

05247500 CROW WING RIVER NEAR PILLAGER, MN

LOCATION.--Lat 46°18'18", long 94°22'38", in SW¹/₄NE¹/₄ sec. 30, T. 133 N., R. 29 W., Cass County, Hydrologic Unit 07010106, at Sylvan Dam power plant of Minnesota Power Co., 3.6 mi above mouth and 4.9 mi southeast of Pillager.

DRAINAGE AREA.--3,760 mi² (revised).

PERIOD OF RECORD.--October 1968 to September 1986, October 1987 to current year. Records for August 1924 to September 1968 available in files of the Minnesota District Office.

GAGE.--Water-stage recorder. Datum of gage is 1,151.00 ft above sea level, adjustment of 1912. Prior to January 16, 1991, staff gage attached to retaining wall approximately 20 ft below the turbine outlet bays, at datum 1,150.00 ft, adjustment of 1912.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Discharge computed on the basis of power plant records prior to January 16, 1991. Records for Oct. 1, 1968 to Sept. 30, 1975, were adjusted for storage change in the Sylvan dam reservoir. Flow partly regulated by Sylvan Dam power plant and Gull Lake reservoir.

COOPERATION.--Prior to February 1991, records collected by Minnesota Power Company in connection with a Federal Energy Regulatory Commission project.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum daily discharge since 1924, 18,300 ft³/s, Apr. 14, 1965.

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	2,410	2,100	906	836	776	853	3,940	1,960	3,600	2,690	940	1,120
2	2,520	2,290	1,210	832	919	832	5,650	1,820	3,390	2,780	942	1,220
3	2,630	2,160	1,100	893	795	853	5,530	1,750	3,140	2,820	934	1,180
4	2,560	2,250	1,100	957	889	818	5,130	1,730	3,040	2,630	932	1,220
5	2,350	2,050	1,200	839	918	844	4,380	1,540	3,090	2,560	798	1,260
6	2,320	2,030	1,130	e790	921	838	3,910	1,650	3,150	2,460	932	1,380
7	2,320	1,910	1,080	e760	907	866	3,620	1,480	3,160	2,390	831	1,490
8	2,270	1,860	1,210	e760	912	949	3,280	1,550	3,350	2,190	819	1,280
9	1,900	1,800	1,390	831	958	1,030	3,260	1,590	3,440	2,060	1,100	1,450
10	1,880	1,770	1,450	816	939	989	2,940	1,660	3,450	1,880	754	1,450
11	1,740	1,700	1,400	782	957	1,040	3,190	1,790	3,570	1,740	1,030	1,390
12	1,780	1,650	1,390	812	893	997	3,490	1,750	3,610	1,700	1,030	1,460
13	1,610	1,650	1,150	e795	905	999	3,590	1,970	3,800	1,570	1,010	1,610
14	1,540	1,510	762	e780	934	962	3,860	2,040	e5,480	1,540	872	1,610
15	1,480	1,500	912	e800	873	894	3,990	1,980	e5,890	1,570	892	1,870
16	1,490	1,510	975	e790	924	936	3,990	2,160	e5,900	1,590	803	1,830
17	1,550	1,600	1,160	e780	918	840	3,910	2,100	e5,800	1,290	1,240	1,800
18	1,400	1,630	1,300	e810	895	876	3,850	2,150	e5,300	1,520	1,040	1,760
19	1,430	1,560	961	e740	893	864	3,650	2,270	4,370	1,160	1,220	1,660
20	1,510	1,500	989	822	918	854	3,580	2,170	3,600	1,150	1,140	1,520
21	1,370	1,670	940	832	797	877	3,430	2,320	3,430	1,280	1,170	1,670
22	1,420	1,720	965	803	871	875	3,440	2,200	3,550	998	1,130	1,590
23	1,460	1,770	e780	e780	836	903	3,260	2,050	3,510	1,040	1,010	1,520
24	1,640	1,410	e805	802	825	1,020	3,140	2,100	3,340	1,030	1,050	1,510
25	1,950	1,220	e820	760	825	1,060	2,920	2,410	3,120	1,200	924	1,510
26	1,730	1,340	e700	830	825	1,470	2,780	2,800	2,920	1,040	1,150	1,550
27	1,860	1,580	705	802	855	1,590	2,560	3,230	2,740	1,140	1,180	1,520
28	1,800	1,330	834	797	814	1,860	2,290	3,650	2,550	1,200	1,340	1,470
29	1,960	1,180	e740	852	---	2,340	2,370	3,650	2,480	1,090	1,410	1,480
30	2,120	1,160	824	805	---	3,120	2,070	3,750	2,630	1,080	1,320	1,550
31	2,160	---	e790	867	---	3,470	---	3,670	---	1,080	1,360	---
TOTAL	58,160	50,410	31,678	25,155	24,692	36,719	107,000	68,940	110,400	51,468	32,303	44,930
MEAN	1,876	1,680	1,022	811	882	1,184	3,567	2,224	3,680	1,660	1,042	1,498
MAX	2,630	2,290	1,450	957	958	3,470	5,650	3,750	5,900	2,820	1,410	1,870
MIN	1,370	1,160	700	740	776	818	2,070	1,480	2,480	998	754	1,120
AC-FT	115,400	99,990	62,830	49,890	48,980	72,830	212,200	136,700	219,000	102,100	64,070	89,120
CFSM	0.50	0.45	0.27	0.22	0.23	0.32	0.95	0.59	0.98	0.44	0.28	0.40
IN.	0.58	0.50	0.31	0.25	0.24	0.36	1.06	0.68	1.09	0.51	0.32	0.44

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 2005, BY WATER YEAR (WY)

MEAN	1,241	1,241	888	722	735	1,372	3,366	2,460	1,848	1,550	1,015	986
MAX	3,771	3,674	1,699	1,188	1,360	2,996	8,266	5,671	5,307	3,295	3,520	3,309
(WY)	(1974)	(1972)	(1999)	(1986)	(1998)	(1972)	(2001)	(1986)	(2001)	(1972)	(1972)	(1986)
MIN	215	215	199	218	255	548	882	545	447	206	120	161
(WY)	(1977)	(1977)	(1977)	(1977)	(1977)	(1981)	(1981)	(1977)	(1988)	(1988)	(1976)	(1976)

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SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1969 - 2005	
ANNUAL TOTAL	468,964		641,855			
ANNUAL MEAN	1,281		1,759		1,453	
HIGHEST ANNUAL MEAN					2,564 1972	
LOWEST ANNUAL MEAN					446 1977	
HIGHEST DAILY MEAN	3,050	Apr 1	5,900	Jun 16	16,900	Apr 12, 2001
LOWEST DAILY MEAN	400	Feb 5	700	Dec 26	60	Aug 10, 1976
ANNUAL SEVEN-DAY MINIMUM	425	Feb 2	769	Dec 23	68	Aug 9, 1976
MAXIMUM PEAK FLOW			6,460	Apr 2	17,500	Apr 12, 2001
MAXIMUM PEAK STAGE			7.21	Apr 2	a12.11	Apr 12, 2001
INSTANTANEOUS LOW FLOW			b305	Aug 9	b78	Jul 17, 2001
ANNUAL RUNOFF (AC-FT)	930,200		1,273,000		1,053,000	
ANNUAL RUNOFF (CFSM)	0.341		0.468		0.386	
ANNUAL RUNOFF (INCHES)	4.64		6.35		5.25	
10 PERCENT EXCEEDS	2,150		3,440		2,940	
50 PERCENT EXCEEDS	1,140		1,470		996	
90 PERCENT EXCEEDS	564		820		465	

- a Since stage record began, Jan. 16, 1991.
- b Result of regulation.
- e Estimated.

