Water-Data Report 2012

08146000 San Saba River at San Saba, TX

Middle Colorado-Concho Basin
San Saba Subbasin

LOCATION.--Lat 31°12′47″, long 98°43′09″ referenced to North American Datum of 1927, San Saba County, TX, Hydrologic Unit 12090109, on left bank near left downstream end of bridge on State Highway 16, 1.2 mi north of San Saba, 2.7 mi upstream from Mill Creek, 4.8 mi downstream from China Creek, and 16.8 mi upstream from mouth.

DRAINAGE AREA.--3,046 mi^2 of which 7 mi^2 probably is noncontributing.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Dec. 1904 to Dec. 1906 (gage heights only), Sept. 1915 to Sept. 1993, and Oct. 1997 to current year. Published as "near San Saba" Dec. 1904 to Dec. 1906 and Sept. 1915 to Aug. 1930.

PERIOD OF RECORD, Water-Quality.--
CHEMICAL DATA: Sept. 1947 to Feb. 1949, Nov. 1958 to Sept. 1969.
BIOCHEMICAL DATA: Sept. 1962 to Sept. 1969.
SEDIMENT DATA: Sept. 1964.

PERIOD OF DAILY RECORD, Water-Quality.--
WATER TEMPERATURE: Sept. 1962 to Sept. 1969.

REVISED RECORDS.--WSP 458: 1915-16. WSP 1512: 1918-19(M), 1922, 1931(M), 1935. WSP 1922: 1917. WDR TX-81-3: Drainage area. WDR TX-00-4: 1992.

GAGE.--Water-stage recorder. Datum of gage is 1,162.16 ft above NGVD of 1929. See WSP 1922 for brief history of changes prior to July 8, 1953. From Oct. 1956 to Sept. 1993, at site 250 ft to right and supplementary water-stage recorder 2,780 ft to right of main channel gage used for floodflows at same datum. Radio telemeter at station. Satellite telemeter at station.

COOPERATION.--Lower Colorado River Authority provides operation and maintenance of the gage and verification of stage-discharge relation at low stages. U.S. Geological Survey maintains stage-discharge relation at medium to high stages, supplements low-flow measurements, and computes and publishes the streamflow record.

REMARKS.--Records good. Since water year 1963, at least 10% of contributing drainage area has been regulated. Many diversions above station for irrigation and municipal use affect low flows. No flow at times. Some records listed in the period of record may not be available electronically.

AVERAGE DISCHARGE FOR PERIOD PRIOR TO REGULATION.--47 years (water years 1916-1962) prior to completion of Brady Creek Reservoir, 248 ft^3/s (179,900 acre-ft/yr).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 6, 1899, reached a stage of 36.7 ft, present site and datum, from information by local residents.

EXTREMES FOR PERIOD PRIOR TO REGULATION.--WATER YEARS 1916-1962: Maximum discharge, 203,000 ft^3/s, July 23, 1938, gage height, 39.30 ft, from floodmarks, at site then in use, adjusted to present datum, from rating curve extended above 40,600 ft^3/s on basis of slope-area measurement of 203,000 ft^3/s; no flow at times in 1918, 1930, 1954-56.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	13	28	30	42	77	110	111	47	68	34	27	21
2	13	28	30	42	74	106	107	45	66	38	20	24
3	14	25	32	41	72	103	105	42	69	41	19	24
4	13	25	80	41	69	100	103	43	71	40	19	23
5	13	24	84	41	65	96	106	44	65	37	22	23
6	12	26	60	41	62	92	97	50	61	31	24	23
7	14	28	48	42	61	89	92	75	75	30	20	24
8	17	32	46	43	59	84	89	403	86	31	16	23
9	1,570	34	48	48	58	90	84	387	78	44	19	23
10	268	36	48	57	58	105	81	245	70	94	20	23
11	91	35	53	65	57	328	78	276	68	67	19	21
12	57	39	57	60	54	355	78	440	64	58	16	18
13	47	37	60	57	57	279	79	278	61	51	19	23
14	43	37	62	56	61	224	77	217	62	48	21	29
15	40	36	61	54	63	188	77	194	63	55	22	32
16	39	31	58	53	62	171	74	242	61	80	17	38
17	39	31	57	53	64	154	72	370	61	44	16	43
18	42	32	57	50	364	143	71	233	95	42	19	43
19	39	31	55	49	1,150	136	70	183	83	41	24	38
20	33	30	51	48	471	203	68	162	70	40	26	35
21	32	32	51	47	295	328	65	142	73	38	26	33
22	36	37	51	47	224	249	65	133	81	37	20	32
23	35	37	48	47	193	185	62	116	69	36	23	32
24	36	37	46	49	170	158	59	107	64	35	23	32
25	37	35	45	209	147	145	55	102	58	34	25	30
26	35	34	45	138	130	132	54	96	54	33	24	29
27	33	31	45	121	125	127	52	89	46	33	90	29
28	30	31	44	111	120	122	49	86	41	31	32	38
29	26	29	44	107	116	117	48	82	37	31	31	85
30	26	32	44	93	---	116	48	74	35	31	24	79
31	27	---	43	84	---	114	---	69	---	30	21	---
Total	2,770	960	1,583	2,036	4,578	4,949	2,276	5,072	1,955	1,315	744	970
Mean	89.4	32.0	51.1	65.7	158	160	75.9	164	65.2	42.4	24.0	32.3
Max	1,570	39	84	209	1,150	355	111	440	95	94	90	85
Min	12	24	30	41	54	84	48	42	35	30	16	18
Ac-ft	5,490	1,900	3,140	4,040	9,080	9,820	4,510	10,060	3,880	2,610	1,480	1,920

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 2012[hz], BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	186	177	140	145	168	156	151	192	175	147	147	253
Max	1,716	2,290	935	896	1,542	635	777	1,195	978	1,201	1,768	2,144
(WY)	(1974)	(2001)	(1992)	(1968)	(1992)	(1992)	(1977)	(1965)	(2007)	(1971)	(1971)	(1974)
Min	17.6	32.0	47.8	46.1	44.9	34.7	23.4	10.3	5.31	0.32	7.55	8.74
(WY)	(1964)	(2012)	(1964)	(1964)	(1984)	(1986)	(1986)	(1984)	(1984)	(1964)	(2011)	(2011)

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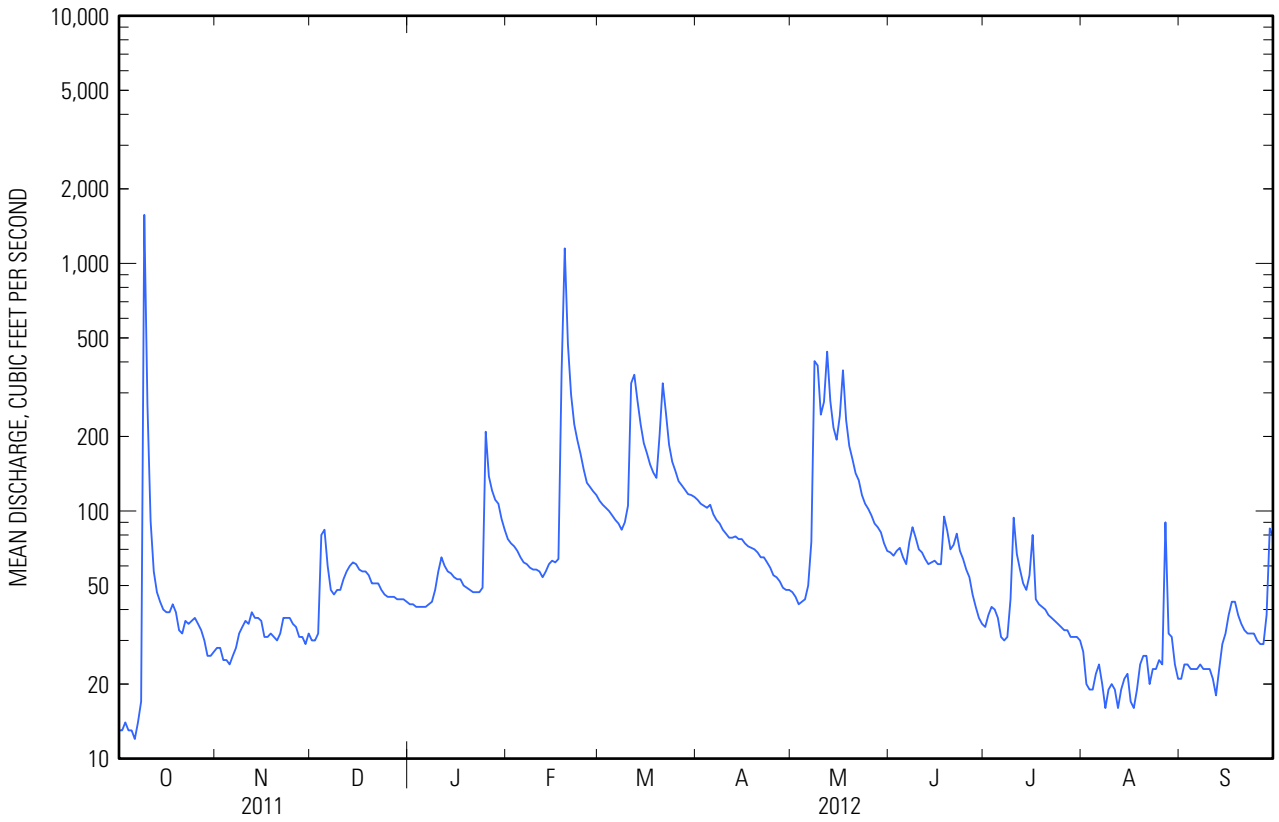
SUMMARY STATISTICS

	Calendar Year 2011		Water Year 2012		Water Years 1963 - 2012[hz]	
Annual total	14,213.9		29,208			
Annual mean	38.9		79.8		170	
Highest annual mean					493	1974
Lowest annual mean					29.2	1984
Highest daily mean	1,570	Oct 9	1,570	Oct 9	32,700	Nov 4, 2000
Lowest daily mean	3.3	Aug 12	12	Oct 6	0.00	Jul 17, 1963
Annual seven-day minimum	4.7	Aug 8	13	Oct 1	0.00	Jul 25, 1963
Maximum peak flow			2,590	Oct 9	46,200	Nov 4, 2000
Maximum peak stage			10.79	Oct 9	29.94	Sep 18, 1990
Annual runoff (ac-ft)	28,190		57,930		122,900	
10 percent exceeds	73		146		258	
50 percent exceeds	31		50		84	
90 percent exceeds	6.9		23		27	

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