

Water-Data Report 2012

**04167150 MIDDLE RIVER ROUGE AT DEARBORN HEIGHTS, MI**

St. Clair-Detroit Basin  
Detroit Subbasin

LOCATION.--Lat 42°19'50", long 83°14'53" referenced to North American Datum of 1927, in SW ¼ sec.10, T.2 S., R.10 E., Wayne County, MI, Hydrologic Unit 04090004, on right bank at downstream side of bridge on Hines Drive in Dearborn Heights.

DRAINAGE AREA.--110 mi<sup>2</sup>.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--October 1997 to December 2005, May to October 2008, May to October 2011 (discontinued).

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 585 ft above NGVD 29, from topographic map.

REMARKS.--Records good. Regulation by storm water retention structures and occasional regulation by reservoirs upstream from station. Gage-height telemeter at station.

## 04167150 MIDDLE RIVER ROUGE AT DEARBORN HEIGHTS, MI—Continued

**DISCHARGE, CUBIC FEET PER SECOND**  
**WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012**  
**DAILY MEAN VALUES**

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	93	---	---	---	---	---	---	---	---	---	---	---
2	79	---	---	---	---	---	---	---	---	---	---	---
3	64	---	---	---	---	---	---	---	---	---	---	---
4	56	---	---	---	---	---	---	---	---	---	---	---
5	51	---	---	---	---	---	---	---	---	---	---	---
6	47	---	---	---	---	---	---	---	---	---	---	---
7	44	---	---	---	---	---	---	---	---	---	---	---
8	42	---	---	---	---	---	---	---	---	---	---	---
9	40	---	---	---	---	---	---	---	---	---	---	---
10	39	---	---	---	---	---	---	---	---	---	---	---
11	38	---	---	---	---	---	---	---	---	---	---	---
12	38	---	---	---	---	---	---	---	---	---	---	---
13	39	---	---	---	---	---	---	---	---	---	---	---
14	53	---	---	---	---	---	---	---	---	---	---	---
15	61	---	---	---	---	---	---	---	---	---	---	---
16	60	---	---	---	---	---	---	---	---	---	---	---
17	51	---	---	---	---	---	---	---	---	---	---	---
18	45	---	---	---	---	---	---	---	---	---	---	---
19	78	---	---	---	---	---	---	---	---	---	---	---
20	402	---	---	---	---	---	---	---	---	---	---	---
21	327	---	---	---	---	---	---	---	---	---	---	---
22	145	---	---	---	---	---	---	---	---	---	---	---
23	94	---	---	---	---	---	---	---	---	---	---	---
24	115	---	---	---	---	---	---	---	---	---	---	---
25	101	---	---	---	---	---	---	---	---	---	---	---
26	81	---	---	---	---	---	---	---	---	---	---	---
27	80	---	---	---	---	---	---	---	---	---	---	---
28	73	---	---	---	---	---	---	---	---	---	---	---
29	66	---	---	---	---	---	---	---	---	---	---	---
30	62	---	---	---	---	---	---	---	---	---	---	---
31	59	---	---	---	---	---	---	---	---	---	---	---
<b>Total</b>	2,623	---	---	---	---	---	---	---	---	---	---	---
<b>Mean</b>	84.6	---	---	---	---	---	---	---	---	---	---	---
<b>Max</b>	402	---	---	---	---	---	---	---	---	---	---	---
<b>Min</b>	38	---	---	---	---	---	---	---	---	---	---	---
<b>Cfsm</b>	0.77	---	---	---	---	---	---	---	---	---	---	---
<b>In.</b>	0.89	---	---	---	---	---	---	---	---	---	---	---

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2012, BY WATER YEAR (WY)**

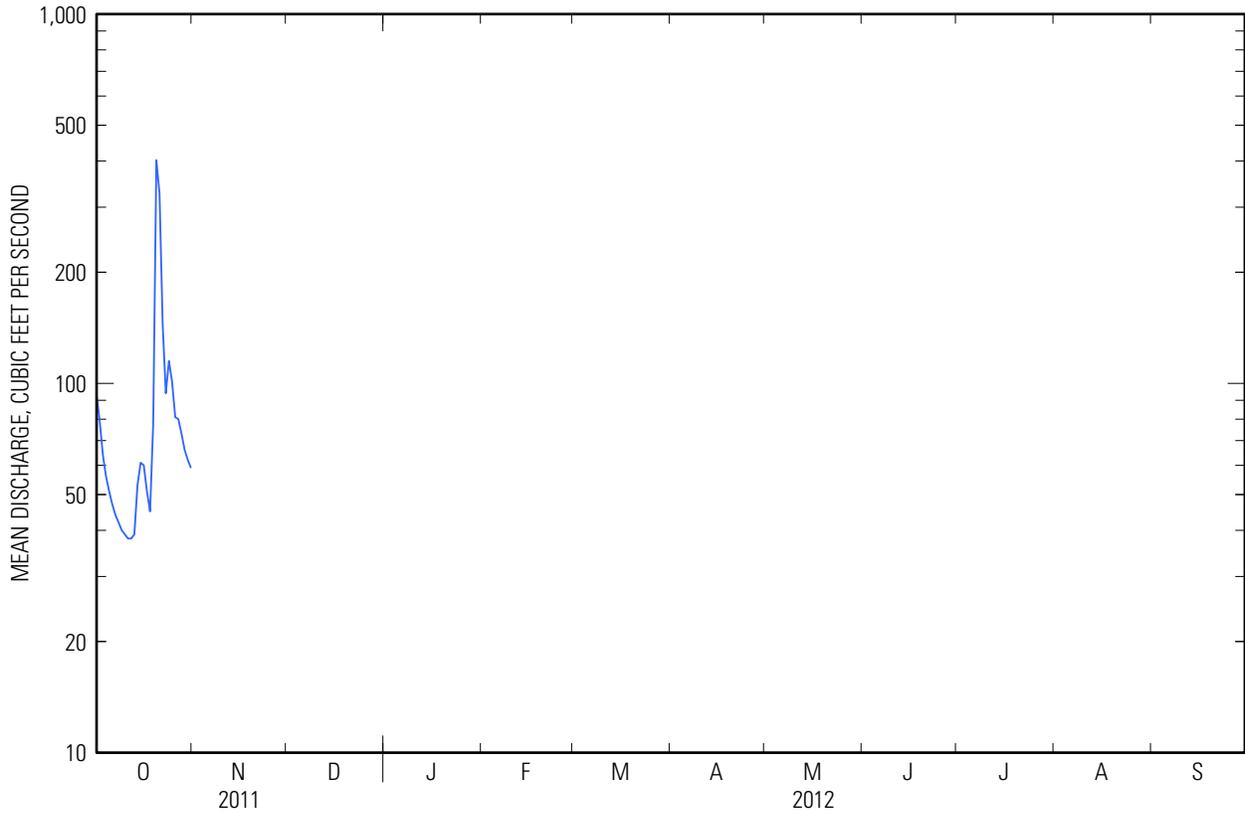
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>Mean</b>	73.6	72.2	87.0	92.3	146	130	132	156	103	84.0	76.3	90.7
<b>Max</b>	269	109	139	191	324	242	199	421	171	141	160	220
<b>(WY)</b>	(2002)	(2006)	(2005)	(2005)	(2001)	(1998)	(2002)	(2011)	(2000)	(2000)	(1998)	(2000)
<b>Min</b>	25.1	32.1	44.8	31.8	32.8	55.7	57.8	60.5	50.7	33.0	24.8	35.1
<b>(WY)</b>	(2006)	(2000)	(2003)	(2003)	(2003)	(2000)	(2004)	(2005)	(2002)	(2001)	(2008)	(1998)

**04167150 MIDDLE RIVER ROUGE AT DEARBORN HEIGHTS, MI—Continued**

**SUMMARY STATISTICS**

Water Years 1998 - 2012		
<b>Annual mean</b>	100	
<b>Highest annual mean</b>	118	2002
<b>Lowest annual mean</b>	71.2	2003
<b>Highest daily mean</b>	2,930	May 26, 2011
<b>Lowest daily mean</b>	13	Sep 14, 2002
<b>Annual seven-day minimum</b>	14	Sep 9, 2002
<b>Maximum peak flow</b>	3,220	May 26, 2011
<b>Maximum peak stage</b>	14.95	May 26, 2011
<b>Instantaneous low flow</b>	12	Sep 14, 2002 <sup>a</sup>
<b>Annual runoff (cfsm)</b>	0.912	
<b>Annual runoff (inches)</b>	12.40	
<b>10 percent exceeds</b>	202	
<b>50 percent exceeds</b>	63	
<b>90 percent exceeds</b>	25	

<sup>a</sup> Also occurred Sept. 15, 2002, Oct. 30, 2005.



**04167150 MIDDLE RIVER ROUGE AT DEARBORN HEIGHTS, MI—Continued**

**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--Water years 1999 to 2006, 2008-09, 2011-12 (discontinued).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: April 1999 to November 2005, May to October 2008, May to October 2011 (not operated during winter months).

DISSOLVED OXYGEN: April 1999 to November 2005, May to October 2008, May to October 2011 (not operated during winter months).

INSTRUMENTATION.--Water-quality monitor telemeter, set for 15-minute measurement interval.

REMARKS.--Interruptions in the water-quality record were due to malfunction of the instrument. Water temperature records rated excellent. Dissolved oxygen records rated excellent except for the following periods: Oct. 1-3, rated good; Oct. 4-8, rated fair; Oct. 9-24, rated poor.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum recorded during period of operation, 29.3°C, July 21, 2011; minimum recorded, 2.5°C, Mar. 28, 2001.

DISSOLVED OXYGEN: Maximum recorded during period of operation, 18.8 mg/L, Mar. 30, 2001; minimum recorded, 1.1 mg/L, May 11, 2000.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum recorded during period of operation, 16.9°C, Oct. 9, 10, 11; minimum recorded, 7.6°C, Oct. 30.

DISSOLVED OXYGEN: Maximum recorded during period of operation, 10.6 mg/L, Oct. 30 ; minimum recorded, 5.6 mg/L, Oct. 14.

## 04167150 MIDDLE RIVER ROUGE AT DEARBORN HEIGHTS, MI—Continued

 TEMPERATURE, WATER, DEGREES CELSIUS  
 WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	October			November			December			January		
1	14.6	13.1	13.8	---	---	---	---	---	---	---	---	---
2	13.6	12.5	13.1	---	---	---	---	---	---	---	---	---
3	14.6	12.6	13.6	---	---	---	---	---	---	---	---	---
4	15.4	13.4	14.4	---	---	---	---	---	---	---	---	---
5	15.7	13.4	14.6	---	---	---	---	---	---	---	---	---
6	16.3	13.9	15.0	---	---	---	---	---	---	---	---	---
7	16.6	14.4	15.5	---	---	---	---	---	---	---	---	---
8	16.8	14.7	15.7	---	---	---	---	---	---	---	---	---
9	16.9	15.0	16.0	---	---	---	---	---	---	---	---	---
10	16.9	15.5	16.3	---	---	---	---	---	---	---	---	---
11	16.9	15.4	16.2	---	---	---	---	---	---	---	---	---
12	16.7	15.9	16.1	---	---	---	---	---	---	---	---	---
13	16.6	16.0	16.3	---	---	---	---	---	---	---	---	---
14	16.6	15.3	16.1	---	---	---	---	---	---	---	---	---
15	15.3	13.6	14.2	---	---	---	---	---	---	---	---	---
16	13.6	12.7	13.0	---	---	---	---	---	---	---	---	---
17	12.8	11.6	12.2	---	---	---	---	---	---	---	---	---
18	12.2	11.0	11.5	---	---	---	---	---	---	---	---	---
19	12.4	11.3	11.8	---	---	---	---	---	---	---	---	---
20	12.2	11.6	11.8	---	---	---	---	---	---	---	---	---
21	11.6	11.1	11.4	---	---	---	---	---	---	---	---	---
22	11.1	10.3	10.7	---	---	---	---	---	---	---	---	---
23	11.2	10.0	10.7	---	---	---	---	---	---	---	---	---
24	12.6	10.7	11.7	---	---	---	---	---	---	---	---	---
25	11.6	11.2	11.4	---	---	---	---	---	---	---	---	---
26	12.4	11.2	11.7	---	---	---	---	---	---	---	---	---
27	11.7	10.3	11.1	---	---	---	---	---	---	---	---	---
28	10.3	9.2	9.7	---	---	---	---	---	---	---	---	---
29	9.5	8.3	8.9	---	---	---	---	---	---	---	---	---
30	9.0	7.6	8.5	---	---	---	---	---	---	---	---	---
31	9.6	8.5	9.0	---	---	---	---	---	---	---	---	---
Month	16.9	7.6	13.0	---	---	---	---	---	---	---	---	---

04167150 MIDDLE RIVER ROUGE AT DEARBORN HEIGHTS, MI—Continued

TEMPERATURE, WATER, DEGREES CELSIUS  
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	February			March			April			May		
1	---	---	---	---	---	---	---	---	---	---	---	---
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16	---	---	---	---	---	---	---	---	---	---	---	---
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Month	---	---	---	---	---	---	---	---	---	---	---	---

04167150 MIDDLE RIVER ROUGE AT DEARBORN HEIGHTS, MI—Continued

TEMPERATURE, WATER, DEGREES CELSIUS  
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	June			July			August			September		
1	---	---	---	---	---	---	---	---	---	---	---	---
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<b>Month</b>	---	---	---	---	---	---	---	---	---	---	---	---

04167150 MIDDLE RIVER ROUGE AT DEARBORN HEIGHTS, MI—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER  
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	October			November			December			January		
1	8.8	8.1	8.6	---	---	---	---	---	---	---	---	---
2	8.9	8.6	8.8	---	---	---	---	---	---	---	---	---
3	8.8	8.5	8.6	---	---	---	---	---	---	---	---	---
4	8.8	8.3	8.6	---	---	---	---	---	---	---	---	---
5	8.8	8.3	8.6	---	---	---	---	---	---	---	---	---
6	8.8	8.3	8.6	---	---	---	---	---	---	---	---	---
7	8.6	8.1	8.4	---	---	---	---	---	---	---	---	---
8	8.6	7.8	8.3	---	---	---	---	---	---	---	---	---
9	8.2	7.4	7.9	---	---	---	---	---	---	---	---	---
10	8.1	6.9	7.5	---	---	---	---	---	---	---	---	---
11	7.9	7.0	7.4	---	---	---	---	---	---	---	---	---
12	7.7	7.1	7.4	---	---	---	---	---	---	---	---	---
13	7.8	6.9	7.3	---	---	---	---	---	---	---	---	---
14	7.1	5.6	6.4	---	---	---	---	---	---	---	---	---
15	6.6	5.8	6.2	---	---	---	---	---	---	---	---	---
16	7.4	6.3	7.0	---	---	---	---	---	---	---	---	---
17	8.1	6.9	7.6	---	---	---	---	---	---	---	---	---
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21	8.4	7.3	8.0	---	---	---	---	---	---	---	---	---
22	8.9	8.4	8.7	---	---	---	---	---	---	---	---	---
23	8.8	8.4	8.7	---	---	---	---	---	---	---	---	---
24	8.5	7.0	7.8	---	---	---	---	---	---	---	---	---
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28	9.9	9.2	9.6	---	---	---	---	---	---	---	---	---
29	10.2	9.9	10.1	---	---	---	---	---	---	---	---	---
30	10.6	9.9	10.3	---	---	---	---	---	---	---	---	---
31	10.4	10.0	10.2	---	---	---	---	---	---	---	---	---
Month	---	---	---	---	---	---	---	---	---	---	---	---

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DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER  
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	February			March			April			May		
1	---	---	---	---	---	---	---	---	---	---	---	---
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Month	---	---	---	---	---	---	---	---	---	---	---	---

04167150 MIDDLE RIVER ROUGE AT DEARBORN HEIGHTS, MI—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER  
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	June			July			August			September		
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
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