

Water-Data Report 2011

08159500 Colorado River at Smithville, TX

Lower Colorado Basin
Lower Colorado-Cummins Subbasin

LOCATION.--Lat 30°00'45", long 97°09'42" referenced to North American Datum of 1927, Bastrop County, TX, Hydrologic Unit 12090301, on right bank 28 ft downstream from bridge on Business State Highway 71 in Smithville, 500 ft below mouth of Gazley Creek, 3.9 mi below mouth of Alum Creek, and at mile 212.1.

DRAINAGE AREA.--40,371 mi² of which 11,403 mi² probably is noncontributing.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--July 1930 to Sept. 1975, Oct. 1997 to current year.

PERIOD OF RECORD, Water-Quality.--

CHEMICAL DATA: Nov. 1973 to Aug. 1975, Feb. 2001.

BIOCHEMICAL DATA: Oct. 1973 to Sept. 1975.

REVISED RECORDS.--WSP 1342: Drainage area. WSP 1562: 1934. WSP 1712: 1953, 1954(M), 1957-58.

GAGE.--Water-stage recorder. Datum of gage is 270.14 ft above NGVD of 1929. Prior to Apr. 9, 1931, nonrecording gage at same site and datum. Apr. 9, 1931, to Sept. 2, 1971, water-stage recorder at site 360 ft downstream 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, computes, and publishes streamflow record.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Since installation of gage in 1930, at least 10% of contributing drainage area has been regulated. At times, low-flow releases from Lake Travis are made for generation of electric power and to fulfill downstream water contracts. There are many diversions above station for irrigation and municipal supply. Some records listed in the "Period of Record" for surface water and water quality may not be available electronically.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1860, occurred July 8, 1869, and was several feet higher than flood of Dec. 4, 1913, which reached a stage of 47.4 ft and was the highest since 1869, from information by local residents.

08159500 Colorado River at Smithville, 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	1,000	366	400	376	538	586	1,010	1,290	1,900	1,660	1,220	1,440
2	955	384	426	420	530	585	1,070	1,350	1,770	1,490	1,240	1,320
3	945	361	441	420	601	555	1,030	1,360	1,660	1,500	1,190	1,370
4	927	409	473	436	668	640	1,120	1,480	1,700	1,410	1,190	1,390
5	963	448	441	463	637	574	1,160	1,440	e1,790	1,430	1,230	1,370
6	988	409	470	497	611	510	1,130	1,430	e1,770	1,380	1,310	1,230
7	939	365	460	488	577	547	1,140	1,530	1,840	1,370	1,340	1,180
8	880	383	523	472	497	490	1,120	1,570	1,920	1,330	1,530	1,040
9	829	411	501	583	555	518	1,140	1,670	1,940	1,400	1,500	1,110
10	767	431	491	1,170	514	477	1,190	1,850	2,010	1,370	1,470	1,090
11	707	420	479	1,200	635	511	1,260	1,810	1,910	1,240	1,620	1,110
12	643	417	493	780	588	473	1,250	e1,820	1,830	1,160	1,890	1,170
13	558	426	491	644	516	487	1,220	e2,770	1,840	1,170	1,860	1,170
14	498	442	534	512	506	481	1,200	2,330	1,780	1,240	1,860	1,150
15	490	440	482	490	492	488	1,220	1,840	1,690	1,150	1,910	1,160
16	442	421	501	585	583	506	1,220	1,830	1,670	1,260	1,960	1,210
17	413	418	501	1,050	541	466	1,210	1,770	1,610	1,190	1,860	1,150
18	431	427	450	1,020	614	469	1,280	1,690	1,650	1,210	1,730	1,200
19	427	473	437	678	605	496	1,360	1,720	1,690	e1,240	1,680	1,190
20	409	446	438	601	541	451	1,460	1,730	1,800	e1,160	1,640	1,140
21	447	436	438	603	584	418	1,400	1,800	1,900	1,120	1,640	1,110
22	417	449	434	585	571	500	1,340	1,690	2,110	1,120	1,580	1,110
23	397	454	402	588	602	539	1,340	1,630	2,290	1,130	1,560	1,000
24	395	443	426	599	608	521	1,290	1,570	1,740	1,120	1,640	946
25	380	419	442	521	620	530	1,360	1,590	1,750	1,160	1,620	923
26	382	467	494	552	626	598	1,400	1,630	1,840	1,220	1,610	850
27	385	447	579	488	614	665	1,330	1,610	1,820	1,200	1,630	835
28	427	422	454	523	599	711	1,300	1,710	1,880	1,270	1,630	824
29	409	419	429	503	---	839	1,260	1,780	1,800	1,230	1,590	815
30	372	410	410	542	---	883	1,270	1,790	1,840	1,150	1,480	799
31	361	---	401	503	---	1,000	---	1,620	---	1,220	1,530	---
Total	18,583	12,663	14,341	18,892	16,173	17,514	37,080	52,700	54,740	39,300	48,740	33,402
Mean	599	422	463	609	578	565	1,236	1,700	1,825	1,268	1,572	1,113
Max	1,000	473	579	1,200	668	1,000	1,460	2,770	2,290	1,660	1,960	1,440
Min	361	361	400	376	492	418	1,010	1,290	1,610	1,120	1,190	799
Ac-ft	36,860	25,120	28,450	37,470	32,080	34,740	73,550	104,500	108,600	77,950	96,680	66,250

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 2011^h, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	2,531	1,998	1,675	1,787	2,050	2,018	2,347	3,999	3,977	3,670	1,902	2,755
Max	20,380	13,480	5,958	7,823	8,516	7,292	11,300	27,980	31,510	31,310	7,303	38,090
(WY)	(1931)	(1975)	(2005)	(1968)	(1958)	(1958)	(1941)	(1957)	(1935)	(1938)	(1938)	(1936)
Min	117	133	129	133	145	176	471	1,088	391	852	240	337
(WY)	(1935)	(1964)	(1964)	(1964)	(1964)	(1964)	(1952)	(1942)	(1934)	(1933)	(1930)	(1934)

08159500 Colorado River at Smithville, TX—Continued

SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1930 - 2011 ^h	
Annual total	523,640		364,128			
Annual mean	1,435		998		2,566	
Highest annual mean					6,780	1935
Lowest annual mean					794	1952
Highest daily mean	17,700	Sep 9	2,770	May 13	219,000	Jun 16, 1935
Lowest daily mean	361	Oct 31	361	Oct 31	79	Nov 1, 1934
Annual seven-day minimum	380	Oct 29	380	Oct 29	84	Oct 27, 1934
Maximum peak flow			3,370	May 13	ⁱ 305,000	Jun 16, 1935
Maximum peak stage			4.48	May 13	^a 42.50	Jun 16, 1935
Annual runoff (ac-ft)	1,039,000		722,200		1,859,000	
10 percent exceeds	2,250		1,770		4,500	
50 percent exceeds	1,220		988		1,550	
90 percent exceeds	427		426		358	

^h See Period of Record paragraph.

^a From floodmark.

ⁱ From indirect measurement of peak flow.

