

# ST. CROIX RIVER BASIN

## 05338500 SNAKE RIVER NEAR PINE CITY, MN

LOCATION.--Lat 4550'30", long 9256'00", in SE 1 / 4 NW 1 / 4 sec. 26, T. 39 N., R. 21 W., Pine County, Hydrologic Unit 07030004, on left bank at site of former power plant and dam, 0.5 mi downstream from Cross Lake and 1.5 mi northeast of Pine City.

DRAINAGE AREA.--974 mi<sup>2</sup> (revised).

PERIOD OF RECORD.--June 1913 to September 1917, July 1951 to Sept. 1981, Oct. 1992 to current year.

GAGE.--Water-stage recorder. Datum of gage is 919.00 ft above mean sea level. June 25, 1913 to Sept. 30, 1917, nonrecording gage at site 500 ft downstream at different datum. July 1 to Oct. 28, 1951, nonrecording gage at present site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair.

## 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	100	229	197	137	141	1140	1220	339	174	402	e54	85
2	106	222	199	137	141	1240	1450	298	184	363	e50	72
3	109	219	207	139	141	1280	1610	282	203	322	e54	63
4	113	214	207	136	149	1280	1760	266	203	279	e47	63
5	111	226	203	129	149	1230	1850	259	206	255	e43	62
6	100	238	193	131	138	1180	1880	232	212	254	e47	56
7	99	241	191	129	133	1080	1890	222	205	261	e66	55
8	108	243	184	131	132	962	1860	218	185	263	e74	47
9	152	252	191	e133	128	854	1810	209	170	266	e82	43
10	108	249	192	e135	128	678	1780	214	168	281	e84	42
11	109	247	187	e137	126	575	1770	202	171	291	e85	44
12	134	239	184	e138	124	530	1720	197	185	276	e84	39
13	214	231	181	e138	126	497	1720	203	192	258	e82	44
14	189	238	176	141	126	428	1620	181	213	229	e75	53

15	201	245	177	137	126	382	1470	193	272	278	e72	51
16	243	230	175	133	131	333	1390	277	316	251	e68	50
17	287	214	170	132	147	300	1300	222	310	e240	e67	46
18	296	212	166	126	173	271	1160	234	332	e220	e60	44
19	311	209	168	126	207	259	1040	233	399	e200	e60	41
20	292	211	163	134	264	244	938	210	423	e190	e70	59
21	276	203	158	133	317	228	845	179	473	e170	e66	40
22	250	213	156	134	378	217	763	163	505	e155	e85	37
23	233	203	159	141	446	213	694	151	491	e140	e99	37
24	218	194	159	138	503	201	605	149	467	e130	e110	37
25	215	185	159	140	573	204	539	147	475	e120	e109	44
26	196	198	157	140	695	213	492	131	431	e110	101	117
27	192	199	145	138	893	252	469	123	448	e97	90	115
28	193	203	145	138	1020	348	433	126	442	e88	112	100
29	182	203	146	137	---	461	400	110	433	e78	103	93
30	179	202	148	137	---	642	366	134	418	e70	96	101
31	197	---	145	139	---	825	---	187	---	e60	86	---
TOTAL	5713	6612	5388	4194	7755	18547	36844	6291	9306	6597	2381	1780
MEAN	184	220	174	135	277	598	1228	203	310	213	76.8	59.3
MAX	311	252	207	141	1020	1280	1890	339	505	402	112	117
MIN	99	185	145	126	124	201	366	110	168	60	43	37
AC-FT	11330	13110	10690	8320	15380	36790	73080	12480	18460	13090	4720	3530
CFSM	.19	.23	.18	.14	.29	.62	1.28	.21	.32	.22	.08	.06
IN.	.22	.26	.21	.16	.30	.72	1.43	.24	.36	.26	.09	.07

e Estimated

## **STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 1998, BY WATER YEAR (WY)**

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	412	413	215	132	132	476	2070	1134	806	709	327	307
MAX	3130	2310	837	343	549	2658	4975	2726	2775	3400	2018	1201
(WY)	1969	1972	1978	1966	1966	1966	1965	1979	1967	1952	1972	1951
MIN	47.1	59.9	36.1	29.3	33.4	61.5	172	203	167	100	34.9	37.8
(WY)	1977	1977	1977	1977	1977	1965	1959	1998	1997	1961	1976	1976

SUMMARY STATISTICS	FOR 1997 CALENDAR YEAR		FOR 1998 WATER YEAR		WATER YEARS 1913 - 1998		
ANNUAL TOTAL	217608		111408				
ANNUAL MEAN	596		305		590a		
HIGHEST ANNUAL MEAN					1223		1972
LOWEST ANNUAL MEAN					177		1959
HIGHEST DAILY MEAN	10100	Apr 9	1890	Apr 7	14200	Jul 27	1972
LOWEST DAILY MEAN	99	Oct 7	37	Sep 22	26	Aug 29	1976
ANNUAL SEVEN-DAY MINIMUM	105	Oct 1	42	Sep 18	28	Jan 21	1977
INSTANTANEOUS PEAK FLOW			1910	Apr 7	14300	Jul 27	1972
INSTANTANEOUS PEAK STAGE			5.08	Apr 7	10.38	Jul 27	1972
INSTANTANEOUS LOW FLOW			34	Sep 22	5.5b	Oct 1	1964
ANNUAL RUNOFF (AC-FT)	431600		221000		427300		
ANNUAL RUNOFF (CFSM)	.62		.32		.62		
ANNUAL RUNOFF (INCHES)	8.45		4.33		8.37		
10 PERCENT EXCEEDS	890		684		1450		
50 PERCENT EXCEEDS	207		192		222		
90 PERCENT EXCEEDS	135		69		75		

a Median of annual mean discharges is 530 ft<sup>3</sup>/s.

b Result of dam rehabilitation.

