

## RED RIVER OF THE NORTH BASIN--Continued

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, WY 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 2000 TO SEPTEMBER 2001  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	79	155	140	e77	e66	e60	e140	497	284	95	76	31
2	75	266	e133	e76	e66	e64	e190	445	285	91	67	33
3	72	370	e126	e75	e66	e70	359	408	280	90	59	33
4	72	433	e120	e74	e66	e73	496	384	264	86	55	33
5	67	438	e115	e74	e66	e75	572	362	244	82	54	30
6	65	410	e115	e74	e65	e75	641	348	224	80	52	34
7	63	455	e115	e73	e65	e74	1090	329	209	78	49	44
8	65	539	e115	e72	e65	e73	1730	315	199	75	48	40
9	66	588	e110	e72	e64	e70	1730	297	199	72	55	40
10	65	598	e110	e71	e64	e65	1650	278	186	69	55	39
11	64	561	e110	e70	e64	e62	1510	280	189	66	51	36
12	65	505	e105	e70	e64	e61	1480	276	210	64	48	30
13	63	446	e105	e70	e64	e60	1540	260	219	62	46	29
14	82	387	e105	e70	e64	e60	1450	252	209	59	45	41
15	145	323	e100	e69	e64	e60	1360	244	206	57	47	43
16	173	e284	e98	e69	e63	e60	1210	230	187	58	48	41
17	164	e241	e96	e69	e63	e60	1030	216	173	63	47	41
18	150	e205	e95	e69	e63	e60	915	200	163	61	43	41
19	136	e167	e94	e69	e62	e60	794	193	154	64	41	43
20	125	e143	e93	e68	e62	e60	676	188	147	81	39	58
21	117	e135	e92	e68	e62	e60	593	197	146	114	38	55
22	109	e132	e91	e68	e61	e60	532	200	138	116	39	53
23	97	e135	e90	e68	e61	e60	497	220	127	103	38	50
24	90	e145	e89	e68	e61	e60	499	265	120	92	35	48
25	91	e154	e87	e68	e61	e60	563	286	115	81	33	45
26	113	e154	e85	e68	e61	e60	699	276	105	79	32	43
27	151	e149	e84	e68	e60	e60	821	289	98	72	32	43
28	172	e143	e83	e68	e60	e60	761	334	92	70	30	39
29	162	e143	e82	e68	---	e62	663	357	93	68	29	36
30	153	e143	e80	e67	---	e68	570	334	98	68	28	35
31	141	---	e78	e67	---	e90	---	304	---	82	28	---
TOTAL	3252	8947	3141	2177	1773	2002	26761	9064	5363	2398	1387	1207
MEAN	105	298	101	70.2	63.3	64.6	892	292	179	77.4	44.7	40.2
MAX	173	598	140	77	66	90	1730	497	285	116	76	58
MIN	63	132	78	67	60	60	140	188	92	57	28	29
AC-FT	6450	17750	6230	4320	3520	3970	53080	17980	10640	4760	2750	2390
CFSM	.32	.92	.31	.22	.19	.20	2.74	.90	.55	.24	.14	.12
IN.	.37	1.02	.36	.25	.20	.23	3.06	1.04	.61	.27	.16	.14

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 2001, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	44.3	45.1	30.2	24.0	27.0	93.0	277	141	116	112	53.2	42.6
MAX	151	298	127	70.2	170	434	1036	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

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR	FOR 2001 WATER YEAR	WATER YEARS 1945 - 2001
ANNUAL TOTAL	65085	67472	
ANNUAL MEAN	178	185	84.5
HIGHEST ANNUAL MEAN			188
LOWEST ANNUAL MEAN			16.7
HIGHEST DAILY MEAN	2070	1730	2360a
LOWEST DAILY MEAN	42	28	3.2
ANNUAL SEVEN-DAY MINIMUM	42	30	4.3
MAXIMUM PEAK FLOW		1820	2360a
MAXIMUM PEAK STAGE		10.17	10.86
INSTANTANEOUS LOW FLOW		27	2.8
ANNUAL RUNOFF (AC-FT)	129100	133800	61240
ANNUAL RUNOFF (CFSM)	.55	.57	.26
ANNUAL RUNOFF (INCHES)	7.45	7.72	3.53
10 PERCENT EXCEEDS	354	441	197
50 PERCENT EXCEEDS	112	80	35
90 PERCENT EXCEEDS	44	43	14

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

