

UPPER MISSISSIPPI RIVER MAIN STEM

05376800 WHITEWATER RIVER NEAR BEAVER, MN

LOCATION.--Lat 4409'03", long 92 00'17", in SW 1 / 4 SE 1 / 4 sec. 15, T. 108 N., R. 10 W., Winona County, Hydrologic Unit 07040003, on left bank at downstream side of bridge on County Road No. 30, 0.5 mi above mouth of Beaver Creek, and 4.7 mi north of Elba.

DRAINAGE AREA.--271 mi².

PERIOD OF RECORD.--May 1975 to September 1985, May 1991 to July 1993, October 1993 to current.

GAGE.--Water-stage recorder. Datum of gage is 692.01 ft above mean sea level. Prior to Oct. 1, 1976, at datum 2.00 ft higher.

REMARKS.--Records good except those for estimated daily discharges, which are poor.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1939, 19,200 ft³/s, June 21, 1974, gage height, 13.00 ft, present datum, determined by contracted opening measurement.

EXTREMES FOR CURRENT RECORD.--Peak discharge greater than base discharge of 2,000 ft³/s and maximum (*).

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Aug. 17	2230	*2230	*7.63	(No other peak greater than base discharge.)			

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e145	144	128	123	125	294	429	157	e141	e420	152	219
2	e141	143	128	125	121	262	384	158	e140	e360	151	213
3	e138	142	130	126	118	248	337	161	e139	e370	158	209
4	136	140	131	127	118	233	304	156	e139	e350	168	205
5	133	138	130	e131	116	219	284	153	e140	e320	207	200

6	131	136	127	e128	115	209	269	151	139	e300	208	195
7	132	136	127	e122	119	200	260	158	137	e350	206	192
8	134	135	127	e119	118	199	252	206	135	e550	273	186
9	139	136	127	e110	119	188	236	197	144	e400	292	184
10	130	135	129	e109	118	157	225	171	147	284	415	183
11	134	134	128	e111	118	162	221	161	155	256	242	180
12	139	133	127	e112	117	163	219	158	177	239	213	178
13	200	132	125	e112	117	166	220	155	160	226	198	176
14	203	135	126	e111	116	158	218	153	150	213	190	176
15	175	134	127	e110	118	158	204	153	147	201	182	174
16	165	131	128	e110	124	156	216	164	167	191	174	167
17	158	127	127	e110	352	155	214	155	165	185	1060	163
18	156	132	128	e113	610	162	195	151	154	179	846	165
19	154	129	128	e116	596	157	190	150	185	196	474	166
20	151	129	126	e116	511	153	188	149	171	241	439	176
21	148	128	123	e116	369	151	184	147	154	415	418	163
22	146	129	126	e116	292	152	178	146	148	277	363	158
23	146	127	127	e117	286	163	172	146	144	226	345	157
24	138	122	126	e118	302	170	169	155	154	208	307	168
25	144	130	124	e118	247	180	165	159	e600	194	282	167
26	142	129	122	e119	240	238	166	151	e450	185	265	171
27	135	129	118	e120	338	252	160	147	e560	179	258	169
28	142	130	125	e120	360	267	156	147	e1050	171	257	163
29	142	129	124	e120	---	308	156	e144	e1000	164	246	169
30	142	129	124	e120	---	341	157	e143	e500	159	233	176
31	142	---	118	120	---	342	---	e143	---	154	224	---
TOTAL	4561	3983	3911	3645	6400	6363	6728	4845	7792	8163	9446	5368
MEAN	147	133	126	118	229	205	224	156	260	263	305	179
MAX	203	144	131	131	610	342	429	206	1050	550	1060	219

MIN	130	122	118	109	115	151	156	143	135	154	151	157
AC-FT	9050	7900	7760	7230	12690	12620	13340	9610	15460	16190	18740	10650
CFSM	.54	.49	.47	.43	.84	.76	.83	.58	.96	.97	1.12	.66
IN.	.63	.55	.54	.50	.88	.87	.92	.67	1.07	1.12	1.30	.74

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 1998, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	141	153	139	124	152	274	203	179	177	221	157	144
MAX	223	288	235	188	236	512	282	255	260	973	305	230
(WY)	1994	1992	1992	1980	1985	1985	1992	1984	1998	1978	1998	1978
MIN	88.0	84.8	77.0	80.6	59.7	84.2	92.9	89.6	112	92.1	87.1	85.5
(WY)	1978	1978	1977	1978	1978	1978	1977	1977	1976	1977	1977	1977

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1975 - 1998		
ANNUAL TOTAL	59930			71205			
ANNUAL MEAN	164			195		170a	
HIGHEST ANNUAL MEAN						203	1984
LOWEST ANNUAL MEAN						103	1977
HIGHEST DAILY MEAN	1190	Mar 22	1060	Aug 17	8760	Jul 6	1978
LOWEST DAILY MEAN	100	Jan 29	109	Jan 10	53	Feb 20	1978
ANNUAL SEVEN-DAY MINIMUM	105	Jan 26	111	Jan 9	53	Feb 20	1978
INSTANTANEOUS PEAK FLOW				2230	Aug 17	15400	Ju 6 1978
INSTANTANEOUS PEAK STAGE				7.63	Aug 17	12.88	Jul 6 1978
INSTANTANEOUS LOW FLOW				97b	Dec 31	53	Feb 20 1978

ANNUAL RUNOFF (AC-FT)	118900		141200		123000		
ANNUAL RUNOFF (CFSM)	.61		.72		.63		
ANNUAL RUNOFF (INCHES)	8.23		9.77		8.51		
10 PERCENT EXCEEDS	208		307		239		
50 PERCENT EXCEEDS	138		157		144		
90 PERCENT EXCEEDS	111		120		94		

a Median of annual mean discharges is 180 ft³/s.

b Minimum observed, result of freezeup.

