

Water-Data Report 2011

10263000 Mojave River at Afton, CA

Mojave River Basin

LOCATION.--Lat 35°02'14", long 116°23'00" referenced to North American Datum of 1927, in NW ¼ SE ¼ sec.18, T.11 N., R.6 E., San Bernardino County, CA, Hydrologic Unit 18090208, on right bank side of right pier of Union Pacific Railroad bridge, 0.3 mi west of Afton, and 63 mi east of Barstow.

DRAINAGE AREA.--2,121 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1929 to September 1932, October 1952 to current year. Records for water year 1930 are incomplete; yearly estimate published in WSP 1314. Records for water years 1979 and 1980 are incomplete; discharge measurements only were published at that time.

REVISED RECORDS.--WSP 1564: 1931. WDR CA-00-1: 1982 (instantaneous maximum discharge).

GAGE.--Water-stage recorder. Datum of gage is 1,398.15 ft above NGVD of 1929. Dec. 21, 1929, to Sept. 30, 1932, at site 1.7 mi downstream at different datum; October 1952 to May 1978, at datum 2 ft higher.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Natural flow affected by ground-water withdrawals, diversions, municipal use, and storage in reservoirs 100 mi upstream. For description of upstream reservoirs see "Mojave River at Barstow" (station 10262500). See schematic diagram of Mojave River Basin available from the California Water Science Center.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,000 ft³/s, Jan. 26, 1969, gage height, 10.40 ft, datum then in use, from rating curve extended above 3,200 ft³/s, on basis of slope-area measurement of peak flow; no flow at times during many years.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft³/s and (or) maximum (*), from rating curve extended above 1,030 ft³/s, on basis of slope-area measurement of peak flow at gage height 9.16 ft:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec 23	1645	*4,530	*7.29
Sep 10	1915	143	3.77

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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	0.00	0.12	0.13	e0.90	e0.64	e0.60	0.52	0.28	0.31	0.15	0.12	0.12
2	0.00	0.13	0.13	e1.1	e0.63	e0.59	0.61	0.29	0.29	0.14	0.12	0.12
3	0.00	0.13	0.13	e1.0	e0.62	0.61	0.58	0.29	0.28	0.13	0.11	0.11
4	0.00	0.13	0.13	e0.95	e0.61	0.60	0.61	0.29	0.26	0.13	0.10	0.11
5	0.00	0.13	0.13	e0.86	e0.61	0.63	0.56	0.29	0.26	0.13	0.12	0.12
6	0.00	0.13	0.14	e0.84	e0.60	0.59	0.54	0.29	0.24	0.13	0.13	0.11
7	0.00	0.13	0.13	e0.81	e0.59	0.49	0.51	0.28	0.24	0.11	0.15	0.10
8	0.00	0.14	0.14	e0.77	e0.58	0.50	0.51	0.27	0.25	0.10	0.14	0.10
9	0.00	0.14	0.14	e0.74	e0.59	0.53	0.49	0.28	0.25	0.10	0.14	0.09
10	0.00	0.15	0.15	e0.72	e0.59	0.55	0.46	0.31	0.26	0.10	0.15	5.0
11	0.00	0.14	0.15	e0.71	e0.58	0.50	0.43	0.33	0.27	0.10	0.16	0.26
12	0.00	0.14	0.15	e0.73	e0.57	0.45	0.42	0.32	0.27	0.10	0.16	0.09
13	0.00	0.16	0.16	e0.72	e0.55	0.45	0.42	0.31	0.28	0.11	0.14	0.09
14	0.00	0.17	0.16	e0.71	e0.54	0.48	0.46	0.29	0.29	0.12	0.15	0.08
15	0.00	0.17	0.15	e0.72	e0.53	0.50	0.45	0.28	0.28	0.12	0.13	0.08
16	0.00	0.17	0.18	e0.70	e0.65	0.47	0.43	0.29	e0.29	0.13	0.14	0.08
17	0.00	0.17	0.18	e0.69	e0.60	0.49	0.40	0.30	e0.26	0.16	0.14	0.08
18	0.00	0.18	0.20	e0.70	e0.75	0.50	0.37	0.25	e0.25	0.15	0.13	0.08
19	0.00	0.20	0.20	e0.69	e0.70	0.49	0.39	0.25	e0.23	0.13	0.14	0.08
20	0.54	0.18	0.20	e0.68	e0.72	0.53	0.35	0.26	e0.20	0.12	0.15	0.08
21	0.32	0.14	0.42	e0.68	e0.66	0.56	0.30	0.27	e0.18	0.09	0.16	0.08
22	0.12	0.13	24	e0.67	e0.60	0.52	0.32	0.26	e0.17	0.07	0.14	0.07
23	0.10	0.13	2,340	e0.66	e0.58	0.53	0.32	0.27	e0.16	0.06	0.14	0.07
24	0.10	0.13	673	e0.66	e0.56	0.50	0.30	0.29	e0.14	0.07	0.14	0.08
25	0.09	0.13	e50	e0.67	e0.62	0.48	0.30	0.30	e0.16	0.07	0.15	0.08
26	0.08	0.13	e18	e0.66	e0.71	0.47	0.31	0.29	0.15	0.06	0.15	0.09
27	0.08	0.14	e8.5	e0.66	e0.68	0.45	0.32	0.31	0.17	0.08	0.14	0.09
28	0.10	0.13	e2.0	e0.65	e0.63	0.47	0.29	0.30	0.15	0.07	0.14	0.10
29	0.11	0.13	e1.1	e0.65	---	0.47	0.27	0.29	0.14	0.08	0.13	0.10
30	0.12	0.13	e1.0	e0.64	---	0.48	0.27	0.32	0.15	0.09	0.13	0.11
31	0.12	---	e0.95	e0.63	---	0.49	---	0.33	---	0.11	0.13	---
Total	1.88	4.33	3,122.05	22.97	17.29	15.97	12.51	8.98	6.83	3.31	4.27	7.85
Mean	0.06	0.14	101	0.74	0.62	0.52	0.42	0.29	0.23	0.11	0.14	0.26
Max	0.54	0.20	2,340	1.1	0.75	0.63	0.61	0.33	0.31	0.16	0.16	5.0
Min	0.00	0.12	0.13	0.63	0.53	0.45	0.27	0.25	0.14	0.06	0.10	0.07
Ac-ft	3.7	8.6	6,190	46	34	32	25	18	14	6.6	8.5	16

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1971, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	0.77	1.07	4.80	17.4	38.3	8.06	5.18	0.88	0.52	0.58	0.82	0.65
Max	1.50	1.91	63.9	347	705	140	56.4	1.80	1.44	3.13	3.47	2.08
(WY)	(1930)	(1932)	(1966)	(1969)	(1969)	(1969)	(1969)	(1931)	(1931)	(1967)	(1958)	(1967)
Min	0.00	0.00	0.41	0.80	0.78	0.65	0.39	0.19	0.01	0.00	0.00	0.00
(WY)	(1967)	(1969)	(1969)	(1968)	(1967)	(1968)	(1968)	(1966)	(1967)	(1966)	(1966)	(1966)

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Water Years 1930 - 1971		
Annual mean	6.40	
Highest annual mean	100	1969
Lowest annual mean	0.49	1968
Highest daily mean	9,500	Feb 25, 1969
Lowest daily mean	0.00	Jun 28, 1961
Annual seven-day minimum	0.00	Jul 14, 1961
Maximum peak flow	18,000	Jan 26, 1969
Maximum peak stage	10.40	Jan 26, 1969
Annual runoff (ac-ft)	4,640	
10 percent exceeds	1.7	
50 percent exceeds	0.90	
90 percent exceeds	0.10	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	0.56	0.71	3.51	23.9	36.5	18.1	0.74	0.38	0.23	0.57	1.28	0.76
Max	2.97	2.29	101	631	876	415	2.25	1.55	1.58	3.83	18.0	5.46
(WY)	(1993)	(1981)	(2011)	(2005)	(1993)	(1978)	(1992)	(1981)	(1981)	(1999)	(1984)	(1998)
Min	0.00	0.00	0.21	0.34	0.32	0.22	0.15	0.00	0.00	0.00	0.00	0.00
(WY)	(1976)	(1976)	(1978)	(1976)	(2009)	(1975)	(2007)	(2007)	(1976)	(1972)	(1973)	(1973)

SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 1972 - 2011	
Annual total	3,209.88		3,228.24			
Annual mean	8.79		8.84		7.12	
Highest annual mean					92.0	
Lowest annual mean					0.15	
Highest daily mean	2,340	Dec 23	2,340	Dec 23	10,000	Feb 20, 1993
Lowest daily mean	0.00	May 21	0.00	Oct 1	0.00	Jun 16, 1972
Annual seven-day minimum	0.00	May 31	0.00	Oct 1	0.00	Jun 16, 1972
Maximum peak flow			4,530	Dec 23	14,000	Mar 5, 1978
Maximum peak stage			7.29	Dec 23	9.16	Jan 12, 2005
Annual runoff (ac-ft)	6,370		6,400		5,160	
10 percent exceeds	0.57		0.68		1.3	
50 percent exceeds	0.13		0.24		0.45	
90 percent exceeds	0.00		0.08		0.00	

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