

Water-Data Report 2009

**0535739503 LITTLE TURTLE RIVER AT GARNET STREET AT MERCER, WI**

Chippewa Basin  
Flambeau Subbasin

LOCATION.--Lat 46°09'49", long 90°03'33" referenced to North American Datum of 1927, in NE ¼ SW ¼ NE ¼ sec.36, T.43 N., R.3 E., Iron County, WI, Hydrologic Unit 07050002, --Lat 46°09'49", long 90°03'33"referenced to NAVD27, in SW¼ NE¼ Sec. 26 T.42 N., R 04 E., Iron County , WI, Hydrologic Unit 0750002, on the right bank just downstream of Garnet Street in Mercer, WI.

DRAINAGE AREA.--10.41 mi<sup>2</sup>.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--October 2007 to October 2009 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 1584 ft above NGVD of 1929, from topographic map.

COOPERATION.--Mercer Lake Association and Wisconsin DNR.

REMARKS.--Records good except those for estimated daily discharges, which are poor.

## 0535739503 LITTLE TURTLE RIVER AT GARNET STREET AT MERCER, WI—Continued

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

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	5.3	4.3	6.5	4.9	4.0	4.3	6.6	7.5	3.5	2.1	1.8	4.1
2	5.6	4.1	6.2	4.8	4.0	4.3	6.7	7.3	3.4	2.1	1.9	4.2
3	5.6	4.0	5.9	4.8	4.0	4.2	6.4	7.0	3.1	2.1	2.0	4.1
4	5.3	3.9	5.8	5.0	3.9	4.1	6.2	6.8	2.9	2.1	2.0	4.1
5	4.9	3.9	5.7	4.9	3.9	4.1	6.1	6.7	2.8	2.0	1.9	4.1
6	5.1	4.1	5.7	4.8	3.9	4.2	6.1	7.8	2.7	1.9	1.8	4.0
7	5.4	4.2	5.6	4.7	3.9	4.3	5.8	7.8	2.9	1.7	1.7	3.9
8	5.7	4.6	5.6	4.7	3.9	4.3	5.7	7.7	3.0	1.6	2.3	3.9
9	5.0	4.7	5.6	4.5	3.8	4.3	5.6	7.4	3.1	1.4	2.4	3.8
10	5.0	4.6	5.6	4.5	4.0	4.4	5.5	7.0	3.4	1.5	2.5	3.7
11	5.0	4.5	5.5	4.4	4.1	4.6	5.3	7.5	3.5	1.4	2.4	3.5
12	4.9	4.7	5.5	4.3	4.1	4.5	5.2	8.9	3.3	1.2	2.1	3.4
13	4.8	5.0	5.4	4.3	4.3	4.5	5.1	9.2	3.3	0.96	2.0	3.1
14	5.0	7.7	5.8	4.2	4.4	4.5	4.9	9.1	3.3	0.96	1.9	2.9
15	4.9	9.2	6.0	4.1	4.3	4.4	4.7	8.6	3.1	1.5	1.8	2.9
16	4.7	9.5	5.9	4.0	4.3	4.6	4.5	8.1	3.0	1.4	1.9	2.6
17	4.5	9.7	5.8	4.0	4.3	5.0	4.4	7.6	2.8	1.3	1.9	2.5
18	4.2	9.2	5.7	4.1	4.3	5.3	4.5	7.1	2.7	1.1	1.7	2.4
19	4.0	8.6	5.6	4.1	4.3	5.4	4.6	6.8	2.7	0.97	1.7	2.2
20	3.9	8.2	5.5	4.1	4.3	5.4	5.1	6.2	2.7	0.93	2.1	2.1
21	3.7	7.8	5.6	4.1	4.2	5.6	5.9	6.0	2.7	1.0	2.6	2.0
22	3.7	7.9	5.5	4.1	4.2	5.6	6.2	5.6	2.8	1.3	2.6	2.0
23	3.5	8.1	5.5	4.2	4.1	5.8	6.3	5.3	2.8	1.4	2.5	2.1
24	3.6	8.2	5.4	4.3	4.1	6.1	6.4	5.1	2.8	1.4	2.4	2.1
25	4.0	8.2	5.3	4.2	4.1	6.7	6.7	4.7	2.7	1.6	2.6	2.1
26	4.2	7.9	5.5	4.1	4.3	6.7	7.0	4.4	2.5	1.5	2.7	2.2
27	4.8	7.6	5.5	4.1	4.4	6.5	7.6	4.3	2.4	1.5	2.5	2.2
28	4.8	7.4	5.4	4.0	4.3	6.5	7.7	4.1	2.3	1.4	3.4	2.8
29	4.7	7.0	5.3	4.0	---	6.3	7.6	4.0	2.2	1.2	3.7	2.9
30	4.5	6.7	5.2	4.0	---	6.1	7.6	3.7	2.1	1.3	3.9	2.8
31	4.5	---	5.0	4.0	---	6.2	---	3.4	---	1.6	4.1	---
<b>Total</b>	144.8	195.5	174.1	134.3	115.7	158.8	178.0	202.7	86.5	45.42	72.8	90.7
<b>Mean</b>	4.67	6.52	5.62	4.33	4.13	5.12	5.93	6.54	2.88	1.47	2.35	3.02
<b>Max</b>	5.7	9.7	6.5	5.0	4.4	6.7	7.7	9.2	3.5	2.1	4.1	4.2
<b>Min</b>	3.5	3.9	5.0	4.0	3.8	4.1	4.4	3.4	2.1	0.93	1.7	2.0
<b>Cfsm</b>	0.45	0.63	0.54	0.42	0.40	0.49	0.57	0.63	0.28	0.14	0.23	0.29
<b>In.</b>	0.52	0.70	0.62	0.48	0.41	0.57	0.64	0.72	0.31	0.16	0.26	0.32

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2008 - 2009, BY WATER YEAR (WY)**

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Mean</b>	4.67	5.59	5.18	4.41	4.12	4.51	7.67	8.12	4.44	2.45	3.56	2.71
<b>Max</b>	4.67	6.52	5.62	4.48	4.13	5.12	9.41	9.69	6.00	3.44	4.78	3.02
<b>(WY)</b>	(2009)	(2009)	(2009)	(2008)	(2009)	(2009)	(2008)	(2008)	(2008)	(2008)	(2008)	(2009)
<b>Min</b>	4.67	4.66	4.75	4.33	4.11	3.90	5.93	6.54	2.88	1.47	2.35	2.40
<b>(WY)</b>	(2009)	(2008)	(2008)	(2009)	(2008)	(2008)	(2009)	(2009)	(2009)	(2009)	(2009)	(2008)

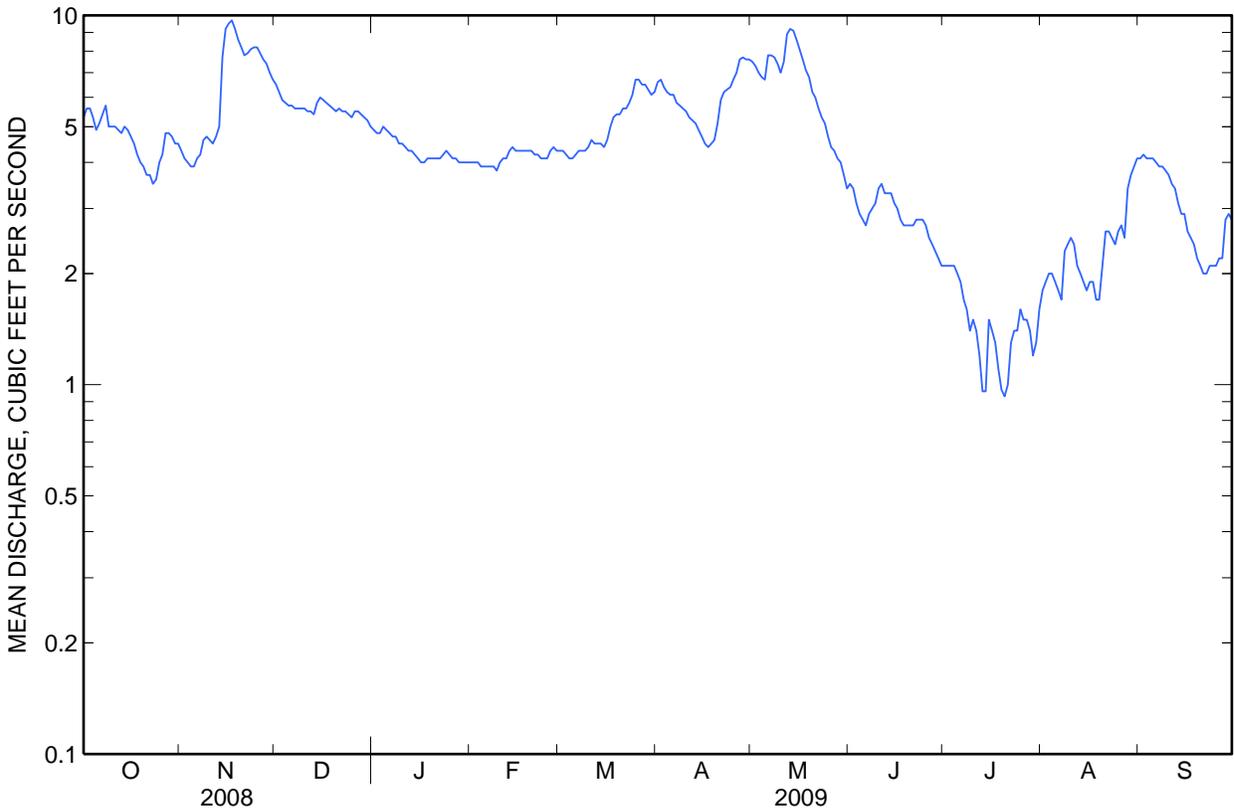
0535739503 LITTLE TURTLE RIVER AT GARNET STREET AT MERCER, WI—Continued

SUMMARY STATISTICS

	Calendar Year 2008		Water Year 2009		Water Years 2008 - 2009	
<b>Annual total</b>	1,983.0		1,599.32			
<b>Annual mean</b>	5.42		4.38		4.38	
<b>Highest annual mean</b>					4.38 2009	
<b>Lowest annual mean</b>					4.38 2009	
<b>Highest daily mean</b>	15	May 3 <sup>a</sup>	9.7	Nov 17	15	May 3, 2008 <sup>a</sup>
<b>Lowest daily mean</b>	1.8	Sep 23 <sup>b</sup>	0.93	Jul 20	0.93	Jul 20, 2009
<b>Annual seven-day minimum</b>	2.0	Sep 20	1.1	Jul 16	1.1	Jul 16, 2009
<b>Maximum peak flow</b>			9.9	Nov 17	15	May 3, 2008
<b>Maximum peak stage</b>			2.31	Nov 17	2.46	May 3, 2008
<b>Annual runoff (cfsm)</b>	0.520		0.421		0.421	
<b>Annual runoff (inches)</b>	7.09		5.72		5.72	
<b>10 percent exceeds</b>	9.1		7.0		7.0	
<b>50 percent exceeds</b>	4.6		4.3		4.3	
<b>90 percent exceeds</b>	2.8		1.9		1.9	

<sup>a</sup> Also occurred May 4.

<sup>b</sup> Also occurred Sept. 26.



## 0535739503 LITTLE TURTLE RIVER AT GARNET STREET AT MERCER, WI—Continued

**DISCHARGE, CUBIC FEET PER SECOND**  
**WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010**  
**DAILY MEAN VALUES**

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	2.7	---	---	---	---	---	---	---	---	---	---	---
2	3.3	---	---	---	---	---	---	---	---	---	---	---
3	3.6	---	---	---	---	---	---	---	---	---	---	---
4	3.6	---	---	---	---	---	---	---	---	---	---	---
5	3.5	---	---	---	---	---	---	---	---	---	---	---
6	4.2	---	---	---	---	---	---	---	---	---	---	---
7	4.7	---	---	---	---	---	---	---	---	---	---	---
8	4.5	---	---	---	---	---	---	---	---	---	---	---
9	4.5	---	---	---	---	---	---	---	---	---	---	---
10	4.2	---	---	---	---	---	---	---	---	---	---	---
11	4.0	---	---	---	---	---	---	---	---	---	---	---
12	3.9	---	---	---	---	---	---	---	---	---	---	---
13	3.9	---	---	---	---	---	---	---	---	---	---	---
14	3.7	---	---	---	---	---	---	---	---	---	---	---
15	3.7	---	---	---	---	---	---	---	---	---	---	---
16	3.5	---	---	---	---	---	---	---	---	---	---	---
17	3.5	---	---	---	---	---	---	---	---	---	---	---
18	3.3	---	---	---	---	---	---	---	---	---	---	---
19	3.2	---	---	---	---	---	---	---	---	---	---	---
20	3.1	---	---	---	---	---	---	---	---	---	---	---
21	3.5	---	---	---	---	---	---	---	---	---	---	---
22	4.0	---	---	---	---	---	---	---	---	---	---	---
23	4.3	---	---	---	---	---	---	---	---	---	---	---
24	5.1	---	---	---	---	---	---	---	---	---	---	---
25	5.7	---	---	---	---	---	---	---	---	---	---	---
26	6.0	---	---	---	---	---	---	---	---	---	---	---
27	6.1	---	---	---	---	---	---	---	---	---	---	---
28	6.0	---	---	---	---	---	---	---	---	---	---	---
29	5.9	---	---	---	---	---	---	---	---	---	---	---
30	6.0	---	---	---	---	---	---	---	---	---	---	---
31	6.0	---	---	---	---	---	---	---	---	---	---	---
<b>Total</b>	133.2	---	---	---	---	---	---	---	---	---	---	---
<b>Mean</b>	4.30	---	---	---	---	---	---	---	---	---	---	---
<b>Max</b>	6.1	---	---	---	---	---	---	---	---	---	---	---
<b>Min</b>	2.7	---	---	---	---	---	---	---	---	---	---	---
<b>Cfsm</b>	0.41	---	---	---	---	---	---	---	---	---	---	---
<b>In.</b>	0.48	---	---	---	---	---	---	---	---	---	---	---

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2008 - 2010, BY WATER YEAR (WY)**

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Mean</b>	4.48	5.59	5.18	4.41	4.12	4.51	7.67	8.12	4.44	2.45	3.56	2.71
<b>Max</b>	4.67	6.52	5.62	4.48	4.13	5.12	9.41	9.69	6.00	3.44	4.78	3.02
<b>(WY)</b>	(2009)	(2009)	(2009)	(2008)	(2009)	(2009)	(2008)	(2008)	(2008)	(2008)	(2008)	(2009)
<b>Min</b>	4.30	4.66	4.75	4.33	4.11	3.90	5.93	6.54	2.88	1.47	2.35	2.40
<b>(WY)</b>	(2010)	(2008)	(2008)	(2009)	(2008)	(2008)	(2009)	(2009)	(2009)	(2009)	(2009)	(2008)

0535739503 LITTLE TURTLE RIVER AT GARNET STREET AT MERCER, WI—Continued

**SUMMARY STATISTICS**

	Calendar Year 2009		Water Year 2010		Water Years 2008 - 2010	
<b>Annual mean</b>					4.38	
<b>Highest annual mean</b>					4.38	2009
<b>Lowest annual mean</b>					4.38	2009
<b>Highest daily mean</b>	9.2	May 13	6.1	Oct 27	15	May 3, 2008 <sup>a</sup>
<b>Lowest daily mean</b>	0.93	Jul 20	2.7	Oct 1	0.93	Jul 20, 2009
<b>Annual seven-day minimum</b>	1.1	Jul 16	3.4	Oct 15	1.1	Jul 16, 2009
<b>Maximum peak flow</b>			6.2	Oct 26	15	May 3, 2008
<b>Maximum peak stage</b>			2.16	Oct 26	2.46	May 3, 2008
<b>Annual runoff (cfsm)</b>					0.421	
<b>Annual runoff (inches)</b>					5.72	
<b>10 percent exceeds</b>					7.0	
<b>50 percent exceeds</b>					4.3	
<b>90 percent exceeds</b>					1.9	

<sup>a</sup> Also occurred May 4.

**0535739503 LITTLE TURTLE RIVER AT GARNET STREET AT MERCER, WI—Continued****WATER-QUALITY RECORDS**

PERIOD OF RECORD.--November 2007 to October 2009 (discontinued).

PERIOD OF DAILY RECORD.--

TOTAL-PHOSPHORUS DISCHARGE: November 2007 to October 2009 (discontinued).

REMARKS.--Records are poor.

EXTREMES FOR PERIOD OF RECORD.--

TOTAL-TOTAL-PHOSPHORUS DISCHARGE: Maximum daily, 1.48 lb, May 4, 2008; minimum daily, 0.11 lb, July 13, 14, 19-21, 2009.

TOTAL-PHOSPHORUS CONCENTRATIONS: Maximum observed, 0.040 mg/L, Sept. 2, 2009; minimum observed, 0.009 mg/L, Feb. 22, 2008.

EXTREMES FOR CURRENT YEAR.--

TOTAL-PHOSPHORUS DISCHARGE: Maximum daily, 1.25 lb, May 13; minimum daily, minimum daily, 0.11 lb, July 13, 14, 19-21.

TOTAL-PHOSPHORUS CONCENTRATIONS: Maximum observed, 0.040 mg/L, Sept. 2; minimum observed, 0.012 mg/L, Mar. 7.

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009**

<b>Date</b>	<b>Time</b>	<b>Instan- taneous dis- charge, ft<sup>3</sup>/s (00061)</b>	<b>Sam- pling method, code (82398)</b>	<b>Phos- phorus, water, fltrd, mg/L as P (00666)</b>	<b>Phos- phorus, water, unfltrd mg/L as P (00665)</b>
<b>Oct</b>					
<b>14...</b>	1230	4.9	Multiple verticals	--	.015
<b>Nov</b>					
<b>13...</b>	1130	4.9	Multiple verticals	--	.014
<b>19...</b>	1100	8.6	Multiple verticals	--	.016
<b>Dec</b>					
<b>19...</b>	1120	5.6	Multiple verticals	--	.016
<b>Jan</b>					
<b>21...</b>	0930	4.1	Multiple verticals	--	.016
<b>Mar</b>					
<b>07...</b>	1145	4.3	Multiple verticals	--	.012
<b>Apr</b>					
<b>15...</b>	1350	4.6	Multiple verticals	--	.023
<b>May</b>					
<b>20...</b>	1230	6.0	Multiple verticals	--	.024
<b>Jun</b>					
<b>29...</b>	1215	2.3	Multiple verticals	.009	.021
<b>Jul</b>					
<b>30...</b>	1641	1.4	Multiple verticals	--	.029
<b>Aug</b>					
<b>05...</b>	1025	1.9	Multiple verticals	.011	.015
<b>19...</b>	1237	1.7	Multiple verticals	--	.018
<b>25...</b>	0845	3.3	Multiple verticals	--	.039
<b>Sep</b>					
<b>02...</b>	1330	4.1	Multiple verticals	--	.040

## 0535739503 LITTLE TURTLE RIVER AT GARNET STREET AT MERCER, WI—Continued

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010**

<b>Date</b>	<b>Time</b>	<b>Instan- taneous dis- charge, ft<sup>3</sup>/s (00061)</b>	<b>Sam- pling method, code (82398)</b>	<b>Phos- phorus, water, unfltrd mg/L as P (00665)</b>
<b>Oct</b>				
<b>01...</b>	1400	2.7	Multiple verticals	.022
<b>07...</b>	0915	4.7	Multiple verticals	.015
<b>15...</b>	1130	3.5	Multiple verticals	.016
<b>Nov</b>				
<b>07...</b>	1200	5.1	Multiple verticals	.020