

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.

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)
Jun 25	0700	*203	*4.65	No other peak greater than base discharge.			

Minimum discharge, 1.2 ft³/s, Sept. 10, gage height, 2.43 ft.

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	17	32	18	17	e3.8	11	42	47	75	113	12	2.2
2	16	31	25	16	e3.8	13	40	45	72	102	11	2.0
3	15	35	21	15	e3.8	6.1	39	44	69	90	9.6	1.9
4	21	33	20	15	e3.7	6.1	37	42	67	81	9.0	1.8
5	26	33	17	16	e3.5	6.2	35	45	65	70	11	1.7
6	55	33	17	17	e3.4	6.4	35	50	64	62	9.9	1.6
7	62	34	18	17	e3.3	6.5	32	52	64	55	8.6	1.6
8	65	37	17	18	e3.3	8.3	33	51	71	52	7.5	1.4
9	57	33	15	19	e3.3	6.0	31	56	82	63	6.9	1.4
10	54	33	16	23	e3.3	5.8	30	63	80	114	6.8	1.3
11	50	32	17	12	e3.3	5.7	30	115	80	76	5.9	2.5
12	48	30	20	10	e3.3	5.3	31	147	82	61	5.3	12
13	50	29	20	9.6	e3.3	5.5	31	139	81	53	4.9	7.4
14	51	30	20	8.6	e3.3	26	32	145	77	48	4.5	4.6
15	46	30	20	8.1	e3.3	70	34	144	70	45	4.2	3.4
16	43	29	21	8.3	e3.4	68	40	135	64	39	4.0	3.1
17	41	27	20	7.7	e3.5	81	52	129	60	36	3.8	3.0
18	40	27	23	7.2	e3.6	83	64	123	56	34	3.5	3.4
19	39	28	24	6.3	3.8	77	65	135	52	31	6.0	3.2
20	38	28	23	6.2	4.2	80	75	175	47	30	4.6	3.0
21	36	29	21	5.6	4.2	76	82	163	42	29	3.8	2.8
22	36	28	21	5.2	5.6	71	83	158	41	27	3.2	2.7
23	34	28	20	4.5	5.9	67	78	155	84	26	3.0	2.5
24	38	23	19	4.1	5.1	72	70	147	131	26	2.9	2.2
25	39	14	17	e3.9	5.1	60	66	138	189	24	2.8	1.9
26	34	25	15	e3.7	5.2	54	64	124	185	21	2.7	1.9
27	33	31	15	e3.6	4.9	50	60	110	163	19	2.4	1.9
28	32	26	16	e3.6	4.9	54	54	102	145	18	2.4	1.8
29	32	27	17	e3.6	---	55	50	93	128	18	2.3	1.7
30	33	21	19	e3.6	---	56	49	87	116	16	2.4	1.8
31	33	---	18	e3.7	---	45	---	79	---	14	2.4	---
TOTAL	1,214	876	590	302.1	111.1	1,236.9	1,464	3,238	2,602	1,493	169.3	83.7
MEAN	39.2	29.2	19.0	9.75	3.97	39.9	48.8	104	86.7	48.2	5.46	2.79
MAX	65	37	25	23	5.9	83	83	175	189	114	12	12
MIN	15	14	15	3.6	3.3	5.3	30	42	41	14	2.3	1.3
AC-FT	2,410	1,740	1,170	599	220	2,450	2,900	6,420	5,160	2,960	336	166
CFSM	0.23	0.17	0.11	0.06	0.02	0.23	0.29	0.61	0.51	0.28	0.03	0.02
IN.	0.27	0.19	0.13	0.07	0.02	0.27	0.32	0.71	0.57	0.33	0.04	0.02

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2003, BY WATER YEAR (WY)

MEAN	38.4	44.1	26.9	14.7	22.0	118	187	123	139	88.5	49.7	37.6
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)

05317200 LITTLE COTTONWOOD RIVER NEAR COURTLAND, MN—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1974 - 2003	
ANNUAL TOTAL	23,443.6		13,380.1		74.1	
ANNUAL MEAN	64.2		36.7		9.18	
HIGHEST ANNUAL MEAN					239	1993
LOWEST ANNUAL MEAN					9.18	1989
HIGHEST DAILY MEAN	747	Jun 4	189	Jun 25	2,850	Jun 20, 1993
LOWEST DAILY MEAN	4.6	Sep 24	1.3	Sep 10	0.02	Sep 12, 1977
ANNUAL SEVEN-DAY MINIMUM	5.9	Sep 18	1.5	Sep 4	0.08	Sep 11, 1977
MAXIMUM PEAK FLOW			203	Jun 25	a3,520	Jun 20, 1993
MAXIMUM PEAK STAGE			4.65	Jun 25	b11.60	Apr 4, 1997
INSTANTANEOUS LOW FLOW			1.2	Sep 10	0.01	Sep 17, 1977
ANNUAL RUNOFF (AC-FT)	46,500		26,540		53,680	
ANNUAL RUNOFF (CFSM)	0.38		0.22		0.44	
ANNUAL RUNOFF (INCHES)	5.13		2.93		5.92	
10 PERCENT EXCEEDS	103		82		190	
50 PERCENT EXCEEDS	31		26		27	
90 PERCENT EXCEEDS	17		3.3		1.6	

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

