

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)
Apr 3	1930	*695	*4.28	Jun 2	0500	603	4.08

Minimum discharge, 17 ft³/s, Aug. 31, gage height, 1.38 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68	71	e67	e37	e27	e26	e530	164	556	37	27	22
2	65	73	e66	e37	e27	e26	e550	153	599	35	25	22
3	61	70	e65	e36	e27	e26	667	143	541	37	24	21
4	58	e66	e64	e36	e26	e26	664	138	428	49	23	20
5	57	e65	e62	e35	e26	e26	628	132	355	48	22	36
6	53	e61	e61	e35	e26	e27	583	127	335	49	20	121
7	48	e57	e59	e35	e26	e27	541	122	313	50	20	133
8	48	e55	e57	e34	e25	e27	537	114	279	48	21	148
9	47	e54	e56	e34	e25	e27	510	108	243	45	24	158
10	45	56	e54	e34	e25	e28	464	106	205	43	25	140
11	50	59	e53	e33	e25	e28	402	99	176	111	28	116
12	63	65	e51	e33	e25	e28	347	105	167	134	27	98
13	68	66	e50	e33	e25	e28	303	124	152	138	26	84
14	71	66	e49	e33	e25	e28	272	131	135	119	26	77
15	73	67	e48	e32	e25	e29	249	127	121	97	26	94
16	70	69	e47	e32	e25	e29	238	119	114	81	25	200
17	67	79	e47	e32	e25	e29	228	158	104	70	25	230
18	65	99	e46	e32	e25	e29	241	204	94	61	25	258
19	63	121	e45	e31	e25	e29	285	220	86	55	24	249
20	61	129	e44	e31	e25	e30	294	235	79	50	23	218
21	59	122	e43	e31	e25	e32	299	229	72	45	22	206
22	59	119	e42	e30	e25	e34	298	212	68	42	22	192
23	57	105	e41	e30	e25	e37	282	189	63	38	21	181
24	57	86	e41	e30	e25	e40	259	168	63	35	21	189
25	57	e78	e40	e30	e25	e45	239	182	58	33	20	192
26	55	e75	e40	e29	e25	e56	224	196	55	31	20	188
27	55	e73	e39	e29	e25	e74	209	203	51	29	20	172
28	58	e72	e39	e29	e25	e110	196	194	47	29	19	155
29	61	e70	e38	e28	e25	e200	187	171	44	30	18	138
30	64	e69	e38	e28	---	e340	178	187	41	28	18	124
31	68	---	e37	e28	---	e470	---	429	---	27	19	---
TOTAL	1,851	2,317	1,529	997	735	1,991	10,904	5,189	5,644	1,724	706	4,182
MEAN	59.7	77.2	49.3	32.2	25.3	64.2	363	167	188	55.6	22.8	139
MAX	73	129	67	37	27	470	667	429	599	138	28	258
MIN	45	54	37	28	25	26	178	99	41	27	18	20
AC-FT	3,670	4,600	3,030	1,980	1,460	3,950	21,630	10,290	11,190	3,420	1,400	8,290
CFSM	0.33	0.43	0.27	0.18	0.14	0.36	2.02	0.93	1.05	0.31	0.13	0.77
IN.	0.38	0.48	0.32	0.21	0.15	0.41	2.25	1.07	1.17	0.36	0.15	0.86

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 2004, BY WATER YEAR (WY)

MEAN	120	94.9	50.3	29.5	23.7	50.8	363	293	182	124	72.5	92.1
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)

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SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1942 - 2004	
ANNUAL TOTAL	25,095.6		37,769		125	
ANNUAL MEAN	68.8		103		218	
HIGHEST ANNUAL MEAN					63.1 1977	
LOWEST ANNUAL MEAN					3,530 May 8, 1950	
HIGHEST DAILY MEAN	255	Jul 15	667	Apr 3	2.5 Jul 30, 1988	
LOWEST DAILY MEAN	8.4	Feb 10	18	Aug 29,30	3.0 Jul 24, 1988	
ANNUAL SEVEN-DAY MINIMUM	8.7	Feb 6	19	Aug 25	a3,630 May 7, 1950	
MAXIMUM PEAK FLOW			695	Apr 3	b7.41 May 7, 1950	
MAXIMUM PEAK STAGE			4.28	Apr 3		
INSTANTANEOUS LOW FLOW			17	Aug 31		
ANNUAL RUNOFF (AC-FT)	49,780		74,910		90,460	
ANNUAL RUNOFF (CFSM)	0.382		0.573		0.694	
ANNUAL RUNOFF (INCHES)	5.19		7.81		9.43	
10 PERCENT EXCEEDS	139		240		291	
50 PERCENT EXCEEDS	62		56		60	
90 PERCENT EXCEEDS	10		25		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.

