

RED RIVER OF THE NORTH BASIN--Continued

05051500 RED RIVER OF THE NORTH AT WAHPETON, ND

LOCATION.--Lat 46°15'55", long 96°35'40", in NE $\frac{1}{4}$ sec.8, T.132 N., R.47 W., Richland County, Hydrologic Unit 09020104, on left bank in Wahpeton, 800 ft downstream from confluence of Bois de Sioux and Otter Tail Rivers, and at mile 548.6.

DRAINAGE AREA.--4,010 mi² (approximately).

PERIOD OF RECORD.--April to October 1942, March 1943 to current year. Gage-height records collected in this vicinity since 1917 are contained in reports of the National Weather Service.

GAGE.--Water-stage recorder and concrete and wooden dam. Datum of gage is 942.97 ft above sea level. Prior to Aug. 6, 1943, National Weather Service non-recording gage 800 ft upstream, converted to present datum. Aug. 6, 1943, to Oct. 27, 1950, nonrecording gage at present site and datum.

REMARKS.--Records good except those for estimated daily discharge, 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.

EXTREMES OUTSIDE PERIOD OF RECORD.--A stage of 17.0 ft, discharge, 10,500 ft³/s, occurred in the spring of 1897.

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	475	366	e830	e630	e630	e580	1070	5140	2770	2870	1560	469
2	462	337	e830	e640	e630	e580	1150	4790	2710	2850	1500	499
3	457	337	e800	e650	e630	e600	1270	4410	2640	2820	1460	491
4	459	346	e760	e650	e630	e650	1280	4080	2600	2710	1350	486
5	450	347	e730	e650	e630	e780	1520	3740	2590	2650	1260	479
6	440	360	e690	e650	e620	e950	1850	3420	2580	2640	1230	476
7	410	392	e660	e650	e600	e1150	3600	3270	2530	2580	1110	503
8	388	436	e610	e650	e580	e1300	8060	3060	2510	2550	919	495
9	388	513	e590	e650	e580	e1420	9260	2880	2520	2530	793	485
10	389	550	e540	e670	e580	e1500	8810	2710	2760	2520	711	485
11	395	547	e520	e700	e630	e1550	8080	2600	3140	2520	660	485
12	395	557	e530	e730	e630	e1600	8110	2550	3650	2510	620	482
13	384	557	e540	e700	e620	e1600	8440	2530	3490	2520	613	482
14	360	546	e560	e700	e620	e1550	8180	2520	3080	2520	496	488
15	333	544	e580	e700	e600	e1500	7940	2500	3250	2520	282	489
16	324	549	e590	e700	e600	e1450	7460	2520	3430	2520	188	471
17	324	596	e600	e700	e600	e1350	7050	2540	3410	2500	294	468
18	334	645	e650	e670	e600	e1280	6880	2540	3350	2490	563	481
19	309	642	e720	e650	e600	e1250	6760	2530	3180	2460	676	493
20	270	474	e800	e640	e600	e1250	6550	2510	3080	2420	677	498
21	279	413	e840	e640	e600	e1250	6260	2520	3020	2410	673	486
22	288	e500	e800	e640	e600	e1280	5930	2500	3090	2350	578	469
23	301	e560	e710	e630	e600	e1320	5740	2500	3160	2250	505	471
24	275	e580	e680	e630	e590	e1320	5770	2520	3110	1940	514	469
25	191	e600	e680	e630	e580	e1300	6060	2510	3050	1590	514	465
26	181	e630	e670	e630	e580	e1250	6090	2510	3000	1490	517	420
27	185	e650	e660	e630	e580	e1200	5910	2580	2980	1330	516	358
28	247	e690	e640	e630	e580	e1140	5720	2620	2950	1350	465	352
29	356	e740	e630	e630	---	e1100	5550	2590	2920	1700	420	384
30	371	e800	e630	e630	---	e1050	5390	2620	2890	1700	361	391
31	347	---	e630	e630	---	e1050	---	2760	---	1580	366	---
TOTAL	10767	15804	20700	20330	16920	37150	171740	91070	89440	71390	22391	13970
MEAN	347	527	668	656	604	1198	5725	2938	2981	2303	722	466
MAX	475	800	840	730	630	1600	9260	5140	3650	2870	1560	503
MIN	181	337	520	630	580	580	1070	2500	2510	1330	188	352
AC-FT	21360	31350	41060	40320	33560	73690	340600	180600	177400	141600	44410	27710

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 2001, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	340	320	290	280	303	702	1485	1147	1088	825	439	341
MAX	1599	952	820	678	868	2629	8717	3344	2981	2787	2496	2148
(WY)	1994	1987	1987	1986	1998	1995	1997	1997	2001	1993	1993	1993
MIN	5.72	7.40	6.60	8.81	18.0	84.3	138	22.5	90.0	65.6	53.5	2.18
(WY)	1977	1977	1977	1977	1977	1977	1977	1977	1977	1977	1977	1976

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR	FOR 2001 WATER YEAR	WATER YEARS 1942 - 2001
ANNUAL TOTAL	271705	581672	
ANNUAL MEAN	742	1594	627
HIGHEST ANNUAL MEAN			1600
LOWEST ANNUAL MEAN			54.0
HIGHEST DAILY MEAN	2410	Mar 9	9260
LOWEST DAILY MEAN	181	Oct 26	181
ANNUAL SEVEN-DAY MINIMUM	238	Oct 22	238
MAXIMUM PEAK FLOW			9340
MAXIMUM PEAK STAGE			16.94
INSTANTANEOUS LOW FLOW			1.7
ANNUAL RUNOFF (AC-FT)	538900	1154000	454400
10 PERCENT EXCEEDS	1130	3260	1480
50 PERCENT EXCEEDS	679	677	388
90 PERCENT EXCEEDS	380	390	109

a Backwater from ice; from floodmark.
e Estimated.

