

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)
Apr 14	0500	*1,700	*5.89	May 24	0100	934	4.73

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	140	e77	e38	e31	e26	e29	572	452	87	92	28
2	35	181	e75	e38	e31	e26	e30	649	414	81	93	28
3	35	196	e72	e37	e30	e26	e32	654	385	74	80	27
4	34	190	e70	e37	e30	e26	e33	593	353	70	68	25
5	34	175	e68	e36	e30	e26	e36	538	318	64	59	25
6	34	168	e66	e36	e29	e26	e46	511	290	59	50	24
7	36	206	e64	e36	e29	e26	e100	513	269	56	44	25
8	35	253	e62	e36	e29	e26	e300	509	252	52	42	27
9	35	274	e60	e36	e28	e26	e540	489	250	49	58	26
10	35	264	e59	e36	e28	e26	e700	465	237	45	53	29
11	35	240	e57	e35	e28	e26	e870	443	226	39	47	30
12	35	220	e56	e35	e28	e26	e1200	420	226	37	45	29
13	35	207	e55	e35	e27	e26	e1450	395	221	34	39	28
14	49	195	e54	e35	e27	e26	1670	370	308	33	35	26
15	67	181	e53	e35	e27	e26	1600	351	356	33	57	26
16	76	167	e52	e35	e26	e26	1380	346	369	31	85	25
17	80	152	e52	e34	e26	e26	1130	314	338	35	96	25
18	79	e138	e51	e34	e26	e26	998	298	291	44	99	25
19	77	e128	e50	e34	e26	e26	839	276	260	63	87	25
20	73	e118	e50	e34	e26	e26	738	267	236	54	75	24
21	70	e114	e49	e34	e26	e26	686	348	219	47	64	25
22	66	e108	e48	e34	e26	e26	654	562	204	42	55	27
23	62	e103	e47	e33	e26	e26	658	835	186	38	46	35
24	60	e99	e46	e33	e26	e26	708	928	170	57	41	35
25	70	e95	e45	e33	e26	e26	798	882	157	64	38	36
26	86	e91	e44	e33	e26	e27	818	878	146	45	34	37
27	109	e88	e43	e33	e26	e27	763	852	137	36	33	34
28	127	e85	e42	e33	e26	e27	675	801	126	36	31	33
29	131	e82	e41	e32	---	e28	603	707	111	34	29	32
30	124	e79	e40	e32	---	e29	561	599	97	32	30	32
31	119	---	e39	e32	---	e29	---	518	---	32	29	---
TOTAL	1978	4737	1687	1074	770	817	20645	16883	7604	1503	1734	853
MEAN	63.8	158	54.4	34.6	27.5	26.4	688	545	253	48.5	55.9	28.4
MAX	131	274	77	38	31	29	1670	928	452	87	99	37
MIN	34	79	39	32	26	26	29	267	97	31	29	24
AC-FT	3920	9400	3350	2130	1530	1620	40950	33490	15080	2980	3440	1690
CFSM	.35	.88	.30	.19	.15	.15	3.82	3.03	1.41	.27	.31	.16
IN.	.41	.98	.35	.22	.16	.17	4.27	3.49	1.57	.31	.36	.18

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 2001, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	122	95.9	49.4	29.3	23.9	51.3	370	302	181	125	72.3	91.8
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 2000 CALENDAR YEAR	FOR 2001 WATER YEAR	WATER YEARS 1942 - 2001
ANNUAL TOTAL	30995	60285	
ANNUAL MEAN	84.7	165	126
HIGHEST ANNUAL MEAN			218
LOWEST ANNUAL MEAN			63.1
HIGHEST DAILY MEAN	397	May 10	1670
LOWEST DAILY MEAN	17	Feb 16	24
ANNUAL SEVEN-DAY MINIMUM	17	Feb 16	25
MAXIMUM PEAK FLOW			1700
MAXIMUM PEAK STAGE			5.89
ANNUAL RUNOFF (AC-FT)	61480	119600	91620
ANNUAL RUNOFF (CFSM)	.47	.92	.70
ANNUAL RUNOFF (INCHES)	6.41	12.46	9.55
10 PERCENT EXCEEDS	175	526	297
50 PERCENT EXCEEDS	64	49	59
90 PERCENT EXCEEDS	19	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.

