

RED RIVER OF THE NORTH BASIN--Continued

05094000 SOUTH BRANCH TWO RIVERS AT LAKE BRONSON, MN

LOCATION.--Lat 48°43'50", long 96°39'50", in SW¹/₄SW¹/₄ sec. 30, T.161 N., R.46 W., Kittson County, Hydrologic Unit 09020312, on left bank 70 ft upstream from culvert on U.S. Highway 59 at Lake Bronson and 3.4 mi downstream from dam at outlet of Bronson Lake.

DRAINAGE AREA.--422 mi².

PERIOD OF RECORD.--September 1928 to November 1936, April to September 1937, April 1941 to October 1943, April to December 1944, April 1945 to September 1947, October 1953 to September 1981, April 1985 to current year. Monthly discharge only for some periods, published in WSP 1308. October 1981 to March 1985, annual maximums only. Published as South Fork Two Rivers at Bronson prior to 1941.

REVISED RECORDS.--WSP 1308: 1929(M), 1931(M), 1936(M), 1944(M), 1947(M).

GAGE.--Water-stage recorder. Datum of gage is 928.53 ft above sea level (NGVD of 1929, Minnesota Department of Transportation benchmark). Prior to Nov. 23, 1953, nonrecording gage at bridge 100 ft downstream at datum 2.00 ft higher. Nov 23, 1953 to Oct. 5, 1963, water-stage recorder at same site at datum 2.00 ft higher.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow partly regulated since 1937 at Bronson Lake; usable capacity, 3,700 acre-ft.

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	53	360	e100	e20	e10	e9.3	224	577	354	84	655	3.8
2	53	856	e92	e20	e9.7	e9.3	265	483	282	39	863	3.7
3	27	1390	e80	e19	e9.5	e9.2	288	426	248	24	1090	3.6
4	23	1410	e70	e19	e9.5	e9.2	609	422	248	23	956	3.9
5	3.7	1360	e70	e19	e9.4	e9.2	1050	395	241	21	937	4.6
6	45	1410	e50	e18	e9.4	e9.3	1340	407	203	21	955	5.2
7	53	1840	e10	e18	e9.3	e9.3	2330	549	101	21	926	5.8
8	51	2440	e4.0	e18	e9.3	e9.2	3030	532	50	20	807	6.1
9	25	2390	e3.5	e17	e9.3	e9.2	3280	580	108	20	638	6.1
10	26	2490	e20	e17	e9.3	e9.3	3290	635	104	18	452	7.5
11	37	2500	e100	e17	e9.4	e9.2	3220	529	99	17	134	9.7
12	25	2290	e70	e16	e9.4	e9.2	2950	432	91	14	80	11
13	2.8	2020	e48	e16	e9.3	e9.2	2610	385	84	15	168	12
14	2.7	1790	e35	e16	e9.3	e9.3	2520	303	70	16	169	11
15	2.7	1610	e33	e16	e9.3	e9.2	2420	308	39	14	166	9.9
16	2.5	1550	e31	e16	e9.4	e9.2	2180	362	77	13	164	9.1
17	2.5	e1300	e29	e15	e9.4	e9.2	2000	333	72	3.2	164	8.5
18	2.4	e900	e28	e15	e9.3	e9.2	1810	260	73	3.7	94	8.3
19	2.3	e700	e27	e15	e9.3	e9.5	1580	180	129	13	59	7.5
20	2.3	e600	e26	e14	e9.2	e11	1380	233	175	27	68	7.0
21	2.3	523	e25	e14	e9.2	e13	1310	261	280	16	83	7.1
22	3.1	451	e24	e14	e9.3	e26	1220	253	291	16	111	8.0
23	3.5	531	e24	e13	e9.3	e50	997	261	173	16	123	8.6
24	2.7	371	e23	e13	e9.4	e180	798	269	173	14	93	7.5
25	3.5	e300	e23	e13	e9.3	e450	753	355	166	3.3	40	6.6
26	14	e240	e23	e12	e9.3	e260	696	358	117	4.1	20	6.3
27	17	e110	e22	e12	e9.2	154	682	329	76	24	20	22
28	391	e70	e22	e11	e9.2	109	472	542	139	124	20	55
29	620	e70	e21	e11	---	82	460	787	143	54	18	11
30	326	e100	e21	e10	---	107	619	664	110	28	4.2	11
31	224	---	e21	e10	---	139	---	443	---	174	3.9	---
TOTAL	2049.0	33972	1175.5	474	262.2	1756.7	46383	12853	4516	900.3	10081.1	287.4
MEAN	66.1	1132	37.9	15.3	9.36	56.7	1546	415	151	29.0	325	9.58
MAX	620	2500	100	20	10	450	3290	787	354	174	1090	55
MIN	2.3	70	3.5	10	9.2	9.2	224	180	39	3.2	3.9	3.6
AC-FT	4060	67380	2330	940	520	3480	92000	25490	8960	1790	20000	570
CFSM	.16	2.68	.09	.04	.02	.13	3.66	.98	.36	.07	.77	.02
IN.	.18	2.99	.10	.04	.02	.15	4.09	1.13	.40	.08	.89	.03

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 2001, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	22.4	33.2	5.94	3.40	6.04	78.6	457	222	173	114	52.8	44.7
MAX	153	1132	37.9	15.3	93.1	689	1977	1500	1336	1136	1349	525
(WY)	1958	2001	2001	2001	1998	1995	1966	1996	1970	1956	1993	1957
MIN	.40	.38	.13	.12	.12	.66	.54	.98	1.43	.44	.089	.000
(WY)	1991	1990	1987	1987	1987	1934	1991	1991	1980	1988	1988	1937

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR	FOR 2001 WATER YEAR	WATER YEARS 1929 - 2001
ANNUAL TOTAL	63504.03	114710.2	
ANNUAL MEAN	174	314	102a
HIGHEST ANNUAL MEAN			314
LOWEST ANNUAL MEAN			2.89
HIGHEST DAILY MEAN	2500	3290	5290
LOWEST DAILY MEAN	.65	2.3	.00b
ANNUAL SEVEN-DAY MINIMUM	1.2	2.4	.00
MAXIMUM PEAK FLOW		3380c	5410
MAXIMUM PEAK STAGE		13.43d	18.23
ANNUAL RUNOFF (AC-FT)	126000	227500	73930
ANNUAL RUNOFF (CFSM)	.41	.74	.24
ANNUAL RUNOFF (INCHES)	5.60	10.11	3.29
10 PERCENT EXCEEDS	525	955	253
50 PERCENT EXCEEDS	32	31	5.4
90 PERCENT EXCEEDS	4.5	7.5	.82

- a Median of annual mean discharges is 65 ft³/s.
- b Many days, several years.
- c Gage height, 12.60 ft.
- d Backwater from debris jam.
- e Estimated.

