157	128	108	110	90	73	78
30	237	218	204	192	---	158	128	109	108	90	73	85
31	235	---	204	193	---	161	---	111	---	92	72	---
Total	8,705	6,853	6,439	6,842	5,122	4,930	4,271	3,872	3,135	2,908	2,408	2,318
Mean	281	228	208	221	183	159	142	125	104	93.8	77.7	77.3
Max	362	258	217	403	195	168	160	146	174	103	90	96
Min	235	213	200	192	167	149	128	108	90	87	71	70
Ac-ft	17,270	13,590	12,770	13,570	10,160	9,780	8,470	7,680	6,220	5,770	4,780	4,600

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 2011[Z], BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	504	603	543	446	532	519	412	429	714	560	260	267
Max	5,485	5,222	3,520	1,948	3,358	2,438	1,170	1,519	4,850	4,486	1,349	840
(WY)	(1999)	(2005)	(1992)	(1992)	(1992)	(1992)	(1992)	(1992)	(1987)	(2002)	(2007)	(2007)
Min	80.7	90.4	87.1	91.3	95.8	104	103	84.5	83.7	68.4	61.5	64.4
(WY)	(1990)	(1990)	(1990)	(1990)	(1990)	(2009)	(1996)	(1996)	(1984)	(1984)	(2009)	(1984)

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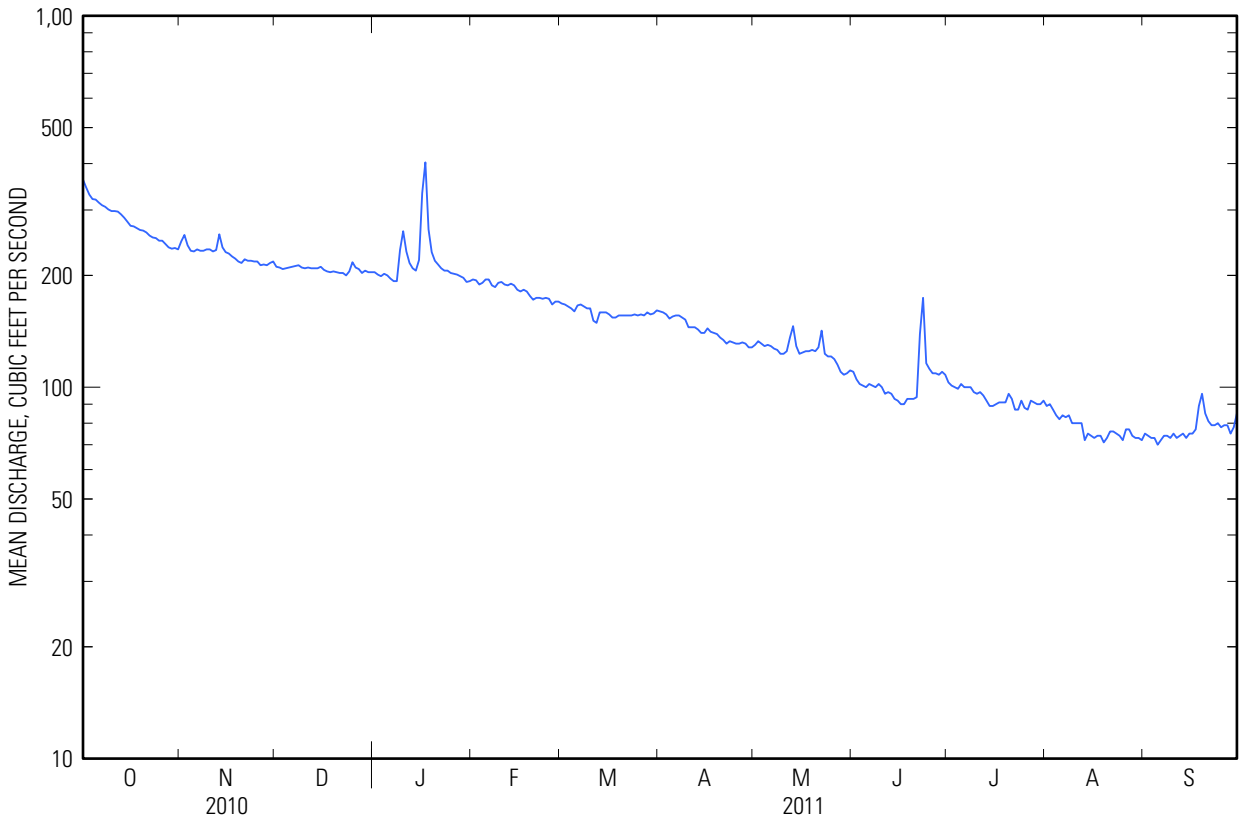
SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1984 - 2011[z]	
Annual total	197,468		57,803			
Annual mean	541		158		482	
Highest annual mean					1,482	1992
Lowest annual mean					99.2	2009
Highest daily mean	6,920	Jun 10	403	Jan 17	90,500	Oct 18, 1998
Lowest daily mean	194	Sep 2	70	Sep 5	56	Sep 1, 1984
Annual seven-day minimum	198	Aug 27	73	Aug 31	59	Aug 26, 1984
Maximum peak flow			549	Nov 1	206,000	Oct 18, 1998
Maximum peak stage			6.30	Nov 1	[a]41.85	Oct 18, 1998
Annual runoff (ac-ft)	391,700		114,700		349,100	
10 percent exceeds	974		238		860	
50 percent exceeds	358		156		233	
90 percent exceeds	210		77		99	

[z] Period of regulated streamflow.
[a] From floodmark.