

RED RIVER OF THE NORTH BASIN--Continued

05051522 RED RIVER OF THE NORTH AT HICKSON, ND

LOCATION.--Lat 46°39'35", long 96 47'44", in SW¹/₄ sec. 19, T.137 N., R.48 W., Clay County, MN, Hydrologic Unit 09020104, on right bank 60 ft downstream from bridge on township road, and 1 mi southeast of Hickson, ND.

DRAINAGE AREA.--4,300 mi² (approximately).

PERIOD OF RECORD.--October 1975 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 877.06 ft above sea level, National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for periods of estimated daily discharges, which are poor. Flow regulated by Orwell Reservoir, flood storage capacity, 13,300 acre-ft at elevation 1,070 ft above mean sea level, adjustment of 1912; Mud Lake, flood storage capacity, 78,600 acre-ft at elevation 981 ft above mean sea level, adjustment of 1912; Lake Traverse, flood storage capacity, 75,100 acre-ft at elevation 981 ft above mean sea level, adjustment of 1912; and numerous other controlled lakes and ponds and several powerplants.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	371	466	566	e510	548	e450	1980	1000	1110	488	872	562
2	376	485	611	e530	578	e480	1800	1060	930	485	894	588
3	376	510	559	605	547	e510	1450	1030	815	477	877	605
4	396	523	520	640	519	e540	1150	1010	758	435	873	585
5	407	513	562	661	471	e570	957	1030	722	415	831	573
6	372	497	582	654	446	e600	923	1020	676	412	763	597
7	352	482	599	640	520	e640	919	984	630	414	693	602
8	350	470	672	610	584	e700	787	989	610	511	638	591
9	353	454	717	597	608	e760	878	1030	611	646	620	589
10	388	429	787	632	614	e820	911	1310	592	881	615	587
11	426	405	833	640	604	e870	904	1530	571	2160	593	601
12	454	403	982	633	577	e930	924	1560	590	3110	570	596
13	451	405	1020	624	612	e1050	961	1520	592	3600	536	577
14	490	403	1030	624	641	e1140	1050	1520	572	3760	517	548
15	533	402	976	624	663	e1200	986	1530	567	3470	545	506
16	531	402	924	630	678	e1170	909	1500	549	2800	642	482
17	522	402	859	e630	674	e1170	882	1430	541	2190	702	482
18	513	410	732	e630	677	e1200	937	1300	549	1810	722	491
19	498	402	649	e610	e690	e1250	975	1310	559	1600	720	478
20	468	397	573	e590	e700	e1250	947	1350	607	1470	698	461
21	442	408	419	e590	e700	e1180	906	1350	585	1380	667	454
22	432	419	503	e585	e670	e1000	887	1330	522	1300	673	429
23	431	435	585	e580	e620	e820	894	1300	516	1240	725	418
24	437	446	560	e560	e620	e770	905	1260	594	1180	704	419
25	441	448	445	e510	e610	e720	886	1200	610	1120	646	427
26	442	450	360	e510	e550	e720	852	1160	586	1040	574	425
27	448	430	435	e510	e440	e760	841	1130	553	952	535	409
28	442	198	532	e510	e410	826	878	1100	553	873	394	398
29	437	272	e560	e515	---	993	901	1060	544	899	321	359
30	434	372	e560	520	---	1530	895	1060	509	898	650	349
31	449	---	e520	530	---	1930	---	1180	---	873	666	---
TOTAL	13462	12738	20232	18234	16571	28549	30075	38143	18723	42889	20476	15188
MEAN	434	425	653	588	592	921	1002	1230	624	1384	661	506
MAX	533	523	1030	661	700	1930	1980	1560	1110	3760	894	605
MIN	350	198	360	510	410	450	787	984	509	412	321	349
AC-FT	26700	25270	40130	36170	32870	56630	59650	75660	37140	85070	40610	30130
CFSM	0.10	0.10	0.15	0.14	0.14	0.21	0.23	0.29	0.15	0.32	0.15	0.12
IN.	0.12	0.11	0.18	0.16	0.14	0.25	0.26	0.33	0.16	0.37	0.18	0.13

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	418	361	334	324	390	993	2251	1372	1110	976	552	443
MAX	1558	900	817	747	1058	2687	9864	3925	3264	2674	2674	2135
(WY)	1994	1987	1986	1986	1998	1995	1997	1997	2001	1993	1993	1993
MIN	2.02	0.000	0.000	4.95	14.0	75.9	165	22.0	86.4	73.4	35.6	12.6
(WY)	1977	1977	1977	1977	1977	1977	1977	1977	1977	1977	1977	1976

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1975 - 2002
ANNUAL TOTAL	642904	275280	
ANNUAL MEAN	1761	754	794
HIGHEST ANNUAL MEAN			1772 2001
LOWEST ANNUAL MEAN			53.1 1977
HIGHEST DAILY MEAN	11400 Apr 12	3760 Jul 14	13100 Apr 15 1997
LOWEST DAILY MEAN	188 Aug 18	198 Nov 28	0.00 Oct 26 1976
ANNUAL SEVEN-DAY MINIMUM	365 Sep 28	372 Oct 3	0.00 Oct 26 1976
MAXIMUM PEAK FLOW		3780 Jul 14	13300 Apr 14 1997
MAXIMUM PEAK STAGE		18.75 Jul 14	37.60 Apr 16 1997
ANNUAL RUNOFF (AC-FT)	1275000	546000	575100
ANNUAL RUNOFF (CFSM)	0.41	0.18	0.18
ANNUAL RUNOFF (INCHES)	5.56	2.38	2.51
10 PERCENT EXCEEDS	3770	1200	1850
50 PERCENT EXCEEDS	690	610	450
90 PERCENT EXCEEDS	420	419	98

e Estimated.

