

RAINY RIVER BASIN--Continued

05130500 STURGEON RIVER NEAR CHISHOLM, MN

LOCATION.--Lat 47°40'25", long 92°54'00", in NE $\frac{1}{4}$ NW $\frac{1}{4}$ 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)
Jun 25	0700	*1,730	*5.92	No other peak greater than base discharge.			

Minimum discharge, 17 ft³/s, Mar. 5, 6, 7, 8, gage height, 1.47 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	104	e118	66	31	22	e25	144	87	261	237	78
2	30	101	e127	65	30	20	e26	140	80	214	267	81
3	30	94	141	65	30	19	e26	132	71	175	260	81
4	30	90	151	64	29	18	e27	126	65	146	228	77
5	30	86	148	63	28	18	e28	133	60	125	182	74
6	29	82	172	60	28	18	e28	136	55	109	144	72
7	28	80	181	56	29	17	e32	137	50	99	129	69
8	28	86	175	55	30	e17	e41	134	48	220	125	66
9	32	87	165	54	30	e18	e54	146	45	227	116	64
10	54	88	152	54	30	e18	e76	157	42	185	120	68
11	92	86	142	54	29	e18	e103	154	44	153	138	68
12	92	84	135	53	29	e19	e128	157	46	125	147	64
13	101	82	127	52	28	e20	e210	166	45	108	145	60
14	113	81	120	50	27	e20	e310	176	44	96	134	57
15	117	79	115	48	27	e21	389	177	50	86	141	54
16	110	76	118	48	27	e22	403	171	47	83	181	53
17	101	74	121	46	27	e22	403	157	47	71	231	50
18	94	73	120	43	27	e22	389	142	41	66	249	49
19	87	73	97	41	27	e22	385	128	43	60	231	57
20	82	71	93	40	28	e23	348	118	49	58	199	61
21	77	69	93	39	27	e22	298	110	46	59	167	68
22	74	66	87	39	26	e22	253	100	111	59	147	71
23	84	64	85	39	26	e21	219	96	756	56	130	75
24	89	75	82	38	26	e21	195	94	1310	53	117	70
25	104	154	80	38	25	e21	185	89	1680	64	107	63
26	107	179	78	37	24	e21	168	86	1390	69	98	59
27	103	128	76	37	23	e21	150	82	1000	78	91	57
28	106	e115	73	35	23	e22	143	77	676	84	85	55
29	105	e108	72	34	---	e23	143	79	466	94	84	59
30	101	e113	70	33	---	e24	148	90	338	92	81	57
31	102	---	68	31	---	e25	---	92	---	84	79	---
TOTAL	2363	2748	3582	1477	771	637	5333	3926	8832	3459	4790	1937
MEAN	76.2	91.6	116	47.6	27.5	20.5	178	127	294	112	155	64.6
MAX	117	179	181	66	31	25	403	177	1680	261	267	81
MIN	28	64	68	31	23	17	25	77	41	53	79	49
AC-FT	4690	5450	7100	2930	1530	1260	10580	7790	17520	6860	9500	3840
CFSM	0.42	0.51	0.64	0.26	0.15	0.11	0.99	0.70	1.64	0.62	0.86	0.36
IN.	0.49	0.57	0.74	0.31	0.16	0.13	1.10	0.81	1.83	0.71	0.99	0.40

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	121	95.8	50.5	29.6	23.9	50.8	367	299	183	125	73.6	91.4
MAX	600	264	135	66.0	47.7	337	868	1451	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

SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR WATER YEARS 1942 - 2002

ANNUAL TOTAL	60576	39855	
ANNUAL MEAN	166	109	126
HIGHEST ANNUAL MEAN			218
LOWEST ANNUAL MEAN			63.1
HIGHEST DAILY MEAN	1670	Apr 14	1680 Jun 25
LOWEST DAILY MEAN	24	Sep 6	17 Mar 7,8
ANNUAL SEVEN-DAY MINIMUM	25	Sep 15	18 Mar 4
MAXIMUM PEAK FLOW			1730 Jun 25
MAXIMUM PEAK STAGE			5.92 Jun 25
ANNUAL RUNOFF (AC-FT)	120200	79050	91410
ANNUAL RUNOFF (CFSM)	0.92	0.61	0.70
ANNUAL RUNOFF (INCHES)	12.52	8.24	9.52
10 PERCENT EXCEEDS	526	181	295
50 PERCENT EXCEEDS	64	77	60
90 PERCENT EXCEEDS	26	26	18

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

