

Water-Data Report 2006

040851378 EAST RIVER AT MONROE STREET AT GREEN BAY, WI

Fox Basin
Lower Fox Subbasin

LOCATION.--Lat 44°31'02", long 88°00'24" referenced to North American Datum of 1927, in SW ¼ SW ¼ sec.30, T.24 N., R.21 E., Brown County, WI, Hydrologic Unit 04030204, on right bank upstream side Monroe Street bridge and 0.2 mi upstream of the Fox River.

DRAINAGE AREA.--144.9 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--December 2003 to current year.

GAGE.--Water-stage recorder. Side-looking velocity meter system. Elevation of gage is 585 ft above NGVD of 1929, from topographic map.

REMARKS.--Records fair except for periods except for estimated daily discharge and those for days with negative mean daily flow, which are poor. Gage-height telemeter at station.

040851378 EAST RIVER AT MONROE STREET AT GREEN BAY, WI—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	-15	15	e80	65	128	6.0	109	40	153	26	15	27
2	-16	38	e67	25	181	26	59	85	112	31	185	82
3	-12	-43	e16	186	91	32	314	88	133	21	61	60
4	-6.1	58	e80	138	212	59	194	42	102	108	77	29
5	31	16	e25	187	153	4.4	113	64	51	27	27	31
6	27	264	e14	119	107	68	79	102	97	30	32	43
7	3.0	28	e-4.8	103	72	22	76	-3.9	118	18	20	21
8	53	-11	e14	83	62	56	153	7.6	35	8.1	34	12
9	62	e135	e90	117	70	126	90	30	84	-21	47	146
10	68	35	-24	e65	45	135	25	56	96	76	-3.2	73
11	23	1.6	15	61	65	378	39	355	37	-2.9	33	48
12	33	-6.3	19	59	65	1,030	149	1,750	108	59	54	115
13	61	e18	9.6	73	65	e1,430	91	1,000	36	-5.6	34	140
14	5.7	e-37	e-16	74	21	e1,070	176	e967	22	30	75	63
15	58	-42	e48	-1.1	50	441	122	e851	19	63	18	32
16	27	e195	65	-6.8	33	232	84	e512	9.7	30	14	8.6
17	25	e128	e32	115	69	194	95	e450	51	-5.0	29	9.2
18	16	e-3.2	e19	64	35	195	67	e390	60	60	-3.0	58
19	e101	e21	e35	14	22	132	67	e280	50	-8.4	24	8.1
20	-8.4	90	e-19	67	15	90	52	183	22	48	90	42
21	0.95	-29	29	42	17	164	66	195	4.8	60	-24	-33
22	46	e55	e2.9	58	48	99	70	109	38	26	62	-3.2
23	48	e-13	e22	53	39	68	69	66	86	52	19	45
24	55	e119	5.8	45	23	128	36	75	83	114	17	53
25	79	e-5.1	e47	37	54	119	146	78	123	17	89	42
26	33	e25	45	5.8	17	65	70	125	94	197	57	9.5
27	117	e25	11	23	2.7	58	27	46	64	101	47	27
28	e27	100	43	27	40	78	21	448	93	20	22	99
29	-2.6	e110	27	231	---	58	61	92	79	49	23	55
30	55	e43	-4.2	335	---	12	30	69	59	181	67	0.48
31	13	---	58	160	---	11	---	200	---	37	33	---
Total	1,007.55	1,330.0	851.3	2,623.9	1,801.7	6,586.4	2,750	8,751.7	2,119.5	1,446.2	1,274.8	1,342.68
Mean	32.5	44.3	27.5	84.6	64.3	212	91.7	282	70.7	46.7	41.1	44.8
Max	117	264	90	335	212	1,430	314	1,750	153	197	185	146
Min	-16	-43	-24	-6.8	2.7	4.4	21	-3.9	4.8	-21	-24	-33
Cfsm	0.22	0.31	0.19	0.58	0.44	1.47	0.63	1.95	0.49	0.32	0.28	0.31
In.	0.26	0.34	0.22	0.67	0.46	1.69	0.71	2.25	0.54	0.37	0.33	0.34

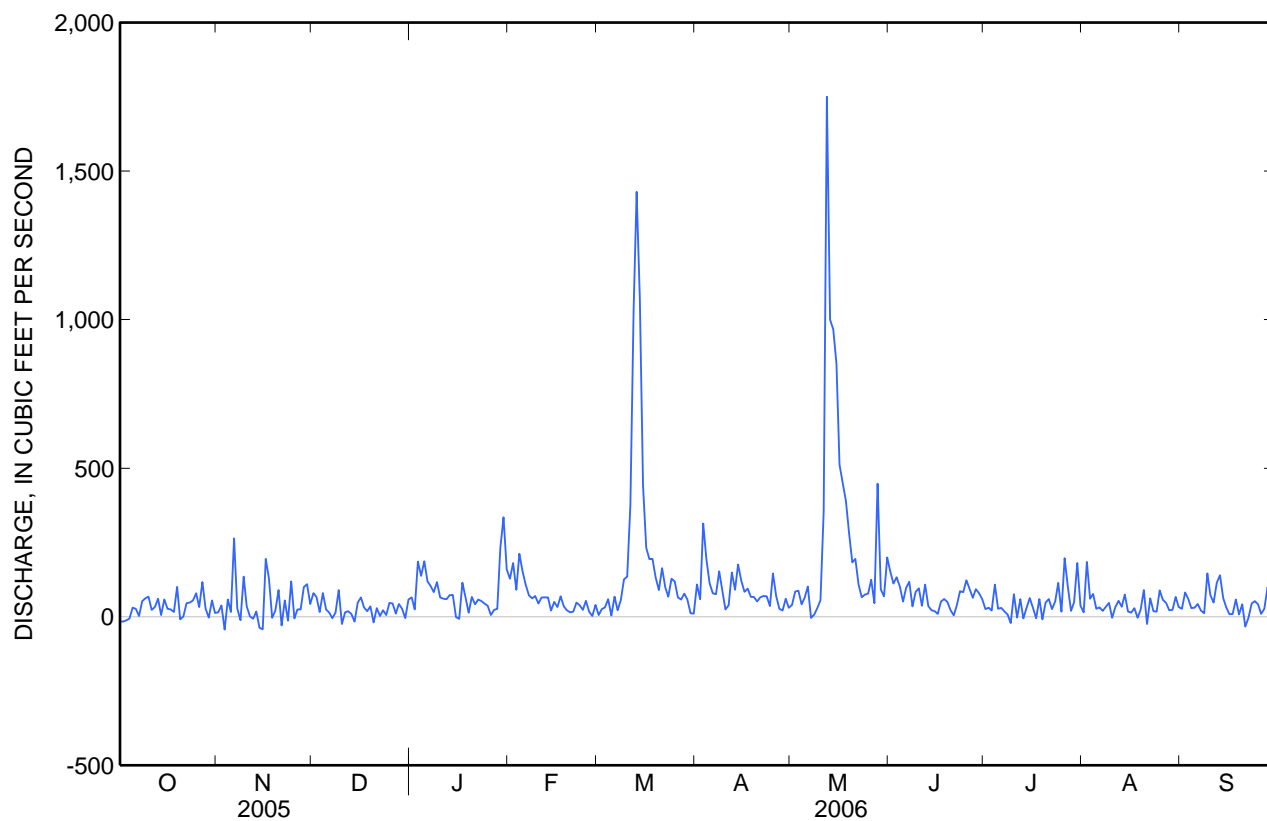
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2004 - 2006, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	33.0	41.5	49.6	60.0	81.3	337	96.4	246	165	48.4	41.2	34.7
Max	33.5	44.3	75.5	84.6	129	605	113	400	346	66.1	44.5	44.8
(WY)	(2005)	(2006)	(2004)	(2006)	(2005)	(2004)	(2005)	(2004)	(2004)	(2004)	(2005)	(2006)
Min	32.5	38.6	27.5	37.4	51.7	193	84.3	56.8	70.7	32.6	37.9	19.4
(WY)	(2006)	(2005)	(2006)	(2004)	(2004)	(2005)	(2004)	(2005)	(2006)	(2005)	(2004)	(2004)

040851378 EAST RIVER AT MONROE STREET AT GREEN BAY, WI—Continued

SUMMARY STATISTICS

	Calendar Year 2005		Water Year 2006		Water Years 2004 - 2006	
Annual total	25,693		31,885			
Annual mean	70.4		87.4		108	
Highest annual mean					178	2004
Lowest annual mean					72.6	2005
Highest daily mean	882	Feb 7	1,750	May 12	2,660	Mar 6, 2004
Lowest daily mean	-43	Nov 3	-43	Nov 3	-55	Oct 18, 2004
Annual seven-day minimum	1.7	Oct 1	1.7	Oct 1	1.7	Oct 1, 2005
Annual runoff (cfsm)	0.486		0.603		0.745	
Annual runoff (inches)	6.60		8.19		10.13	
10 percent exceeds	148		162		194	
50 percent exceeds	46		52		54	
90 percent exceeds	-4.4		2.3		0.15	



040851378 EAST RIVER AT MONROE STREET AT GREEN BAY, WI—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 2003 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: January to April 2004 (discontinued).

SUSPENDED-SOLIDS DISCHARGE: October 2003 to current year.

TOTAL-PHOSPHORUS DISCHARGE: October 2003 to current year.

INSTRUMENTATION.--Continuous specific conductance record from January to April 2004. Water-quality sampler October 2003 to current year.

REMARKS.--Chemical analyses by the Green Bay Metropolitan Sewerage District Laboratory. Samples are point samples unless otherwise indicated.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SUSPENDED-SOLIDS DISCHARGE: Maximum daily, 5,240 tons, June 1, 2004; minimum daily, -11.0 tons, Aug. 3, 2005, due to flow reversal.

TOTAL-PHOSPHORUS DISCHARGE: Maximum daily, 17,400 lbs, June 1, 2004; minimum daily, -160 lbs, Nov. 14, 2005, due to flow reversal.

EXTREMES FOR CURRENT YEAR.--

SUSPENDED-SOLIDS DISCHARGE: Maximum daily, 1,180 tons, Mar. 14; minimum daily, -9.04 tons, Nov. 15, due to flow reversal.

TOTAL-PHOSPHORUS DISCHARGE: Maximum daily, 5,600 lbs, Mar. 13; minimum daily, -160 lbs, Nov. 14, due to flow reversal.

040851378 EAST RIVER AT MONROE STREET AT GREEN BAY, WI—Continued

SUSPENDED SOLIDS, DRIED AT 105 DEGREES CELSIUS, WATER, UNFILTERED, TONS PER DAY
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	-3.32	2.00	7.39	0.76	3.51	0.10	6.47	3.47	11.8	2.38	1.67	2.21
2	-3.77	4.93	5.94	0.27	3.13	0.42	4.36	7.67	8.47	2.71	20.9	7.08
3	-2.96	-5.41	1.38	1.96	1.48	0.52	28.5	8.30	9.66	1.85	7.18	5.51
4	-1.50	7.14	6.45	1.43	3.42	0.95	17.5	4.15	7.16	11.5	9.21	2.79
5	7.46	1.97	1.96	1.90	2.48	0.080	9.75	6.55	3.51	2.59	3.35	2.78
6	6.46	31.1	1.04	1.19	1.74	1.10	6.49	10.9	6.99	2.75	4.04	3.55
7	0.74	3.39	-0.33	1.00	1.17	0.38	5.94	-0.37	9.10	1.66	2.60	1.61
8	12.3	-1.20	0.94	0.79	1.01	1.46	11.4	0.83	2.92	0.75	4.58	0.89
9	14.2	13.2	5.81	1.09	1.13	5.24	6.42	2.26	7.40	-1.91	6.59	13.3
10	15.4	3.09	-1.45	0.60	0.73	8.98	1.72	2.74	9.06	6.92	-0.43	6.69
11	5.13	0.14	0.88	0.55	1.05	50.2	2.52	11.9	3.77	-0.23	4.99	4.28
12	7.09	-0.42	1.07	0.52	1.05	543	9.15	76.9	11.5	5.31	8.52	11.7
13	12.8	1.18	0.51	0.63	1.05	1,160	5.37	218	3.89	-0.47	5.61	15.5
14	1.22	-4.51	-0.77	0.62	0.34	1,180	9.84	178	2.33	2.66	12.8	4.94
15	11.5	-9.04	2.13	-0.006	0.81	215	6.54	106	1.99	5.55	3.11	1.62
16	5.27	36.2	2.68	-0.060	0.54	40.4	4.29	45.9	1.01	2.65	1.87	0.28
17	4.73	22.2	1.23	0.97	1.11	12.9	4.67	42.2	5.19	-0.42	3.78	0.19
18	2.96	-0.41	0.67	0.57	0.57	8.93	3.40	41.0	6.06	5.16	-0.38	0.83
19	18.1	3.30	1.14	0.13	0.36	4.66	3.54	33.0	5.00	-0.69	3.31	0.12
20	-1.38	13.6	-0.56	0.65	0.24	2.51	2.87	24.1	2.17	4.10	12.8	0.65
21	0.16	-4.11	0.80	0.43	0.28	4.28	3.78	28.7	0.47	5.13	-3.44	-0.54
22	7.70	7.55	0.080	0.61	0.77	2.52	4.18	17.5	3.57	2.27	9.11	-0.060
23	7.89	-1.67	0.52	0.59	0.63	1.67	4.30	9.54	7.94	4.92	2.53	0.85
24	8.82	15.0	0.13	0.52	0.37	3.03	2.35	9.44	7.54	11.6	1.94	1.07
25	12.4	-0.54	0.95	0.45	0.87	2.74	9.85	8.58	11.3	1.64	8.78	0.91
26	5.09	2.88	0.85	0.080	0.28	1.46	4.97	12.0	10.1	18.5	4.92	0.22
27	17.4	2.77	0.19	0.30	0.040	1.29	2.00	4.47	6.83	9.83	3.51	0.64
28	4.02	10.5	0.69	0.50	0.64	2.06	1.61	79.4	9.51	2.03	1.47	2.48
29	-0.35	11.1	0.40	14.7	---	1.89	4.86	14.4	7.79	4.99	1.58	1.46
30	7.63	4.20	-0.060	23.8	---	0.49	2.51	7.84	5.60	18.9	4.86	0.010
31	1.80	---	0.73	7.37	---	0.54	---	15.1	---	4.06	2.56	---
Total	184.99	170.13	43.390	64.914	30.800	3,258.800	191.15	1,030.47	189.63	138.69	153.92	93.560

Water Year 2006	
Total	5,550.444

040851378 EAST RIVER AT MONROE STREET AT GREEN BAY, WI—Continued

PHOSPHORUS, WATER, UNFILTERED, POUNDS PER DAY
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	-9.62	18.3	64.2	55.4	146	9.57	64.5	34.4	189	35.9	15.5	36.0
2	-10.4	46.5	52.9	21.7	180	41.8	28.4	72.3	133	42.3	214	99.8
3	-7.92	-52.3	12.6	157	90.4	53.7	208	74.4	150	45.9	67.9	67.3
4	-4.55	74.0	60.4	115	212	103	140	35.4	110	1,280	87.0	30.2
5	26.2	28.3	18.8	152	157	8.50	83.4	53.1	52.6	45.1	32.2	31.5
6	26.3	741	10.2	95.0	111	126	59.6	83.9	95.0	26.8	39.6	43.4
7	3.48	248	-3.36	80.4	76.2	38.8	58.6	-2.73	111	15.8	25.9	21.2
8	67.4	-159	9.74	63.5	66.6	89.8	120	6.04	31.9	6.94	44.0	12.0
9	90.6	304	61.6	87.4	76.3	221	72.9	21.8	72.2	-17.3	60.8	143
10	111	98.7	-15.8	47.8	50.0	202	20.9	36.8	79.1	61.5	-3.81	71.8
11	37.0	9.21	9.78	43.8	73.1	641	32.9	217	29.5	-2.07	42.5	46.7
12	50.0	-64.2	12.3	41.5	74.5	3,280	128	1,450	82.0	49.7	69.8	110
13	87.9	266	6.34	50.3	75.7	5,600	80.9	1,980	28.0	-4.57	44.2	134
14	8.25	-160	-10.6	50.0	25.1	5,420	159	2,040	17.3	26.5	96.9	60.1
15	75.6	-44.2	32.2	-0.47	60.0	1,570	113	1,790	15.2	57.0	23.6	30.2
16	33.9	202	44.4	-4.45	40.5	521	80.0	1,070	7.95	28.0	17.5	8.14
17	29.9	136	22.3	80.7	85.6	323	91.9	842	42.2	-4.58	36.2	8.51
18	19.1	-2.61	13.4	49.3	44.5	654	64.7	647	50.8	57.7	-3.57	52.7
19	120	21.3	24.9	11.9	28.4	1,030	64.0	413	43.5	-7.66	30.3	7.31
20	-9.36	89.5	-13.5	60.7	19.6	1,230	49.3	239	20.5	44.6	115	34.8
21	1.08	-27.8	21.1	41.7	22.6	846	61.9	226	4.83	54.9	-30.1	-25.8
22	54.9	52.4	2.26	62.0	64.6	155	65.1	114	40.0	23.5	80.3	-2.53
23	57.7	-11.9	16.5	57.4	53.6	92.3	63.7	67.4	97.1	45.7	26.5	32.0
24	66.2	109	4.49	48.6	32.2	194	33.1	75.6	101	97.7	25.0	36.1
25	95.2	-4.02	36.2	40.5	76.4	203	132	78.0	159	14.4	139	27.4
26	40.2	22.0	35.3	7.72	24.8	187	63.3	124	131	170	95.3	6.29
27	141	21.8	8.89	37.0	4.07	591	24.3	47.3	89.7	94.2	83.5	17.6
28	33.4	85.0	34.6	55.7	59.5	358	18.6	562	129	20.1	41.0	64.5
29	-2.98	92.0	22.2	554	---	94.1	53.2	129	110	49.1	39.8	36.3
30	66.7	35.6	-3.35	551	---	13.7	26.2	106	81.5	183	106	0.35
31	16.1	---	48.5	215	---	8.98	---	256	---	38.0	48.3	---
Total	1,314.28	2,174.58	639.49	2,929.10	2,030.27	23,906.25	2,261.4	12,888.71	2,303.88	2,578.16	1,710.12	1,240.87

Water Year 2006	
Total	55,977.11

040851378 EAST RIVER AT MONROE STREET AT GREEN BAY, WI—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 1 of 2

[Remark codes: <, less than.]

Date	Time	Dis-charge, cfs (00060)	Sam-pling method, code (82398)	Residue total at 105 deg. C, sus- pended, mg/L (00530)	Phos- phorus, water, fltrd, mg/L (00666)	Phos- phorus, water, unfltrd mg/L (00665)
Oct						
03...	1200	-12	50	92	--	.120
10...	1200	68	50	84	--	.310
17...	1200	25	50	70	--	.220
Nov						
08...	0920	-11	50	42	--	4.40
13...	1200	18	50	22	--	3.57
15...	1200	-42	50	90	--	.150
16...	1200	195	50	67	--	.200
Dec						
12...	1200	19	50	21	.090	.120
Jan						
02...	1200	25	50	4	--	.160
16...	1200	-6.8	50	3	--	.120
29...	1200	231	50	28	--	.490
30...	1200	335	50	28	.240	.290
Feb						
02...	1200	181	50	6	--	.180
Mar						
11...	1200	378	50	39	--	.280
12...	1200	1,030	50	242	--	.670
13...	1010	1,430	10	208	--	.560
13...	1015	1,430	50	226	--	.610
13...	1200	1,430	50	348	.200	.800
14...	1200	1,070	50	476	--	1.02
17...	1200	194	50	22	--	.260
20...	1200	90	50	10	2.20	3.25
27...	1200	58	50	8	--	2.68
Apr						
02...	1200	59	50	27	--	.080
03...	1200	314	50	35	.040	.130
17...	1200	95	50	18	.060	.180

040851378 EAST RIVER AT MONROE STREET AT GREEN BAY, WI—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

Part 2 of 2

[Remark codes: <, less than.]

Date	Time	Dis-charge, cfs (00060)	Sam-pling method, code (82398)	Residue	Phos-phorus, water, flt'd, mg/L (00666)	Phos-phorus, water, unflt'd mg/L (00665)
				total at 105 deg. C, sus-pended, mg/L (00530)		
May						
08...	1200	7.6	50	43	.060	.150
11...	1200	355	50	12	--	.110
12...	1200	1,750	50	11	--	.130
13...	0935	1,000	50	97	--	.420
13...	0936	1,000	10	104	--	.390
15...	1200	851	50	--	.200	--
16...	1200	512	50	31	--	.390
22...	1200	109	50	61	.100	.190
28...	1200	448	50	76	--	.240
29...	1200	92	50	56	.130	.250
30...	1200	69	50	43	--	.300
31...	1200	200	50	26	--	.230
Jun						
01...	1200	153	50	29	--	.230
05...	1200	51	50	25	.140	.190
12...	1200	108	50	40	--	.140
19...	1200	50	50	37	--	.160
25...	1200	123	50	33	--	.240
26...	1200	94	50	41	.160	.260
Jul						
04...	1200	108	50	42	--	4.28
05...	1200	27	50	34	--	.170
10...	1200	76	50	34	.090	.150
18...	1200	60	50	32	.100	.180
24...	1200	114	50	39	--	.160
25...	1200	17	50	34	--	.150
Aug						
01...	1200	15	50	--	.080	--
07...	1200	20	50	48	--	.240
15...	1200	18	50	66	--	.240
16...	1200	14	50	47	.120	.230
22...	1200	62	50	56	--	.240
28...	1200	22	50	24	.140	.350
Sep						
04...	1200	29	50	36	--	.190
18...	1200	58	50	<5	--	.170
25...	1200	42	50	8	<.050	.120