

Water-Data Report 2007

05267185 NORTH TWO RIVERS NEAR ELMDALE, MN

Upper Mississippi-Crow-Rum Basin
Platte-Spunk Subbasin

LOCATION.--Lat 45°49'22", long 94°28'21" referenced to North American Datum of 1983, Morrison County, MN, Hydrologic Unit 07010201, about a half mile South of Elmdale on County Road 6. Gage is mounted to the wingwall on downstream right side of bridge.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Water years 2007 to current year.

GAGE.--May 2007 to current year.

REMARKS.--Gage-height records considered good.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 8.73, September 21, 2007; minimum gage height, 5.72, August 10, 11

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 8.73, September 21; minimum gage height, 5.72, August 10, 11.

05267185 NORTH TWO RIVERS NEAR ELMDALE, MN—Continued

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	October			November			December			January		
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
Month	---	---	---	---	---	---	---	---	---	---	---	---

05267185 NORTH TWO RIVERS NEAR ELMDALE, MN—Continued

GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	February			March			April			May		
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	7.58	7.51	7.54
4	---	---	---	---	---	---	---	---	---	7.55	7.45	7.49
5	---	---	---	---	---	---	---	---	---	7.72	7.55	7.62
6	---	---	---	---	---	---	---	---	---	7.80	7.72	7.76
7	---	---	---	---	---	---	---	---	---	7.79	7.76	7.78
8	---	---	---	---	---	---	---	---	---	7.76	7.71	7.74
9	---	---	---	---	---	---	---	---	---	7.71	7.64	7.68
10	---	---	---	---	---	---	---	---	---	7.65	7.54	7.60
11	---	---	---	---	---	---	---	---	---	7.54	7.44	7.49
12	---	---	---	---	---	---	---	---	---	7.44	7.37	7.41
13	---	---	---	---	---	---	---	---	---	7.37	7.31	7.34
14	---	---	---	---	---	---	---	---	---	7.32	7.26	7.29
15	---	---	---	---	---	---	---	---	---	7.28	7.26	7.27
16	---	---	---	---	---	---	---	---	---	7.30	7.26	7.28
17	---	---	---	---	---	---	---	---	---	7.29	7.25	7.27
18	---	---	---	---	---	---	---	---	---	7.26	7.22	7.24
19	---	---	---	---	---	---	---	---	---	7.23	7.19	7.21
20	---	---	---	---	---	---	---	---	---	7.20	7.17	7.18
21	---	---	---	---	---	---	---	---	---	7.18	7.13	7.16
22	---	---	---	---	---	---	---	---	---	7.15	7.11	7.13
23	---	---	---	---	---	---	---	---	---	7.14	7.10	7.12
24	---	---	---	---	---	---	---	---	---	7.11	7.07	7.09
25	---	---	---	---	---	---	---	---	---	7.07	7.03	7.05
26	---	---	---	---	---	---	---	---	---	7.05	7.01	7.03
27	---	---	---	---	---	---	---	---	---	7.01	6.98	7.00
28	---	---	---	---	---	---	---	---	---	7.00	6.97	6.98
29	---	---	---	---	---	---	---	---	---	7.03	6.94	6.97
30	---	---	---	---	---	---	---	---	---	7.06	6.95	7.00
31	---	---	---	---	---	---	---	---	---	7.09	7.01	7.05
Month	---	---	---	---	---	---	---	---	---	---	---	---

05267185 NORTH TWO RIVERS NEAR ELMDALE, MN—Continued

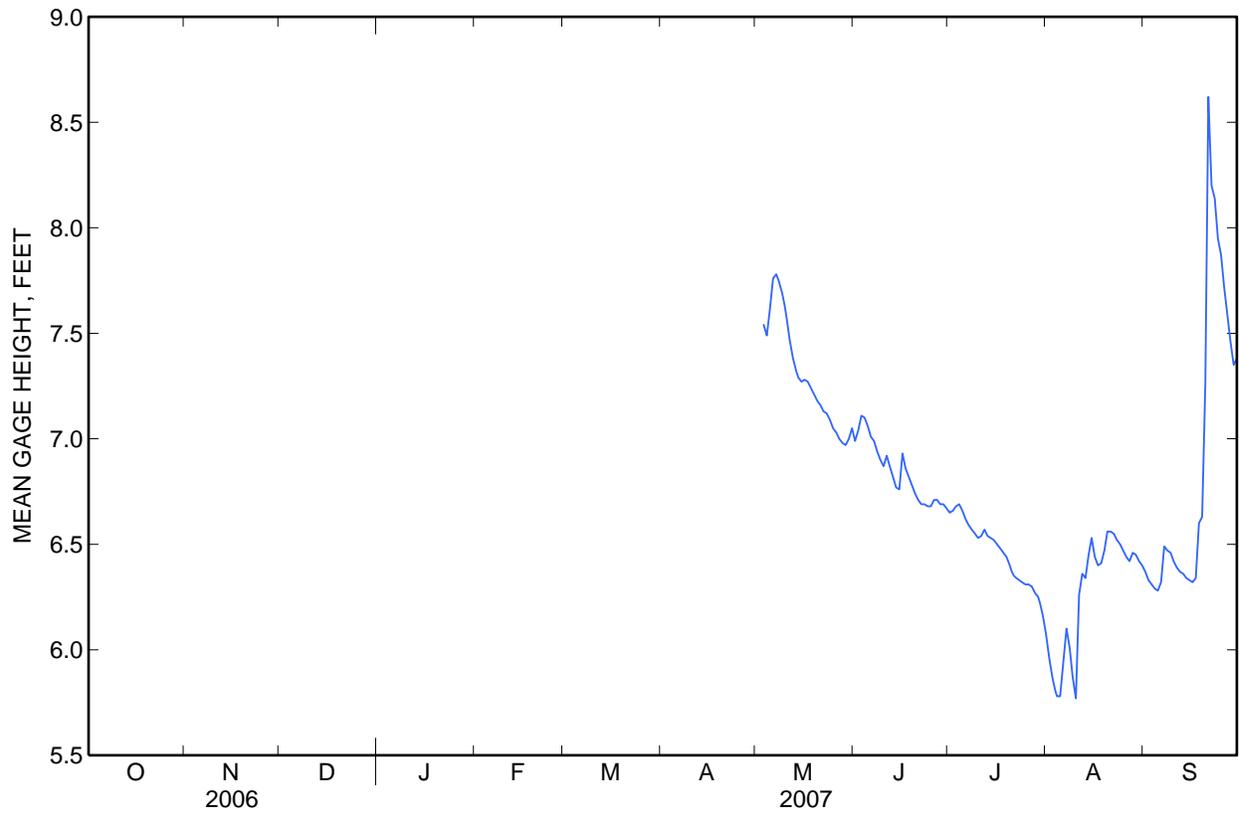
GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	June			July			August			September		
1	7.01	6.97	6.99	6.67	6.61	6.65	6.07	5.96	6.02	6.38	6.35	6.37
2	7.08	6.98	7.04	6.67	6.64	6.66	5.96	5.87	5.92	6.35	6.31	6.33
3	7.15	7.05	7.11	6.70	6.67	6.68	5.87	5.79	5.83	6.32	6.29	6.31
4	7.13	7.07	7.10	6.71	6.65	6.69	5.79	5.76	5.78	6.31	6.28	6.29
5	7.09	7.03	7.06	6.69	6.62	6.66	5.81	5.76	5.78	6.29	6.26	6.28
6	7.03	6.99	7.01	6.66	6.58	6.62	6.05	5.81	5.94	6.51	6.26	6.32
7	7.06	6.96	6.99	6.62	6.55	6.59	6.13	6.05	6.10	6.51	6.46	6.49
8	6.97	6.92	6.94	6.59	6.54	6.57	6.07	5.94	6.01	6.50	6.44	6.47
9	6.92	6.86	6.90	6.58	6.52	6.55	5.94	5.80	5.87	6.48	6.43	6.46
10	6.99	6.83	6.87	6.55	6.51	6.53	5.80	5.72	5.77	6.43	6.40	6.42
11	6.96	6.88	6.92	6.58	6.51	6.54	6.39	5.72	6.26	6.41	6.38	6.39
12	6.90	6.84	6.87	6.58	6.55	6.57	6.37	6.34	6.36	6.38	6.36	6.37
13	6.85	6.78	6.82	6.55	6.52	6.54	6.38	6.33	6.34	6.37	6.35	6.36
14	6.80	6.74	6.77	6.55	6.49	6.53	6.63	6.38	6.45	6.35	6.33	6.34
15	6.87	6.71	6.76	6.54	6.48	6.52	6.62	6.45	6.53	6.33	6.32	6.33
16	7.08	6.86	6.93	6.51	6.47	6.50	6.49	6.41	6.44	6.33	6.32	6.32
17	6.90	6.82	6.86	6.50	6.45	6.48	6.41	6.39	6.40	6.48	6.32	6.34
18	6.84	6.81	6.82	6.48	6.44	6.46	6.44	6.38	6.41	6.75	6.48	6.60
19	6.81	6.76	6.78	6.45	6.41	6.44	6.55	6.43	6.47	6.70	6.60	6.63
20	6.76	6.72	6.74	6.41	6.39	6.40	6.57	6.55	6.56	8.64	6.60	7.26
21	6.73	6.69	6.71	6.39	6.35	6.36	6.57	6.55	6.56	8.73	8.26	8.62
22	6.71	6.67	6.69	6.35	6.32	6.34	6.56	6.53	6.55	8.26	8.15	8.20
23	6.70	6.67	6.69	6.34	6.31	6.33	6.53	6.51	6.52	8.24	8.01	8.14
24	6.69	6.66	6.68	6.34	6.31	6.32	6.51	6.48	6.50	8.01	7.92	7.95
25	6.70	6.67	6.68	6.33	6.29	6.31	6.48	6.45	6.47	7.92	7.78	7.87
26	6.72	6.70	6.71	6.32	6.29	6.31	6.45	6.42	6.44	7.78	7.66	7.72
27	6.73	6.68	6.71	6.32	6.27	6.30	6.45	6.41	6.42	7.66	7.52	7.59
28	6.70	6.68	6.69	6.28	6.25	6.27	6.47	6.45	6.46	7.52	7.40	7.46
29	6.70	6.65	6.69	6.26	6.21	6.25	6.46	6.44	6.45	7.40	7.30	7.35
30	6.69	6.63	6.67	6.21	6.15	6.20	6.44	6.41	6.42	7.54	7.28	7.38
31	---	---	---	6.15	6.07	6.12	6.41	6.38	6.40	---	---	---
Month	7.15	6.63	6.84	6.71	6.07	6.46	6.63	5.72	6.27	8.73	6.26	6.90

05267185 NORTH TWO RIVERS NEAR ELMDALE, MN—Continued

THE RETRIEVED PLOT DATA CONSIST ENTIRELY OF MISSING
VALUES OR, IN THE CASE OF A LOG PLOT, OF NEGATIVE AND
ZERO VALUES

05267185 NORTH TWO RIVERS NEAR ELMDALE, MN—Continued



05267185 NORTH TWO RIVERS NEAR ELMDALE, MN—Continued

WATER-QUALITY RECORDS

REMARKS.--Upper Mississippi River Basin nutrient enrichment (NEET) study sampling site. The objectives of this study are to determine the transport, chemical transformation, and retention of nutrients in the water column and surrounding sediments, and resulting effects on biological communities in stream reaches. Such cycling differs in different geologic and hydrologic settings, and is controlled, in large part, by ground-water and surface-water interactions. The study will be conducted from 2006 to 2009.

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 1 of 4

[Remark codes: <, less than; E, estimated.]

Date	Time	Sample type	Gage height, feet (00065)	Instantaneous discharge, cfs (00061)	Stream velocity, ft/s (00055)	Velocity at point in stream, ft/s (81904)	Stream width, feet (00004)	Turbidity, water, unfltrd field, NTU (61028)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd std units (00400)
Jun 25...	1230	Environmental	6.68	2.3	--	.14	24.0	--	739	8.2	104	8.2
Aug 16...	1050	Environmental	6.44	.26	.40	--	--	5.9	738	5.4	61	7.8
16...	1050	Plant tissue	--	--	--	--	--	--	--	4.3	--	7.7
16...	1051	Plant tissue	--	--	--	--	--	--	--	4.3	--	7.7
16...	1055	Replicate	--	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 2 of 4

[Remark codes: <, less than; E, estimated.]

Date	Specific conductance, wat unfltrd μ S/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Alkalinity, wat fltr inc tit field, mg/L as CaCO ₃ (39086)	Bicarbonate, wat fltr incrm. titr., field, mg/L (00453)	Carbonate, wat fltr incrm. titr., field, mg/L (00452)	Ammonia, water, fltrd, mg/L as N (00608)	Nitrate + nitrite, water, fltrd, mg/L as N (00631)	Nitrite, water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Total nitrogen, wat unfltrd by analysis, mg/L (62855)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd, mg/L (00665)
Jun 25...	560	26.5	25.4	--	--	--	E.020	.074	.009	--	1.46	.051	.161
Aug 16...	578	21.0	19.6	213	260	.0	<.020	.112	.012	.38	1.15	.073	.207
16...	580	--	19.9	--	--	--	--	--	--	--	--	--	--
16...	580	--	19.9	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	<.020	.110	.012	.44	1.15	.078	.207

05267185 NORTH TWO RIVERS NEAR ELMDALE, MN—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 3 of 4

[Remark codes: <, less than; E, estimated.]

Date	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Biomass phyton, ashfree drymass g/m2 (49954)	Biomass phyton, ashfree DTH, g/m2 (63766)	Biomass phyton, ash weight, g/m2 (63765)	Periphyton biomass ash weight, g/m2 (00572)	Biomass phyton, dry weight, DTH, g/m2 (63767)	Periphyton biomass dry weight, g/m2 (00573)	Chlorophyll a phyton, chromo-fluoro, mg/m2 (70957)	Chlorophyll a phyton, DTH, CF meth mg/m2 (63763)	Chlorophyll a phyto-plankton, fluoro, µg/L (70953)
Jun 25...	--	--	--	--	--	--	--	--	--	--	--	--	--
Aug 16...	2.5	<.1	2.5	7.3	--	--	--	--	--	--	--	--	31.6
16...	--	--	--	--	80.0	--	--	1,300	--	1,364	24.3	--	--
16...	--	--	--	--	--	79.1	1,240	--	1,310	--	--	16.9	--
16...	2.9	<.1	2.8	7.3	--	--	--	--	--	--	--	--	30.2

WATER-QUALITY DATA
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

Part 4 of 4

[Remark codes: <, less than; E, estimated.]

Date	Pheophytn a periphyton, DTH, CF meth mg/m2 (63764)	Pheophytin a, periphyton, mg/m2 (62359)	Pheophytin a, phyto-plankton, µg/L (62360)	Number of sampling points, count (00063)	Data base number
Jun 25...	--	--	--	10	01
Aug 16...	--	--	14.6	2	01
16...	--	54.7	--	--	01
16...	34.2	--	--	--	01
16...	--	--	13.9	--	77