

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 1150.17 ft, adjustment of 1912.

REMARKS.--Records good. 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.--Records collected by Minnesota Power Company prior to February 1991, 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 1999 TO SEPTEMBER 2000
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1910	1220	1180	1070	710	2860	2530	1810	1860	1620	1180	765
2	1790	1320	1390	1110	711	2940	2250	1810	1820	1390	1060	721
3	1620	1540	1390	1090	874	3150	2350	1820	1690	1380	946	707
4	1540	1370	1380	1090	871	3110	2300	1810	1680	1260	951	715
5	1530	1150	1370	1090	870	3230	1990	1740	1650	1300	979	713
6	1460	1150	900	1030	796	3110	2070	1670	1830	1130	975	717
7	1580	1200	920	1040	816	3080	2220	1670	1840	1670	995	774
8	1710	1270	918	1030	818	2800	2340	2520	1600	2210	983	838
9	1670	1290	973	1020	847	2840	1990	3010	1390	2880	928	888
10	1580	1290	1210	911	885	2960	1830	3110	1300	2860	959	781
11	1640	1290	1010	940	894	3020	1890	3230	1210	2890	850	701
12	1470	1300	861	964	900	2860	2010	3280	1060	2930	796	702
13	1420	1300	884	955	890	2430	1820	3020	951	2970	791	691
14	1390	1090	922	938	883	2410	1940	3400	1500	3120	798	689
15	1380	1060	1210	991	899	2510	1930	3370	1770	3010	788	583
16	1350	1220	1060	964	893	2210	1900	3400	2110	2890	793	584
17	1450	1250	613	944	842	1680	1800	3210	2160	2780	873	658
18	1440	1250	593	892	781	1920	1730	3110	2360	2570	939	690
19	1400	1220	791	916	782	2050	1830	3010	2560	2390	831	680
20	1310	1230	934	971	783	2030	1940	2790	2680	2120	807	659
21	1240	1230	1010	971	833	1910	1940	2650	2340	1890	814	606
22	1340	1230	952	870	940	1800	2000	2490	2280	1600	806	575
23	1390	1230	850	881	942	1850	2030	2220	2310	1460	801	638
24	1400	1240	853	888	940	2240	2020	2260	2090	1270	819	821
25	1300	1250	934	870	1240	2640	2030	1980	2040	1230	819	832
26	1180	1250	934	871	1700	2670	2020	1810	1990	1350	715	835
27	1310	1240	928	801	2110	2830	1890	1660	2000	1480	694	807
28	1310	1070	1010	753	2440	2900	1790	1700	2020	1280	620	738
29	1300	969	1000	779	2530	2700	1810	1820	1800	1270	675	743
30	1320	972	1110	833	---	2760	1810	1900	1620	1290	742	757
31	1320	---	1080	865	---	2730	---	1880	---	1310	834	---
TOTAL	45050	36691	31170	29338	30420	80230	60000	75160	55511	60800	26561	21608
MEAN	1453	1223	1005	946	1049	2588	2000	2425	1850	1961	857	720
MAX	1910	1540	1390	1110	2530	3230	2530	3400	2680	3120	1180	888
MIN	1180	969	593	753	710	1680	1730	1660	951	1130	620	575
AC-FT	89360	72780	61830	58190	60340	159100	119000	149100	110100	120600	52680	42860
CFSM	.44	.37	.30	.29	.32	.78	.61	.73	.56	.59	.26	.22
IN.	.51	.41	.35	.33	.34	.90	.68	.85	.63	.69	.30	.24

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1259	1218	866	709	732	1421	3327	2424	1669	1453	1014	956
MAX	3771	3674	1699	1188	1360	2996	7980	5671	3625	3295	3520	3309
(WY)	1974	1972	1999	1986	1998	1972	1997	1986	1993	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 1999 CALENDAR YEAR	FOR 2000 WATER YEAR	WATER YEARS 1969 - 2000
ANNUAL TOTAL	790084	552539	
ANNUAL MEAN	2165	1510	1422
HIGHEST ANNUAL MEAN			2564
LOWEST ANNUAL MEAN			446
HIGHEST DAILY MEAN	9760	May 16	16600
LOWEST DAILY MEAN	593	Dec 18	60
ANNUAL SEVEN-DAY MINIMUM	820	Dec 17	68
INSTANTANEOUS PEAK FLOW		3940	May 14
INSTANTANEOUS PEAK STAGE		5.71 ^a	May 14
INSTANTANEOUS LOW FLOW		305 ^b	Sep 21
ANNUAL RUNOFF (AC-FT)	1567000	1096000	1030000
ANNUAL RUNOFF (CFSM)	.66	.46	.43
ANNUAL RUNOFF (INCHES)	8.91	6.23	5.85
10 PERCENT EXCEEDS	3750	2740	2900
50 PERCENT EXCEEDS	1620	1300	972
90 PERCENT EXCEEDS	1030	782	444

^a Due in part to regulation.
^b Result of regulation.

