Water-Data Report 2011

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 2010 TO SEPTEMBER 2011
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	1,250	268	204	207	225	157	153	252	246	271	417	360
2	851	283	196	195	240	153	148	251	243	263	414	395
3	624	276	196	190	358	168	126	265	237	236	303	366
4	510	337	216	186	287	298	118	279	233	282	331	316
5	463	332	218	180	252	332	142	269	225	306	325	372
6	424	340	213	144	243	302	147	263	221	299	336	313
7	400	311	194	144	253	203	144	248	225	332	364	198
8	385	286	190	161	233	166	135	258	216	449	357	178
9	395	262	187	203	190	147	115	273	217	498	350	209
10	357	271	191	748	197	134	113	300	215	515	337	189
11	345	241	217	1,010	231	147	112	302	209	499	335	154
12	336	261	218	465	233	165	136	310	205	483	341	146
13	326	259	210	339	196	168	155	1,740	212	496	365	198
14	370	278	189	314	180	127	158	655	203	471	366	163
15	334	266	188	296	174	133	109	334	203	442	361	139
16	310	266	182	332	175	137	105	255	199	463	325	166
17	306	236	149	937	190	123	111	237	232	441	324	206
18	302	240	180	1,140	331	118	235	207	273	439	325	201
19	326	210	180	612	367	122	264	158	280	429	324	207
20	318	215	167	463	314	121	289	178	309	427	316	200
21	297	239	137	492	219	116	313	389	315	394	319	159
22	307	230	140	496	188	114	273	335	352	454	326	127
23	322	222	148	443	168	112	274	332	297	444	335	123
24	321	234	177	313	178	115	320	289	381	390	369	108
25	304	231	181	260	195	112	307	275	299	428	488	109
26	272	223	344	249	210	111	284	271	239	437	412	104
27	272	232	315	231	219	107	302	271	260	431	382	156
28	258	234	239	228	182	108	281	300	295	339	329	148
29	268	226	215	250	---	123	267	301	286	310	296	203
30	287	198	210	245	---	151	266	275	303	352	349	186
31	282	---	213	241	---	157	---	251	---	369	302	---
Total	12,122	7,707	6,204	11,714	6,428	4,747	5,902	10,323	7,630	12,389	10,823	6,099
Mean	391	257	200	378	230	153	197	333	254	400	349	203
Max	1,250	340	344	1,140	367	332	320	1,740	381	515	488	395
Min	258	198	137	144	168	107	105	158	199	236	296	104
Ac-ft	24,040	15,290	12,310	23,230	12,750	9,420	11,710	20,480	15,130	24,570	21,470	12,100

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 2011[Z], BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	1,289	1,204	1,511	1,669	2,118	2,268	2,249	2,995	2,542	1,698	820	850
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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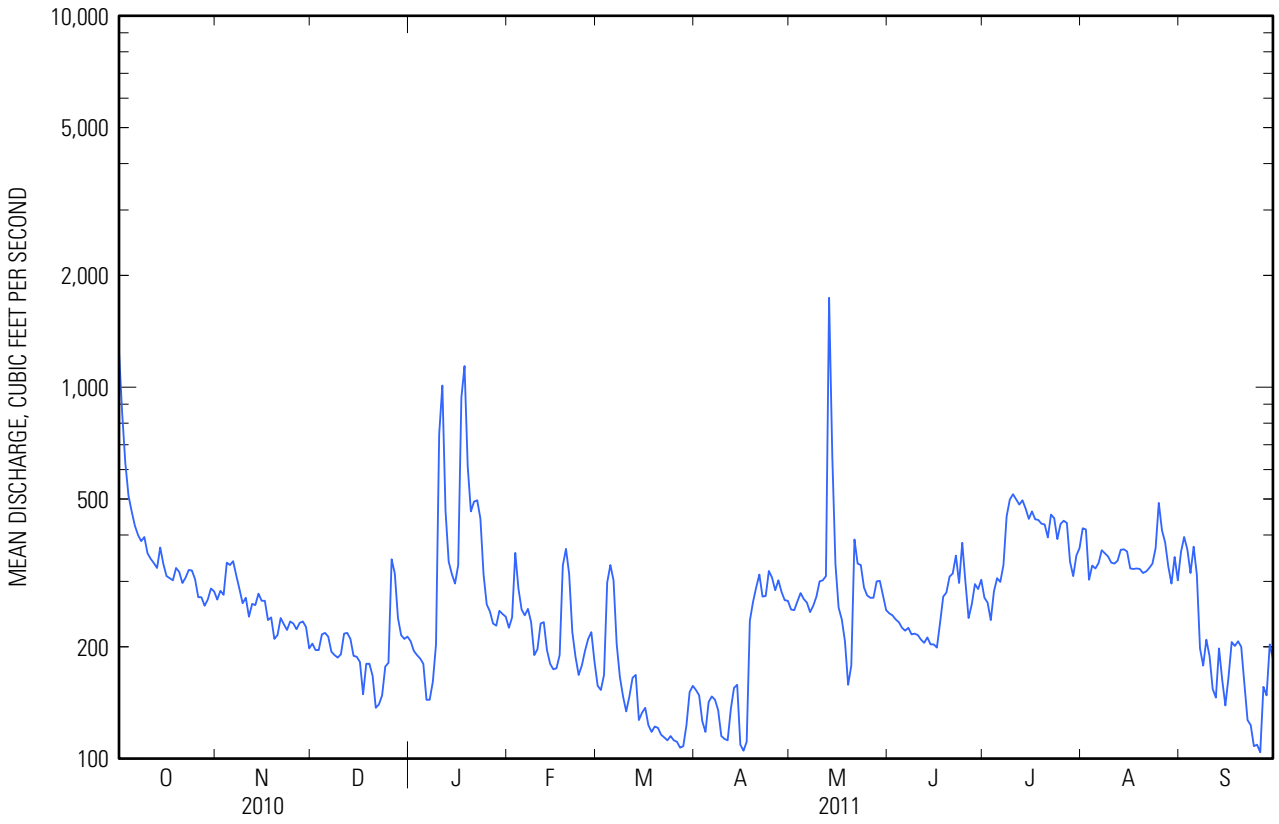
SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1954 - 2011[z]	
Annual total	963,285		102,088			
Annual mean	2,639		280		1,766	
Highest annual mean					7,759	1992
Lowest annual mean					174	1956
Highest daily mean	19,700	Sep 10	1,740	May 13	84,200	May 18, 1965
Lowest daily mean	94	Aug 29	104	Sep 26	0.00	Jul 12, 1956
Annual seven-day minimum	102	Aug 24	111	Mar 22	0.00	Jul 12, 1956
Maximum peak flow			2,460	May 13	116,000	Apr 5, 1957
Maximum peak stage			6.59	May 13	39.56	Apr 5, 1957
Instantaneous low flow					87	Aug 29, 2010
Annual runoff (ac-ft)	1,911,000		202,500		1,279,000	
10 percent exceeds	9,580		425		5,190	
50 percent exceeds	916		259		480	
90 percent exceeds	179		143		75	

[z] Period of regulated streamflow.