Water-Data Report 2012

11456000 Napa River near St. Helena, CA

Napa River Basin

LOCATION.--Lat 38°30′41″, long 122°27′17″ referenced to North American Datum of 1927, Napa County, CA, Hydrologic Unit 18050002, in Carne Humana Grant, on right bank downstream side of Pope Street Bridge, St. Helena.

DRAINAGE AREA.--78.8 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1929 to September 1932, October 1939 to June 1995 (daily). July 1995 to May 2000 (stage only). June 2000 to current year. Monthly discharge only for some periods, published in WSP 1315-B.
WATER TEMPERATURE: Water years 1958-79.
SEDIMENT DATA: Water years 1961-62.

REVISED RECORDS.--WSP 1929: Drainage area. WDR CA-78-2: 1977 (instantaneous maximum discharge).

GAGE.--Water-stage recorder and crest stage gage. Datum of gage is 193.21 ft above NGVD of 1929. Oct. 1, 2004, to Sept. 30, 2005, at datum 2.00 ft higher. Oct. 1, 1929, to Sept. 30, 2004, at site 2.2 miles downstream at datum 25.09 ft lower. Prior to Nov. 22, 1958, at datum 3.00 ft higher. Nov. 22, 1958, to July 22, 1976, at datum 2.00 ft higher.

REMARKS.--Records good. Some regulation by Kimball Creek Reservoir, capacity, 344 acre-ft, since 1939, and Bell Canyon Reservoir, capacity, 2,530 acre-ft, since 1959. Small diversions upstream from station for irrigation of about 1,500 acres.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,300 ft^3/s, Dec. 31, 2005, gage height, 23.61 ft, on basis of slope-area measurement of peak flow; no flow at times.

Suggested citation: U.S. Geological Survey, 2013, Water-resources data for the United States, Water Year 2012: U.S. Geological Survey Water-Data Report WDR-US-2012, site 11456000, accessed at http://wdr.water.usgs.gov/wy2012/pdfs/11456000.2012.pdf

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

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0.00	0.77	2.3	3.0	16	39	382	37	8.6	2.7	0.63	0.00
2	0.00	0.40	3.5	3.1	13	32	265	35	7.4	2.6	0.62	0.00
3	0.15	0.40	2.5	3.0	12	18	206	34	6.6	2.5	0.60	0.00
4	1.1	0.48	2.9	3.0	11	15	164	32	7.4	2.2	0.46	0.00
5	18	2.7	3.1	3.0	9.5	14	134	30	7.7	2.2	0.26	0.00
6	5.4	5.6	3.5	3.1	9.4	11	113	28	7.4	2.2	0.19	0.00
7	2.6	3.5	3.8	2.9	21	9.6	98	26	7.0	1.7	0.11	0.00
8	1.6	2.2	3.7	2.8	19	10	87	24	6.6	1.2	0.26	0.00
9	0.80	1.2	4.6	2.9	14	9.8	80	23	6.1	1.8	0.35	0.00
10	1.6	1.2	3.4	3.1	14	8.8	103	22	5.6	1.9	0.20	0.00
11	2.3	1.2	3.3	3.2	14	9.1	169	20	5.3	1.8	0.06	0.00
12	1.9	0.92	3.4	3.4	14	8.7	369	19	4.8	1.7	0.00	0.00
13	1.6	0.92	3.3	3.5	15	642	528	18	4.7	1.5	0.00	0.00
14	1.4	1.5	3.3	3.3	14	2,050	308	18	4.6	1.3	0.00	0.00
15	1.0	1.2	4.0	3.4	11	506	218	17	4.1	1.6	0.00	0.00
16	0.54	1.6	4.5	3.3	11	1,210	170	17	3.6	1.5	0.00	0.00
17	1.2	1.9	3.4	3.2	11	1,090	140	16	3.4	1.5	0.00	0.00
18	1.1	2.4	3.3	3.1	11	389	120	15	3.8	1.6	0.00	0.00
19	1.1	2.4	3.3	4.6	10	255	104	14	3.9	1.5	0.00	0.00
20	1.2	6.1	3.1	98	10	183	92	14	3.7	1.5	0.00	0.00
21	1.2	4.8	2.9	323	9.6	146	80	13	3.7	1.4	0.00	0.00
22	1.2	2.8	2.9	97	9.3	124	73	12	3.5	1.2	0.00	0.00
23	1.1	2.4	2.8	1,120	8.6	101	66	11	3.7	0.97	0.00	0.00
24	1.0	9.4	2.9	169	8.2	110	62	11	3.6	0.56	0.00	0.00
25	1.1	7.7	3.1	89	7.7	334	58	12	3.5	0.81	0.00	0.00
26	1.0	4.3	3.1	66	7.7	213	55	12	3.3	0.86	0.00	0.00
27	0.94	3.5	3.3	50	7.7	680	49	12	3.1	0.85	0.00	0.00
28	1.1	3.1	3.1	32	7.4	1,180	47	12	2.9	0.88	0.00	0.00
29	0.89	3.2	2.8	27	32	447	44	11	2.8	0.74	0.00	0.00
30	0.79	2.8	2.6	24	---	304	41	10	2.8	0.77	0.00	0.00
31	0.76	---	2.6	19	---	386	---	9.0	---	0.67	0.00	---
Total	55.67	82.59	100.3	2,174.9	358.1	10,535.0	4,425	584.0	145.2	46.21	3.74	0.00
Mean	1.80	2.75	3.24	70.2	12.3	340	148	18.8	4.84	1.49	0.12	0.00
Max	18	9.4	4.6	1,120	32	2,050	528	37	8.6	2.7	0.63	0.00
Min	0.00	0.40	2.3	2.8	7.4	8.7	41	9.0	2.8	0.56	0.00	0.00
Ac-ft	110	164	199	4,310	710	20,900	8,780	1,160	288	92	7.4	0.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 2012, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	4.77	31.9	186	291	287	208	91.8	25.4	7.86	2.50	1.15	0.82
Max	179	415	1,088	1,338	1,798	1,144	584	131	28.2	7.66	4.43	6.44
(WY)	(1963)	(1974)	(1956)	(1970)	(1986)	(1983)	(1982)	(2005)	(2005)	(1941)	(1941)	(1982)
Min	0.00	0.10	0.24	2.17	4.34	7.45	1.81	0.89	0.08	0.00	0.00	0.00
(WY)	(1978)	(1932)	(1940)	(1991)	(1977)	(1977)	(1977)	(1977)	(1977)	(1977)	(1977)	(1977)

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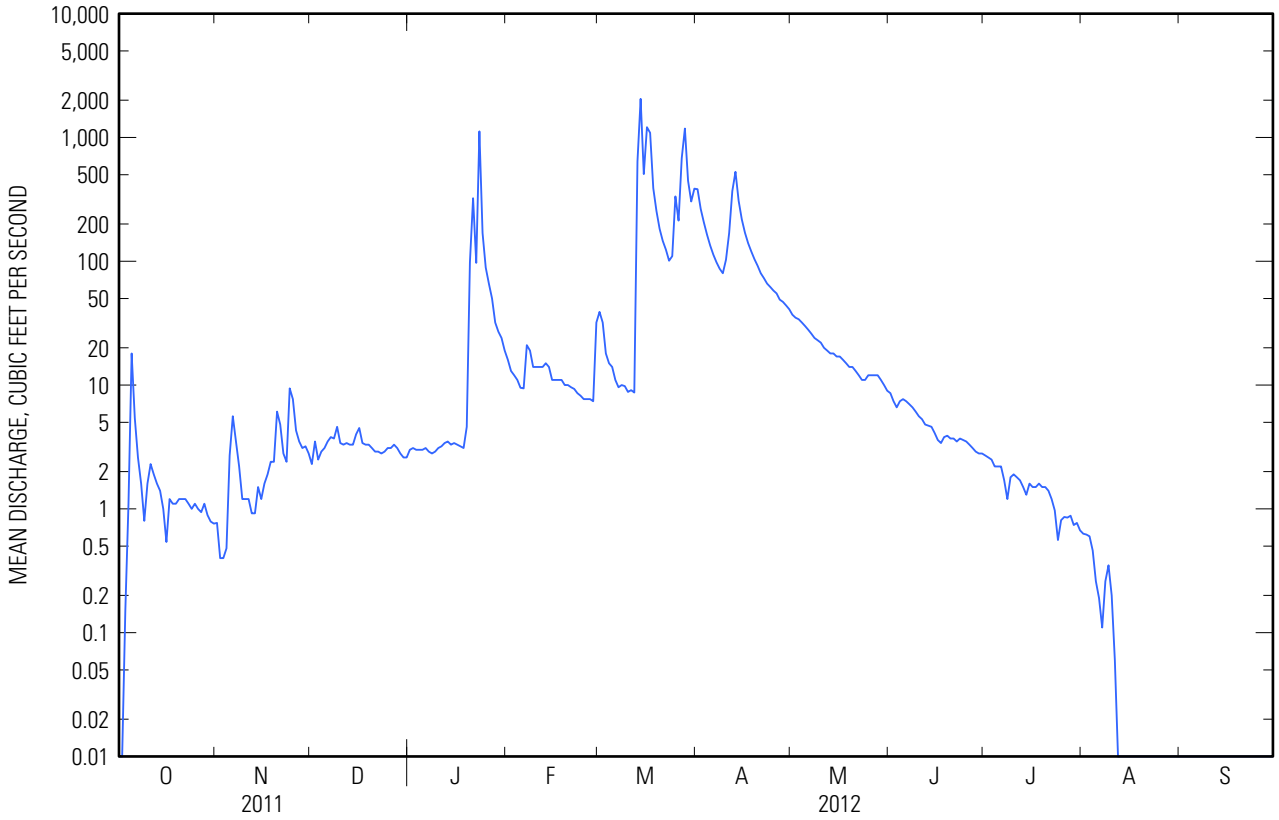
SUMMARY STATISTICS

	Calendar Year 2011		Water Year 2012		Water Years 1930 - 2012	
Annual total	36,997.68		18,510.71			
Annual mean	101		50.6		92.3	
Highest annual mean					270	1983
Lowest annual mean					1.90	1977
Highest daily mean	4,080	Mar 20	2,050	Mar 14	13,700	Feb 17, 1986
Lowest daily mean	0.00	Sep 4	0.00	Oct 1	0.00	Sep 23, 1947
Annual seven-day minimum	0.00	Sep 18	0.00	Aug 12	0.00	Sep 23, 1947
Maximum peak flow			3,500	Mar 14	18,300	Dec 31, 2005
Maximum peak stage			10.95	Mar 14	23.61	Dec 31, 2005
Annual runoff (ac-ft)	73,380		36,720		66,860	
10 percent exceeds	230		103		185	
50 percent exceeds	10		3.3		7.3	
90 percent exceeds	0.77		0.00		0.36