

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 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	10	e2.6	e2.0	e0.29	0.35	e1,150	587	2,770	733	37	178
2	2.3	10	e2.6	e1.9	e0.28	0.37	1,040	576	2,630	712	52	170
3	2.2	e9.0	e2.5	e1.8	e0.28	0.37	775	540	2,470	745	79	159
4	1.8	e7.5	2.4	e1.7	e0.27	0.37	545	325	2,210	795	116	155
5	1.5	e6.6	e2.3	e1.6	0.27	0.40	386	287	2,020	826	41	155
6	1.7	e5.8	e2.3	e1.5	e0.26	0.45	309	142	1,980	869	27	194
7	1.6	e4.8	e2.2	1.4	e0.26	0.48	292	122	1,920	974	25	289
8	1.4	e4.0	e2.2	1.3	e0.25	0.51	441	105	1,830	894	25	371
9	1.3	e3.2	e2.1	1.2	0.24	0.55	455	104	1,740	543	73	362
10	1.1	e3.4	e1.8	1.1	0.24	0.62	474	102	1,660	603	73	412
11	2.1	e3.7	e1.7	e0.97	0.24	0.72	418	116	1,590	597	144	407
12	3.4	e4.1	e1.5	0.88	0.24	0.64	396	1,870	1,510	580	70	387
13	6.2	e4.6	e1.5	0.88	0.24	0.56	462	2,610	1,480	681	102	363
14	7.0	5.3	e1.5	0.83	0.24	0.61	598	2,460	1,470	575	101	345
15	7.0	6.2	e1.6	0.79	e0.24	0.75	709	2,290	1,440	531	93	195
16	6.5	7.0	e1.6	0.77	0.24	0.85	838	2,230	1,420	388	88	447
17	6.2	7.8	e1.6	e0.69	0.23	0.89	831	2,090	1,380	363	64	559
18	5.9	9.5	e1.5	e0.65	0.22	0.94	814	1,920	1,350	355	56	569
19	5.2	12	e1.5	0.61	0.22	1.1	808	1,810	1,330	324	55	563
20	4.6	14	e1.6	0.56	0.22	1.3	797	1,830	1,300	87	53	588
21	4.0	16	e1.6	e0.51	0.22	1.4	803	1,720	1,280	62	52	893
22	4.0	13	e1.7	e0.47	0.23	1.4	791	1,650	1,270	138	51	1,040
23	3.6	9.4	e1.8	0.44	0.23	1.6	798	1,580	1,250	119	51	1,000
24	3.6	6.7	e1.8	0.39	0.24	2.3	865	1,550	1,210	120	53	1,060
25	3.7	5.0	e1.8	0.33	0.25	e5.0	858	1,540	1,080	115	51	1,090
26	13	3.9	e1.9	e0.32	0.26	e35	851	1,570	799	108	60	1,010
27	6.9	3.4	e2.0	e0.32	0.26	e160	827	1,590	751	59	74	935
28	7.0	e3.0	e2.2	e0.31	0.30	e1,400	740	1,550	789	55	76	934
29	7.2	e2.8	e2.2	e0.31	0.34	e1,330	732	1,540	947	37	73	923
30	9.1	e2.7	e2.2	e0.30	---	e1,200	698	2,580	901	35	91	897
31	11	---	e2.1	e0.30	---	e1,250	---	2,910	---	35	119	---
TOTAL	144.9	204.4	59.9	27.13	7.30	5,399.53	20,501	41,896	45,777	13,058	2,125	16,650
MEAN	4.67	6.81	1.93	0.88	0.25	174	683	1,351	1,526	421	68.5	555
MAX	13	16	2.6	2.0	0.34	1,400	1,150	2,910	2,770	974	144	1,090
MIN	1.1	2.7	1.5	0.30	0.22	0.35	292	102	751	35	25	155
AC-FT	287	405	119	54	14	10,710	40,660	83,100	90,800	25,900	4,210	33,030
CFSM	0.00	0.01	0.00	0.00	0.00	0.18	0.69	1.37	1.55	0.43	0.07	0.56
IN.	0.01	0.01	0.00	0.00	0.00	0.20	0.77	1.58	1.73	0.49	0.08	0.63

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1909 - 2004, BY WATER YEAR (WY)

MEAN	93.7	84.9	24.1	5.62	5.24	78.8	614	511	352	255	118	121
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	0.00	0.00	0.00	0.00	0.00	0.00	7.75	1.83	0.03	0.00	0.00	0.00
(WY)	(1911)	(1911)	(1911)	(1911)	(1911)	(1930)	(1981)	(1990)	(1980)	(1932)	(1932)	(1929)

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SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1909 - 2004	
ANNUAL TOTAL	16,759.85		145,850.16			
ANNUAL MEAN	45.9		398		a188	
HIGHEST ANNUAL MEAN					791	1999
LOWEST ANNUAL MEAN					1.28	1939
HIGHEST DAILY MEAN	895	Apr 30	2,910	May 31	5,580	May 13, 1950
LOWEST DAILY MEAN	0.04	Sep 9	0.22	Feb 18-21	b0.00	Oct 1, 1910
ANNUAL SEVEN-DAY MINIMUM	0.08	Sep 6	0.22	Feb 18	0.00	Oct 1, 1910
MAXIMUM PEAK FLOW			2,930	May 31	5,610	May 13, 1950
MAXIMUM PEAK STAGE			13.49	May 31	17.38	May 13, 1950
INSTANTANEOUS LOW FLOW			0.22	Feb 18	b0.00	Oct 1, 1910
ANNUAL RUNOFF (AC-FT)	33,240		289,300		136,500	
ANNUAL RUNOFF (CFSM)	0.047		0.405		0.191	
ANNUAL RUNOFF (INCHES)	0.63		5.51		2.60	
10 PERCENT EXCEEDS	115		1,410		588	
50 PERCENT EXCEEDS	6.9		36		10	
90 PERCENT EXCEEDS	0.39		0.35		0.00	

- a Median of annual mean discharges is 150 ft³/s.
- b Many days, several years.
- e Estimated.

