Water-Data Report 2012

05131500 LITTLE FORK RIVER AT LITTLEFORK, MN

Rainy Basin
Little Fork Subbasin

LOCATION.--Lat 48°23′45″, long 93°32′57″ referenced to North American Datum of 1927, in NE ¼ SE ¼ sec.9, T.68 N., R.25 W., Koochiching County, MN, Hydrologic Unit 09030005, on right bank at town of Littlefork, 0.9 mi upstream from bridge on State Highway 217, 2.8 mi upstream from Beaver Creek, and 19 mi upstream from mouth.

DRAINAGE AREA.--1,680 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--June to November 1909, April to November 1910, April 1911 to June 1917, September 1917, October 1917 to March 1919 (gage heights only), June 1928 to current year.

REVISED RECORDS.--WSP 955: Drainage area. WSP 1508: 1913, 1916, 1928-32, 1934. WRD MN-74: 1963. Unpublished, 2009: 1975(M).

GAGE.--Water-stage recorder. Datum of gage is 1,083.59 ft above sea level (NGVD of 1929). June 23, 1909 to March 4, 1917, non-recording gage, and July 21, 1937 to October 23, 1979, water-stage recorder at site 1.2 miles downstream at datum 10.53 ft lower; March 5 to September 30, 1917, and June 22, 1928 to July 20, 1937, non-recording gage at site 1.18 mi downstream at datum 10.53 ft lower.

REMARKS.--Records good, except those for estimated daily discharges, which are poor.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	97	422	e164	e155	e120	e82	1,030	2,350	5,450	659	508	106
2	96	406	e161	e154	e119	e80	1,280	2,040	4,460	561	495	105
3	96	381	e159	e154	e119	e78	1,890	1,920	3,680	496	444	102
4	92	363	e156	e158	e118	e75	2,180	1,890	2,840	479	408	95
5	90	349	e153	e167	e117	e71	1,870	1,970	2,190	497	436	89
6	91	342	e149	e171	e115	e75	1,610	2,110	1,720	557	442	87
7	102	339	e144	e169	e111	e77	1,380	2,130	1,430	628	394	92
8	117	310	e141	e167	e109	e76	1,210	2,070	1,230	640	357	96
9	103	252	e139	e165	e109	e76	1,100	1,950	1,150	605	319	92
10	99	204	e146	e165	e105	e86	1,010	1,830	1,090	575	286	86
11	100	161	e148	e164	e103	e103	932	1,730	1,020	520	260	83
12	109	150	e142	e162	e101	e132	844	1,650	960	470	250	81
13	146	146	e139	e160	e99	e181	769	1,540	912	441	232	80
14	335	142	e137	e159	e98	e217	724	1,410	851	404	206	79
15	350	145	e137	e158	e97	e279	709	1,280	820	368	195	75
16	326	151	e141	e154	e95	e391	770	1,060	955	338	191	73
17	319	132	e141	e145	e94	e755	1,190	759	939	321	191	71
18	306	125	e148	e141	e92	e1,060	2,050	663	905	304	197	69
19	288	e123	e149	e137	e91	1,320	3,790	609	1,010	285	201	67
20	307	e122	e147	e133	e91	1,540	4,890	577	1,110	269	178	68
21	329	e122	e147	e131	e89	1,390	5,050	532	1,500	258	172	69
22	328	e125	e146	e128	e87	1,280	5,130	533	3,160	243	163	69
23	304	e141	e146	e126	e85	1,040	5,500	574	3,620	234	154	69
24	282	e156	e150	e125	e84	998	5,740	651	3,330	243	146	72
25	264	e167	e160	e125	e81	1,010	5,520	1,610	2,760	284	139	71
26	249	e170	e159	e123	e80	970	4,970	3,500	2,210	311	132	71
27	247	e171	e159	e123	e81	918	4,440	3,980	1,710	345	129	72
28	244	e169	e158	e122	e83	849	3,940	4,460	1,300	399	125	73
29	238	e168	e157	e122	e82	778	3,370	6,390	1,010	410	121	73
30	261	e167	e157	e121	---	766	2,800	6,930	807	399	115	72
31	394	---	e156	e121	---	803	---	6,490	---	455	109	---
Total	6,709	6,321	4,636	4,505	2,855	17,556	77,688	67,188	56,129	12,998	7,695	2,407
Mean	216	211	150	145	98.4	566	2,590	2,167	1,871	419	248	80.2
Max	394	422	164	171	120	1,540	5,740	6,930	5,450	659	508	106
Min	90	122	137	121	80	71	709	532	807	234	109	67
Ac-ft	13,310	12,540	9,200	8,940	5,660	34,820	154,100	133,300	111,300	25,780	15,260	4,770
Cfsm	0.13	0.13	0.09	0.09	0.06	0.34	1.54	1.29	1.11	0.25	0.15	0.05
In.	0.15	0.14	0.10	0.10	0.06	0.39	1.72	1.49	1.24	0.29	0.17	0.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1909 - 2012, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	879	742	329	159	119	297	3,232	2,794	1,729	961	540	701
Max	4,450	3,044	1,186	477	323	3,022	8,421	12,190	5,490	3,643	2,679	5,189
(WY)	(1996)	(1972)	(2002)	(1966)	(2011)	(1945)	(1966)	(1950)	(1944)	(1944)	(1988)	(1977)
Min	43.4	60.8	52.6	43.5	36.5	50.2	292	173	182	75.4	34.3	29.2
(WY)	(1977)	(1977)	(1977)	(1931)	(2007)	(1940)	(1977)	(1977)	(1988)	(1988)	(1936)	(1976)

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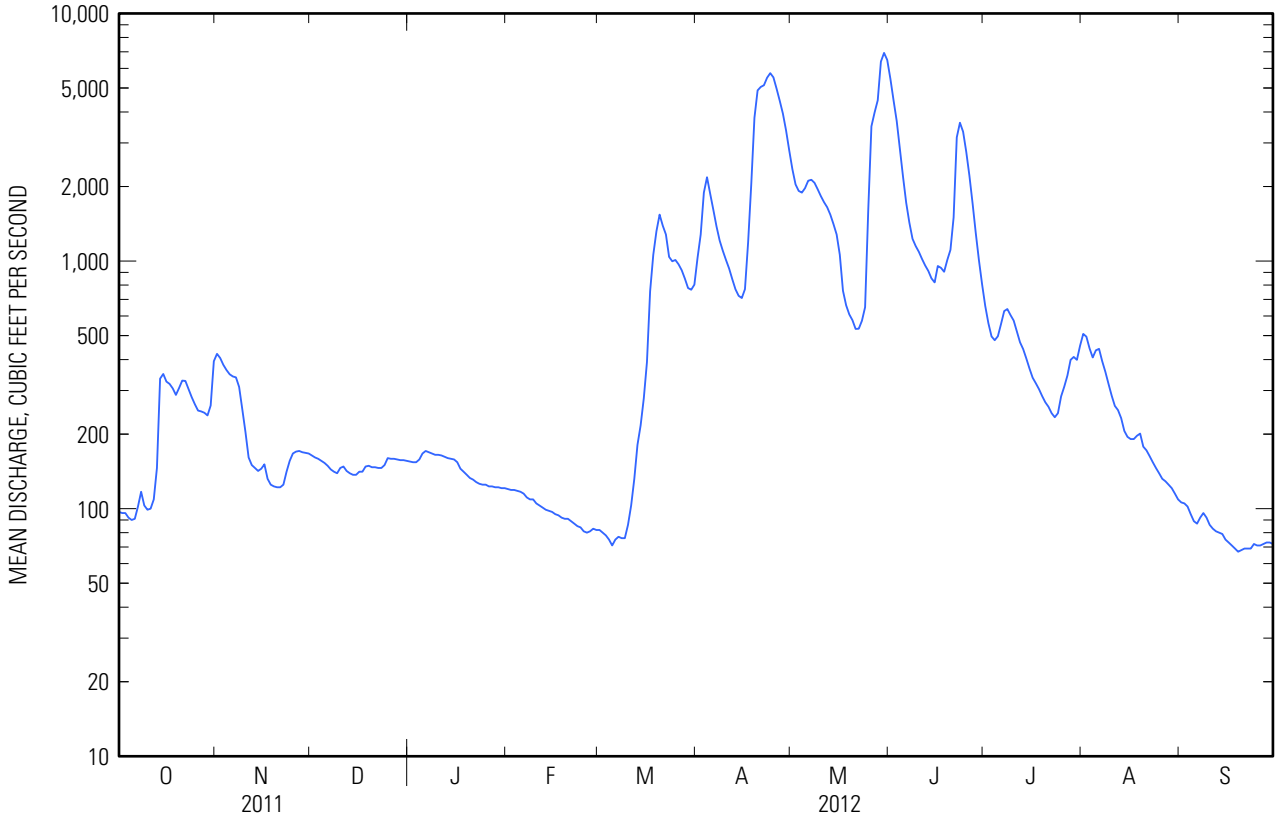
SUMMARY STATISTICS

	Calendar Year 2011		Water Year 2012		Water Years 1909 - 2012	
Annual total	427,189		266,687			
Annual mean	1,170		729		1,052	
Highest annual mean					1,912	1966
Lowest annual mean					306	1931
Highest daily mean	17,400	Apr 14	6,930	May 30	25,000	Apr 18, 1916
Lowest daily mean	76	Sep 18	67	Sep 19	21	Aug 26, 1936
Annual seven-day minimum	81	Sep 14	69	Sep 17	22	Aug 21, 1936
Maximum peak flow			7,020	May 30	25,000	Apr 18, 1916
Maximum peak stage			9.84	May 30	[a]37.00	Apr 18, 1916
Instantaneous low flow			64	Sep 19	21	Aug 26, 1936
Annual runoff (ac-ft)	847,300		529,000		762,300	
Annual runoff (cfsm)	0.697		0.434		0.626	
Annual runoff (inches)	9.46		5.91		8.51	
10 percent exceeds	4,060		1,960		2,800	
50 percent exceeds	318		199		370	
90 percent exceeds	109		86		87	

[a] Also occurred May 11, 1950, site and datum then in use.