

05130500 STURGEON RIVER NEAR CHISHOLM, MN

LOCATION.--Lat 47°40'25", long 92°54'00", in NE¼NW¼ sec. 20, T.60 N., R.20 W., St. Louis County, Hydrologic Unit 09030005, on left bank 1,000 ft upstream from County Highway 65 bridge, 0.6 mi downstream from East Branch Sturgeon River, and 11.5 mi north of Chisholm.

DRAINAGE AREA.--180 mi².

PERIOD OF RECORD.--August 1942 to current year.

REVISED RECORDS.--WSP 1438: 1946.

GAGE.--Water-stage recorder. Datum of gage is 1,305.7 ft above sea level (NGVD of 1929). Prior to Aug. 24, 1944, nonrecording gage at site 1,000 ft downstream at different datum. Aug. 25, 1944 to Sept. 30, 1975 at present site at datum 1.00 ft higher.

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

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Jul 15	0000	*301	*3.23	No peak greater than base discharge.			

Minimum discharge, 8.4 ft³/s (estimated daily-mean), Feb. 10; minimum recorded gage height, 1.28 ft, Jan. 27.

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	57	e72	e43	e31	e10	e10	e50	101	162	86	84	50
2	56	e70	e40	e30	e9.9	e9.9	e47	95	140	77	85	44
3	55	e68	e38	e30	e9.5	e9.6	e45	89	121	81	85	38
4	70	e67	e35	e29	e9.2	e9.4	e44	82	103	104	86	34
5	88	e67	e34	e29	e9.0	e9.3	e42	75	89	176	77	32
6	97	e66	e33	e29	e8.9	e9.5	e44	71	81	205	70	33
7	103	e65	e33	e29	e8.8	e9.8	e47	71	75	176	64	31
8	101	e63	e33	e29	e8.7	e10	e55	68	70	128	58	27
9	95	e62	e33	e29	e8.5	e10	e65	70	67	99	53	26
10	93	e61	e33	e28	e8.4	e10	78	81	71	158	49	24
11	89	e60	e34	e26	e8.6	e11	95	94	73	203	45	28
12	96	e58	e36	e24	e8.8	e11	102	103	70	228	42	100
13	104	e56	e37	e21	e8.9	e12	96	94	67	219	39	132
14	96	e55	e37	e19	e9.2	e13	94	89	62	199	38	171
15	93	e54	e37	e18	e9.7	e20	103	81	56	255	36	186
16	89	e54	e37	e17	e10	e27	97	74	50	206	33	164
17	85	e54	e37	e16	e11	e37	96	70	54	186	30	132
18	82	e55	e38	e16	e11	e46	91	64	54	158	29	118
19	83	e55	e38	e15	e11	e58	108	78	49	142	28	132
20	82	e56	e39	e15	e11	e66	154	125	45	207	28	135
21	81	e58	e40	e13	e11	e72	222	148	41	203	32	144
22	85	e57	e39	e12	e10	e74	236	145	37	185	26	151
23	81	e56	e39	e11	e10	e76	217	141	37	141	27	136
24	77	e53	e38	e10	e10	e75	188	132	52	109	32	118
25	75	e52	e37	e10	e11	e73	168	117	84	91	32	103
26	73	e51	e37	e9.8	e11	e70	151	101	98	81	74	94
27	71	e50	e36	e9.6	e11	e67	141	91	100	71	67	86
28	71	e51	e36	e9.3	e11	e63	138	110	96	63	71	80
29	74	e51	e35	e9.1	---	e59	127	121	95	57	71	75
30	75	e48	e34	e9.4	---	e56	113	138	94	78	65	70
31	e74	---	e33	e9.8	---	e53	---	166	---	83	57	---
TOTAL	2,551	1,745	1,129	593.0	275.1	1,136.5	3,254	3,085	2,293	4,455	1,613	2,694
MEAN	82.3	58.2	36.4	19.1	9.82	36.7	108	99.5	76.4	144	52.0	89.8
MAX	104	72	43	31	11	76	236	166	162	255	86	186
MIN	55	48	33	9.1	8.4	9.3	42	64	37	57	26	24
AC-FT	5,060	3,460	2,240	1,180	546	2,250	6,450	6,120	4,550	8,840	3,200	5,340
CFSM	0.46	0.32	0.20	0.11	0.05	0.20	0.60	0.55	0.42	0.80	0.29	0.50
IN.	0.53	0.36	0.23	0.12	0.06	0.23	0.67	0.64	0.47	0.92	0.33	0.56

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 2003, BY WATER YEAR (WY)

MEAN	121	95.2	50.3	29.5	23.7	50.6	363	295	182	126	73.3	91.3
MAX	600	264	135	66.0	47.7	337	868	1,451	528	623	268	424
(WY)	(1996)	(1978)	(1999)	(1966)	(1984)	(1945)	(1948)	(1950)	(1944)	(1993)	(1988)	(1977)
MIN	7.85	8.90	4.82	3.98	4.54	10.0	41.0	22.9	14.7	5.99	12.6	4.60
(WY)	(1977)	(1977)	(1977)	(1977)	(1977)	(1957)	(1977)	(1977)	(1988)	(1988)	(1961)	(1976)

05130500 STURGEON RIVER NEAR CHISHOLM, MN—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1942 - 2003	
ANNUAL TOTAL	36,587		24,823.6		125	
ANNUAL MEAN	100		68.0		218	
HIGHEST ANNUAL MEAN					1996	
LOWEST ANNUAL MEAN					1977	
HIGHEST DAILY MEAN	1,680	Jun 25	255	Jul 15	3,530	May 8, 1950
LOWEST DAILY MEAN	17	Mar 7	8.4	Feb 10	2.5	Jul 30, 1988
ANNUAL SEVEN-DAY MINIMUM	18	Mar 4	8.7	Feb 6	3.0	Jul 24, 1988
MAXIMUM PEAK FLOW			301	Jul 15	a3,630	May 7, 1950
MAXIMUM PEAK STAGE			3.23	Jul 15	b7.41	May 7, 1950
ANNUAL RUNOFF (AC-FT)	72,570		49,240		90,720	
ANNUAL RUNOFF (CFSM)	0.56		0.38		0.70	
ANNUAL RUNOFF (INCHES)	7.56		5.13		9.45	
10 PERCENT EXCEEDS	179		139		291	
50 PERCENT EXCEEDS	60		59		60	
90 PERCENT EXCEEDS	26		10		18	

- a From rating curve extended above 1,600 ft³/s, on basis of slope-area measurement of peak flow.
- b Present datum.
- c Estimated.

