Water-Data Report 2007

11192500 Kern River near Democrat Springs, CA

Buena Vista Lake Basin

LOCATION.--Lat 35°31′15″, long 118°40′34″ referenced to North American Datum of 1927, in NE ¼ SE ¼ sec.6, T.28 S., R.31 E., Kern County, CA, Hydrologic Unit 18030003, on left bank, 0.5 mi downstream from diversion dam, 1.0 mi southwest of Democrat Springs, 2.1 mi upstream from Cow Creek, and at mile 53.6.

DRAINAGE AREA.--2,258 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--July 1950 to current year. Prior to October 1954, records for river and conduit published separately; combined flow only, October 1954 to September 1960.

REVISED RECORDS.--WSP 1930: Drainage area.

GAGE.--Water-stage recorder on river; water-stage recorder for conduit diversion. Datum of gage is 1,837.70 ft above NGVD of 1929.

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. Diversion to Kern Canyon Powerplant (station 11192940) provided by Pacific Gas and Electric Company.

REMARKS.--Kern River No. 1 Conduit (station 11192000) diverts up to about 420 ft^3/s from left bank of Kern River 0.4 mi upstream from station in sec.13, T.28 S., R.30 E., for power development; water is returned to river 10 mi downstream from station. Flow regulated by Isabella Lake 22 mi upstream beginning in 1954. Many diversions upstream from station for irrigation. For records of combined discharge of river and conduit, see station 11192501. See schematic diagram of Kern River Basin available from the California Water Science Center.

EXTREMES FOR PERIOD OF RECORD.--River only, prior to regulation by Isabella Lake in 1954: Maximum discharge, 40,000 ft^3/s, Nov. 19, 1950, gage height, 30.7 ft, from rating curve extended above 8,700 ft^3/s, on basis of computation of peak flow over dam (basic data for computation provided by Southern California Edison Co.); minimum daily, 0.7 ft^3/s, Nov. 17-19, 1951. Since regulation by Isabella Lake: Maximum discharge, 10,100 ft^3/s, Dec. 6, 1966, gage height, 18.55 ft; no flow May 26-28, 1977.

Combined flow, prior to regulation by Isabella Lake: Maximum discharge, 40,000 ft^3/s, Nov. 19, 1950; minimum daily, 123 ft^3/s, Sept. 22, 1951. Since regulation by Isabella Lake: Maximum discharge, 10,100 ft^3/s, Dec. 6, 1966; minimum daily, 10 ft^3/s, Dec. 17, 1968.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	112	53	27	25	172	320	63	268	643	522	424	72
2	217	34	27	24	209	277	139	286	462	692	363	73
3	180	31	26	23	186	276	172	297	455	645	301	90
4	47	29	188	24	186	278	153	272	589	700	306	88
5	40	29	259	46	202	359	155	127	558	712	441	92
6	38	29	261	80	72	471	157	116	565	656	500	217
7	35	29	253	196	65	446	112	204	608	615	554	282
8	33	29	114	322	56	528	112	245	546	599	548	264
9	31	29	21	310	55	597	144	238	460	777	489	288
10	29	29	21	292	44	554	180	246	322	815	409	323
11	29	29	20	253	53	585	181	160	384	892	290	372
12	29	29	20	252	60	572	202	117	543	1,010	408	386
13	30	29	21	252	63	499	147	120	571	796	474	304
14	30	29	21	271	65	436	77	149	673	480	253	277
15	30	29	21	310	65	329	70	181	587	580	244	275
16	31	29	21	369	65	321	60	200	418	651	248	302
17	32	28	21	377	69	273	54	221	255	689	262	343
18	34	28	21	370	72	221	53	223	339	748	212	296
19	34	28	22	182	222	270	54	129	462	513	224	262
20	32	28	22	33	349	209	55	138	519	429	e164	259
21	32	28	23	29	348	186	56	224	574	422	108	244
22	32	28	24	28	371	215	58	254	581	552	124	233
23	32	28	23	28	378	234	60	301	455	657	146	234
24	49	40	23	33	372	222	61	318	378	653	148	250
25	54	39	24	32	370	200	65	357	520	680	106	234
26	52	39	24	29	370	161	92	345	570	663	91	258
27	58	39	25	29	379	83	123	346	648	727	116	223
28	58	38	25	29	379	61	155	492	652	509	98	228
29	70	39	32	42	---	56	164	590	676	541	83	228
30	68	40	36	445	---	84	177	646	594	710	77	247
31	63	---	34	463	---	67	---	676	---	497	74	---
Total	1,641	965	1,700	5,198	5,297	9,390	3,351	8,486	15,607	20,132	8,285	7,244
Mean	52.9	32.2	54.8	168	189	303	112	274	520	649	267	241
Max	217	53	261	463	379	597	202	676	676	1,010	554	386
Min	29	28	20	23	44	56	53	116	255	422	74	72
Ac-ft	3,250	1,910	3,370	10,310	10,510	18,630	6,650	16,830	30,960	39,930	16,430	14,370

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2007, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	317	236	148	196	299	485	702	1,034	1,545	1,467	1,032	462
Max	1,455	1,298	1,052	1,967	2,046	3,289	5,306	5,512	6,446	5,712	3,435	2,115
(WY)	(1984)	(1983)	(1984)	(1967)	(1997)	(1969)	(1969)	(1983)	(1983)	(1983)	(1967)	(1983)
Min	0.53	0.18	0.13	0.16	2.19	2.37	1.94	1.69	50.5	57.6	53.1	50.4
(WY)	(1978)	(1977)	(1977)	(1977)	(1977)	(1961)	(1961)	(1977)	(1961)	(1961)	(1961)	(1981)

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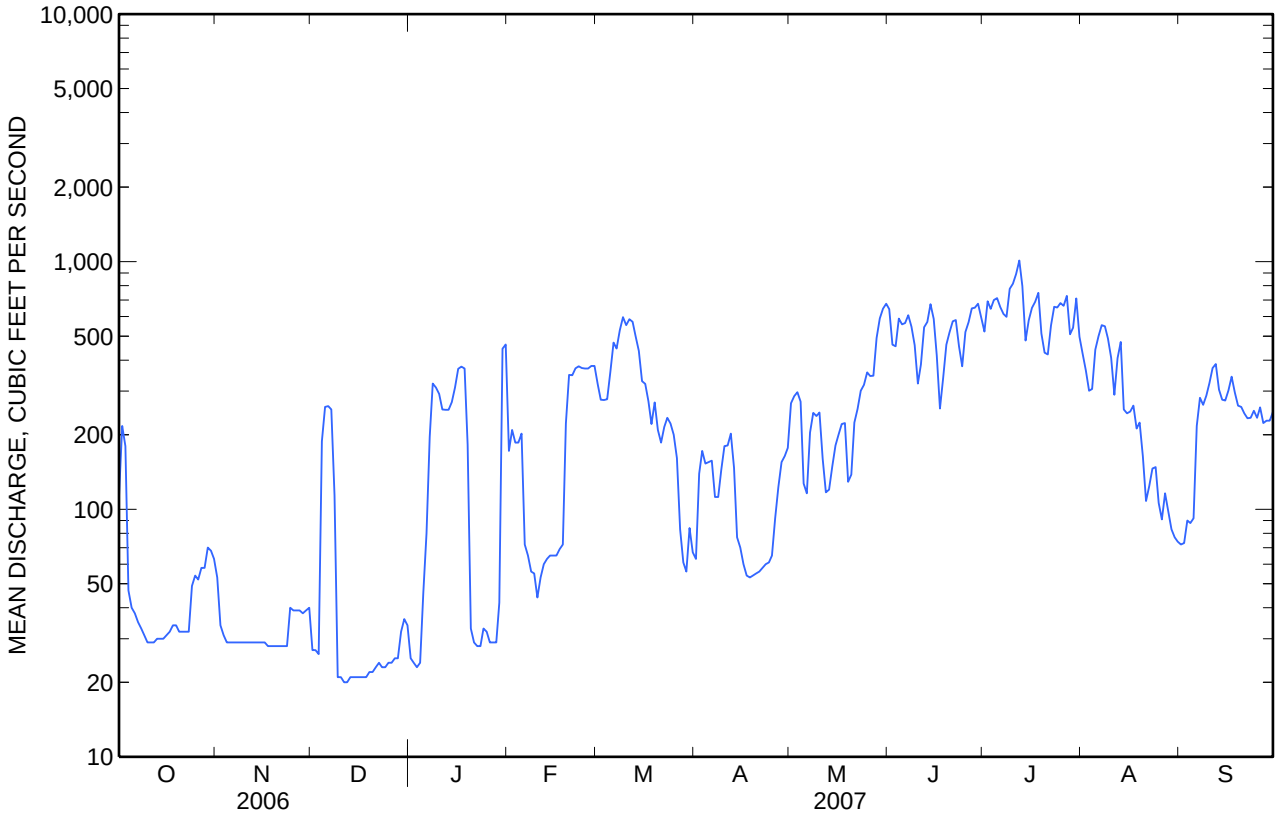
SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1961 - 2007	
Annual total	452,720		87,296			
Annual mean	1,240		239		662	
Highest annual mean					2,837	1983
Lowest annual mean					23.7	1961
Highest daily mean	4,740	May 16	1,010	Jul 12	6,640	Jun 7, 1969
Lowest daily mean	20	Dec 11	20	Dec 11	0.00	May 26, 1977
Annual seven-day minimum	21	Dec 9	21	Dec 9	0.01	May 16, 1977
Maximum peak flow			1,310	Jul 12	10,100	Dec 6, 1966
Maximum peak stage			9.52	Jul 12	18.55	Dec 6, 1966
Annual runoff (ac-ft)	898,000		173,200		479,700	
10 percent exceeds	4,330		580		1,850	
50 percent exceeds	570		188		265	
90 percent exceeds	29		29		2.6