Water-Data Report 2013

08161000 Colorado River at Columbus, TX

Lower Colorado Basin
Lower Colorado-Cummins Subbasin

LOCATION.--Lat 29°42′22″, long 96°32′12″ referenced to North American Datum of 1927, Colorado County, TX, Hydrologic Unit 12090301, near right bank at downstream side of pier of bridge on U.S. Highway 90 at eastern edge of Columbus, 340 ft downstream from Texas and New Orleans Railroad Co. bridge, 2.6 mi downstream from Cummins Creek, and at mile 135.1.

DRAINAGE AREA.--41,640 mi^2 of which 11,403 mi^2 probably is noncontributing.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Jan. 1903 to Dec. 1911 (gage heights only), May 1916 to current year. Discharge records for 1902-11, published in WSP 84, 99, 132, 174, 210, 288, and 308, have been found to be unreliable and should not be used. Records collected at site 23 mi downstream Oct. 1930 to May 1939, published as "near Eagle Lake". Gage-height records collected in this vicinity since 1903 are contained in reports of the National Weather Service.

PERIOD OF RECORD, Water-Quality.--
CHEMICAL DATA: Oct. 1967 to Sept. 1981.
BIOCHEMICAL DATA: Feb. 1968 to Sept. 1981.
SEDIMENT DATA: Mar. 1957 to Sept. 1973.

REVISED RECORDS.--WSP 1562: 1920-21(M), 1922. WDR TX-81-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 145.52 ft above NGVD of 1929. Prior to May 1, 1919, various nonrecording gages at sites in the immediate vicinity at datum 7.00 ft higher. May 1, 1919, to Nov. 23, 1930, water-stage recorder at site about 300 ft downstream at datum 7.00 ft higher. Sept. 17, 1930, to June 12, 1939 (Oct. 1, 1930, to May 31, 1939, used herein), water-stage recorder at site 23 mi downstream at different datum. May 17 to Nov. 14, 1939, nonrecording gage at present site and datum 10.00 ft higher; Nov. 15, 1939, to Dec. 31, 1988, water-stage recorder at present site and at datum 10.00 ft higher. 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 including those for estimated daily discharge. Since installation of gage in May 1916, at least 10% of contributing drainage area has been regulated. There are many other diversions above this station for irrigation and municipal supply. Low-flow releases from Lake Travis (1,144,100 acre-ft) 251 mi upstream, are made for the generation of electric power and to fulfill downstream water contracts. 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 1852, 51.6 ft, present datum, in July 1869 and Dec. 6, 1913, from information by local resident. River divided each time and left city of Columbus on an island.

Suggested citation: U.S. Geological Survey, 2014, Water-resources data for the United States, Water Year 2013: U.S. Geological Survey Water-Data Report WDR-US-2013, site 08161000, accessed at http://wdr.water.usgs.gov/wy2013/pdfs/08161000.2013.pdf

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	440	243	198	241	275	203	289	522	569	368	342	158
2	380	241	202	242	272	202	321	552	542	363	472	154
3	644	239	e214	248	268	197	1,040	520	509	375	544	154
4	879	240	229	262	260	181	2,190	505	480	377	458	156
5	711	279	233	272	260	179	1,680	475	449	362	366	170
6	596	289	219	265	274	189	1,740	448	422	388	307	182
7	514	267	217	265	292	186	1,060	432	417	422	279	179
8	444	254	216	268	284	190	716	427	364	434	272	179
9	353	246	213	345	271	190	511	430	344	406	271	175
10	281	243	204	820	272	200	400	475	367	383	272	174
11	254	247	226	1,580	268	206	337	587	349	381	277	187
12	249	248	273	1,640	266	207	302	599	331	376	268	221
13	317	246	326	1,300	231	210	276	1,050	331	364	254	246
14	464	247	273	875	219	487	266	1,710	315	350	245	267
15	504	249	237	668	223	473	269	1,160	296	347	243	274
16	473	249	255	554	238	346	361	811	312	335	260	273
17	469	247	291	475	233	287	405	668	320	314	298	265
18	418	243	275	422	231	260	501	627	313	325	363	250
19	396	243	261	396	235	240	578	612	288	337	432	1,220
20	366	231	258	376	224	253	548	611	283	353	427	1,790
21	357	202	253	354	218	264	527	600	292	382	366	1,980
22	343	210	244	340	216	261	527	582	306	506	315	1,920
23	330	248	241	329	222	248	522	499	365	757	293	1,020
24	318	241	240	307	219	241	467	414	420	732	266	879
25	306	230	241	296	224	241	498	428	382	615	229	1,530
26	295	224	240	289	237	281	523	447	327	512	218	993
27	283	223	239	283	227	262	533	446	305	480	219	699
28	268	220	239	270	211	260	558	1,420	306	447	205	555
29	258	211	238	273	---	269	521	1,490	335	427	192	449
30	251	204	232	285	---	262	518	1,050	368	367	179	414
31	245	---	236	279	---	266	---	773	---	344	164	---
Total	12,406	7,204	7,463	14,819	6,870	7,741	18,984	21,370	11,007	12,929	9,296	17,113
Mean	400	240	241	478	245	250	633	689	367	417	300	570
Max	879	289	326	1,640	292	487	2,190	1,710	569	757	544	1,980
Min	245	202	198	241	211	179	266	414	283	314	164	154
Ac-ft	24,610	14,290	14,800	29,390	13,630	15,350	37,650	42,390	21,830	25,640	18,440	33,940

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 2013, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	2,792	2,398	2,092	2,270	2,580	2,505	3,277	4,960	4,952	3,382	1,889	2,713
Max	25,310	18,150	16,450	19,800	33,800	20,220	17,350	40,630	30,060	25,710	10,030	32,690
(WY)	(1937)	(2005)	(1992)	(1992)	(1992)	(1992)	(1922)	(1922)	(1935)	(1938)	(1938)	(1936)
Min	204	197	162	182	203	250	308	689	367	417	128	347
(WY)	(1935)	(1918)	(1964)	(1964)	(1967)	(2013)	(1925)	(2013)	(2013)	(2013)	(1917)	(1934)

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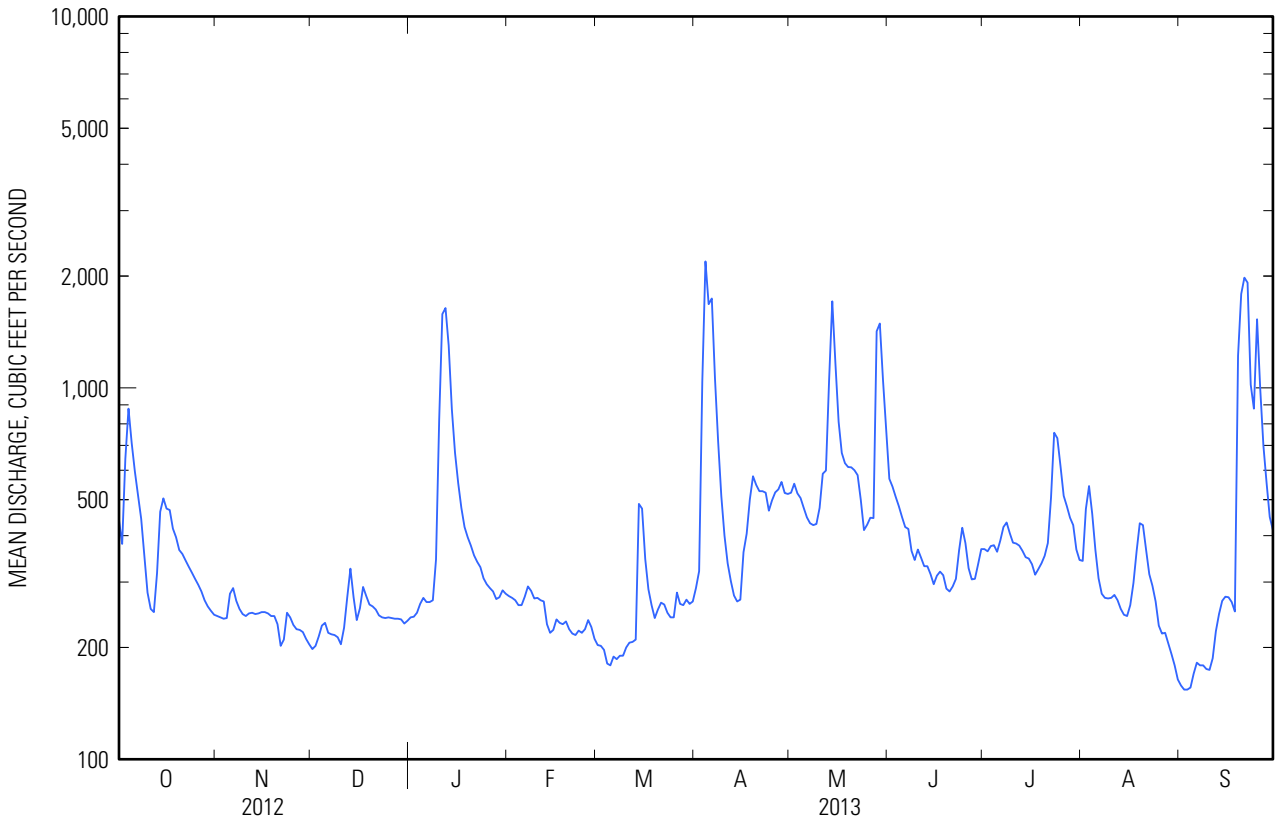
SUMMARY STATISTICS

	Calendar Year 2012		Water Year 2013		Water Years 1916 - 2013	
Annual total	407,852		147,202			
Annual mean	1,114		403		2,992	
Highest annual mean					10,810	1992
Lowest annual mean					403	2013
Highest daily mean	24,100	Jan 27	2,190	Apr 4	164,000	Jun 19, 1935
Lowest daily mean	184	Aug 9	154	Sep 2	93	Sep 1, 1918
Annual seven-day minimum	204	Aug 4	162	Aug 30	106	Aug 22, 1917
Maximum peak flow			2,540	Apr 4	190,000	Jun 18, 1935
Maximum peak stage			12.59	Sep 25	[a]48.50	Jun 18, 1935
Annual runoff (ac-ft)	809,000		292,000		2,167,000	
10 percent exceeds	2,180		620		5,760	
50 percent exceeds	432		295		1,560	
90 percent exceeds	238		212		390	

[a] Adjusted to current datum.