

RED RIVER OF THE NORTH BASIN--Continued

05064500 RED RIVER OF THE NORTH AT HALSTAD, MN

LOCATION.--Lat 47°21'17", long 96°50'36", sec.25, T.145 N., R.49 W., Traill County, Hydrologic Unit 09020107, on center pier on upstream side of highway bridge, 0.5 mi west of Halstad, MN, 2.5 mi downstream from Wild Rice River, and at mile 375.2.

DRAINAGE AREA.--21,800 mi², approximately, including 3,800 mi² in closed basins.

PERIOD OF RECORD.--April 1936 to June 1937 (no winter records), April 1942 to September 1960 (spring and summer months only), May 1961 to current year.

REVISED RECORDS.--WSP 1388: 1936, 1950. WSP 1728: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 826.65 ft above National Geodetic Vertical Datum of 1929. Prior to July 17, 1961, nonrecording gage at same site and datum.

REMARKS.--Records good except for periods of estimated discharge, which are poor.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1897 reached a stage of about 38.5 ft.

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	2120	1520	1290	e1080	e810	e2900	4820	3340	2220	21400	2980	e1500
2	2070	1520	1310	e1060	e800	e4000	4390	3250	2180	17900	2880	e1700
3	2010	1520	1410	e1050	e800	e5000	3990	3180	2170	13900	2750	e2200
4	1960	1520	1470	e1030	e790	e6000	3760	3150	2140	10200	2590	e3500
5	1870	1510	e1400	e1020	e780	e7000	3670	3080	2230	8200	2420	e4600
6	1800	1490	e1200	e1000	e770	e7300	3450	3020	2330	7640	2270	4520
7	1750	1460	e1050	e1000	e760	e7500	3350	2960	2410	7370	2110	3900
8	1750	1450	e1050	e990	e750	e7500	3320	2900	2520	7860	1970	3260
9	1800	1430	e1200	e980	e750	e7500	3220	2950	2520	8650	1850	2690
10	1790	1430	e1400	e970	e740	7580	3050	2950	2450	8660	1750	2260
11	1800	1430	e2050	e960	e730	7500	2930	2950	2370	8060	1660	2000
12	1810	1450	e2100	e950	e730	7350	2900	2990	2270	7230	1590	1820
13	1820	1450	e2100	e930	e730	6730	2860	3030	2160	6510	1530	1670
14	1800	1450	e2000	e920	e730	5730	2840	3060	2140	5920	1480	1550
15	1800	1460	e1350	e910	e730	4950	2790	3090	2200	5500	1460	1500
16	1830	1470	e1200	e900	e730	4350	2780	3140	2390	5230	1510	1500
17	1850	1470	e1100	e900	e730	3830	2810	3200	2890	5000	1600	1520
18	1820	1470	e1000	e890	e730	3380	2860	3150	3520	4620	1730	1510
19	1810	1470	e920	e890	e730	3060	2890	3070	3950	4200	1620	1500
20	1800	1460	e880	e880	e730	3000	2870	2990	8180	3900	1570	1460
21	1780	1460	e870	e880	e750	3360	2880	2880	17400	3710	1520	1410
22	1780	1440	e1000	e870	e770	3840	2970	2760	22600	3620	1500	1430
23	1780	1420	e1170	e860	e800	4430	3390	2680	25800	3580	1480	1560
24	1740	1400	e1200	e850	e900	5720	3750	2610	27900	3480	1480	1870
25	1690	1370	e1200	e850	e1050	8340	3940	2540	28800	3300	1400	1890
26	1670	1320	e1170	e850	e1400	9980	3970	2480	29100	3120	1380	1870
27	1630	1300	e1150	e850	e2000	9700	3900	2400	28900	3050	e1300	1790
28	1610	1300	e1150	e840	e2400	8380	3740	2320	28000	3030	e1100	1710
29	1580	1260	e1130	e830	e2900	7010	3580	2270	26400	3040	1100	1680
30	1560	1340	e1130	e820	---	6060	3440	2180	24200	3060	1210	1590
31	1540	---	e1100	e810	---	5370	---	2240	---	3040	e1300	---
TOTAL	55420	43040	39750	28620	28020	184350	101110	88810	314340	203980	54090	62960
MEAN	1788	1435	1282	923	966	5947	3370	2865	10480	6580	1745	2099
MAX	2120	1520	2100	1080	2900	9980	4820	3340	29100	21400	2980	4600
MIN	1540	1260	870	810	730	2900	2780	2180	2140	3030	1100	1410
AC-FT	109900	85370	78840	56770	55580	365700	200600	176200	623500	404600	107300	124900

05064500 RED RIVER OF THE NORTH AT HALSTAD, MN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2000, BY WATER YEAR (WY)

MEAN	863	765	608	501	548	2673	7765	3899	2953	2901	1190	863
MAX	2875	1843	1486	1023	1952	9444	38460	15570	10480	20060	11700	4705
(WY)	1995	1995	1999	1987	1998	1995	1997	1997	2000	1975	1993	1999
MIN	61.5	92.3	51.2	32.1	45.9	249	705	449	242	153	59.5	38.4
(WY)	1977	1977	1977	1977	1977	1962	1981	1977	1977	1988	1977	1976

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1961 - 2000	
ANNUAL TOTAL	1422650		1204490			
ANNUAL MEAN	3898		3291		2143	
HIGHEST ANNUAL MEAN					6028	
LOWEST ANNUAL MEAN					214	
HIGHEST DAILY MEAN	17900	Mar 29	29100	Jun 26	69900	Apr 19 1997
LOWEST DAILY MEAN	740	Feb 10	730	Feb 11	10	Sep 2 1976
ANNUAL SEVEN-DAY MINIMUM	743	Feb 9	730	Feb 11	17	Aug 28 1976
INSTANTANEOUS PEAK FLOW			29100	Jun 26	71500	Apr 19 1997
INSTANTANEOUS PEAK STAGE			31.27	Jun 26	40.74	Apr 19 1997
INSTANTANEOUS LOW FLOW					5.4	Oct 8 1936
ANNUAL RUNOFF (AC-FT)	2822000		2389000		1552000	
10 PERCENT EXCEEDS	9380		6810		4770	
50 PERCENT EXCEEDS	2500		1870		850	
90 PERCENT EXCEEDS	880		880		225	

e Estimated

