

05317200 LITTLE COTTONWOOD RIVER NEAR COURTLAND, MN

LOCATION.--Lat 44°14'47", long 94°20'19", in SW¹/₄NE¹/₄ sec.17, T.109 N., R.29 W., Blue Earth County, Hydrologic Unit 07020007, on right bank 30 ft downstream from bridge on State Highway 68, 0.7 mi above mouth, 1.5 mi south of Courtland.

DRAINAGE AREA.--170 mi².

PERIOD OF RECORD.--October 1973 to current year. September 1969 to September 1973, operated as a low-flow station only.

GAGE.--Water-stage recorder. Datum of gage is 788.25 ft above sea level (NGVD of 1929).

REMARKS.--Records good except those for estimated days, which are fair.

REVISIONS.--Daily-mean discharges and minimum discharge, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 30	1600	354	5.61	Jun 9	2000	*476	*6.25

Minimum discharge, 1.1 ft³/s, Jan. 24, gage height, 2.41 ft.

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	1.8	3.3	6.2	7.7	1.6	38	43	20	251	41	24	8.5
2	1.8	3.7	6.5	8.2	1.7	66	39	19	254	39	22	9.2
3	1.7	4.1	7.7	e8.4	1.7	47	35	19	273	46	21	8.5
4	1.9	4.2	8.5	e8.1	1.7	50	33	24	288	47	21	7.5
5	1.7	3.6	8.7	6.3	1.8	44	32	17	270	50	22	7.3
6	1.7	3.6	9.0	4.0	1.9	46	30	15	215	48	21	10
7	1.7	3.9	9.0	3.0	1.9	149	26	12	145	50	22	9.2
8	1.7	3.5	9.0	2.8	1.9	115	23	9.5	105	48	22	8.7
9	1.5	3.9	8.2	2.6	2.1	109	22	11	333	44	23	9.0
10	1.5	4.1	5.8	2.7	2.1	103	20	12	380	42	22	8.8
11	1.7	4.2	5.2	3.0	2.2	69	19	9.5	332	47	21	8.5
12	3.6	4.2	3.5	3.2	2.2	42	18	9.1	312	52	20	8.3
13	3.2	4.1	3.4	3.4	2.2	94	23	9.3	249	73	19	7.5
14	2.7	5.5	3.9	3.6	2.2	78	20	8.6	207	91	17	11
15	2.4	5.0	5.2	3.4	2.0	60	15	8.3	176	96	16	28
16	2.1	4.8	6.1	3.3	2.0	65	14	7.9	148	94	17	54
17	2.1	5.3	5.6	3.6	2.0	60	12	12	123	78	26	46
18	2.0	5.2	5.5	e3.3	2.2	62	11	10	105	61	22	39
19	2.6	4.7	5.2	2.2	2.4	63	16	11	93	50	17	34
20	3.0	4.8	5.1	1.9	2.7	80	16	14	83	44	15	29
21	2.5	4.3	5.2	2.0	2.7	57	21	18	76	44	14	39
22	2.4	4.1	5.5	1.6	3.3	66	24	29	68	43	13	118
23	2.1	4.3	5.8	1.4	3.7	55	25	36	62	52	12	142
24	2.1	3.8	5.0	1.2	3.9	53	23	50	59	61	11	154
25	2.4	3.6	4.5	1.2	4.1	51	26	58	54	51	12	129
26	2.7	3.1	4.7	1.2	4.2	49	28	58	52	43	11	104
27	2.8	3.1	6.3	1.2	4.9	49	30	56	49	39	11	89
28	2.8	3.5	7.2	1.4	5.3	59	29	55	46	36	9.7	73
29	3.0	5.1	7.5	1.4	7.5	61	25	115	44	33	9.9	63
30	3.1	6.0	7.6	1.4	---	57	22	306	42	29	11	57
31	3.3	---	7.8	1.3	---	49	---	296	---	27	10	---
TOTAL	71.6	126.6	194.4	100.0	80.1	2,046	720	1,335.2	4,894	1,599	534.6	1,320.0
MEAN	2.31	4.22	6.27	3.23	2.76	66.0	24.0	43.1	163	51.6	17.2	44.0
MAX	3.6	6.0	9.0	8.4	7.5	149	43	306	380	96	26	154
MIN	1.5	3.1	3.4	1.2	1.6	38	11	7.9	42	27	9.7	7.3
AC-FT	142	251	386	198	159	4,060	1,430	2,650	9,710	3,170	1,060	2,620
CFSM	0.01	0.02	0.04	0.02	0.02	0.39	0.14	0.25	0.96	0.30	0.10	0.26
IN.	0.02	0.03	0.04	0.02	0.02	0.45	0.16	0.29	1.07	0.35	0.12	0.29

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2004, BY WATER YEAR (WY)

MEAN	37.2	42.8	26.2	14.3	21.4	116	182	120	140	87.3	48.7	37.8
MAX	163	134	118	80.1	105	392	980	418	750	553	248	262
(WY)	(1987)	(1983)	(1992)	(1992)	(1983)	(1997)	(2001)	(1993)	(1993)	(1993)	(1993)	(1986)
MIN	0.75	0.70	0.21	0.15	0.38	5.79	9.64	4.17	2.39	0.63	0.81	0.54
(WY)	(1976)	(1977)	(1977)	(1977)	(1977)	(1975)	(1990)	(1981)	(1976)	(1988)	(1976)	(1976)

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SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1974 - 2004	
ANNUAL TOTAL	11,092.7		13,021.5			
ANNUAL MEAN	30.4		35.6		72.9	
HIGHEST ANNUAL MEAN					239	1993
LOWEST ANNUAL MEAN					9.18	1989
HIGHEST DAILY MEAN	189	Jun 25	380	Jun 10	2,850	Jun 20, 1993
LOWEST DAILY MEAN	1.3	Sep 10	1.2	Jan 24-27	0.02	Sep 12, 1977
ANNUAL SEVEN-DAY MINIMUM	1.5	Sep 4	1.3	Jan 23	0.08	Sep 11, 1977
MAXIMUM PEAK FLOW			476	Jun 9	a3,520	Jun 20, 1993
MAXIMUM PEAK STAGE			6.25	Jun 9	11.60	Apr 4, 1997
INSTANTANEOUS LOW FLOW			1.1	Jan 24	<0.1	Sep 17, 1977
ANNUAL RUNOFF (AC-FT)	22,000		25,830		52,780	
ANNUAL RUNOFF (CFSM)	0.179		0.209		0.429	
ANNUAL RUNOFF (INCHES)	2.43		2.85		5.82	
10 PERCENT EXCEEDS	82		85		189	
50 PERCENT EXCEEDS	6.9		11		26	
90 PERCENT EXCEEDS	2.4		2.1		1.7	

- a Gage-height, 10.45 ft.
- b Backwater from the Minnesota River.
- e Estimated.

