



Water-Data Report 2010

11335000 Cosumnes River at Michigan Bar, CA

San Joaquin River Basin

LOCATION.--Lat 38°30'01", long 121°02'39" referenced to North American Datum of 1927, in NW ¼ SE ¼ sec.36, T.8 N., R.8 E., Sacramento County, CA, Hydrologic Unit 18040013, on downstream side of midstream pier of county bridge at Michigan Bar, 5.5 mi southwest of Latrobe, and 16.3 river mi downstream from confluence of North and Middle Forks of Cosumnes River.

DRAINAGE AREA.--536 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1907 to current year. Monthly discharge only for some periods, published in WSP 1315-A.

CHEMICAL DATA: Water years 1953-80, 2002-06.

pH: Water years 2002-03.

SPECIFIC CONDUCTANCE: Water years 2002-04.

WATER TEMPERATURE: Water years 1963-79, 2002-04.

SEDIMENT DATA: Water years 1958-74, 2002-06.

REVISED RECORDS.--WSP 331: 1911-12. WSP 1315-A: 1908-9, 1911 (instantaneous maximum discharge). WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 168.09 ft above NGVD of 1929. Prior to July 10, 1930, nonrecording gage at same site and datum.

REMARKS.--Records good. Flow partly regulated since January 1955 by Jenkinson Lake, usable capacity, 40,570 acre-ft. Water is released from Jenkinson Lake through Camino Conduit for irrigation and domestic supply in North Fork Cosumnes and South Fork American River Basins. Numerous small diversions upstream from station for irrigation and domestic use. See schematic diagram of Sacramento-San Joaquin Delta available from the California Water Science Center.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 93,000 ft³/s, Jan. 2, 1997, gage height, 18.54 ft, from rating curve extended above 34,000 ft³/s on basis of slope-area determination of peak flow; no flow at times in many years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1907 reached a stage of 16.3 ft, estimated discharge, 71,000 ft³/s.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft³/s and (or) maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb 27	0800	*5,070	*7.59
No other peak greater than base discharge			

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	4.1	19	24	78	306	995	666	1,380	1,170	175	28	13
2	4.8	19	24	72	264	784	538	1,270	1,150	163	28	13
3	5.1	17	22	69	239	1,230	549	1,200	1,130	150	28	14
4	5.4	17	22	67	223	1,670	523	1,160	1,130	140	27	13
5	6.1	16	22	62	389	1,060	980	1,180	1,150	129	26	12
6	6.7	16	21	60	450	848	838	1,150	1,150	120	26	12
7	8.4	15	26	57	500	723	666	1,070	1,140	116	27	12
8	9.6	14	33	56	425	629	611	1,000	1,070	115	24	12
9	8.8	14	30	56	432	572	596	972	964	111	22	11
10	7.5	16	25	63	414	539	612	949	867	103	24	11
11	7.5	15	29	69	348	512	664	1,120	745	95	23	12
12	7.7	16	51	75	306	512	953	964	662	86	21	13
13	11	18	339	117	276	980	1,290	886	587	82	20	13
14	48	18	298	212	258	748	998	888	560	78	20	13
15	163	19	162	173	243	613	864	924	553	73	19	13
16	74	19	111	135	236	545	785	967	536	70	19	13
17	41	19	89	122	238	508	759	1,020	488	66	19	13
18	29	19	78	207	247	499	764	1,130	436	62	19	12
19	25	19	70	567	263	503	803	1,100	402	59	17	11
20	22	20	63	770	269	506	1,080	1,070	374	54	17	12
21	21	25	58	1,100	286	506	1,490	1,060	349	48	16	12
22	21	31	65	1,600	294	501	1,400	961	323	44	15	13
23	21	32	154	794	267	496	1,150	850	299	44	14	13
24	20	26	112	461	303	486	1,030	752	283	40	15	12
25	19	24	88	516	485	482	1,040	689	267	39	15	12
26	19	24	77	870	461	484	1,150	772	255	38	15	12
27	18	24	71	640	3,150	447	1,280	1,220	237	37	15	13
28	18	24	71	457	1,590	416	2,010	1,460	226	35	13	12
29	18	24	73	360	---	408	1,860	1,330	210	33	12	11
30	19	25	72	426	---	445	1,580	1,240	189	32	12	10
31	19	---	73	379	---	705	---	1,220	---	30	13	---
Total	707.7	604	2,453	10,690	13,162	20,352	29,529	32,954	18,902	2,467	609	368
Mean	22.8	20.1	79.1	345	470	657	984	1,063	630	79.6	19.6	12.3
Max	163	32	339	1,600	3,150	1,670	2,010	1,460	1,170	175	28	14
Min	4.1	14	21	56	223	408	523	689	189	30	12	10
Ac-ft	1,400	1,200	4,870	21,200	26,110	40,370	58,570	65,360	37,490	4,890	1,210	730

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1908 - 2010, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	30.9	131	420	914	1,153	1,183	1,071	696	253	59.9	20.5	14.7
Max	335	2,493	3,380	7,129	6,610	5,255	5,255	2,362	1,111	346	114	82.0
(WY)	(1963)	(1951)	(1965)	(1997)	(1986)	(1983)	(2006)	(1995)	(1998)	(1983)	(1983)	(1983)
Min	0.00	7.90	18.3	21.4	35.9	43.5	33.7	48.5	4.42	0.10	0.00	0.00
(WY)	(1978)	(1930)	(1977)	(1991)	(1991)	(1977)	(1977)	(1977)	(1924)	(1977)	(1908)	(1924)

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SUMMARY STATISTICS

	Calendar Year 2009		Water Year 2010		Water Years 1908 - 2010	
Annual total	98,897.0		132,797.7			
Annual mean	271		364		492	
Highest annual mean					1,687	1983
Lowest annual mean					21.8	1977
Highest daily mean	5,710	Mar 4	3,150	Feb 27	61,600	Jan 2, 1997
Lowest daily mean	2.9	Sep 8	4.1	Oct 1	0.00	Jul 25, 1908
Annual seven-day minimum	3.4	Sep 3	5.8	Oct 1	0.00	Jul 25, 1908
Maximum peak flow			5,070	Feb 27	93,000	Jan 2, 1997
Maximum peak stage			7.59	Feb 27	18.54	Jan 2, 1997
Annual runoff (ac-ft)	196,200		263,400		356,500	
10 percent exceeds	644		1,090		1,280	
50 percent exceeds	53		112		102	
90 percent exceeds	5.5		13		7.4	

