

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 (NGVD of 1929, levels by Wadena County Highway Department from Minnesota Department of Transportation benchmark). 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	283	440	e410	e340	e287	e282	e262	500	435	654	511	520
2	283	427	e470	e333	e285	e280	e264	511	413	626	517	524
3	281	423	e495	e328	e283	e277	e274	516	401	598	505	506
4	279	443	e490	e325	e280	e275	e285	523	393	571	500	483
5	279	478	e480	e322	e279	e272	e315	531	382	550	486	482
6	277	500	e475	e320	e277	e270	e340	541	372	527	483	475
7	272	510	e470	e321	e276	e270	e365	542	357	564	464	458
8	271	515	e475	e323	e280	e271	e390	617	348	864	448	442
9	270	511	e490	e325	e285	e272	408	732	331	790	442	441
10	336	500	e510	e329	e289	e272	445	744	329	889	494	473
11	376	488	e505	e332	e291	e273	506	736	327	965	485	474
12	379	480	e495	e327	e293	e275	522	779	326	882	502	490
13	406	476	e490	e322	e295	e278	531	794	318	809	528	504
14	422	472	e485	e319	e297	e280	555	782	318	763	523	507
15	439	457	e480	e314	e299	e280	575	760	313	728	543	506
16	453	416	e465	e309	e300	e280	583	739	295	705	567	489
17	450	381	e460	e304	e302	e279	624	699	286	679	591	482
18	441	364	e440	e298	e305	e277	629	666	276	664	597	447
19	425	359	e425	e292	e308	e272	632	644	357	626	573	399
20	407	355	e420	e290	e309	e265	613	624	400	593	556	372
21	394	358	e410	e290	e310	e258	589	608	396	585	549	340
22	385	356	e405	e297	e308	e258	574	590	389	575	540	316
23	388	355	e400	e300	e305	e259	558	574	538	554	526	327
24	392	370	e395	e302	e300	e260	537	565	679	549	499	332
25	397	409	e385	e305	e292	e260	513	550	750	544	473	325
26	402	418	e377	e304	e288	e261	489	523	739	536	458	318
27	400	405	e373	e300	e286	e264	482	504	712	522	445	309
28	407	e335	e365	e295	e285	e268	503	489	704	520	440	300
29	424	e330	e360	e292	---	e268	505	484	700	516	516	294
30	439	e350	e352	e290	---	e268	498	488	677	506	526	296
31	440	---	e345	e288	---	e265	---	457	---	499	524	---
TOTAL	11497	12681	13597	9636	8194	8389	14366	18812	13261	19953	15811	12631
MEAN	371	423	439	311	293	271	479	607	442	644	510	421
MAX	453	515	510	340	310	282	632	794	750	965	597	524
MIN	270	330	345	288	276	258	262	457	276	499	440	294
AC-FT	22800	25150	26970	19110	16250	16640	28490	37310	26300	39580	31360	25050
CFSM	0.37	0.42	0.43	0.31	0.29	0.27	0.47	0.60	0.44	0.64	0.50	0.42

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1910 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	418	418	354	308	314	415	769	683	579	456	380	386
MAX	1463	871	692	462	527	780	1624	1615	1354	1124	1452	929
(WY)	1974	1972	1999	1966	2000	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 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1910 - 2002
ANNUAL TOTAL	200364	158828	
ANNUAL MEAN	549	435	486
HIGHEST ANNUAL MEAN			757 1999
LOWEST ANNUAL MEAN			230 1940
HIGHEST DAILY MEAN	1720	Apr 13	965 Jul 11 3580 Oct 10 1973
LOWEST DAILY MEAN	270	Oct 9	258 Mar 21,22 45 Aug 7 1936
ANNUAL SEVEN-DAY MINIMUM	276	Oct 3	260 Mar 21 55 Aug 3 1936
MAXIMUM PEAK FLOW			995a Jul 10 3700 Oct 10 1973
MAXIMUM PEAK STAGE			5.08b Dec 20 7.64b Apr 20 1950
INSTANTANEOUS LOW FLOW			45 Aug 7 1936
ANNUAL RUNOFF (AC-FT)	397400	315000	352100
ANNUAL RUNOFF (CFSM)	0.54	0.43	0.48
10 PERCENT EXCEEDS	1080	620	833
50 PERCENT EXCEEDS	427	422	402
90 PERCENT EXCEEDS	305	279	242

a Gage-height, 3.95 ft.
 b Backwater from ice.
 e Estimated.

