

## 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 SE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> 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 mi<sup>2</sup>, approximately, includes 3,800 mi<sup>2</sup> 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 National Geodetic Vertical Datum of 1929 (Minnesota highway bench mark). Prior to Nov. 30, 1954, nonrecording gage at site 1.5 mi upstream at datum 1.59 ft higher.

REMARKS.--Records good except 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 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6140	e3850	e3100	e2500	e1750	e2800	9000	5330	e3400	29200	4230	2430
2	6010	e3800	e3200	e2450	e1750	e3500	8020	5230	e3400	28900	4140	2360
3	5750	e3800	e3350	e2450	e1750	e5000	7260	5100	e3400	28500	4040	2420
4	5400	e3800	e3500	e2400	e1750	e7500	6750	5020	e3400	27900	3990	2680
5	5090	e3850	e3600	e2400	e1750	e8500	6450	4930	e3300	27100	3950	2880
6	4880	e3850	e3700	e2350	e1750	e9000	6420	4870	e3400	25800	3780	3200
7	4710	e3850	e3550	e2300	e1750	e9500	6440	4810	3420	23800	3560	3880
8	4570	e3850	e3400	e2250	e1750	e10000	6380	4740	3440	21900	3380	4350
9	4490	e3850	e3250	e2250	e1750	e10300	6310	e4600	3490	19900	3210	4360
10	4470	3900	e3150	e2250	e1750	e10500	6240	e4500	3530	18500	3050	4070
11	4450	3890	e3000	e2200	e1750	e10500	6120	e4400	3560	17900	2890	3710
12	4470	3870	e3000	e2200	e1750	e10300	5940	e4400	3620	17500	2840	3410
13	4480	3870	e3200	e2150	e1750	e10300	5700	e4500	4160	16900	2750	3120
14	4480	3860	e3300	e2150	e1750	e10300	5500	e4500	5040	15800	2680	2830
15	4480	3850	e3350	e2100	e1750	e10000	5400	e4500	6720	14200	2560	2630
16	4470	3830	e3350	e2100	e1750	e9700	5330	e4400	9050	12300	2490	2460
17	4470	3830	e3400	e2050	e1750	e9400	5270	e4400	10600	10400	2470	2340
18	4460	3820	e3400	e2000	e1700	e8700	5220	e4400	12300	8810	2490	2230
19	4450	3810	e3300	e2000	e1700	e8200	5250	e4300	13600	7800	2560	2190
20	4440	3800	e3250	e1950	e1700	e7600	5340	e4300	14700	7220	2710	2130
21	4430	3800	e3150	e1950	e1700	e7300	5360	e4200	16100	6580	3030	2170
22	4400	3790	e3050	e1950	e1700	e6900	5290	e4100	18100	6010	3320	2160
23	e4300	3790	e2950	e1950	e1750	e6600	5250	e4000	20900	5560	3290	2150
24	e4300	e3800	e2800	e1900	e1800	e6400	5230	e4000	23600	5250	3100	2140
25	e4250	e3850	e2700	e1900	e1900	e6580	5250	e3900	25700	5060	2930	2150
26	e4150	e3900	e2600	e1900	e2000	6910	5350	e3800	27200	4920	2840	2240
27	e4050	e3900	e2600	e1850	e2200	8230	5440	e3700	28200	4750	2760	2480
28	e4000	e3400	e2600	e1850	e2400	9910	5510	e3700	28800	4600	2770	2730
29	e4000	e3150	e2600	e1850	e2600	10900	5500	e3600	29200	4460	2710	2860
30	e3950	e3050	e2600	e1800	---	10900	5420	e3500	29300	4380	2640	2850
31	e3900	---	e2500	e1800	---	10100	---	e3500	---	4330	2530	---
TOTAL	141890	113260	96500	65200	52900	262330	177940	135230	364630	436230	95690	83610
MEAN	4577	3775	3113	2103	1824	8462	5931	4362	12150	14070	3087	2787
MAX	6140	3900	3700	2500	2600	10900	9000	5330	29300	29200	4230	4360
MIN	3900	3050	2500	1800	1700	2800	5220	3500	3300	4330	2470	2130
AC--FT	281400	224700	191400	129300	104900	520300	352900	268200	723200	865300	189800	165800

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 2000, BY WATER YEAR (WY)

MEAN	1957	1675	1384	1154	1126	3412	15250	9454	5726	5250	2561	2078
MAX	5194	5653	4168	2255	2598	16290	54710	58890	23420	28240	21580	12140
(WY)	1995	1972	1999	1998	1998	1998	1997	1950	1962	1975	1993	1999
MIN	317	277	149	174	201	280	1275	938	676	348	243	329
(WY)	1991	1977	1977	1990	1977	1962	1981	1977	1977	1988	1977	1988

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1949 - 2000	
ANNUAL TOTAL	3700230		2025410			
ANNUAL MEAN	10140		5534		4274	
HIGHEST ANNUAL MEAN					11280	
LOWEST ANNUAL MEAN					536	
HIGHEST DAILY MEAN	59100	Apr 9	29300	Jun 30	124000	Apr 24 1997
LOWEST DAILY MEAN	1700	Feb 2	1700	Feb 18	110	Dec 23 1989
ANNUAL SEVEN-DAY MINIMUM	1700	Feb 2	1710	Feb 16	118	Dec 28 1989
INSTANTANEOUS PEAK FLOW			29300	Jun 30	124000 <sup>a</sup>	Apr 24 1997
INSTANTANEOUS PEAK STAGE			33.68	Jul 3	45.55	Apr 24 1997
INSTANTANEOUS LOW FLOW					7.7	Oct 16 1936
ANNUAL RUNOFF (AC-FT)	7339000		4017000		3096000	
10 PERCENT EXCEEDS	25600		10300		9820	
50 PERCENT EXCEEDS	4910		3850		1870	
90 PERCENT EXCEEDS	1900		1950		486	

<sup>a</sup> Gage height, 33.23 ft  
 e Estimated

