Water-Data Report 2013

10260865 Grass Valley Creek below Grass Valley Lake, near Lake Arrowhead, CA

Mojave River Basin

LOCATION.--Lat 34°15′49″, long 117°13′05″ referenced to North American Datum of 1983, in NE ¼ NW ¼ sec.17, T.2 N., R.3 W., San Bernardino County, CA, Hydrologic Unit 18090208, at Grass Valley Lake spillway to Grass Valley Creek, and 2.0 mi northwest of the town of Lake Arrowhead.

DRAINAGE AREA.--2.59 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 2008 to Feb. 25, 2013 (discontinued).

GAGE.--Water-stage recorder and concrete spillway control. Elevation of gage is 5,140 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair. Records of daily discharge for this station are computed, in part, using the lake elevation records for Grass Valley Lake near Lake Arrowhead (station 10260860). Discharges at this station reflect flow over the spillway, into Grass Valley Creek. The natural flow of Grass Valley Creek, into Grass Valley Lake, is unregulated and unaffected by diversion. Lake elevations may be affected, at times, by discharges of treated domestic water and pumping for nearby irrigation. Outflow from lake is by two identical spillways. Flow over north spillway is gaged at station 10260865 (Grass Valley Creek below Grass Valley Lake, near Lake Arrowhead), and is regulated by the spillway crest. Flow over east spillway is gaged at station 10260855 (Grass Valley Lake Tunnel Outlet, at Lake Arrowhead), and is regulated by the spillway crest and a gated entrance to the Grass Valley Lake Tunnel, 200 ft east of the spillway. See schematic diagram of Mojave River Basin available from the California Water Science Center.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,200 ft^3/s, Dec. 20, 2010, gage height, 16.73 ft, from rating curve extended above 19 ft^3/s, on basis of critical-depth computations; no flow (spill) for many days each year.

Suggested citation: U.S. Geological Survey, 2014, Water-resources data for the United States, Water Year 2013: U.S. Geological Survey Water-Data Report WDR-US-2013, site 10260865, accessed at http://wdr.water.usgs.gov/wy2013/pdfs/10260865.2013.pdf

10260865 Grass Valley Creek below Grass Valley Lake, near Lake Arrowhead, CA—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0.00	0.00	0.00	0.14	0.09	---	---	---	---	---	---	---
2	0.00	0.00	0.00	0.12	0.07	---	---	---	---	---	---	---
3	0.00	0.00	0.00	0.10	0.08	---	---	---	---	---	---	---
4	0.00	0.00	0.00	0.09	0.06	---	---	---	---	---	---	---
5	0.00	0.00	0.00	0.09	0.06	---	---	---	---	---	---	---
6	0.00	0.00	0.00	0.12	0.05	---	---	---	---	---	---	---
7	0.00	0.00	0.00	0.13	0.04	---	---	---	---	---	---	---
8	0.00	0.00	0.00	0.07	0.11	---	---	---	---	---	---	---
9	0.00	0.00	0.00	0.08	0.06	---	---	---	---	---	---	---
10	0.00	0.00	0.00	0.18	0.03	---	---	---	---	---	---	---
11	0.00	0.00	0.00	0.11	0.03	---	---	---	---	---	---	---
12	0.00	0.00	0.00	0.07	0.03	---	---	---	---	---	---	---
13	0.00	0.00	22	0.06	0.03	---	---	---	---	---	---	---
14	0.00	0.00	2.0	0.05	0.02	---	---	---	---	---	---	---
15	0.00	0.00	0.74	0.04	0.03	---	---	---	---	---	---	---
16	0.00	0.00	0.44	0.04	0.03	---	---	---	---	---	---	---
17	0.00	0.00	0.45	0.04	0.02	---	---	---	---	---	---	---
18	0.00	0.00	11	0.04	0.02	---	---	---	---	---	---	---
19	0.00	0.00	1.4	0.04	0.04	---	---	---	---	---	---	---
20	0.00	0.00	0.61	0.03	0.09	---	---	---	---	---	---	---
21	0.00	0.00	0.41	0.03	0.03	---	---	---	---	---	---	---
22	0.00	0.00	0.31	0.03	0.01	---	---	---	---	---	---	---
23	0.00	0.00	0.28	0.03	0.02	---	---	---	---	---	---	---
24	0.00	0.00	0.29	0.80	0.02	---	---	---	---	---	---	---
25	0.00	0.00	0.24	1.6	0.01	---	---	---	---	---	---	---
26	0.00	0.00	0.74	0.69	---	---	---	---	---	---	---	---
27	0.00	0.00	0.39	0.40	---	---	---	---	---	---	---	---
28	0.00	0.00	0.25	0.30	---	---	---	---	---	---	---	---
29	0.00	0.00	0.25	0.20	---	---	---	---	---	---	---	---
30	0.00	0.00	0.23	0.16	---	---	---	---	---	---	---	---
31	0.00	---	0.18	0.12	---	---	---	---	---	---	---	---
Total	0.00	0.00	42.21	6.00	---	---	---	---	---	---	---	---
Mean	0.00	0.00	1.36	0.19	---	---	---	---	---	---	---	---
Max	0.00	0.00	22	1.6	---	---	---	---	---	---	---	---
Min	0.00	0.00	0.00	0.03	---	---	---	---	---	---	---	---
Ac-ft	0.00	0.00	84	12	---	---	---	---	---	---	---	---

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2009 - 2013, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	0.20	0.52	9.13	1.95	6.14	5.99	4.28	1.07	0.32	0.16	0.14	0.15
Max	1.02	1.88	38.3	5.03	14.7	14.8	8.50	2.16	1.18	0.63	0.58	0.59
(WY)	(2012)	(2012)	(2011)	(2011)	(2010)	(2011)	(2011)	(2011)	(2011)	(2011)	(2011)	(2011)
Min	0.00	0.00	0.93	0.03	0.01	2.30	0.55	0.07	0.00	0.00	0.00	0.00
(WY)	(2009)	(2009)	(2009)	(2012)	(2012)	(2012)	(2009)	(2009)	(2009)	(2009)	(2009)	(2009)

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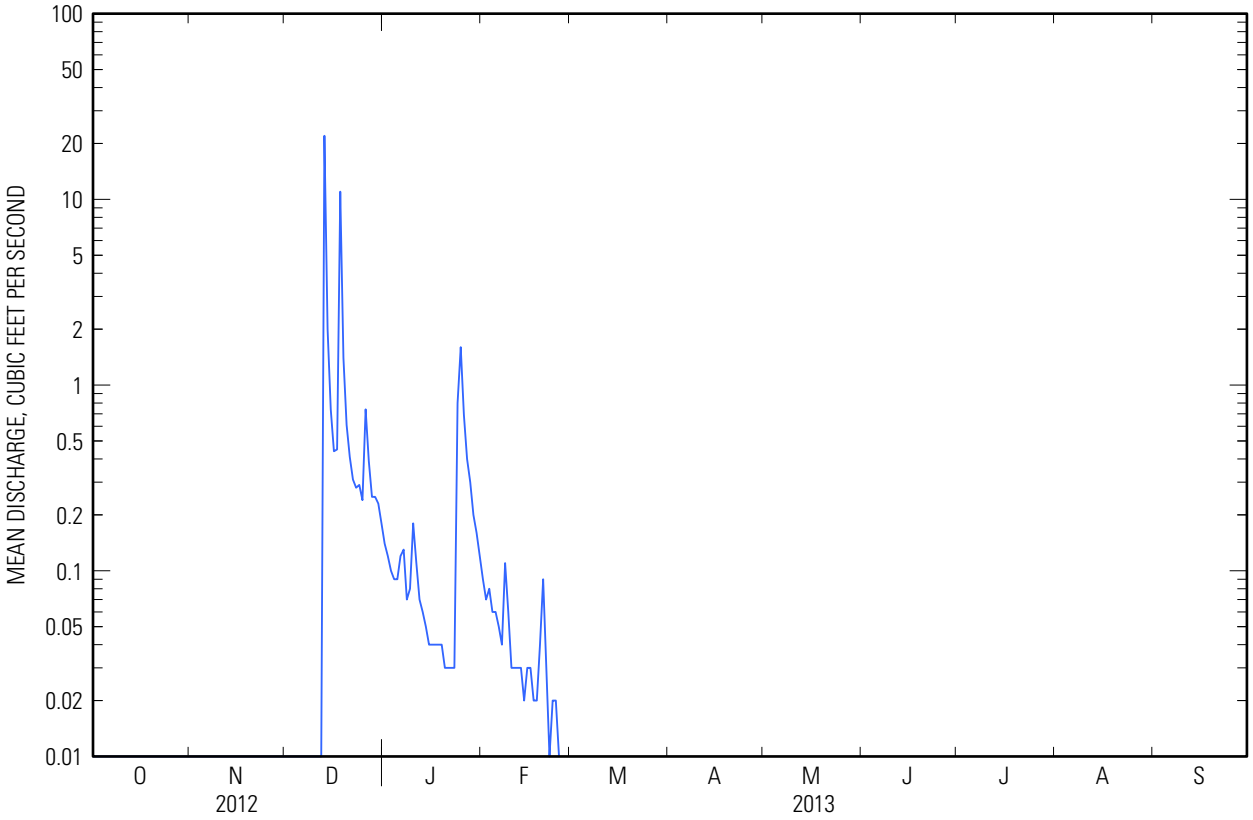
SUMMARY STATISTICS

	Calendar Year 2012		Water Years 2009 - 2013	
Annual total	178.44			
Annual mean	0.49		2.71	
Highest annual mean			6.67	2011
Lowest annual mean			0.63	2009
Highest daily mean	22	Dec 13	441	Dec 22, 2010
Lowest daily mean	0.00	Jan 8	0.00	Oct 1, 2008
Annual seven-day minimum	0.00	Jan 8	0.00	Oct 1, 2008
Maximum peak flow			1,200	Dec 20, 2010
Maximum peak stage			16.73	Dec 20, 2010
Annual runoff (ac-ft)	354		1,960	
10 percent exceeds	0.94		5.5	
50 percent exceeds	0.00		0.22	
90 percent exceeds	0.00		0.00