

05242300 MISSISSIPPI RIVER AT BRAINERD, MN

LOCATION.--Lat 46°22'40", long 94°10'59", in SE¹/₄/SW¹/₄ sec. 18, T.45 N., R.30 W., Crow Wing County, Hydrologic Unit 07010104, on left bank in hydropower plant of Wausau Paper Corporation in Brainerd, 12.7 mi upstream from Crow Wing River, and at mile 1,003.7 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 poor. 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 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4,430	4,730	3,150	e3,100	e2,660	e2,390	5,720	5,910	8,300	7,000	2,860	1,030
2	4,020	4,920	2,910	e3,080	e2,650	e2,390	6,300	5,380	8,300	6,890	2,710	1,010
3	4,140	5,070	2,820	e3,030	e2,650	e2,400	6,800	4,860	8,350	6,600	2,690	1,010
4	4,160	5,050	3,030	e3,020	e2,650	e2,410	7,710	4,700	8,460	6,340	2,540	997
5	4,150	5,170	2,840	e3,010	e2,640	e2,420	9,030	4,230	8,440	6,280	2,440	920
6	4,230	5,180	2,560	e3,000	e2,650	e2,460	8,420	4,130	8,410	6,130	2,440	1,060
7	4,130	5,160	2,770	e2,980	e2,650	e2,480	8,470	3,640	8,480	5,950	2,390	878
8	3,950	5,160	3,110	e2,960	e2,640	e2,470	8,510	3,570	8,580	5,710	2,200	870
9	3,980	5,090	3,270	e2,930	e2,640	e2,460	8,630	3,330	8,860	5,410	2,300	985
10	3,700	4,920	3,350	e2,910	e2,650	e2,450	8,760	3,090	9,070	5,110	2,360	897
11	3,670	4,910	3,260	e2,900	e2,660	e2,430	9,070	3,070	9,020	4,990	2,160	879
12	3,720	4,720	3,190	e2,890	e2,680	e2,420	9,490	2,930	9,050	4,670	1,870	1,190
13	3,710	4,680	2,730	e2,870	e2,690	e2,400	9,680	3,220	9,230	4,340	1,960	1,270
14	3,550	4,660	2,650	e2,840	e2,690	e2,390	9,850	3,300	9,410	4,220	1,830	1,290
15	3,610	4,460	2,880	e2,820	e2,680	e2,380	9,910	3,170	9,980	3,970	1,660	1,240
16	3,580	4,420	2,770	e2,800	e2,650	e2,380	9,770	3,160	9,990	3,770	1,670	1,400
17	3,600	4,370	2,660	e2,780	e2,620	e2,370	9,740	3,370	9,790	3,640	1,670	1,500
18	3,760	4,210	2,530	e2,770	e2,590	e2,370	9,500	3,450	9,330	3,640	1,540	1,750
19	3,790	4,250	e2,500	e2,750	e2,560	e2,370	9,480	3,310	8,960	3,610	1,340	1,800
20	3,650	4,210	e2,470	e2,730	e2,530	e2,380	9,340	3,530	8,890	3,350	1,330	1,710
21	3,700	4,110	e2,460	e2,700	e2,510	e2,380	9,000	3,880	8,860	3,300	1,330	1,560
22	3,640	4,140	e2,440	e2,690	e2,490	e2,380	8,900	4,260	8,960	3,290	1,120	1,500
23	3,540	4,160	e2,440	e2,680	e2,480	e2,380	8,460	4,590	8,900	3,190	1,100	1,500
24	3,590	4,060	e2,430	e2,680	e2,460	e2,380	8,100	4,420	8,690	3,060	1,150	1,550
25	3,840	3,850	e2,420	e2,680	e2,430	2,380	7,810	4,750	8,340	3,160	1,200	1,460
26	4,050	3,810	e2,460	e2,680	e2,410	2,470	7,490	5,210	7,900	2,890	1,350	1,390
27	4,020	3,810	e2,520	e2,670	e2,400	2,530	7,290	6,370	7,220	2,910	1,110	1,380
28	3,980	3,810	e2,640	e2,670	e2,390	2,610	7,000	7,250	6,870	3,100	1,080	1,410
29	4,090	3,610	e2,800	e2,670	---	3,090	6,690	7,690	6,500	2,970	1,070	1,240
30	4,270	3,000	e3,000	e2,670	---	3,650	6,420	8,140	6,890	2,840	1,050	1,410
31	4,450	---	e3,080	e2,670	---	4,700	---	8,200	---	2,930	1,050	---
TOTAL	120,700	133,700	86,140	87,630	72,400	79,170	251,340	140,110	258,030	135,260	54,570	38,086
MEAN	3,894	4,457	2,779	2,827	2,586	2,554	8,378	4,520	8,601	4,363	1,760	1,270
MAX	4,450	5,180	3,350	3,100	2,690	4,700	9,910	8,200	9,990	7,000	2,860	1,800
MIN	3,540	3,000	2,420	2,670	2,390	2,370	5,720	2,930	6,500	2,840	1,050	870
AC-FT	239,400	265,200	170,900	173,800	143,600	157,000	498,500	277,900	511,800	268,300	108,200	75,540
CFSM	0.53	0.61	0.38	0.39	0.35	0.35	1.14	0.62	1.18	0.60	0.24	0.17
IN.	0.61	0.68	0.44	0.45	0.37	0.40	1.28	0.71	1.31	0.69	0.28	0.19

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2005, BY WATER YEAR (WY)

MEAN	3,262	3,634	3,053	2,599	2,374	2,705	6,039	5,621	4,273	4,349	2,521	2,402
MAX	8,002	6,655	5,926	4,081	3,973	4,306	12,890	12,890	10,100	10,260	6,950	6,925
(WY)	(1996)	(2001)	(1997)	(1997)	(1997)	(2000)	(1997)	(2001)	(2001)	(1993)	(1999)	(1999)
MIN	858	1,248	1,362	1,140	1,040	1,385	2,184	1,928	662	442	779	831
(WY)	(2004)	(2004)	(1991)	(1991)	(1991)	(2003)	(2003)	(1988)	(1988)	(1988)	(2004)	(2003)

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SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1987 - 2005	
ANNUAL TOTAL	936,194		1,457,136		3,604	
ANNUAL MEAN	2,558		3,992		5,707	
HIGHEST ANNUAL MEAN					1,946	
LOWEST ANNUAL MEAN					17,400	
HIGHEST DAILY MEAN	5,740	Apr 5	9,990	Jun 16	348	Apr 28, 2001
LOWEST DAILY MEAN	613	Sep 4	870	Sep 8	357	Jul 30, 1988
ANNUAL SEVEN-DAY MINIMUM	627	Aug 25	927	Sep 5	17,500	Jul 29, 1988
MAXIMUM PEAK FLOW			10,100	Jun 15	16.70	Apr 30, 2001
MAXIMUM PEAK STAGE			12.00	Jun 15	a273	Apr 30, 2001
INSTANTANEOUS LOW FLOW			a813	Sep 29	2,611,000	Jul 12, 1988
ANNUAL RUNOFF (AC-FT)	1,857,000		2,890,000		0.492	
ANNUAL RUNOFF (CFSM)	0.349		0.545		6.69	
ANNUAL RUNOFF (INCHES)	4.76		7.41		6,720	
10 PERCENT EXCEEDS	4,450		8,460		3,030	
50 PERCENT EXCEEDS	2,400		3,090		1,350	
90 PERCENT EXCEEDS	1,030		1,500			

a Result of regulation.
e Estimated.

