

Water-Data Report 2009

05200170 MISSISSIPPI RIVER NEAR VERN, MN

Mississippi Headwaters Basin
Mississippi Headwaters Subbasin

LOCATION.--Lat 47°19'32", long 95°13'30" referenced to North American Datum of 1983, Clearwater County, MN, Hydrologic Unit 07010101, gage located upstream of County Road 2 about 200 feet. Gage is mounted on upstream side of an old bridge abutment on the left bank.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 2008 to current year.

PERIOD OF DAILY RECORD.--April 2008 to current year.

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. Temperature records are considered fair for entire the period of record, except July 30 @1145 to Aug. 18 @1946 which is rated poor. Temperatures were checked with a thermometer periodically during period of record. Accuracy of records of water temperatures at sensor are within 1.0 C., although published to within 0.5 C.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 27.5 C, Aug. 8, 12, 2008; maximum daily, 24.5 C, Aug. 8, 11, 12, 2008; minimum, 2.5 C, Apr. 28, 2008; minimum daily, 4.5 C, Apr. 28, 2008.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 27.5 C, Aug. 8, 12; maximum daily, 24.5 C, Aug. 8, 11, 12; minimum, 2.5 C, Apr. 28; minimum daily, 4.5 C, Apr. 28.

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TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	October			November			December			January		
1	10.7	7.4	8.8	---	---	---	---	---	---	---	---	---
2	11.6	6.9	9.0	---	---	---	---	---	---	---	---	---
3	10.7	5.9	8.3	---	---	---	---	---	---	---	---	---
4	10.6	5.8	8.1	---	---	---	---	---	---	---	---	---
5	9.9	6.6	8.5	---	---	---	---	---	---	---	---	---
6	11.0	9.4	10.1	---	---	---	---	---	---	---	---	---
7	11.7	9.7	10.7	---	---	---	---	---	---	---	---	---
8	11.5	8.5	9.7	---	---	---	---	---	---	---	---	---
9	10.0	7.9	8.9	---	---	---	---	---	---	---	---	---
10	8.4	6.6	7.5	---	---	---	---	---	---	---	---	---
11	7.3	6.4	6.8	---	---	---	---	---	---	---	---	---
12	10.8	7.3	8.8	---	---	---	---	---	---	---	---	---
13	11.1	9.6	10.6	---	---	---	---	---	---	---	---	---
14	9.6	7.7	8.7	---	---	---	---	---	---	---	---	---
15	8.8	7.9	8.4	---	---	---	---	---	---	---	---	---
16	8.6	7.7	8.2	---	---	---	---	---	---	---	---	---
17	7.7	6.6	7.2	---	---	---	---	---	---	---	---	---
18	8.4	6.0	7.1	---	---	---	---	---	---	---	---	---
19	8.5	7.2	7.9	---	---	---	---	---	---	---	---	---
20	7.4	5.6	6.5	---	---	---	---	---	---	---	---	---
21	5.8	3.8	4.9	---	---	---	---	---	---	---	---	---
22	5.9	5.3	5.6	---	---	---	---	---	---	---	---	---
23	7.8	5.5	6.5	---	---	---	---	---	---	---	---	---
24	7.3	7.0	7.1	---	---	---	---	---	---	---	---	---
25	8.1	6.2	7.1	---	---	---	---	---	---	---	---	---
26	7.2	4.0	5.8	---	---	---	---	---	---	---	---	---
27	4.0	2.6	3.3	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
Month	---	---	---	---	---	---	---	---	---	---	---	---

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WATER-QUALITY DATA
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Part 1 of 2

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

Date	Time	Medium name	Baro- metric pres- sure, mm Hg (00025)	Temper- ature, air, deg C (00020)	Dis- solved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf lab, µS/cm @ 25 degC (90095)	Specif- ic conduc- tance, wat unf lab, µS/cm @ 25 degC (00095)	Temper- ature, deg C (00010)	Turbdty white light, det ang 90+/-30 corrctd NTRU (63676)
Oct										
28...	0900	Plant tissue	--	-6.0	11.6	7.8	--	370	1.2	--
28...	0900	Surface water	732	-6.0	11.6	7.8	370	369	1.2	2.6
28...	0901	Benthic invertebrates (quan)	--	-6.0	11.6	7.8	--	370	1.2	--

WATER-QUALITY DATA
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Part 2 of 2

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

Date	Number of sam- pling points, count (00063)	Sampler type, code (84164)	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)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, unfltrd mg/L as P (00665)	Sus- pended sedi- ment concen- tration mg/L (80154)
Oct								
28...	5	Periphyton nat sub	--	--	--	--	--	--
28...	10	Grab sample	<.020	E.009	E.001	.016	.038	4
28...	5	Bnth invrt net	--	--	--	--	--	--