

05092000 RED RIVER OF THE NORTH AT DRAYTON, ND

LOCATION.--Lat 48°34'20", long 97°08'50", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ 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 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 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6,330	10,100	e3,690	e2,310	e2,200	e2,160	e10,800	6,460	10,300	24,700	6,280	8,350
2	6,150	14,000	e3,550	e2,300	e2,290	e2,190	e16,300	6,200	10,500	24,300	5,990	7,470
3	5,760	17,300	e3,430	e2,300	e2,340	e2,220	e25,900	5,940	10,500	23,800	5,710	6,430
4	5,330	19,800	e3,450	e2,300	e2,350	e2,250	e29,100	5,740	10,600	23,300	5,370	5,440
5	4,950	21,500	e3,580	e2,290	e2,330	e2,270	e30,900	5,580	11,000	22,800	4,990	4,840
6	4,690	22,500	e3,680	e2,290	e2,290	e2,300	30,600	5,390	11,700	22,200	4,680	4,410
7	4,490	22,700	e3,740	e2,280	e2,220	e2,310	28,900	5,170	11,900	22,200	4,520	4,300
8	4,350	20,700	e3,810	e2,280	e2,210	e2,320	27,800	5,020	13,200	22,200	4,390	5,120
9	4,280	19,700	e3,880	e2,270	e2,210	e2,330	26,400	5,580	15,500	22,100	4,340	7,200
10	4,180	18,500	e3,920	e2,260	e2,220	e2,430	24,600	6,240	17,700	21,900	4,640	8,530
11	4,060	16,800	e3,990	e2,250	e2,230	e2,460	22,400	6,150	19,400	21,500	4,860	8,650
12	4,000	14,800	e4,000	e2,250	e2,230	e2,460	19,900	6,670	21,600	21,100	4,790	8,310
13	3,950	12,600	e4,000	e2,180	e2,230	e2,460	17,500	7,540	24,000	20,400	4,550	7,870
14	3,940	10,700	e3,950	e2,130	e2,200	e2,460	16,600	8,120	26,300	19,500	4,240	7,280
15	3,900	9,300	e3,850	e2,090	e2,160	e2,470	16,100	8,300	28,200	18,300	4,070	6,430
16	3,840	8,440	e3,700	e2,050	e2,060	e2,510	15,800	8,100	29,400	16,900	3,950	5,390
17	3,720	7,910	e3,550	e2,020	e2,000	e2,580	15,500	7,870	30,200	15,300	3,920	4,720
18	3,660	7,550	e3,390	e2,010	e1,910	e2,650	15,000	7,760	30,600	13,800	5,310	4,220
19	3,660	7,230	e3,200	e2,010	e1,900	e2,750	14,600	7,690	30,900	12,900	7,110	3,820
20	3,590	6,990	e3,080	e2,000	e1,900	e2,850	14,000	7,580	30,900	12,100	8,490	3,640
21	3,570	6,660	e2,950	e1,990	e1,910	e2,950	13,300	7,540	31,100	11,400	10,200	3,640
22	3,540	6,400	e2,790	e1,950	e1,930	e3,050	12,700	7,620	31,100	10,700	11,400	3,550
23	3,550	6,180	e2,640	e1,940	e1,950	e3,190	11,900	7,870	31,000	10,400	11,400	3,400
24	3,540	5,930	e2,520	e1,940	e1,980	e3,200	11,200	8,220	30,400	e9,830	10,500	3,310
25	3,510	5,730	e2,480	e1,940	e2,060	e3,250	10,100	8,790	29,700	e9,510	9,330	3,140
26	3,500	5,540	e2,470	e1,930	e2,100	e3,460	9,020	9,240	28,800	e9,150	8,240	3,080
27	3,630	5,060	e2,430	e1,900	e2,130	e3,800	8,230	9,320	27,800	e8,700	7,360	2,990
28	4,100	4,580	e2,400	e1,900	e2,140	e4,110	7,600	9,150	26,800	e8,380	6,950	2,900
29	4,890	3,800	e2,390	e1,960	---	e4,510	7,110	9,020	25,700	e7,930	7,550	2,850
30	5,900	e3,780	e2,350	e2,010	---	e4,950	6,750	9,270	25,000	e7,340	8,440	2,760
31	7,230	---	e2,330	e2,110	---	e7,000	---	9,820	---	6,840	8,790	---
TOTAL	135,790	342,780	101,190	65,440	59,680	91,900	516,610	228,960	681,800	501,480	202,360	154,040
MEAN	4,380	11,430	3,264	2,111	2,131	2,965	17,220	7,386	22,730	16,180	6,528	5,135
MAX	7,230	22,700	4,000	2,310	2,350	7,000	30,900	9,820	31,100	24,700	11,400	8,650
MIN	3,500	3,780	2,330	1,900	1,900	2,160	6,750	5,020	10,300	6,840	3,920	2,760
AC-FT	269,300	679,900	200,700	129,800	118,400	182,300	1,025,000	454,100	1,352,000	994,700	401,400	305,500

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 2005, BY WATER YEAR (WY)

MEAN	2,003	2,055	1,473	1,202	1,164	3,372	15,360	9,495	6,484	5,739	2,732	2,241
MAX	5,194	11,840	4,168	2,679	2,598	16,290	54,710	58,890	23,420	28,240	21,580	12,140
(WY)	(1995)	(2001)	(1999)	(2001)	(1998)	(1998)	(1997)	(1950)	(1962)	(1975)	(1993)	(1999)
MIN	317	277	149	174	201	280	1,275	938	676	348	243	329
(WY)	(1991)	(1977)	(1977)	(1990)	(1977)	(1962)	(1981)	(1977)	(1977)	(1988)	(1977)	(1988)

05092000 RED RIVER OF THE NORTH AT DRAYTON, ND—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1949 - 2005	
ANNUAL TOTAL	2,231,535		3,082,030			
ANNUAL MEAN	6,097		8,444		4,465	
HIGHEST ANNUAL MEAN					11,280	1997
LOWEST ANNUAL MEAN					536	1977
HIGHEST DAILY MEAN	37,000	Apr 2	31,100	Jun 21	124,000	Apr 24, 1997
LOWEST DAILY MEAN	430	Feb 3	1,900	Jan 27	110	Dec 23, 1989
ANNUAL SEVEN-DAY MINIMUM	431	Feb 2	1,930	Feb 18	118	Dec 28, 1989
MAXIMUM PEAK FLOW			a31,200	Jun 21	124,000	Apr 24, 1997
MAXIMUM PEAK STAGE			37.16	Jun 24	45.55	Apr 24, 1997
INSTANTANEOUS LOW FLOW					7.7	Oct 16, 1936
ANNUAL RUNOFF (AC-FT)	4,426,000		6,113,000		3,235,000	
10 PERCENT EXCEEDS	16,900		22,200		10,400	
50 PERCENT EXCEEDS	3,700		5,310		1,970	
90 PERCENT EXCEEDS	520		2,200		500	

a Gage height, 37.00 ft.
 e Estimated.

