

05076000 THIEF RIVER NEAR THIEF RIVER FALLS, MN

LOCATION.--Lat 48°11'08", long 96°10'11", in NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 3, T.154 N., R.43 W., Marshall County, Hydrologic Unit 09020304, on right bank, 0.2 mi upstream from highway bridge, 5 mi north of Thief River Falls, 7 mi upstream from mouth, and 9 mi downstream from Mud Lake National Wildlife Refuge.

DRAINAGE AREA.--985 mi².

PERIOD OF RECORD.--July 1909 to September 1917, April 1920 to September 1921, October 1922 to September 1924, October 1928 to September 1981, March 1982 to current year. Monthly discharge only for some periods, annual maximums for water years 1919, 1922, 1925, 1926, published in WSP 1308. October 1981 to February 1982, operated as a high-flow partial-record station.

REVISED RECORDS.--WSP 925: Drainage area. WSP 1308: 1917(M), 1924(M), 1929(M), 1931-33(M), 1935(M), 1937(M).

GAGE.--Water-stage recorder and control of grouted boulders. Datum of gage is 1,112.33 ft above sea level (NGVD of 1929, levels by Minnesota Department of Transportation). Prior to May 4, 1939, nonrecording gages at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Some regulation by Thief and Mud Lakes.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	e114	2.5	e1.2	e0.41	e0.38	e130	873	13	166	25	0.69
2	17	109	2.3	e1.1	e0.41	e0.38	e96	772	12	144	24	0.56
3	17	112	1.8	e1.0	e0.41	e0.38	e74	186	8.9	133	26	0.54
4	23	106	1.6	e0.98	e0.41	e0.38	e63	118	7.4	100	26	0.36
5	18	108	1.5	e0.93	e0.41	e0.38	e77	114	5.8	84	24	0.22
6	14	109	e1.5	e0.86	e0.41	e0.38	e89	116	5.4	72	18	0.16
7	17	114	e1.6	e0.81	e0.40	e0.38	e83	117	23	61	18	0.12
8	15	140	e1.6	e0.76	e0.40	e0.38	e75	108	29	44	16	0.09
9	14	140	e1.7	e0.74	e0.40	e0.38	66	96	26	38	15	0.04
10	16	140	e1.8	e0.73	e0.40	e0.38	52	101	36	37	14	0.04
11	16	137	e1.8	e0.69	e0.40	e0.38	40	107	69	37	14	0.06
12	15	140	e1.8	e0.62	e0.40	e0.39	62	110	135	35	14	0.04
13	11	e132	e1.8	e0.57	e0.39	e0.41	66	98	173	32	14	0.23
14	12	e120	e1.8	e0.53	e0.39	e0.48	64	85	182	35	18	0.30
15	14	e112	e1.8	e0.50	e0.39	e2.5	80	80	143	42	35	0.33
16	12	e108	e1.8	e0.48	e0.39	e20	72	74	127	44	28	0.33
17	12	e109	e1.7	e0.46	e0.39	e150	56	74	135	47	20	0.49
18	15	112	e1.7	e0.45	e0.39	e225	45	75	162	66	13	1.6
19	16	110	e1.6	e0.44	e0.39	e200	33	85	380	66	11	2.7
20	14	110	e1.6	e0.43	e0.39	e165	45	97	376	62	11	2.4
21	13	108	e1.6	e0.43	e0.39	e145	67	73	362	59	15	2.2
22	52	104	e1.5	e0.42	e0.39	e128	58	55	357	89	11	2.3
23	315	98	e1.5	e0.42	e0.38	e108	44	40	322	91	13	2.4
24	321	e96	e1.4	e0.42	e0.38	e92	36	34	95	90	13	2.6
25	317	e92	e1.4	e0.42	e0.38	e80	22	28	107	90	11	2.7
26	317	e87	e1.3	e0.41	e0.38	e64	13	20	248	90	10	3.6
27	317	e83	e1.3	e0.41	e0.38	e75	9.2	15	289	87	8.0	3.7
28	319	37	e1.3	e0.41	e0.38	e92	157	13	273	87	3.9	3.6
29	244	5.2	e1.2	e0.41	---	e85	884	10	229	49	2.5	3.0
30	124	2.9	e1.2	e0.41	---	e66	895	18	193	32	1.7	3.4
31	116	---	e1.2	e0.41	---	e80	---	17	---	28	1.2	---
TOTAL	2,761	3,095.1	50.2	18.85	11.04	1,782.96	3,553.2	3,809	4,523.5	2,137	474.3	40.80
MEAN	89.1	103	1.62	0.61	0.39	57.5	118	123	151	68.9	15.3	1.36
MAX	321	140	2.5	1.2	0.41	225	895	873	380	166	35	3.7
MIN	11	2.9	1.2	0.41	0.38	0.38	9.2	10	5.4	28	1.2	0.04
AC-FT	5,480	6,140	100	37	22	3,540	7,050	7,560	8,970	4,240	941	81
CFSM	0.09	0.10	0.00	0.00	0.00	0.06	0.12	0.12	0.15	0.07	0.02	0.00
IN.	0.10	0.12	0.00	0.00	0.00	0.07	0.13	0.14	0.17	0.08	0.02	0.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1909 - 2003, BY WATER YEAR (WY)

MEAN	94.8	85.8	24.4	5.67	5.30	77.7	613	501	338	253	118	116
MAX	637	1,019	215	100	101	773	2,827	4,274	2,238	2,103	1,130	1,619
(WY)	(1986)	(2001)	(1999)	(1910)	(1998)	(1995)	(1966)	(1950)	(2002)	(1975)	(2001)	(1999)
MIN	0.000	0.000	0.000	0.000	0.000	0.000	7.75	1.83	0.032	0.000	0.000	0.000
(WY)	(1911)	(1911)	(1911)	(1911)	(1911)	(1930)	(1981)	(1990)	(1980)	(1932)	(1932)	(1929)

05076000 THIEF RIVER NEAR THIEF RIVER FALLS, MN—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1909 - 2003	
ANNUAL TOTAL	165,552.71		22,256.95			
ANNUAL MEAN	454		61.0		a186	
HIGHEST ANNUAL MEAN					791 1999	
LOWEST ANNUAL MEAN					1.28 1939	
HIGHEST DAILY MEAN	3,350	Jun 10	895	Apr 30	5,580	May 13, 1950
LOWEST DAILY MEAN	0.10	Mar 8	0.04	Sep 9	b0.00	Oct 1, 1910
ANNUAL SEVEN-DAY MINIMUM	0.35	Mar 5	0.08	Sep 6	0.00	Oct 1, 1910
MAXIMUM PEAK FLOW			c908	Apr 29	5,610	May 13, 1950
MAXIMUM PEAK STAGE			d8.32	Mar 18	17.38	May 13, 1950
INSTANTANEOUS LOW FLOW			0.03	Sep 9	b0.00	Oct 1, 1910
ANNUAL RUNOFF (AC-FT)	328,400		44,150		134,700	
ANNUAL RUNOFF (CFSM)	0.46		0.062		0.19	
ANNUAL RUNOFF (INCHES)	6.25		0.84		2.56	
10 PERCENT EXCEEDS	1,980		140		576	
50 PERCENT EXCEEDS	55		16		10	
90 PERCENT EXCEEDS	1.4		0.39		0.00	

- a Median of annual mean discharges is 140 ft³/s.
- b Many days, several years.
- c Gage height, 7.95 ft.
- d Backwater from ice.
- e Estimated.

