

MINNESOTA RIVER BASIN

05317200 LITTLE COTTONWOOD RIVER NEAR COURTLAND, MN

LOCATION.--Lat 44° 14'47", long 94° 20'19", in SW¹/₄NE¹/₄sec.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.--230 mi², approximately.

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 mean sea level.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 180 ft³/s and maximum (*):

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
JUL	AUG	SEP							
1	23	66	e101	e31	e25	42	e375	116	132
242	132	44							
2	21	64	e99	e31	e26	49	e350	121	124
221	117	46							
3	21	60	e94	e32	26	54	e310	135	118
225	103	41							
4	20	60	e86	e33	27	64	e270	141	112
243	90	36							
5	19	57	e81	e34	27	e62	e290	148	105
272	77	34							
6	19	55	e75	e33	27	e56	e300	152	99
298	90	34							
7	21	52	e71	e33	27	e55	e270	167	93
305	82	32							
8	18	44	e59	e33	e27	e61	e250	170	84
283	75	29							
9	18	26	e56	e32	e27	71	e220	139	77
238	66	27							
10	18	30	e53	e32	28	139	e200	133	72
200	58	27							

11	18	45	e51	e31	e28	249	e180	125	68
174	58	27							
12	18	38	e51	e30	e28	362	e170	120	66
156	61	26							
13	20	50	e50	e30	e28	350	e190	112	63
157	55	22							
14	16	136	e45	e30	29	e290	e210	108	57
214	55	22							
15	16	e224	e36	e29	29	e280	e230	104	53
177	51	21							
16	19	164	e47	e29	30	e285	e250	98	49
148	45	23							
17	92	146	e54	e28	30	334	e265	92	47
144	42	24							
18	115	e145	e45	e28	31	387	e320	92	45
143	38	22							
19	97	128	e40	e27	30	447	e300	87	46
146	42	20							
20	91	134	e38	e27	28	543	301	84	45
135	47	19							
21	82	147	e35	e26	30	e808	243	79	44
195	78	18							
22	75	e152	e34	e27	e32	892	212	75	39
236	110	19							
23	78	e154	e33	e27	e33	780	198	72	35
236	108	21							
24	91	e156	e32	e27	e34	788	186	87	35
202	104	21							
25	87	e142	e32	e26	e35	792	180	95	75
262	88	22							
26	81	e120	e32	e26	37	792	171	103	92
251	74	22							
27	74	e109	e31	e25	38	813	143	109	93
229	64	21							
28	67	e97	e31	e25	40	731	133	112	109
213	56	19							
29	66	e97	e31	e25	---	618	127	124	230
194	51	17							
30	72	e99	e31	e25	---	e520	121	141	299
171	55	17							
31	71	---	e31	e25	---	e450	---	138	---
149	49	---							
TOTAL	1544	2997	1585	897	837	12164	6965	3579	2606
6459	2221	773							
MEAN	49.8	99.9	51.1	28.9	29.9	392	232	115	86.9
208	71.6	25.8							
MAX	115	224	101	34	40	892	375	170	299
305	132	46							
MIN	16	26	31	25	25	42	121	72	35
135	38	17							
AC-FT	3060	5940	3140	1780	1660	24130	13820	7100	5170

12810	4410	1530							
CFSM	.22	.43	.22	.13	.13	1.71	1.01	.50	.38
.91	.31	.11							
IN.	.25	.48	.26	.15	.14	1.97	1.13	.58	.42
1.04	.36	.13							

- o a Estimated daily discharge, backwater from Minnesota River.
- o e Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 1997, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
JUL	AUG	SEP							
MEAN	44.1	49.1	28.6	15.5	22.6	134	168	122	137
91.1	56.6	45.1							
MAX	163	134	118	80.1	105	392	463	418	750
553	248	262							
(WY)	1987	1983	1992	1992	1983	1997	1983	1993	1993
1993	1993	1986							
MIN	.75	.70	.21	.15	.38	5.79	9.64	4.17	2.39
.63	.81	.54							
(WY)	1976	1977	1977	1977	1977	1975	1990	1981	1976
1988	1976	1976							

<i>SUMMARY STATISTICS</i>	<i>FOR 1996 CALENDAR YEAR</i>	<i>FOR 1997 WATER YEAR</i>	<i>WATER YEARS 1974 - 1997</i>							
ANNUAL TOTAL		38942			42627					
ANNUAL MEAN		106			117				76.3	
HIGHEST ANNUAL MEAN										
239		1993								
LOWEST ANNUAL MEAN										
9.18		1989								
HIGHEST DAILY MEAN			1470	Jun 17	892	Mar 22		2850	Jun	
20 1993										
LOWEST DAILY MEAN			12	Feb 4	16	Oct 14		.02	Sep	
12 1977										
ANNUAL SEVEN-DAY MINIMUM			14	Feb 3	18	Oct 9		.08	Sep	
11 1977										
INSTANTANEOUS PEAK FLOW					892	Mar 21		3520	Jun	
20 1993										
INSTANTANEOUS PEAK STAGE					7.55	Mar 21		10.45	Jun	
20 1993										
INSTANTANEOUS LOW FLOW					14	Sep 30		.01	Sep	
17 1977										
ANNUAL RUNOFF (AC-FT)		77240			84550			55260		
ANNUAL RUNOFF (CFSM)		.46			.51			.33		
ANNUAL RUNOFF (INCHES)		6.30			6.89			4.51		
10 PERCENT EXCEEDS		210			263			200		
50 PERCENT EXCEEDS		74			68			28		
90 PERCENT EXCEEDS		22			25			1.3		