

11477000 Eel River at Scotia, CA

Eel River Basin

LOCATION.--Lat 40°29'30", long 124°05'55" referenced to North American Datum of 1927, in SW ¼ sec.5, T.1 N., R.1 E., Humboldt County, CA, Hydrologic Unit 18010105, in Humboldt meridian, near center of span in left pier of Eagle Prairie Bridge (formerly A.S. Murphy Memorial Bridge) on State Highway 283, 0.5 mi north of Scotia, and 6 mi upstream from Van Duzen River.

DRAINAGE AREA.--3,113 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1910 to current year. Monthly discharge only for some periods and yearly estimates for 1915-16, published in WSP 1315-B.

CHEMICAL DATA: Water years 1952-75, 1977, 1979-95.

BIOLOGICAL DATA: Water years 1979-81.

SPECIFIC CONDUCTANCE: Water years 1979-81.

WATER TEMPERATURE: Water years 1958-82.

SEDIMENT DATA: Water years 1955-95, 1998.

REVISED RECORDS.--WSP 931: 1938. WSP 1315-B: 1914-15 (instantaneous maximum discharge), 1917 (instantaneous maximum discharge), 1927-28 (instantaneous maximum discharge), 1936 (instantaneous maximum discharge), 1939 (instantaneous maximum discharge). WSP 1345: Drainage area. WSP 1715: 1959.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 35.50 ft above NGVD of 1929. Prior to Dec. 12, 1940, nonrecording gage at same site and datum.

REMARKS.--Records good below 30,000 ft³/s and fair above. Low flow slightly regulated by Lake Pillsbury (station 11470000) 138 mi upstream since December 1921 and by diversion through Potter Valley Powerhouse Intake (station 11471000). See schematic diagram of Eel River Basin available from the California Water Science Center.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 752,000 ft³/s, Dec. 23, 1964, gage height, 72.0 ft, from floodmarks, from rating curve extended above 220,000 ft³/s, on basis of maximum flow at upstream stations; minimum observed, 12 ft³/s, Aug. 12-14, 1924.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 72,000 ft³/s and (or) maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jan 21	1445	85,200	30.38
Mar 28	1215	*98,000	*32.34

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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	115	281	921	1,230	4,160	8,330	76,500	5,590	1,240	503	164	89
2	118	271	809	1,210	3,970	12,000	47,200	5,260	1,190	484	157	83
3	150	271	729	903	3,610	8,090	31,200	4,810	1,150	461	148	80
4	220	267	658	753	3,190	6,400	23,800	4,800	1,140	444	143	79
5	550	276	617	672	2,870	5,830	19,600	4,900	1,220	430	139	77
6	847	357	583	619	2,590	5,300	16,200	4,290	1,210	413	133	74
7	952	420	557	587	2,490	4,670	13,300	3,910	1,250	399	126	73
8	845	386	529	558	2,970	4,040	11,400	3,660	1,170	383	123	72
9	679	364	507	532	3,400	3,550	9,860	3,480	1,060	362	123	69
10	616	362	492	518	2,920	3,270	8,780	3,370	990	340	120	69
11	934	335	475	502	3,040	3,240	9,850	3,230	943	326	114	68
12	1,950	320	457	488	3,440	3,300	14,600	3,010	931	307	113	68
13	1,600	298	447	474	5,440	8,160	31,200	2,830	870	292	108	68
14	1,040	286	439	461	6,760	21,800	29,800	2,700	830	280	103	67
15	771	287	466	449	5,980	17,600	20,900	2,620	788	267	101	67
16	644	286	467	442	4,810	32,500	16,100	2,540	758	257	98	66
17	558	288	464	433	4,050	56,400	13,700	2,420	726	270	94	63
18	503	331	455	439	3,580	33,700	12,000	2,290	691	296	91	63
19	452	399	444	2,240	3,270	21,100	10,900	2,150	656	299	87	62
20	415	469	434	19,700	3,030	15,100	10,700	2,230	628	275	84	61
21	391	539	428	66,700	2,790	12,800	11,000	2,330	600	255	81	60
22	370	1,020	419	32,100	2,590	16,000	10,800	2,110	591	246	79	61
23	352	2,240	407	35,600	2,410	16,100	10,600	1,940	628	240	80	61
24	329	4,220	402	24,700	2,270	12,500	9,940	1,820	622	228	79	60
25	320	6,130	394	13,800	2,180	11,700	8,850	1,730	594	218	79	60
26	305	3,450	383	12,200	2,050	10,900	8,400	1,650	596	207	77	62
27	291	2,220	379	13,300	1,930	25,100	8,700	1,570	585	197	79	65
28	279	1,600	378	9,290	1,880	84,900	7,260	1,480	562	188	80	66
29	275	1,260	383	6,740	4,210	53,100	6,350	1,420	540	184	78	65
30	301	1,060	457	5,410	---	73,900	5,890	1,360	526	179	91	64
31	293	---	788	4,550	---	76,000	---	1,300	---	171	94	---
Total	17,465	30,293	15,768	257,600	97,880	667,380	515,380	88,800	25,285	9,401	3,266	2,042
Mean	563	1,010	509	8,310	3,375	21,530	17,180	2,865	843	303	105	68.1
Max	1,950	6,130	921	66,700	6,760	84,900	76,500	5,590	1,250	503	164	89
Min	115	267	378	433	1,880	3,240	5,890	1,300	526	171	77	60
Ac-ft	34,640	60,090	31,280	510,900	194,100	1,324,000	1,022,000	176,100	50,150	18,650	6,480	4,050

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 2012, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	643	4,708	14,230	19,720	19,510	14,630	9,102	3,847	1,321	350	151	138
Max	10,910	38,690	84,420	69,950	77,680	51,150	39,190	14,000	7,511	1,182	422	735
(WY)	(1963)	(1974)	(1965)	(1970)	(1958)	(1983)	(1982)	(2005)	(1993)	(2005)	(1983)	(1986)
Min	50.5	59.3	168	659	389	946	703	278	75.7	25.1	22.1	19.4
(WY)	(1930)	(1930)	(1977)	(1977)	(1920)	(1924)	(1924)	(1924)	(1924)	(1924)	(1924)	(1924)

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SUMMARY STATISTICS

	Calendar Year 2011		Water Year 2012		Water Years 1911 - 2012	
Annual total	2,504,328		1,730,560			
Annual mean	6,861		4,728		7,309	
Highest annual mean					17,300	1983
Lowest annual mean					563	1977
Highest daily mean	78,700	Mar 25	84,900	Mar 28	648,000	Dec 23, 1964
Lowest daily mean	114	Sep 14	60	Sep 21	12	Aug 12, 1924
Annual seven-day minimum	115	Sep 21	61	Sep 19	14	Aug 10, 1924
Maximum peak flow			98,000	Mar 28	752,000	Dec 23, 1964
Maximum peak stage			32.34	Mar 28	^a 72.00	Dec 23, 1964
Instantaneous low flow					10	Aug 12, 1924
Annual runoff (ac-ft)	4,967,000		3,433,000		5,295,000	
10 percent exceeds	17,200		12,300		18,200	
50 percent exceeds	1,690		628		1,410	
90 percent exceeds	167		81		103	

^a From floodmarks.

