

RED RIVER OF THE NORTH BASIN

05062500 WILD RICE RIVER AT TWIN VALLEY, MN

LOCATION.--Lat 4716'00", long 9614'40", in NW 1 / 4 NE 1 / 4 sec. 27, T.144 N., R.44, Norman County, Hydrologic Unit 09020108, on left bank 100 ft upstream from highway bridge, 0.8 mi northeast of Twin Valley, and 2 mi upstream from small tributary.

DRAINAGE AREA.--934 mi² (revised).

PERIOD OF RECORD.--June 1909 to September 1917, July 1930 to September 1983, October 1989 to current year. Monthly discharge only for some periods, published in WSP 1308. October 1983 to September 1989, annual maximums only.

REVISED RECORDS.--WSP 955: 1941. WSP 1308: 1915(M), 1917(M).

GAGE.--Water-stage recorder. Datum of gage is 1,008.16 ft above mean sea level (U.S. Army Corps of Engineers bench mark). June 1909 to September 1917, nonrecording gage at site 0.2 mi downstream at different datum. July 23, 1930 to Nov. 24, 1934, nonrecording gage at highway bridge 100 ft downstream from present site at present datum. Nov. 25, 1934 to Aug. 2, 1950, water-stage recorder 80 ft upstream from present site at present datum.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Flow slightly regulated by Rice Lake and many other small lakes above station.

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	91	212	e198	e148	e113	1390	406	322	351	1670	241	e92
2	89	225	e195	e148	e113	1230	397	311	336	1460	228	e95
3	92	223	e190	e146	e114	969	403	305	317	1300	218	100
4	94	198	e187	e143	e115	850	418	297	298	1160	209	89
5	95	217	e185	e140	e115	797	429	285	280	1030	201	82
6	101	225	e180	e137	e116	e760	437	270	263	905	192	76
7	106	223	e178	e133	e117	e670	470	261	254	860	182	70
8	110	257	e175	e130	e118	e605	510	264	246	874	173	64
9	138	276	e172	e127	e118	e550	546	264	235	885	165	60
10	129	286	e170	e125	e119	e500	539	254	225	896	159	57

11	138	277	e170	e122	e120	e460	512	252	227	855	151	54
12	146	e273	e169	e120	e122	e430	489	452	240	779	142	52
13	202	e270	e168	e118	e124	e390	513	951	314	697	134	59
14	271	e260	e168	e115	e128	e375	570	927	341	656	127	67
15	327	e250	e169	e114	e135	e365	584	848	375	714	120	70
16	317	e238	e172	e114	e140	e350	535	1700	375	673	113	66
17	294	e240	e170	e113	e150	e335	488	1870	334	610	106	61
18	273	e238	e165	e113	e160	e325	461	1490	833	554	100	57
19	263	e235	e160	e112	e170	e315	441	1220	1640	513	97	54
20	253	e230	e155	e112	e220	e310	425	981	2800	472	95	51
21	247	e220	e150	e112	e270	e305	411	958	3020	435	91	49
22	248	e210	e146	e111	e360	e302	408	836	2690	406	89	45
23	246	e208	e146	e111	e500	e303	402	707	2310	386	87	44
24	243	e210	e145	e110	e700	e305	410	540	1970	363	85	44
25	237	e215	e148	e110	e800	308	405	487	1720	345	81	45
26	232	e220	e150	e111	e1100	319	391	445	1530	328	77	46
27	226	e218	e150	e111	1530	331	384	411	2030	315	76	46
28	219	e212	e150	e112	1510	327	373	423	2750	302	77	43
29	213	e208	e150	e113	---	337	359	387	2390	287	80	43
30	213	e202	e148	e113	---	378	339	363	1890	269	e85	44
31	211	---	e148	e113	---	393	---	360	---	255	e88	---
TOTAL	6064	6976	5127	3757	9397	15584	13455	19441	32584	21254	4069	1825
MEAN	196	233	165	121	336	503	449	627	1086	686	131	60.8
MAX	327	286	198	148	1530	1390	584	1870	3020	1670	241	100
MIN	89	198	145	110	113	302	339	252	225	255	76	43
AC-FT	12030	13840	10170	7450	18640	30910	26690	38560	64630	42160	8070	3620
CFSM	.21	.25	.18	.13	.36	.54	.48	.67	1.16	.73	.14	.07
IN.	.24	.28	.20	.15	.37	.62	.54	.77	1.30	.85	.16	.07

e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1909 - 1998, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	92.1	83.2	55.6	43.1	43.4	144	605	433	317	255	109	86.3
MAX	614	488	201	132	336	828	2471	2259	1564	1929	1024	788
(WY)	1974	1972	1995	1996	1998	1995	1997	1950	1943	1909	1993	1973
MIN	6.10	9.31	6.00	4.00	4.00	12.8	73.8	30.9	26.4	8.04	3.02	2.96
(WY)	1933	1933	1933	1933	1933	1940	1931	1977	1977	1934	1932	1936

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1909 - 1998		
ANNUAL TOTAL	171275			139533			
ANNUAL MEAN	469			382		186a	
HIGHEST ANNUAL MEAN						500	1950
LOWEST ANNUAL MEAN						22.7	1977
HIGHEST DAILY MEAN	8200	Apr 6	3020	Jun 21	9100	Jul 22	1909
LOWEST DAILY MEAN	84	Sep 27	43	Sep 28	1.1	Aug 13	1932
ANNUAL SEVEN-DAY MINIMUM	89	Sep 23	44	Sep 23	1.3	Aug 11	1932
INSTANTANEOUS PEAK FLOW			3020	Jun 21	10000	Apr 6	1997
INSTANTANEOUS PEAK STAGE			10.37	Jun 21	20.00	Jul 22	1909
INSTANTANEOUS LOW FLOW			43	Sep 28	.50	Nov 4	1939
ANNUAL RUNOFF (AC-FT)	339700			276800		134700	
ANNUAL RUNOFF (CFSM)	.50			.41		.20	
ANNUAL RUNOFF (INCHES)	6.82			5.56		2.71	
10 PERCENT EXCEEDS	1080			857		483	

50 PERCENT EXCEEDS	198		235		70		
90 PERCENT EXCEEDS	104		89		15		

a Median of annual mean discharges is 160 ft³ / s.

