

# ST. CROIX RIVER BASIN

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

LOCATION.--Lat 4524'25", long 9238'49", in SW 1 / 4 NW 1 / 4 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.--Records good except those for estimated daily discharges, 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 1997 TO SEPTEMBER 1998

### DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2760	3600	3280	1590	e2800	11900	13900	3730	3280	4430	1580	1970
2	2800	3390	3120	2480	e2500	12700	16000	3370	3820	3940	1520	1830
3	2900	3930	3080	2170	e2500	12500	17000	3130	4220	3770	1730	1780
4	2700	3630	3180	2250	e2400	11400	17600	3250	4360	3450	1600	1740
5	2600	3770	2930	2110	e2500	10100	17600	3030	4450	3220	1690	1800
6	2440	3690	2520	2290	e2600	8880	16600	3040	4360	3030	1770	1780
7	2560	3600	2780	2100	e2300	7950	15000	3000	4010	2820	2400	1790

8	2230	3710	2810	2340	e2500	7240	13800	3060	3960	3140	1930	1600
9	2570	3750	2900	2420	e2700	6930	13100	3000	3540	3410	1850	1590
10	2430	3590	2720	2000	e2500	5800	12400	2860	3240	3020	2460	1600
11	2750	3650	3020	1800	e2400	4320	11500	2690	3050	3120	2150	1700
12	2880	3660	2800	1890	e2600	3930	11000	2590	3000	3120	2120	1620
13	3690	3450	2730	1620	e2500	4120	10100	2820	3530	2620	1850	1550
14	4020	3450	2780	2000	e2600	4080	9400	2770	4590	2630	1770	1470
15	4290	3540	2780	2200	e2800	4020	9230	2780	4400	3160	1710	1560
16	4360	2880	2620	2110	e2400	3930	8870	3020	4390	3280	1610	1570
17	4030	2140	2240	2430	e2700	4070	8220	2810	4250	3470	1740	1660
18	3850	2500	2930	2290	e3200	4480	7620	3170	4220	3380	1990	1520
19	3920	2730	2480	e2500	e3800	4390	7110	3230	4310	2910	2180	1540
20	3800	2710	2650	e2400	4170	4070	6830	2950	5030	3080	2850	1670
21	3840	2970	2250	e2500	4240	3730	6590	2880	6030	2530	2380	1650
22	3440	3060	1870	e2600	4510	3540	6120	2790	5980	2430	2770	1580
23	3420	2940	2280	e2600	4840	3320	5540	2430	5730	2290	2850	1550
24	3240	2820	2520	e2200	5390	3050	5380	2440	5480	2070	2840	1740
25	3060	2180	2470	e2800	6090	3460	4800	2230	5350	2030	2710	1700
26	3170	2780	2490	e2400	6790	3480	4890	2130	5000	1850	2590	2240
27	2900	3280	2080	e2600	8080	4290	4530	2420	4990	1850	2490	2400
28	3000	3770	1490	e2500	9500	5510	4040	2270	4740	1840	2410	2330
29	3030	3620	1620	e2500	---	7330	3970	2210	5210	1790	2090	2010
30	3100	3190	1860	e2500	---	10300	3840	2390	4270	1800	2020	2190
31	3230	---	2210	e2600	---	12000	---	3760	---	1660	2150	---
TOTAL	99010	97980	79490	70790	103910	196820	292580	88250	132790	87140	65800	52730
MEAN	3194	3266	2564	2284	3711	6349	9753	2847	4426	2811	2123	1758
MAX	4360	3930	3280	2800	9500	12700	17600	3760	6030	4430	2850	2400
MIN	2230	2140	1490	1590	2300	3050	3840	2130	3000	1660	1520	1470
AC-FT	196400	194300	157700	140400	206100	390400	580300	175000	263400	172800	130500	104600
CFSM	.51	.52	.41	.37	.59	1.02	1.56	.46	.71	.45	.34	.28

IN.	.59	.58	.47	.42	.62	1.17	1.74	.53	.79	.52	.39	.31
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e Estimated.

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1902 - 1998, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3706	3486	2549	2156	2131	4260	10330	7410	5658	4128	2855	3381
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	1287	1157	1257	1538	2212	2430	1481	1014	839	1152
(WY)	1933	1911	1911	1911	1913	1912	1902	1934	1934	1934	1934	1933

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1902 - 1998		
ANNUAL TOTAL	1798870		1367290				
ANNUAL MEAN	4928		3746		4347		
HIGHEST ANNUAL MEAN					8569		1986
LOWEST ANNUAL MEAN					1754		1934
HIGHEST DAILY MEAN	41200		Apr 8	17600	Apr 4	53900	May 8 1950
LOWEST DAILY MEAN	1490		Dec 28	1470	Sep 14	75	Jul 17 1910
ANNUAL SEVEN-DAY MINIMUM	2030		Dec 25	1550	Sep 13	754	Jul 29 1934
INSTANTANEOUS PEAK FLOW				17800	Apr 4	54900	May 8 1950
INSTANTANEOUS PEAK STAGE				9.20	Apr 4	25.19	May 8 1950
ANNUAL RUNOFF (AC-FT)	3568000			2712000		3149000	
ANNUAL RUNOFF (CFSM)	.79			.60		.70	
ANNUAL RUNOFF	10.72			8.15		9.47	

(INCHES)							
10 PERCENT EXCEEDS	6450		6310		9070		
50 PERCENT EXCEEDS	3420		2900		2790		
90 PERCENT EXCEEDS	2500		1790		1570		

