Water-Data Report 2008

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.

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 2007 TO SEPTEMBER 2008
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	142	152	149	181	269	705	534	1,300	1,020	594	150	130
2	141	151	133	181	259	708	530	1,240	1,180	552	148	131
3	139	149	134	181	331	658	515	1,310	1,350	529	148	129
4	139	146	149	420	279	640	543	1,290	1,530	512	147	126
5	140	145	153	1,280	291	643	572	1,230	1,290	443	149	123
6	146	146	156	507	316	629	598	1,090	1,250	392	148	121
7	151	146	388	347	324	611	618	1,200	1,560	388	147	118
8	155	146	231	305	331	625	593	1,260	1,480	375	148	116
9	151	146	181	310	339	653	556	1,310	1,450	349	147	119
10	148	147	174	292	344	656	512	1,360	1,560	306	147	121
11	147	148	174	304	347	677	558	1,500	1,570	289	147	131
12	145	169	171	285	358	719	655	1,680	1,330	301	145	130
13	147	168	171	270	389	616	773	1,530	1,320	405	139	125
14	149	163	169	258	415	574	914	1,410	1,340	477	137	119
15	149	160	169	255	361	484	1,010	1,730	1,320	596	138	115
16	148	158	169	251	347	393	912	2,220	1,260	636	138	112
17	149	156	167	240	351	318	889	2,610	1,260	612	137	116
18	150	154	196	237	372	297	949	2,930	1,200	449	137	119
19	149	152	245	233	387	319	932	3,250	1,100	262	137	118
20	146	151	216	229	413	359	896	3,420	1,030	215	137	118
21	145	151	209	231	393	374	810	3,040	1,040	203	137	117
22	144	149	173	211	631	402	756	2,210	1,080	166	138	116
23	143	148	204	226	521	438	792	1,770	1,060	157	138	114
24	141	144	199	235	805	502	763	1,460	954	161	143	112
25	140	144	196	235	689	565	781	1,220	897	158	147	110
26	140	150	187	229	635	638	874	1,120	860	158	144	110
27	141	148	182	239	622	672	1,080	1,080	807	157	142	108
28	143	148	177	279	634	646	1,380	962	709	158	139	108
29	146	148	186	222	664	670	1,600	893	643	157	135	109
30	150	150	184	275	---	663	1,580	862	622	158	132	129
31	151	---	183	253	---	573	---	898	---	154	131	---
Total	4,515	4,533	5,775	9,201	12,417	17,427	24,475	50,385	35,072	10,469	4,397	3,570
Mean	146	151	186	297	428	562	816	1,625	1,169	338	142	119
Max	155	169	388	1,280	805	719	1,600	3,420	1,570	636	150	131
Min	139	144	133	181	259	297	512	862	622	154	131	108
Ac-ft	8,960	8,990	11,450	18,250	24,630	34,570	48,550	99,940	69,570	20,770	8,720	7,080

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2008, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	72.9	75.2	122	183	155	300	604	1,540	1,604	714	211	112
Max	205	615	2,488	2,619	967	1,480	2,631	5,874	6,819	3,482	1,583	538
(WY)	(2006)	(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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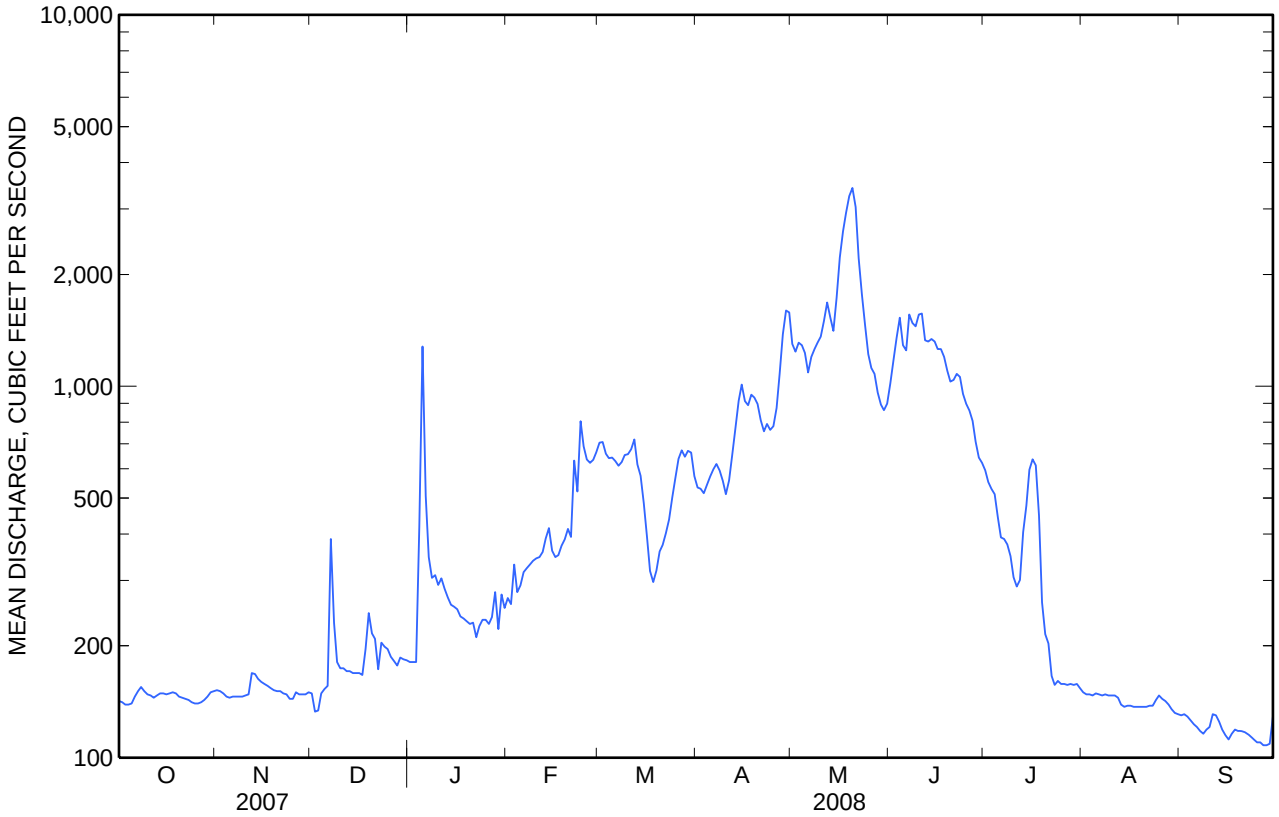
SUMMARY STATISTICS

	Calendar Year 2007		Water Year 2008		Water Years 1961 - 2008	
Annual total	74,256		182,236			
Annual mean	203		498		476	
Highest annual mean					1,727	1969
Lowest annual mean					3.65	1961
Highest daily mean	701	May 20	3,420	May 20	33,600	Dec 6, 1966
Lowest daily mean	50	Jan 2	108	Sep 27	0.20	Dec 16, 1960
Annual seven-day minimum	51	Jan 6	110	Sep 23	0.26	Dec 12, 1960
Maximum peak flow			3,880	May 20	60,000	Dec 6, 1966
Maximum peak stage			18.64	May 20	24.39	Nov 8, 2002
Annual runoff (ac-ft)	147,300		361,500		344,500	
10 percent exceeds	389		1,260		1,450	
50 percent exceeds	149		258		92	
90 percent exceeds	121		137		30