

05061000 BUFFALO RIVER NEAR HAWLEY, MN

LOCATION.--Lat 46°51'00", long 96°19'45", in NW¹/₄SE¹/₄ sec. 14, T.139 N., R.45 W., Clay County, Hydrologic Unit 09020106, near left downstream end of bridge on farm lane, 2 mi southwest of Hawley.

DRAINAGE AREA.--325 mi².

PERIOD OF RECORD.--March 1945 to current year. Water year 1981 (annual maximum only); March 1982 to September 1985 (no winter records).

REVISED RECORDS.--WSP 1308: 1945-46(M), 1948(M).

GAGE.--Water-stage recorder. Datum of gage is 1,111.91 ft above sea level (NGVD of 1929). Prior to Jan. 29, 1953, nonrecording gage at bridge 1,800 ft upstream at datum 3.17 ft lower.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, about 11.3 ft, present datum, spring of 1921, from information by local resident.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	30	e36	e27	e26	50	428	52	384	52	29	25
2	24	29	e35	e26	e26	47	352	50	415	50	32	23
3	24	29	e34	e26	e26	48	302	52	403	50	28	21
4	23	28	e34	e25	e27	46	249	53	357	50	26	30
5	23	29	e33	e25	e27	43	220	51	314	51	25	78
6	27	e26	32	e25	e28	41	203	49	267	64	34	149
7	42	e26	32	e25	e28	40	168	47	232	66	51	164
8	41	e26	32	e26	e28	39	148	44	204	65	42	135
9	35	28	e32	e26	e28	42	135	41	185	60	41	119
10	33	28	e28	e26	e29	61	125	39	172	58	38	110
11	35	28	e22	e26	e29	e70	117	42	155	77	36	101
12	33	29	e22	e26	e29	e73	109	120	142	76	33	92
13	36	31	e23	e27	e29	57	102	346	126	81	31	83
14	38	30	e25	e27	e29	53	96	384	114	64	30	76
15	39	46	e26	e27	e29	53	90	335	110	59	28	78
16	58	61	e26	e27	e30	53	88	270	106	67	28	91
17	95	61	e26	e27	e30	52	92	237	101	60	26	106
18	94	59	e27	e27	e31	55	98	226	95	56	25	95
19	93	57	e28	e27	e32	83	107	212	88	53	29	88
20	85	54	e28	e27	e34	e130	105	203	82	50	30	87
21	66	49	e29	e27	e35	110	101	190	76	47	28	112
22	34	e42	e29	e27	e35	125	95	182	73	44	27	167
23	30	e36	e30	e27	e36	151	86	175	70	42	26	160
24	28	e32	e30	e27	e34	220	77	168	68	40	27	190
25	28	e31	e31	e27	33	330	71	166	64	38	27	216
26	28	e32	e31	e26	31	e580	66	166	63	41	28	212
27	29	e34	e31	e26	31	e790	62	155	61	35	27	187
28	32	e36	e31	e26	33	e760	59	143	59	36	25	184
29	32	e36	e30	e26	35	e680	57	142	56	34	25	180
30	33	e36	e29	e26	---	633	54	222	54	32	25	173
31	31	---	e28	e25	---	543	---	300	---	31	27	---
TOTAL	1,272	1,099	910	815	878	6,058	4,062	4,862	4,696	1,629	934	3,532
MEAN	41.0	36.6	29.4	26.3	30.3	195	135	157	157	52.5	30.1	118
MAX	95	61	36	27	36	790	428	384	415	81	51	216
MIN	23	26	22	25	26	39	54	39	54	31	25	21
AC-FT	2,520	2,180	1,800	1,620	1,740	12,020	8,060	9,640	9,310	3,230	1,850	7,010
CFSM	0.13	0.11	0.09	0.08	0.09	0.60	0.42	0.48	0.48	0.16	0.09	0.36
IN.	0.15	0.13	0.10	0.09	0.10	0.69	0.46	0.56	0.54	0.19	0.11	0.40

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 2004, BY WATER YEAR (WY)

MEAN	44.8	45.6	30.9	24.7	27.5	94.0	269	140	119	113	52.7	44.1
MAX	151	298	127	70.2	170	434	1,036	383	589	784	472	192
(WY)	(1974)	(2001)	(1999)	(2001)	(1998)	(1966)	(1997)	(1998)	(2000)	(1993)	(1955)	(1999)
MIN	11.6	12.2	10.6	9.94	9.88	15.0	33.3	21.5	12.7	10.1	5.87	8.52
(WY)	(1979)	(1977)	(1977)	(1962)	(1949)	(1969)	(1981)	(1977)	(1977)	(1976)	(1976)	(1976)

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SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1945 - 2004	
ANNUAL TOTAL	22,097		30,747			
ANNUAL MEAN	60.5		84.0		84.4	
HIGHEST ANNUAL MEAN					188	1998
LOWEST ANNUAL MEAN					16.7	1977
HIGHEST DAILY MEAN	424	Jun 26	790	Mar 27	a2,360	Apr 6, 1997
LOWEST DAILY MEAN	17	Sep 6	21	Sep 3	3.2	Aug 25, 1976
ANNUAL SEVEN-DAY MINIMUM	17	Sep 3	24	Dec 11	4.3	Aug 22, 1976
MAXIMUM PEAK FLOW			b790	Mar 27	a2,360	Apr 6, 1997
MAXIMUM PEAK STAGE			c7.60	Mar 30	10.86	Jun 22, 2000
INSTANTANEOUS LOW FLOW			19	Sep 4	2.8	Aug 26, 1977
ANNUAL RUNOFF (AC-FT)	43,830		60,990		61,160	
ANNUAL RUNOFF (CFSM)	0.186		0.258		0.260	
ANNUAL RUNOFF (INCHES)	2.53		3.52		3.53	
10 PERCENT EXCEEDS	116		188		192	
50 PERCENT EXCEEDS	35		42		35	
90 PERCENT EXCEEDS	23		26		14	

- a Estimated daily discharge, backwater from ice.
- b Estimated daily-mean.
- c Maximum recorded, discharge, 659 cfs; known to have been higher during period of no record on Mar. 27.
- e Estimated.

