

UPPER MISSISSIPPI RIVER MAIN STEM--Continued

05242300 MISSISSIPPI RIVER AT BRAINERD, MN

LOCATION.--Lat 46°22'40", long 94°10'59", in SE¹/₄/SW¹/₄ sec. 18, T. 145 N., R.30 W., Crow Wing County, Hydrologic Unit 07010104, on left bank in hydropower plant of Potlatch Corporation, Northwest Paper Division in Brainerd, 12.7 mi upstream from Crow Wing River, and at mile 1003.7 upstream from Ohio River.

DRAINAGE AREA.--7,320 mi² (approximately).

PERIOD OF RECORD.--October 1987 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,146.96 ft above sea level (NGVD of 1929).

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated by Winnibigoshish Lake, Leech Lake, Pokegama Lake, Sandy Lake, Pine River Reservoir at Cross Lake, and by hydropower plant in Brainerd.

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	2020	3410	3480	e3020	e2500	e2280	e1580	4140	2350	7570	4030	2580
2	2000	3430	3630	e3010	e2500	e2200	e1580	4100	2300	7620	4000	2430
3	2000	3380	3480	e3000	e2480	e2130	1550	4030	2020	7420	4140	2230
4	1990	3290	3480	e3000	e2470	e2060	1530	3830	2030	7190	4240	2480
5	1920	3310	3530	e3010	e2470	e2020	1550	3750	2030	6790	4380	2400
6	1960	3320	3760	e3020	e2460	e2030	1530	3800	1840	6410	4160	2310
7	2240	3230	3580	e3040	e2460	e2060	1510	3580	1950	6140	3960	2230
8	2070	2990	3770	e3070	e2450	e2070	1590	3920	1660	7630	3600	2220
9	2170	3120	3400	e3100	e2450	e2080	1720	3700	1570	8160	3440	2190
10	2410	3170	3890	e3120	e2450	e2000	2200	4320	1540	9020	3100	2310
11	2250	3100	3390	e3150	e2450	e1920	2490	4430	1450	9640	3100	2130
12	2230	3160	3850	e3170	e2440	e1900	3060	4590	1510	9820	3180	2310
13	2570	3220	3770	e3190	e2440	e1900	3780	4870	1320	9950	3110	2150
14	2780	3000	3490	e3200	e2440	e1920	4520	5380	1420	9680	3100	2300
15	3080	3010	3300	e3200	e2440	e1930	4910	5630	1350	9130	3230	2150
16	3260	3060	4260	e3200	e2450	e1850	4990	5790	1320	8630	3100	2120
17	3350	2990	4650	e3170	2480	e1800	5110	5800	1270	8180	3420	2160
18	3430	2950	4510	e3100	2490	e1780	5450	5790	1190	7500	3530	1980
19	3490	2650	3530	e3000	2590	e1790	5360	5560	1580	7070	3560	1980
20	3440	2970	3170	e2850	2590	e1810	5680	4980	1390	6640	3440	1850
21	3440	2860	2910	e2770	2560	e1830	5810	4700	1260	6260	3490	1860
22	3420	2860	2780	e2670	2670	e1830	5850	4200	1410	5720	3400	1900
23	3600	2910	2530	e2650	2680	e1770	5850	3870	1910	5440	3390	1920
24	3350	3040	e2470	e2650	2680	e1670	5760	3580	1900	5170	3240	1830
25	3590	2870	e2470	e2660	2680	e1550	5660	3350	3670	4780	2860	1810
26	3500	3160	e2550	e2670	e2570	e1460	5430	3170	5320	4510	2870	1850
27	3460	3220	e2700	e2660	e2450	e1430	5040	2940	6600	4260	2810	1840
28	3660	3210	e2850	e2630	e2370	1380	4660	2700	7120	4210	2480	1880
29	3830	3420	e3000	e2560	---	e1460	4520	2570	7370	4290	2680	1940
30	3630	3430	e3030	e2540	---	e1550	4370	2410	7600	4350	2410	1900
31	3740	---	e3050	e2520	---	e1570	---	2350	---	4160	2300	---
TOTAL	89880	93740	104260	90600	70160	57030	114640	127830	77250	213340	103750	63240
MEAN	2899	3125	3363	2923	2506	1840	3821	4124	2575	6882	3347	2108
MAX	3830	3430	4650	3200	2680	2280	5850	5800	7600	9950	4380	2580
MIN	1920	2650	2470	2520	2370	1380	1510	2350	1190	4160	2300	1810
AC-FT	178300	185900	206800	179700	139200	113100	227400	253600	153200	423200	205800	125400
CFSM	0.40	0.43	0.46	0.40	0.34	0.25	0.52	0.56	0.35	0.94	0.46	0.29
IN.	0.46	0.48	0.53	0.46	0.36	0.29	0.58	0.65	0.39	1.08	0.53	0.32

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3383	3802	3210	2704	2504	2879	6250	6052	4180	4552	2748	2558
MAX	8002	6655	5926	4081	3973	4306	12890	12890	10100	10260	6950	6925
(WY)	1996	2001	1997	1997	1997	2000	1997	2001	2001	1993	1999	1999
MIN	1840	1931	1362	1140	1040	1435	3400	1928	662	442	935	1067
(WY)	1992	1993	1991	1991	1991	1991	1990	1988	1988	1988	1990	1998

SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR WATER YEARS 1987 - 2002

ANNUAL TOTAL	1958050	1205720	
ANNUAL MEAN	5365	3303	3782
HIGHEST ANNUAL MEAN			5707
LOWEST ANNUAL MEAN			1950
HIGHEST DAILY MEAN	17400	Apr 28	9950
LOWEST DAILY MEAN	1800	Sep 23	1190
ANNUAL SEVEN-DAY MINIMUM	1950	Sep 19	1340
MAXIMUM PEAK FLOW			10100
MAXIMUM PEAK STAGE			12.10
INSTANTANEOUS LOW FLOW			638a
ANNUAL RUNOFF (AC-FT)	3884000	2392000	2740000
ANNUAL RUNOFF (CFM)	0.73	0.45	0.52
ANNUAL RUNOFF (INCHES)	9.95	6.13	7.02
10 PERCENT EXCEEDS	12000	5590	7020
50 PERCENT EXCEEDS	3480	3000	3170
90 PERCENT EXCEEDS	2240	1810	1520

a Result of regulation.
e Estimated.

