

UPPER MISSISSIPPI RIVER MAIN STEM--Continued

05244000 CROW WING RIVER AT NIMROD, MN

LOCATION.--Lat 46°38'25", long 94°52'44", in SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 32, T. 137 N., R. 33 W., Wadena County, Hydrologic Unit 07010106, on right bank 200 ft upstream from County Highway 227 bridge, 0.2 mi north of Nimrod, and 0.7 mi upstream from Cat River.

DRAINAGE AREA.--1,030 mi².

PERIOD OF RECORD.--April 1910 to September 1914, July 1930 to September 1981, October 1991 to current year (winter records incomplete prior to 1940). October 1981 to September 1987, annual maximums only.

REVISED RECORDS.--WSP 1508: 1910-11, 1913-14, 1937, 1942(M), 1944(M).

GAGE.--Water-stage recorder. Datum of gage is 1,313.27 ft above sea level (levels by Wadena County Highway Department from Minnesota Department of Transportation bench mark). Apr. 15, 1910 to Sept. 30, 1914, nonrecording gage at same site, at datum 2.2 ft lower. July 28, 1930 to Nov. 4, 1949, nonrecording gages at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow affected by natural storage in many lakes.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	370	850	812	e530	e460	e525	1130	841	965	588	564	648
2	366	824	807	e500	e470	e530	1210	797	927	588	539	671
3	363	789	805	e480	e485	e530	1250	777	897	578	564	704
4	347	757	795	e460	e500	e530	1430	787	860	575	572	804
5	356	733	826	e450	e520	e525	1510	899	854	578	553	811
6	385	712	850	e440	e520	e520	1560	1040	875	563	544	790
7	405	686	861	e430	e525	e520	1620	1130	876	556	538	771
8	413	664	849	e420	e530	e520	1620	1130	846	582	532	768
9	407	645	783	e420	e535	e520	1600	1080	817	614	550	772
10	405	672	757	e420	e535	e525	1570	1110	826	636	564	781
11	408	707	791	e420	e535	e530	1520	1350	830	628	586	792
12	424	719	739	e420	e530	e535	1480	1510	799	619	698	846
13	433	739	723	e420	e525	e535	1430	1840	767	620	831	842
14	439	682	712	e420	e520	e535	1370	1870	741	615	819	824
15	487	676	711	e420	e510	e535	1320	1820	714	632	794	785
16	794	684	693	e430	e500	e540	1290	1810	684	926	773	745
17	1120	681	e670	e430	e500	e540	1280	1780	631	961	762	719
18	1170	686	e600	e440	e495	e540	1250	1730	576	937	767	691
19	1130	706	e400	e440	e495	e540	1260	1660	535	901	786	673
20	1090	740	e270	e440	e490	e540	1240	1590	518	877	797	658
21	1060	792	e400	e450	e490	e520	1230	1510	506	864	786	635
22	1050	708	e600	e450	e490	e520	1210	1440	502	869	774	616
23	1060	696	e720	e450	e495	520	1160	1380	575	906	805	609
24	1070	707	e730	e440	e495	526	1110	1320	565	886	804	600
25	1070	724	e730	e440	e495	524	1070	1270	555	855	767	595
26	1050	741	e710	e435	e500	548	1040	1220	550	816	734	621
27	1010	741	e680	e435	e510	594	1020	1170	559	767	712	615
28	982	741	e650	e440	e520	849	984	1130	576	715	699	602
29	942	765	e620	e440	---	999	946	1070	596	661	680	595
30	909	807	e590	e440	---	1060	891	1020	595	625	663	587
31	877	---	e560	e445	---	1100	---	996	---	594	669	---
TOTAL	22392	21774	21444	13695	14175	18375	38601	40077	21117	22132	21226	21170
MEAN	722	726	692	442	506	593	1287	1293	704	714	685	706
MAX	1170	850	861	530	535	1100	1620	1870	965	961	831	846
MIN	347	645	270	420	460	520	891	777	502	556	532	587
AC-FT	44410	43190	42530	27160	28120	36450	76570	79490	41890	43900	42100	41990
CFSM	.72	.72	.68	.44	.50	.59	1.27	1.28	.70	.71	.68	.70

e Estimated

05244000 CROW WING RIVER AT NIMROD, MN--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1910 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	417	410	350	304	308	411	767	679	575	452	380	387
MAX	1463	871	692	462	506	780	1624	1615	1354	1124	1452	929
(WY)	1974	1972	1999	1966	1999	1995	1966	1950	1965	1997	1944	1944
MIN	137	146	131	125	170	171	202	181	149	84.0	74.3	131
(WY)	1937	1937	1940	1940	1940	1940	1911	1911	1934	1936	1936	1934

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR	FOR 1999 WATER YEAR	WATER YEARS 1910 - 1999
ANNUAL TOTAL	219318	276178	
ANNUAL MEAN	601	757	484
HIGHEST ANNUAL MEAN			757 1999
LOWEST ANNUAL MEAN			230 1940
HIGHEST DAILY MEAN	1240	May 16 1870	May 14 3580 Oct 10 1973
LOWEST DAILY MEAN	255	Sep 25 270 ^a	Dec 20 45 Aug 7 1936
ANNUAL SEVEN-DAY MINIMUM	285	Sep 22 370	Oct 1 55 Aug 3 1936
INSTANTANEOUS PEAK FLOW		1900	May 13 3700 Oct 10 1973
INSTANTANEOUS PEAK STAGE		5.13 ^b	Dec 24 7.64 ^b Apr 20 1950
INSTANTANEOUS LOW FLOW			45 Aug 7 1936
ANNUAL RUNOFF (AC-FT)	435000	547800	350800
ANNUAL RUNOFF (CFSM)	.59	.75	.48
10 PERCENT EXCEEDS	836	1210	805
50 PERCENT EXCEEDS	590	691	380
90 PERCENT EXCEEDS	355	440	202

a Estimated, result of freezeup.
 b Backwater from ice.

