

Water-Data Report 2011

08160400 Colorado River above La Grange, TX

Lower Colorado Basin
Lower Colorado-Cummins Subbasin

LOCATION.--Lat 29°54'44", long 96°54'13" referenced to North American Datum of 1927, Fayette County, TX, Hydrologic Unit 12090301, at right downstream end of bridge on new State Highway 71, 1.4 mi upstream from Buckners Creek, and at mile 177.

DRAINAGE AREA.--40,874 mi² of which 11,403 mi² probably is noncontributing.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Dec. 1979 to Sept. 1982 (discharge measurements only), Apr. 1988 to current year.

GAGE.--Water-stage recorder. Datum of gage is 210.04 ft above NGVD of 1929. Dec. 12, 1979, to Sept. 30, 1982, discharge measurements only were made at old State Highway 71 bridge, 1.0 mi downstream and at different 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. Since installation of gage in 1988, 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 1869, about 56.7 ft on July 9, 1869 (from marble high-water marker in LaGrange). Stages of other floods are as follows: Dec. 5, 1913, 56.4 ft, from floodmark; June 17, 1935, 50.84 ft, from floodmarks (discharge 255,000 ft³/s from rating curve extended above 200,000 ft³/s); July 27, 1938, 42.95 ft (discharge, 200,000 ft³/s). These data were collected and published at streamflow station Colorado River at La Grange (08160500) at a site 2.6 mi downstream and at a datum different than at present site.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	1,210	435	428	406	439	570	813	1,400	1,560	1,860	1,190	1,510
2	1,160	503	408	399	479	556	860	1,390	2,070	1,540	1,180	1,410
3	1,110	456	423	435	469	560	886	1,540	1,760	1,450	1,210	1,300
4	1,100	436	432	446	552	567	931	1,590	1,690	1,400	1,150	1,320
5	1,080	469	452	466	587	615	925	1,710	1,760	1,330	1,170	1,350
6	1,120	510	438	492	549	566	1,020	1,620	1,730	1,330	1,230	1,340
7	1,140	474	448	505	518	507	940	1,750	1,810	1,280	1,320	1,230
8	1,080	416	445	495	493	554	1,040	1,910	1,930	1,250	1,410	1,170
9	1,010	426	503	613	441	492	983	1,960	2,010	1,250	1,570	1,020
10	961	447	477	632	473	515	1,060	2,200	2,060	1,320	1,540	1,090
11	886	460	467	1,470	437	476	1,110	2,340	2,080	1,240	1,510	1,090
12	815	445	448	1,100	521	515	1,150	2,490	1,970	1,110	1,770	1,100
13	733	460	480	747	480	488	1,110	2,520	1,830	1,020	2,000	1,170
14	649	464	467	615	421	494	1,100	3,410	1,830	1,040	1,950	1,180
15	592	492	502	521	418	488	1,100	2,540	1,740	1,110	1,970	1,160
16	572	470	469	556	415	487	1,100	2,170	1,640	1,030	2,040	1,170
17	528	457	491	609	488	488	1,090	2,090	1,650	1,130	2,090	1,240
18	492	438	491	1,210	464	444	1,140	1,910	1,570	1,070	1,910	1,200
19	501	455	439	894	539	437	1,260	1,810	1,650	1,100	1,760	1,260
20	496	474	425	638	538	451	1,370	1,770	1,680	1,160	1,710	1,260
21	469	444	439	570	504	397	1,390	1,780	1,840	1,060	1,670	1,200
22	490	436	443	553	533	365	1,360	1,820	2,270	1,030	1,640	1,180
23	478	450	433	535	545	413	1,300	1,700	2,210	1,020	1,570	1,170
24	458	437	428	535	577	418	1,330	1,610	2,360	1,040	1,570	1,080
25	440	435	443	520	577	393	1,300	1,570	1,690	1,040	1,630	1,010
26	437	423	465	472	589	388	1,420	1,600	1,750	1,090	1,620	992
27	442	477	495	476	599	443	1,390	1,590	1,880	1,160	1,610	935
28	417	443	555	429	588	481	1,330	1,630	1,840	1,170	1,620	906
29	484	441	436	453	---	525	1,310	1,800	1,890	1,260	1,620	893
30	479	405	404	434	---	641	1,310	1,850	1,780	1,190	1,560	878
31	433	---	399	472	---	718	---	1,860	---	1,120	1,470	---
Total	22,262	13,578	14,073	18,698	14,233	15,452	34,428	58,930	55,530	37,200	49,260	34,814
Mean	718	453	454	603	508	498	1,148	1,901	1,851	1,200	1,589	1,160
Max	1,210	510	555	1,470	599	718	1,420	3,410	2,360	1,860	2,090	1,510
Min	417	405	399	399	415	365	813	1,390	1,560	1,020	1,150	878
Ac-ft	44,160	26,930	27,910	37,090	28,230	30,650	68,290	116,900	110,100	73,790	97,710	69,050

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	1,606	1,774	2,096	2,157	2,865	3,074	2,303	2,804	3,911	3,738	1,765	1,688
Max	10,510	14,770	16,350	18,640	31,160	18,080	7,333	8,290	15,180	23,280	5,544	3,828
(WY)	(1999)	(2005)	(1992)	(1992)	(1992)	(1992)	(1997)	(1992)	(1997)	(2007)	(2007)	(2007)
Min	476	244	248	243	260	380	984	1,553	1,453	1,200	1,141	939
(WY)	(1997)	(1989)	(1990)	(2009)	(2009)	(2000)	(2000)	(2008)	(2001)	(2011)	(2008)	(1999)

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SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1988 - 2011	
Annual total	572,295		368,458			
Annual mean	1,568		1,009		2,495	
Highest annual mean					9,913	1992
Lowest annual mean					930	2000
Highest daily mean	16,000	Sep 10	3,410	May 14	84,000	Dec 23, 1991
Lowest daily mean	399	Dec 31	365	Mar 22	167	Dec 21, 1989
Annual seven-day minimum	426	Nov 28	402	Mar 21	170	Dec 16, 1989
Maximum peak flow			3,830	May 14	89,800	Oct 20, 1998
Maximum peak stage			7.82	May 14	P45.47	Oct 20, 1998
Annual runoff (ac-ft)	1,135,000		730,800		1,807,000	
10 percent exceeds	2,690		1,810		4,460	
50 percent exceeds	1,300		1,010		1,380	
90 percent exceeds	448		437		399	

P Observed.

