

Water-Data Report 2009

**05278000 MIDDLE FORK CROW RIVER NEAR SPICER, MN**

Upper Mississippi Basin  
Crow Subbasin

LOCATION.--Lat 45°15'50", long 94°48'20" referenced to North American Datum of 1927, in SE ¼ NE ¼ sec.27, T.121 N., R.33 W., Kandiyohi County, MN, Hydrologic Unit 07010204, on right bank 75 feet upstream from highway bridge on County State Aid Rd. 2, 1.5 mi downstream from Lake Calhoun, 3 mi downstream from Green Lake, 6.8 miles northeast of Spicer.

DRAINAGE AREA.--179 mi<sup>2</sup>, approximately.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--March 1949 to September 1987, May 2006 to current year.

REVISED RECORDS.--WSP 1508: 1949(M), 1950.

GAGE.--Water-stage recorder and concrete and steel sharp-crested V-notch weir. Datum of gage is 1,147.93 ft. above National Geodetic Vertical Datum of 1929 (Kandiyohi County Highway Department bench mark). Prior to July 20, 1950, non-recording gage at bridge 75 ft. downstream at same datum.

COOPERATION.--Middle Fork Crow River Watershed District.

REMARKS.--Records are good except for those estimated daily discharges, which are poor. Some regulation from outlet of Lake Calhoun one mile upstream

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**DISCHARGE, CUBIC FEET PER SECOND**  
**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**  
**DAILY MEAN VALUES**

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	9.3	5.1	30	e18	e13	e9.2	204	135	48	19	13	28
2	7.9	4.9	29	e18	e13	e9.2	216	130	46	17	12	26
3	6.7	5.0	28	e18	e12	e9.2	221	127	42	17	12	25
4	4.6	5.3	27	e17	e12	e9.9	224	123	41	18	12	24
5	3.6	5.7	27	e17	e12	e11	231	122	40	18	11	24
6	3.3	11	26	e17	e13	e12	236	121	36	17	10	24
7	10	21	24	e17	e12	e12	239	120	34	17	12	23
8	9.6	25	23	e17	e11	e13	243	118	37	16	18	22
9	8.6	22	23	e16	e12	e13	243	116	37	15	19	23
10	8.0	20	22	e17	e13	e12	239	120	36	16	17	22
11	6.3	19	21	e16	e14	e12	246	117	36	15	16	23
12	6.0	20	20	e16	e13	e12	241	113	37	14	15	27
13	7.1	22	20	e16	e12	e14	235	115	36	13	15	26
14	6.8	25	e19	e16	e12	e25	229	115	34	15	14	25
15	6.6	28	e19	e15	e12	e40	221	112	32	18	15	24
16	5.5	28	e19	e15	e12	56	214	115	32	16	40	23
17	5.1	30	e19	e15	e11	69	211	109	33	15	41	23
18	4.6	30	e18	e15	e10	66	204	103	31	14	37	23
19	4.4	25	e18	e15	e10	62	195	95	31	13	41	22
20	4.4	22	e18	e15	e11	64	192	90	31	13	50	22
21	3.5	26	e18	e15	e11	67	186	87	29	21	50	22
22	3.6	26	e17	e15	e9.9	69	176	80	30	19	46	22
23	5.2	28	e17	e14	e9.8	173	160	77	28	18	43	21
24	4.7	29	e17	e14	e11	206	139	71	27	18	40	20
25	4.8	29	e17	e14	e10	186	135	65	26	16	38	21
26	8.5	30	e18	e14	e10	173	133	64	23	15	36	21
27	11	31	e18	e14	e9.8	165	138	62	26	14	35	21
28	8.1	31	e18	e13	e9.5	168	131	59	25	13	33	21
29	7.0	31	e18	e13	---	170	128	56	23	12	32	19
30	6.2	31	e18	e15	---	170	135	54	21	11	30	17
31	5.9	---	e18	e14	---	181	---	50	---	11	29	---
<b>Total</b>	196.9	666.0	644	481	321.0	2,258.5	5,945	3,041	988	484	832	684
<b>Mean</b>	6.35	22.2	20.8	15.5	11.5	72.9	198	98.1	32.9	15.6	26.8	22.8
<b>Max</b>	11	31	30	18	14	206	246	135	48	21	50	28
<b>Min</b>	3.3	4.9	17	13	9.5	9.2	128	50	21	11	10	17
<b>Ac-ft</b>	391	1,320	1,280	954	637	4,480	11,790	6,030	1,960	960	1,650	1,360
<b>Cfs/m</b>	0.04	0.12	0.12	0.09	0.06	0.41	1.11	0.55	0.18	0.09	0.15	0.13
<b>In.</b>	0.04	0.14	0.13	0.10	0.07	0.47	1.24	0.63	0.21	0.10	0.17	0.14

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 2009, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Mean</b>	40.1	41.3	38.8	31.1	31.1	52.8	116	130	106	80.0	51.0	40.7
<b>Max</b>	331	172	155	114	110	182	330	433	292	418	464	327
<b>(WY)</b>	(1987)	(1987)	(1972)	(1972)	(1984)	(1983)	(1986)	(1986)	(1984)	(1986)	(1986)	(1986)
<b>Min</b>	0.96	0.85	0.54	0.20	0.10	0.40	2.35	1.63	2.62	2.85	1.35	1.30
<b>(WY)</b>	(1977)	(1977)	(1977)	(1968)	(1968)	(1960)	(1977)	(1977)	(1977)	(1977)	(1959)	(1976)

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SUMMARY STATISTICS

	Calendar Year 2008		Water Year 2009		Water Years 1949 - 2009	
<b>Annual total</b>	13,977.9		16,541.4			
<b>Annual mean</b>	38.2		45.3		64.6	
<b>Highest annual mean</b>					240	1986
<b>Lowest annual mean</b>					1.53	1977
<b>Highest daily mean</b>	146	Apr 27	246	Apr 11	569	Jul 28, 1986
<b>Lowest daily mean</b>	2.6	Sep 12	3.3	Oct 6	<sup>a</sup> 0.00	Mar 15, 1949
<b>Annual seven-day minimum</b>	3.4	Sep 7	4.3	Oct 18	0.00	Mar 15, 1949
<b>Maximum peak flow</b>			249	Apr 11	<sup>b</sup> 571	Jul 28, 1986
<b>Maximum peak stage</b>			4.65	Apr 11	6.67	Jun 25, 1957
<b>Instantaneous low flow</b>			2.6	Oct 6	0.00	Mar 15, 1949
<b>Annual runoff (ac-ft)</b>	27,730		32,810		46,800	
<b>Annual runoff (cfsm)</b>	0.213		0.253		0.361	
<b>Annual runoff (inches)</b>	2.90		3.44		4.90	
<b>10 percent exceeds</b>	122		135		163	
<b>50 percent exceeds</b>	18		21		35	
<b>90 percent exceeds</b>	6.2		9.4		1.5	

<sup>a</sup> Many days, several years.

<sup>b</sup> Gage height, 6.47 ft.

