

Water-Data Report 2008

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 good except for estimated daily discharges, which are rated 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.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	1,210	611	521	473	538	768	1,200	1,280	1,660	1,940	903	1,210
2	1,150	554	527	472	512	794	1,190	1,170	1,670	1,930	905	1,120
3	1,090	535	479	469	621	821	1,210	1,140	1,630	1,890	951	1,190
4	997	530	482	593	645	838	1,270	1,230	1,320	1,880	955	1,160
5	942	509	446	603	710	1,040	1,530	1,340	1,660	1,860	950	1,280
6	913	503	472	603	694	976	1,620	1,110	1,770	1,790	973	1,330
7	799	516	540	610	661	890	1,600	1,210	1,770	1,830	977	1,360
8	771	512	531	608	790	850	1,570	1,200	1,770	1,830	937	1,900
9	778	510	514	629	610	906	1,580	1,220	1,720	1,880	957	1,900
10	748	496	495	648	699	934	1,580	1,230	1,740	1,750	990	1,800
11	735	463	497	675	699	2,050	1,610	1,230	1,730	1,660	963	1,620
12	725	496	542	638	730	1,720	1,620	1,300	1,730	1,330	961	1,340
13	740	476	462	589	773	1,090	1,390	1,310	1,720	1,160	965	830
14	689	475	580	602	764	883	1,110	1,330	1,720	1,100	1,050	658
15	675	478	624	567	787	815	1,090	2,010	1,750	1,110	1,000	1,490
16	673	455	562	578	821	770	1,240	2,160	e1,760	e1,080	972	2,090
17	669	479	640	573	927	736	1,210	1,700	1,880	e1,020	1,140	1,890
18	665	874	556	594	931	766	1,150	1,420	1,810	968	1,120	1,530
19	663	627	478	601	841	809	1,710	1,370	1,900	988	1,080	1,330
20	625	539	545	596	720	1,390	1,500	1,370	e2,020	993	1,170	1,310
21	631	518	488	632	619	1,040	1,360	1,350	1,960	967	1,310	1,310
22	660	495	517	659	714	891	1,330	1,310	1,960	1,010	1,100	1,300
23	1,040	488	422	681	767	909	1,300	1,590	1,960	999	1,070	e1,320
24	970	498	491	770	729	806	1,250	1,720	1,960	1,030	948	e1,350
25	733	537	440	727	756	746	964	1,710	1,930	1,030	878	e1,380
26	669	844	496	659	734	749	1,040	1,690	1,940	1,060	e920	1,430
27	636	805	422	579	711	808	1,230	1,690	1,930	946	993	1,450
28	776	706	475	570	697	701	2,370	1,690	1,930	916	1,020	1,420
29	689	601	414	603	732	972	1,880	1,590	1,930	947	1,090	1,440
30	695	564	483	490	---	1,050	1,400	1,590	1,880	968	1,150	1,400
31	596	---	420	466	---	1,200	---	1,680	---	961	1,140	---
Total	24,352	16,694	15,561	18,557	20,932	29,718	42,104	44,940	54,110	40,823	31,538	42,138
Mean	786	556	502	599	722	959	1,403	1,450	1,804	1,317	1,017	1,405
Max	1,210	874	640	770	931	2,050	2,370	2,160	2,020	1,940	1,310	2,090
Min	596	455	414	466	512	701	964	1,110	1,320	916	878	658
Ac-ft	48,300	33,110	30,870	36,810	41,520	58,950	83,510	89,140	107,300	80,970	62,560	83,580

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 2008^h, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	2,614	2,076	1,737	1,845	2,108	2,081	2,396	4,119	4,083	3,785	1,925	2,817
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)

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SUMMARY STATISTICS

	Calendar Year 2007		Water Year 2008		Water Years 1930 - 2008 ^h	
Annual total	1,507,417		381,467			
Annual mean	4,130		1,042		2,639	
Highest annual mean					6,780	1935
Lowest annual mean					794	1952
Highest daily mean	37,500	Jul 6	2,370	Apr 28	219,000	Jun 16, 1935
Lowest daily mean	334	Mar 11	414	Dec 29	79	Nov 1, 1934
Annual seven-day minimum	347	Mar 5	450	Dec 25	84	Oct 27, 1934
Maximum peak flow			3,010	Apr 28	ⁱ 305,000	Jun 16, 1935
Maximum peak stage			4.15	Apr 28	^a 42.50	Jun 16, 1935
Annual runoff (ac-ft)	2,990,000		756,600		1,912,000	
10 percent exceeds	11,900		1,760		4,700	
50 percent exceeds	1,120		961		1,590	
90 percent exceeds	471		510		359	

^h See Period of Record paragraph.

^a From floodmark.

ⁱ From indirect measurement of peak flow.

