

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 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	889	1,760	e105	e95	e26	e22	e1,780	655	724	1,900	214	62
2	872	1,810	e99	e94	e26	e22	e2,200	619	686	1,860	187	60
3	845	1,730	e94	e93	e26	e22	e2,000	503	696	1,880	182	56
4	830	1,620	e97	e90	e26	e23	1,920	481	713	2,100	177	52
5	809	1,590	e100	e87	e26	e24	1,870	389	942	2,080	166	54
6	638	1,570	e98	e85	e26	e36	1,860	381	1,760	2,050	110	54
7	592	1,500	e97	e82	e25	e60	1,850	420	2,010	1,870	107	209
8	612	1,370	e96	e80	e24	e55	1,780	430	2,060	1,820	106	237
9	711	1,260	e96	e76	e24	e45	1,710	1,120	1,950	1,710	79	78
10	708	1,110	e96	e72	e24	e38	1,620	1,310	1,790	1,560	36	42
11	704	1,050	e96	e40	e25	e33	1,560	1,110	1,750	1,450	27	40
12	628	987	e96	e28	e26	e29	1,620	1,080	2,530	1,400	25	39
13	349	871	e97	e25	e27	e24	1,790	1,010	2,570	1,370	22	40
14	457	872	e97	e23	e27	e20	1,750	1,000	2,570	1,320	21	39
15	452	800	e98	e22	e27	e18	1,650	989	2,500	1,280	19	38
16	365	596	e100	e21	e26	15	1,550	960	2,330	1,230	17	36
17	368	473	e101	e20	e25	12	1,460	925	2,150	1,180	20	39
18	371	529	e102	e20	e25	10	1,360	822	1,950	1,080	30	34
19	399	533	e103	e20	e24	9.2	1,100	554	1,720	897	98	32
20	389	351	e104	e20	e24	8.6	892	597	1,690	1,180	198	30
21	312	282	e107	e21	e24	8.1	689	533	1,590	1,680	170	29
22	297	434	e106	e21	e23	7.9	512	588	1,520	1,600	119	28
23	275	836	e104	e21	e23	8.2	564	668	1,550	1,430	86	28
24	376	411	e102	e21	e23	10	558	652	1,520	1,270	66	29
25	579	e270	e100	e21	e23	e20	578	671	1,470	1,100	65	46
26	887	e205	e99	e22	e22	e48	675	750	1,400	963	81	52
27	1,200	e170	e98	e23	e22	e92	673	782	1,350	360	99	49
28	1,030	e130	e98	e24	e22	e210	664	838	1,320	260	94	27
29	1,050	e122	e98	e24	---	e400	662	855	1,320	253	77	28
30	1,560	e114	e97	e25	---	e770	657	834	1,740	240	71	27
31	1,780	---	e96	e26	---	e1,500	---	779	---	228	69	---
TOTAL	21,334	25,356	3,077	1,342	691	3,600.0	39,554	23,305	49,871	40,601	2,838	1,614
MEAN	688	845	99.3	43.3	24.7	116	1,318	752	1,662	1,310	91.5	53.8
MAX	1,780	1,810	107	95	27	1,500	2,200	1,310	2,570	2,100	214	237
MIN	275	114	94	20	22	7.9	512	381	686	228	17	27
AC-FT	42,320	50,290	6,100	2,660	1,370	7,140	78,460	46,230	98,920	80,530	5,630	3,200
CFSM	0.70	0.86	0.10	0.04	0.03	0.12	1.34	0.76	1.69	1.33	0.09	0.05
IN.	0.81	0.96	0.12	0.05	0.03	0.14	1.49	0.88	1.88	1.53	0.11	0.06

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1909 - 2005, BY WATER YEAR (WY)

MEAN	101	93.6	25.0	6.05	5.47	79.3	622	514	367	267	118	120
MAX	688	1,019	215	100	101	773	2,827	4,274	2,238	2,103	1,130	1,619
(WY)	(2005)	(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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1909 - 2005	
ANNUAL TOTAL	195,207.96		213,183.0		a193	
ANNUAL MEAN	533		584		791	
HIGHEST ANNUAL MEAN					1999	
LOWEST ANNUAL MEAN					1939	
HIGHEST DAILY MEAN	2,910	May 31	2,570	Jun 13, 14	5,580	May 13, 1950
LOWEST DAILY MEAN	0.22	Feb 18	7.9	Mar 22	0.00	Oct 1, 1910
ANNUAL SEVEN-DAY MINIMUM	0.22	Feb 17	8.9	Mar 18	0.00	Oct 1, 1910
MAXIMUM PEAK FLOW			c2,610	Jun 12	5,610	May 13, 1950
MAXIMUM PEAK STAGE			d15.91	Apr 2	17.38	May 13, 1950
INSTANTANEOUS LOW FLOW			7.9	Mar 21	0.00	Oct 1, 1910
ANNUAL RUNOFF (AC-FT)	387,200		422,800		139,800	
ANNUAL RUNOFF (CFSM)	0.541		0.593		0.196	
ANNUAL RUNOFF (INCHES)	7.37		8.05		2.66	
10 PERCENT EXCEEDS	1,550		1,720		606	
50 PERCENT EXCEEDS	288		214		11	
90 PERCENT EXCEEDS	0.35		23		0.00	

- a Median of annual mean discharges is 150 ft³/s.
- b Many days, several years.
- c Gage height, 12.75 ft.
- d Backwater from ice.
- e Estimated.

