

CANNON RIVER BASIN

05353800 STRAIGHT RIVER NEAR FARIBAULT, MN

LOCATION.--Lat 44° 15'29", long 93° 13'51", in NW¼SE¼ sec. 9, T.109 N., R.20 W., Rice County, Hydrologic Unit 07040002, on right bank 15 ft downstream from highway bridge, 2.8 mi upstream from Falls Creek and 3.2 mi southeast of Faribault.

DRAINAGE AREA.--442 mi².

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,034.58 ft above mean sea level.

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

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 1,500 ft³/s and maximum (*):

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	47	148	e400	e140	e110	e128	1260	269	354
192	466	1410							
2	46	128	e390	e140	e110	e121	1070	275	321
171	403	1060							
3	43	120	e370	e160	e105	e140	935	310	293
149	348	806							
4	44	114	e342	e160	e105	e160	833	332	271
136	306	652							
5	44	127	e350	e150	e100	e145	802	327	264
122	269	566							
6	41	137	e320	e145	e100	e132	975	297	249
125	276	504							
7	40	147	e290	e135	e100	e125	968	283	235
109	244	453							
8	41	147	e280	e135	e97	e131	854	315	228
114	220	419							
9	41	140	e260	e140	e97	e175	707	316	208
104	200	387							
10	44	131	e250	e135	e97	e486	629	300	199
96	188	347							
11	43	117	e230	e130	e96	e750	579	282	188
95	173	316							

12	42	e110	e210	e130	e92	e960	546	264	181
e200	192	289							
13	42	e105	e195	e125	e92	e1020	516	249	166
e480	181	266							
14	40	e100	e180	e125	e90	e1020	477	250	153
e950	190	251							
15	42	e120	e175	e120	e90	e970	439	234	145
893	3690	242							
16	62	e280	e170	e120	e88	e870	404	221	144
735	2200	292							
17	56	829	e185	e115	e88	e820	378	215	134
766	1600	465							
18	55	1010	e185	e110	e87	e810	390	212	135
886	1120	397							
19	49	937	e180	e110	e88	e820	489	208	134
1090	843	346							
20	49	739	e170	e110	e88	e860	490	198	138
1170	1900	303							
21	46	e510	e170	e110	e90	e1300	461	186	220
1000	1380	275							
22	49	e390	e170	e116	e88	e2600	423	180	229
1170	1040	260							
23	136	e340	e165	e120	e88	2940	388	175	212
975	891	322							
24	149	e300	e165	e115	e87	2830	361	305	270
884	787	331							
25	175	e290	e155	e110	e98	2330	335	589	257
2460	668	329							
26	146	e270	e155	e110	e112	1950	309	696	201
2080	575	299							
27	122	e270	e155	e105	e110	2190	300	567	171
1470	505	276							
28	107	e270	e150	e105	e106	2370	296	451	157
1090	449	263							
29	111	e320	e145	e105	---	2110	274	426	198
810	396	241							
30	137	e360	e140	e105	---	1780	266	414	200
646	2270	223							
31	149	---	e140	e110	---	1490	---	392	---
537	2040	---							
TOTAL	2238	9006	6842	3846	2699	34533	17154	9738	6255
21705	26010	12590							
MEAN	72.2	300	221	124	96.4	1114	572	314	209
700	839	420							
MAX	175	1010	400	160	112	2940	1260	696	354
2460	3690	1410							
MIN	40	100	140	105	87	121	266	175	134
95	173	223							
AC-FT	4440	17860	13570	7630	5350	68500	34020	19320	12410
43050	51590	24970							
CFSM	.16	.68	.50	.28	.22	2.52	1.29	.71	.47

1.58	1.90	.95							
IN.	.19	.76	.58	.32	.23	2.91	1.44	.82	.53
1.83	2.19	1.06							

o e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1997, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
JUL	AUG	SEP							
MEAN	226	200	123	70.4	110	540	618	427	366
303	236	181							
MAX	831	595	336	167	837	1270	1912	1224	1399
1027	1136	645							
(WY)	1969	1971	1983	1992	1984	1973	1993	1973	1993
1993	1979	1993							
MIN	17.0	15.1	11.0	11.0	12.9	26.4	70.2	58.1	45.8
26.2	16.2	16.0							
(WY)	1977	1977	1977	1977	1968	1968	1977	1976	1976
1988	1976	1976							

<i>SUMMARY STATISTICS</i>	<i>FOR 1996 CALENDAR YEAR</i>	<i>FOR 1997 WATER YEAR</i>	<i>WATER YEARS 1966 - 1997</i>			
ANNUAL TOTAL	84591	152616				
ANNUAL MEAN	231	418				284
HIGHEST ANNUAL MEAN						
754	1993					
LOWEST ANNUAL MEAN						
43.9	1977					
HIGHEST DAILY MEAN	2540	Mar 30	3690	Aug 15		5410
2	1973					
LOWEST DAILY MEAN	40	Oct 7	40	Oct 7,14		11
18	1968					
ANNUAL SEVEN-DAY MINIMUM	42	Oct 6	42	Oct 6		11
18	1968					
INSTANTANEOUS PEAK FLOW			5690	Aug 15		6030
Jul 7	1990					
INSTANTANEOUS PEAK STAGE			11.01	Aug 15		12.74a
Mar 5	1974					
INSTANTANEOUS LOW FLOW			38	Oct 14		10
5	1974					
ANNUAL RUNOFF (AC-FT)	167800		302700			205800
ANNUAL RUNOFF (CFSM)	.52		.95			.64
ANNUAL RUNOFF (INCHES)	7.12		12.84			8.73
10 PERCENT EXCEEDS	422		975			709
50 PERCENT EXCEEDS	137		229			125
90 PERCENT EXCEEDS	52		96			30

o a Backwater from ice.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

BICAR- BONATE WATER IT FIELD DATE MG/L AS HCO3 (00453)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	BARO- METRIC PRES- SURE (MM OF HG) (00010)	TEMPER- ATURE (DEG C) (00025)	OXYGEN, (PER- CENT SOLVED (MG/L) (00300)	ALKA- LITY WAT DIS TOT IT DIS FIELD MG/L AS CACO3 (00301)	(39086)		
MAR 20...	1045	1100	549	7.6	0.5	736	12.3	88	217	265
MAR 23...	1450	2940	318	7.3	1.5	746	6.9	50	141	172
SED. SUSP. SIEVE DIAM. FINER DATE THAN .062 MM (70331)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	ORTHO, DIS- SOLVED (MG/L AS P) (00671)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	%
MAR 20...	0.340	0.120	1.1	1.6	7.10	0.330	0.190	0.170	78	75
MAR 23...	0.370	0.050	1.2	2.0	5.40	0.450	0.250	0.220	203	42