

MINNESOTA RIVER BASIN

05313500 YELLOW MEDICINE RIVER NEAR GRANITE FALLS, MN

LOCATION.--Lat 44° 43'18", long 95° 31'07", in SW1/4 sec. 35, T.115 N., R.39 W., Yellow Medicine County, Hydrologic Unit 07020004, on right bank 50 ft downstream from highway bridge, 6 mi upstream from mouth, and 8 mi south of town of Granite Falls.

DRAINAGE AREA.--653 mi².

PERIOD OF RECORD.--March 1931 to September 1935 (no winter records), October 1935 to September 1938, October 1939 to current year. Monthly discharge only for some periods, published in WSP 1308.

REVISED RECORDS.--WSP 1508: 1931, 1934(M), 1937(M), 1946(M), 1950(M).

GAGE.--Water-stage recorder. Datum of gage is 960.64 ft above mean sea level. Mar. 16, 1931 to June 13, 1938, nonrecording gage, on bridge 50 ft upstream at present datum. Oct. 12, 1939 to Nov. 30, 1952, nonrecording gage 500 ft downstream at present datum.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in June 1919 reached a stage of 17.5 ft, from information by local residents, discharge, 25,200 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 300 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	18	253	e74	e13	e9.2	e28	7980	500	177
152	481	66							
2	16	182	e77	e13	e9.4	e28	7570	482	165
145	402	73							
3	16	202	e93	e13	e9.6	e28	7170	482	157
139	338	67							
4	15	168	e99	e13	e9.6	e28	6270	558	147
116	297	132							
5	16	148	e105	e13	e9.6	e29	5430	621	143
101	442	106							
6	17	147	e108	e12	e9.6	e31	5310	563	137
86	362	84							

7	18	130	e104	e12	e9.8	e33	5300	514	128
78	290	69							
8	18	115	e100	e11	e9.8	e35	5390	469	118
72	270	57							
9	20	105	e98	e10	e10	e38	5300	434	109
64	240	52							
10	30	85	e96	e9.4	e10	e38	4860	430	99
62	207	53							
11	27	53	e96	e8.8	e11	e37	3950	397	95
62	200	57							
12	22	55	e98	e8.3	e11	e40	3270	364	88
56	204	50							
13	19	75	e92	e8.2	e12	e42	2780	344	82
54	187	46							
14	18	72	e94	e8.1	e13	e45	2490	325	75
62	171	43							
15	19	66	e97	e8.0	e13	e50	2270	304	73
57	154	42							
16	20	68	94	e7.9	e14	e57	2060	290	68
53	141	44							
17	26	69	70	e7.8	e15	e56	1850	276	63
56	127	44							
18	57	72	51	e7.9	e16	e58	1640	269	57
66	112	45							
19	58	66	36	e8.0	e16	e60	1470	255	58
79	113	52							
20	76	63	30	e8.1	e17	e62	1340	245	58
84	114	50							
21	67	55	e26	e8.2	e17	e68	1210	233	60
83	114	45							
22	57	e53	e23	e8.4	e18	e80	1080	223	63
73	113	43							
23	45	e59	e20	e8.6	e19	e90	972	217	58
64	98	43							
24	43	e59	e17	e9.0	e20	140	877	211	110
60	88	44							
25	39	e61	e16	e9.6	e21	153	794	206	325
295	77	44							
26	38	e61	e15	e9.8	e22	518	725	203	237
767	67	46							
27	36	e63	e14	e9.6	e24	1390	665	196	182
1310	59	45							
28	38	e63	e13	e9.2	e26	1730	616	187	146
1370	54	42							
29	51	e68	e12	e9.0	---	2110	574	181	132
972	51	40							
30	215	e73	e12	e9.0	---	5290	535	179	140
727	56	38							
31	254	---	e12	e9.0	---	8680	---	178	---
584	61	---							

TOTAL	1409	2809	1892	299.9	401.6	21072	91748	10336	3550
7949	5690	1662							
MEAN	45.5	93.6	61.0	9.67	14.3	680	3058	333	118
256	184	55.4							
MAX	254	253	108	13	26	8680	7980	621	325
1370	481	132							
MIN	15	53	12	7.8	9.2	28	535	178	57
53	51	38							
AC-FT	2790	5570	3750	595	797	41800	182000	20500	7040
15770	11290	3300							
CFSM	.07	.14	.09	.01	.02	1.04	4.68	.51	.18
.39	.28	.08							
IN.	.08	.16	.11	.02	.02	1.20	5.23	.59	.20
.45	.32	.09							

o e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1997, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
JUL	AUG	SEP							
MEAN	43.7	46.3	28.3	13.5	16.8	226	500	202	280
141	71.0	43.6							
MAX	561	392	256	88.3	97.1	933	3302	1087	2484
1600	510	1005							
(WY)	1996	1996	1996	1996	1966	1986	1969	1944	1984
1993	1953	1986							
MIN	1.41	1.60	1.39	.90	.13	3.67	2.58	1.18	1.18
.34	.38	.47							
(WY)	1937	1938	1936	1948	1959	1975	1934	1934	1934
1933	1934	1976							

SUMMARY STATISTICS FOR 1996 CALENDAR YEAR FOR 1997 WATER YEAR WATER YEARS 1931 - 1997

	ANNUAL TOTAL	67812		148818.5				
	ANNUAL MEAN	185		408				144a
	HIGHEST ANNUAL MEAN							
566	1993							
	LOWEST ANNUAL MEAN							
8.32	1959							
	HIGHEST DAILY MEAN	1280	May 30	8680	Mar 31			16400
Apr 10	1969							
	LOWEST DAILY MEAN	12	Sep 16	7.8	Jan 17			.00b
Jul 26	1931							
	ANNUAL SEVEN-DAY MIN	13	Sep 12	8.0	Jan 14			.00
Jan 21	1948							
	INSTANTANEOUS PEAK FLOW			9020	Mar 31			17200
Apr 10	1969							
	INSTANTANEOUS PEAK STAGE			11.80	Mar 31			14.90
Apr 10	1969							
	INSTANTANEOUS LOW FLOW			7.8c	Jan 17			.00b
Jul 26	1931							
	ANNUAL RUNOFF (AC-FT)	134500		295200				104000

ANNUAL RUNOFF (CFSM)	.28	.62	.22
ANNUAL RUNOFF (INCHES)	3.86	8.48	2.99
10 PERCENT EXCEEDS	524	689	315
50 PERCENT EXCEEDS	96	67	19
90 PERCENT EXCEEDS	18	12	2.3

a Median of annual mean discharges is 86.4 ft³/s.

b Many days, several years.

c Minimum daily, backwater from ice.