

11264500 Merced River at Happy Isles Bridge, near Yosemite, CA

San Joaquin River Basin

LOCATION.--Lat 37°43'53", long 119°33'29" referenced to North American Datum of 1927, Mariposa County, CA, Hydrologic Unit 18040008, unsurveyed, in Yosemite National Park, on left bank, 30 ft upstream from remnants of footbridge at Happy Isles, 0.4 mi downstream from Illilouette Creek, and 2.0 mi southeast of Yosemite National Park Headquarters.

DRAINAGE AREA.--181 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--August 1915 to current year.

REVISED RECORDS.--WSP 1215: 1938 (instantaneous maximum discharge).

GAGE.--Water-stage recorder. Elevation of gage is 4,016.58 ft above NGVD of 1929. Prior to Nov. 2, 1916, nonrecording gage at datum 0.55 ft lower.

REMARKS.--Records good except for the period of Dec. 28 to Feb. 9 and estimated daily discharges, which are poor. Up to 5 ft³/s can be diverted upstream from station for Yosemite Valley water supply.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,100 ft³/s, Jan. 2, 1997, gage height, 13.27 ft, from rating curve extended above 4,000 ft³/s, on basis of contracted-opening measurements at gage heights 10.4 and 11.55 ft; minimum daily, 1.5 ft³/s, Sept. 26, 1977.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,900 ft³/s and (or) maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr 24	0215	*2,250	*6.05

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	54	36	28	18	25	53	260	1,300	496	88	28	22
2	52	34	26	18	26	51	220	1,380	518	94	27	20
3	51	32	24	18	27	57	245	1,250	469	96	26	18
4	51	37	25	19	30	69	308	1,110	486	99	26	17
5	e160	34	25	19	33	80	275	938	492	96	27	15
6	e165	39	23	18	38	87	215	900	375	89	26	14
7	127	40	25	17	46	73	198	904	293	83	25	14
8	152	40	25	17	49	73	200	934	281	78	25	14
9	174	40	23	17	48	78	218	1,050	291	78	25	13
10	200	40	23	17	52	90	239	1,230	270	78	24	13
11	e410	42	22	17	54	95	243	1,190	248	78	24	12
12	e350	45	21	16	53	93	218	1,200	239	79	26	12
13	263	46	21	15	56	90	203	1,290	236	79	28	12
14	214	45	20	15	52	86	202	1,270	235	78	48	11
15	176	44	21	14	53	93	209	1,020	242	73	89	11
16	147	43	19	14	50	112	276	1,030	238	64	94	10
17	125	41	19	10	50	118	373	1,140	215	55	80	9.6
18	109	40	19	13	52	119	449	875	214	49	139	9.2
19	97	38	19	14	48	107	548	788	205	44	123	8.8
20	87	37	18	19	46	117	889	811	185	42	85	8.3
21	77	34	19	e225	45	181	1,320	855	166	38	66	7.9
22	70	35	15	e60	47	217	1,640	832	163	37	57	7.5
23	63	36	16	e37	50	197	1,880	765	153	38	65	7.1
24	58	35	17	e28	56	180	1,910	634	130	42	75	6.7
25	53	34	17	e34	63	168	1,610	500	108	43	64	6.3
26	50	34	17	e39	59	148	1,990	418	96	41	53	6.1
27	48	33	17	e39	57	132	1,200	359	91	38	44	5.9
28	45	33	18	e35	53	125	1,060	373	87	36	38	5.7
29	42	34	20	e32	53	122	1,160	337	85	33	32	5.8
30	40	32	19	e27	---	177	1,230	351	86	31	28	5.7
31	38	---	18	24	---	296	---	420	---	29	25	---
Total	3,748	1,133	639	905	1,371	3,684	20,988	27,454	7,393	1,926	1,542	328.6
Mean	121	37.8	20.6	29.2	47.3	119	700	886	246	62.1	49.7	11.0
Max	410	46	28	225	63	296	1,990	1,380	518	99	139	22
Min	38	32	15	10	25	51	198	337	85	29	24	5.7
Ac-ft	7,430	2,250	1,270	1,800	2,720	7,310	41,630	54,460	14,660	3,820	3,060	652

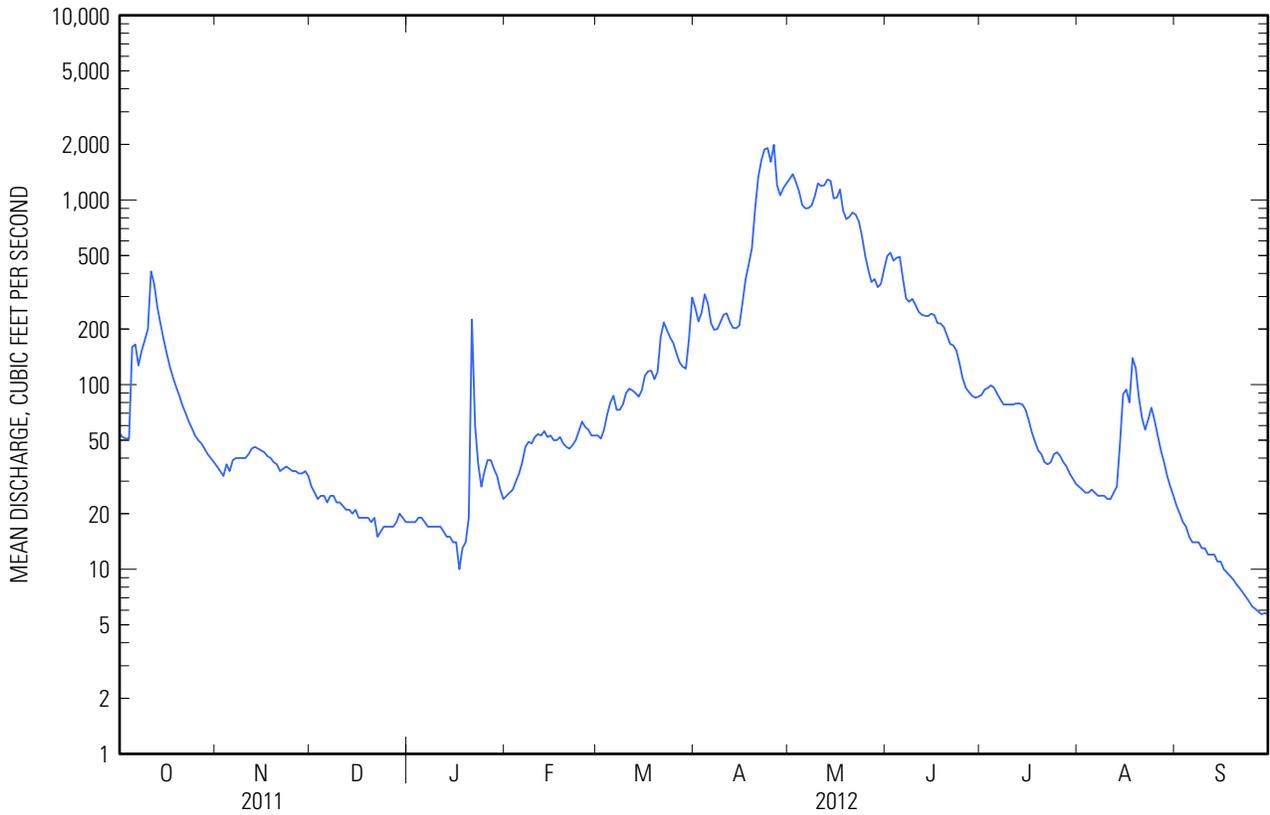
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 2012, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	38.0	61.5	83.0	92.3	110	199	549	1,279	1,228	479	111	42.1
Max	267	818	736	1,084	401	575	1,007	2,675	3,317	2,393	775	360
(WY)	(1919)	(1951)	(1965)	(1997)	(1986)	(1986)	(1926)	(1969)	(1983)	(1995)	(1983)	(1978)
Min	2.58	4.89	4.49	6.56	8.89	25.2	173	231	120	28.6	7.79	3.18
(WY)	(1956)	(1933)	(1977)	(1991)	(1991)	(1977)	(1975)	(1977)	(1924)	(1931)	(1977)	(1977)

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SUMMARY STATISTICS

	Calendar Year 2011		Water Year 2012		Water Years 1916 - 2012	
Annual total	231,808		71,111.6			
Annual mean	635		194		357	
Highest annual mean					802	1983
Lowest annual mean					84.9	1977
Highest daily mean	3,820	Jun 23	1,990	Apr 26	9,030	Jan 2, 1997
Lowest daily mean	15	Dec 22	5.7	Sep 28	1.5	Sep 26, 1977
Annual seven-day minimum	17	Dec 22	6.0	Sep 24	1.9	Oct 14, 1964
Maximum peak flow			2,250	Apr 24	10,100	Jan 2, 1997
Maximum peak stage			6.05	Apr 24	13.27	Jan 2, 1997
Annual runoff (ac-ft)	459,800		141,000		258,300	
10 percent exceeds	2,020		527		1,130	
50 percent exceeds	227		53		101	
90 percent exceeds	34		17		11	



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WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966-96, 2000-03, March to September 2012.

CHEMICAL DATA: Water years 1968-96, 2001-03.

BIOLOGICAL DATA: Water years 1973-81.

SEDIMENT DATA: Water years 1970-71, 1973-96, 2001-03.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: October 1965 to September 1977, October 1978 to September 1993, March to September 2012.

INSTRUMENTATION.--Temperature recorder water years 1966-77, 1979-93, March to September 2012.

REMARKS.--Interruption in record was due to probe out of water. Water temperature record rated excellent except for Aug. 17 to Sept. 4, which are rated good.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum recorded, 20.0°C, July 15, 1979, July 13, 1990; minimum recorded, -0.01°C, Apr. 16, 2012.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum recorded, 18.8°C, July 13; minimum recorded, -0.01°C, Apr. 6.

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TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Day	Max	Min	Median	Max	Min	Median	Max	Min	Median	Max	Min	Median
	February			March			April			May		
1	---	---	---	---	---	---	4.7	1.2	2.2	10.1	5.9	7.8
2	---	---	---	---	---	---	6.0	1.8	3.6	9.3	4.8	7.3
3	---	---	---	---	---	---	7.9	3.6	5.0	9.0	6.2	7.4
4	---	---	---	---	---	---	6.5	3.9	5.4	8.9	5.0	7.0
5	---	---	---	---	---	---	3.9	1.7	2.4	9.2	4.0	6.5
6	---	---	---	---	---	---	3.6	-0.1	1.2	9.7	5.0	7.2
7	---	---	---	---	---	---	5.5	1.4	3.0	10.1	4.8	7.5
8	---	---	---	---	---	---	6.2	2.4	3.9	10.2	5.3	7.6
9	---	---	---	---	---	---	7.0	3.4	4.6	10.8	6.2	8.5
10	---	---	---	---	---	---	6.3	3.8	5.1	10.4	5.9	8.4
11	---	---	---	---	---	---	5.9	2.6	3.6	10.8	6.2	8.4
12	---	---	---	---	---	---	3.8	1.5	2.5	11.7	7.0	9.2
13	---	---	---	---	---	---	3.3	0.9	1.2	11.8	7.8	9.9
14	---	---	---	---	---	---	3.6	0.8	1.6	11.3	7.8	9.4
15	---	---	---	---	---	---	6.5	2.0	3.6	11.2	5.7	8.3
16	---	---	---	---	---	---	8.2	3.7	5.5	12.8	8.0	10.1
17	---	---	---	---	---	---	8.5	4.1	6.7	11.1	7.8	9.5
18	---	---	---	---	---	---	8.5	4.6	6.5	11.2	6.7	8.4
19	---	---	---	---	---	---	10.3	4.7	6.8	12.5	8.2	9.8
20	---	---	---	---	---	---	10.2	5.3	7.2	13.4	9.2	10.9
21	---	---	---	---	---	---	10.2	5.3	6.9	13.1	8.9	11.1
22	---	---	---	5.7	---	---	9.8	5.0	6.6	12.6	8.8	10.8
23	---	---	---	5.8	3.5	4.4	9.7	5.3	7.1	12.1	8.3	10.3
24	---	---	---	5.2	3.4	4.4	9.5	5.8	7.2	11.2	7.6	9.6
25	---	---	---	4.5	2.2	2.7	7.4	5.5	6.6	8.9	5.9	6.7
26	---	---	---	3.8	1.5	2.3	6.6	4.9	6.0	7.2	5.4	5.9
27	---	---	---	4.7	2.6	3.7	8.3	3.3	4.9	10.3	5.0	6.9
28	---	---	---	5.2	3.5	4.2	10.0	5.1	7.1	11.4	6.9	9.4
29	---	---	---	6.6	3.2	4.6	9.7	5.0	7.5	12.4	7.2	10.0
30	---	---	---	8.8	5.2	6.4	9.8	5.4	7.4	14.3	9.5	11.6
31	---	---	---	6.8	2.2	5.2	---	---	---	14.9	10.7	13.0
Max	---	---	---	---	---	---	10.3	5.8	7.5	14.9	10.7	13.0
Min	---	---	---	---	---	---	3.3	-0.1	1.2	7.2	4.0	5.9

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TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Day	Max	Min	Median	Max	Min	Median	Max	Min	Median	Max	Min	Median
	June			July			August			September		
1	15.4	11.5	13.4	16.8	13.3	15.1	16.4	13.4	14.9	13.9	11.3	12.3
2	14.9	11.2	13.3	17.8	14.5	16.0	16.3	13.4	14.9	14.1	11.5	12.5
3	15.5	11.2	13.4	18.2	14.6	16.6	16.3	13.6	15.1	14.3	11.5	12.4
4	13.8	9.5	12.3	17.1	14.3	15.9	15.8	14.4	15.2	13.9	11.4	---
5	10.6	7.4	8.8	16.9	13.4	15.5	17.4	14.5	15.6	---	---	---
6	12.6	8.0	9.8	16.9	13.4	15.5	16.6	13.9	15.1	---	---	---
7	13.9	9.6	11.6	17.4	13.9	15.8	16.6	13.6	15.2	---	---	---
8	14.3	10.4	12.7	18.1	14.8	16.6	17.5	14.4	16.0	---	---	---
9	13.2	8.7	11.8	17.8	14.5	16.4	17.9	15.0	16.4	---	---	---
10	13.8	9.1	11.7	18.2	14.6	16.4	18.0	15.2	16.4	---	---	---
11	14.2	10.6	12.9	18.6	15.2	17.1	17.8	15.3	16.5	---	---	---
12	14.6	10.6	13.0	17.7	15.5	17.0	18.2	15.8	16.8	---	---	---
13	15.6	10.8	13.5	18.8	15.9	17.1	17.8	16.2	16.9	---	---	---
14	16.8	12.7	15.0	17.9	14.8	16.1	17.4	15.9	16.8	---	---	---
15	16.3	12.3	15.1	16.3	13.2	15.4	18.4	15.8	17.3	---	---	---
16	16.8	12.7	15.4	16.2	13.1	15.0	18.1	15.8	17.2	---	---	---
17	16.8	13.1	15.5	15.6	12.5	14.5	17.3	15.8	16.8	---	---	---
18	16.2	12.4	14.8	15.0	12.1	14.4	17.8	16.2	16.9	---	---	---
19	15.4	11.7	14.3	14.6	12.7	13.9	18.1	16.3	17.1	---	---	---
20	16.4	12.2	14.4	15.9	12.6	14.4	17.1	14.9	15.8	---	---	---
21	16.0	13.0	14.8	16.9	13.7	15.4	15.5	13.6	14.7	---	---	---
22	14.9	11.8	13.5	17.2	14.6	15.9	16.6	13.9	14.7	---	---	---
23	14.4	11.6	12.9	17.8	15.7	16.4	15.6	13.1	14.6	---	---	---
24	14.8	11.0	13.2	16.9	14.2	15.8	16.2	13.6	15.0	---	---	---
25	14.3	11.0	12.8	15.3	12.4	14.8	16.1	13.9	15.3	---	---	---
26	13.9	10.2	12.4	15.5	12.8	14.6	15.8	13.7	14.8	---	---	---
27	14.9	10.9	12.9	16.1	13.2	15.0	14.0	10.8	12.7	---	---	---
28	15.3	11.0	13.7	15.5	12.5	14.7	13.5	11.0	12.6	---	---	---
29	15.4	11.3	13.8	15.6	12.7	14.8	13.9	11.4	12.9	---	---	---
30	16.1	12.8	14.6	15.6	12.8	14.8	15.3	12.7	14.1	---	---	---
31	---	---	---	16.3	13.2	14.8	15.2	12.9	13.7	---	---	---
Max	16.8	13.1	15.5	18.8	15.9	17.1	18.4	16.3	17.3	---	---	---
Min	10.6	7.4	8.8	14.6	12.1	13.9	13.5	10.8	12.6	---	---	---

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