



## Water-Data Report 2011

### 10260470 Little Bear Creek above Lake Arrowhead, at Lake Arrowhead, CA

Mojave River Basin

LOCATION.--Lat 34°14'55", long 117°12'09" referenced to North American Datum of 1983, in NE ¼ NW ¼ sec.21, T.2 N., R.3 W., San Bernardino County, CA, Hydrologic Unit 18090208, on right bank, 0.10 mi upstream from Lake Arrowhead and 0.95 mi west of the town of Lake Arrowhead.

DRAINAGE AREA.--1.58 mi<sup>2</sup>.

#### SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 2008 to September 2011 (discontinued).

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 5,120 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. No regulation or diversion upstream from station. See schematic diagram of Mojave River Basin available from the California Water Science Center.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 282 ft<sup>3</sup>/s, Dec. 20, 2010, gage height, 6.02 ft, from rating curve extended above 9.6 ft<sup>3</sup>/s, on basis of critical-depth computations; no flow for many days in most years.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 40 ft<sup>3</sup>/s and (or) maximum (\*), from rating curve extended above 9.6 ft<sup>3</sup>/s, on basis of critical-depth computations:

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec 19	1645	172	5.41
Dec 20	1830	*282	*6.02
Dec 22	0900	280	6.01
Feb 16	1130	43	4.35
Feb 18	2345	52	4.45

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**DISCHARGE, CUBIC FEET PER SECOND**  
**WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**  
**DAILY MEAN VALUES**  
[e, estimated]

<b>Day</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>
<b>1</b>	0.13	0.26	0.49	5.6	2.8	3.6	11	3.1	2.6	1.3	0.76	0.23
<b>2</b>	0.07	0.18	0.39	5.7	2.7	3.7	9.6	3.1	2.6	1.3	0.63	0.22
<b>3</b>	0.10	0.15	0.41	5.5	2.6	5.0	8.5	3.0	2.6	1.2	0.58	0.22
<b>4</b>	0.18	0.14	0.41	5.1	2.4	4.5	7.3	2.9	2.5	1.2	0.54	0.22
<b>5</b>	0.20	0.16	1.1	4.9	2.3	4.6	6.5	3.0	2.4	1.2	0.54	0.30
<b>6</b>	0.73	0.18	1.9	4.9	2.3	5.1	6.1	2.9	2.5	1.2	0.52	0.26
<b>7</b>	0.24	0.22	0.69	4.8	2.2	12	6.1	2.9	2.4	1.1	0.50	0.22
<b>8</b>	0.20	0.95	0.64	4.7	2.2	6.9	6.1	3.0	2.3	1.1	0.48	0.20
<b>9</b>	0.18	0.21	0.50	4.5	2.1	6.3	5.9	3.2	2.2	1.0	0.46	0.20
<b>10</b>	0.16	0.20	0.52	4.4	2.0	6.4	6.0	2.9	2.1	0.99	0.47	0.21
<b>11</b>	0.15	0.18	0.49	4.2	2.0	6.9	5.7	2.7	2.2	0.92	0.46	0.22
<b>12</b>	0.14	0.16	0.45	4.0	2.0	7.3	5.5	2.6	2.1	0.98	0.42	0.21
<b>13</b>	0.13	0.16	0.43	3.9	2.0	6.7	5.3	2.6	2.0	1.00	0.41	0.75
<b>14</b>	0.13	0.15	0.40	4.1	1.9	6.7	5.0	2.6	1.9	1.0	0.41	0.28
<b>15</b>	0.13	0.13	0.42	4.3	1.9	6.5	4.8	5.8	1.8	1.0	0.40	0.25
<b>16</b>	0.12	0.12	1.2	4.2	9.6	6.3	4.7	4.0	1.8	1.0	0.39	0.22
<b>17</b>	0.14	0.12	5.1	4.4	3.9	5.9	4.6	4.1	1.8	0.97	0.38	0.22
<b>18</b>	0.19	0.12	8.7	4.3	7.4	5.5	4.5	6.2	1.7	0.93	0.35	0.20
<b>19</b>	0.31	0.13	63	4.2	12	7.0	4.4	4.3	1.7	0.87	0.36	0.19
<b>20</b>	0.50	10	92	4.0	5.5	5.9	4.2	4.0	1.7	0.85	0.35	0.18
<b>21</b>	0.25	2.4	51	3.8	4.4	e5.8	4.1	3.7	1.6	0.85	0.33	0.18
<b>22</b>	0.24	1.3	96	3.7	3.9	5.8	4.0	3.5	1.6	0.82	0.32	0.17
<b>23</b>	0.26	0.97	26	3.4	3.3	5.7	4.0	3.5	1.5	0.81	0.31	0.16
<b>24</b>	0.26	1.4	16	3.2	2.9	5.2	4.0	3.3	1.5	0.74	0.29	0.17
<b>25</b>	0.59	0.81	12	3.1	3.0	9.7	3.8	3.2	1.5	0.68	0.28	0.17
<b>26</b>	0.33	0.74	14	3.0	8.8	7.4	3.6	3.1	1.6	0.63	0.26	0.17
<b>27</b>	0.28	0.68	9.0	2.9	4.3	8.2	3.5	3.0	1.6	0.67	0.27	0.16
<b>28</b>	0.27	0.67	7.4	2.9	3.7	8.2	3.3	3.0	1.6	0.68	0.25	0.15
<b>29</b>	0.26	0.52	8.9	2.8	---	8.8	3.4	3.6	1.4	0.62	0.24	0.15
<b>30</b>	0.60	0.54	7.2	3.0	---	10	3.3	3.1	1.4	0.59	0.23	0.15
<b>31</b>	0.35	---	6.0	2.9	---	12	---	2.9	---	2.1	0.24	---
<b>Total</b>	7.82	23.95	432.74	126.4	106.1	209.6	158.8	104.8	58.2	30.30	12.43	6.63
<b>Mean</b>	0.25	0.80	14.0	4.08	3.79	6.76	5.29	3.38	1.94	0.98	0.40	0.22
<b>Max</b>	0.73	10	96	5.7	12	12	11	6.2	2.6	2.1	0.76	0.75
<b>Min</b>	0.07	0.12	0.39	2.8	1.9	3.6	3.3	2.6	1.4	0.59	0.23	0.15
<b>Ac-ft</b>	16	48	858	251	210	416	315	208	115	60	25	13

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2009 - 2011, BY WATER YEAR (WY)**

	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>
<b>Mean</b>	0.11	0.34	5.52	2.37	4.31	5.31	3.75	1.96	1.12	0.45	0.15	0.08
<b>Max</b>	0.25	0.80	14.0	4.08	5.51	6.76	5.29	3.38	1.94	0.98	0.40	0.22
(WY)	(2011)	(2011)	(2011)	(2011)	(2010)	(2011)	(2011)	(2011)	(2011)	(2011)	(2011)	(2011)
<b>Min</b>	0.00	0.02	0.85	1.10	3.64	3.22	1.17	0.52	0.29	0.01	0.00	0.00
(WY)	(2009)	(2010)	(2009)	(2009)	(2009)	(2009)	(2009)	(2009)	(2009)	(2009)	(2009)	(2009)

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	<b>Calendar Year 2010</b>	<b>Water Year 2011</b>	<b>Water Years 2009 - 2011</b>	
<b>Annual total</b>	1,115.31	1,277.77		
<b>Annual mean</b>	3.06	3.50	2.11	
<b>Highest annual mean</b>			3.50	2011
<b>Lowest annual mean</b>			0.90	2009
<b>Highest daily mean</b>	96 Dec 22	96 Dec 22	96 Dec 22,	2010
<b>Lowest daily mean</b>	0.01 Aug 24	0.07 Oct 2	0.00 Oct 1,	2008
<b>Annual seven-day minimum</b>	0.01 Aug 24	0.13 Nov 13	0.00 Oct 1,	2008
<b>Maximum peak flow</b>		282 Dec 20	282 Dec 20,	2010
<b>Maximum peak stage</b>		6.02 Dec 20	6.02 Dec 20,	2010
<b>Annual runoff (ac-ft)</b>	2,210	2,530	1,530	
<b>10 percent exceeds</b>	6.1	6.6	5.4	
<b>50 percent exceeds</b>	0.84	1.9	0.66	
<b>90 percent exceeds</b>	0.04	0.18	0.00	

