Water-Data Report 2008

11481000 Mad River near Arcata, CA

Mad River Basin

LOCATION.--Lat 40°54′36″, long 124°03′34″ (corrected) referenced to North American Datum of 1927, in NW ¼ NW ¼ sec.15, T.6 N., R.1 E., Humboldt County, CA, Hydrologic Unit 18010102, Humboldt meridian, on right bank, 100 ft upstream from bridge on U.S. Highway 299, 1.0 mi downstream from Warren Creek, and 2.8 mi northeast of Arcata.

DRAINAGE AREA.--485 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1910 to September 1913, August 1950 to current year. Monthly discharge only for some periods, published in WSP 1315-B.
CHEMICAL ANALYSES: Water years 1959-81.
WATER TEMPERATURE: Water years 1958-79.
TURBIDITY: Water years 1971-74.
SEDIMENT DATA: Water years 1955-74.

REVISED RECORDS.--WSP 2129: 1965 (instantaneous maximum discharge).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 10.79 ft above NGVD of 1929. December 1910 to September 1913, nonrecording gage at site 0.1 mi upstream at different datum. Aug. 15, 1950, to July 23, 1956, water-stage recorder at site 0.6 mi upstream at datum 11.00 ft higher. July 24, 1956, to Aug. 10, 1992, water-stage recorder at different datums, at present site.

REMARKS.--Records fair. Flow regulated by Ruth Reservoir (station 11480400), 68 mi upstream, beginning in July 1961. Water is diverted 0.5 mi upstream from station for municipal supply and industrial use in Humboldt Bay area.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 81,000 ft^3/s, Dec. 22, 1964, gage height, 30.7 ft, prior datum, from high-water profile and flood-routing study; minimum daily, 0.10 ft^3/s, Aug. 29, 1977.

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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	69	136	186	1,600	7,690	2,680	1,150	727	208	83	21	46
2	71	131	178	1,280	5,860	2,360	1,060	675	201	79	14	42
3	64	123	246	1,490	10,700	1,970	986	619	200	78	18	39
4	67	120	2,810	11,800	6,640	1,710	933	607	211	76	27	38
5	70	116	1,440	9,720	4,580	1,530	897	600	194	67	26	40
6	72	110	1,030	5,770	3,700	1,370	901	587	187	67	24	35
7	65	106	1,600	4,680	3,210	1,250	891	535	184	68	24	45
8	66	106	1,130	4,800	2,980	1,180	805	505	179	62	23	42
9	68	104	802	5,550	2,730	1,130	712	501	169	58	20	44
10	95	107	633	6,310	2,740	1,090	666	559	160	54	24	40
11	100	120	532	5,720	2,730	1,140	629	535	153	54	27	40
12	89	141	445	4,710	3,000	1,110	582	509	146	53	25	37
13	90	446	384	4,440	3,320	1,800	622	479	140	52	26	35
14	86	454	344	3,670	2,950	2,890	656	439	130	63	24	39
15	86	307	325	3,100	2,500	4,450	641	409	125	67	23	43
16	152	258	321	2,640	2,320	3,250	559	403	121	66	25	41
17	151	318	392	2,220	2,300	2,370	494	378	113	63	34	43
18	162	351	1,470	1,870	2,270	2,070	493	338	112	55	42	42
19	2,460	1,000	2,450	1,710	2,260	2,420	482	318	114	43	44	43
20	2,020	924	5,400	1,610	2,200	2,740	468	299	103	41	45	44
21	994	549	2,750	1,490	1,970	2,110	453	304	98	40	56	47
22	535	408	1,700	1,320	1,980	1,780	549	277	101	38	56	45
23	366	327	2,120	1,160	1,880	1,570	1,700	260	105	36	48	43
24	277	276	3,660	1,050	3,240	1,430	1,390	252	96	32	45	39
25	232	243	2,300	956	6,710	1,360	1,180	251	93	33	47	39
26	206	221	1,730	1,570	4,540	1,340	972	242	94	30	46	37
27	180	237	1,420	2,310	3,530	1,410	880	237	89	29	42	37
28	162	230	1,390	3,000	2,960	1,330	773	237	83	31	41	40
29	151	209	2,380	3,170	2,630	1,790	770	238	79	26	39	41
30	143	194	3,620	3,260	---	1,470	797	225	85	27	40	40
31	141	---	2,180	9,480	---	1,260	---	214	---	26	43	---
Total	9,490	8,372	47,368	113,456	106,120	57,360	24,091	12,759	4,073	1,597	1,039	1,226
Mean	306	279	1,528	3,660	3,659	1,850	803	412	136	51.5	33.5	40.9
Max	2,460	1,000	5,400	11,800	10,700	4,450	1,700	727	211	83	56	47
Min	64	104	178	956	1,880	1,090	453	214	79	26	14	35
Ac-ft	18,820	16,610	93,950	225,000	210,500	113,800	47,780	25,310	8,080	3,170	2,060	2,430

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 1960, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	313	1,081	2,997	4,588	4,164	2,438	1,716	1,167	358	97.2	40.3	39.3
Max	2,303	2,903	9,335	9,175	9,830	5,054	3,450	2,669	1,311	210	68.2	128
(WY)	(1951)	(1954)	(1956)	(1953)	(1958)	(1957)	(1958)	(1953)	(1953)	(1953)	(1953)	(1912)
Min	22.0	32.0	136	852	1,232	1,028	489	277	104	36.6	19.2	18.2
(WY)	(1953)	(1960)	(1960)	(1960)	(1955)	(1955)	(1951)	(1954)	(1959)	(1959)	(1959)	(1951)

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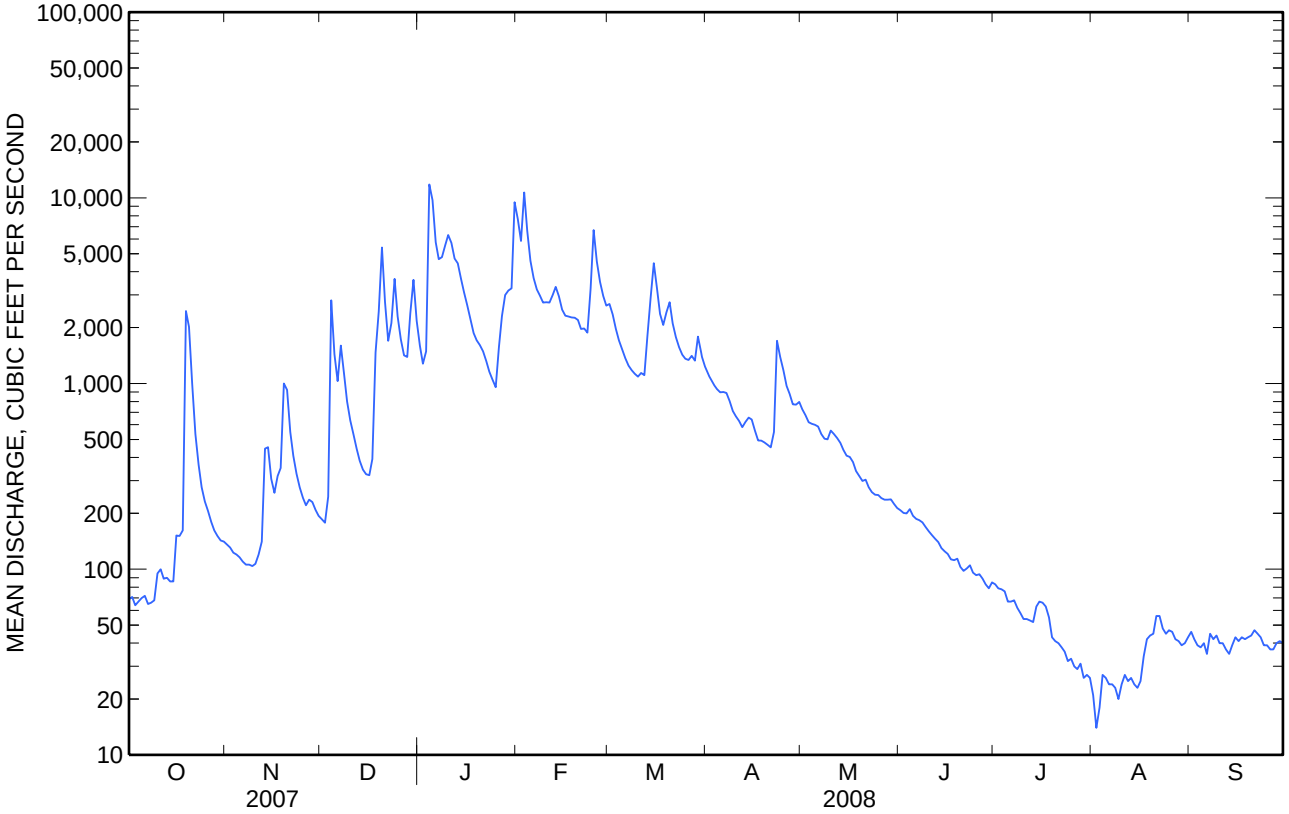
SUMMARY STATISTICS

	Water Years 1911 - 1960	
Annual mean	1,573	
Highest annual mean	2,377	1958
Lowest annual mean	943	1955
Highest daily mean	63,100	Dec 22, 1955
Lowest daily mean	17	Sep 8, 1951
Annual seven-day minimum	17	Sep 4, 1959
Maximum peak flow	77,800	Dec 22, 1955
Maximum peak stage	27.30	Dec 22, 1955
Annual runoff (ac-ft)	1,139,000	
10 percent exceeds	4,010	
50 percent exceeds	400	
90 percent exceeds	31	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 2008, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	184	1,138	2,864	3,544	3,091	2,804	1,770	717	234	61.9	44.3	59.7
Max	2,255	6,671	10,400	8,847	9,796	7,150	6,253	2,540	1,721	206	123	392
(WY)	(1963)	(1974)	(1965)	(1970)	(1986)	(1975)	(1963)	(2005)	(1993)	(2005)	(1983)	(1986)
Min	21.3	52.6	29.8	135	138	194	165	122	31.2	8.40	7.04	15.0
(WY)	(1993)	(1994)	(1977)	(1977)	(1977)	(1988)	(1988)	(1968)	(1974)	(1977)	(1977)	(1992)

SUMMARY STATISTICS

	Calendar Year 2007		Water Year 2008		Water Years 1963 - 2008	
Annual total	368,718		386,951			
Annual mean	1,010		1,057		1,370	
Highest annual mean					2,478	1974
Lowest annual mean					151	1977
Highest daily mean	11,000	Feb 22	11,800	Jan 4	58,000	Dec 22, 1964
Lowest daily mean	25	Aug 30	14	Aug 2	0.10	Aug 29, 1977
Annual seven-day minimum	26	Aug 27	22	Aug 1	0.63	Aug 23, 1977
Maximum peak flow			22,700	Jan 4	81,000	Dec 22, 1964
Maximum peak stage			16.37	Jan 4	30.70	Dec 22, 1964
Annual runoff (ac-ft)	731,400		767,500		992,200	
10 percent exceeds	3,050		2,950		3,770	
50 percent exceeds	258		306		284	
90 percent exceeds	35		39		33	

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