

WHITEWATER RIVER BASIN

05376800 WHITEWATER RIVER NEAR BEAVER, MN

LOCATION.--Lat 44° 00'19", long 92° 00'19", in SW¼ SE¼ 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 (*).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
JUL	AUG	SEP							
1	119	133	146	e110	e107	111	364	202	147
130	177	e200							
2	114	131	138	e120	e110	111	346	193	144
128	169	e210							
3	111	129	136	e124	112	112	324	195	143
127	196	e190							
4	117	133	131	e136	119	120	304	189	143
129	189	e173							
5	117	136	136	e140	115	116	292	183	147
126	162	e162							
6	114	134	135	e123	113	111	290	175	152
124	155	e156							
7	114	133	130	e128	112	109	256	174	149
122	152	e140							
8	114	130	130	e125	111	110	240	192	145
128	149	e130							
9	122	129	127	e122	108	115	232	185	141

126	147	e162							
10	120	127	128	e120	112	184	226	173	139
123	145	e138							
11	120	125	128	e118	110	493	222	171	138
120	143	e125							
12	121	123	128	e117	107	490	217	168	138
125	150	e115							
13	121	124	127	e116	104	296	210	165	137
125	151	e108							
14	e109	121	127	e115	112	193	201	167	134
140	152	e106							
15	e106	131	e131	e114	105	183	196	165	138
138	159	e105							
16	e112	176	e124	e113	108	178	191	160	140
127	161	e104							
17	e122	247	e125	e112	106	173	186	158	136
135	e160	e190							
18	124	214	e116	e111	109	161	191	158	134
141	e150	e150							
19	123	169	e116	e111	110	154	215	158	134
168	e157	e130							
20	122	159	e110	e111	109	159	208	154	135
157	e209	e123							
21	122	153	e107	e119	110	181	194	151	139
150	e200	e121							
22	130	148	e107	e120	109	1190	187	150	136
147	e182	e132							
23	156	148	e108	120	106	929	181	149	133
145	e167	e126							
24	153	145	e110	123	101	562	174	157	132
142	e157	e122							
25	144	131	e105	111	107	375	169	168	131
386	e150	e119							
26	136	e120	e103	e110	110	349	165	155	127
489	e140	e117							
27	131	e125	e100	e107	109	771	165	150	124
307	e135	e116							
28	128	e130	e98	e104	108	884	167	149	126
254	e130	e118							
29	137	139	e97	e100	---	608	164	153	145
224	e125	e118							
30	142	147	e100	e100	---	461	176	153	141
201	e235	e110							
31	138	---	e104	e104	---	394	---	149	---
185	e220	---							
TOTAL	3859	4290	3708	3604	3059	10383	6653	5169	4148
5269	5074	4116							
MEAN	124	143	120	116	109	335	222	167	138
170	164	137							
MAX	156	247	146	140	119	1190	364	202	152

489	235	210							
MIN	106	120	97	100	101	109	164	149	124
120	125	104							
AC-FT	7650	8510	7350	7150	6070	20590	13200	10250	8230
10450	10060	8160							
CFSM	.46	.53	.44	.43	.40	1.24	.82	.62	.51
.63	.60	.51							
IN.	.53	.59	.51	.49	.42	1.43	.91	.71	.57
.72	.70	.57							

o e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 1997, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
JUL	AUG	SEP							
MEAN	141	155	139	125	147	278	202	180	173
218	148	142							
MAX	223	288	235	188	236	512	282	255	240
973	205	230							
(WY)	1994	1992	1992	1980	1985	1985	1992	1984	1980
1978	1979	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 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS	
1975 - 1997						
ANNUAL TOTAL	64056		59332			
ANNUAL MEAN	175		163		168a	
HIGHEST ANNUAL MEAN						
203	1984					
LOWEST ANNUAL MEAN						
103	1977					
HIGHEST DAILY MEAN	3030	Mar 25	1190	Mar 22	8760	
Jul 6 1978						
LOWEST DAILY MEAN	97	Dec 29	97	Dec 29	53	Feb
20 1978						
ANNUAL SEVEN-DAY MINIMUM	101	Dec 25	101	Dec 25	53	Feb
20 1978						
INSTANTANEOUS PEAK FLOW			1420	Mar 22	15400	
Jul 6 1978						
INSTANTANEOUS PEAK STAGE			4.90	Mar 22	12.88	
Jul 6 1978						
INSTANTANEOUS LOW FLOW			77b	Dec 19	53	Feb
20 1978						
ANNUAL RUNOFF (AC-FT)	127100		117700		121600	
ANNUAL RUNOFF (CFSM)	.65		.60		.62	
ANNUAL RUNOFF (INCHES)	8.79		8.14		8.42	
10 PERCENT EXCEEDS	232		210		236	
50 PERCENT EXCEEDS	140		136		143	

90 PERCENT EXCEEDS

111

109

94

- a Median of annual mean discharges is 172 ft³/s.

b Minimum recorded, result of freezeup.