05054000 RED RIVER OF THE NORTH AT FARGO, ND

LOCATION.--Lat 46°51'40", long 96°47'00", in NW¼NE¼ sec.18, T.139 N., R.48 W., Cass County, Hydrologic Unit 09020104, at waterplant on 4th Street South in Fargo, 25 mi upstream from mouth of Sheyenne River, and at mile 453.

DRAINAGE AREA.--6,800 mi^2, approximately.

PERIOD OF RECORD.--June 1901 to current year. Published as "at Moorhead, MN.", 1901. Monthly discharge only for some periods, published in WSP 1308.

REVISED RECORDS.--WSP 1308: 1902-4, 1906-7, 1910-14, 1916, 1918, 1924. WSP 1388: 1905-6, 1917-20(M), 1935(M), 1938-39(M), 1943.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 861.8 ft above National Geodetic Vertical Datum of 1929. Oct. 1, 1960, to Sept. 30, 1962, water-stage recorder at present site at datum 5.6 ft higher. See WSP 1728 or 1913 for history of changes prior to Oct. 1, 1960.

REMARKS.--Records good except for 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. Figures of daily discharge do not include diversions to cities of Fargo and Moorhead, MN, from the Sheyenne River.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Apr. 7, 1897, reached a stage of 39.1 ft present datum, discharge, 25,000 ft^3/s at site 1.5 mi downstream.

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	1,990	3,680	e1,340	e850	e740	e705	e3,990	1,440	1,490	5,280	2,650	1,670
2	1,790	3,400	e1,280	e845	e760	e705	e3,720	1,430	1,430	6,360	2,470	1,550
3	1,670	3,130	e1,240	e835	e770	e715	2,620	1,400	1,440	7,170	2,370	1,520
4	1,680	2,840	e1,220	e820	e770	e745	1,960	1,360	1,700	7,670	2,380	1,610
5	1,800	2,480	e1,210	e800	e765	e840	1,650	1,300	2,460	7,930	2,910	1,980
6	1,830	2,210	e1,200	e785	e750	e1,000	1,470	1,250	2,670	7,940	3,440	2,110
7	1,780	2,110	e1,200	e770	e710	e1,090	1,290	1,230	2,830	7,590	3,510	1,820
8	1,720	2,030	e1,200	e760	e670	e1,140	1,160	1,240	3,330	6,940	3,220	1,700
9	1,680	1,990	e1,200	e750	e670	e1,180	1,090	1,250	4,100	6,300	2,900	1,610
10	1,670	1,960	e1,210	e740	e680	e1,230	1,060	1,240	5,220	5,830	2,690	1,570
11	1,690	1,890	e1,220	e740	e705	e1,290	1,110	1,320	6,180	5,500	2,690	1,570
12	1,690	1,790	e1,220	e740	e720	e1,300	1,140	1,530	7,300	5,310	2,680	1,540
13	1,680	1,720	e990	e730	e730	e1,290	1,220	1,540	7,800	5,190	2,380	1,480
14	1,660	1,690	e650	e720	e735	e1,250	1,650	1,490	8,360	5,050	2,020	1,330
15	1,680	1,670	e490	e720	e735	e1,240	2,330	1,430	8,980	4,870	1,710	1,130
16	1,690	1,650	e455	e710	e720	e1,250	2,560	1,440	9,390	4,670	1,500	1,240
17	1,660	1,650	e510	e710	e720	e1,250	2,270	1,460	9,670	4,340	1,490	1,440
18	1,600	1,610	e630	e720	e710	e1,250	1,890	1,460	9,730	3,930	1,730	1,480
19	1,550	1,570	e770	e720	e705	e1,270	1,670	1,430	9,250	3,570	1,490	1,470
20	1,510	1,580	e670	e720	e705	e1,290	1,520	1,430	8,460	3,340	1,800	1,470
21	1,440	1,600	e600	e710	e705	e1,320	1,430	1,470	7,400	3,170	2,740	1,470
22	1,430	1,600	e550	e680	e710	e1,400	1,410	1,460	6,670	3,020	3,190	1,370
23	1,490	1,590	e545	e670	e710	e1,540	1,420	1,430	6,180	2,900	3,050	1,260
24	1,470	1,570	e580	e670	e715	e1,700	1,400	1,370	5,910	2,810	2,450	1,170
25	1,700	1,560	e640	e675	e710	e1,860	1,370	1,330	5,650	2,770	2,320	1,130
26	2,180	1,540	e700	e680	e710	e2,120	1,380	1,260	5,060	2,740	3,290	1,090
27	2,560	1,530	e780	e680	e710	e2,600	1,380	1,250	4,590	2,790	3,880	1,060
28	2,550	1,530	e820	e685	e710	e2,960	1,360	1,370	4,380	2,940	3,800	945
29	2,230	1,520	e835	e700	---	e3,300	1,400	1,550	4,440	3,090	3,080	774
30	3,170	e1,400	e860	e715	---	e3,600	1,430	1,610	4,600	3,060	2,370	678
31	3,770	---	e850	e730	---	e3,810	---	1,560	---	2,870	1,890	---
TOTAL	58,010	58,090	27,665	22,780	20,150	48,240	51,350	43,330	166,670	146,940	80,090	42,237
MEAN	1,871	1,936	892	735	720	1,556	1,712	1,398	5,556	4,740	2,584	1,408
MAX	3,770	3,680	1,340	850	770	3,810	3,990	1,610	9,730	7,940	3,880	2,110
MIN	1,430	1,400	455	670	670	705	1,060	1,230	1,430	2,740	1,490	678
AC-FT	115,100	115,200	54,870	45,180	39,970	95,680	101,900	85,950	330,600	291,500	158,900	83,780
+	1,270	1,140	1,230	1,270	1,140	1,250	1,160	1,300	1,280	1,610	1,010	840
*	116,370	116,340	56,100	46,450	41,110	96,930	103,060	87,250	331,880	293,110	159,910	84,620

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1901 - 2005, BY WATER YEAR (WY)

MEAN	348	311	259	234	245	794	1,985	1,165	1,154	984	470	363
MAX	1,871	1,936	1,261	740	1,353	4,722	17,920	5,365	5,556	5,692	3,293	2,280
(WY)	(2005)	(2005)	(1999)	(1986)	(1998)	(1995)	(1997)	(1997)	(2005)	(1962)	(1993)	(1993)
MIN	0.00	0.00	0.00	0.00	0.18	26.8	102	8.12	2.87	0.00	0.00	0.00
(WY)	(1935)	(1937)	(1938)	(1933)	(1933)	(1937)	(1934)	(1934)	(1936)	(1934)	(1932)	(1934)

05054000 RED RIVER OF THE NORTH AT FARGO, ND—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1901 - 2005	
ANNUAL TOTAL	376,444		765,552			
ANNUAL MEAN	1,029	*(1,053)	2,097	*(2,116)	694	
HIGHEST ANNUAL MEAN					2,619	1997
LOWEST ANNUAL MEAN					17.5	1934
HIGHEST DAILY MEAN	5,380	Jun 3	9,730	Jun 18	27,800	Apr 17, 1997
LOWEST DAILY MEAN	90	Jan 26	455	Dec 16	0.00	Jul 25, 1932
ANNUAL SEVEN-DAY MINIMUM	90	Jan 26	589	Dec 15	0.00	Jul 25, 1932
MAXIMUM PEAK FLOW			9,810	Jun 18	28,000	Apr 17, 1997
MAXIMUM PEAK STAGE			28.18	Jun 18	39.72	Apr 18, 1997
ANNUAL RUNOFF (AC-FT)	746,700	*(762,700	1,518,000	*(1,533,000)	502,900	
10 PERCENT EXCEEDS	2,080		4,400		1,560	
50 PERCENT EXCEEDS	724		1,490		340	
90 PERCENT EXCEEDS	130		710		44	

\+ Diversions, in acre-ft, to cities of Fargo and Moorhead.
* Adjusted for diversions to cities of Fargo and Moorhead.
e Estimated.