Water-Data Report 2012

11186000 Kern River near Kernville, CA

Buena Vista Lake Basin

LOCATION.--Lat 35°56′43″, long 118°28′36″ referenced to North American Datum of 1927, Tulare County, CA, Hydrologic Unit 18030001, unsurveyed, on left bank, at Packsaddle Canyon Creek, 500 ft downstream from diversion dam, and 13.4 mi north of Kernville.

DRAINAGE AREA.--846 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--January 1912 to current year. Records for water year 1912 incomplete; yearly estimates published in WSP 1315-A. March 1921 to October 1953, records for river and canal published separately; combined flow only, October 1953 to September 1960.
CHEMICAL ANALYSES: Water years 1956-65.
WATER TEMPERATURE: Water years 1961-65.

REVISED RECORDS.--WSP 1445: 1912, 1916 (instantaneous maximum discharge). WSP 1930: 1914 (instantaneous maximum discharge), 1918 (instantaneous maximum discharge).

GAGE.--Water-stage recorder on river; water-stage recorder and rectangular concrete-lined flume for canal diversion. Elevation of gage is 3,620 ft above NGVD of 1929, from topographic map. Prior to Apr. 1, 1913, at site 1.4 mi downstream at different datum. Apr. 1 to Sept. 14, 1913, nonrecording gage, and Sept. 15, 1913, to Sept. 30, 1967, water-stage recorder, at site 1.2 mi downstream at different datum. Oct. 1, 1967, to Aug. 1, 2002, at datum 10 ft lower.

COOPERATION.--Records were provided by Southern California Edison Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 2290.

REMARKS.--Since 1921, Kern River No. 3 Canal (station 11185500) diverts up to 630 ft^3/s, 100 ft upstream from station, from left bank of Kern River for power development; water is returned to river 15 mi downstream from station. For records of combined discharge of river and canal, see station 11186001. See schematic diagram of Kern River Basin available from the California Water Science Center.

EXTREMES FOR PERIOD OF RECORD.--River only: Maximum discharge, 60,000 ft^3/s, Dec. 6, 1966, gage height, 22.77 ft, site and datum then in use, from floodmarks, from rating curve extended above 6,000 ft^3/s, on basis of computed flow over dam at gage height 17.55 ft (basic data for computation provided by Southern California Edison Co.) and slope-area measurement of peak flow, maximum gage height, 24.39 ft, Nov. 8, 2002; no flow for many days in 1924 and 1925.
Combined river and diversion: Maximum discharge, 60,000 ft^3/s, Dec. 6, 1966; minimum daily, 76 ft^3/s, Dec. 22, 1990.

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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	98	63	57	52	50	80	110	1,060	151	138	133	167
2	98	55	57	52	51	84	111	1,100	236	141	131	164
3	98	55	57	52	54	83	111	1,070	207	142	132	159
4	98	54	57	52	53	83	112	963	127	141	131	155
5	431	55	56	52	52	83	115	784	109	140	130	156
6	138	74	52	52	52	80	114	692	116	140	130	161
7	93	74	52	52	52	78	113	609	109	141	126	165
8	93	61	55	52	51	79	114	587	108	140	126	165
9	95	64	55	51	47	79	117	569	109	140	132	179
10	96	64	55	51	47	80	117	654	108	140	133	189
11	94	75	54	51	51	80	118	736	108	139	159	174
12	97	106	54	51	55	79	118	738	108	138	160	165
13	92	66	54	51	55	79	119	772	108	138	155	160
14	93	58	54	53	55	79	120	786	109	139	154	155
15	92	55	53	54	55	79	120	686	110	140	156	152
16	91	55	53	54	54	85	125	594	109	138	137	151
17	91	53	54	53	50	78	171	609	110	139	137	150
18	93	51	54	53	47	79	220	688	110	139	181	148
19	94	53	53	53	47	80	323	745	110	139	207	147
20	95	54	53	52	48	80	486	764	112	138	201	145
21	95	58	52	359	49	80	769	617	113	140	191	144
22	94	56	52	56	49	80	1,030	474	113	140	185	144
23	94	59	54	108	49	80	1,250	461	113	149	196	145
24	94	59	54	63	49	80	1,200	381	113	164	190	144
25	95	57	54	51	49	80	950	265	113	156	180	143
26	95	53	55	51	49	80	994	192	113	148	175	144
27	98	52	57	51	49	80	886	158	112	140	170	144
28	97	52	55	50	49	80	822	148	112	142	166	143
29	97	63	53	50	77	79	870	148	121	140	164	143
30	96	62	53	50	---	79	949	124	135	136	171	142
31	95	---	52	50	---	102	---	111	---	135	174	---
Total	3,320	1,816	1,680	1,982	1,495	2,507	12,774	18,285	3,632	4,380	4,913	4,643
Mean	107	60.5	54.2	63.9	51.6	80.9	426	590	121	141	158	155
Max	431	106	57	359	77	102	1,250	1,100	236	164	207	189
Min	91	51	52	50	47	78	110	111	108	135	126	142
Ac-ft	6,590	3,600	3,330	3,930	2,970	4,970	25,340	36,270	7,200	8,690	9,740	9,210

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2012, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	84.6	82.7	137	187	156	304	632	1,553	1,634	729	212	117
Max	400	615	2,488	2,619	967	1,480	2,631	5,874	6,819	3,482	1,583	538
(WY)	(2010)	(2003)	(1967)	(1997)	(1986)	(1986)	(1969)	(1969)	(1983)	(1983)	(1983)	(1982)
Min	2.01	1.36	0.98	2.01	1.51	1.84	1.93	6.68	7.22	2.66	12.5	2.70
(WY)	(1961)	(1961)	(1961)	(1961)	(1961)	(1961)	(1961)	(1961)	(1961)	(1961)	(1961)	(1963)

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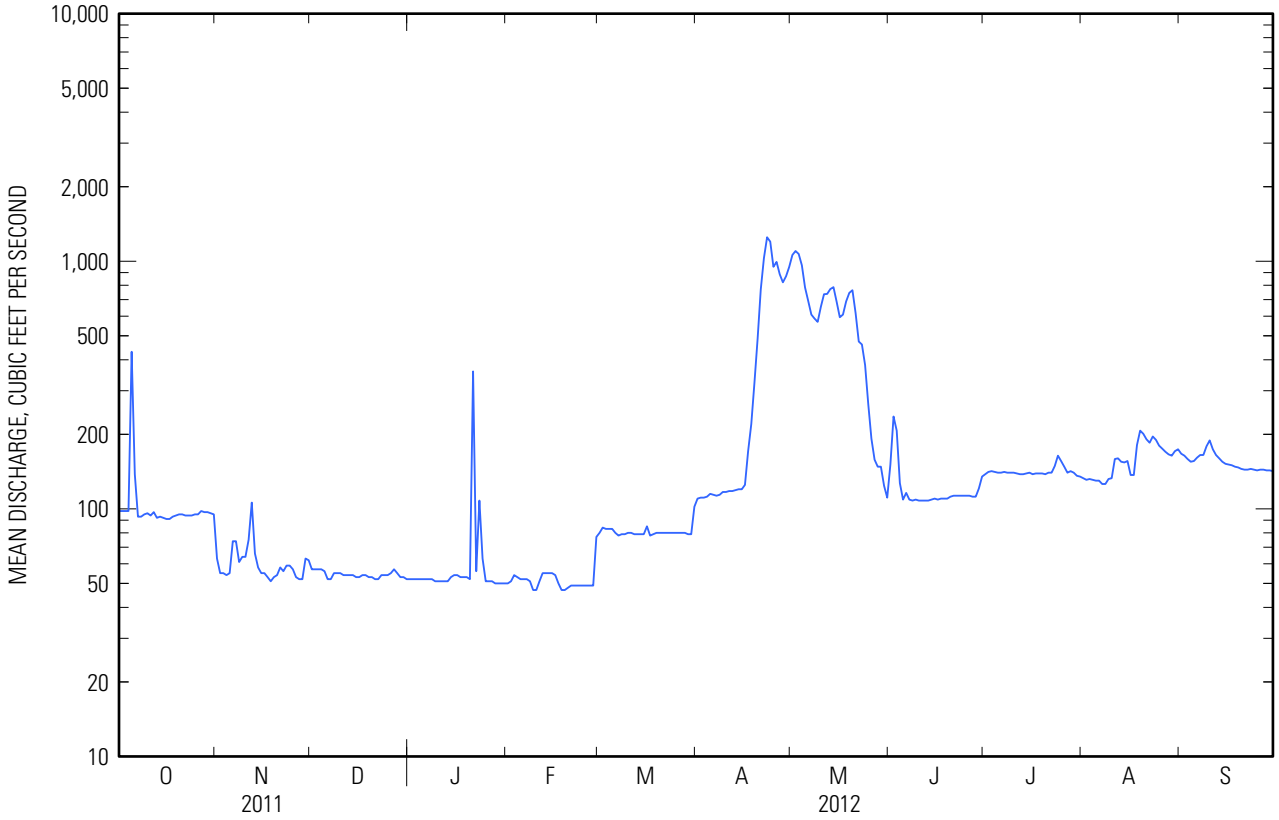
SUMMARY STATISTICS

	Calendar Year 2011		Water Year 2012		Water Years 1961 - 2012	
Annual total	413,128		61,427			
Annual mean	1,132		168		487	
Highest annual mean					1,727	1969
Lowest annual mean					3.65	1961
Highest daily mean	5,560	Jun 16	1,250	Apr 23	33,600	Dec 6, 1966
Lowest daily mean	51	Nov 18	47	Feb 9	0.20	Dec 16, 1960
Annual seven-day minimum	53	Dec 16	48	Feb 18	0.26	Dec 12, 1960
Maximum peak flow			1,640	May 2	60,000	Dec 6, 1966
Maximum peak stage			15.92	May 2	24.39	Nov 8, 2002
Annual runoff (ac-ft)	819,400		121,800		352,700	
10 percent exceeds	3,130		366		1,500	
50 percent exceeds	551		108		96	
90 percent exceeds	55		52		31