Water-Data Report 2006

11471500 Eel River at Van Arsdale Dam, near Potter Valley, CA

Eel River Basin

LOCATION.--Lat 39°23′19″, long 123°06′54″ referenced to North American Datum of 1927, in NE ¼ sec.30, T.18 N., R.11 W., Mendocino County, Hydrologic Unit 18010103, on left bank, 1,000 ft downstream from Van Arsdale Dam, and 4.6 mi north of Potter Valley.

DRAINAGE AREA.--349 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--November 1909 to September 1922 (combined monthly discharge only, of Eel River at this station and Snow Mountain Water and Power Co.'s tailrace near Potter Valley), October 1922 to current year. Monthly discharge only for some periods, published in WSP 1315-B. Prior to October 1929, published as "South Eel River at Van Arsdale Dam, near Potter Valley."

REVISED RECORDS.--
WSP 1315-B: 1913, 1920-23, 1925-27. WSP 1395: 1923(M), 1938. WDR CA-04-2: 2001.

GAGE.--Water-stage recorder. Elevation of gage is 1,400 ft above NGVD of 1929, from topographic map. Nov. 18, 1909, to Mar. 3, 1927, recorder in reservoir 800 ft upstream from Van Arsdale Dam at different datum. Oct. 1, 1927, to Feb. 28, 1937, nonrecording gage at present site and datum.

COOPERATION.--Records collected by Pacific Gas and Electric Co., under general supervision of the U.S. Geological Survey, in connection with Federal Energy Regulatory Commission project no. 77.

REMARKS.--Flow regulated by Lake Pillsbury (station 11470000) 11 mi upstream. Low flows may be further regulated at Van Arsdale Dam by calibrated gates in dam and fish ladder. Water is diverted from Van Arsdale Reservoir through tunnel to Potter Valley Powerhouse Intake (station 11471000), after which part is used for irrigation and remainder flows into East Fork Russian River (see station 11471099). Records given represent flow only in Eel River. See schematic diagram of Eel River Basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 64,100 ft^3/s, Dec. 22, 1964, gage height, 33.9 ft, maximum gage height, 34.74 ft, Dec. 31, 2005; no flow at times.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	26	49	1,110	16,100	3,330	2,870	2,930	1,800	357	52	41	39
2	28	50	640	11,100	5,940	2,120	2,920	1,600	334	43	41	38
3	28	49	721	7,000	4,390	1,960	4,910	1,460	285	37	42	38
4	28	48	568	6,020	3,500	1,590	4,620	1,100	298	36	44	40
5	27	47	398	4,140	2,960	1,930	3,450	779	230	36	44	39
6	28	50	273	2,950	2,370	3,880	2,620	788	222	37	43	40
7	29	89	197	2,250	2,020	3,850	2,190	854	218	39	43	41
8	29	63	160	1,750	1,930	3,910	2,030	909	216	38	44	41
9	30	69	121	1,390	1,810	2,560	1,860	857	214	37	43	42
10	30	82	100	1,150	1,600	2,080	1,490	722	216	35	43	41
11	31	83	103	1,350	1,410	1,710	1,160	518	201	36	43	40
12	32	83	103	1,260	1,260	1,590	3,520	370	182	36	43	41
13	32	84	107	1,220	1,170	1,470	4,770	386	167	34	42	41
14	35	83	107	1,280	1,140	1,790	3,800	378	137	32	42	39
15	36	83	107	1,220	1,110	1,880	3,150	370	125	30	41	40
16	38	87	107	1,160	1,080	2,360	3,620	453	99	33	40	43
17	49	87	107	1,440	1,060	3,560	2,780	478	107	37	40	40
18	61	85	300	3,910	1,030	2,610	1,940	535	95	39	40	39
19	60	80	4,670	2,600	1,250	1,950	1,500	571	92	39	40	39
20	49	77	4,260	1,780	1,160	1,750	1,060	633	89	40	40	39
21	50	75	4,100	2,120	1,030	1,570	1,190	608	84	40	40	42
22	49	71	8,890	2,120	1,050	1,340	1,590	488	92	39	39	41
23	47	69	6,570	2,080	1,040	1,220	1,720	467	118	35	39	42
24	45	65	2,940	2,090	1,050	1,740	1,520	372	112	36	39	41
25	47	64	1,910	2,160	1,170	3,070	1,310	375	97	36	38	41
26	45	64	3,820	2,220	1,370	3,130	1,330	371	91	35	40	40
27	44	67	5,370	2,240	1,840	2,350	1,430	367	88	35	41	40
28	45	127	18,500	2,250	3,860	2,190	1,520	364	85	36	39	41
29	43	278	9,450	2,340	---	2,180	1,670	362	74	38	39	42
30	45	103	11,700	2,410	---	1,960	1,830	359	76	39	38	42
31	46	---	39,800	2,620	---	2,170	---	358	---	40	37	---
Total	1,212	2,411	127,309	95,720	53,930	70,340	71,430	20,052	4,801	1,155	1,268	1,212
Mean	39.1	80.4	4,107	3,088	1,926	2,269	2,381	647	160	37.3	40.9	40.4
Max	61	278	39,800	16,100	5,940	3,910	4,910	1,800	357	52	44	43
Min	26	47	100	1,150	1,030	1,220	1,060	358	74	30	37	38
Ac-ft	2,400	4,780	252,500	189,900	107,000	139,500	141,700	39,770	9,520	2,290	2,520	2,400

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1923 - 2006, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	13.6	123	760	1,410	1,531	1,053	569	204	34.4	6.67	6.57	6.29
Max	153	2,389	5,249	6,293	8,904	5,492	3,863	1,285	366	37.3	54.1	40.4
(WY)	(1963)	(1974)	(1965)	(1970)	(1986)	(1983)	(1982)	(2005)	(1998)	(2006)	(1980)	(2006)
Min	0.86	1.30	1.78	2.00	3.62	2.00	2.00	2.00	1.07	1.06	1.09	1.10
(WY)	(1953)	(1953)	(1937)	(1924)	(1977)	(1924)	(1924)	(1924)	(1931)	(1931)	(1931)	(1931)

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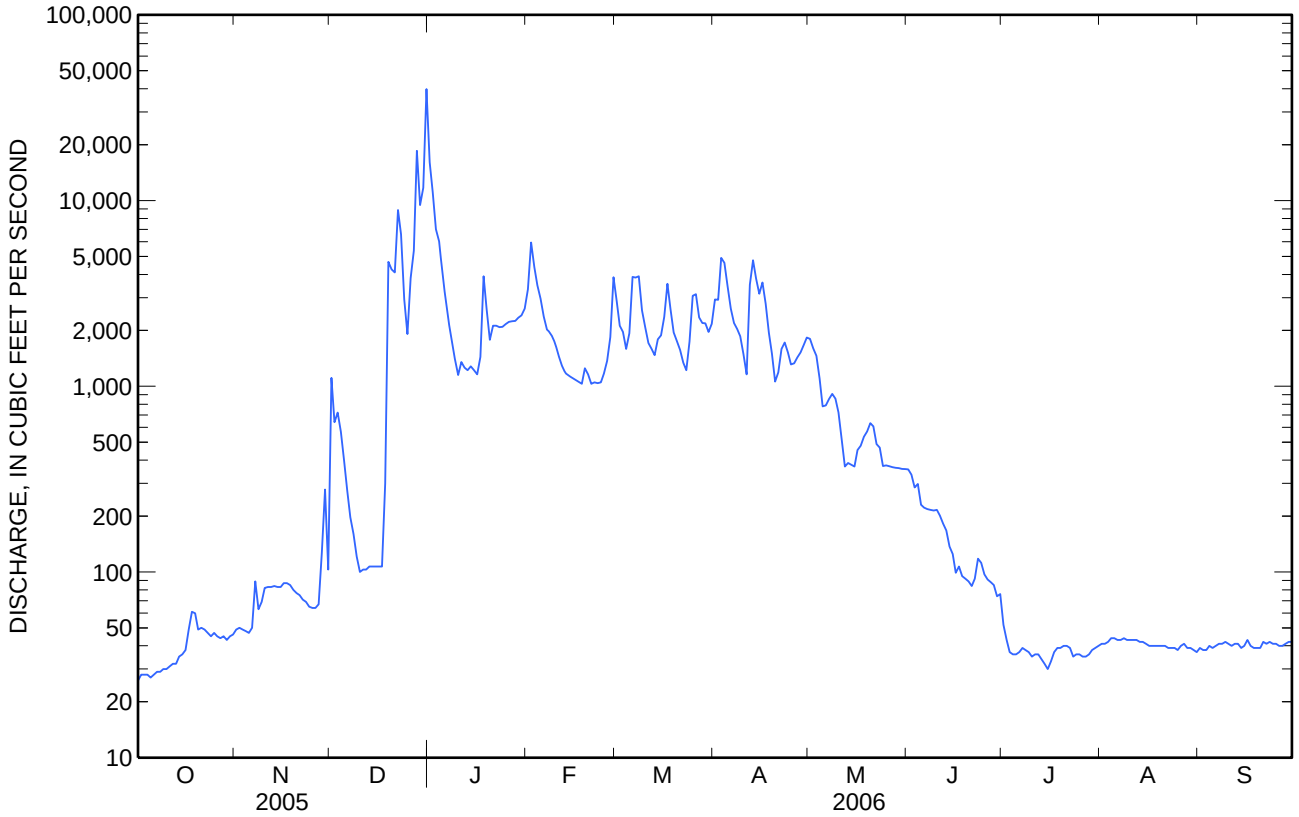
SUMMARY STATISTICS

	Calendar Year 2005		Water Year 2006		Water Years 1923 - 2006	
Annual total	300,229		450,840			
Annual mean	823		1,235		468	
Highest annual mean					1,546	1983
Lowest annual mean					3.46	1977
Highest daily mean	39,800	Dec 31	39,800	Dec 31	49,500	Dec 22, 1964
Lowest daily mean	22	Jul 23	26	Oct 1	0.00	Sep 13, 1953
Annual seven-day minimum	25	Sep 10	28	Oct 1	0.16	Dec 5, 1965
Maximum peak flow			55,400	Dec 31	64,100	Dec 22, 1964
Maximum peak stage			34.74	Dec 31	34.74	Dec 31, 2005
Annual runoff (ac-ft)	595,500		894,200		338,900	
10 percent exceeds	1,650		3,000		1,130	
50 percent exceeds	152		201		11	
90 percent exceeds	28		38		2.0