Water-Data Report 2013

08106500 Little River near Cameron, TX

Little Basin
Little Subbasin

LOCATION.--Lat 30°50′06″, long 96°56′47″ referenced to North American Datum of 1927, Milam County, TX, Hydrologic Unit 12070204, on right bank at bridge on U.S. Highway 77, 2,020 ft downstream from old McCowan bridge, 0.7 mi upstream from Gulf, Colorado, and Santa Fe Railway Co. bridge, 2 mi southeast of Cameron, and 33.2 mi upstream from mouth.

DRAINAGE AREA.--7,065 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Nov. 1916 to current year.

PERIOD OF RECORD, Water-Quality.--
CHEMICAL DATA: Oct. 1959 to Aug. 1997.
BIOCHEMICAL DATA: Jan. 1968 to Aug. 1997.
BIOLOGICAL DATA: Feb. 1978 to July 1993.
PESTICIDE DATA: Aug. 1969 to June 1982.
RADIOCHEMICAL DATA: Mar. 1981 to Sept. 1981.
SEDIMENT DATA: Feb. 1978 to July 1993.

PERIOD OF DAILY RECORD, Water-Quality.--
SPECIFIC CONDUCTANCE: Oct. 1986 to Aug. 1997.
WATER TEMPERATURE: Oct. 1986 to Aug. 1997.

REVISED RECORDS.--WSP 718: 1918-20, 1922. WSP 1512: 1918-20(M), 1921, 1922(M), 1924(M), 1926, 1929-30, 1934, 1935(M), 1936, 1940(M), 1941, 1944-45(M). WDR TX-76-2: Drainage area. WDR TX-92-2: Location.

GAGE.--Water-stage recorder. Datum of gage is 281.89 ft above NGVD of 1929 (levels by U.S. Army Corps of Engineers). Nov. 1916 to Sept. 1922, nonrecording gage at site 2.2 mi upstream at different datum. Oct. 1922, to Apr. 1926, nonrecording gage at McCowan bridge 1,990 ft upstream at same datum. Apr. 1926 to Oct. 1933, non-recording gage at same location but at l.58 ft lower datum. Oct. 1933 to Aug. 1992, recording gage at site 2,020 ft upstream at same datum. Aug. to Oct. 1992, non-recording gage at site. Satellite telemeter at station.

REMARKS.--Records fair. Since water year 1954, at least 10% of contributing drainage area has been regulated. Many small diversions for irrigation and municipal supply affect low flow. The Aluminum Company of America diverts water 10.9 mi upstream from the gage for use at their Rockdale plant resevoir. The city of Cameron diverts water for municipal use 2.1 mi upstream from gage. Wastewater effluent is returned to the river upstream from gage. 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.--36 years (water years 1917-53), prior to regulation by Belton Lake, 1,807 ft^3/s (1,309,000 acre-ft/yr).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1852 reached about the same stage as that of Sept. 10, 1921. Flood in Dec. 1913, reached a stage of 49.0 ft. Stages based on information furnished by local resident.

EXTREMES FOR PERIOD PRIOR TO REGULATION.--WATER YEARS, 1917-1953: Maximum discharge since 1852, 647,000 ft^3/s, Sept. 10, 1921 (gage height, 53.2 ft, present datum, from floodmark), from rating curve extended above 110,000 ft^3/s, on basis of slope-area measurement of 647,000 ft^3/s.

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

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	875	67	106	128	152	94	102	70	183	29	358	312
2	378	64	108	127	151	55	107	59	157	29	340	306
3	192	65	99	101	150	53	166	92	139	29	324	300
4	154	91	77	111	138	79	509	91	115	21	318	270
5	127	91	81	135	124	51	485	87	117	21	308	285
6	124	63	78	131	124	56	279	90	103	21	306	302
7	111	62	77	140	118	55	193	82	93	23	305	295
8	96	58	80	145	120	60	158	48	90	24	310	271
9	77	55	73	706	154	88	142	70	82	22	343	252
10	76	86	68	4,260	154	157	126	113	81	28	385	236
11	80	86	75	2,470	259	646	122	317	91	51	387	241
12	82	77	78	823	433	511	129	568	105	156	374	274
13	127	55	78	431	210	229	161	343	95	448	337	277
14	205	53	82	300	193	143	117	210	79	422	353	307
15	145	54	81	251	145	118	109	166	71	510	375	310
16	138	84	93	223	129	101	121	150	57	1,020	625	310
17	130	57	93	193	110	95	113	560	53	1,450	471	300
18	116	55	98	166	100	89	110	469	55	1,120	374	273
19	106	58	95	155	105	92	102	215	57	818	315	294
20	78	89	84	151	134	92	118	161	188	594	268	347
21	72	93	79	146	123	128	146	120	143	387	267	489
22	101	94	73	145	85	119	112	117	96	276	263	1,080
23	103	85	80	141	86	127	75	513	71	191	237	390
24	91	53	112	136	93	114	66	260	58	162	271	194
25	64	53	110	129	97	105	66	187	46	151	298	138
26	60	48	104	132	122	102	72	620	44	138	260	98
27	89	52	80	131	121	96	73	650	41	125	231	110
28	88	56	77	134	119	74	74	408	37	344	262	121
29	78	59	86	162	---	73	73	262	34	561	304	639
30	64	87	117	161	---	76	75	208	30	456	331	1,870
31	69	---	121	154	---	100	---	185	---	389	316	---
Total	4,296	2,050	2,743	12,718	4,049	3,978	4,301	7,491	2,611	10,016	10,216	10,891
Mean	139	68.3	88.5	410	145	128	143	242	87.0	323	330	363
Max	875	94	121	4,260	433	646	509	650	188	1,450	625	1,870
Min	60	48	68	101	85	51	66	48	30	21	231	98
Ac-ft	8,520	4,070	5,440	25,230	8,030	7,890	8,530	14,860	5,180	19,870	20,260	21,600

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 2013[Z], BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	1,251	1,166	1,466	1,631	2,079	2,255	2,205	2,903	2,460	1,651	801	830
Max	10,140	6,896	9,777	9,662	13,030	14,420	10,750	12,970	11,650	12,930	11,380	10,060
(WY)	(1960)	(2005)	(2005)	(1992)	(1992)	(1992)	(1997)	(1965)	(2007)	(2007)	(2007)	(2007)
Min	17.2	18.4	23.0	34.5	50.2	22.8	16.5	132	15.1	1.58	6.24	4.40
(WY)	(1955)	(1956)	(1955)	(1956)	(1957)	(1956)	(1956)	(1984)	(1954)	(1956)	(1954)	(1956)

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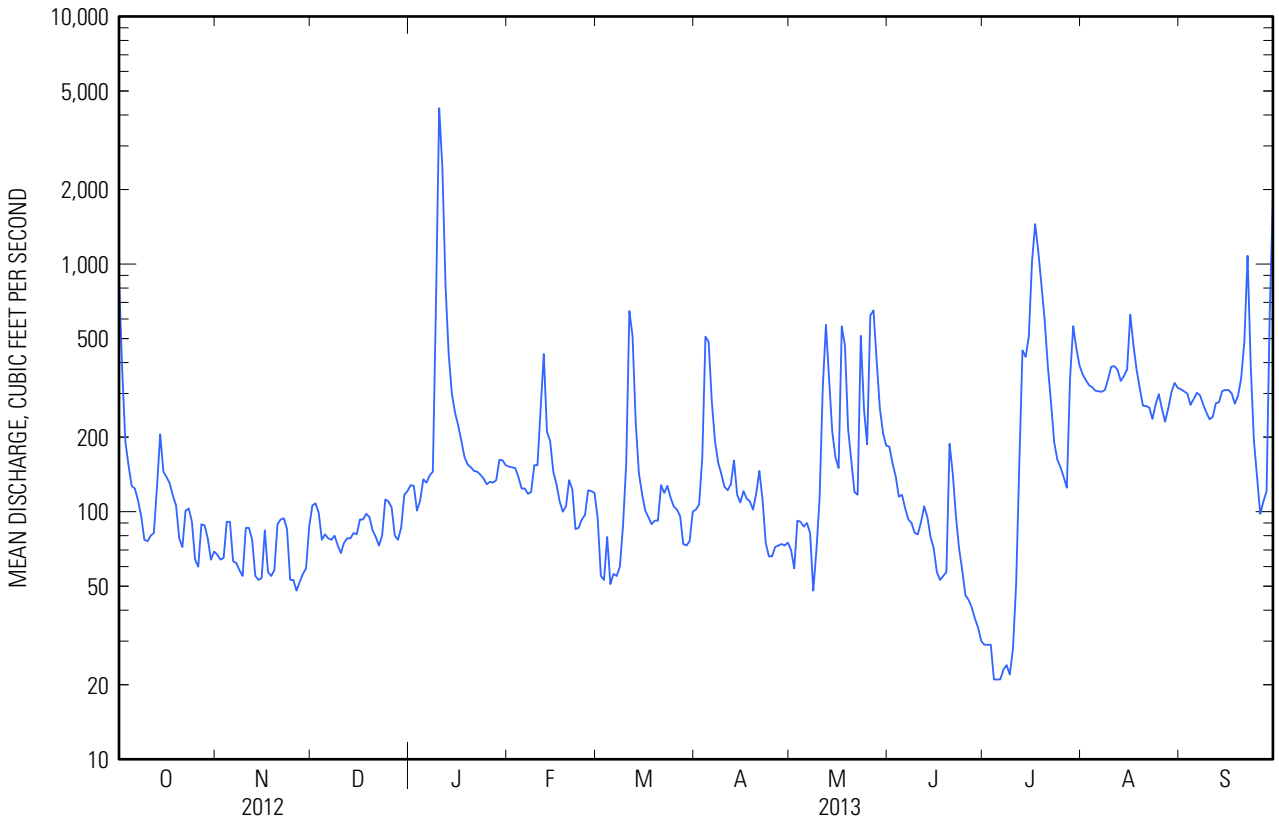
SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1954 - 2013[z]	
Annual total	270,284		75,360			
Annual mean	738		206		1,723	
Highest annual mean					7,759	1992
Lowest annual mean					174	1956
Highest daily mean	19,500	Mar 21	4,260	Jan 10	84,200	May 18, 1965
Lowest daily mean	43	Jul 5	21	Jul 4	0.00	Jul 12, 1956
Annual seven-day minimum	58	Jul 1	23	Jul 4	0.00	Jul 12, 1956
Maximum peak flow			5,900	Jan 10	116,000	Apr 5, 1957
Maximum peak stage			10.73	Jan 10	39.56	Apr 5, 1957
Annual runoff (ac-ft)	536,100		149,500		1,248,000	
10 percent exceeds	1,450		388		5,080	
50 percent exceeds	121		120		449	
90 percent exceeds	64		57		74	

[z] Period of regulated streamflow.