Water-Data Report 2011

08162500 Colorado River near Bay City, TX

Lower Colorado Basin
Lower Colorado Subbasin

LOCATION.--Lat 28°58′26″, long 96°00′44″ referenced to North American Datum of 1927, Matagorda County, TX, Hydrologic Unit 12090302, on left bank, 6,300 ft downstream from upstream bridge on State Highway 35, 7,100 ft downstream from Texas and New Orleans Railroad Co. bridge, 2.8 mi west of Bay City, and at mile 32.5.

DRAINAGE AREA.--42,240 mi^2 of which 11,403 mi^2 probably is noncontributing.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--July 1940 hourly readings and annual peak discharge (provided by Corps of Engineers) published in WSP 1046, July 1940 miscellaneous discharge measurements (provided by Corps of Engineers) published in WSP 898, Apr. 1948 to current year. Records of elevation collected in this vicinity since 1946 are contained in reports of the National Weather Service.

PERIOD OF RECORD, Water-Quality.--
CHEMICAL DATA: Oct. 1974 to Sept. 1975.
BIOCHEMICAL DATA: Oct. 1974 to Sept. 1975.

REVISED RECORDS.--WDR TX-81-3: Drainage area. WDR TX-88-3: 1985.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929. July 2-6, 1940, nonrecording gage at highway bridge, 6,300 ft upstream at datum 30.60 ft lower. On Feb. 19, 1992, gage was temporarily moved 6,200 ft upstream at same datum. Gage re-established on left bank 6,300 ft downstream on May 12, 1993. Radio telemeter at station. Satellite telemeter at station.

REMARKS.--Records poor including those for estimated daily discharges. Since installation of gage in Apr. 1948, at least 10% of contributing drainage area has been regulated. There are many other diversions above this station for irrigation and municipal supply. No flow at times in 1951-53, 1956 and 2002. 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 elevation since 1869, 56.1 ft Dec. 10, 1913. Flood in July 1869 probably reached about same elevation. Elevation of other floods are as follows: May 8, 1922, 55.4 ft; June 1929, 55.0 ft; June 22, 1935, 54.6 ft; Oct. 5, 1936, 52.2 ft; Aug. 2, 1938, 53.4 ft; Nov. 27, 1940, 47.6 ft. All above flood data from information by Texas and New Orleans Railroad Co. and adjusted to present site.

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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	315	469	512	769	557	487	e15	e15	e15	186	e10	185
2	158	463	471	553	566	378	e15	e15	e15	182	e15	158
3	93	552	505	515	577	337	e15	e15	e15	230	e10	127
4	72	538	503	473	572	313	59	e15	e15	217	e10	103
5	71	526	504	426	570	343	50	e15	e15	171	e10	68
6	78	513	501	548	587	431	99	e15	228	123	e10	e10
7	31	499	476	534	534	378	71	e15	101	74	e10	e10
8	e38	491	439	524	651	384	33	e10	e15	60	e10	e10
9	39	511	505	538	631	384	25	e15	e15	144	e10	e10
10	100	505	470	592	625	394	69	e15	e15	310	e10	e10
11	127	474	467	645	604	368	198	e15	29	313	e10	e10
12	88	455	476	688	570	360	179	67	113	337	e10	e10
13	35	506	493	656	560	334	161	237	176	353	e10	e10
14	42	525	430	1,030	503	316	113	634	142	161	e10	e10
15	571	534	476	989	565	313	46	998	113	e10	42	e10
16	265	525	505	838	584	214	e15	1,060	82	e10	208	e10
17	472	472	493	842	512	171	32	1,350	45	e10	200	19
18	549	418	489	711	471	144	137	804	e15	e10	107	220
19	314	462	495	700	470	154	159	493	e15	e10	148	351
20	266	458	476	707	484	159	78	280	e15	e10	197	412
21	338	453	417	965	493	177	44	132	e15	33	217	327
22	386	455	474	922	551	184	33	85	e15	23	155	344
23	413	472	457	766	562	246	63	91	331	54	209	270
24	389	540	447	682	536	129	155	115	977	61	90	205
25	476	532	502	732	468	14	133	109	1,340	18	32	208
26	538	535	474	673	492	15	87	74	1,150	39	128	155
27	496	550	449	602	527	55	106	21	1,000	39	210	159
28	468	527	554	640	530	74	43	e15	681	20	260	156
29	457	490	777	615	---	86	78	e11	379	e10	298	125
30	437	493	1,960	605	---	44	e8.0	e15	194	e10	259	58
31	481	---	1,190	526	---	e15	---	e15	---	e10	219	---
Total	8,603	14,943	17,387	21,006	15,352	7,401	2,319.0	6,766	7,276	3,238	3,124	3,760
Mean	278	498	561	678	548	239	77.3	218	243	104	101	125
Max	571	552	1,960	1,030	651	487	198	1,350	1,340	353	298	412
Min	31	418	417	426	468	14	8.0	10	15	10	10	10
Ac-ft	17,060	29,640	34,490	41,670	30,450	14,680	4,600	13,420	14,430	6,420	6,200	7,460

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	2,377	2,663	2,339	2,512	3,109	2,742	2,643	3,466	4,072	2,177	883	1,732
Max	16,110	19,720	16,200	25,780	42,200	25,780	13,410	27,750	30,360	24,830	6,019	11,160
(WY)	(1999)	(2005)	(1992)	(1992)	(1992)	(1992)	(1977)	(1957)	(1987)	(2007)	(2007)	(1961)
Min	254	226	292	249	158	172	77.3	218	48.5	1.00	101	93.9
(WY)	(1990)	(1957)	(1990)	(1957)	(2009)	(2009)	(2011)	(2011)	(2009)	(1967)	(2011)	(1966)

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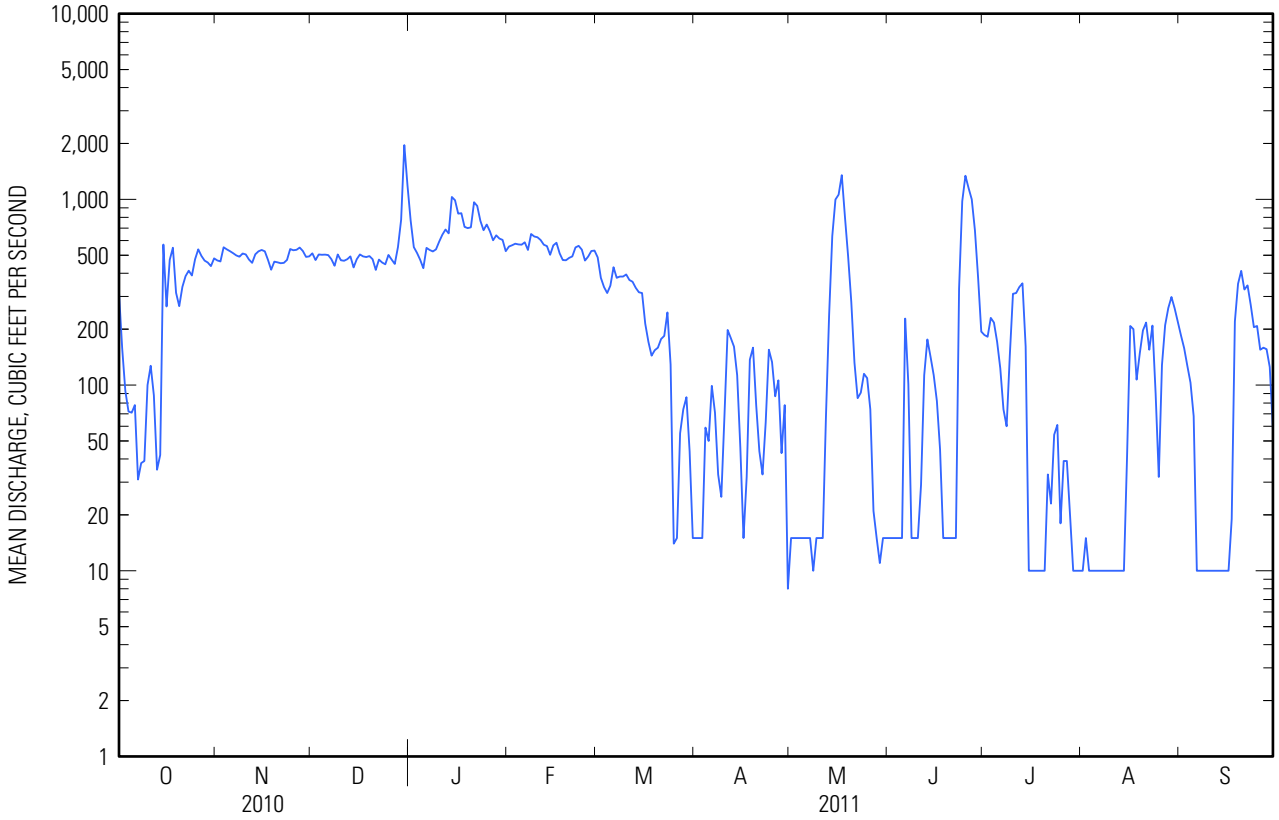
SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1948 - 2011	
Annual total	584,529		111,175.0			
Annual mean	1,601		305		2,565	
Highest annual mean					14,270	1992
Lowest annual mean					305	2011
Highest daily mean	14,600	Feb 14	1,960	Dec 30	79,300	Oct 23, 1998
Lowest daily mean	31	Oct 7	8.0	Apr 30	0.00	Jun 1, 1951
Annual seven-day minimum	60	Oct 3	10	Aug 3	0.44	Oct 4, 1969
Maximum peak flow			3,420	Jan 13	84,100	Jun 26, 1960
Maximum peak stage			7.59	Jan 13	46.40	Jun 26, 1960
Annual runoff (ac-ft)	1,159,000		220,500		1,858,000	
10 percent exceeds	3,550		604		5,660	
50 percent exceeds	840		228		896	
90 percent exceeds	445		13		238