

RED RIVER OF THE NORTH BASIN--Continued

05092000 RED RIVER OF THE NORTH AT DRAYTON, ND

LOCATION.--Lat 48°34'20", long 97°08'50", in SE¹/₄SE¹/₄SE¹/₄ sec.24, T.159 N., R.51 W., Pembina County, Hydrologic Unit 09020311, on downstream side of bridge on North Dakota State Highway 66, at the North Dakota-Minnesota border, 1.5 mi northeast of Drayton, and at mile 206.7.

DRAINAGE AREA.--34,800 mi² (approximately) includes 3,800 mi² in closed basins.

PERIOD OF RECORD.--April 1936 to June 1937, April 1941 to current year (fragmentary prior to April 1949).

REVISED RECORDS.--WSP 1388: 1949-50. WSP 1728: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 755.00 ft above sea level, National Geodetic Vertical Datum of 1929 (Minnesota Department of Transportation benchmark). Prior to Nov. 30, 1954, nonrecording gage at site 1.5 mi upstream at datum 1.59 ft higher.

REMARKS.--Records fair except those for estimated daily discharges, which are poor.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of April 1897 reached a stage of about 41 ft at site and datum in use prior to Nov. 30, 1954.

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	2460	3050	2410	e2200	e1900	e2350	e3500	4630	4030	25300	7870	17900
2	2460	3160	2130	e2150	e1900	e2250	e3900	4530	4230	24900	7480	18800
3	2430	3290	2060	e2100	e1900	e2100	e4300	4500	4440	24300	7100	e19000
4	2390	3460	2120	e2100	e1900	e2050	e4700	4420	4510	23200	6620	e19000
5	2330	3740	2130	e2050	e1900	e1900	e4750	4370	4460	21900	6090	e18000
6	2280	4030	2100	e2000	e1800	e1850	e4700	4350	4270	20100	5690	e15000
7	2250	4210	2350	e2000	e1750	e1750	e4500	4330	4030	18100	5360	e11000
8	2220	4260	2740	e2000	e1750	e1750	e4400	4330	3840	16000	5110	e9000
9	2190	4190	2930	e2100	e1700	e1750	e4200	4530	3850	13800	5000	e7600
10	2160	4050	3080	e2200	e1700	e1750	e4200	5060	7240	12300	e4850	e6400
11	2140	3870	3180	e2200	e1700	e1750	e4500	5410	15500	13700	e4800	5560
12	2120	3750	3180	e2200	e1750	e1750	e5300	6220	22000	17300	e4800	4940
13	2110	3700	3230	e2200	e1750	e1750	e5800	7220	26900	21100	e4750	4590
14	2100	3710	3260	e2200	e1750	e1850	e6150	7710	30200	24300	e4650	e4400
15	2090	3740	3240	e2150	e1750	e1900	e620	7660	e32000	26800	e4500	e4300
16	2250	3760	e3250	e2150	e1750	e1950	6030	7480	e33500	28700	e4300	e4150
17	2420	3780	e3280	e2200	e1700	e2050	5730	7200	e34500	30100	e4100	e4000
18	2490	3800	e3300	e2200	e1700	e2050	5350	6880	34700	31100	e3950	e3850
19	2600	3870	e3300	e2150	e1750	e2100	5040	6560	34700	30900	e3800	e3700
20	2670	3990	e3300	e2100	e1850	e2300	4820	6210	34200	30200	e3600	e3550
21	2720	4020	e3280	e2100	e1900	e2500	4710	5880	33200	28800	e3600	e3450
22	2750	4000	e3180	e2000	e1950	e2700	4800	5520	31900	27000	e3600	e3300
23	2750	3930	2940	e2000	e2050	e2850	4900	5150	30800	24500	e3700	e3200
24	2740	3820	2750	e2000	e2150	e2850	4930	4930	29200	21600	e3800	e3100
25	2720	3730	2570	e2000	e2250	e2850	4870	4720	27800	18600	e3800	e2900
26	2730	3580	2420	e1950	e2300	e2800	4740	4570	26300	15600	e3800	e2800
27	2780	3510	2300	e1900	e2400	e2800	4700	4460	25100	12900	e4000	e2700
28	2790	3610	2190	e1900	e2400	e2750	4860	4350	25200	10900	5840	e2550
29	2790	3310	e2010	e1950	---	e2750	4900	4260	25400	9640	9140	e2500
30	2860	2770	e2180	e1950	---	e2900	4790	4160	25400	8910	13300	e2400
31	2950	---	e2180	e1900	---	e3100	---	4050	---	8350	16100	---
TOTAL	76740	111690	84570	64300	53050	69800	146290	165650	623400	640900	175100	213640
MEAN	2475	3723	2728	2074	1895	2252	4876	5344	20780	20670	5648	7121
MAX	2950	4260	3300	2200	2400	3100	6220	7710	34700	31100	16100	19000
MIN	2090	2770	2010	1900	1700	1750	3500	4050	3840	8350	3600	2400
AC-FT	152200	221500	167700	127500	105200	138400	290200	328600	1237000	1271000	347300	423800
CFSM	0.08	0.12	0.09	0.07	0.06	0.07	0.16	0.17	0.67	0.67	0.18	0.23
IN.	0.09	0.13	0.10	0.08	0.06	0.08	0.18	0.20	0.75	0.77	0.21	0.26

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1936 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1943	1905	1459	1200	1167	3389	14950	9307	5837	5388	2632	2147
MAX	5194	11840	4168	2679	2598	16290	54710	58890	23420	28240	21580	12140
(WY)	1995	2001	1999	2001	1998	1998	1997	1950	1962	1975	1993	1999
MIN	13.8	277	149	174	201	280	1275	938	399	118	50.1	27.4
(WY)	1937	1977	1977	1990	1977	1962	1981	1977	1936	1936	1936	1936

SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR WATER YEARS 1936 - 2002

ANNUAL TOTAL	3181980	2425130	
ANNUAL MEAN	8718	6644	4417
HIGHEST ANNUAL MEAN			11280
LOWEST ANNUAL MEAN			536
HIGHEST DAILY MEAN	55000	Apr 18	34700
LOWEST DAILY MEAN	2010	Dec 29	1700
ANNUAL SEVEN-DAY MINIMUM	2130	Oct 9	1730
MAXIMUM PEAK FLOW			34800
MAXIMUM PEAK STAGE			35.86
INSTANTANEOUS LOW FLOW			7.7
ANNUAL RUNOFF (AC-FT)	6311000	4810000	3200000
ANNUAL RUNOFF (CFSM)	0.28	0.21	0.14
ANNUAL RUNOFF (INCHES)	3.82	2.91	1.94
10 PERCENT EXCEEDS	28500	20500	10200
50 PERCENT EXCEEDS	3580	3740	1930
90 PERCENT EXCEEDS	2500	1950	495

e Estimated.

