

UPPER MISSISSIPPI RIVER BASIN

05242300 MISSISSIPPI RIVER AT BRAINERD, MN

LOCATION.--Lat 46° 22'40", long 94° 10'59", in SE¼/SW¼ sec. 18, T. 145 N., R.30 W., Crow Wing County, Hydrologic Unit 07010104, on left bank in hydro-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 mean sea level.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated by Winnibigoshish Lake (sta. 05201000), Leech Lake (sta. 05206000), Pokegama Lake (sta. 05210500), Sandy Lake (sta. 05218500), Pine River Reservoir at Cross Lake (sta. 05230500), and by hydro-plant in Brainerd.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
JUL	AUG	SEP							
1	1770	5550	6040	e4700	e4050	e3850	5290	11800	e5200
6860	5430	3210							
2	1890	5750	6440	e4600	e4050	e3850	6390	11300	e4950
7210	5160	3060							
3	1910	5950	6300	e4600	e4050	e3850	7560	10900	4710
8050	5250	2810							
4	1750	5920	6400	e4500	e4050	e3850	9020	10600	4590
8200	4870	2910							
5	1790	6110	6310	e4500	e4050	e3800	10600	10300	4410
8640	4710	2870							
6	1880	6270	6230	e4200	e4050	e3800	13100	9600	4150
8830	4690	2840							
7	1880	6450	6720	e4100	e4000	e3800	14400	9340	4160
8780	4280	2790							
8	1830	6530	6560	e4000	e4000	e3800	14900	e9300	3850
8840	4220	2770							
9	1820	6530	6290	e3900	e4000	e3800	15200	e9100	4010
8770	4090	2770							
10	1770	6630	6520	e3800	e4000	e3800	15200	e8900	3770
8700	4080	2870							

11	1630	6590	6210	e3700	e4000	e3800	15100	e8700	3630
8650	3780	2850							
12	1740	6290	6110	e3700	e4000	e3800	14900	e8500	3610
8480	3820	2730							
13	1620	5380	6220	e3700	e4000	e3800	14700	e8250	3330
8390	3670	2730							
14	1730	4390	6570	e3700	e4000	e3800	14500	e8000	3320
8500	3510	2730							
15	1600	4270	6340	e3700	e4000	e3800	14400	e7800	3330
8730	3500	2710							
16	1760	4200	6580	e3800	e3950	e3800	14300	e7600	3210
8700	3420	2720							
17	2270	5060	6570	e3900	e3950	e3800	14200	e7400	3030
8480	3160	2730							
18	1870	5790	e6000	e4000	e3950	e3800	14200	e7150	3030
7930	3040	2980							
19	2570	5320	e5800	e4100	e3950	e3800	14200	e6900	2840
7320	3170	2990							
20	2700	5660	e5600	e4200	e3950	e3800	14000	e6700	2870
6960	3150	3010							
21	3220	5810	e5700	e4160	e3950	e3800	13800	e6500	2850
6830	3070	3390							
22	3650	6170	e5800	e4150	e3900	e3800	13700	e6400	2810
6550	3090	3350							
23	3850	6000	e5700	e4150	e3900	e3800	13600	e6400	2960
6580	3310	3280							
24	4110	5710	e5600	e4100	e3900	3820	13400	e6300	2950
6270	3390	3030							
25	4240	6280	e5400	e4100	e3900	3860	13200	e6300	3200
6140	3390	3230							
26	4410	6240	e5200	e4100	e3900	4000	13000	e6200	3860
6000	3540	3150							
27	4390	6340	e5100	e4100	e3900	3880	12800	e6100	4120
6210	3480	3070							
28	4580	6240	e5000	e4100	e3850	4030	12500	e5900	4550
6100	3370	3300							
29	4830	6090	e4900	e4050	---	4200	12400	e5700	5060
5880	3350	3050							
30	4920	6090	e4800	e4050	---	4450	12000	e5500	5870
5740	3360	3170							
31	5120	---	e4700	e4050	---	4750	---	e5300	---
5500	3150	---							
TOTAL	85100	175610	183710	126510	111250	120590	386560	244740	114230
232820	117500	89100							
MEAN	2745	5854	5926	4081	3973	3890	12890	7895	3808
7510	3790	2970							
MAX	5120	6630	6720	4700	4050	4750	15200	11800	5870
8840	5430	3390							
MIN	1600	4200	4700	3700	3850	3800	5290	5300	2810
5500	3040	2710							
AC-FT	168800	348300	364400	250900	220700	239200	766700	485400	226600

461800	233100	176700							
CFSM	.38	.80	.81	.56	.54	.53	1.76	1.08	.52
1.03	.52	.41							
IN.	.43	.89	.93	.64	.57	.61	1.96	1.24	.58
1.18	.60	.45							

o e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1997, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
JUL	AUG	SEP							
MEAN	3213	3373	2909	2524	2337	2777	6015	5819	3650
4366	2462	2423							
MAX	8002	5854	5926	4081	3973	3918	12890	10730	6193
10260	5071	3681							
(WY)	1996	1997	1997	1997	1997	1995	1997	1996	1990
1993	1993	1993							
MIN	1840	1931	1362	1140	1040	1435	3400	1928	662
442	935	1166							
(WY)	1992	1993	1991	1991	1991	1991	1990	1988	1988
1988	1990	1990							
<i>SUMMARY STATISTICS FOR 1996 CALENDAR YEAR FOR 1997 WATER YEAR WATER YEARS 1987 - 1997</i>									
ANNUAL TOTAL			1807200			1987720			
ANNUAL MEAN			4938			5446			3382
HIGHEST ANNUAL MEAN									
5446		1997							
LOWEST ANNUAL MEAN									
1950		1988							
HIGHEST DAILY MEAN			13800	Apr 29		15200	Apr 9		15200
Apr 9 1997									Apr
LOWEST DAILY MEAN			1290	Sep 24		1600	Oct 15		348
Jul 30 1988									
ANNUAL SEVEN-DAY MINIMUM			1330	Sep 21		1690	Oct 10		357
Jul 29 1988									
INSTANTANEOUS PEAK FLOW						15400	Apr 10		15400
10 1997									Apr
INSTANTANEOUS PEAK STAGE						16.03	Apr 10		16.03
10 1997									Apr
INSTANTANEOUS LOW FLOW						1370	Oct 13		273a
12 1988									Jul
ANNUAL RUNOFF (AC-FT)			3585000			3943000			2450000
ANNUAL RUNOFF (CFSM)			.67			.74			.46
ANNUAL RUNOFF (INCHES)			9.18			10.10			6.28
10 PERCENT EXCEEDS			9610			8950			6560
50 PERCENT EXCEEDS			4080			4200			2990
90 PERCENT EXCEEDS			1760			2870			1340

o a Result of regulation.