

## 05061000 BUFFALO RIVER NEAR HAWLEY, MN

LOCATION.--Lat 46°51'00", long 96°19'45", in NW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> 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 mi<sup>2</sup>.

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 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	176	461	e117	e56	e53	e48	639	123	195	276	82	89
2	172	470	e113	e55	e54	e45	578	113	186	274	79	81
3	162	465	e119	e53	e55	e45	524	110	215	271	79	80
4	153	457	e104	e51	e57	44	450	104	217	290	75	79
5	144	427	e99	e50	e58	46	389	98	240	257	70	80
6	138	388	e95	e50	e57	e50	346	94	349	231	65	89
7	131	351	e92	e50	e55	e68	313	95	387	205	63	99
8	125	320	e96	e49	e54	e57	285	107	403	188	61	87
9	120	302	e98	e49	e53	e56	262	113	431	174	65	81
10	122	283	e90	e49	e54	e62	241	117	437	165	70	79
11	117	269	e86	e48	e54	e56	242	122	419	157	87	76
12	111	248	e82	e48	e56	e51	295	115	446	151	84	73
13	110	229	e80	e48	e54	e49	354	116	461	144	78	79
14	110	212	e76	e47	e52	e49	360	127	475	135	73	75
15	103	204	e75	e46	e51	e49	332	128	501	130	70	71
16	103	199	e73	e45	e51	e49	301	127	467	127	65	68
17	104	192	e72	e45	e50	e50	272	120	423	119	101	63
18	103	187	e70	e45	e50	e50	248	117	384	116	115	59
19	102	181	e67	e46	e50	e51	229	117	341	107	132	66
20	101	177	e65	e46	e49	53	215	115	315	101	113	64
21	100	172	e62	e46	e49	57	203	113	293	101	100	60
22	100	168	e60	e46	e50	68	205	113	263	96	93	57
23	139	165	e59	e47	e53	94	197	114	236	93	91	54
24	256	143	e57	e47	e56	124	167	112	206	91	89	54
25	322	e150	e56	e48	e56	136	157	126	192	93	98	55
26	340	e140	e57	e48	e55	179	166	200	180	94	120	55
27	345	e140	e57	e49	e58	240	154	252	171	97	109	53
28	344	e130	e57	e50	e54	339	146	247	162	93	100	51
29	332	e126	e57	e50	---	460	134	245	160	91	96	51
30	354	e122	e57	e51	---	544	125	239	230	87	95	49
31	418	---	e57	e52	---	622	---	220	---	84	94	---
TOTAL	5,557	7,478	2,405	1,510	1,498	3,891	8,529	4,259	9,385	4,638	2,712	2,077
MEAN	179	249	77.6	48.7	53.5	126	284	137	313	150	87.5	69.2
MAX	418	470	119	56	58	622	639	252	501	290	132	99
MIN	100	122	56	45	49	44	125	94	160	84	61	49
AC-FT	11,020	14,830	4,770	3,000	2,970	7,720	16,920	8,450	18,620	9,200	5,380	4,120
CFSM	0.55	0.77	0.24	0.15	0.16	0.39	0.87	0.42	0.96	0.46	0.27	0.21
IN.	0.64	0.86	0.28	0.17	0.17	0.45	0.98	0.49	1.07	0.53	0.31	0.24

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 2005, BY WATER YEAR (WY)

MEAN	47.1	49.2	31.8	25.1	28.0	94.5	269	140	122	114	53.2	44.5
MAX	179	298	127	70.2	170	434	1,036	383	589	784	472	192
(WY)	(2005)	(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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1945 - 2005	
ANNUAL TOTAL	42,906		53,939		85.6	
ANNUAL MEAN	117		148		16.7	
HIGHEST ANNUAL MEAN					188	1998
LOWEST ANNUAL MEAN					16.7	1977
HIGHEST DAILY MEAN	790	Mar 27	639	Apr 1	a2,360	Apr 6, 1997
LOWEST DAILY MEAN	21	Sep 3	44	Mar 4	3.2	Aug 25, 1976
ANNUAL SEVEN-DAY MINIMUM	24	Aug 28	46	Jan 15	4.3	Aug 22, 1976
MAXIMUM PEAK FLOW			658	Mar 31	a2,360	Apr 6, 1997
MAXIMUM PEAK STAGE			7.63	Mar 31	10.86	Jun 22, 2000
INSTANTANEOUS LOW FLOW			40	Mar 4	2.8	Aug 26, 1977
ANNUAL RUNOFF (AC-FT)	85,100		107,000		61,990	
ANNUAL RUNOFF (CFSM)	0.361		0.455		0.263	
ANNUAL RUNOFF (INCHES)	4.91		6.17		3.58	
10 PERCENT EXCEEDS	274		340		196	
50 PERCENT EXCEEDS	74		101		36	
90 PERCENT EXCEEDS	27		50		14	

a Estimated daily discharge, backwater from ice.  
 e Estimated.

