

Water-Data Report 2009

## 11325500 Mokelumne River at Woodbridge, CA

San Joaquin River Basin

LOCATION.--Lat 38°09'31", long 121°18'09" referenced to North American Datum of 1927, in NW ¼ NE ¼ sec.34, T.4 N., R.6 E., San Joaquin County, CA, Hydrologic Unit 18040005, on right bank at Woodbridge, 0.4 mi downstream from County Highway Bridge, and 0.5 mi downstream from dam and canal intake of Woodbridge Irrigation District.

DRAINAGE AREA.--661 mi<sup>2</sup>.

### **SURFACE-WATER RECORDS**

PERIOD OF RECORD.--May 1924 to September 1994 (low-flow records only 1924-25), October 1996 to current year.

CHEMICAL DATA: Water years 1951-94.

SPECIFIC CONDUCTANCE: Water years 1952-58, 1975-77.

WATER TEMPERATURE: Water years 1951-58, 1961-86.

SEDIMENT: Water years 1975-94.

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 14.9 ft above NGVD of 1929 (levels by East Bay Municipal Utility District). See WSP 2130 for history of changes prior to July 26, 1968.

COOPERATION.--Records were collected by East Bay Municipal Utility District, under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2916.

REMARKS.--Concerning regulation and diversions see REMARKS for Mokelumne River below Camanche Dam (station 11323500). Between Woodbridge and Camanche Dam there are many additional diversions for irrigation, including Woodbridge Canal (station 11325000). See schematic diagram of Mokelumne River Basin available from the California Water Science Center.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,000 ft<sup>3</sup>/s, Nov. 22, 1950, gage height, 29.58 ft, from rating curve extended above 6,200 ft<sup>3</sup>/s, on basis of contracted-opening measurement of peak flow; minimum daily, 0.23 ft<sup>3</sup>/s, Nov. 15, 1977.

Maximum discharge since construction of Camanche Dam in 1963, 5,340 ft<sup>3</sup>/s, Mar. 8, 1986, gage height, 23.19 ft, maximum gage height, 23.31 ft, Jan. 9, 1997.

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**DISCHARGE, CUBIC FEET PER SECOND**  
**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**  
**DAILY MEAN VALUES**

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	94	182	178	179	171	181	155	246	157	90	39	28
2	86	214	178	179	187	207	156	256	158	58	39	28
3	84	351	178	179	174	197	157	239	172	54	49	29
4	84	407	177	178	154	230	158	221	163	62	33	29
5	84	429	172	181	162	222	159	214	164	62	27	50
6	85	312	171	180	175	186	160	209	174	57	27	47
7	84	208	170	180	179	176	200	207	172	55	27	51
8	84	198	172	180	173	169	184	206	171	53	28	47
9	84	194	173	180	173	171	190	190	167	36	28	44
10	84	192	173	179	174	171	207	174	160	26	28	41
11	85	191	175	180	184	169	184	161	158	26	28	37
12	87	186	178	179	187	171	180	156	156	26	28	35
13	88	178	175	179	194	172	167	155	161	29	27	44
14	87	177	181	179	195	172	163	154	162	31	28	63
15	88	175	179	179	181	174	162	155	156	28	29	35
16	87	175	168	177	184	129	175	156	155	28	31	28
17	86	180	163	168	256	102	171	156	157	29	52	30
18	85	178	163	169	241	133	173	156	157	26	34	38
19	84	177	163	171	201	103	171	156	163	26	28	51
20	84	178	163	170	181	93	161	157	177	28	28	47
21	84	177	170	170	175	98	151	156	163	28	27	45
22	85	178	182	218	191	114	153	159	162	29	26	55
23	86	176	165	200	203	108	155	161	187	31	26	42
24	83	178	171	209	194	110	154	162	155	29	28	47
25	84	177	207	183	181	110	155	163	156	29	29	75
26	84	184	185	177	184	127	150	166	156	29	38	74
27	84	180	180	174	169	118	152	161	152	29	35	73
28	89	179	178	174	169	136	158	156	153	27	29	98
29	91	178	178	167	---	147	153	156	152	28	27	88
30	141	178	179	167	---	114	191	156	152	28	27	91
31	165	---	179	168	---	96	---	157	---	36	28	---
<b>Total</b>	2,790	6,267	5,424	5,553	5,192	4,606	5,005	5,477	4,848	1,153	958	1,490
<b>Mean</b>	90.0	209	175	179	185	149	167	177	162	37.2	30.9	49.7
<b>Max</b>	165	429	207	218	256	230	207	256	187	90	52	98
<b>Min</b>	83	175	163	167	154	93	150	154	152	26	26	28
<b>Ac-ft</b>	5,530	12,430	10,760	11,010	10,300	9,140	9,930	10,860	9,620	2,290	1,900	2,960

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1963, BY WATER YEAR (WY)**

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Mean</b>	277	469	655	713	870	848	989	1,282	1,121	200	133	198
<b>Max</b>	571	2,529	4,283	3,435	2,341	3,032	3,278	3,990	2,958	728	309	400
<b>(WY)</b>	(1939)	(1951)	(1951)	(1956)	(1938)	(1938)	(1938)	(1952)	(1952)	(1952)	(1931)	(1958)
<b>Min</b>	3.76	13.6	29.4	56.6	45.0	34.5	7.02	11.3	11.3	17.1	17.2	10.0
<b>(WY)</b>	(1932)	(1932)	(1960)	(1962)	(1948)	(1961)	(1931)	(1931)	(1931)	(1955)	(1955)	(1931)

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## SUMMARY STATISTICS

	Water Years 1931 - 1963	
Annual mean	644	
Highest annual mean	1,507	1938
Lowest annual mean	62.2	1960
Highest daily mean	19,600	Dec 9, 1950
Lowest daily mean	2.4	Oct 2, 1931
Annual seven-day minimum	2.4	Oct 2, 1931
Maximum peak flow	27,000	Nov 22, 1950
Maximum peak stage	29.58	Nov 22, 1950
Annual runoff (ac-ft)	466,700	
10 percent exceeds	1,680	
50 percent exceeds	346	
90 percent exceeds	28	

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2009, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	363	404	421	747	835	791	725	714	580	370	255	247
Max (WY)	1,716 (1966)	1,979 (1984)	2,825 (1984)	4,746 (1997)	4,285 (1997)	4,711 (1986)	4,179 (2006)	3,869 (2006)	2,736 (1983)	2,561 (1998)	1,462 (1998)	1,067 (1983)
Min (WY)	2.12 (1978)	23.3 (1978)	38.5 (1990)	33.1 (1977)	20.2 (1977)	9.34 (1989)	9.02 (1977)	8.66 (1977)	8.34 (1977)	9.24 (1977)	6.58 (1977)	5.13 (1977)

## SUMMARY STATISTICS

	Calendar Year 2008	Water Year 2009	Water Years 1965 - 2009
Annual total	45,940	48,763	
Annual mean	126	134	536
Highest annual mean			2,170
Lowest annual mean			21.8
Highest daily mean	429	Nov 5	5,240
Lowest daily mean	19	Aug 3	0.23
Annual seven-day minimum	22	Aug 1	0.24
Maximum peak flow		590	5,340
Maximum peak stage		7.42	23.31
Annual runoff (ac-ft)	91,120	96,720	388,300
10 percent exceeds	191	191	1,510
50 percent exceeds	163	159	204
90 percent exceeds	28	29	28

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