Water-Data Report 2013

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 fair. 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.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	194	161	155	152	144	135	123	e124	197	122	104	91
2	186	161	154	144	145	135	126	120	187	117	102	88
3	183	163	154	139	147	135	160	116	195	113	102	86
4	180	159	155	138	147	138	184	113	179	110	101	87
5	179	160	151	139	147	138	131	117	168	112	101	89
6	180	154	147	140	152	133	124	116	175	107	101	115
7	175	153	152	139	150	130	125	120	170	108	98	95
8	176	154	151	145	147	136	125	117	159	114	95	91
9	177	153	149	233	142	139	123	117	161	112	94	93
10	178	153	149	245	143	144	126	142	154	114	96	97
11	189	157	143	162	142	163	125	187	158	108	98	95
12	175	154	144	153	142	142	120	137	155	105	99	95
13	171	153	146	146	136	136	120	121	151	109	97	92
14	172	156	146	142	135	133	120	115	147	107	94	91
15	169	155	147	145	136	134	119	119	149	125	93	89
16	169	154	153	149	136	134	120	120	145	141	98	91
17	173	154	150	147	133	137	123	118	144	147	108	100
18	169	151	145	147	135	137	129	120	138	126	101	108
19	164	153	147	149	138	131	125	117	137	129	95	99
20	163	155	142	149	138	133	118	118	131	114	95	125
21	164	155	136	148	144	134	118	119	129	127	97	137
22	164	152	139	150	141	131	120	115	127	119	97	116
23	162	155	144	154	137	133	120	117	124	114	99	100
24	161	151	145	151	136	130	116	124	121	110	96	99
25	160	149	140	150	135	125	114	199	120	109	92	96
26	156	156	136	150	133	118	117	369	122	109	92	95
27	153	154	135	152	133	118	120	755	119	112	102	94
28	157	150	141	151	132	121	122	432	115	119	101	100
29	156	150	137	149	---	121	122	320	115	111	97	3,290
30	158	155	137	143	---	123	e121	261	118	108	94	617
31	163	---	143	142	---	122	---	225	---	105	91	---
Total	5,276	4,640	4,513	4,743	3,926	4,119	3,756	5,510	4,410	3,583	3,030	6,661
Mean	170	155	146	153	140	133	125	178	147	116	97.7	222
Max	194	163	155	245	152	163	184	755	197	147	108	3,290
Min	153	149	135	138	132	118	114	113	115	105	91	86
Ac-ft	10,460	9,200	8,950	9,410	7,790	8,170	7,450	10,930	8,750	7,110	6,010	13,210

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 2013[Z], BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	479	571	515	448	515	509	400	421	680	534	252	262
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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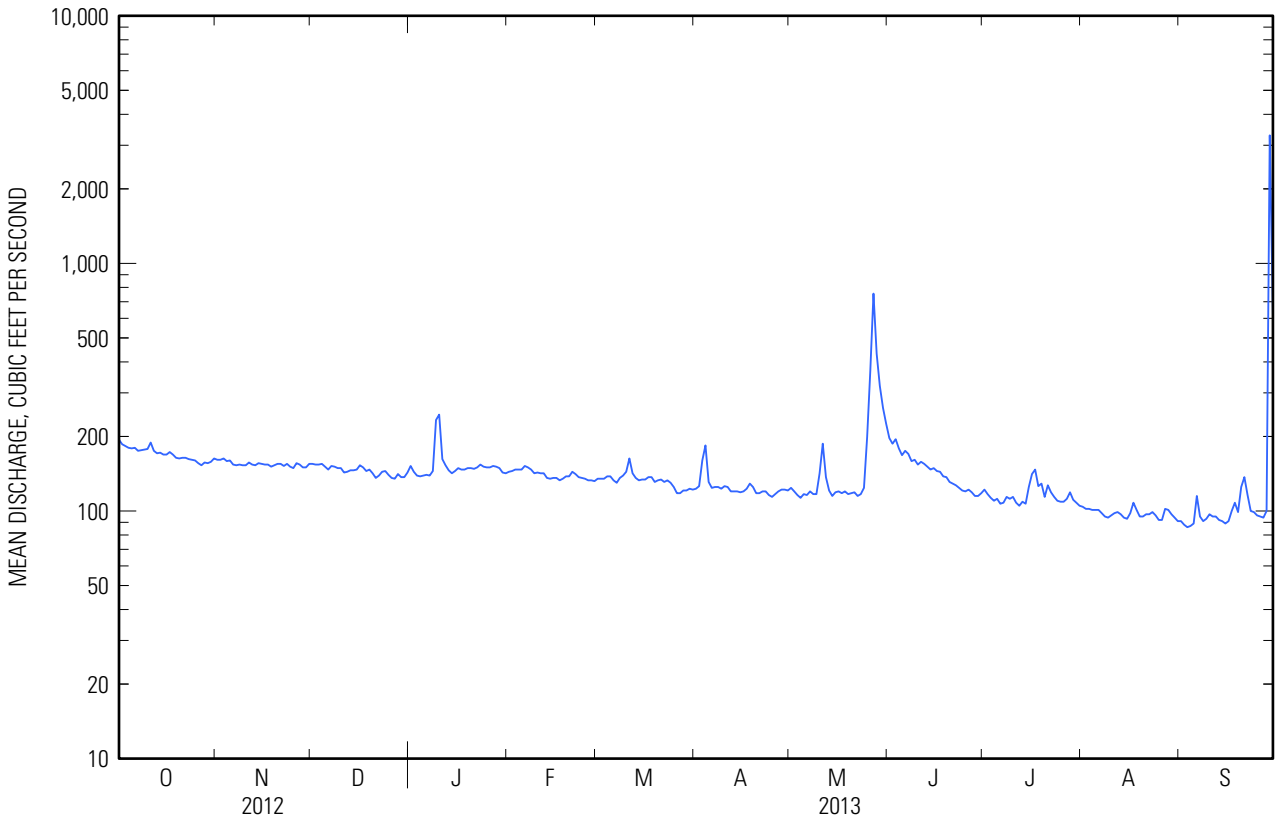
SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1984 - 2013[z]	
Annual total	117,808		54,167			
Annual mean	322		148		465	
Highest annual mean					1,482	1992
Lowest annual mean					99.2	2009
Highest daily mean	13,700	Jan 25	3,290	Sep 29	90,500	Oct 18, 1998
Lowest daily mean	109	Jan 24	86	Sep 3	56	Sep 1, 1984
Annual seven-day minimum	111	Jan 18	89	Aug 30	59	Aug 26, 1984
Maximum peak flow			7,590	Sep 29	206,000	Oct 18, 1998
Maximum peak stage			22.50	Sep 29	[a]41.85	Oct 18, 1998
Annual runoff (ac-ft)	233,700		107,400		336,900	
10 percent exceeds	425		169		831	
50 percent exceeds	198		136		223	
90 percent exceeds	144		98		99	

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