

05313500 YELLOW MEDICINE RIVER NEAR GRANITE FALLS, MN

LOCATION.--Lat 44°43'18", long 95°31'07", in NW¼SW¼ 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.--664 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 sea level (NGVD of 1929). 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 fair to 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 discharges greater than base discharge of 260 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar 17	(daily)	e461	--	May 13	2200	430	3.83
Apr 21	1200	*512	3.96	Jun 25	1500	320	3.54

Minimum discharge, 3.1 ft³/s, on several days, gage height, 2.22 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	35	e23	e20	e7.0	e6.5	84	183	142	104	11	3.6
2	8.6	31	e22	e20	e8.1	e7.0	82	181	135	91	9.9	3.4
3	8.5	36	e21	e20	e8.6	e6.5	78	183	128	79	9.0	3.5
4	19	41	e20	e20	e8.1	e6.1	73	177	123	71	8.6	3.1
5	27	41	e20	e20	e8.1	e6.1	67	178	121	65	11	3.1
6	49	41	e20	e19	e7.5	e6.1	62	181	119	65	12	3.1
7	64	40	e21	e19	e7.5	e5.6	59	193	116	63	11	3.2
8	52	39	e21	e19	e7.5	e5.6	56	192	119	57	9.8	3.4
9	50	38	e21	e19	e7.5	e5.3	52	201	125	53	8.9	3.6
10	48	37	e21	e19	e7.5	e4.6	48	232	132	49	9.2	6.3
11	45	37	e20	e18	e7.5	e4.6	46	305	130	45	11	11
12	42	37	e20	e17	e7.0	e4.6	44	356	124	42	10	9.7
13	43	36	e20	e15	e7.0	e4.3	42	414	114	39	8.8	9.3
14	42	36	e20	e14	e7.0	e6.3	42	415	104	36	8.0	21
15	38	36	e20	e14	e6.5	e27	42	395	94	33	7.2	17
16	37	34	e21	e13	e6.5	e245	51	382	86	31	6.6	12
17	36	29	e21	e12	e6.5	e461	63	348	81	29	5.8	9.1
18	37	35	e22	e12	e6.5	e425	194	318	76	26	5.5	8.5
19	35	39	e22	e11	e6.5	e313	308	294	69	24	6.1	7.8
20	34	37	e22	e10	e6.5	e253	405	261	63	23	7.9	6.4
21	35	34	e22	e9.3	e6.5	e203	504	241	56	21	6.2	6.2
22	37	33	e21	e8.2	e6.5	e177	482	230	55	20	4.7	5.4
23	36	33	e21	e7.5	e7.0	e181	434	219	51	20	4.3	4.8
24	36	e29	e20	e7.3	e7.0	e205	384	215	55	19	4.1	4.3
25	34	e19	e20	e7.1	e7.5	e194	333	209	264	17	3.8	4.0
26	34	e20	e20	e7.1	e7.0	166	288	205	223	16	4.0	3.8
27	35	e23	e19	e7.0	e7.0	155	257	201	187	15	3.8	3.8
28	35	e25	e20	e7.0	e7.0	130	227	193	163	13	3.6	3.4
29	35	e24	e21	e6.5	---	105	205	181	139	13	3.7	3.3
30	36	e23	e21	e6.1	---	93	190	169	119	12	3.7	3.3
31	37	---	e21	e6.5	---	91	---	152	---	12	3.7	---
TOTAL	1,115.1	998	644	410.6	200.4	3,503.2	5,202	7,604	3,513	1,203	222.9	190.4
MEAN	36.0	33.3	20.8	13.2	7.16	113	173	245	117	38.8	7.19	6.35
MAX	64	41	23	20	8.6	461	504	415	264	104	12	21
MIN	8.5	19	19	6.1	6.5	4.3	42	152	51	12	3.6	3.1
AC-FT	2,210	1,980	1,280	814	397	6,950	10,320	15,080	6,970	2,390	442	378
CFSM	0.05	0.05	0.03	0.02	0.01	0.17	0.26	0.37	0.18	0.06	0.01	0.01
IN.	0.06	0.06	0.04	0.02	0.01	0.20	0.29	0.43	0.20	0.07	0.01	0.01

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 2003, BY WATER YEAR (WY)

MEAN	42.2	45.7	29.6	14.3	19.4	217	521	211	273	137	66.7	40.7
MAX	561	392	256	88.3	149	933	3,302	1,087	2,484	1,600	510	1,005
(WY)	(1996)	(1996)	(1996)	(1996)	(1998)	(1986)	(1969)	(1944)	(1984)	(1993)	(1953)	(1986)
MIN	1.41	1.60	1.39	0.90	0.13	3.67	2.58	1.18	1.18	0.34	0.38	0.47
(WY)	(1937)	(1938)	(1936)	(1948)	(1959)	(1975)	(1934)	(1934)	(1934)	(1933)	(1934)	(1976)

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SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1931 - 2003	
ANNUAL TOTAL	52,004.5		24,806.6			
ANNUAL MEAN	142		68.0		a143	
HIGHEST ANNUAL MEAN					566	1993
LOWEST ANNUAL MEAN					8.32	1959
HIGHEST DAILY MEAN	1,310	Apr 3	504	Apr 21	16,400	Apr 10, 1969
LOWEST DAILY MEAN	6.4	Sep 24	3.1	Sep 4-6	b0.00	Jul 26, 1931
ANNUAL SEVEN-DAY MINIMUM	6.8	Sep 19	3.3	Sep 2	0.00	Jan 21, 1948
MAXIMUM PEAK FLOW			c512	Apr 21	17,200	Apr 10, 1969
MAXIMUM PEAK STAGE			d4.79	Mar 17	14.90	Apr 10, 1969
INSTANTANEOUS LOW FLOW			3.1	Sep 4	b0.00	Jul 26, 1931
ANNUAL RUNOFF (AC-FT)	103,200		49,200		103,700	
ANNUAL RUNOFF (CFSM)	0.21		0.10		0.22	
ANNUAL RUNOFF (INCHES)	2.91		1.39		2.93	
10 PERCENT EXCEEDS	463		204		331	
50 PERCENT EXCEEDS	40		23		22	
90 PERCENT EXCEEDS	15		5.7		2.7	

- a Median of annual mean discharges is 87 ft³/s.
- b Many days, several years.
- c Gage height, 3.96 ft.
- d Backwater from ice.
- e Estimated

