

ST. CROIX RIVER BASIN

05338500 SNAKE RIVER NEAR PINE CITY, MN

LOCATION.--Lat 45° 50'30", long 92° 56'00", in SE¼NW¼ 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.--958 mi².

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 poor.

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	99	382	696	e280	e208	e196	1760	954	284
171	623	166							
2	111	395	e620	e278	e207	e196	3080	876	269
251	528	199							
3	88	392	e570	e274	e206	e195	4250	828	263
223	445	179							
4	81	386	e520	e271	e206	e195	5440	742	264
205	382	175							
5	82	375	e480	e269	e205	e194	6570	700	253
204	343	180							
6	93	378	e440	e266	e205	e194	7700	601	233
206	302	176							
7	83	361	e410	e263	e204	e193	8730	555	219
204	264	150							
8	83	358	e385	e261	e204	e194	9530	608	209
228	233	150							
9	90	365	e365	e259	e203	e196	10100	571	204
235	210	150							
10	81	356	e349	e257	e203	e197	9930	562	189
237	198	130							
11	78	334	e343	e253	e202	e198	9100	606	177
245	181	122							

12	81	297	e340	e251	e202	e199	7960	566	160
247	169	110							
13	83	270	e337	e249	e201	e200	6750	543	138
401	155	106							
14	71	250	e332	e247	e201	e201	5620	534	128
449	145	108							
15	93	302	e330	e243	e200	e202	4690	501	133
468	160	108							
16	92	370	e327	e241	e200	e203	3940	465	130
502	168	121							
17	159	609	e323	e239	e200	e205	3370	443	117
517	150	146							
18	176	838	e320	e237	e200	e206	2950	431	121
472	146	129							
19	128	1110	e317	e235	e200	e208	2630	443	115
450	149	135							
20	158	1360	e313	e232	e200	217	2400	407	126
452	182	136							
21	205	1550	e310	e230	e200	224	2210	386	122
390	180	169							
22	214	1590	e307	e228	e199	234	2040	364	110
353	174	190							
23	266	1540	e305	e226	e199	249	1890	361	110
341	168	188							
24	263	1430	e302	e223	e199	266	1750	354	114
308	168	195							
25	254	1280	e300	e221	e198	289	1620	318	136
587	165	169							
26	268	1100	e297	e219	e198	296	1480	322	117
724	164	152							
27	329	950	e294	e216	e197	326	1350	322	110
915	153	141							
28	301	843	e290	e214	e197	388	1240	313	127
1080	135	167							
29	321	779	e288	e212	---	509	1160	320	166
1050	123	152							
30	439	760	e285	e210	---	779	1020	315	172
910	161	114							
31	390	---	e282	e209	---	1130	---	303	---
747	160	---							
TOTAL	5260	21310	11377	7513	5644	8679	132260	15614	5016
13772	6884	4513							
MEAN	170	710	367	242	202	280	4409	504	167
444	222	150							
MAX	439	1590	696	280	208	1130	10100	954	284
1080	623	199							
MIN	71	250	282	209	197	193	1020	303	110
171	123	106							
AC-FT	10430	42270	22570	14900	11190	17210	262300	30970	9950
27320	13650	8950							
CFSM	.18	.74	.38	.25	.21	.29	4.60	.53	.17

.46	.23	.16							
IN.	.20	.83	.44	.29	.22	.34	5.14	.61	.19
.53	.27	.18							

o e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 1997, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
JUL	AUG	SEP							
MEAN	417	418	216	132	129	473	2091	1158	818
720	333	313							
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	206	167
100	34.9	37.8							
(WY)	1977	1977	1977	1977	1977	1965	1959	1977	1997
1961	1976	1976							

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS
1913 - 1997			
ANNUAL TOTAL	253597	237842	
ANNUAL MEAN	693	652	597a
HIGHEST ANNUAL MEAN			
1223		1972	
LOWEST ANNUAL MEAN			
177		1959	
HIGHEST DAILY MEAN	7040	Apr 23	10100
Jul 27 1972			Apr 9
LOWEST DAILY MEAN	60	Sep 16	71
Aug 29 1976			Oct 14
ANNUAL SEVEN-DAY MINIMUM	61	Sep 13	81
Jan 21 1977			Oct 8
INSTANTANEOUS PEAK FLOW			10200
Jul 27 1972			Apr 9
INSTANTANEOUS PEAK STAGE			8.89
Jul 27 1972			Apr 9
INSTANTANEOUS LOW FLOW			56
Oct 1 1964			Oct 14
ANNUAL RUNOFF (AC-FT)	503000		471800
ANNUAL RUNOFF (CFSM)	.72		.68
ANNUAL RUNOFF (INCHES)	9.85		9.24
10 PERCENT EXCEEDS	1550		1120
50 PERCENT EXCEEDS	278		250
90 PERCENT EXCEEDS	84		128

a Median of annual mean discharges is 546 ft³/s.

b Result of dam rehabilitation.

