Water-Data Report 2012

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 mi^2 of which 11,403 mi^2 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.

Suggested citation: U.S. Geological Survey, 2013, Water-resources data for the United States, Water Year 2012: U.S. Geological Survey Water-Data Report WDR-US-2012, site 08159500, accessed at http://wdr.water.usgs.gov/wy2012/pdfs/08159500.2012.pdf

08159500 Colorado River at Smithville, TX—Continued

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

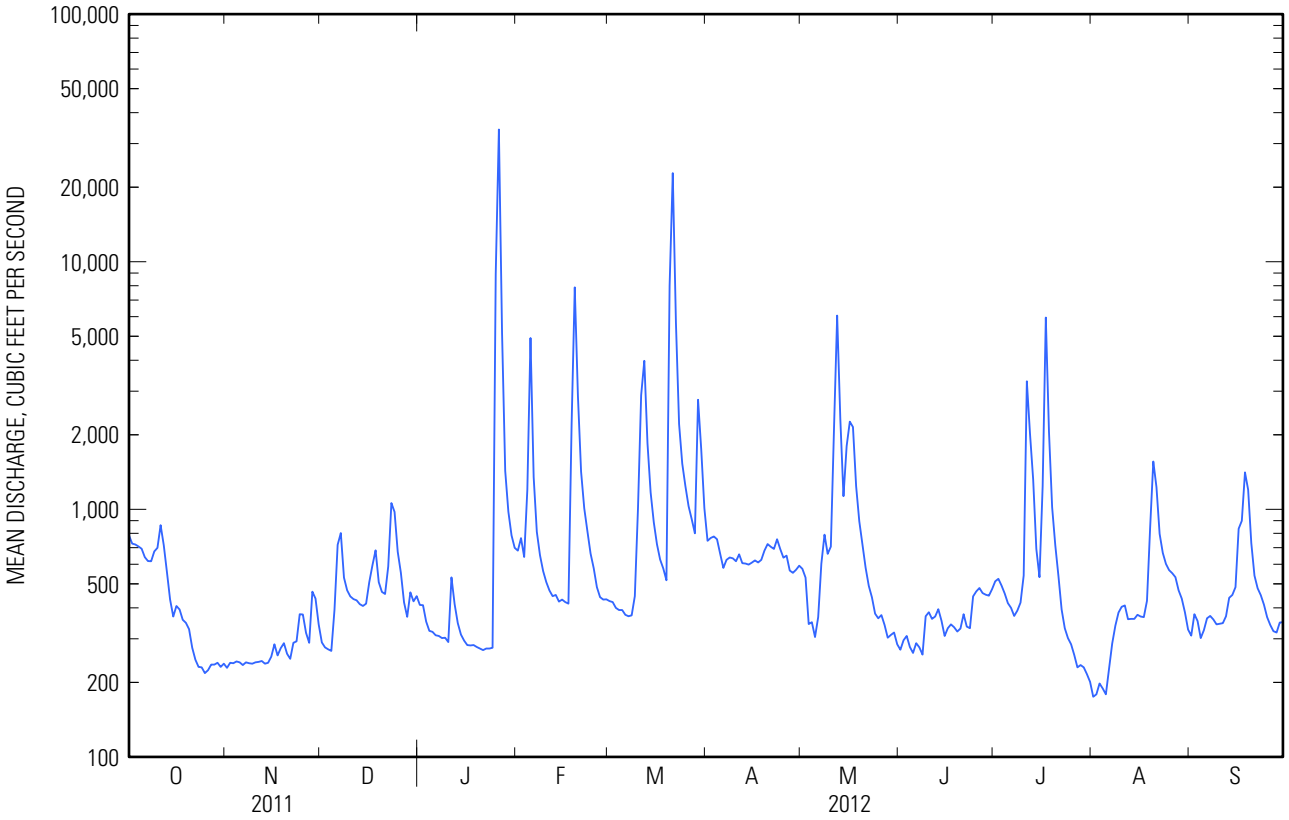
Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	785	229	290	411	681	426	746	575	271	512	175	309
2	727	240	277	410	765	422	766	530	296	524	179	377
3	721	239	272	352	642	400	777	344	308	492	198	354
4	708	243	e268	323	1,200	392	757	350	278	457	189	302
5	693	241	e393	320	4,920	392	661	305	263	418	179	325
6	641	235	719	310	1,350	375	580	367	288	400	227	363
7	618	241	802	308	811	370	625	603	277	371	287	371
8	617	239	530	302	653	373	639	790	259	390	339	359
9	676	238	471	303	563	446	634	661	370	420	383	343
10	699	241	445	291	508	1,010	617	707	384	540	404	345
11	863	242	434	531	470	2,890	658	2,110	361	3,290	409	347
12	716	244	429	414	446	3,980	606	6,060	369	2,020	360	370
13	558	238	414	347	451	1,850	604	2,320	395	1,320	361	439
14	432	240	407	312	424	1,170	598	1,130	355	692	361	451
15	369	254	416	295	432	886	609	1,800	308	532	375	485
16	407	285	508	283	422	723	622	2,260	331	1,240	369	835
17	394	257	594	282	416	627	610	2,150	343	5,950	367	899
18	358	275	683	283	2,190	577	625	1,240	334	2,060	427	1,410
19	348	288	508	278	7,880	517	681	895	321	1,020	844	1,200
20	328	261	464	274	2,870	7,990	724	721	330	715	1,560	730
21	276	249	455	270	1,420	22,800	706	581	377	537	1,230	540
22	247	289	588	274	1,010	5,680	692	491	336	394	796	480
23	231	293	1,060	274	816	2,210	757	441	331	331	667	450
24	230	377	976	276	663	1,530	691	379	445	302	602	412
25	218	376	674	8,910	578	1,240	638	363	466	285	568	367
26	224	317	554	34,200	485	1,030	650	374	481	258	552	341
27	236	289	421	5,170	442	912	566	341	459	230	532	322
28	236	465	368	1,430	432	800	554	303	452	235	471	318
29	240	436	462	978	433	2,770	570	311	448	230	436	349
30	231	343	425	785	---	1,750	592	318	476	216	384	350
31	238	---	446	699	---	1,010	---	285	---	201	327	---
Total	14,265	8,404	15,753	59,895	34,373	67,548	19,555	30,105	10,712	26,582	14,558	14,543
Mean	460	280	508	1,932	1,185	2,179	652	971	357	857	470	485
Max	863	465	1,060	34,200	7,880	22,800	777	6,060	481	5,950	1,560	1,410
Min	218	229	268	270	416	370	554	285	259	201	175	302
Ac-ft	28,290	16,670	31,250	118,800	68,180	134,000	38,790	59,710	21,250	52,730	28,880	28,850

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 2012[h], BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	2,497	1,970	1,656	1,789	2,035	2,021	2,319	3,948	3,916	3,623	1,878	2,718
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	971	357	852	240	337
(WY)	(1935)	(1964)	(1964)	(1964)	(1964)	(1964)	(1952)	(2012)	(2012)	(1933)	(1930)	(1934)

08159500 Colorado River at Smithville, TX—Continued

SUMMARY STATISTICS

	Calendar Year 2011		Water Year 2012		Water Years 1930 - 2012[h]	
Annual total	356,963		316,293			
Annual mean	978		864		2,537	
Highest annual mean					6,780	1935
Lowest annual mean					794	1952
Highest daily mean	2,770	May 13	34,200	Jan 26	219,000	Jun 16, 1935
Lowest daily mean	218	Oct 25	175	Aug 1	79	Nov 1, 1934
Annual seven-day minimum	231	Oct 23	191	Jul 30	84	Oct 27, 1934
Maximum peak flow			41,600	Jan 26	[i]305,000	Jun 16, 1935
Maximum peak stage			21.44	Jan 26	[a]42.50	Jun 16, 1935
Annual runoff (ac-ft)	708,000		627,400		1,838,000	
10 percent exceeds	1,770		1,230		4,500	
50 percent exceeds	976		432		1,520	
90 percent exceeds	289		252		348	

[h] See Period of Record paragraph.
[a] From floodmark.
[i] From indirect measurement of peak flow.