

UPPER MISSISSIPPI RIVER MAIN STEM--Continued

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.--3,520 mi² (approximately).

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 1150.00 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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	857	1060	e1420	1040	734	842	1770	2440	1710	2240	1580	e1590
2	825	1070	e1440	1040	734	923	1770	2400	1590	1740	1450	e1590
3	804	1120	e1460	1040	733	800	1660	2330	1430	1530	1510	e1580
4	800	1130	e1570	1030	776	743	1580	2320	1280	1540	1990	e1640
5	761	1120	e1740	1020	789	728	1590	2210	1160	1480	1790	e1700
6	808	1140	e1610	990	787	720	1620	2250	1170	1320	1610	1450
7	822	1110	e1270	968	787	758	1670	2260	1160	1250	1390	1290
8	768	1070	e1280	966	785	812	1920	2390	1160	2510	1360	1200
9	761	1070	e1320	966	785	812	2220	2840	1160	3300	1260	1250
10	848	1080	1500	965	787	812	2210	3150	1060	4240	e1170	1280
11	1090	1150	1470	952	784	809	2680	3220	987	5070	e1180	1160
12	1180	1150	1360	982	833	808	2820	3330	958	4450	e1300	1210
13	1280	1150	1460	1070	833	804	3080	3490	964	4420	e1270	1230
14	1230	1150	1380	1090	835	816	2940	3590	962	4480	e1360	1180
15	1240	1150	1180	1050	838	885	2900	3650	963	4320	e1280	1150
16	1320	1150	1520	989	835	910	2910	3560	938	4320	e1240	1140
17	1360	1100	1750	960	840	911	3000	3400	835	4230	e1470	1110
18	1170	1100	1620	910	847	944	3000	3190	812	4220	e1440	1100
19	1140	1090	1160	937	939	982	3380	3100	1260	3880	e1520	1080
20	1130	1070	951	892	947	980	3290	2760	1270	3440	e1630	1070
21	1120	1020	1010	888	945	984	3000	2570	1390	3180	e1550	1040
22	1120	1020	890	818	948	984	3020	2380	1460	2720	e1390	956
23	1140	1020	1140	734	958	907	3110	2160	1900	2500	e1390	994
24	1120	1060	1080	842	997	859	2990	2320	2300	2040	e2170	976
25	1060	e1150	1040	781	989	837	2640	2200	2540	2050	e1990	966
26	1030	e1300	965	865	940	927	2540	2000	2670	2000	e1900	958
27	1060	e1340	978	887	906	973	2440	1860	2720	1880	1710	971
28	1130	e960	1010	884	898	934	2440	1680	2730	1690	1460	946
29	1210	e940	1110	872	---	1260	2500	1600	2540	1810	1290	975
30	1200	e1150	1220	830	---	1650	2520	1710	2290	1800	1410	664
31	1080	---	1150	769	---	1780	---	1720	---	1540	e1520	---
TOTAL	32464	33190	40054	29027	23809	28894	75210	80080	45369	87190	46580	35446
MEAN	1047	1106	1292	936	850	932	2507	2583	1512	2813	1503	1182
MAX	1360	1340	1750	1090	997	1780	3380	3650	2730	5070	2170	1700
MIN	761	940	890	734	733	720	1580	1600	812	1250	1170	664
AC-FT	64390	65830	79450	57580	47230	57310	149200	158800	89990	172900	92390	70310
CFSM	0.32	0.34	0.39	0.28	0.26	0.28	0.76	0.78	0.46	0.85	0.46	0.36
IN.	0.37	0.37	0.45	0.33	0.27	0.33	0.85	0.90	0.51	0.98	0.53	0.40

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1240	1243	886	723	739	1394	3451	2486	1774	1506	1028	963
MAX	3771	3674	1699	1188	1360	2996	8266	5671	5307	3295	3520	3309
(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

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1969 - 2002
ANNUAL TOTAL	847214	557313	
ANNUAL MEAN	2321	1527	1454
HIGHEST ANNUAL MEAN			2564
LOWEST ANNUAL MEAN			446
HIGHEST DAILY MEAN	16900	5070	16900
LOWEST DAILY MEAN	580	664	60
ANNUAL SEVEN-DAY MINIMUM	789	760	68
MAXIMUM PEAK FLOW		5310	17500a
MAXIMUM PEAK STAGE		6.57	12.11a
INSTANTANEOUS LOW FLOW		162b	78b
ANNUAL RUNOFF (AC-FT)	1680000	1105000	1053000
ANNUAL RUNOFF (CFSM)	0.70	0.46	0.44
ANNUAL RUNOFF (INCHES)	9.55	6.28	5.99
10 PERCENT EXCEEDS	5670	2830	2950
50 PERCENT EXCEEDS	1120	1180	990
90 PERCENT EXCEEDS	849	824	459

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

