Water-Data Report 2013

08099500 Leon River near Hasse, TX

Little Basin
Leon Subbasin

LOCATION.--Lat 31°57′28″, long 98°27′32″ referenced to North American Datum of 1927, Comanche County, TX, Hydrologic Unit 12070201, On left side, approximately 10 ft downstream of end of bridge on U.S. Highway 67/377 2.1 miles northeast of Hasse, TX, 2.0 miles downstream from Proctor Reservoir Dam.

DRAINAGE AREA.--1,261 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Jan. 1939 to Sept. 1991, July 14, 2007 to current year.

PERIOD OF RECORD, Water-Quality.--
CHEMICAL DATA: Oct. 1961 to July 2006.
BIOCHEMICAL DATA: Oct. 1961 to July 2006.
RADIOCHEMICAL DATA: Jan. 1981 to July 2006.

REVISED RECORDS.--WDR-US-2008: 2007.

GAGE.--Water-stage recorder. Datum of gage is 1115.01 ft above NGVD of 1929. Satellite telemeter at site.

REMARKS.--Records poor. Since Apr. 1954 at least 10% of contributing drainage area has been regulated by Leon Reservoir. Some records listed in the period of record may not be available electronically.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--24 years (water years 1940-63), prior to completion of Proctor Lake, 151 ft^3/s (109,4000 acre-feet/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,900 cfs, May 3, 1990 (gage height 18.19 ft).

EXTREMES OUTSIDE PERIOD OF RECORD.--A stage of 21.49 ft (discharge 38,500 cfs) May 24, 1952, 2 ½ miles upstsream from gage. The flood of Oct. 4, 1959 reached a stage of 21.72 ft.

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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	0.09	0.12	0.18	0.52	0.20	0.15	0.30	0.13	0.18	37	24	13
2	0.02	0.10	0.15	0.66	0.22	0.12	6.0	0.09	0.27	42	34	14
3	0.03	0.13	0.19	0.28	0.18	0.10	91	1.6	4.0	41	28	14
4	0.03	0.12	0.18	0.66	0.20	0.10	2.5	12	15	41	29	15
5	0.03	0.11	0.15	0.58	0.19	0.09	0.92	12	20	45	31	15
6	0.04	0.16	0.16	0.41	0.17	0.10	0.46	13	19	47	35	14
7	0.05	0.19	0.16	0.28	0.15	0.19	0.32	16	25	47	27	11
8	0.07	0.15	0.13	0.62	0.15	0.16	0.40	15	36	26	19	10
9	2.1	0.11	0.13	4.2	0.21	0.21	0.35	12	32	1.9	15	9.8
10	8.7	0.09	0.15	1.7	0.90	0.39	0.54	0.64	31	2.5	15	10
11	7.8	0.11	0.17	0.28	0.42	0.12	0.45	0.08	30	6.3	14	14
12	7.7	0.14	0.31	0.17	0.35	0.10	0.36	0.13	33	13	15	18
13	7.9	0.12	0.33	0.10	0.21	0.07	0.30	0.11	37	13	18	15
14	7.8	0.12	0.25	0.11	0.23	0.06	0.22	0.10	37	13	18	15
15	8.0	5.8	0.23	0.10	0.22	0.10	0.18	3.6	35	16	16	15
16	5.7	22	0.18	0.09	0.14	0.12	0.13	13	35	8.8	13	15
17	0.16	16	0.13	0.13	0.56	0.11	0.13	0.79	31	8.8	13	15
18	0.07	15	0.11	0.24	0.99	0.09	0.45	0.18	26	6.5	13	15
19	0.06	15	0.13	0.20	0.25	2.1	0.14	0.12	35	0.24	14	16
20	0.07	14	0.26	0.15	0.27	7.0	0.08	0.65	44	0.03	14	13
21	0.06	14	0.37	0.14	0.23	7.3	0.11	1.8	42	0.02	15	0.33
22	0.05	14	0.48	0.19	0.20	12	0.16	0.29	38	0.18	15	0.04
23	1.8	14	0.27	0.25	0.28	17	0.14	0.18	35	0.10	14	0.01
24	7.4	15	0.21	0.25	0.36	16	0.09	1.8	35	1.1	13	0.00
25	7.3	15	1.0	0.26	0.31	17	0.11	2.8	43	2.9	14	0.00
26	5.0	10	0.38	0.14	0.13	18	0.20	0.90	45	8.6	14	1.1
27	0.16	0.33	0.24	0.12	0.10	15	0.25	0.62	32	7.8	13	5.2
28	0.07	0.14	0.30	0.16	0.14	1.1	0.09	0.48	22	6.8	12	5.3
29	0.09	0.17	0.32	0.22	---	0.16	0.14	0.39	31	8.3	13	5.3
30	0.07	0.22	0.27	0.23	---	0.24	0.16	0.25	32	11	13	10
31	0.08	---	0.32	0.16	---	0.51	---	0.22	---	16	13	---
Total	78.50	172.43	7.84	13.60	7.96	115.79	106.68	110.95	880.45	478.87	554	304.08
Mean	2.53	5.75	0.25	0.44	0.28	3.74	3.56	3.58	29.3	15.4	17.9	10.1
Max	8.7	22	1.0	4.2	0.99	18	91	16	45	47	35	18
Min	0.02	0.09	0.11	0.09	0.10	0.06	0.08	0.08	0.18	0.02	12	0.00
Ac-ft	156	342	16	27	16	230	212	220	1,750	950	1,100	603

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 2013[hz], BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	42.4	28.7	24.5	47.0	82.3	72.3	114	264	235	190	95.3	63.6
Max	619	396	337	380	1,203	534	1,013	4,830	1,928	1,229	747	409
(WY)	(1965)	(1965)	(1965)	(1985)	(1968)	(1970)	(1968)	(1990)	(1990)	(1990)	(1990)	(1991)
Min	0.85	0.35	0.21	0.44	0.28	0.74	0.76	1.27	2.00	10.4	5.97	1.65
(WY)	(1969)	(2010)	(2012)	(2013)	(2013)	(2009)	(1984)	(1971)	(1981)	(1964)	(2011)	(2008)

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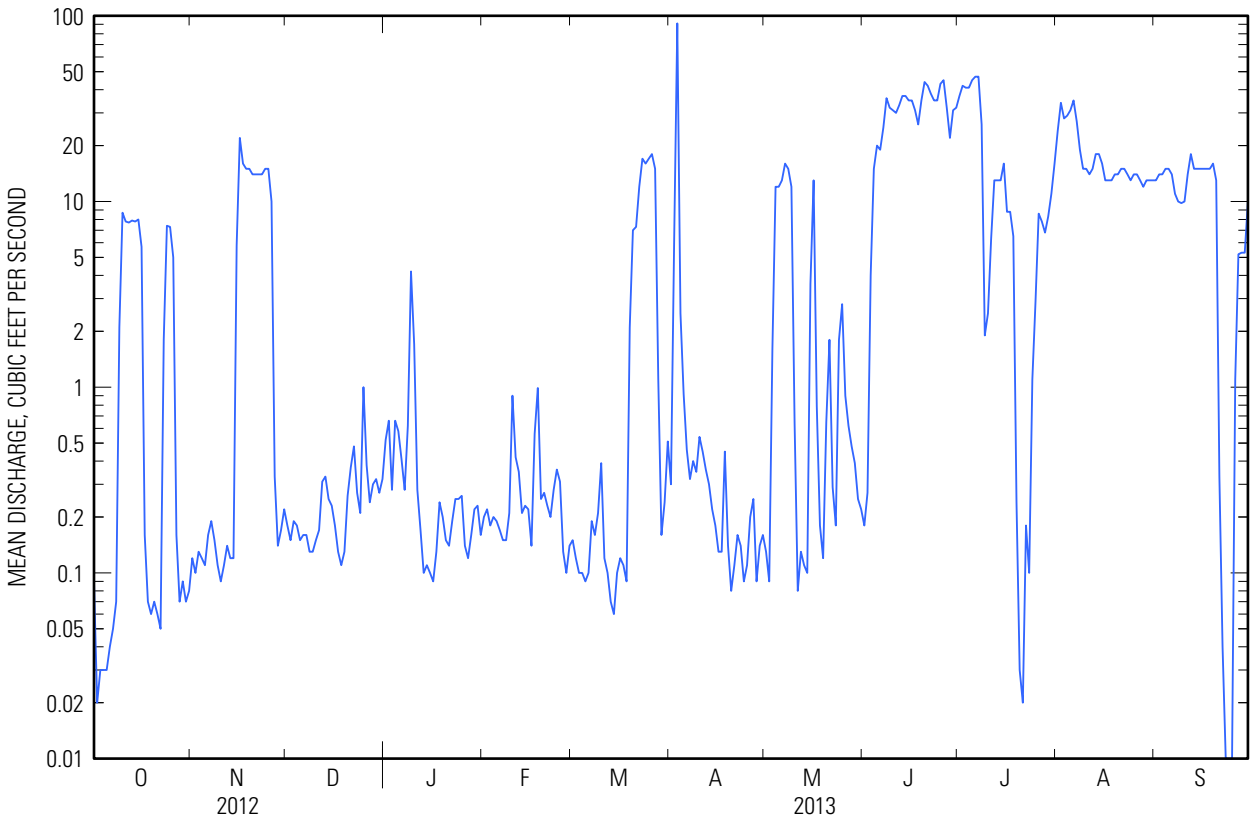
SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1963 - 2013[hz]	
Annual total	27,967.64		2,831.15			
Annual mean	76.4		7.76		104	
Highest annual mean					786	1990
Lowest annual mean					7.76	2013
Highest daily mean	960	Feb 22	91	Apr 3	20,800	May 3, 1990
Lowest daily mean	0.02	Oct 2	0.00	Sep 24	0.00	Sep 5, 1963
Annual seven-day minimum	0.04	Oct 2	0.04	Oct 2	0.00	Sep 11, 2008
Maximum peak flow			375	Apr 3	21,900	May 3, 1990
Maximum peak stage			5.26	Apr 3	18.19	May 3, 1990
Annual runoff (ac-ft)	55,470		5,620		75,600	
10 percent exceeds	236		26		342	
50 percent exceeds	12		0.45		8.7	
90 percent exceeds	0.15		0.10		0.85	

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