

## RAINY RIVER BASIN--Continued

05130500 STURGEON RIVER NEAR CHISHOLM, MN

LOCATION.--Lat 47°40'25", long 92°54'00", in NE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> 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 mi<sup>2</sup>.

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.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft<sup>3</sup>/s and maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)	Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
May 9	2400	*403	*3.55	No peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	174	138	85	e22	e18	e48	102	121	86	99	37	52
2	158	136	81	e21	e18	e50	93	121	109	88	34	51
3	155	137	83	e21	e18	e51	101	117	106	83	33	68
4	155	136	84	e21	e18	e52	118	113	97	83	32	69
5	145	137	76	e21	e18	e55	142	125	88	71	34	66
6	135	132	85	e21	e18	e58	246	113	79	62	40	65
7	145	129	80	e21	e18	e62	291	109	73	64	42	81
8	244	127	77	e21	e19	e60	255	245	68	91	47	81
9	307	124	75	e21	e19	e76	214	372	66	120	55	83
10	324	121	73	e21	e19	e95	183	397	66	140	49	82
11	294	120	71	e21	e19	102	163	366	67	132	44	74
12	253	114	66	e21	e19	93	144	329	62	159	46	69
13	219	112	50	e20	e18	82	127	295	58	175	47	63
14	197	109	45	e20	e18	75	120	263	62	169	47	56
15	182	105	39	e20	e18	69	119	229	66	147	54	51
16	175	103	33	e19	e17	64	120	199	85	122	48	47
17	170	101	e28	e19	e17	57	120	174	93	101	45	43
18	168	98	e26	e18	e17	56	118	155	116	86	43	41
19	177	97	e24	e18	e17	54	114	139	132	74	41	43
20	179	96	e23	e18	e17	52	110	127	168	72	38	52
21	178	94	e22	e18	e17	51	111	120	226	64	40	57
22	172	94	e22	e18	e17	51	106	121	301	57	40	49
23	166	93	e23	e18	e18	50	105	119	321	53	38	47
24	160	92	e23	e18	e20	63	108	112	297	48	36	44
25	155	90	e24	e18	e24	129	106	109	242	45	35	42
26	146	90	e23	e18	e30	188	107	104	202	46	34	39
27	142	90	e23	e18	e37	191	108	90	168	45	33	37
28	137	85	e23	e18	e45	176	113	86	142	45	32	36
29	136	85	e22	e18	e47	154	115	82	126	43	32	35
30	136	86	e22	e18	---	131	113	83	111	41	30	34
31	136	---	e22	e18	---	115	---	82	---	38	47	---
TOTAL	5620	3271	1453	603	615	2610	4092	5217	3883	2663	1253	1657
MEAN	181	109	46.9	19.5	21.2	84.2	136	168	129	85.9	40.4	55.2
MAX	324	138	85	22	47	191	291	397	321	175	55	83
MIN	135	85	22	18	17	48	93	82	58	38	30	34
AC-FT	11150	6490	2880	1200	1220	5180	8120	10350	7700	5280	2490	3290
CFSM	1.01	.61	.26	.11	.12	.47	.76	.93	.72	.48	.22	.31
IN.	1.16	.68	.30	.12	.13	.54	.85	1.08	.80	.55	.26	.34

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 2000, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	123	94.8	49.3	29.2	23.8	51.8	365	297	180	127	72.5	92.9
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 1999 CALENDAR YEAR	FOR 2000 WATER YEAR	WATER YEARS 1942 - 2000
ANNUAL TOTAL	69512	32937	
ANNUAL MEAN	190	90.0	126
HIGHEST ANNUAL MEAN			218
LOWEST ANNUAL MEAN			63.1
HIGHEST DAILY MEAN	2280	Jul 7	3530
LOWEST DAILY MEAN	22	Dec 21	2.5
ANNUAL SEVEN-DAY MINIMUM	23	Dec 25	3.0
INSTANTANEOUS PEAK FLOW			3630 <sup>a</sup>
INSTANTANEOUS PEAK STAGE			7.41 <sup>b</sup>
ANNUAL RUNOFF (AC-FT)	137900	65330	91130
ANNUAL RUNOFF (CFSM)	1.06	.50	.70
ANNUAL RUNOFF (INCHES)	14.37	6.81	9.50
10 PERCENT EXCEEDS	390	174	294
50 PERCENT EXCEEDS	132	75	59
90 PERCENT EXCEEDS	33	19	18

<sup>a</sup> From rating curve extended above 1,600 ft<sup>3</sup>/s, on basis of slope-area measurement of peak flow.  
<sup>b</sup> Present datum.  
<sup>e</sup> Estimated.

