

**ST. CROIX RIVER BASIN**

**05340500 ST. CROIX RIVER AT ST. CROIX FALLS, WI**

LOCATION.--Lat 45° 24'25", long 92° 38'49", in SW¼NW¼ sec. 30, T.34 N., R.18 W., Polk County, Hydrologic Unit 07030005, St. Croix National Scenic Riverway, on left bank, 1,500 ft downstream from power plant of Northern States Power Co., in St. Croix Falls, and at mile 52.2.

DRAINAGE AREA.--6,240 mi<sup>2</sup>.

PERIOD OF RECORD.--January 1902 to current year. Prior to January 1910, monthly discharge only, published in WSP 1308. Prior to October 1939, published as "near St. Croix Falls."

REVISED RECORDS.--WSP 1115: 1929. WDR WI-82-1: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 689.94 ft above mean sea level. Prior to July 1905, gage heights and discharge measurements were used by Loweth and Wolff, consulting engineers of St. Paul, Minn., to determine the flow. July 1905 to February 1940, records were computed from power generation at the St. Croix Falls power plant. February 1940 to Sept. 30, 1979, water-stage recorder at site 300 ft downstream at same datum.

REMARKS.--Estimated daily discharges: Ice-affected periods, Dec. 18 to Jan. 19, and Jan. 23 to Mar. 27. Records good except those for ice-affected periods, which are fair. Diurnal fluctuation caused by St. Croix Falls power plant 1,500 ft upstream. Gage-height telemeter and data-collection platform at station.

**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	3130	7170	7310	e3500	e3700	e3200	13300	5660	3370
3190	4470	2890							
2	3170	7050	7230	e3600	e3500	e3300	20600	6590	3160
3940	4130	3180							
3	2970	6450	6020	e3800	e3500	e3300	23100	5860	3220
3820	3780	4800							
4	3040	6590	5770	e3900	e3500	e3200	26500	5680	3250
3800	3490	4650							
5	2890	5960	5510	e3800	e3400	e3300	30800	5420	3220
3530	3210	4480							
6	2360	5620	5720	e3600	e3500	e3300	35800	5060	3160
4110	3160	3830							
7	2810	5610	5980	e3600	e3600	e3300	40000	4840	2960
3850	2950	3540							
8	2400	5620	5170	e3500	e3600	e3300	41200	4940	2800
4000	2810	3250							

9	2340	5560	5220	e3300	e3400	e3300	40000	4990	2900
4420	2940	3260							
10	2660	5490	5160	e3700	e3800	e3300	36900	5130	2560
3960	2350	3160							
11	2720	5490	5000	e4000	e3400	e3100	33200	4920	2790
4050	2560	3160							
12	2490	4570	5410	e3800	e3200	e3300	29600	4890	2530
3850	2290	3000							
13	2530	3330	5470	e3700	e3000	e3300	26300	4790	2330
3930	2320	2760							
14	2330	2940	5250	e3800	e3400	e3300	23100	4580	2130
5140	2300	2820							
15	2400	3400	4210	e3800	e3300	e3400	20300	4460	2190
6100	2260	2830							
16	2640	3830	4280	e3700	e3300	e3400	18400	4310	2420
6430	2320	3090							
17	3240	8840	3640	e3600	e3300	e3400	17000	4440	2100
6340	3000	3090							
18	3660	9380	e3200	e3600	e3000	e3500	16200	4470	2450
5810	3020	3130							
19	4000	11700	e3300	e3600	e3100	e3500	15100	4210	2390
5260	3080	3120							
20	3770	13600	e3300	3670	e3100	e3700	14100	4410	2500
5080	3560	3180							
21	3910	13800	e3400	3670	e3200	e3600	13800	4330	2320
4360	3540	3290							
22	4070	13500	e3500	3400	e3300	e3800	11700	4340	2250
4020	3330	3360							
23	4440	11300	e3600	e3600	e3400	e4100	11200	4150	2060
3870	3580	3370							
24	5030	10400	e3700	e3800	e3400	e4200	10500	4060	2450
3940	3590	3260							
25	5610	8980	e3500	e3800	e3300	e4400	9650	3830	2170
4220	3460	3100							
26	5920	7260	e3300	e3700	e3200	e4800	9040	3860	2990
5930	3140	2990							
27	5800	6480	e3700	e3600	e3300	e5000	8320	3800	3090
6360	3030	3030							
28	5720	6070	e3500	e3700	e3200	6500	7860	3710	3260
6490	3040	3200							
29	6060	6540	e3400	e3600	---	7720	7500	3520	3250
5810	2940	3090							
30	6310	6920	e3400	e3500	---	10400	6810	3550	3350
5380	2990	2900							
31	6870	---	e3500	e3500	---	11400	---	3590	---
5150	2950	---							
TOTAL	117290	219450	140650	113440	93900	132620	617880	142390	81620
146140	95590	98810							
MEAN	3784	7315	4537	3659	3354	4278	20600	4593	2721
4714	3084	3294							

MAX	6870	13800	7310	4000	3800	11400	41200	6590	3370
6490	4470	4800							
MIN	2330	2940	3200	3300	3000	3100	6810	3520	2060
3190	2260	2760							
CFSM	.61	1.17	.73	.59	.54	.69	3.30	.74	.44
.76	.49	.53							
IN.	.70	1.31	.84	.68	.56	.79	3.68	.85	.49
.87	.57	.59							

o e Estimated

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1902 - 1997, BY WATER YEAR (WY)**

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
JUL	AUG	SEP							
MEAN	3712	3488	2549	2155	2114	4237	10340	7459	5671
4143	2863	3399							
MAX	14270	11910	5821	4279	6021	14420	22320	21840	19510
17260	9777	14590							
(WY)	1969	1972	1984	1984	1984	1945	1952	1950	1944
1952	1955	1941							
MIN	1380	1342	1288	1157	1257	1538	2212	2430	1481
1014	839	1152							
(WY)	1933	1911	1911	1911	1913	1912	1902	1934	1934
1934	1934	1933							

<i>SUMMARY STATISTICS</i>	<i>FOR 1996 CALENDAR YEAR</i>	<i>FOR 1997 WATER YEAR</i>	<i>WATER YEARS 1902 - 1997</i>						
ANNUAL TOTAL		2262860			1999780				
ANNUAL MEAN		6183			5479			4354	
HIGHEST ANNUAL MEAN									
8569		1986							
LOWEST ANNUAL MEAN									
1754		1934							
HIGHEST DAILY MEAN		35600	Apr 22		41200	Apr 8		53900	May
8 1950									
LOWEST DAILY MEAN		1970	Sep 2		2060	Jun 23		75	Jul
17 1910									
ANNUAL SEVEN-DAY MIN		2290	Aug 27		2290	Jun 13		754	Jul
29 1934									
INSTANTANEOUS PEAK FLOW					41500	Apr 8		54900	May
8 1950									
INSTANTANEOUS PEAK STAGE					19.14a	Apr 8		25.19	May
8 1950									
ANNUAL RUNOFF (CFSM)		.99			.88			.70	
ANNUAL RUNOFF (INCHES)		13.49			11.92			9.48	
10 PERCENT EXCEEDS		11700			8900			9100	
50 PERCENT EXCEEDS		4210			3640			2780	
90 PERCENT EXCEEDS		2940			2810			1560	

o a Inside gage reading; outside gage read 19.50 ft.

