

Project Data—City of Akron Water Diversion

The Ohio and Erie Canal runs from the Little Cuyahoga River through the City of Akron, through Summit Lake, past Lake Nesmith to Wolf Creek, a tributary to the Tuscarawas River. Water is diverted from Long Lake, one of the Portage Lakes, into the canal system at the Long Lake Feeder Water Control structure near Lake Nesmith. The water can either flow north into the Little Cuyahoga River or south to the Tuscarawas River. The following three discharge gaging stations are on the Ohio and Erie Canal system in the Akron area. The Long Lake Feeder gage measures water flow into the canal, while the Ohio and Erie Canal at Lock 1 gage and the Wolf Creek Outlet gage measure water flow to the north and south, respectively. The tables contain the daily mean discharges at each gaging station.



410121081330300 Long Lake Feeder to Ohio & Erie Canal at Akron, Ohio

LOCATION.—Latitude 41°01'21", longitude 81°33'03", Summit County, Hydrologic Unit 05040001, in canal feeder gate house control structure at north end of Long Lake Channel on west side of State Route 93 (Manchester Road), 0.1 mi south of Lake Nesmith, at Akron, Ohio.

DRAINAGE AREA.—Not determined.

PERIOD OF RECORD.—June 12, 1998 to current year.

GAGE.—Acoustic Doppler Flow meter records water depth, discharge, and velocity.

REMARKS.—Records good except for periods of estimated record, which are poor. Flow is completely regulated by operation of gates at flow control structure upstream of gage.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	e20	17	18	18	19	18	15	17	14	e19	e16	e19
2	e20	16	18	17	20	18	15	16	14	17	e16	e19
3	e20	17	17	17	20	17	17	16	e22	17	e16	e19
4	e20	17	18	17	20	16	16	16	e18	16	e16	e19
5	e20	18	17	16	20	17	17	16	e18	17	e16	e19
6	e20	18	17	17	19	18	16	16	e18	17	e16	e19
7	e20	17	18	25	20	18	17	16	e18	17	e16	e19
8	e20	e17	18	21	21	19	17	16	e18	17	e16	e19
9	e20	e17	18	23	20	19	17	16	e18	16	e16	e18
10	e20	18	18	21	19	18	17	16	e18	16	e16	e17
11	e19	17	16	20	19	17	17	16	e18	17	e16	e17
12	e19	17	18	20	19	17	17	16	e18	17	e16	16
13	e19	17	19	21	19	18	17	15	e18	16	e16	16
14	e19	17	18	19	19	18	16	15	e18	16	e16	15
15	e19	17	18	19	20	18	17	15	e18	16	e16	15
16	e19	17	18	19	19	18	16	14	e16	e16	e16	15
17	e19	17	18	19	18	18	16	15	e16	e16	e16	15
18	e19	18	18	19	18	17	17	15	e16	e15	e17	15
19	e18	18	17	20	18	17	16	14	16	e15	e17	15
20	e18	18	17	20	19	17	17	15	16	e15	e17	15
21	e18	18	18	20	19	17	16	15	16	e15	e17	16
22	e18	18	18	20	20	17	16	14	16	e15	e17	17
23	e18	18	18	20	19	16	16	14	16	e15	e17	17
24	e18	17	19	20	e18	17	16	14	15	e15	e17	18
25	e18	18	17	21	e18	17	15	14	15	e15	e17	17
26	e18	17	17	21	18	17	16	14	16	e15	e17	15
27	17	17	17	20	18	16	16	14	17	e15	e17	16
28	17	17	18	20	18	16	15	14	15	e15	e18	e16
29	16	18	18	20	---	17	15	14	16	e15	e18	e16
30	16	17	17	20	---	16	16	15	16	e15	e18	e17
31	16	---	18	19	---	16	---	14	---	e15	e19	---
TOTAL	578	520	549	609	534	535	487	467	504	493	515	506
MEAN	18.6	17.3	17.7	19.6	19.1	17.3	16.2	15.1	16.8	15.9	16.6	16.9
MAX	20	18	19	25	21	19	17	17	22	19	19	19
MIN	16	16	16	16	18	16	15	14	14	15	16	15

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998-2005, BY WATER YEAR (WY)

MEAN	20.5	18.7	20.7	21.3	21.1	20.2	21.1	19.7	20.2	21.0	19.5	19.6
MAX	27.0	22.6	25.7	26.4	24.5	29.0	30.4	23.8	22.2	36.5	23.9	31.2
(WY)	1999	2004	2003	2003	1999	2003	2003	2003	2003	2003	2003	2003
MIN	10.8	10.9	17.5	17.6	18.6	15.2	16.2	15.1	16.8	15.9	16.6	12.7
(WY)	2001	2001	2002	2002	2002	2004	2005	2005	2005	2005	2005	2000

SUMMARY STATISTICS

FOR 2004 CALENDAR YEAR

FOR 2005 WATER YEAR

WATER YEARS 1998-2005

ANNUAL TOTAL	6864		6297		20.3		
ANNUAL MEAN	18.8		17.3		26.1		
HIGHEST ANNUAL MEAN					2003		
LOWEST ANNUAL MEAN					2005		
HIGHEST DAILY MEAN	29	Jan 28	25	Jan 7	73	Oct 16	1998
LOWEST DAILY MEAN	10	May 24	14	May 16	9.0	Nov 21	2000
ANNUAL SEVEN-DAY MINIMUM	12	May 23	14	May 22	9.2	Nov 19	2000
MAXIMUM PEAK FLOW			60		Jul 8		
MAXIMUM PEAK STAGE			4.15		2003		
INSTANTANEOUS LOW FLOW			10		2003		
10 PERCENT EXCEEDS	21		20		25		
50 PERCENT EXCEEDS	19		17		20		
90 PERCENT EXCEEDS	16		15		15		

e Estimated.

410433081312500 Ohio & Erie Canal at Lock 1 at Akron, Ohio

LOCATION.—Latitude 41°04'33", longitude 81°31'25", Summit County, Hydrologic Unit 05040001, at lower pool level of Lock 1, at south end of culvert under West Exchange Street, 1.6 mi northeast of Summit Lake, at Akron, Ohio.

DRAINAGE AREA.—Not determined.

PERIOD OF RECORD.—June 1, 1998 to current year.

GAGE.—Water-stage recorder. Datum of gage approximately 954 ft above sea level.

REMARKS.—Record good except for periods of estimated record, flows greater than 175 ft³/s, and a period of significant in-channel weed growth (May 6 to September 30), which are fair. Flow is completely regulated by operation of gate at Lock 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep		
1	18	19	38	31	14	24	11	18	15	12	10	19		
2	19	26	23	20	16	18	66	19	14	6.7	7.3	9.3		
3	18	21	13	55	16	18	28	18	14	9.3	7.4	12		
4	18	19	11	45	15	15	22	18	14	18	8.8	11		
5	15	17	10	33	15	14	19	18	14	17	54	14		
6	13	16	21	65	15	14	18	18	16	17	18	14		
7	14	15	23	28	20	16	18	18	19	11	12	12		
8	16	15	25	37	30	18	16	17	18	11	12	13		
9	18	14	15	28	20	17	13	18	9.3	13	13	15		
10	18	14	15	20	27	16	13	21	10	13	12	16		
11	18	14	19	32	16	17	13	22	19	14	9.9	16		
12	9.5	15	17	73	12	17	17	22	15	9.9	6.6	16		
13	11	17	17	43	12	13	18	24	15	14	8.9	16		
14	16	16	16	53	26	12	17	50	11	7.1	20	16		
15	24	14	16	18	25	17	11	24	9.3	16	15	16		
16	15	13	12	12	26	17	8.9	18	17	30	12	23		
17	15	18	7.8	17	24	17	8.4	16	17	17	4.3	13		
18	23	18	7.6	17	17	16	19	9.0	16	11	12	13		
19	24	20	7.7	17	17	14	22	13	12	14	12	13		
20	16	21	13	17	17	14	24	17	7.8	6.3	15	13		
21	15	18	16	17	35	8.6	24	16	17	12	19	12		
22	15	15	16	17	24	7.2	22	17	7.3	11	14	13		
23	15	8.8	52	17	16	22	55	17	4.0	11	5.8	23		
24	23	18	13	18	15	20	23	22	12	11	5.0	12		
25	15	22	16	18	15	16	27	18	15	11	15	12		
26	17	18	16	15	15	11	22	18	13	26	15	93		
27	16	17	10	15	15	13	24	14	8.6	74	11	27		
28	14	13	13	13	17	25	23	11	12	14	11	14		
29	26	14	17	13	---	17	21	11	15	12	9.8	39		
30	24	16	23	14	---	13	18	11	17	14	37	4.4		
31	17	---	50	14	---	12	---	12	---	13	88	---		
TOTAL	535.5	501.8	569.1	832	532	488.8	641.3	565.0	403.3	476.3	500.8	539.7		
MEAN	17.3	16.7	18.4	26.8	19.0	15.8	21.4	18.2	13.4	15.4	16.2	18.0		
MAX	26	26	52	73	35	25	66	50	19	74	88	93		
MIN	9.5	8.8	7.6	12	12	7.2	8.4	9.0	4.0	6.3	4.3	4.4		
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998-2005, BY WATER YEAR (WY)														
MEAN	18.2	14.3	16.0	19.0	17.5	17.0	20.3	23.4	20.9	23.1	20.7	20.0		
MAX	21.7	20.1	21.8	26.8	22.6	26.0	26.2	34.5	33.2	51.5	26.0	28.0		
(WY)	2002	2004	2003	2005	2003	2003	2003	2003	2003	2003	2003	2003		
MIN	13.1	6.28	11.4	13.2	14.7	13.0	17.6	15.5	13.4	15.4	16.2	14.5		
(WY)	2001	2001	2001	2001	2001	2001	2001	1999	2005	2005	2005	2001		
SUMMARY STATISTICS														
ANNUAL TOTAL				FOR 2004 CALENDAR YEAR				FOR 2005 WATER YEAR				WATER YEARS 1998-2005		
ANNUAL MEAN				7498.1				6585.6						
HIGHEST ANNUAL MEAN				20.5				18.0				19.4		
LOWEST ANNUAL MEAN												27.1	2003	
HIGHEST DAILY MEAN				126				93				14.5	2001	
LOWEST DAILY MEAN				4.1				4.0				214	Jul 8	2003
ANNUAL SEVEN-DAY MINIMUM				9.9				10				0.70	Dec 15	2000
MAXIMUM PEAK FLOW								227				2.2	Nov 12	2000
MAXIMUM PEAK STAGE								2.65				337	Aug 25	1998
INSTANTANEOUS LOW FLOW								0.00				3.44	Aug 25	1998
10 PERCENT EXCEEDS				30				25				0.00	Sep 1	2005
50 PERCENT EXCEEDS				18				16						
90 PERCENT EXCEEDS				12				10						

410014081362600 Wolf Creek Outlet of Ohio & Erie Canal at Barberton, Ohio

LOCATION. —Latitude 41°00'14", longitude 81°36'26", Summit County, Hydrologic Unit 05040001, at Wolf Road culvert for the Ohio and Erie Canal outlet, 0.1 mi above confluence with Wolf Creek, 0.2 mi from confluence of Wolf Creek and Tuscarawas River, 0.6 mi east of Columbia Lake, at Barberton, Ohio.

DRAINAGE AREA.—Not determined.

PERIOD OF RECORD.—June 1, 1998 to current year.

GAGE.—Water-stage recorder. Datum of gage approximately 954 ft above sea level. Prior to Apr. 24, 2001 at site 150 ft downstream at datum 2.46 ft lower.

REMARKS.—Records good except for periods of estimated record, which are poor. Flow is completely regulated by operation of gate at outlet structure and by canal operations at other locations.

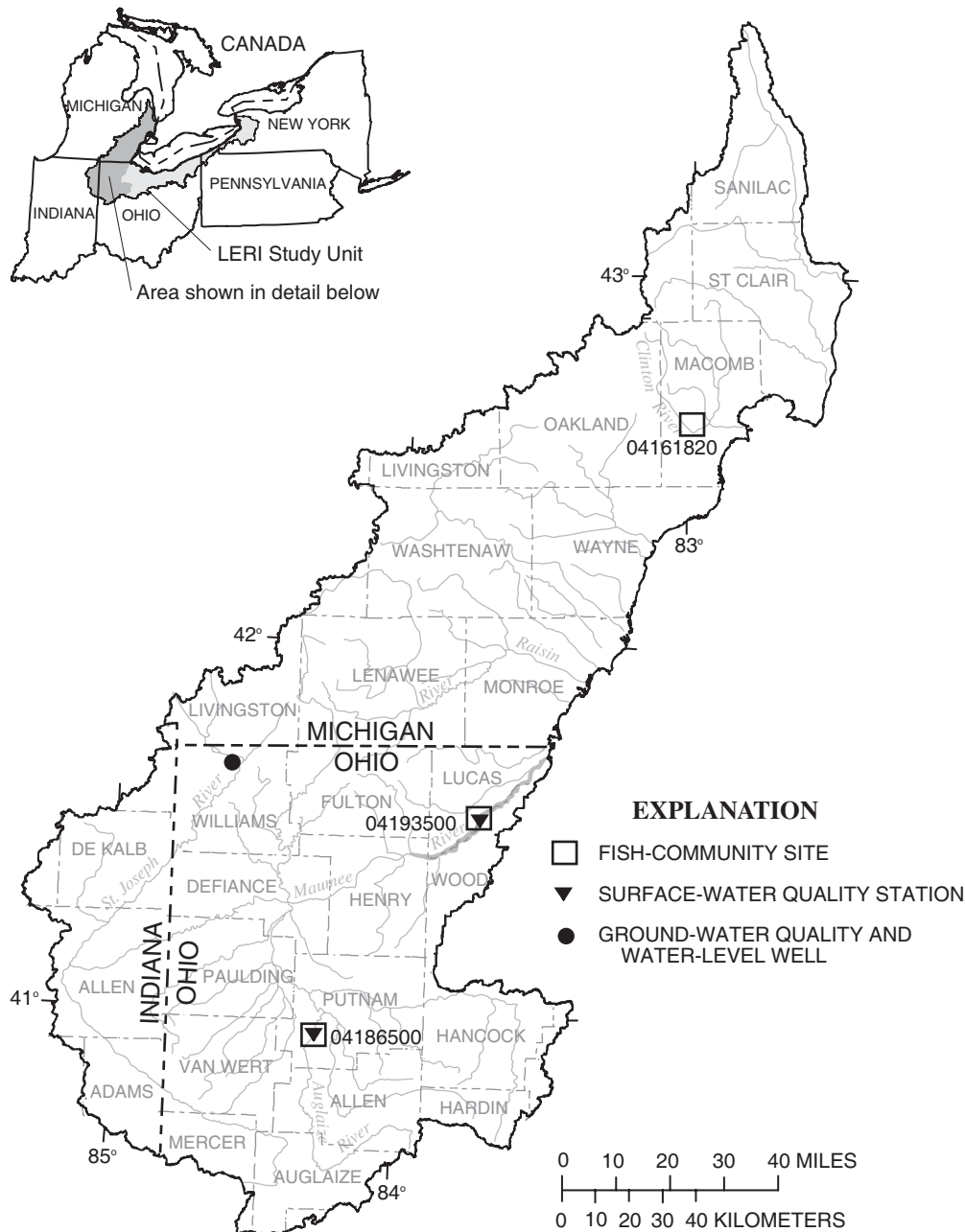
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	3.8	3.4	4.8	2.9	3.8	3.2	2.9	3.1	2.7	3.7	2.0	e6.5
2	3.7	3.1	3.6	2.7	3.8	2.8	5.1	3.2	2.5	4.2	2.1	e6.0
3	3.6	3.2	2.9	4.4	3.7	2.6	3.9	3.3	2.6	4.6	2.3	e5.5
4	3.4	2.9	3.0	4.4	3.5	2.3	3.7	3.1	2.8	4.2	2.6	e5.0
5	3.3	3.1	3.4	4.9	3.5	2.3	3.3	3.0	2.7	4.2	5.8	e4.4
6	3.3	3.1	3.7	5.7	3.6	2.3	3.0	3.0	3.2	4.0	4.6	e3.8
7	3.5	3.1	3.3	4.4	3.6	2.7	2.9	3.0	3.4	3.7	3.7	e3.8
8	3.6	3.0	3.3	5.5	4.2	3.0	3.0	3.0	3.2	3.8	3.0	e3.8
9	3.5	2.9	3.1	4.6	4.4	2.7	2.8	2.9	2.9	3.9	2.7	e3.8
10	3.4	2.9	3.9	4.2	4.1	2.6	2.9	2.8	2.7	3.7	2.5	e3.8
11	3.4	3.2	3.5	4.8	3.3	2.6	3.1	3.2	2.8	3.4	2.5	e3.8
12	3.4	3.5	3.1	6.0	3.4	2.6	3.3	3.2	2.7	3.1	2.5	e3.8
13	3.5	3.3	3.0	3.9	3.8	2.7	3.1	2.8	2.5	3.3	2.8	e3.8
14	3.6	3.1	3.2	4.6	4.0	3.1	2.8	4.4	2.9	3.1	3.1	3.6
15	3.4	3.1	2.8	2.5	3.5	2.9	2.7	3.4	3.5	3.6	2.6	3.4
16	2.8	3.3	2.6	3.2	4.1	2.8	3.0	2.7	3.8	4.3	2.2	3.8
17	2.7	3.5	2.9	3.1	3.6	2.6	3.6	2.5	4.2	3.4	2.2	3.2
18	3.6	3.3	3.3	3.2	3.1	2.6	3.9	2.4	4.0	3.0	2.5	3.1
19	4.5	3.8	4.0	3.3	2.9	2.4	3.3	2.6	3.9	3.0	2.5	3.1
20	4.0	3.9	4.2	3.5	3.0	2.8	3.1	2.7	3.7	2.9	3.3	3.1
21	4.0	3.5	3.7	3.4	4.7	3.2	3.6	2.6	3.5	3.1	3.6	3.2
22	3.9	3.0	3.5	3.6	3.1	3.8	3.3	2.6	3.2	3.2	3.1	3.3
23	3.8	3.1	5.2	3.6	3.1	4.3	4.7	3.6	3.8	3.2	3.0	4.8
24	4.4	3.7	4.1	3.5	3.1	3.4	3.5	3.7	4.0	3.3	3.4	4.3
25	3.9	3.9	3.8	3.2	3.0	3.0	3.8	3.0	4.0	3.4	3.6	4.5
26	3.5	3.5	3.5	3.3	3.0	3.1	3.5	2.2	3.7	4.0	3.1	8.4
27	3.4	3.2	3.3	3.4	3.0	3.5	3.4	1.9	3.7	7.2	2.9	5.5
28	3.3	3.2	3.6	3.4	3.2	3.8	2.9	2.0	3.6	4.0	3.0	3.9
29	4.5	3.2	3.5	3.6	---	3.2	2.7	2.2	3.7	2.9	2.8	4.3
30	4.1	3.6	3.2	3.8	---	2.9	3.2	2.5	3.7	2.7	4.5	3.6
31	3.5	---	4.6	3.8	---	2.5	---	2.6	---	2.4	11	---
TOTAL	112.3	98.6	109.6	120.4	99.1	90.3	100.0	89.2	99.6	112.5	101.5	126.9
MEAN	3.62	3.29	3.54	3.88	3.54	2.91	3.33	2.88	3.32	3.63	3.27	4.23
MAX	4.5	3.9	5.2	6.0	4.7	4.3	5.1	4.4	4.2	7.2	11	8.4
MIN	2.7	2.9	2.6	2.5	2.9	2.3	2.7	1.9	2.5	2.4	2.0	3.1
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998-2005, BY WATER YEAR (WY)												
MEAN	4.31	3.90	4.19	4.32	4.08	3.53	3.51	3.22	3.30	3.99	4.41	4.41
MAX	7.98	7.19	8.31	7.59	6.52	4.14	3.98	4.23	4.91	5.55	6.03	6.15
(WY)	1999	1999	1999	1999	1999	2003	2002	2003	1998	2002	2002	1998
MIN	2.72	2.93	3.00	2.88	3.29	2.91	3.08	2.64	1.92	2.80	2.92	1.66
(WY)	2000	2000	2000	2002	2000	2005	2001	2000	2000	2001	2000	2000
SUMMARY STATISTICS												
ANNUAL TOTAL				FOR 2004 CALENDAR YEAR			FOR 2005 WATER YEAR			WATER YEARS 1998-2005		
ANNUAL MEAN				1451.2			1260.0					
HIGHEST ANNUAL MEAN				3.97			3.45			3.88		
LOWEST ANNUAL MEAN										5.15		
HIGHEST DAILY MEAN				17 Sep 16			11 Aug 31			17 Sep 16		
LOWEST DAILY MEAN				1.9 Mar 25			1.9 May 27			0.07 Jul 2		
ANNUAL SEVEN-DAY MINIMUM				2.6 Mar 1			2.3 May 26			1.2 Sep 12		
MAXIMUM PEAK FLOW							12 Aug 31			34 Mar 17		
MAXIMUM PEAK STAGE							10.98 Sep 26			10.98 Sep 8		
INSTANTANEOUS LOW FLOW							1.7 Mar 31			0.01 Jul 2		
10 PERCENT EXCEEDS				5.1			4.3			5.7		
50 PERCENT EXCEEDS				3.7			3.3			3.6		
90 PERCENT EXCEEDS				2.9			2.6			2.4		

e Estimated.

Project Data—Results from Selected Sites in the Lake Erie-Lake St. Clair Drainages

The data in the following tables were collected and analyzed as part of NAWQA (National Water-Quality Assessment Program) project in the Lake Erie and Lake St. Clair Drainages (LERI). The objectives of the NAWQA program are to broadly characterize the water quality of the Nation's streams and aquifers in relation to human and natural factors. The period of high-intensity data collection in the LERI drainage was in the water years 1996–98. The stream-water-quality data (including fish-community data) reported in this publication are for the Clinton River at Sterling Heights, Mich. (04161820), the Auglaize River near Ft. Jennings, Ohio (04186500), and the Maumee River at Waterville, Ohio (04193500). Also reported are water-quality data for a domestic well in Williams County that is part of the NAWQA Major Aquifer Study well network.



04186500 Auglaize River near Ft. Jennings, Ohio

LOCATION.—Latitude 40°56'55", longitude 84°15'58", Putnam County, Ohio, Hydrologic Unit 04100007, on left bank 200 feet upstream from bridge on US Highway 224, 3.5 miles northeast of Ft. Jennings, Ohio.

DRAINAGE AREA.—332 mi².

REMARKS.—Discharge is measured at this site and is published in surface-water records.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

[(00061), USGS National Water Information System parameter code; cfs, cubic feet per second; μS/cm, microsiemens per centimeter; deg C, degrees Celsius; std, standard; mm, millimeter; mg/L, milligrams per liter; μg/L, micrograms per liter; E, estimated; <, concentration or value reported is less than that indicated]

Date	Time	Instan- taneous dis- charge, cfs (00061)	Baro- metric pres- sure, mm Hg (00025)	Dis- solved oxygen, mg/L (00300)	Dis- solved oxygen, percent of sat- uration (00301)	pH, water, unfltrd, field, std units (00400)	Specif. conduc- tance, water, unf, μS/cm 25 deg C (00095)	Temper- ature, air, deg C (00020)	Temper- ature, water, deg C (00010)
Oct. 20	0930	360	745	9.0	84	7.8	584	10.5	11.0
Dec. 15	1100	211	755	13.3	96	8.2	640	-2.0	1.5
Feb. 28	1200	182	733	12.9	99	8.2	724	.0	2.5
Apr. 26	1230	2610	738	11.0	98	7.8	386	8.5	8.9
June 3	1345	42	745	10.2	119	8.4	870	27.0	21.6
Aug. 9	1030	18	747	6.3	78	7.8	1160	32.0	25.2

Date	Alka- linity, water, flt, inc titr., field, mg/L as CaCO ₃ (39086)	Bicar- bonate, water, flt, incrm. titr., field, mg/L (00453)	Carbon- ate, water, flt incrm. titr., field, mg/L (00452)	Chlor- ide, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate, 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)
Oct. 20	144	175	--	43.0	54.6	<.04	7.76	.029	.09
Dec. 15	226	186	2	32.6	61.6	.07	4.6	.019	.054
Feb. 28	226	276	--	39.8	73.8	.07	3.11	.013	.044
Apr. 26	97	119	--	17.9	28.0	.46	7.68	.065	.133
June 3	238	276	7	69.9	111	<.04	.73	.008	.058
Aug. 9	190	232	--	159	161	.06	.3	.008	.161

Date	Phos- phorus, water, unfltrd mg/L (00665)	Total nitro- gen, water, unf by analy- sis, mg/L (62855)	1-Naph- thol, water, fltrd, 0.7μ GF, μg/L (49295)	2,6-Di- ethyl- aniline, water, fltrd, 0.7μ GF, μg/L (82660)	2Chloro -2',6'- diethyl acet- anilide, water, flt, μg/L (61618)	CIAT, water, fltrd, μg/L (04040)	2-Ethyl -6- methyl- aniline water, fltrd, μg/L (61620)	3,4-Di- chloro- aniline, water, fltrd, μg/L (61625)	4Chloro 2methyl phenol, water, fltrd, μg/L (61633)
Oct. 20	.20	--	<.09	<.006	<.005	E.064	<.004	<.004	<.006
Dec. 15	.121	5.12	<.09	<.006	<.005	<.006	<.004	<.004	<.006
Feb. 28	.067	3.54	<.09	<.006	<.005	E.020	<.004	<.004	<.006
Apr. 26	.32	9.57	<.09	<.006	<.005	E.370	E.001	<.004	<.006
June 3	.136	1.41	<.09	<.006	<.005	E.105	<.004	E.007	<.006
Aug. 9	.25	1.12	<.09	<.006	<.005	E.048	<.004	<.004	<.006

04186500 Auglaize River near Ft. Jennings, Ohio—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—Continued

[(49260), USGS National Water Information System parameter code; µg/L, micrograms per liter; E, estimated; <, concentration or value reported is less than that indicated]

Date	Aceto- chlor, water, fltrd, µg/L (49260)	Ala- chlor, water, fltrd, µg/L (46342)	Atra- zine, water, fltrd, µg/L (39632)	Azin- phos- methyl oxon, water, fltrd, µg/L (61635)	Azin- phos- methyl, water, fltrd, 0.7µ GF, µg/L (82686)	Ben- flur- alin, water, fltrd, 0.7µ GF, µg/L (82673)	Car- baryl, water, fltrd, 0.7µ GF, µg/L (82680)	Chlor- pyrifos oxon, water, fltrd, µg/L (61636)	Chlor- pyrifos, water, fltrd, µg/L (38933)
Oct. 20	.011	<.005	.146	<.07	<.050	<.010	<1	<.06	<.5
Dec. 15	<.006	<.005	<.007	<.07	<.050	<.010	<.041	<.06	<.005
Feb. 28	.013	<.005	.046	<.07	<.050	<.010	<.041	<.06	<.005
Apr. 26	14.3	0.028	E21.7	<.07	<.050	<.010	E.012	<.06	.008
June 3	.082	<.005	1.57	<.07	<.050	<.010	<.041	<.06	<.005
Aug. 9	.01	<.005	.400	<.07	<.050	<.010	<.041	<.06	.024
Date	cis- Per- methrin, water, fltrd, 0.7µ GF, µg/L (82687)	Cyflu- thrin, water, fltrd, µg/L (61585)	Cyper- methrin, water, fltrd, µg/L (61586)	DCPA, water, fltrd, 0.7µ GF, µg/L (82682)	Desulf- inyl fipro- nil, water, fltrd, µg/L (62170)	Diaz- inon oxon, water, fltrd, µg/L (61638)	Diazi- non, water, fltrd, µg/L (39572)	Dicro- tophos, water, fltrd, µg/L (38454)	Diel- drin, water, fltrd, µg/L (39381)
Oct. 20	<.006	<.008	<.009	<.003	<.012	<.01	<.5	<.08	<.009
Dec. 15	<.006	<.008	<.009	<.003	<.012	<.01	<.005	<.08	<.009
Feb. 28	<.006	<.008	<.009	<.003	E.005	<.01	<.005	<.08	<.009
Apr. 26	<.006	<.027	<.009	<.003	<.012	<.01	E.005	<.08	<.009
June 3	<.006	<.027	<.009	<.003	E.004	--	<.005	<.08	<.009
Aug. 9	<.006	<.027	<.009	<.003	E.005	--	<.005	<.08	<.009
Date	Dimeth- oate, water, fltrd, 0.7µ GF, µg/L (82662)	Ethion monoxon water, fltrd, µg/L (61644)	Ethion, water, fltrd, µg/L (82346)	Fenami- phos sulfone, water, fltrd, µg/L (61645)	Fenami- phos sulf- oxide, water, fltrd, µg/L (61646)	Fenami- phos, water, fltrd, µg/L (61591)	Desulf- inyl- fipro- nil amide, water, flt, µg/L (62169)	Fipro- nil sulfide, water, fltrd, µg/L (62167)	Fipro- nil sulfone, water, fltrd, µg/L (62168)
Oct. 20	<.006	<.0020	<.004	<.049	<.04	<.03	<.029	<.013	<.024
Dec. 15	<.006	<.0020	<.004	<.049	<.04	<.03	<.029	<.013	<.024
Feb. 28	<.006	<.0020	<.004	<.049	<.04	<.03	<.029	<.013	<.024
Apr. 26	<.006	<.0020	<.004	<.049	<.04	<.03	<.029	<.013	<.024
June 3	<.006	<.002	<.004	<.049	<.04	<.03	<.029	E.006	<.024
Aug. 9	<.006	<.002	<.004	<.049	<.04	<.03	<.029	<.013	<.024

04186500 Auglaize River near Ft. Jennings, Ohio—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—Continued

[(62166), USGS National Water Information System parameter code; µg/L, micrograms per liter; E, estimated; <, concentration or value reported is less than that indicated]

Date	Fipronil, water, fltrd, µg/L (62166)	Fonofos, water, fltrd, µg/L (04095)	Hexazinone, water, fltrd, µg/L (04025)	Iprodione, water, fltrd, µg/L (61593)	Isofenphos, water, fltrd, µg/L (61594)	Malaoxon, water, fltrd, µg/L (61652)	Malathion, water, fltrd, µg/L (39532)	Metolaxyl, water, fltrd, µg/L (61596)	Methalathion, water, fltrd, µg/L (61598)
Oct. 20	<.016	<.003	<.013	<.387	<.003	<.030	<.027	.015	<.006
Dec. 15	<.016	<.003	<.013	<.387	<.003	<.030	<.027	<.005	<.006
Feb. 28	E.006	<.003	<.013	<.387	<.003	<.030	<.027	<.005	<.006
Apr. 26	<.016	<.003	<.013	<.538	<.003	<.030	<.027	.035	<.006
June 3	<.016	<.003	<.013	<.538	<.003	<.030	<.027	.008	<.006
Aug. 9	<.016	<.003	<.013	<.538	<.003	<.030	<.027	<.005	<.006

Date	Methyl paraxon, water, fltrd, µg/L (61664)	Methyl parathion, water, fltrd, 0.7µ GF, µg/L (82667)	Metolachlor, water, fltrd, µg/L (39415)	Metribuzin, water, fltrd, µg/L (82630)	Myclobutanol, water, fltrd, µg/L (61599)	Pendimethalin, water, fltrd, 0.7µ GF, µg/L (82683)	Phorate oxon, water, fltrd, µg/L (61666)	Phorate, water, fltrd, 0.7µ GF, µg/L (82664)	Phosmet oxon, water, fltrd, µg/L (61668)
Oct. 20	<.03	<.015	E.2	.008	<.008	<.022	<.10	<.011	<.05
Dec. 15	<.03	<.015	<.006	<.006	<.008	<.022	<.10	<.011	<.05
Feb. 28	<.03	<.015	.117	<.006	<.008	<.022	<.10	<.011	<.05
Apr. 26	<.03	<.015	3.08	.192	<.008	<.022	<.10	<.011	<.05
June 3	<.03	<.015	.172	<.006	<.008	<.022	<.10	<.011	--
Aug. 9	<.03	<.015	.07	<.006	<.008	<.022	<.10	<.011	--

Date	Phosmet water, fltrd, µg/L (61601)	Prometon, water, fltrd, µg/L (04037)	Prometryn, water, fltrd, µg/L (04036)	Propyzamide, water, fltrd, 0.7µ GF, µg/L (82676)	Simazine, water, fltrd, µg/L (04035)	Tebu-thiuron, water, fltrd, 0.7µ GF, µg/L (82670)	Terbufos oxon sulfone, water, fltrd, µg/L (61674)	Terbufos, water, fltrd, 0.7µ GF, µg/L (82675)	Terbutylazine, water, fltrd, µg/L (04022)
Oct. 20	<.008	<.5	<.005	<.004	.019	<.02	<.07	<.02	<.01
Dec. 15	<.008	<.01	<.005	<.004	<.005	<.02	<.07	<.02	<.01
Feb. 28	<.008	<.01	<.005	<.004	.008	<.02	<.07	<.02	<.01
Apr. 26	<.008	.01	<.005	<.004	.792	<.02	<.07	<.02	E.01
June 3	--	.02	<.005	<.004	.147	<.02	<.07	<.02	<.01
Aug. 9	--	.07	<.005	<.004	.083	<.02	<.07	<.02	<.01

04186500 Auglaize River near Ft. Jennings, Ohio—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—Continued

[(82661), USGS National Water Information System parameter code; $\mu\text{g/L}$, micrograms per liter; mg/L , milligrams per liter; E, estimated; <, concentration or value reported is less than that indicated]

Date	Tri- flur- alin, water, fltrd, 0.7 μ GF, $\mu\text{g/L}$ (82661)	Di- chlor- vos, water, fltrd, $\mu\text{g/L}$ (38775)	Sus- pended sedi- ment concen- tration, mg/L (80154)
Oct. 20	<.009	--	43
Dec. 15	<.009	<.01	17
Feb. 28	<.009	<.01	13
Apr. 26	E.005	<.01	73
June 3	<.009	<.01	14
Aug. 9	<.009	<.01	29

04193500 Maumee River at Waterville, Ohio

LOCATION.—Latitude 41°30'00", longitude 83°42'46", Lucas County, Ohio, Hydrologic Unit 04100009, on downstream side of first pier from left end of bridge on State Highway 64 at Waterville, Ohio, river mile 20.7.

DRAINAGE AREA.—6,330 mi².

REMARKS.—Discharge is measured at this site and is published in surface-water records.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

[(00061), USGS National Water Information System parameter code; cfs, cubic feet per second; μS/cm, microsiemens per centimeter; deg C, degrees Celsius; std, standard; mm, millimeter; mg/L, milligrams per liter; μg/L, micrograms per liter; E, estimated; <, concentration or value reported is less than that indicated]

Date	Time	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd, field, std units (00400)	Specific conductance, water, unfltrd, μS/cm 25 deg C (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)
Oct. 19	1200	480	747	11.0	99	8.9	532	9.5	9.6
Dec. 15	1330	8180	756	12.5	95	8.1	490	-1.0	3.6
Feb. 25	1130	10800	750	13.5	99	8.0	462	.0	1.7
Apr. 27	0900	28500	743	11.6	100	7.8	438	8.0	7.8
June 3	1000	2380	745	9.8	114	8.4	591	19.0	21.4
Aug. 10	1000	352	745	7.9	100	8.5	487	26.5	26.5

Date	Alkalinity, water, fltrd, inc titr., field, mg/L as CaCO ₃ (39086)	Bicarbonate, water, fltrd, incrm. titr., field, mg/L (00453)	Carbonate, water, fltrd, incrm. titr., field, mg/L (00452)	Chloride, water, fltrd, mg/L (00940)	Sulfate, water, fltrd, mg/L (00945)	Ammonia, water, fltrd, mg/L as N (00608)	Nitrite + nitrate, water, fltrd, mg/L as N (00631)	Nitrite, water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)
Oct. 19	130	138	10	48.7	61.0	<.04	<.06	<.008	.018
Dec. 15	131	158	--	27.3	45.4	<.04	5.29	.017	.088
Feb. 25	122	149	--	29.6	40.5	.08	4.45	.013	.061
Apr. 27	85	104	--	20.3	27.4	.58	8.88	.067	.139
June 3	134	139	12	51.6	73.6	<.04	1.41	.032	<.006
Aug. 10	110	135	--	42.8	56.9	E.04	1.11	.042	<.006

Date	Phosphorus, water, unfltrd mg/L (00665)	Total nitrogen, water, unfltrd, by analysis, mg/L (62855)	1-Naphthol, water, fltrd, 0.7μ GF, μg/L (49295)	2,6-Diethyl-aniline, water, fltrd, 0.7μ GF, μg/L (82660)	2Chloro-2',6'-diethyl acet-anilide, water, fltrd, μg/L (61618)	CIAT, water, fltrd, μg/L (04040)	2-Ethyl-6-methyl-aniline, water, fltrd, μg/L (61620)	3,4-Di-chloro-aniline, water, fltrd, μg/L (61625)	4Chloro 2methyl phenol, water, fltrd, μg/L (61633)
Oct. 19	.131	1.25	<.09	<.006	<.005	E.055	<.004	<.005	<.006
Dec. 15	.27	6.53	<.09	<.006	<.005	E.041	<.004	<.004	<.006
Feb. 25	.21	5.34	<.09	<.006	<.005	E.025	<.004	<.004	<.006
Apr. 27	.55	11.2	<.09	<.006	<.005	E.301	<.004	<.007	<.006
June 3	.132	3.04	<.09	<.006	<.005	E.173	<.004	E.011	<.006
Aug. 10	.104	2.39	<.09	<.006	<.005	E.125	<.004	<.004	<.006

04193500 Maumee River at Waterville, Ohio—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—Continued

[(49260), USGS National Water Information System parameter code; µg/L, micrograms per liter; E, estimated; <, concentration or value reported is less than that indicated]

Date	Aceto- chlor, water, fltrd, µg/L (49260)	Ala- chlor, water, fltrd, µg/L (46342)	Atra- zine, water, fltrd, µg/L (39632)	Azin- phos- methyl oxon, water, fltrd, µg/L (61635)	Azin- phos- methyl, water, fltrd, 0.7µ GF, µg/L (82686)	Ben- flur- alin, water, fltrd, 0.7µ GF, µg/L (82673)	Car- baryl, water, fltrd, 0.7µ GF, µg/L (82680)	Chlor- pyrifos oxon, water, fltrd, µg/L (61636)	Chlor- pyrifos, water, fltrd, µg/L (38933)
Oct. 19	.007	<.005	.217	<.07	<.050	<.010	<.041	<.06	<.005
Dec. 15	.034	.009	.139	<.07	<.050	<.010	<.041	<.06	<.005
Feb. 25	.013	.064	.051	<.07	<.050	<.010	<.041	<.06	<.005
Apr. 27	7.12	.042	15.0	<.07	<.050	<.010	E.009	<.06	E.005
June 3	.21	<.005	3.68	<.07	<.050	<.010	<.041	<.06	<.005
Aug. 10	.042	<.005	.715	<.07	<.050	<.010	<.041	<.06	E.007
Date	cis- Per- methrin, water, fltrd, 0.7µ GF, µg/L (82687)	Cyflu- thrin, water, fltrd, µg/L (61585)	Cyper- methrin, water, fltrd, µg/L (61586)	DCPA, water, fltrd, 0.7µ GF, µg/L (82682)	Desulf- inyl fipro- nil, water, fltrd, µg/L (62170)	Diaz- inon oxon, water, fltrd, µg/L (61638)	Diazi- non, water, fltrd, µg/L (39572)	Dicro- tophos, water, fltrd, µg/L (38454)	Diel- drin, water, fltrd, µg/L (39381)
Oct. 19	<.006	<.008	<.009	<.003	<.012	<.01	<.005	<.08	<.009
Dec. 15	<.006	<.008	<.009	.004	<.012	<.01	<.005	<.08	<.009
Feb. 25	<.006	<.008	<.009	<.003	<.012	<.01	<.005	<.08	<.009
Apr. 27	<.006	<.027	<.009	<.003	<.012	<.01	<.005	<.08	<.009
June 3	<.006	<.027	<.009	E.002	E.005	--	<.005	<.08	<.009
Aug. 10	<.006	<.027	<.009	<.003	E.005	--	<.005	<.08	<.009
Date	Dimeth- oate, water, fltrd, 0.7µ GF, µg/L (82662)	Ethion monoxon water, fltrd, µg/L (61644)	Ethion, water, fltrd, µg/L (82346)	Fenami- phos sulfone, water, fltrd, µg/L (61645)	Fenami- phos sulf- oxide, water, fltrd, µg/L (61646)	Fenami- phos, water, fltrd, µg/L (61591)	Desulf- inyl- fipro- nil amide, water, flt, µg/L (62169)	Fipro- nil sulfide, water, fltrd, µg/L (62167)	Fipro- nil sulfone, water, fltrd, µg/L (62168)
Oct. 19	<.006	<.0020	<.004	<.049	<.04	<.03	<.029	<.013	<.024
Dec. 15	<.006	<.0020	<.004	<.049	<.04	<.03	<.029	<.013	<.024
Feb. 25	<.006	<.0020	<.004	<.049	<.04	<.03	<.029	E.006	E.006
Apr. 27	<.006	<.0020	<.004	<.049	<.04	<.03	<.029	<.013	<.024
June 3	<.006	<.002	<.004	<.049	<.04	<.03	E.007	E.006	<.024
Aug. 10	<.006	<.002	<.004	<.049	<.04	<.03	E.005	E.006	<.024

04193500 Maumee River at Waterville, Ohio—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—Continued

[(62166), USGS National Water Information System parameter code; µg/L, micrograms per liter; E, estimated; <, concentration or value reported is less than that indicated]

Date	Fipronil, water, fltrd, µg/L (62166)	Fonofos, water, fltrd, µg/L (04095)	Hexazinone, water, fltrd, µg/L (04025)	Iprodione, water, fltrd, µg/L (61593)	Isofenphos, water, fltrd, µg/L (61594)	Malachonoxon, water, fltrd, µg/L (61652)	Malathion, water, fltrd, µg/L (39532)	Metolaxyl, water, fltrd, µg/L (61596)	Methalathion, water, fltrd, µg/L (61598)
Oct. 19	<.016	<.003	E.006	<.387	<.003	<.030	<.027	<.007	<.006
Dec. 15	<.016	<.003	<.013	<.387	<.003	<.030	<.027	0.009	<.006
Feb. 25	E.007	<.003	<.013	<.387	<.003	<.030	<.027	<.005	<.006
Apr. 27	E.008	<.003	<.013	<.538	<.003	<.030	<.027	0.035	<.006
June 3	E.007	<.003	<.013	<.538	<.003	<.030	<.027	0.021	<.006
Aug. 10	<.016	<.003	<.013	<.538	<.003	<.030	<.027	0.017	<.006

Date	Methyl paraxon, water, fltrd, µg/L (61664)	Methyl parathion, water, fltrd, 0.7µ GF, µg/L (82667)	Metolachlor, water, fltrd, µg/L (39415)	Metribuzin, water, fltrd, µg/L (82630)	Myclobutanil, water, fltrd, µg/L (61599)	Pendimethalin, water, fltrd, 0.7µ GF, µg/L (82683)	Phorate oxon, water, fltrd, µg/L (61666)	Phorate, water, fltrd, 0.7µ GF, µg/L (82664)	Phosmet oxon, water, fltrd, µg/L (61668)
Oct. 19	<.03	<.015	.090	<.006	<.008	<.022	<.10	<.011	<.05
Dec. 15	<.03	<.015	.078	.034	<.008	<.022	<.10	<.011	<.05
Feb. 25	<.03	<.015	.053	.01	<.008	<.022	<.10	<.011	<.05
Apr. 27	<.03	<.015	5.29	.743	<.008	<.022	<.10	<.011	<.05
June 3	<.03	<.015	.825	.078	<.008	<.022	<.10	<.011	--
Aug. 10	<.03	<.015	.428	.015	.011	<.022	<.10	<.011	--

Date	Phosmet water, fltrd, µg/L (61601)	Prometon, water, fltrd, µg/L (04037)	Prometryn, water, fltrd, µg/L (04036)	Propyzamide, water, fltrd, 0.7µ GF, µg/L (82676)	Simazine, water, fltrd, µg/L (04035)	Tebu-thiuron, water, fltrd, 0.7µ GF, µg/L (82670)	Terbufos oxon sulfone, water, fltrd, µg/L (61674)	Terbufos, water, fltrd, 0.7µ GF, µg/L (82675)	Terbutylazine, water, fltrd, µg/L (04022)
Oct. 19	<.008	0.03	<.005	<.004	.029	<.02	<.07	<.02	.03
Dec. 15	<.008	0.01	<.005	<.004	.105	<.02	<.07	<.02	<.01
Feb. 25	<.008	<.01	<.005	<.004	.043	<.02	<.07	<.02	<.01
Apr. 27	<.008	<.01	<.005	<.004	1.17	<.02	<.07	<.02	.01
June 3	--	.04	<.005	<.004	.227	<.02	<.07	<.02	E.01
Aug. 10	--	.09	<.005	<.004	.11	.02	<.07	<.02	.01

04193500 Maumee River at Waterville, Ohio—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—Continued

[(82661), USGS National Water Information System parameter code; µg/L, micrograms per liter; mg/L, milligrams per liter; E, estimated; <, concentration or value reported is less than that indicated]

Date	Tri- flur- alin, water, fltfd, 0.7µ GF, µg/L (82661)	Di- chlor- vos, water, fltfd, µg/L (38775)	Sus- pended sedi- ment concen- tration, mg/L (80154)
Oct. 19	<.009	<.01	10
Dec. 15	<.009	<.01	110
Feb. 25	<.009	<.01	96
Apr. 27	<.009	<.01	201
June 3	<.009	<.01	7
Aug. 10	<.009	<.01	10

Major Aquifer Study

The following table contains water-level and water-quality data collected from a domestic well in Williams County, Ohio, as part of a Major Aquifer Study. NAWQA Major Aquifer Studies are designed to assess the water quality of the most important ground-water resources in a particular NAWQA study unit. For the LERI study unit, the sampled well represents the sand and gravel deposits in the glacial aquifer and the generally good water quality of ground water in the region.

Water samples from Major Aquifer Study wells are tested for physical characteristics, nutrients, major and trace elements, and pesticides. General site and well characteristics data, sampling date and time, water-level records and physical characteristics are presented first. These are followed by nutrient, major ion, trace-element, pesticide, and volatile-organic-compound data.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

[(72008), USGS National Water Information System parameter code; LSD, land-surface datum; NTU, nephelometric turbidity units; mg/L, milligrams per liter; µS/cm, microsiemens per centimeter; deg C, degrees Celsius; µg/L, micrograms per liter; <, concentration or value reported is less than the value indicated; R, data value under review and subject to revision]

Station number	Local well number	Depth of well, feet below LSD (72008)	Altitude of land surface, feet (72000)	Geologic unit	Date water level measured	Depth to water level, feet below LSD (72019)	Sample-collection date	Time	Turbidity, NTU (00076)	Dis-solved oxygen, mg/L (00300)
413721084361000	SUS171-4	121	863	112SDGV	8/16/2005	16.71	8/16/2005	1500	1.2	.2
pH, water, unfltrd, field, std units (00400)	Specific conductance, water, unf, µS/cm 25 deg C (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO ₃ (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Alkalinity, water, flt, inc. titr., mg/L as CaCO ₃ (39086)	Bicarbonate, water, flt, inc. titr., field, mg/L (00453)	
7.5	640	15.9	300	64.7	31.8	1.99	32.1	293	360	
Carbonate, water, flt, inc. titr., field, mg/L (00452)	Bromide, water, fltrd, mg/L (71870)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate, water, fltrd, mg/L (00945)	Residue on evap. at 180 deg C, water, flt, mg/L (70300)	Ammonia, water, fltrd, mg/L as N (00608)	Nitrite + nitrate, water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	
.0	R.27	21.0	1.0	20.4	21.7	387	.37	<.06	<.008	
Ortho-phosphate, water, fltrd, mg/L as P (00671)	Aluminum, water, fltrd, µg/L (01106)	Antimony, water, fltrd, µg/L (01095)	Arsenic water, fltrd, µg/L (01000)	Barium, water, fltrd, µg/L (01005)	Beryllium, water, fltrd, µg/L (01010)	Boron, water, fltrd, µg/L (01020)	Cadmium, water, fltrd, µg/L (01025)	Chromium, water, fltrd, µg/L (01030)	Cobalt, water, fltrd, µg/L (01035)	
.021	<2	<.20	.3	296	<.06	135	.08	<.8	.158	

Major Aquifer Study—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—Continued

[(01040), USGS National Water Information System parameter code; µg/L, micrograms per liter; <, concentration or value reported is less than the value indicated]

Copper, water, fltrd, µg/L (01040)	Iron, water, fltrd, µg/L (01046)	Lead, water, fltrd, µg/L (01049)	Lithium, water, fltrd, µg/L (01130)	Mangan- ese, water, fltrd, µg/L (01056)	Molyb- denum, water, fltrd, µg/L (01060)	Nickel, water, fltrd, µg/L (01065)	Selen- ium, water, fltrd, µg/L (01145)	Silver, water, fltrd, µg/L (01075)	Stront- ium, water, fltrd, µg/L (01080)
.4	1410	<.08	12.7	14.6	31.1	2.35	<.4	<.2	6690
Thal- ium, water, fltrd, µg/L (01057)	Uranium, natural, water, fltrd, µg/L (22703)	Vana- dium, water, fltrd, µg/L (01085)	Zinc, water, fltrd, µg/L (01090)	1-Naph- thol, water, fltrd, 0.7µ GF, µg/L (49295)	2,6-Di- ethyl- aniline, water, fltrd, 0.7µ GF, µg/L (82660)	2-Chloro -2',6'- diethyl acet- anilide, water, flt, µg/L (61618)	CIAT, water, fltrd, µg/L (04040)	2-Ethyl -6- methyl- aniline, water, fltrd, µg/L (61620)	3,4-Di- chloro- aniline, water, fltrd, µg/L (61625)
<.04	.08	.4	5.0	<.09	<.006	<.005	<.006	<.004	<.004
3,5-Di- chloro- aniline, water, fltrd, µg/L (61627)	4-Chloro 2-methyl phenol, water, fltrd, µg/L (61633)	Aceto- chlor, water, fltrd, µg/L (49260)	Ala- chlor, water, fltrd, µg/L (46342)	alpha- Endo- sulfan, water, fltrd, µg/L (34362)	Atra- zine, water, fltrd, µg/L (39632)	Azin- phos- methyl oxon, water, fltrd, µg/L (61635)	Azin- phos- methyl, water, fltrd, 0.7µ GF, µg/L (82686)	Ben- flur- alin, water, fltrd, 0.7µ GF, µg/L (82673)	Car- baryl, water, fltrd, 0.7µ GF, µg/L (82680)
<.004	<.006	<.006	<.005	<.005	<.007	<.07	<.050	<.010	<.041
Carbo- furan, water, fltrd, 0.7µ GF, µg/L (82674)	Chlor- pyrifos oxon, water, fltrd, µg/L (61636)	Chlor- pyrifos, water, fltrd, µg/L (38933)	cis- Per- methrin, water, fltrd, 0.7µ GF, µg/L (82687)	cis- Propi- cona- zole, water, fltrd, µg/L (79846)	Cyana- zine, water, fltrd, µg/L (04041)	Cyflu- thrin, water, fltrd, µg/L (61585)	lambda- Cyhalo- thrin, water, fltrd, µg/L (61595)	Cyper- methrin, water, fltrd, µg/L (61586)	DCPA, water, fltrd, 0.7µ GF, µg/L (82682)
<.020	<.06	<.005	<.006	<.008	<.018	<.027	<.009	<.009	<.003

Major Aquifer Study—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—Continued

[(62170), USGS National Water Information System parameter code; µg/L, micrograms per liter; <, concentration or value reported is less than the value indicated]

Desulf- inyl fipro- nil, water, fltrd, µg/L (62170)	Diazi- non, water, fltrd, µg/L (39572)	Dicro- tophos, water, fltrd, µg/L (38454)	Diel- drin, water, fltrd, µg/L (39381)	Dimeth- oate, water, fltrd, 0.7µ GF, µg/L (82662)	Disulf- oton sulfone, water, fltrd, µg/L (61640)	Disul- foton, water, fltrd 0.7µ GF µg/L (82677)	Endo- sulfan sulfate, water, fltrd, µg/L (61590)	EPTC, water, fltrd, 0.7µ GF, µg/L (82668)	Ethion monoxon, water, fltrd, µg/L (61644)
<.012	<.005	<.08	<.009	<.006	<.01	<.02	<.014	<.004	<.002
Ethion, water, fltrd, µg/L (82346)	Etho- prop, water, fltrd, 0.7µ GF, µg/L (82672)	Fenami- phos sulfone, water, fltrd, µg/L (61645)	Fenami- phos sulf- oxide, water, fltrd, µg/L (61646)	Fenami- phos, water, fltrd, µg/L (61591)	Desulf- inyl- fipro- nil amide, water, flt, µg/L (62169)	Fipro- nil sulfide, water, fltrd, µg/L (62167)	Fipro- nil sulfone, water, fltrd, µg/L (62168)	Fipro- nil, water, fltrd, µg/L (62166)	Fonofos, water, fltrd, µg/L (04095)
<.004	<.005	<.049	<.04	<.03	<.029	<.013	<.024	<.016	<.003
Hexa- zinone, water, fltrd, µg/L (04025)	Ipro- dione, water, fltrd, µg/L (61593)	Isofen- phos, water, fltrd, µg/L (61594)	Mala- oxon, water, fltrd, µg/L (61652)	Mala- thion, water, fltrd, µg/L (39532)	Meta- laxyl, water, fltrd, µg/L (61596)	Methi- althion, water, fltrd, µg/L (61598)	Methyl para- oxon, water, fltrd, µg/L (61664)	Methyl para- thion, water, fltrd, 0.7µ GF, µg/L (82667)	Metola- chlor, water, fltrd, µg/L (39415)
<.013	<.538	<.003	<.030	<.027	<.005	<.006	<.03	<.015	<.006
Metri- buzin, water, fltrd, µg/L (82630)	Moli- nate, water, fltrd 0.7µ GF µg/L (82671)	Myclo- butanil, water, fltrd, µg/L (61599)	Oxy- fluor- fen, water, fltrd, µg/L (61600)	Pendi- meth- alin, water, fltrd, 0.7µ GF, µg/L (82683)	Phorate oxon, water, fltrd, µg/L (61666)	Phorate, water, fltrd, 0.7µ GF, µg/L (82664)	Phosmet oxon, water, fltrd, µg/L (61668)	Phosmet, water, fltrd, µg/L (61601)	Prome- ton, water, fltrd, µg/L (04037)
<.006	<.003	<.008	<.007	<.022	<.10	<.011	<.05	<.008	<.01

Major Aquifer Study—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—Continued

[(04036), USGS National Water Information System parameter code; µg/L, micrograms per liter; <, concentration or value reported is less than the value indicated; E, estimated]

Prometryn, water, fltrd, µg/L (04036)	Propyzamide, water, fltrd, 0.7µ GF, µg/L (82676)	Propanil, water, fltrd, 0.7µ GF, µg/L (82679)	Propargite, water, fltrd, 0.7µ GF, µg/L (82685)	Simazine, water, fltrd, µg/L (04035)	Tebu-thiuron, water, fltrd, 0.7µ GF, µg/L (82670)	Tefluthrin, water, fltrd, µg/L (61606)	Terbufos oxon sulfone, water, fltrd, µg/L (61674)	Terbufos, water, fltrd, 0.7µ GF, µg/L (82675)	Terbutylazine, water, fltrd, µg/L (04022)
<.005	<.004	<.011	<.02	<.005	<.02	<.008	<.07	<.02	<.01
Thiocarb, water, fltrd, 0.7µ GF, µg/L (82681)	trans-Propiconazole, water, fltrd, µg/L (79847)	Tribuphos, water, fltrd, µg/L (61610)	Tri-fluralin, water, fltrd, 0.7µ GF, µg/L (82661)	1,1,1,2-Tetra-chloro-ethane, water, unfltrd, µg/L (77562)	1,1,1-Tri-chloro-ethane, water, unfltrd, µg/L (34506)	1,1,2,2-Tetra-chloro-ethane, water, unfltrd, µg/L (34516)	CFC-113, water, unfltrd, µg/L (77652)	1,1,2-Tri-chloro-ethane, water, unfltrd, µg/L (34511)	1,1-Di-chloro-ethane, water, unfltrd, µg/L (34496)
<.010	<.01	<.004	<.009	<.03	<.03	<.08	<.04	<.04	<.04
1,1-Di-chloro-ethene, water, unfltrd, µg/L (34501)	1,1-Di-chloro-propene, water, unfltrd, µg/L (77168)	1,2,3,4-Tetra-methyl-benzene, water, unfltrd, µg/L (49999)	1,2,3,5-Tetra-methyl-benzene, water, unfltrd, µg/L (50000)	1,2,3-Tri-chloro-benzene, water, unfltrd, µg/L (77613)	1,2,3-Tri-chloro-propane, water, unfltrd, µg/L (77443)	1,2,3-Tri-methyl-benzene, water, unfltrd, µg/L (77221)	1,2,4-Tri-chloro-benzene, water, unfltrd, µg/L (34551)	1,2,4-Tri-methyl-benzene, water, unfltrd, µg/L (77222)	Dibromo-chloro-propane, water, unfltrd, µg/L (82625)
<.02	<.03	<.1	<.1	<.2	<.18	<.1	<.1	<.06	<.5
1,2-Di-bromo-ethane, water, unfltrd, µg/L (77651)	1,2-Di-chloro-benzene, water, unfltrd, µg/L (34536)	1,2-Di-chloro-ethane, water, unfltrd, µg/L (32103)	1,2-Di-chloro-propane, water, unfltrd, µg/L (34541)	1,3,5-Tri-methyl-benzene, water, unfltrd, µg/L (77226)	1,3-Di-chloro-benzene, water, unfltrd, µg/L (34566)	1,3-Di-chloro-propane, water, unfltrd, µg/L (77173)	1,4-Di-chloro-benzene, water, unfltrd, µg/L (34571)	2,2-Di-chloro-propane, water, unfltrd, µg/L (77170)	2-Chloro-toluene, water, unfltrd, µg/L (77275)
<.04	<.05	<.1	<.03	<.04	<.03	<.1	E.01	<.05	<.04

Major Aquifer Study—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—Continued

[(77220), USGS National Water Information System parameter code; µg/L, micrograms per liter; <, concentration or value reported is less than the value indicated; E, estimated]

2-Ethyl-toluene, water, unfltrd, µg/L (77220)	3-Chloro-propene, water, unfltrd, µg/L (78109)	4-Chloro-toluene, water, unfltrd, µg/L (77277)	4-Iso-propyl-toluene, water, unfltrd, µg/L (77356)	Acetone, water, unfltrd, µg/L (81552)	Acrylo-nitrile, water, unfltrd, µg/L (34215)	Benzene, water, unfltrd, µg/L (34030)	Bromo-benzene, water, unfltrd, µg/L (81555)	Bromo-chloro-methane, water, unfltrd, µg/L (77297)	Bromo-di-chloro-methane, water, unfltrd, µg/L (32101)
<.06	<.50	<.05	<.08	<6	<.8	<.02	<.03	<.12	<.03
Bromo-ethene, water, unfltrd, µg/L (50002)	Bromo-methane, water, unfltrd, µg/L (34413)	Carbon di-sulfide, water, unfltrd, µg/L (77041)	Chloro-benzene, water, unfltrd, µg/L (34301)	Chloro-ethane, water, unfltrd, µg/L (34311)	Chloro-methane, water, unfltrd, µg/L (34418)	cis-1,2-Di-chloro-ethene, water, unfltrd, µg/L (77093)	cis-1,3-Di-chloro-propene, water, unfltrd, µg/L (34704)	Di-bromo-chloro-methane, water, unfltrd, µg/L (32105)	Di-bromo-methane, water, unfltrd, µg/L (30217)
<.1	<.3	E.02	<.03	<.1	<.2	<.02	<.05	<.1	<.05
Di-chloro-di-fluoro-methane, water, unfltrd, µg/L (34668)	Di-chloro-methane, water, unfltrd, µg/L (34423)	Di-chloro-vos, water, unfltrd, µg/L (38775)	Di-ethyl ether, water, unfltrd, µg/L (81576)	Diiso-propyl ether, water, unfltrd, µg/L (81577)	Ethyl methac-rylate, water, unfltrd, µg/L (73570)	Ethyl methyl ketone, water, unfltrd, µg/L (81595)	Ethyl-benzene, water, unfltrd, µg/L (34371)	Hexa-chloro-buta-diene, water, unfltrd, µg/L (39702)	Hexa-chloro-ethane, water, unfltrd, µg/L (34396)
<.18	<.1	<.01	<.1	<.10	<.2	<.2.0	<.03	<.1	<.1
Iodo-methane, water, unfltrd, µg/L (77424)	Iso-butyl methyl ketone, water, unfltrd, µg/L (78133)	Iso-propyl-benzene, water, unfltrd, µg/L (77223)	Methyl acrylo-nitrile, water, unfltrd, µg/L (81593)	Methyl acryl-ate, water, unfltrd, µg/L (49991)	Methyl methac-rylate, water, unfltrd, µg/L (81597)	Methyl tert-pentyl ether, water, unfltrd, µg/L (50005)	meta+ para-Xylene, water, unfltrd, µg/L (85795)	Naphth-alene, water, unfltrd, µg/L (34696)	Methyl n-butyl ketone, water, unfltrd, µg/L (77103)
<.50	<.4	<.04	<.4	<1.0	<.2	<.04	E.01	<.5	<.4

Major Aquifer Study—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—Continued

[(77342), USGS National Water Information System parameter code; µg/L, micrograms per liter; <, concentration or value reported is less than the value indicated; E, estimated]

n-Butyl benzene, water, unfltrd, µg/L (77342)	n-Propyl benzene, water, unfltrd, µg/L (77224)	o-Xylene, water, unfltrd, µg/L (77135)	sec-Butyl benzene, water, unfltrd, µg/L (77350)	Styrene, water, unfltrd, µg/L (77128)	t-Butyl ethyl ether, water, unfltrd, µg/L (50004)	Methyl t-butyl ether, water, unfltrd, µg/L (78032)	tert-Butyl benzene, water, unfltrd, µg/L (77353)	Tetra-chloro-ethene, water, unfltrd, µg/L (34475)	Tetra-chloro-methane, water, unfltrd, µg/L (32102)
<.1	<.04	<.04	<.06	<.04	<.03	<.1	<.06	<.03	<.06
Tetra-hydro-furan, water, unfltrd, µg/L (81607)	Toluene, water, unfltrd, µg/L (34010)	trans-1,2-Di-chloro-ethene, water, unfltrd, µg/L (34546)	trans-1,3-Di-chloro-propene, water, unfltrd, µg/L (34699)	trans-1,4-Di-chloro-2-butene, water, unf, µg/L (73547)	Tri-bromo-methane, water, unfltrd, µg/L (32104)	Tri-chloro-ethene, water, unfltrd, µg/L (39180)	Tri-chloro-fluoro-methane, water, unfltrd, µg/L (34488)	Tri-chloro-methane, water, unfltrd, µg/L (32106)	Vinyl chlor-ide, water, unfltrd, µg/L (39175)
2	E.03	<.03	<.09	<.7	<.10	<.04	<.08	<.02	<.1

Fish-Community Results

Fish community surveys were conducted at three sites in the Lake Erie-Lake St. Clair Drainages as part of the National Water-Quality Assessment Program (NAWQA). Fish were collected by electrofishing with pulsed-DC current in a mapped reach at each site. Two electrofishing passes and haul seining were completed at each reach in a single day. Electrofishing was done by use of a barge electroshocker at all sites. Fish were identified, measured, weighed, and checked for external anomalies such as parasites, lesions, and skeletal anomalies. Representative specimens were preserved, identified, and vouchered in the field. Vouchers were verified by ichthyologist Terry Keiser of Ohio Northern University. More details regarding collection methods can be found in: Meador, M.R., Cuffney, T.R., and Gurtz, M.E., 1993, "Methods for collecting samples of fish communities as part of the National Water-Quality Assessment Program": U.S. Geological Survey Open-File Report 93-104, 40 p. Taxonomy is based on Robins, C.R., Bailey, R.M., Bond, C.E., Brooker, J.R., Lachner, E.A., Lea, R.N., and Scott, W.B., 1991, "Common and scientific names of fishes from the United States and Canada, fifth edition": Bethesda, Md., American Fisheries Society Special Publication 20, 183 p.

Station number	Station name	Date sampled	Drainage area (square miles)	Reach length (meters)
04161820	Clinton River at Sterling Heights, MI	08/31/05	309	286
04186500	Auglaize River near Fort Jennings, OH	08/29/05	332	241
04193500	Maumee River at Waterville, OH	08/30/05	6,330	300

Family	Scientific name	Common name	STATION NAME					
			Auglaize River near Fort Jennings, Ohio		Maumee River at Waterville, Ohio		Clinton River at Sterling Heights, Michigan	
			Abundance	Batch weight (g)	Abundance	Batch weight (g)	Abundance	Batch weight (g)
Clupeidae	<i>Dorosoma cepedianum</i>	gizzard shad	47	568	41	551.3	41	387.9
Cyprinidae	<i>Campostoma anomalum</i>	central stoneroller	2	5.2	--	--	--	--
	<i>Cyprinella spiloptera</i>	spotfin shiner	56	122.4	181	710.7	--	--
	<i>Cyprinus carpio</i>	common carp	9	19738.3	37	1190.3	1	2945
	<i>Luxilus chrysocephalus</i>	striped shiner	4	27.5	--	--	--	--
	<i>Lythrurus unbratilis</i>	redfin shiner	1	1.3	--	--	--	--
	<i>Nocomis micropogon</i>	river chub	3	23.4	--	--	2	37
	<i>Notropis atherinoides</i>	emerald shiner	2	4.2	28	142.3	--	--
	<i>Notropis photogenis</i>	silver shiner	--	--	4	19.1	--	--
	<i>Notropis stramineus</i>	sand shiner	--	--	3	10.4	--	--
	<i>Phenacobius mirabilis</i>	suckermouth minnow	2	7.1	--	--	--	--
	<i>Pimephales notatus</i>	bluntnose minnow	25	48	208	387.7	2	6.9
	<i>Pimephales promelas</i>	fathead minnow	--	--	--	--	1	3.4
	Catostomidae	<i>Carpiodes cyprinus</i>	quillback	--	--	7	113.2	--
<i>Catostomus commersoni</i>		white sucker	4	299.5	--	--	27	2719.4
<i>Hypentelium nigricans</i>		northern hog sucker	3	387.5	13	2193.2	17	1292.4
<i>Minytrema melanops</i>		spotted sucker	13	2016.2	--	--	--	--
<i>Moxostoma anisurum</i>		silver redhorse	1	400	--	--	--	--
	<i>Moxostoma duquesnei</i>	black redhorse	--	--	11	191.6	--	--
	<i>Moxostoma erythrurum</i>	golden redhorse	18	1788.1	30	321.3	--	--

Fish-Community Results—Continued

Family	Scientific name	Common name	STATION NAME						
			Auglaize River near Fort Jennings, Ohio		Maumee River at Waterville, Ohio		Clinton River at Sterling Heights, Michigan		
			Abundance	Batch weight (g)	Abundance	Batch weight (g)	Abundance	Batch weight (g)	
Ictaluridae	<i>Ameiurus natalis</i>	yellow bullhead	1	47.2	1	143.7	--	--	
	<i>Ictalurus punctatus</i>	channel catfish	3	3837	36	487.5	--	--	
	<i>Noturus flavus</i>	stonecat	--	--	11	174.3	--	--	
Cyprinodontidae	<i>Fundulus notatus</i>	blackstripe topminnow	3	3.2	--	--	--	--	
Atherinidae	<i>Labidesthes sicculus</i>	brook silverside	4	2.6	--	--	--	--	
Centrarchidae	<i>Ambloplites rupestris</i>	rock bass	27	1761.3	20	108.3	27	1791	
	<i>Lepomis cyanellus</i>	green sunfish	6	208.8	39	364.3	--	--	
	<i>Lepomis gibbosus</i>	pumpkinseed	--	--	--	--	3	54	
	<i>Lepomis gulosus</i>	warmouth	--	--	--	--	1	11.5	
	<i>Lepomis humilis</i>	orangespotted sunfish	--	--	5	23.3	--	--	
	<i>Lepomis macrochirus</i>	bluegill	3	34.9	22	98.6	10	205	
	<i>Lepomis megalotis</i>	longear sunfish	71	836	--	--	--	--	
	<i>Micropterus dolomieu</i>	smallmouth bass	16	1824.6	80	3657.9	1	6.5	
	<i>Micropterus salmoides</i>	largemouth bass	--	--	1	9.6	8	63.4	
	<i>Pomoxis annularis</i>	white crappie	--	--	1	4.3	--	--	
	Percidae	<i>Etheostoma blennioides</i>	greenside darter	15	21	110	293.4	5	10.8
		<i>Etheostoma nigrum</i>	johnny darter	--	--	1	0.7	2	5.4
<i>Perca flavescens</i>		yellow perch	--	--	--	--	8	247.1	
<i>Percina caprodes</i>		logperch	30	130	194	1798.4	2	15.4	
Sciaenidae	<i>Aplodinotus grunniens</i>	freshwater drum	7	760.6	--	--	--	--	
Gobiidae	<i>Neogobius melanostomus</i>	round goby	--	--	--	--	25	174.4	
NUMBER OF SPECIES			27		24		18		
HYBRIDS			1	107	--	--	--	--	
TOTAL NUMBER OF FISH			376	34903.9	1085	12995.4	183	9976.8	