Water-Data Report 2011

08173000 Plum Creek near Luling, TX

Guadalupe Basin
San Marcos Subbasin

LOCATION.--Lat 29°41′58″, long 97°36′12″ referenced to North American Datum of 1927, Caldwell County, TX, Hydrologic Unit 12100203, on left bank at downstream side of bridge on county road, 1.2 mi upstream from West Fork, 1.9 mi upstream from Southern Pacific Railroad Co. bridge, 2.2 mi upstream from McNeil Creek, 2.9 mi northeast of Luling, and 7.5 mi upstream from mouth.

DRAINAGE AREA.--309 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Mar. 1930 to Sept. 1993, July 2001 to current year.

PERIOD OF RECORD, Water-Quality.--

CHEMICAL DATA: Feb. 1944, Apr. 1961 to Sept. 1986.
BIOCHEMICAL DATA: Apr. 1961 to Sept. 1973.
RADIOCHEMICAL DATA: Jan. 1981 to Mar. 1981.
SEDIMENT DATA: Nov. 1965 to June 1966.

PERIOD OF DAILY RECORD, Water-Quality.--

SPECIFIC CONDUCTANCE: Oct. 1967 to Sept. 1986.
WATER TEMPERATURE: Oct. 1967 to Sept. 1986.

REVISED RECORDS.--WSP 1923: 1933. WSP 2123: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 321.57 ft above NGVD of 1929. Prior to Aug. 18, 1976, at datum 5.0 ft higher. Satellite telemeter at station.

REMARKS.--Records fair. No known diversions above station. Flow is affected at times by discharge from the flood-detention pools of 27 floodwater-retarding structures. These structures control runoff from 119 mi^2 above this station. Since 1964, at least 10% of contributing drainage area has been regulated. No flow at times. 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.--33 years (water years 1930-63) 90.3 ft^3/s (65,370 acre-ft/yr).

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1868, that of Oct. 18, 1998; flood in 1913 reached about same stage as that of July 1, 1936, from information by local residents.

EXTREMES FOR PERIOD PRIOR TO REGULATION.--WATER YEARS 1930-63: Maximum discharge, 78,500 ft^3/s, July 1, 1936, gage height, 30.70 ft from floodmarks (at datum then in use), from rating curve extended above 37,500 ft^3/s; no flow at times.

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 08173000, accessed at http://wdr.water.usgs.gov/wy2011/pdfs/08173000.2011.pdf

08173000 Plum Creek near Luling, TX—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011
DAILY MEAN VALUES
[e, estimated]

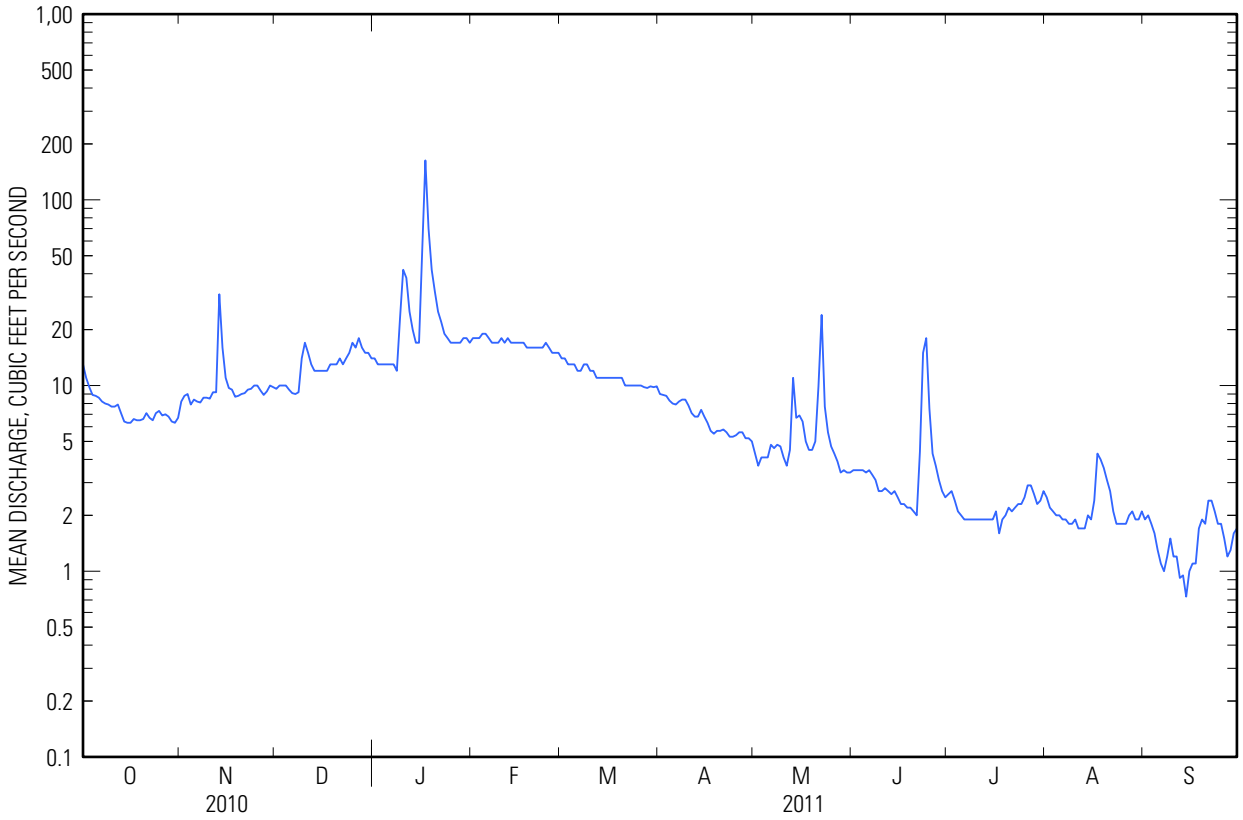
Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	13	8.2	9.6	14	18	14	9.0	4.3	3.5	2.6	2.5	1.9
2	11	8.8	10	13	18	14	8.9	3.7	3.5	2.7	2.2	2.0
3	9.8	9.0	10	13	18	13	8.8	4.1	3.5	2.4	2.1	1.8
4	8.9	7.9	10	13	e19	13	8.3	4.1	3.5	2.1	2.0	1.6
5	8.8	8.4	9.5	13	19	13	8.0	4.1	3.4	2.0	2.0	1.3
6	8.6	8.2	9.1	13	18	12	7.9	4.8	3.5	1.9	1.9	1.1
7	8.2	8.1	9.0	13	17	12	8.2	4.6	3.3	1.9	1.9	1.0
8	8.0	8.6	9.2	12	17	13	8.4	4.8	3.1	1.9	1.8	1.2
9	7.9	8.6	14	23	17	13	8.4	4.7	2.7	1.9	1.8	1.5
10	7.7	8.5	17	42	18	12	7.8	4.1	2.7	1.9	1.9	1.2
11	7.7	9.2	15	38	e17	12	7.1	3.7	2.8	1.9	1.7	1.2
12	7.9	9.2	13	25	18	11	6.8	4.5	2.7	1.9	1.7	0.92
13	7.1	31	12	20	17	11	6.8	11	2.6	1.9	1.7	0.95
14	6.4	16	12	17	17	11	7.4	6.7	2.7	1.9	2.0	0.73
15	6.3	11	12	17	17	11	6.8	6.9	2.5	1.9	1.9	1.0
16	6.3	9.7	12	53	17	11	6.3	6.4	2.3	2.1	2.4	1.1
17	6.6	9.5	12	163	17	11	5.7	5.0	2.3	1.6	4.3	1.1
18	6.5	8.7	13	70	16	11	5.5	4.5	2.2	1.9	4.0	1.7
19	6.5	8.8	13	42	16	11	5.7	4.5	2.2	2.0	3.6	1.9
20	6.6	9.0	13	32	16	11	5.7	5.0	2.1	2.2	3.1	1.8
21	7.1	9.1	14	25	16	10	5.8	9.9	2.0	2.1	2.7	2.4
22	6.7	9.5	13	22	16	10	5.6	24	4.4	2.2	2.1	2.4
23	6.5	9.6	14	19	16	10	5.3	7.7	15	2.3	1.8	2.1
24	7.1	10	15	18	17	10	5.3	5.6	18	2.3	1.8	1.8
25	7.3	10	17	17	16	10	5.4	4.7	7.5	2.5	1.8	1.8
26	6.9	9.4	16	17	15	10	5.6	4.3	4.3	2.9	1.8	1.5
27	7.0	8.9	18	17	15	9.8	5.6	3.9	3.7	2.9	2.0	1.2
28	6.8	9.3	16	17	15	9.7	5.2	3.4	3.1	2.6	2.1	1.3
29	6.4	10	15	18	---	9.9	5.2	3.5	2.7	2.3	1.9	1.6
30	6.3	9.8	15	18	---	9.8	5.0	3.4	2.5	2.4	1.9	1.7
31	6.7	---	14	17	---	9.9	---	3.4	---	2.7	2.1	---
Total	234.6	302.0	401.4	851	473	349.1	201.5	175.3	120.3	67.8	68.5	44.80
Mean	7.57	10.1	12.9	27.5	16.9	11.3	6.72	5.65	4.01	2.19	2.21	1.49
Max	13	31	18	163	19	14	9.0	24	18	2.9	4.3	2.4
Min	6.3	7.9	9.0	12	15	9.7	5.0	3.4	2.0	1.6	1.7	0.73
Ac-ft	465	599	796	1,690	938	692	400	348	239	134	136	89

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2011[hz], BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	103	166	155	135	204	127	126	250	210	66.0	14.7	35.1
Max	997	1,397	1,969	987	2,083	1,446	1,110	1,922	2,389	637	211	416
(WY)	(2003)	(2005)	(1992)	(1991)	(1992)	(2007)	(1976)	(1975)	(1987)	(2007)	(1974)	(1974)
Min	0.90	2.64	3.26	4.26	5.60	4.49	2.55	2.21	1.50	0.62	0.82	1.16
(WY)	(1964)	(1990)	(1990)	(1990)	(1990)	(1967)	(1972)	(1964)	(2009)	(2009)	(2009)	(1984)

08173000 Plum Creek near Luling, TX—Continued

SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1964 - 2011[hz]	
Annual total	43,680.9		3,289.30			
Annual mean	120		9.01		132	
Highest annual mean					578	1992
Lowest annual mean					7.35	1990
Highest daily mean	6,320	Apr 17	163	Jan 17	19,200	Jun 4, 1987
Lowest daily mean	4.0	Aug 28	0.73	Sep 14	0.00	Jul 19, 1964
Annual seven-day minimum	4.2	Aug 26	1.0	Sep 11	0.00	Aug 31, 1964
Maximum peak flow			198	Jan 17	36,300	May 24, 1975
Maximum peak stage			6.20	Jan 17	[a]26.51	May 24, 1975
Annual runoff (ac-ft)	86,640		6,520		95,660	
10 percent exceeds	127		17		175	
50 percent exceeds	18		7.1		12	
90 percent exceeds	6.6		1.9		2.6	

[h] See Period of Record paragraph.
[z] Period of regulated streamflow.
[a] From floodmark.