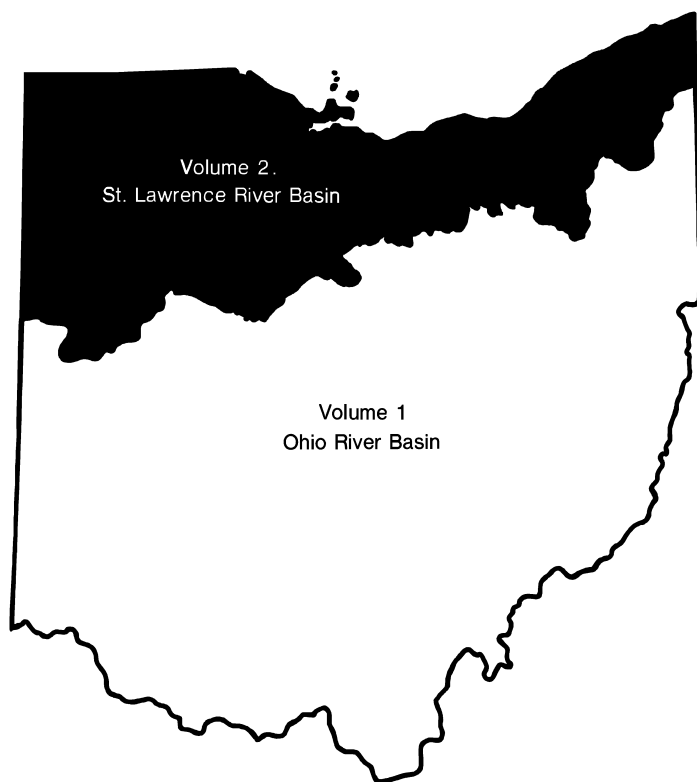


Water Resources Data Ohio Water Year 2005

Volume 2. St. Lawrence River Basin and Statewide Project Data

By J.P. Mangus and S.R. Frum

Water-Data Report OH-05-2



Prepared in cooperation with the
State of Ohio and with other agencies

**U.S. Department of the Interior
U.S. Geological Survey**



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Preface

This volume of the annual hydrologic data report of Ohio is one of a series of annual reports that document hydrologic data gathered from the U.S. Geological Survey's surface- and ground-water data-collection networks in each State, Puerto Rico, and Trust Territories. These records of streamflow, ground-water levels, and quality of water provide the hydrologic information needed by State, local, and Federal agencies and the private sector for developing and managing our Nation's land and water resources. Hydrologic data for Ohio are contained in two volumes:

Volume 1. Ohio River Basin Excluding Project Data

Volume 2. St. Lawrence River Basin and Statewide Project Data

This report is the culmination of a concerted effort by dedicated personnel of the U.S. Geological Survey who collected, compiled, analyzed, verified, and organized the data, and who typed, edited, and assembled the report. In addition to the authors, who had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Geological Survey policy and established guidelines, the following individuals contributed significantly to the collection, processing, and tabulation of the data:

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[Letter after station names designates type of data: (d) discharge]

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04177000 Ottawa River at University of Toledo, Toledo (d)	41
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04189000 Blanchard River near Findlay (d)	46
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04192500 Maumee River near Defiance (d)	49
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Ground-Water Stations for which Records are Published

[Letter after station names designates type of data: (I) water level]

	Well number	Local number	Page
CRAWFORD COUNTY			79
Bucyrus (I)	404838082563100	CR-1	79
GEAUGA COUNTY			80
Southeast of Chagrin Falls (I)	412518081221500	GE-3A	80
HANCOCK COUNTY			81
North of Vanlue (I)	405940083275500	HA-3	81
HARDIN COUNTY			82
Southeast of Dola (I)	404648083412600	HN-2A	82
HENRY COUNTY			83
Southwest of McClure (I)	412123083574000	HY-2	83
LUCAS COUNTY			84
Toledo (I)	413704083362200	LU-1	84
MEDINA COUNTY			85
Lodi (I)	410142082005700	MD-1A	85
South of Brunswick (I)	411233081474200	MD-6	86
OTTAWA COUNTY			87
Catawba Island (I)	413434082494000	O-2	87
PORTAGE COUNTY			88
East of Kent (I)	410931081192900	PO-123	88
PUTNAM COUNTY			89
Columbus Grove (I)	405505084032900	PU-1	89
SANDUSKY COUNTY			90
Fremont (I)	411914083045300	S-3	90
Woodville (I)	412703083213600	S-2	91
SENECA COUNTY			92
Tiffin (I)	410802083093900	SE-2	92
SUMMIT COUNTY			93
Akron (I)	410330081282000	SU-6	93
Cuyahoga Falls (I)	410846081271600	SU-7	94
VAN WERT COUNTY			95
Van Wert (I)	405215084335400	VW-1	95
WILLIAMS COUNTY			96
Bryan (I)	412819084323800	WM-1A	96
Bryan (I)	412930084320900	WM-3	97
East of Blakeslee (I)	413108084415300	WM-12	98
WYANDOT COUNTY			99
Upper Sandusky (I)	405009083172600	WY-1	99

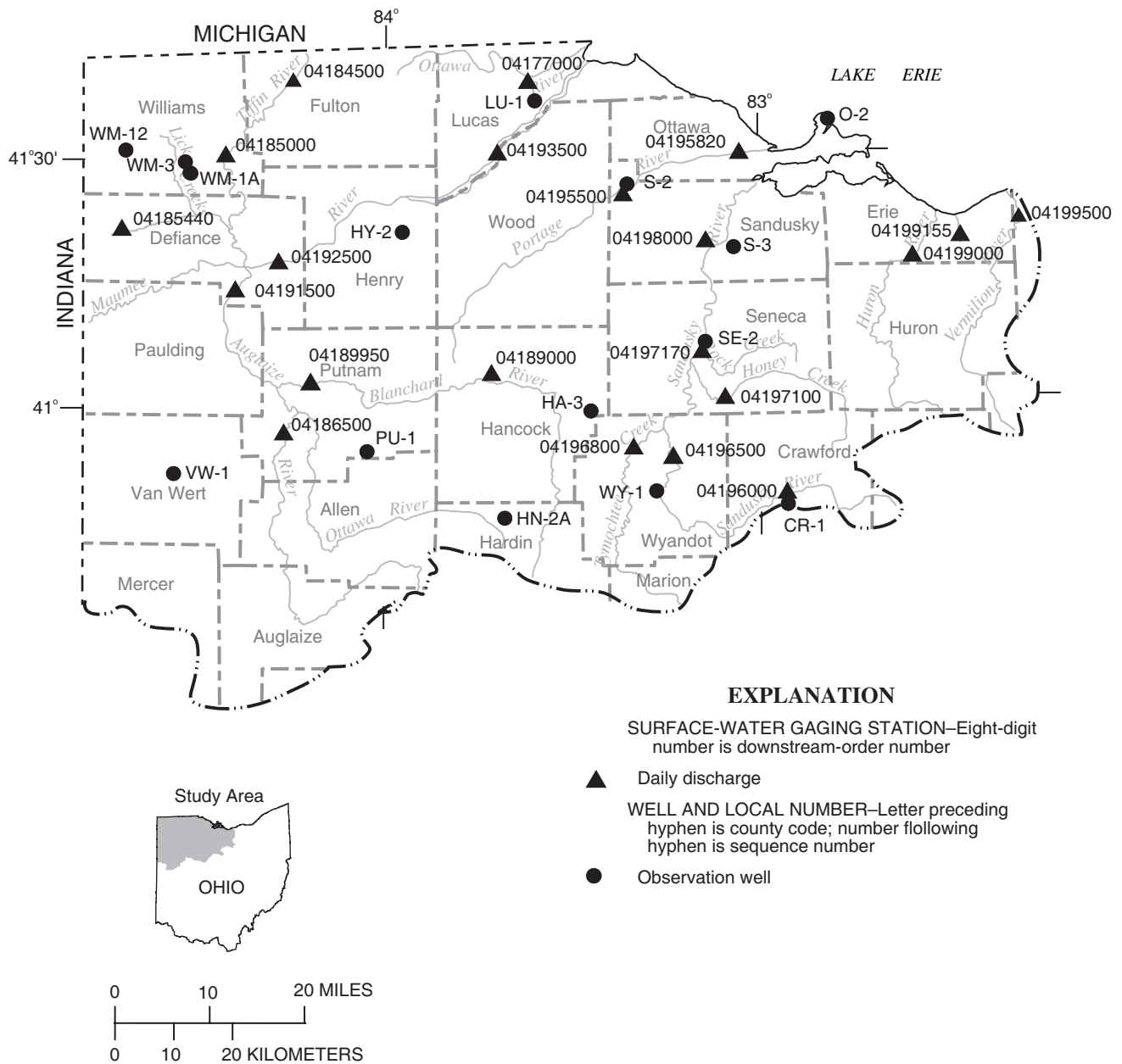


Figure 1a. Location of data-collection stations and wells.

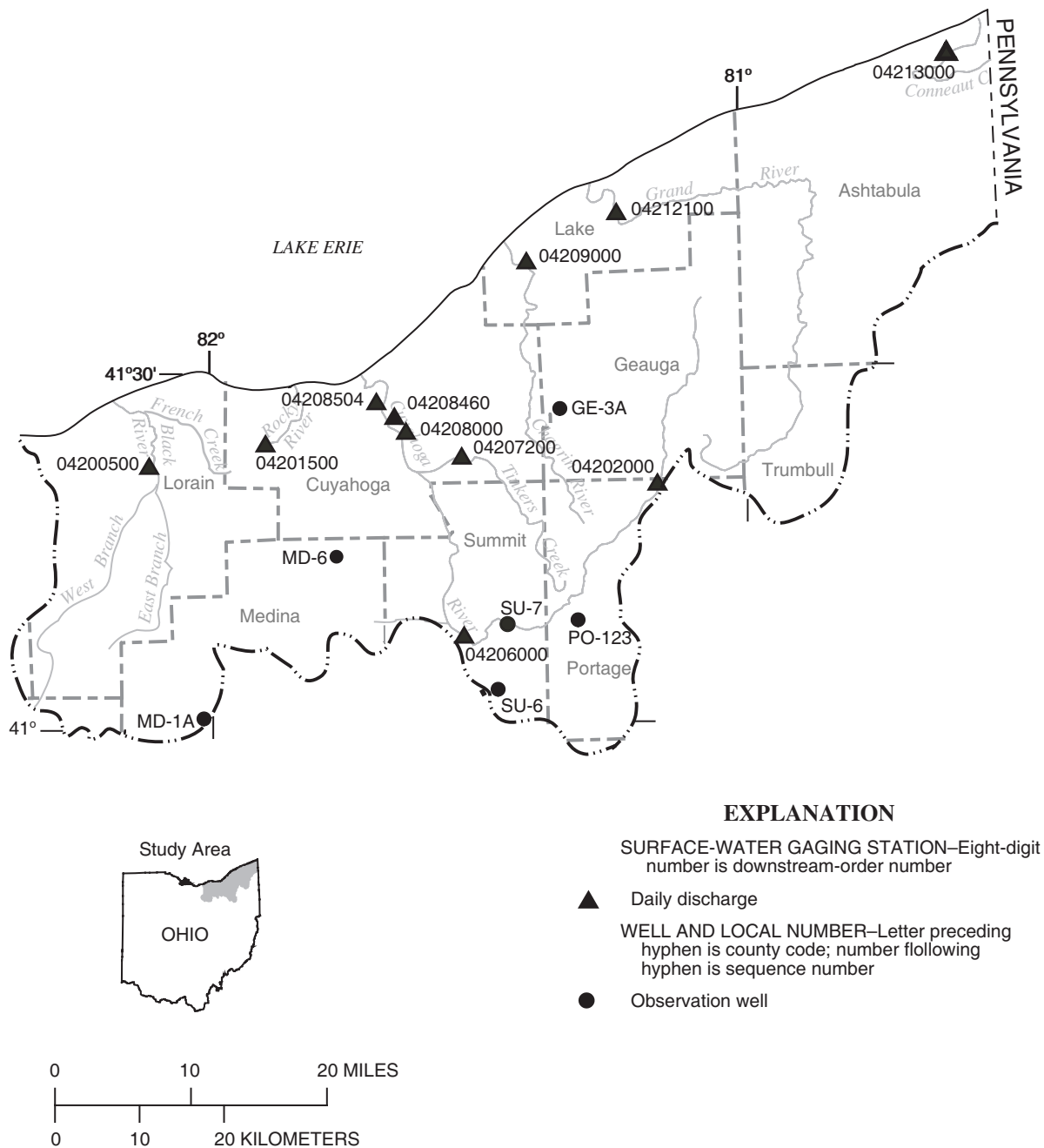


Figure 1b. Location of data-collection stations and wells.

Discontinued Surface-Water-Discharge Stations

The following continuous-record surface-water-discharge or stage-only stations (gaging stations) have been discontinued. Daily discharge or stage records were collected and published for the period of record, expressed in water years, shown for each station. Those stations with an asterisk (*) after the station number are currently operated as crest-stage partial-record stations. Discontinued project stations with less than 3 years of record have not been included. Information regarding these stations may be obtained from the USGS Ohio Water Science Center at the address given on the back side of the title page of this report.

[a---, not determined for canals]

Station name	Station number	Drainage area (in square miles)	Period of record
St. Joseph River near Blakeslee	04177500	394	1926–32
St. Marys River near Willshire	04181000	354	1926–32
Maumee River at Antwerp	04183500	2,129	1922–35 1939–82
Maumee River near Sherwood	04184000	2,275	1903–06
Tiffin River near Brunersburg	04185500	736	1928–36
Miami and Erie Canal at Delphos	04186000	a---	1928–33
Ottawa River at Lima	04187100	128	1988–99
Ottawa River at Allentown	04187500	160	1924–36 1943–82
Ottawa River at Kalida	04188000	309	1931–36
Eagle Creek near Findlay	04188500	55.0	1947–57
Blanchard River at Glandorf	04189500	644	1921–28 1947–52
Blanchard River at Dupont	04190000	756	1928–36
Roller Creek at Ohio City	04190500	5.14	1946–48
Town Creek near Van Wert	04191000	21.2	1945–53
Miami and Erie Canal near Defiance	04192000	a---	1925–29 1953–69
Miami and Erie Canal at Waterville	04193000	a---	1921–29
Swan Creek at Toledo	04194000	199	1945–48
Portage River near Pemberville	04194500	337	1930–35
North Branch Portage River near Bowling Green	04195000	45.1	1924–32
Lacarbe Creek near Oak Harbor	04195825	2.95	1988–92
Bayou Ditch near Oak Harbor	04195830	2.82	1988–92
Broken Sword Creek at Nevada	04196200	83.8	1976–81
Tymochtee Creek near Marseilles	04196600	137	1970–74
Sandusky River near Mexico	04197000	774	1923–36 1938–82
Honey Creek near New Washington	04197020	17	1979–89
Wolf Creek at Bettsville	04197300	66.2	1976–81
East Branch Wolf Creek near Bettsville	04197450	82.4	1976–81
Havens Creek at Havens	04197500	4.28	1946–49
East Branch Huron River near Norwalk	04198500	85.5	1924–35
Old Woman Creek at U.S. Highway 6 at Huron	04199165	26.5	1980–94

[a---, not determined for canals]

Station name	Station number	Drainage area (in square miles)	Period of record
Lake Erie at Huron	04199170		1980–86
Lake Erie at Ruggles Beach	04199175		1987–94
Vermilion River near Fitchville	04199287	112	1987–89 1991–93
West Branch Black River above Lake Street at Elyria	04200430	174	1980–84
Cuyahoga River near Kent	04202500	210	1934–35
Breakneck Creek near Kent	04203000	77.6	1927–35
Cuyahoga River at Cuyahoga Falls	04203900	333	1999–2001
Little Cuyahoga River at Mogadore	04204000	14.3	1946–78
Little Cuyahoga River at Massillon Road at Akron	04204500	31.6	1946–74
Springfield Lake Outlet at Akron	04205000	9.72	1946–49 1961–74
Little Cuyahoga River at Akron	04205500	44.4	1920 1928–34
Little Cuyahoga River Below Ohio Canal at Akron	04205700	59.2	1974–79
Powers Brook at Hudson	04206014	1.45	2001–2004
Powers Brook at Stow	04206021	5.87	2001–2004
Mud Brook at Stow	04206029	17.2	2001–2004
Crystal Creek at Stow	04206038	3.11	2001–2004
Mud Brook at Cuyahoga Falls	04206043	25.6	2001–2004
Yellow Creek at Ghent	04206208	12.7	1992–98
North Fork at Bath	04206210	2.81	1992–98
Park Creek at Bath Center	04206211	0.826	1992–98
North Fork at Bath Center	04206212*	5.58	1992–2004
Yellow Creek at Botzum	04206220*	30.7	1992–2004
Bath Creek at Bath Center	04206215	3.52	1992–98
Cuyahoga River at Ira	04206250	478	1974–79
Ohio Canal at Independence	04207500	a---	1922–23 1927–36 1941 1949–80
Big Creek at Cleveland	04208502	35.3	1973–86 2001–02
Euclid Creek near Euclid	04208690	22.6	1977–80 1983–86 2001–02
Grand River near North Bristol	04209500	85.4	1942–47
Phelps Creek near Windsor	04210000	25.6	1942–59
Grand River near Rome	04210500	251	1942–47
Rock Creek near Rock Creek	04211000	69.2	1942–66
Mill Creek near Jefferson	04211500	82.0	1942–74
Grand River near Madison	04212000	581	1923–35 1938–74
Ashtabula River near Ashtabula	04212500	111	1924–36 1939–48 1950–79

Discontinued Surface-Water-Quality Stations

The following continuous-record surface-water-quality stations have been discontinued. Daily records of temperature, specific conductance, pH, dissolved oxygen, or sediment were collected and published for the period of record, expressed in water years, shown for each station. Discontinued project stations with less than 3 years of record have not been included. Information regarding these stations may be obtained from the USGS Ohio Water Science Center at the address given on the back side of the title page of this report.

Letters designate type of record: do, dissolved oxygen; pH, pH; s, sediment; sc, specific conductance; t, temperature]

Station name	Station number	Drainage area (in square miles)	Type of record	Period of record
Maumee River at Antwerp	04183500	2,129	t	1939–82
Maumee River at Defiance	04184100	2,316	do, sc, t pH	1966–70 1973–78
Tiffin River at Evansport	04185300	541	do, pH, sc, t	1968–78
Auglaize River near Ft. Jennings	04186500	332	do, pH, sc, t	1969–78
Ottawa River at Allentown	04187500	160	sc, t do, pH	1969–82 1977–82
Auglaize River at Cloverdale	04188200	713	do, pH, sc, t	1967–78
Blanchard River near Findlay	04189000	346	do, pH, sc, t	1968–80
Auglaize River near Defiance	04191500	2,318	s do, pH, sc, t	1936 1966–76
Maumee River near Waterville	04193490	6,313	do, pH, sc, t	1977–91
Maumee River at Waterville	04193500	6,329	do, pH, sc, t	1963–77
Maumee River at mouth at Toledo	04194023	6,608	do, pH, sc, t	1967–75
Middle Branch Portage River near Portage	04194310	217	sc, t	1969–75
Portage River at Railroad Bridge at Woodville	04195600	428	do, pH, sc, t	1968–80
Portage River at Elmore	04195800	432	t s do	1950–52 1950–53 1970–80
Sandusky River near Upper Sandusky	04196500	298	do, sc, t pH	1969–79 1977–79
Tymochtee Creek at Crawford	04196800	229	do, pH, sc, t	1968–75
Sandusky River at St. Johns Bridge near Mexico	04196990	711	do, sc, t	1969–76
Honey Creek at Melmore	04197100	141	s	1988–89
Sandusky River near Fremont	04198000	1,251	s	1951–56 1979–2002
Sandusky River below Fremont	04198005	1,264	do, pH, sc, t	1966–80
West Branch Huron River near Willard	04198018	86.0	sc, t	1968–75
Huron River at Milan	04199000	371	s	1970–74 1988–91
Huron River below Milan	04199100	385	do, pH, sc, t	1968–78
Vermilion River near Fitchville	04199287	112	s	1987–89
Vermilion River near Vermilion	04199500	262	sc, t do, pH	1969–76 1976–80
East Branch Black River at Grafton	04199900	170	sc, t	1969–75
West Branch Black River near Elyria	04200400	170	sc, t	1969–75

Letters designate type of record: do, dissolved oxygen; pH, pH; s, sediment; sc, specific conductance; t, temperature]

Station name	Station number	Drainage area (in square miles)	Type of record	Period of record
West Branch Black River above Lake Street at Elyria	04200430	174	s	1980–81
Black River at Elyria	04200500	396	t	1962–70
			sc	1964–70
			s	1980–81
Black River below Elyria	04200550	412	do, sc, t	1966–82
			pH	1976–82
Cuyahoga River at Old Portage	04205700	59.2	do, pH, sc, t	1970–84
			s	1972–81
Cuyahoga River at Botzum	04206200	443	t	1947–49
Tinkers Creek at Bedford	04207200	83.9	s	1972–79
Cuyahoga River at Independence	04208000	707	s	1950–74
			do, sc, t	1965–91
			pH	1972–91
			s	1977–84
				1988–2002
Big Creek at Cleveland	04208502	35.3	s	1978
Cuyahoga River at Dupont Intake in Cleveland	04208505	794	sc	1964–75
Cuyahoga River at West Third Street Bridge	04208506	798	do, pH, sc, t	1966–87
Cuyahoga River at Superior Street Bridge in Cleveland	04208510	808	do, pH, sc, t	1964–66
Chagrin River at Willoughby	04209000	246	t	1950
			s	1969–74
Grand River at Painesville	04212200	701	do, pH, sc, t	1966–82
Fields Brook at Ashtabula	04212680	3.63	do, pH, sc, t	1983–91
Ashtabula River at Ashtabula	04212700	136	do, pH, sc, t	1968–79

Introduction

The Water Resources Discipline of the U.S. Geological Survey (USGS), in cooperation with state agencies, obtains a large amount of data each water year (a water year is the 12-month period from October 1 through September 30 and is identified by the calendar year in which it ends) pertaining to the water resources of Ohio. These data, accumulated during many years, constitute a valuable data base for developing an improved understanding of the water resources of the State. To make these data readily available to interested parties outside the USGS, they are published annually in this report series entitled "Water Resources Data—Ohio."

This report (in two volumes) includes records on surface water and ground water in the State. Specifically, it contains (1) discharge records for streamflow-gaging stations, miscellaneous sites, and crest-stage stations, (2) stage and content records for streams, lakes, and reservoirs, (3) water-quality data for streamflow-gaging stations, wells, synoptic sites, and partial-record sites, and (4) water-level data for observation wells. Locations of lake- and streamflow-gaging stations, water-quality stations, and observation wells for which data are presented in this volume are shown in figures 1a and 1b (located after Contents). The data in this report represent that part of the National Water Information System collected by the USGS and cooperating State and Federal agencies in Ohio.

This series of annual reports for Ohio began with the 1961 water year with a report that contained only data relating to the quantities of surface water. For the 1964 water year, a similar report was introduced that contained only data relating to water quality. Beginning with the 1975 water year, the report was changed to present (in two or three volumes) data on quantities of surface water, quality of surface and ground water, and ground-water levels.

Prior to the introduction of this series, and for several years concurrent with it, water-resources data for Ohio were published in a series of USGS Water-Supply Papers. Data on stream discharge and stage and on lake or reservoir contents and stage through September 1960 were published annually under the title "Surface-Water Supply of the United States, Parts 3 and 4." For the 1961 through 1970 water years, the data were published in two 5-year reports. Data on chemical quality, temperature, and suspended sediment for the 1941 through 1970 water years were published annually under the title "Quality of Surface Waters of the United States," and ground-water levels for the 1935 through 1974 water years were published under the title "Ground-Water Levels in the United States." The above-mentioned Water-Supply Papers can be found in libraries of the principal cities of the United States and can be purchased from the U.S. Geological Survey, Information Services, Box 25286, Denver, CO 80225.

Publications similar to this report are published annually by the USGS for all states. These official USGS reports are identified by means of a number consisting of the two-letter

state abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report OH-05-2." For archiving and general distribution, the reports for 1971–74 water years are also identified as water-data reports. These water-data reports can be purchased in paper copy or in microfiche from the National Technical Information Service, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, VA 22161.

USGS water data can be accessed on the World Wide Web at <http://water.usgs.gov>. Data at this Web site include historical daily values and peaks, real-time water data, and spatial data. (The USGS Ohio Water Science Center's Web site can be accessed at <http://oh.water.usgs.gov>.)

Additional information for specific reports may be obtained by writing to the address given on the back of title page or by telephoning (614) 430-7700.

Cooperation

The USGS has had cooperative agreements for the collection of water-resources data since 1898. The following organizations assisted in collecting data in this report:

- Cities of Akron, Canton, Columbus (Water Division and Sewerage and Drainage Division), Fremont, and Westerville
- Counties of Geauga, Lake, Lucas, Lorain, Madison, Medina, Ross, and Summit
- Coshocton Soil and Water Conservation District
- Eastgate Development and Transportation Agency
- Miami Conservancy District
- Mill Creek Valley Conservancy District
- National Park Service
- Northeast Ohio Regional Sewer District
- Ohio Departments of Natural Resources (Mineral Resources Management, Water, and Wildlife Divisions) and Transportation
- Ohio Environmental Protection Agency
- Ohio Water Development Authority
- Ohio Lake Erie Office
- Ottawa Soil and Water District
- University of Toledo
- U.S. Army Corps of Engineers (Buffalo, Huntington, Louisville, and Pittsburgh Districts)
- U.S. Environmental Protection Agency, Office of Research and Development
- Villages of North Olmstead and South Russell

Summary of Hydrologic Conditions

Ohio is part of three physiographic provinces. Each province has its own distinctive hydrologic characteristics. The topography of the Till Plains Section of the Central Lowlands Physiographic Province (fig. 2) consists of gently rolling ground moraine, bands of terminal moraine, and outwash-filled valleys. Glaciation altered the courses of most streams in this area. The Eastern Lake Section (fig. 2) consists of wide expanses of level or nearly level land interrupted only by the sporadic sandy ridges that are the last visible remnants of glacial-lake beaches. Much of the area was swamp prior to development, and marshes are still present along Lake Erie near Toledo. The Lexington Plain Section of the Interior Low Plateaus Province (fig. 2) is characterized by rolling terrain and a few isolated large hills and ridges. The “barbed” drainage pattern formed when small streams were captured as their headwaters cut back into the hills over time. Streams have carved the Kanawha Section of the Appalachian Plateaus Province (fig. 2) into an intricate series of hollows and steep-sided ridges. Only the large streams in the section have any appreciable flood plain. In the southern New York Section (fig. 2), successive waves of glaciation have subdued the relief, buried many preglacial valleys, and rerouted many streams.

Precipitation

The average annual precipitation in Ohio is about 38 inches. The annual precipitation decreases from around 42 inches on the southern border to about 32 inches in the northwest. An anomalous area of high precipitation (as much as 44 inches) in northeastern Ohio results from air masses that pick up moisture and heat from Lake Erie and subsequently release precipitation over a range of hills stretching northeastward from Cleveland.

Monthly precipitation typically is greatest from May through July and least in October, December, and February. Of the approximate 38 inches of average annual precipitation, about 10 inches runs off immediately, 2 inches is retained at or near the surface and evaporates and transpires, and 26 inches enters the ground. Of the 26 inches that enters the ground, 20 inches is retained in the unsaturated zone and is later lost by evapotranspiration. The remaining 6 inches reaches the water table. Of this 6 inches, 2 inches eventually discharges to streams, and the rest is lost by evapotranspiration and consumptive use. Average runoff ranges from about 15 to 18 inches along the southern border to about 8 to 12 inches along most of the northern border, except in the northeast, where runoff is as much as 20 inches. The pattern of streamflow

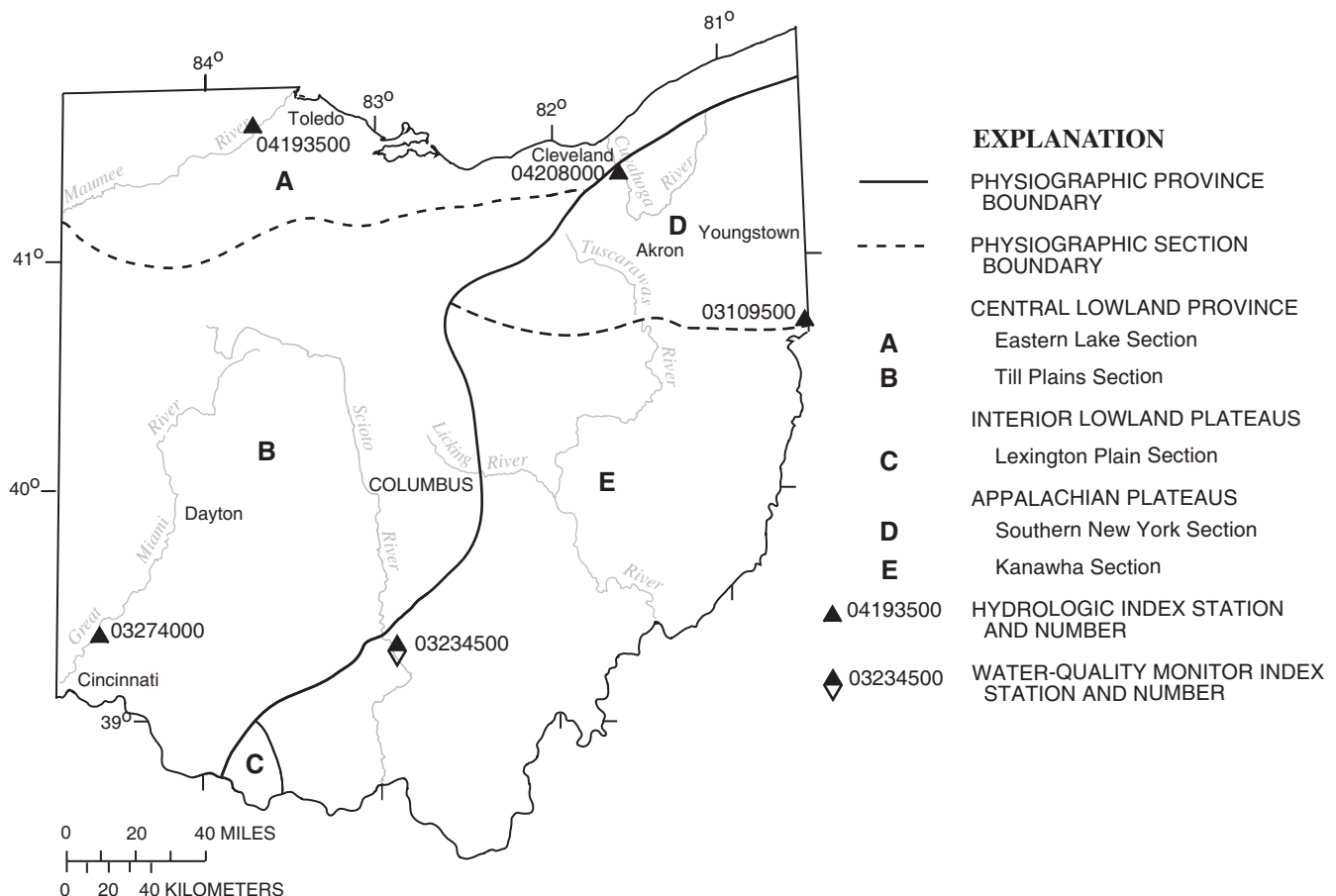


Figure 2. Physiographic divisions and location of hydrologic index stations.

differs from the pattern of precipitation because of the contributions of snowmelt to streamflow in the early spring and the reduction in flows by evapotranspiration from June through September.

Surface Water

Streamflow

Streamflow-data-collection stations are distributed irregularly throughout the State and tend to be concentrated on the main river systems. The stations are used to sample a wide variety of conditions. The drainage areas range from less than four to more than 6,330 square miles and represent a wide diversity of topography and other physical characteristics. Streamflow ranges from unregulated to highly regulated.

Statewide Streamflow, Water Year 2005.

Streamflow conditions during water year 2005 were as follows:

October–January. At the beginning of water year 2005, streamflow was in the normal¹ range in southwest Ohio and was above normal elsewhere. Excessive flows prevailed statewide in response to above-average precipitation through the period. Heavy rain and snowmelt in early January produced significant flooding across much of the State. Peak flows in some basins were the highest since 1964.

February–April. Streamflow fell into the normal range in February and March due to below-average precipitation. Streamflow fell into the below-normal range by April.

May–June. Above-average precipitation in late April produced excessive flows that persisted through June.

July. Streamflow returned to the normal range in response to near-average precipitation.

August–September. Above-average precipitation statewide produced excessive flows throughout the period. At the end of water year 2005, streamflow was in the normal range in southwest Ohio and above normal elsewhere.

A comparison of streamflows for 2005 with long-term median flows at four representative stations is shown in figure 3.

Water Quality

Water-quality data in Ohio are collected on a short-term basis in conjunction with local or regional studies. On a long-term basis, water-quality data in Ohio are collected at fixed stations. The only active long-term monitoring program in Ohio is the National Water-Quality Assessment (NAWQA) Program, a program designed to assess the status and trends in the quality of ground- and surface-water resources in major hydrologic systems (study units) of the United States. Sampling in NAWQA began in 1991 in the Nation and in March 1996 at some sites in Ohio as part of the Lake Erie-Lake St. Clair (LERI) study unit. Sampling began in 1999 at some sites as part of the Great Miami and Little Miami River Basins (MIAM) study unit. In 2001, watersheds in the MIAM study unit were combined with those in the White River Basin study unit in Indiana to form the White and Great and Little Miami River Basins (WHMI) study unit. During 2005, the WHMI NAWQA was not sampled. The LERI NAWQA was in its low-intensity data-collection phase during 2005; water-quality data were collected at two fixed stations six times per year. Samples at NAWQA sites are collected over a range of streamflows and are analyzed for major anions and cations, nutrients, pesticides, suspended sediment, and selected physical properties.

Several continuous years of water-quality data collected as part of the NAWQA program for two sites—the Auglaize River at Fort Jennings and the Maumee River at Waterville—are shown in figures 4 and 5. Streamflows and concentrations of selected constituents measured during the previous 9-year period (1996 to 2004) are shown in boxplots, along with results of analysis of samples collected in water year 2005.

The values for streamflow measured at the time of water-quality sampling during 2005 were similar to those found in the previous 9-year period. For the Auglaize River, two samples were collected at low flow during 2005 (below the 25th percentile for the previous 9-year period), three were collected at moderate flow (between the 25th and 75th percentiles), and one was collected at high flow (above the 75th percentile). For the Maumee River, two samples were collected at low flow, three at moderate flow, and one at high flow.

¹ In this report, “normal” is defined as being between the 25th and 75th percentiles of measured values for a base or reference period. For streamflow, the base period is 1971–2000; for ground water, the reference period is 1951–2000.

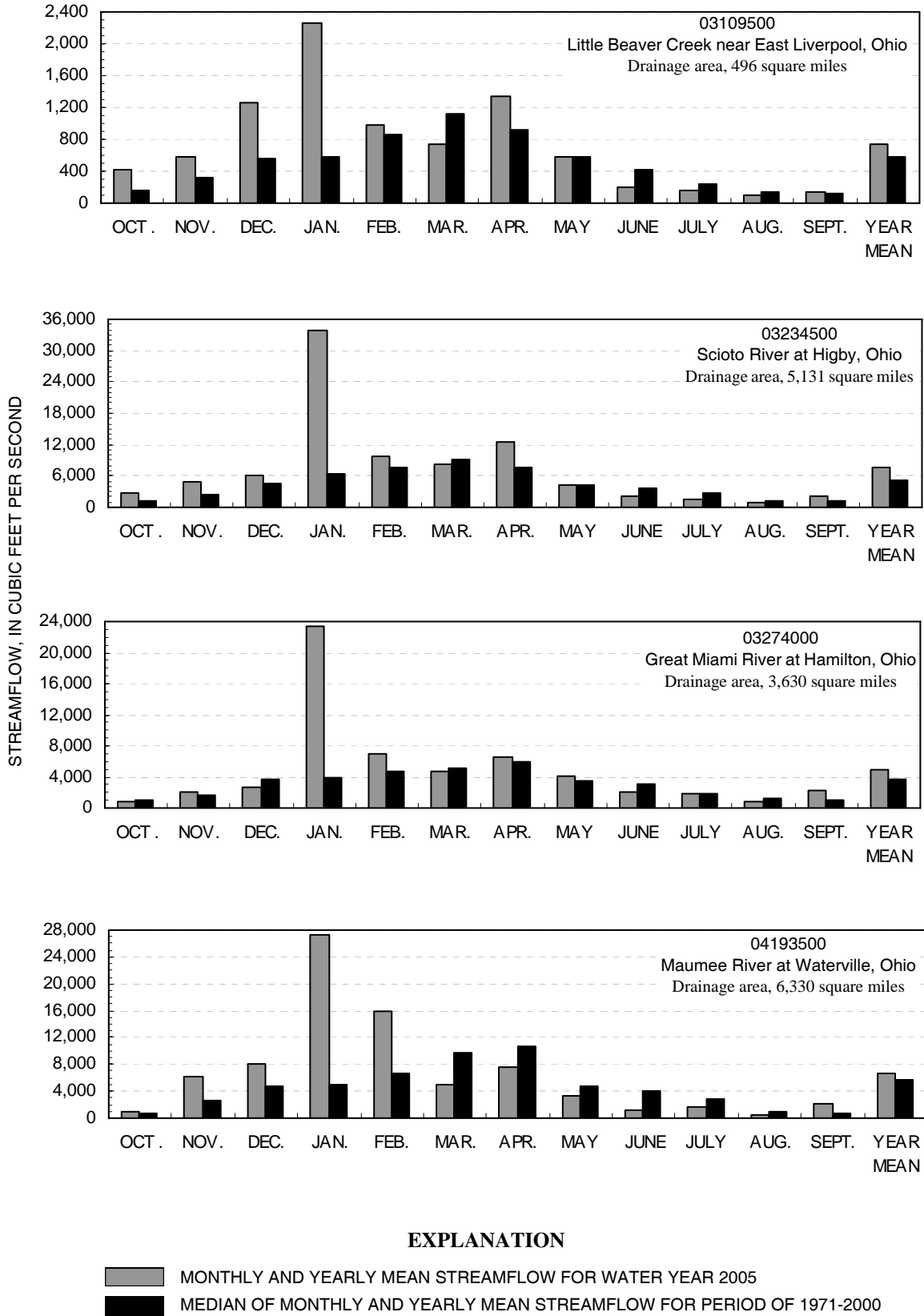


Figure 3. Streamflow during water year 2005 compared with median streamflow for period 1971–2000 for four representative gaging stations.

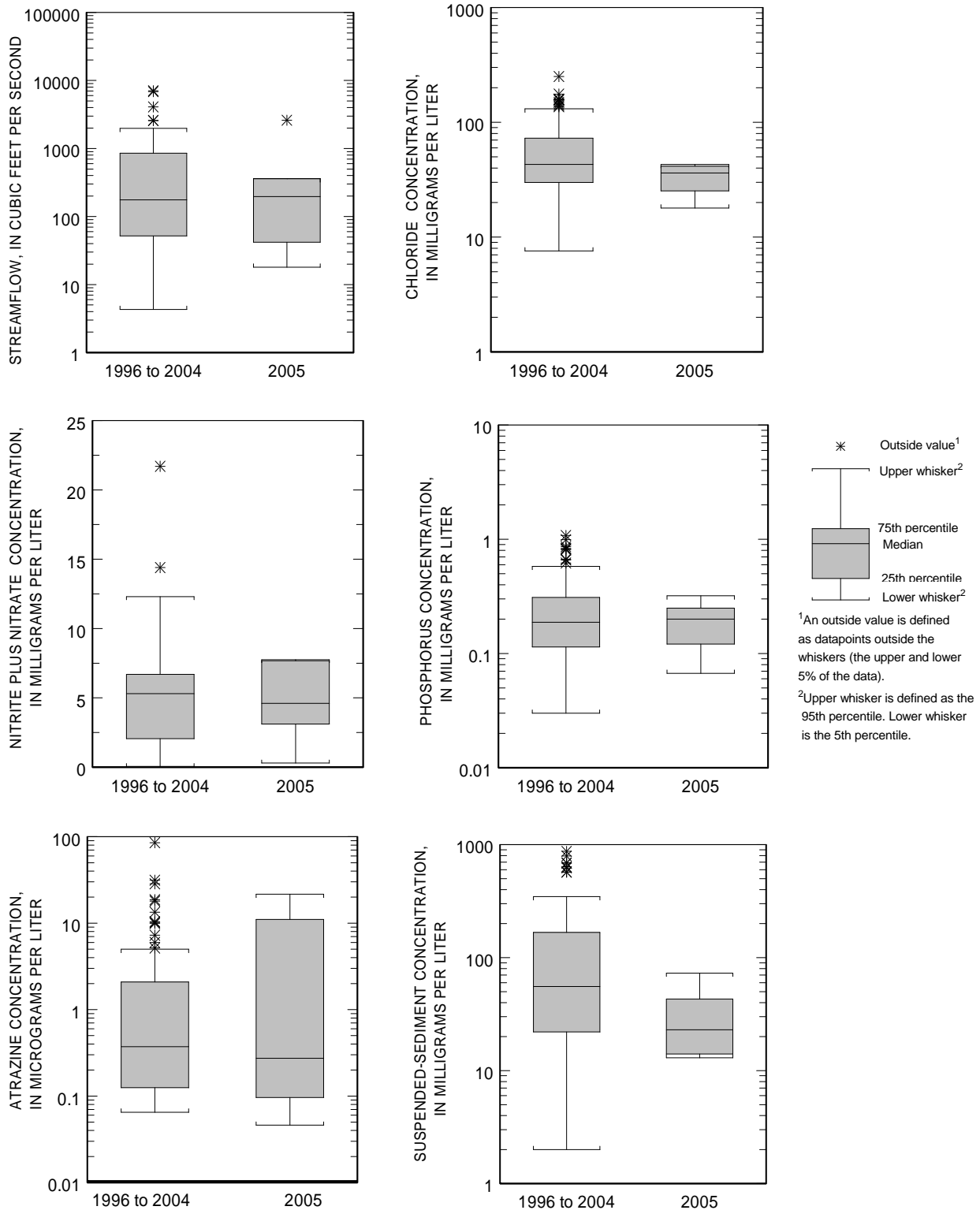


Figure 4. Streamflow and concentration of selected constituents measured in water year 2005 and the distribution of those characteristics from measurements made during water years 1996–2004, Auglaize River near Ft. Jennings, Ohio.

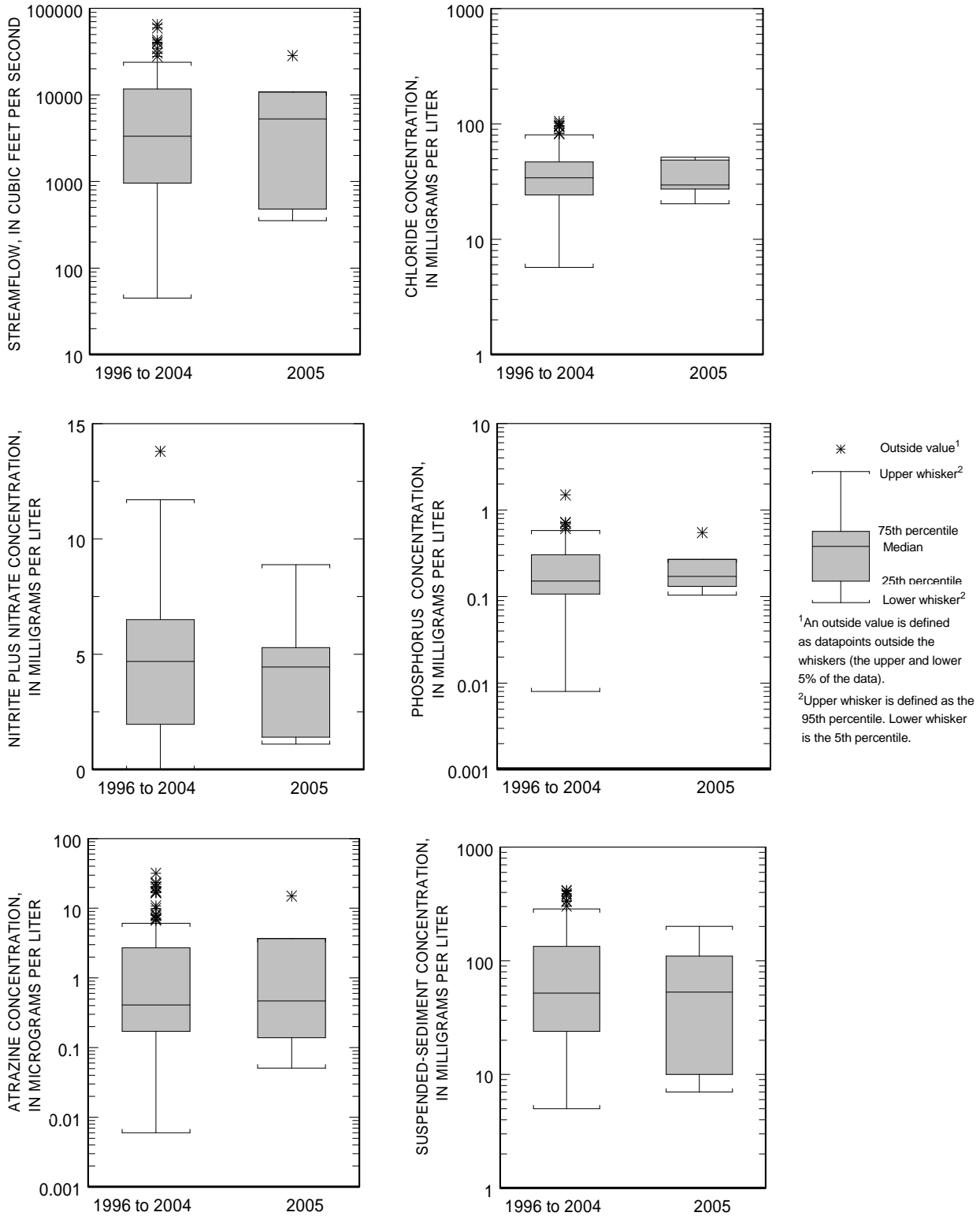


Figure 5. Streamflow and concentration of selected constituents measured in water year 2005 and the distribution of those characteristics from measurements made during water years 1999–2004, Maumee River at Waterville, Ohio.

Elevated chloride concentrations are commonly associated with municipal or industrial point sources of wastewater. Chloride concentrations determined for the six samples in 2005 for the Auglaize River ranged from 17.9 to 43.0 milligrams per liter (mg/L) with a median of 36.2 mg/L. All chloride concentrations in 2005 were equal to or less than the median of the previous 9-year period (43.0 mg/L). For the Maumee River, chloride concentrations in 2005 ranged from 20.3 to 51.6 mg/L with a median of 29.6 mg/L; the median for the previous 9-year period was 34.2 mg/L.

None of the samples collected for nitrate plus nitrite during 2005 at these two sites exceeded the U.S. Environmental Protection Agency's Maximum Contaminant Level for finished drinking water (10 mg/L, as N). In Ohio, fertilizers are a major source of nitrate. Concentrations in the Auglaize River and the Maumee River in 2005 were in the same range as those found during the previous 9-year period.

Agricultural runoff and municipal and industrial point sources are the principal sources of phosphorus in Ohio. Increased phosphorus concentrations may lead to a high rate of plant-material production in water and eutrophication of the receiving water. During 2005, median concentrations of total phosphorus were 0.200 mg/L for the Auglaize River and 0.171 mg/L for the Maumee River. For the previous 9-year period of the Auglaize and Maumee Rivers, medians were similar (0.188 and 0.152 mg/L, respectively).

The Auglaize and Maumee Rivers drain areas of heavy herbicide use. Atrazine was detected in five out of six samples collected at the Auglaize River. Atrazine concentrations determined in 2005 for the Auglaize River ranged from 0.046 microgram per liter ($\mu\text{g/L}$) to 21.7 $\mu\text{g/L}$, with four out of five detections being <1 $\mu\text{g/L}$. Atrazine concentrations determined in 2005 for the Maumee River varied widely, ranging from 0.051 to 15.0 $\mu\text{g/L}$. One sample from the Auglaize River and two samples from the Maumee River exceeded the U.S. Environmental Protection Agency's Maximum Contaminant Level of 3 $\mu\text{g/L}$.

Elevated suspended-sediment concentrations result from periods of high streamflows and are exacerbated by increased development and agriculture. Suspended-sediment concentrations in the Auglaize River in 2005 were lower than those found during the previous 9-year period; the median value for 2005 was 23 mg/L, whereas the median for the previous period was 56 mg/L. At the Maumee River, concentrations during 2005 were similar to concentrations measured during 1996–2004; median concentrations were 53 and 52 mg/L, respectively.

Ground Water

Ground water serves the needs of 46 percent of Ohio's population. An estimated 800 million gallons of ground water per day is withdrawn for public-supply, domestic, industrial, and agricultural purposes. Many people in Ohio depend on ground water as the only practical source of supply.

Ohio's unconsolidated aquifers are composed of either coarse- or fine-grained sediments. Both types are composed mainly of materials of glacial origin. The coarse-grained unconsolidated aquifers generally consist of highly permeable sand and gravel. Much of the sand and gravel is alluvium derived from glaciofluvial outwash along the courses of some modern streams; thus, these aquifers sometimes are referred to as "watercourse" aquifers. Coarse-grained unconsolidated aquifers in the northwestern corner of the State (fig. 6) underlie glacial till, are locally confined under artesian pressure, and are highly productive. Extensive kame-terrace deposits of water-bearing gravel and sand are widely used ground-water sources in northeastern Ohio. The fine-grained unconsolidated aquifers are similar to the coarse-grained unconsolidated aquifers in form and origin but are less permeable because of higher percentages of mixed fine sand, silt, and clay. Included in the fine-grained unconsolidated aquifers are tills that contain thin or localized stratified lenses of sand and gravel.

Ground-water supply for much of the unglaciated upland area of southeastern Ohio is from bedrock aquifers composed of shaly sandstone and thin limestone. These strata, which range from Mississippian to Permian in age, are dominated by low-yielding shales and shaly sandstones that include numerous coal-bearing strata. In some places, small water supplies are available from fractured coal beds. Several sandstone aquifers in northeastern Ohio are of regional extent and are major ground-water sources for individual and small public supplies. These include the Berea and Black Hand Sandstones of Mississippian age and several sandstone members of the Pottsville and Allegheny Formations of Pennsylvanian age. The Lake Erie coastline of northeastern Ohio is underlain by shale of Devonian and Mississippian age (fig. 6) that yields only small amounts of water to wells. Silurian-age limestone and dolomite and Devonian limestone comprise the carbonate aquifer system (fig. 6) of much of western Ohio. Glacial cover is uneven and consists of valley fill and terminal moraine in some places. The northeastern part of western Ohio contains an area of high-yielding wells that tap a preferentially weathered zone, which developed when a carbonate section was periodically exposed as land mass during the Paleozoic Era. The southwestern corner of Ohio near Cincinnati is underlain by shale and a thin limestone aquifer of Ordovician age. Away from the watercourse (coarse unconsolidated) aquifers that traverse the area, the rocks that form the uplands yield only very small amounts of ground water.

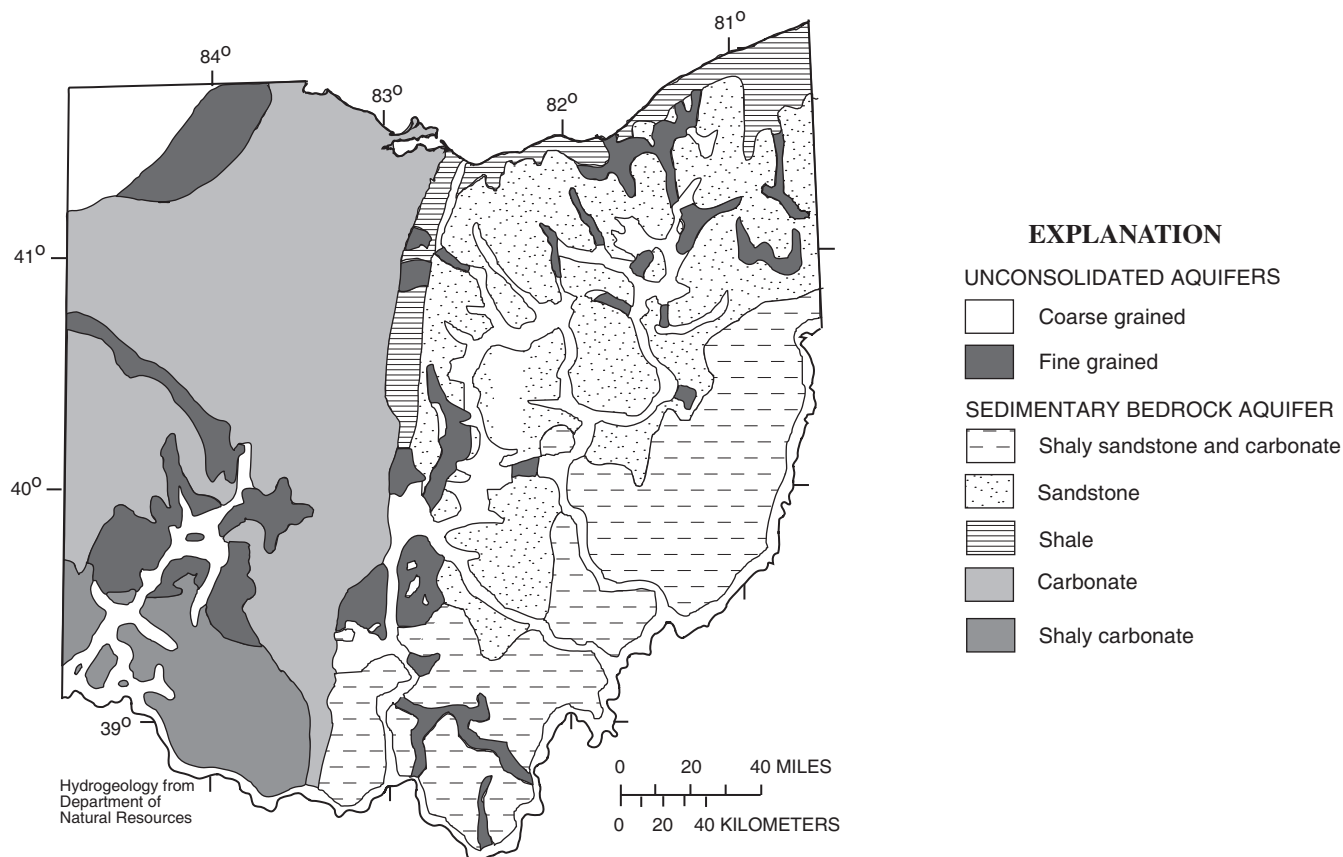


Figure 6. Geographic distribution of principal aquifers in Ohio.

Ground-Water Levels

Most ground-water observation wells in Ohio tap unconsolidated sand and gravel aquifers associated with the State's principal streams. Sample 1-year and 5-year hydrographs of a well completed in an unconfined unconsolidated sand-and-gravel aquifer are shown in figure 7. The observation-well network also includes some bedrock wells in areas where consolidated aquifers are heavily used for water supply, such as in the carbonate-rock region of northwestern Ohio. Sample 1-year and 5-year hydrographs of a well completed in a confined carbonate-rock aquifer are shown in figure 8. The yearly low for most wells occurs during the winter months, especially in cold, dry years or near the end of the growing season. Highs for the year usually occur from March through June, which is the peak of the recharge season. The yearly water-level fluctuation due to climatic conditions in water-table and confined-aquifer wells is commonly 3 to 5 feet but can be as much as 10 feet.

Ground-water conditions in Ohio during water year 2005 were as follows:

October–January. At the beginning of water year 2005, ground-water levels were generally above normal throughout Ohio except for unconsolidated aquifers in the southwest, where levels

were below normal. Ground-water levels rose throughout the period due to above-average precipitation. Above-normal levels prevailed except in southwest Ohio, where ground-water levels remained below normal. Heavy rainfall and snowmelt in January produced significant rises throughout the State, and levels were generally above normal statewide.

February–March. There were general declines in ground-water levels statewide due to below-average precipitation. Levels remained above normal except in southwest Ohio, where they fell into the below-normal range.

April. Above-average precipitation in April produced net rises throughout the State, and ground-water levels remained above normal except in southwest Ohio.

May–September. Seasonal declines prevailed throughout the period. Ground-water levels in unconsolidated aquifers in southern Ohio were below normal for the entire period. Levels in the rest of Ohio fell from above normal to near normal by July. Seasonal declines continued, and levels were generally below normal statewide at the end of water year 2005.

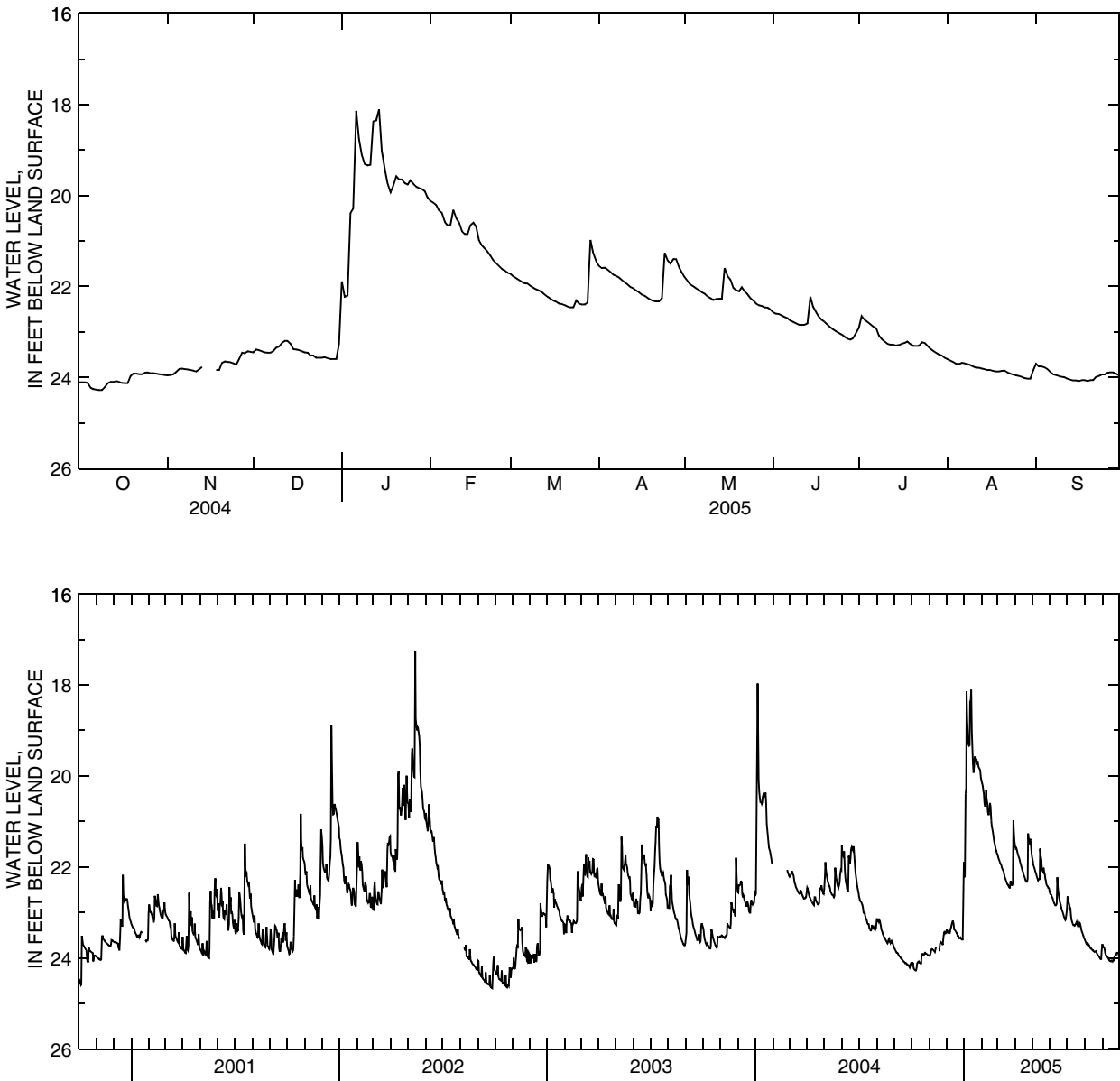


Figure 7. Sample of 1-year and 5-year hydrographs of well H-1 (391717084393300), completed in an unconfined unconsolidated aquifer.

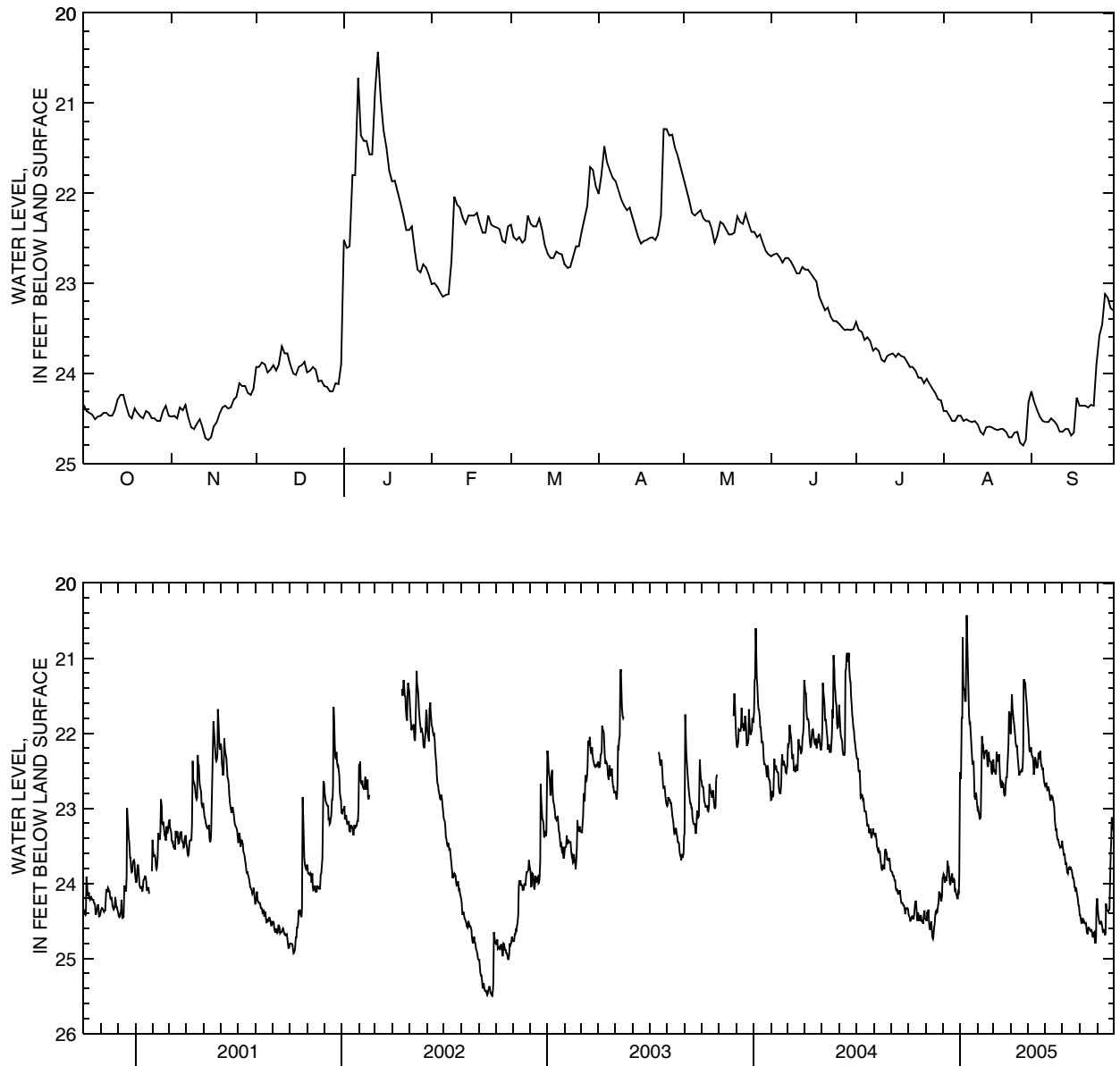


Figure 8. Sample of 1-year and 5-year hydrographs of well U-4 (401826083255200), completed in a confined carbonate-rock aquifer.

Downstream Order and Station Number

Since October 1, 1950, hydrologic-station records in USGS reports have been listed in order of downstream direction along the main stream. All stations on a tributary entering upstream from a main-stream station are listed before that station. A station on a tributary entering between two main-stream stations is listed between those stations. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary on which a station is located with respect to the stream to which it is immediately tributary is indicated by an indentation in that list of stations in the front of this report. Each indentation represents one rank. This downstream order and system of indentation indicates which stations are on tributaries between any two stations and the rank of the tributary on which each station is located.

As an added means of identification, each hydrologic station and partial-record station has been assigned a station number. These station numbers are in the same downstream order used in this report. In assigning a station number, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list composed of both types of stations. Gaps are consecutive. The complete 8-digit (or 10-digit) number for each station such as 09004100, which appears just to the left of the station name, includes a 2-digit part number "09" plus the 6-digit (or 8-digit) downstream order number "004100." In areas of high station density, an additional two digits may be added to the station identification number to yield a 10-digit number. The stations are numbered in downstream order as described above between stations of consecutive 8-digit numbers.

Numbering System for Wells and Miscellaneous Sites

The USGS well and miscellaneous site-numbering system is based on the grid system of latitude and longitude. The system provides the geographic location of the well or miscellaneous site and a unique number for each site. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude, and the next 7 digits denote degrees, minutes, and seconds of longitude; the last 2 digits are a sequential number for wells within a 1-second grid. In the event that the latitude-longitude coordinates for a well and miscellaneous site are the same, a sequential number such as "01," "02," and so forth, would be assigned as one would for wells (see fig. 9). The 8-digit, downstream order station numbers are not assigned to wells and miscellaneous sites where only random water-quality samples or discharge measurements are taken.

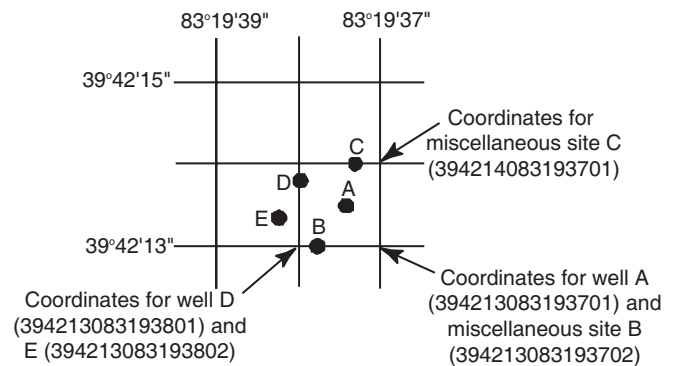


Figure 9. System for numbering wells and miscellaneous sites (latitude and longitude).

Special Networks and Programs

Hydrologic Benchmark Network is a network of 61 sites in small drainage basins in 39 States that was established in 1963 to provide consistent streamflow data representative of undeveloped watersheds nationwide, and from which data could be analyzed on a continuing basis for use in comparison and contrast with conditions observed in basins more obviously affected by human activities. At selected sites, water-quality information is being gathered on major ions and nutrients, primarily to assess the effects of acid deposition on stream chemistry. Additional information on the Hydrologic Benchmark Program may be accessed from <http://ny.cf.er.usgs.gov/hbn/>.

National Stream-Quality Accounting Network (NASQAN) is a network of sites used to monitor the water quality of large rivers within the Nation's largest river basins. From 1995 through 1999, a network of approximately 40 stations was operated in the Mississippi, Columbia, Colorado, and Rio Grande River basins. For the period 2000 through 2004, sampling was reduced to a few index stations on the Colorado and Columbia Rivers so that a network of five stations could be implemented on the Yukon River. Samples are collected with sufficient frequency that the flux of a wide range of constituents can be estimated. The objective of NASQAN is to characterize the water quality of these large rivers by measuring concentration and mass transport of a wide range of dissolved and suspended constituents, including nutrients, major ions, dissolved and sediment-bound heavy metals, common pesticides, and inorganic and organic forms of carbon. This information will be used (1) to describe the long-term trends and changes in concentration and transport of these constituents; (2) to test findings of the National Water-Quality Assessment (NAWQA) Program; (3) to characterize processes unique to large-river systems such as storage and re-mobilization of sediments and associated contaminants; and (4) to refine existing estimates of off-continent transport of

water, sediment, and chemicals for assessing human effects on the world's oceans and for determining global cycles of carbon, nutrients, and other chemicals. Additional information about the NASQAN Program may be accessed from <http://water.usgs.gov/nasqan/>.

The National Atmospheric Deposition Program/ National Trends Network (NADP/NTN) is a network of monitoring sites that provides continuous measurement and assessment of the chemical constituents in precipitation throughout the United States. As the lead Federal agency, the USGS works together with over 100 organizations to provide a long-term, spatial and temporal record of atmospheric deposition generated from this network of 250 precipitation-chemistry monitoring sites. The USGS supports 74 of these 250 sites. This long-term, nationally consistent monitoring program, coupled with ecosystem research, provides critical information toward a national scorecard to evaluate the effectiveness of ongoing and future regulations intended to reduce atmospheric emissions and subsequent impacts to the Nation's land and water resources. Reports and other information on the NADP/NTN Program, as well as data from the individual sites, may be accessed from <http://bqs.usgs.gov/acidrain/>.

The USGS National Water-Quality Assessment (NAWQA) Program is a long-term program with goals to describe the status and trends of water-quality conditions for a large, representative part of the Nation's ground- and surface-water resources; to provide an improved understanding of the primary natural and human factors affecting these observed conditions and trends; and to provide information that supports development and evaluation of management, regulatory, and monitoring decisions by other agencies.

Assessment activities are being conducted in 42 study units (major watersheds and aquifer systems) that represent a wide range of environmental settings nationwide and that account for a large percentage of the Nation's water use. A wide array of chemical constituents is measured in ground water, surface water, streambed sediments, and fish tissues. The coordinated application of comparative hydrologic studies at a wide range of spatial and temporal scales will provide information for water-resources managers to use in making decisions and a foundation for aggregation and comparison of findings to address water-quality issues of regional and national interest.

Communication and coordination between USGS personnel and other local, State, and Federal interests are critical components of the NAWQA Program. Each study unit has a local liaison committee consisting of representatives from key Federal, State, and local water-resources agencies, Indian nations, and universities in the study unit. Liaison committees typically meet semiannually to discuss their information needs, monitoring plans and progress, desired information products, and opportunities for collaboration among the agencies. Additional information about the NAWQA Program may be accessed from <http://water.usgs.gov/nawqa/>.

The USGS National Streamflow Information Program (NSIP) is a long-term program with goals to provide

framework streamflow data across the Nation. Included in the program are creation of a permanent Federally funded streamflow network, research on the nature of streamflow, regional assessments of streamflow data and databases, and upgrades in the streamflow information delivery systems. Additional information about NSIP may be accessed from <http://water.usgs.gov/nsip/>.

Explanation of Stage- and Water-Discharge Records

Data Collection and Computation

The base data collected at gaging stations (fig. 1a and 1b) consist of records of stage and measurements of discharge of streams or canals, and stage, surface area, and volume of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from a water-stage recorder that is either downloaded electronically in the field to a laptop computer or similar device or is transmitted using telemetry such as GOES satellite, land-line or cellular-phone modems, or by radio transmission. Measurements of discharge are made with a current meter or acoustic Doppler current profiler, using the general methods adopted by the USGS. These methods are described in standard textbooks, USGS Water-Supply Paper 2175, and the Techniques of Water-Resources Investigations of the United States Geological Survey (TWRIs), Book 3, Chapters A1 through A19 and Book 8, Chapters A2 and B2, which may be accessed from <http://water.usgs.gov/pubs/twri/>. The methods are consistent with the American Society for Testing and Materials (ASTM) standards and generally follow the standards of the International Organization for Standardization (ISO).

For stream-gaging stations, discharge-rating tables for any stage are prepared from stage-discharge curves. If extensions to the rating curves are necessary to express discharge greater than measured, the extensions are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, or computation of flow over dams and weirs), step-backwater techniques, velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage heights and rating tables, then the monthly and yearly mean discharges are computed from the daily values. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features of the stream channel, the daily mean discharge is computed by the shifting-control method in which correction factors that are based on individual discharge measurements and notes by engineers and observers are used when applying the gage heights to the rating tables. If the stage-

discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the controlling section, the daily mean discharge is computed by the shifting-control method.

The stage-discharge relation at some stream-gaging stations is affected by backwater from reservoirs, tributary streams, or other sources. Such an occurrence necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in computing discharge. The slope or fall is obtained by means of an auxiliary gage at some distance from the base gage.

An index velocity is measured using ultrasonic or acoustic instruments at some stream-gaging stations, and this index velocity is used to calculate an average velocity for the flow in the stream. This average velocity along with a stage-area relation is then used to calculate average discharge.

At some stations, the stage-discharge relation is affected by changing stage. At these stations, the rate of change in stage is used as a factor in computing discharge.

At some stream-gaging stations in the northern United States, the stage-discharge relation is affected by ice in the winter; therefore, computation of the discharge in the usual manner is impossible. Discharge for periods of ice effect is computed on the basis of gage-height record and occasional winter-discharge measurements. Consideration is given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge from other stations in the same or nearby basins.

For a lake or reservoir station, capacity tables giving the volume or contents for any stage are prepared from stage-area relation curves defined by surveys. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly changes are computed.

If the stage-capacity curve is subject to changes because of deposition of sediment in the reservoir, periodic resurveys of the reservoir are necessary to define new stage-capacity curves. During the period between reservoir surveys, the computed contents may be increasingly in error due to the gradual accumulation of sediment.

For some stream-gaging stations, periods of time occur when no gage-height record is obtained or the recorded gage height is faulty and cannot be used to compute daily discharge or contents. Such a situation can happen when the recorder stops or otherwise fails to operate properly, the intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods, the daily discharges are estimated on the basis of recorded range in stage, prior and subsequent records, discharge measurements, weather records, and comparison with records from other stations in the same or nearby basins. Likewise, lake or reservoir volumes may be estimated on the basis of operator's log, prior and subsequent records, inflow-outflow studies, and other information.

Data Presentation

The records published for each continuous-record surface-water discharge station (stream-gaging station) consist of five parts: (1) the station manuscript or description; (2) the data table of daily mean values of discharge for the current water year with summary data; (3) a tabular statistical summary of monthly mean flow data for a designated period, by water year; (4) a summary statistics table that includes statistical data of annual, daily, and instantaneous flows as well as data pertaining to annual runoff, 7-day low-flow minimums, and flow duration; and (5) a hydrograph of discharge.

Station Manuscript

The manuscript provides, under various headings, descriptive information, such as station location; period of record; historical extremes outside the period of record; record accuracy; and other remarks pertinent to station operation and regulation. The following information, as appropriate, is provided with each continuous record of discharge or lake content. Comments follow that clarify information presented under the various headings of the station description.

LOCATION.—Location information is obtained from the most accurate maps available. The location of the gaging station with respect to the cultural and physical features in the vicinity and with respect to the reference place mentioned in the station name is given. River mileages, given for only a few stations, were determined by methods given in "River Mileage Measurement," Bulletin 14, Revision of October 1968, prepared by the Water Resources Council or were provided by the U.S. Army Corps of Engineers.

DRAINAGE AREA.—Drainage areas are measured using the most accurate maps available. Because the type of maps available varies from one drainage basin to another, the accuracy of drainage areas likewise varies. Drainage areas are updated as better maps become available.

PERIOD OF RECORD.—This term indicates the time period for which records have been published for the station or for an equivalent station. An equivalent station is one that was in operation at a time that the present station was not and whose location was such that its flow reasonably can be considered equivalent to flow at the present station.

REVISED RECORDS.—If a critical error in published records is discovered, a revision is included in the first report published following discovery of the error.

GAGE.—The type of gage in current use, the datum of the current gage referred to a standard datum, and a condensed history of the types, locations, and datums of previous gages are given under this heading.

REMARKS.—All periods of estimated daily discharge either will be identified by date in this paragraph of the station description for water-discharge stations or flagged in the daily discharge table. (See section titled Identifying Estimated Daily Discharge.) Information is presented relative to the accuracy of

the records, to special methods of computation, and to conditions that affect natural flow at the station. In addition, information may be presented pertaining to average discharge data for the period of record; to extremes data for the period of record and the current year; and, possibly, to other pertinent items. For reservoir stations, information is given on the dam forming the reservoir, the capacity, the outlet works and spillway, and the purpose and use of the reservoir.

COOPERATION.—Records provided by a cooperating organization or obtained for the USGS by a cooperating organization are identified here.

EXTREMES OUTSIDE PERIOD OF RECORD.—Information here documents major floods or unusually low flows that occurred outside the stated period of record. The information may or may not have been obtained by the USGS.

REVISIONS.—Records are revised if errors in published records are discovered. Appropriate updates are made in the USGS distributed data system, NWIS, and subsequently to its Web-based national data system, NWISWeb (<http://water.usgs.gov/nwis/nwis>). Users are encouraged to obtain all required data from NWIS or NWISWeb to ensure that they have the most recent data updates. Updates to NWISWeb are made on an annual basis.

Although rare, occasionally the records of a discontinued gaging station may need revision. Because no current or, possibly, future station manuscript would be published for these stations to document the revision in a REVISED RECORDS entry, users of data for these stations who obtained the record from previously published data reports may wish to contact the USGS Water Science Center (address given on the back of the title page of this report) to determine if the published records were revised after the station was discontinued. If, however, the data for a discontinued station were obtained by computer retrieval, the data would be current. Any published revision of data is always accompanied by revision of the corresponding data in computer storage.

Manuscript information for lake or reservoir stations differs from that for stream stations in the nature of the REMARKS and in the inclusion of a stage-capacity table when daily volumes are given.

Peak Discharge Greater than Base Discharge

Tables of peak discharge above base discharge are included for some stations where secondary instantaneous peak discharge data are used in flood-frequency studies of highway and bridge design, flood-control structures, and other flood-related projects. The base discharge value is selected so an average of three peaks a year will be reported. This base discharge value has a recurrence interval of approximately 1.1 years or a 91-percent chance of exceedence in any 1 year.

Data Table of Daily Mean Values

The daily table of discharge records for stream-gaging stations gives mean discharge for each day of the water year. In the monthly summary for the table, the line headed TOTAL gives the sum of the daily figures for each month; the line headed MEAN gives the arithmetic average flow in cubic feet per second for the month; and the lines headed MAX and MIN give the maximum and minimum daily mean discharges, respectively, for each month. Discharge for the month is expressed in cubic feet per second per square mile (line headed CFSM); or in inches (line headed IN); or in acre-feet (line headed AC-FT). Values for cubic feet per second per square mile and runoff in inches or in acre-feet may be omitted if extensive regulation or diversion is in effect or if the drainage area includes large noncontributing areas. At some stations, monthly and (or) yearly observed discharges are adjusted for reservoir storage or diversion, or diversion data or reservoir volumes are given. These values are identified by a symbol and a corresponding footnote.

Statistics of Monthly Mean Data

A tabular summary of the mean (line headed MEAN), maximum (MAX), and minimum (MIN) of monthly mean flows for each month for a designated period is provided below the mean values table. The water years of the first occurrence of the maximum and minimum monthly flows are provided immediately below those values. The designated period will be expressed as FOR WATER YEARS __-__, BY WATER YEAR (WY), and will list the first and last water years of the range of years selected from the PERIOD OF RECORD paragraph in the station manuscript. The designated period will consist of all of the station record within the specified water years, including complete months of record for partial water years, and may coincide with the period of record for the station. The water years for which the statistics are computed are consecutive, unless a break in the station record is indicated in the manuscript.

Summary Statistics

A table titled SUMMARY STATISTICS follows the statistics of monthly mean data tabulation. This table consists of four columns with the first column containing the line headings of the statistics being reported. The table provides a statistical summary of yearly, daily, and instantaneous flows, not only for the current water year but also for the previous calendar year and for a designated period, as appropriate. The designated period selected, WATER YEARS __-__, will consist of all of the station records within the specified water years, including complete months of record for partial water years, and may coincide with the period of record for the station. The water years for which the statistics are computed are consecutive, unless a break in the station record is indicated

in the manuscript. All of the calculations for the statistical characteristics designated ANNUAL (see line headings below), except for the ANNUAL 7-DAY MINIMUM statistic, are calculated for the designated period using complete water years. The other statistical characteristics may be calculated using partial water years.

The date or water year, as appropriate, of the first occurrence of each statistic reporting extreme values of discharge is provided adjacent to the statistic. Repeated occurrences may be noted in the REMARKS paragraph of the manuscript or in footnotes. Because the designated period may not be the same as the station period of record published in the manuscript, occasionally the dates of occurrence listed for the daily and instantaneous extremes in the designated-period column may not be within the selected water years listed in the heading. When the dates of occurrence do not fall within the selected water years listed in the heading, it will be noted in the REMARKS paragraph or in footnotes. Selected streamflow duration-curve statistics and runoff data also are given. Runoff data may be omitted if extensive regulation or diversion of flow is in effect in the drainage basin.

The following summary statistics data are provided with each continuous record of discharge. Comments that follow clarify information presented under the various line headings of the SUMMARY STATISTICS table.

ANNUAL TOTAL.—The sum of the daily mean values of discharge for the year.

ANNUAL MEAN.—The arithmetic mean for the individual daily mean discharges for the year noted or for the designated period.

HIGHEST ANNUAL MEAN.—The maximum annual mean discharge occurring for the designated period.

LOWEST ANNUAL MEAN.—The minimum annual mean discharge occurring for the designated period.

HIGHEST DAILY MEAN.—The maximum daily mean discharge for the year or for the designated period.

LOWEST DAILY MEAN.—The minimum daily mean discharge for the year or for the designated period.

ANNUAL 7-DAY MINIMUM.—The lowest mean discharge for 7 consecutive days for a calendar year or a water year. Note that most low-flow frequency analyses of annual 7-day minimum flows use a climatic year (April 1-March 31). The date shown in the summary statistics table is the initial date of the 7-day period. This value should not be confused with the 7-day 10-year low-flow statistic.

MAXIMUM PEAK FLOW.—The maximum instantaneous peak discharge occurring for the

water year or designated period. Occasionally the maximum flow for a year may occur at midnight at the beginning or end of the year, on a recession from or rise toward a higher peak in the adjoining year. In this case, the maximum peak flow is given in the table and the maximum flow may be reported in a footnote or in the REMARKS paragraph in the manuscript.

MAXIMUM PEAK STAGE.—The maximum instantaneous peak stage occurring for the water year or designated period. Occasionally the maximum stage for a year may occur at midnight at the beginning or end of the year, on a recession from or rise toward a higher peak in the adjoining year. In this case, the maximum peak stage is given in the table and the maximum stage may be reported in the REMARKS paragraph in the manuscript or in a footnote. If the dates of occurrence of the maximum peak stage and maximum peak flow are different, the REMARKS paragraph in the manuscript or a footnote may be used to provide further information.

INSTANTANEOUS LOW FLOW.—The minimum instantaneous discharge occurring for the water year or for the designated period.

ANNUAL RUNOFF.—Indicates the total quantity of water in runoff for a drainage area for the year. Data reports may use any of the following units of measurement in presenting annual runoff data:

Acre-foot (AC-FT) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Cubic feet per square mile (CFSM) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming the runoff is distributed uniformly in time and area.

Inches (INCHES) indicate the depth to which the drainage area would be covered if all of the runoff for a given time period were uniformly distributed on it.

10 PERCENT EXCEEDS.—The discharge that has been exceeded 10 percent of the time for the designated period.

50 PERCENT EXCEEDS.—The discharge that has been exceeded 50 percent of the time for the designated period.

90 PERCENT EXCEEDS.—The discharge that has been exceeded 90 percent of the time for the designated period.

Data collected at partial-record stations follow the information for continuous-record sites. Data for partial-record discharge stations are presented in two tables. The first table lists annual maximum stage and discharge at crest-stage stations, and the second table lists discharge measurements at low-flow partial-record stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. These measurements are often made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for a special reason are called measurements at miscellaneous sites.

Identifying Estimated Daily Discharge

Estimated daily-discharge values published in the water-discharge tables of annual State data reports are identified. This identification is shown either by flagging individual daily values with the letter “e” and noting in a table footnote, “e—Estimated,” or by listing the dates of the estimated record in the REMARKS paragraph of the station description.

Accuracy of Field Data and Computed Results

The accuracy of streamflow data depends primarily on (1) the stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements, and (2) the accuracy of observations of stage, measurements of discharge, and interpretations of records.

The degree of accuracy of the records is stated in the REMARKS in the station description. “Excellent” indicates that about 95 percent of the daily discharges are within 5 percent of the true value; “good” within 10 percent; and “fair,” within 15 percent. “Poor” indicates that daily discharges have less than “fair” accuracy. Different accuracies may be attributed to different parts of a given record.

Values of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 ft³/s; to the nearest tenths between 1.0 and 10 ft³/s; to whole numbers between 10 and 1,000 ft³/s; and to three significant figures above 1,000 ft³/s. The number of significant figures used is based solely on the magnitude of the discharge value. The same rounding rules apply to discharge values listed for partial-record stations.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. For such stations, values of cubic feet per second per square mile and of runoff in inches are not published unless satisfactory adjustments can be made for diversions, for

changes in contents of reservoirs, or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

Other Data Records Available

Information of a more detailed nature than that published for most of the stream-gaging stations such as discharge measurements, gage-height records, and rating tables is available from the USGS Water Science Center. Also, most stream-gaging station records are available in computer-usable form and many statistical analyses have been made.

Information on the availability of unpublished data or statistical analyses may be obtained from the USGS Water Science Center. (See address that is shown on the back of the title page of this report.)

Explanation of Precipitation Records

Data Collection and Computation

Rainfall data generally are collected using electronic data loggers that measure the rainfall in 0.01-inch increments every 15 minutes using either a tipping-bucket rain gage or a collection well gage. Twenty-four hour rainfall totals are tabulated and presented. A 24-hour period extends from just past midnight of the previous day to midnight of the current day. Snowfall-affected data can result during cold weather when snow fills the rain-gage funnel and then melts as temperatures rise. Snowfall-affected data are subject to errors. Missing values are indicated by this symbol “---” in the table.

Data Presentation

Precipitation records collected at surface-water gaging stations are identified with the same station number and name as the stream-gaging station. Where a surface-water daily-record station is not available, the precipitation record is published with its own name and latitude-longitude identification number.

Information pertinent to the history of a precipitation station is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, period of record, and general remarks.

The following information is provided with each precipitation station. Comments that follow clarify information presented under the various headings of the station description.

LOCATION.—See Data Presentation in the
EXPLANATION OF STAGE- AND WATER-

DISCHARGE RECORDS section of this report (same comments apply).

PERIOD OF RECORD.—See Data Presentation in the EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS section of this report (same comments apply).

INSTRUMENTATION.—Information on the type of rainfall collection system is given.

REMARKS.—Remarks provide added information pertinent to the collection, analysis, or computation of records.

Explanation of Water-Quality Records

Collection and Examination of Data

Surface-water samples for analysis usually are collected at or near stream-gaging stations. The quality-of-water records are given immediately following the discharge records at these stations.

The descriptive heading for water-quality records gives the period of record for all water-quality data; the period of daily record for parameters that are measured on a daily basis (specific conductance, water temperature, sediment discharge, and so forth); extremes for the current year; and general remarks.

For ground-water records, no descriptive statements are given; however, the well number, depth of well, sampling date, or other pertinent data are given in the table containing the chemical analyses of the ground water.

Water Analysis

Most of the methods used for collecting and analyzing water samples are described in the TWRI, which may be accessed from <http://water.usgs.gov/pubs/twri/>.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled at several verticals to obtain a representative sample needed for an accurate mean concentration and for use in calculating load.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance

of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum and minimum values (and sometimes mean or median values) for each constituent measured and are based on 15-minute or 1-hour intervals of recorded data beginning at 0000 hours and ending at 2400 hours for the day of record.

Surface-Water-Quality Records

Records of surface-water quality ordinarily are obtained at or near stream-gaging stations because discharge data are useful in the interpretation of surface-water quality. Records of surface-water quality in this report involve a variety of types of data and measurement frequencies.

Classification of Records

Water-quality data for surface-water sites are grouped into one of three classifications. A *continuous-record station* is a site where data are collected on a regularly scheduled basis. Frequency may be one or more times daily, weekly, monthly, or quarterly. A *partial-record station* is a site where limited water-quality data are collected systematically over a period of years. Frequency of sampling is usually less than quarterly. A *miscellaneous sampling site* is a location other than a continuous- or partial-record station, where samples are collected to give better areal coverage to define water-quality conditions in the river basin.

A careful distinction needs to be made between *continuous records* as used in this report and *continuous recordings* that refer to a continuous graph or a series of discrete values recorded at short intervals. Some records of water quality, such as temperature and specific conductance, may be obtained through continuous recordings; however, because of costs, most data are obtained only monthly or less frequently. Locations of stations for which records on the quality of surface water appear in this report are shown in figures 1a and 1b.

Accuracy of the Records

One of four accuracy classifications is applied for measured physical properties at continuous-record stations on a scale ranging from poor to excellent. (See table on the following page.) The accuracy rating is based on data values recorded before any shifts or corrections are made. Additional consideration also is given to the amount of publishable record and to the amount of data that have been corrected or shifted.

Rating the accuracy of continuous water-quality records

[≤, less than or equal to; ±, plus or minus value shown; °C, degree Celsius; >, greater than; %, percent; mg/L, milligram per liter; pH unit, standard pH unit]

Measured field parameter	Ratings of accuracy (Based on combined fouling and calibration drift corrections applied to the record)			
	Excellent	Good	Fair	Poor
Water temperature	≤ ± 0.2 °C	> ± 0.2 – 0.5 °C	> ± 0.5 – 0.8 °C	> ± 0.8 °C
Specific conductance	≤ ± 3%	> ± 3 – 10%	> ± 10 – 15%	> ± 15%
Dissolved oxygen	≤ ± 0.3 mg/L or ≤ ± 5%, whichever is greater	> ± 0.3 – 0.5 mg/L or > ± 5 – 10%, whichever is greater	> ± 0.5 – 0.8 mg/L or > ± 10 – 15%, which- ever is greater	> ± 0.8 mg/L or > ± 15%, whichever is greater
pH	≤ ± 0.2 units	> ± 0.2 – 0.5 units	> ± 0.5 – 0.8 units	> ± 0.8 units
Turbidity	≤ ± 0.5 turbidity units or ≤ ± 5%, whichever is greater	> ± 0.5 – 1.0 turbidity units or > ± 5 – 10%, whichever is greater	> ± 1.0 – 1.5 turbidity units or > ± 10 – 15%, whichever is greater	> ± 1.5 turbidity units or > ± 15%, which- ever is greater

Arrangement of Records

Water-quality records collected at a surface-water daily record station are published immediately following that record, regardless of the frequency of sample collection. Station number and name are the same for both records. Where a surface-water daily record station is not available or where the water quality differs significantly from that at the nearby surface-water station, the continuing water-quality record is published with its own station number and name in the regular downstream-order sequence. Water-quality data for partial-record stations and for miscellaneous sampling sites appear in separate tables following the table of discharge measurements at miscellaneous sites.

Onsite Measurements and Sample Collection

In obtaining water-quality data, a major concern is assuring that the data obtained represent the naturally occurring quality of the water. To ensure this, certain measurements, such as water temperature, pH, and dissolved oxygen, must be made onsite when the samples are collected. To assure that measurements made in the laboratory also represent the naturally occurring water, carefully prescribed procedures must be followed in collecting the samples, in treating the samples to prevent changes in quality pending analysis, and in shipping the samples to the laboratory. Procedures for onsite measurements and for collecting, treating, and shipping samples are given in TWRIs Book 1, Chapter D2; Book 3,

Chapters A1, A3, and A4; and Book 9, Chapters A1-A9. Most of the methods used for collecting and analyzing water samples are described in the TWRIs, which may be accessed from <http://water.usgs.gov/pubs/twri/>. Also, detailed information on collecting, treating, and shipping samples can be obtained from the USGS Water Science Center. (See address that is shown on the back of title page in this report.)

Water Temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at the time of discharge measurements for water-discharge stations. For stations where water temperatures are taken manually once or twice daily, the water temperatures are taken at about the same time each day. Large streams have a small diurnal temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

At stations where recording instruments are used, either mean temperatures or maximum and minimum temperatures for each day are published. Water temperatures measured at the time of water-discharge measurements are on file in the USGS Water Science Center.

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross section.

During periods of rapidly changing flow or rapidly changing concentration, samples may be collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration are computed by the subdivided-day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided-day method. For periods when no samples were collected, daily discharges of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

At other stations, suspended-sediment samples are collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observation, such data are useful in establishing seasonal relations between quality and streamflow and in predicting long-term sediment-discharge characteristics of the stream.

In addition to the records of suspended-sediment discharge, records of the periodic measurements of the particle-size distribution of the suspended sediment and bed material are included for some stations.

Laboratory Measurements

Samples for biochemical oxygen demand (BOD) and indicator bacteria are analyzed locally. All other samples are analyzed in the USGS laboratory in Lakewood, Colorado, unless otherwise noted. Methods used in analyzing sediment samples and computing sediment records are given in TWRI, Book 5, Chapter C1. Methods used by the USGS laboratories are given in the TWRI, Book 1, Chapter D2; Book 3, Chapter C2; and Book 5, Chapters A1, A3, and A4. The TWRI publications may be accessed from <http://water.usgs.gov/pubs/twri/>. These methods are consistent with ASTM standards and generally follow ISO standards.

Data Presentation

For continuing-record stations, information pertinent to the history of station operation is provided in descriptive headings

preceding the tabular data. These descriptive headings give details regarding location, drainage area, period of record, type of data available, instrumentation, general remarks, cooperation, and extremes for parameters currently measured daily. Tables of chemical, physical, biological, radiochemical data, and so forth, obtained at a frequency less than daily are presented first. Tables of “daily values” of specific conductance, pH, water temperature, dissolved oxygen, and suspended sediment then follow in sequence.

In the descriptive headings, if the location is identical to that of the discharge gaging station, neither the LOCATION nor the DRAINAGE AREA statements are repeated. The following information is provided with each continuous-record station. Comments that follow clarify information presented under the various headings of the station description.

LOCATION.—See Data Presentation information in the EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS section of this report (same comments apply).

DRAINAGE AREA.—See Data Presentation information in the EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS section of this report (same comments apply).

PERIOD OF RECORD.—This indicates the time periods for which published water-quality records for the station are available. The periods are shown separately for records of parameters measured daily or continuously and those measured less than daily. For those measured daily or continuously, periods of record are given for the parameters individually.

INSTRUMENTATION.—Information on instrumentation is given only if a water-quality monitor temperature record, sediment pumping sampler, or other sampling device is in operation at a station.

REMARKS.—Remarks provide added information pertinent to the collection, analysis, or computation of the records.

COOPERATION.—Records provided by a cooperating organization or obtained for the USGS by a cooperating organization are identified here.

EXTREMES.—Maximums and minimums are given only for parameters measured daily or more frequently. For parameters measured weekly or less frequently, true maximums or minimums may not have been obtained. Extremes, when given, are provided for both the period of record and for the current water year.

REVISIONS.—Records are revised if errors in published water-quality records are discovered.

Appropriate updates are made in the USGS distributed data system, NWIS, and subsequently to its Web-based national data system, NWISWeb (<http://waterdata.usgs.gov/nwis>). Users of USGS water-quality data are encouraged to obtain all required data from NWIS or NWISWeb to ensure that they have the most recent updates. Updates to the NWISWeb are made on an annual basis.

The surface-water-quality records for partial-record stations and miscellaneous sampling sites are published in separate tables following the table of discharge measurements at miscellaneous sites. No descriptive statements are given for these records. Each station is published with its own station number and name in the regular downstream-order sequence.

Remark Codes

The following remark codes may appear with the water-quality data in this section:

Printed output	Remark
E or e	Estimated value.
>	Actual value is known to be greater than the value shown.
<	Actual value is known to be less than the value shown.
M	Presence of material verified, but not quantified.
N	Presumptive evidence of presence of material.
U	Material specifically analyzed for, but not detected.
A	Value is an average.
V	Analyte was detected in both the environmental sample and the associated blanks.
S	Most probable value.

Water-Quality Control Data

The USGS National Water Quality Laboratory collects quality-control data on a continuing basis to evaluate selected analytical methods to determine long-term method detection levels (LT-MDLs) and laboratory reporting levels (LRLs). These values are re-evaluated each year on the basis of the most recent quality-control data and, consequently, may change from year to year.

This reporting procedure limits the occurrence of false positive error. Falsely reporting a concentration greater than the LT-MDL for a sample in which the analyte is not present is 1 percent or less. Application of the LRL limits the occurrence of false negative error. The chance of falsely reporting a nondetection for a sample in which the analyte is present at a concentration equal to or greater than the LRL is 1 percent or less.

Accordingly, concentrations are reported as less than LRL for samples in which the analyte either was not detected or did not pass identification. Analytes detected at concentrations between the LT-MDL and the LRL and that pass identification criteria are estimated. Estimated concentrations will be noted with a remark code of “E.” These data should be used with the understanding that their uncertainty is greater than that of data reported without the E remark code.

Data generated from quality-control (QC) samples are a requisite for evaluating the quality of the sampling and processing techniques as well as data from the actual samples themselves. Without QC data, environmental sample data cannot be adequately interpreted because the errors associated with the sample data are unknown. The various types of QC samples collected by this USGS Water Science Center are described in the following section. Procedures have been established for the storage of water-quality-control data within the USGS. These procedures allow for storage of all derived QC data and are identified so that they can be related to corresponding environmental samples. These data are not presented in this report but are available from the USGS Water Science Center.

Blank Samples

Blank samples are collected and analyzed to ensure that environmental samples have not been contaminated in the overall data-collection process. The blank solution used to develop specific types of blank samples is a solution that is free of the analytes of interest. Any measured value signal in a blank sample for an analyte (a specific component measured in a chemical analysis) that was absent in the blank solution is believed to be due to contamination. Many types of blank samples are possible; each is designed to segregate a different part of the overall data-collection process. The types of blank samples collected by this USGS Water Science Center are:

Field blank—A blank solution that is subjected to all aspects of sample collection, field processing preservation, transportation, and laboratory handling as an environmental sample.

Trip blank—A blank solution that is put in the same type of bottle used for an environmental sample and kept with the set of sample bottles before and after sample collection.

Equipment blank—A blank solution that is processed through all equipment used for collecting and processing an environmental sample (similar to a field blank but normally done in the more controlled conditions of the office).

Sampler blank—A blank solution that is poured or pumped through the same field sampler used for collecting an environmental sample.

Filter blank—A blank solution that is filtered in the same manner and through the same filter apparatus used for an environmental sample.

Splitter blank—A blank solution that is mixed and separated using a field splitter in the same manner and through the same apparatus used for an environmental sample.

Preservation blank—A blank solution that is treated with the sampler preservatives used for an environmental sample.

Reference Samples

Reference material is a solution or material prepared by a laboratory. The reference material composition is certified for one or more properties so that it can be used to assess a measurement method. Samples of reference material are submitted for analysis to ensure that an analytical method is accurate for the known properties of the reference material. Generally, the selected reference material properties are similar to the environmental sample properties.

Replicate Samples

Replicate samples are a set of environmental samples collected in a manner such that the samples are thought to be essentially identical in composition. Replicate is the general case for which a duplicate is the special case consisting of two samples. Replicate samples are collected and analyzed to establish the amount of variability in the data contributed by some part of the collection and analytical process. Many types of replicate samples are possible, each of which may yield slightly different results in a dynamic hydrologic setting, such as a flowing stream. The types of replicate samples collected in this district are:

Concurrent samples—A type of replicate sample in which the samples are collected simultaneously with two or more samplers or by using one sampler and alternating the collection of samples into two or more compositing containers.

Sequential samples—A type of replicate sample in which the samples are collected one after the other, typically over a short time.

Split sample—A type of replicate sample in which a sample is split into subsamples, each subsample contemporaneous in time and space.

Spike Samples

Spike samples are samples to which known quantities of a solution with one or more well-established analyte

concentrations have been added. These samples are analyzed to determine the extent of matrix interference or degradation on the analyte concentration during sample processing and analysis.

Explanation of Ground-Water-Level Records

Generally, only ground-water-level data from selected wells with continuous recorders from a basic network of observation wells are published in this report. This basic network contains observation wells located so that the most significant data are obtained from the fewest wells in the most important aquifers.

Site Identification Numbers

Each well is identified by means of (1) a 15-digit number that is based on latitude and longitude and (2) a local number that is produced for local needs. (See NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES in this report for a detailed explanation).

Data Collection and Computation

Measurements are made in many types of wells, under varying conditions of access and at different temperatures; hence, neither the method of measurement nor the equipment can be standardized. At each observation well, however, the equipment and techniques used are those that will ensure that measurements at each well are consistent.

Most methods for collecting and analyzing water samples are described in the TWRI's referred to in the Onsite Measurements and Sample Collection and the Laboratory Measurements sections in this report. In addition, TWRI Book 1, Chapter D2, describes guidelines for the collection and field analysis of ground-water samples for selected unstable constituents. Procedures for onsite measurements and for collecting, treating, and shipping samples are given in TWRI's Book 1, Chapter D2; Book 3, Chapters A1, A3, and A4; and Book 9, Chapters A1 through A9. The TWRI publications may be accessed from <http://water.usgs.gov/pubs/twri/>. The values in this report represent water-quality conditions at the time of sampling, as much as possible, and that are consistent with available sampling techniques and methods of analysis. These methods are consistent with ASTM standards and generally follow ISO standards. Trained personnel collected all samples. The wells sampled were pumped long enough to ensure that the water collected came directly from the aquifer and had not stood for a long time in the well casing where it would have been exposed to the atmosphere and to the material, possibly metal, comprising the casings.

Water-level measurements in this report are given in feet with reference to land-surface datum (lsd). Land-surface datum is a datum plane that is approximately at land surface at each well. If known, the elevation of the land-surface datum above sea level is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description. Water levels in wells equipped with recording gages are reported for every fifth day and the end of each month (EOM).

Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth of water of several hundred feet, the error in determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water the accuracy is greater. Accordingly, most measurements are reported to a hundredth of a foot, but some are given only to a tenth of a foot or a larger unit.

Data Presentation

Water-level data are presented in alphabetical order by county. The primary identification number for a given well is the 15-digit site identification number that appears in the upper left corner of the table. The secondary identification number is the local or county well number. Well locations are shown and each well is identified by its local well or county well number on a map in this report (figs. 1a and 1b).

Each well record consists of three parts: the well description, the data table of water levels observed during the water year, and, for most wells, a hydrograph following the data table. Well descriptions are presented in the headings preceding the tabular data.

The following comments clarify information presented in these various headings.

LOCATION.—This paragraph follows the well-identification number and reports the hydrologic-unit number and a geographic point of reference. Latitudes and longitudes used in this report are reported as North American Datum of 1927 unless otherwise specified.

AQUIFER.—This entry designates by name and geologic age the aquifer that the well taps.

WELL CHARACTERISTICS.—This entry describes the well in terms of depth, casing diameter and depth or screened interval, method of construction, use, and changes since construction.

INSTRUMENTATION.—This paragraph provides information on both the frequency of measurement and the collection method used, allowing the user to better evaluate the reported

water-level extremes by knowing whether they are based on continuous, monthly, or some other frequency of measurement.

DATUM.—This entry describes both the measuring point and the land-surface elevation at the well. The altitude of the land-surface datum is described in feet above the altitude datum; it is reported with a precision depending on the method of determination. The measuring point is described physically (such as top of casing, top of instrument shelf, and so forth), and in relation to land surface (such as 1.3 ft above land-surface datum). The elevation of the land-surface datum is described in feet above National Geodetic Vertical Datum of 1929 (NGVD 29); it is reported with a precision depending on the method of determination.

REMARKS.—This entry describes factors that may affect the water level in a well or the measurement of the water level, when various methods of measurement were begun, and the network (climatic, terrane, local, or areal effects) or the special project to which the well belongs.

PERIOD OF RECORD.—This entry indicates the time period for which records are published for the well, the month and year at the start of publication of water-level records by the USGS, and the words “to current year” if the records are to be continued into the following year. Time periods for which water-level records are available, but are not published by the USGS, may be noted.

EXTREMES FOR PERIOD OF RECORD.—This entry contains the highest and lowest instantaneously recorded or measured water levels of the period of published record, with respect to land-surface datum or sea level, and the dates of occurrence.

Water-Level Tables

A table of water levels follows the well description for each well. Water-level measurements in this report are given in feet with reference to either sea level or land-surface datum (lsd). Missing records are indicated by dashes in place of the water-level value.

For wells not equipped with recorders, water-level measurements were obtained periodically by steel or electric tape. Tables of periodic water-level measurements in these wells show the date of measurement and the measured water-level value.

Hydrographs

Hydrographs are a graphic display of water-level fluctuations over a period of time. In this report, current water year and, when appropriate, period-of-record hydrographs are shown. Hydrographs that display periodic water-level measurements show points that may be connected with a dashed line from one measurement to the next. Hydrographs that display recorder data show a solid line representing the mean water level recorded for each day. Missing data are indicated by a blank space or break in a hydrograph. Missing data may occur as a result of recorder malfunctions, battery failures, or mechanical problems related to the response of the recorder's float mechanism to water-level fluctuations in a well.

Ground-Water-Quality Data

Data Collection and Computation

The ground-water-quality data in this report were obtained as a part of special studies in specific areas. Consequently, a number of chemical analyses are presented for some wells within a county but not for others. As a result, the records for this year, by themselves, do not provide a balanced view of ground-water quality statewide.

Most methods for collecting and analyzing water samples are described in the TWRI, which may be accessed from <http://water.usgs.gov/pubs/twri/>. Procedures for onsite measurements and for collecting, treating, and shipping samples are given in TWRI, Book 1, Chapter D2; Book 5, Chapters A1, A3, and A4 and Book 9, Chapters A1-A6. Also, detailed information on collecting, treating, and shipping samples may be obtained from the USGS Water Science Center. (See address shown on back of title page in this report.)

Laboratory Measurements

Analysis for sulfide and measurement of alkalinity, pH, water temperature, specific conductance, and dissolved oxygen are performed onsite. All other sample analyses are performed at the USGS laboratory in Lakewood, Colorado, unless otherwise noted. Methods used by the USGS laboratory are given in TWRI, Book 1, Chapter D2; and Book 5, Chapters A1, A3, and A4, which may be accessed from <http://water.usgs.gov/pubs/twri/>.

Access to USGS Water Data

The USGS provides near real-time stage and discharge data for many of the gaging stations equipped with the necessary

telemetry and historic daily mean and peak-flow discharge data for most current or discontinued gaging stations through the World Wide Web (WWW). These data may be accessed from <http://water.usgs.gov>.

Water-quality data and ground-water data also are available through the WWW. In addition, data can be provided in various machine-readable formats on various media. Information about the availability of specific types of data or products, and user charges, can be obtained locally from each USGS Water Science Center. (See address that is shown on the back of the title page of this report.)

Definition of Terms

Specialized technical terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. Definitions of common terms such as algae, water level, and precipitation are given in standard dictionaries. Not all terms defined in this alphabetical list apply to every State. See also table for converting English units to International System (SI) units. Other glossaries that also define water-related terms are accessible from <http://water.usgs.gov/glossaries.html>.

Acid neutralizing capacity (ANC) is the equivalent sum of all bases or base-producing materials, solutes plus particulates, in an aqueous system that can be titrated with acid to an equivalence point. This term designates titration of an "unfiltered" sample (formerly reported as alkalinity.)

Acre-foot (AC-FT, acre-ft) is a unit of volume, commonly used to measure quantities of water used or stored, equivalent to the volume of water required to cover 1 acre to a depth of 1 foot and equivalent to 43,560 cubic feet, 325,851 gallons, or 1,233 cubic meters. (See also "Annual runoff".)

Adenosine triphosphate (ATP) is an organic, phosphate-rich compound important in the transfer of energy in organisms. Its central role in living cells makes ATP an excellent indicator of the presence of living material in water. A measurement of ATP therefore provides a sensitive and rapid estimate of biomass. ATP is reported in micrograms per liter.

Algal growth potential (AGP) is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample. (See also "Biomass" and "Dry weight".)

Alkalinity is the capacity of solutes in an aqueous system to neutralize acid. This term designates titration of a “filtered” sample.

Annual runoff is the total quantity of water that is discharged (“runs off”) from a drainage basin in a year. Data reports may present annual runoff data as volumes in acre-feet, as discharges per unit of drainage area in cubic feet per second per square mile, or as depths of water on the drainage basin in inches.

Annual 7-day minimum is the lowest mean value for any 7-consecutive-day period in a year. Annual 7-day minimum values are reported herein for the calendar year and the water year (October 1 through September 30). Most low-flow frequency analyses use a climatic year (April 1-March 31), which tends to prevent the low-flow period from being artificially split between adjacent years. The date shown in the summary statistics table is the initial date of the 7-day period. (This value should not be confused with the 7-day, 10-year low-flow statistic.)

Aroclor is the registered trademark for a group of poly-chlorinated biphenyls that were manufactured by the Monsanto Company prior to 1976. Aroclors are assigned specific 4-digit reference numbers dependent upon molecular type and degree of substitution of the biphenyl ring hydrogen atoms by chlorine atoms. The first two digits of a numbered aroclor represent the molecular type, and the last two digits represent the percentage weight of the hydrogen-substituted chlorine.

Artificial substrate is a device that purposely is placed in a stream or lake for colonization of organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is collected. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multiplate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton collection. (See also “Substrate”)

Ash mass is the mass or amount of residue present after the residue from a dry-mass determination has been ashed in a muffle furnace at a temperature of 500 °C for 1 hour. Ash mass of zooplankton and phytoplankton is expressed in grams per cubic meter (g/m^3), and periphyton and benthic organisms in grams per square meter (g/m^2). (See also “Biomass” and “Dry mass”)

Aspect is the direction toward which a slope faces with respect to the compass.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, whereas others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Bankfull stage, as used in this report, is the stage at which a stream first overflows its natural banks formed by floods with 1- to 3-year recurrence intervals.

Base discharge (for peak discharge) is a discharge value, determined for selected stations, above which peak discharge data are published. The base discharge at each station is selected so that an average of about three peak flows per year will be published. (See also “Peak flow”)

Base flow is sustained flow of a stream in the absence of direct runoff. It includes natural and human-induced streamflows. Natural base flow is sustained largely by ground-water discharge.

Bed material is the sediment mixture of which a stream-bed, lake, pond, reservoir, or estuary bottom is composed. (See also “Bedload” and “Sediment”)

Bedload is material in transport that primarily is supported by the streambed. In this report, bedload is considered to consist of particles in transit from the bed to the top of the bedload sampler nozzle (an elevation ranging from 0.25 to 0.5 foot). These particles are retained in the bedload sampler. A sample collected with a pressure-differential bedload sampler also may contain a component of the suspended load.

Bedload discharge (tons per day) is the rate of sediment moving as bedload, reported as dry weight, that passes through a cross section in a given time. NOTE: Bedload discharge values in this report may include a component of the suspended-sediment discharge. A correction may be necessary when computing the total sediment discharge by summing the bedload discharge and the suspended-sediment discharge. (See also “Bedload,” “Dry weight,” “Sediment,” and “Suspended-sediment discharge”)

Benthic organisms are the group of organisms inhabiting the bottom of an aquatic environment. They include a number of types of organisms, such as bacteria, fungi, insect larvae and nymphs, snails, clams, and crayfish. They are useful as indicators of water quality.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, necessary for the decomposition of organic matter by microorganisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as mass per unit area or volume of habitat.

Biomass pigment ratio is an indicator of the total proportion of periphyton that are autotrophic (plants). This also is called the Autotrophic Index.

Blue-green algae (Cyanophyta) are a group of phytoplankton and periphyton organisms with a blue pigment in addition to a green pigment called chlorophyll. Blue-green algae can cause nuisance water-quality conditions in lakes and slow-flowing rivers; however, they are found commonly in streams throughout the year. The abundance of blue-green algae in phytoplankton samples is expressed as the number of cells per milliliter (cells/mL) or biovolume in cubic micrometers per milliliter ($\mu\text{m}^3/\text{mL}$). The abundance of blue-green algae in periphyton samples is given in cells per square centimeter (cells/cm^2) or biovolume per square centimeter ($\mu\text{m}^3/\text{cm}^2$). (See also "Phytoplankton" and "Periphyton")

Bottom material (See "Bed material")

Bulk electrical conductivity is the combined electrical conductivity of all material within a doughnut-shaped volume surrounding an induction probe. Bulk conductivity is affected by different physical and chemical properties of the material including the dissolved-solids content of the pore water, and the lithology and porosity of the rock.

Canadian Geodetic Vertical Datum 1928 is a geodetic datum derived from a general adjustment of Canada's first order level network in 1928.

Cell volume (biovolume) determination is one of several common methods used to estimate biomass of algae in aquatic systems. Cell members of algae are used frequently in aquatic surveys as an indicator of algal production. However, cell numbers alone cannot represent true biomass because of considerable cell-size variation among the algal species. Cell volume (μm^3) is determined by obtaining critical cell measurements or cell dimensions (for example, length, width, height, or radius) for 20 to 50 cells of each important species to obtain an average

biovolume per cell. Cells are categorized according to the correspondence of their cellular shape to the nearest geometric solid or combinations of simple solids (for example, spheres, cones, or cylinders). Representative formulae used to compute biovolume are as follows:

$$\text{sphere } 4/3 \pi r^3 \quad \text{cone } 1/3 \pi r^2 h \quad \text{cylinder } \pi r^2 h$$

pi (π) is the ratio of the circumference to the diameter of a circle; $\pi = 3.14159\dots$

From cell volume, total algal biomass expressed as biovolume ($\mu\text{m}^3/\text{mL}$) is thus determined by multiplying the number of cells of a given species by its average cell volume and then summing these volumes for all species.

Cells/volume refers to the number of cells of any organism that is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample volume, and generally are reported as cells or units per milliliter (mL) or liter (L).

Cfs-day (See "Cubic foot per second-day")

Channel bars, as used in this report, are the lowest prominent geomorphic features higher than the channel bed.

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with BOD or with carbonaceous organic pollution from sewage or industrial wastes. [See also "Biochemical oxygen demand (BOD)"]

***Clostridium perfringens* (*C. perfringens*)** is a spore-forming bacterium that is common in the feces of human and other warmblooded animals. Clostridial spores are being used experimentally as an indicator of past fecal contamination and the presence of microorganisms that are resistant to disinfection and environmental stresses. (See also "Bacteria")

Coliphages are viruses that infect and replicate in coliform bacteria. They are indicative of sewage contamination of water and of the survival and transport of viruses in the environment.

Color unit is produced by 1 milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

Confined aquifer is a term used to describe an aquifer containing water between two relatively

impermeable boundaries. The water level in a well tapping a confined aquifer stands above the top of the confined aquifer and can be higher or lower than the water table that may be present in the material above it. In some cases, the water level can rise above the ground surface, yielding a flowing well.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Continuous-record station is a site where data are collected with sufficient frequency to define daily mean values and variations within a day.

Control designates a feature in the channel that physically affects the water-surface elevation and thereby determines the stage-discharge relation at the gage. This feature may be a constriction of the channel, a bedrock outcrop, a gravel bar, an artificial structure, or a uniform cross section over a long reach of the channel.

Control structure, as used in this report, is a structure on a stream or canal that is used to regulate the flow or stage of the stream or to prevent the intrusion of saltwater.

Cubic foot per second (CFS, ft³/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point in 1 second. It is equivalent to approximately 7.48 gallons per second or approximately 449 gallons per minute, or 0.02832 cubic meters per second. The term “second-foot” sometimes is used synonymously with “cubic foot per second” but is now obsolete.

Cubic foot per second-day (CFS-DAY, Cfs-day, [(ft³/s)/d]) is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, 1.98347 acre-feet, 646,317 gallons, or 2,446.6 cubic meters. The daily mean discharges reported in the daily value data tables numerically are equal to the daily volumes in cfs-days, and the totals also represent volumes in cfs-days.

Cubic foot per second per square mile [CFSM, (ft³/s)/mi²] is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming the runoff is distributed uniformly in time and area. (See also “Annual runoff”)

Daily mean suspended-sediment concentration is the time-weighted mean concentration of suspended sediment passing a stream cross section during a 24-hour day. (See also

“Sediment” and “Suspended-sediment concentration”)

Daily record station is a site where data are collected with sufficient frequency to develop a record of one or more data values per day. The frequency of data collection can range from continuous recording to data collection on a daily or near-daily basis.

Data collection platform (DCP) is an electronic instrument that collects, processes, and stores data from various sensors, and transmits the data by satellite data relay, line-of-sight radio, and/or landline telemetry.

Data logger is a microprocessor-based data acquisition system designed specifically to acquire, process, and store data. Data usually are downloaded from onsite data loggers for entry into office data systems.

Datum is a surface or point relative to which measurements of height and/or horizontal position are reported. A vertical datum is a horizontal surface used as the zero point for measurements of gage height, stage, or elevation; a horizontal datum is a reference for positions given in terms of latitude-longitude, State Plane coordinates, or Universal Transverse Mercator (UTM) coordinates. (See also “Gage datum,” “Land-surface datum,” “National Geodetic Vertical Datum of 1929,” and “North American Vertical Datum of 1988”)

Diatoms (Bacillariophyta) are unicellular or colonial algae with a siliceous cell wall. The abundance of diatoms in phytoplankton samples is expressed as the number of cells per milliliter (cells/mL) or biovolume in cubic micrometers per milliliter (μm³/mL). The abundance of diatoms in periphyton samples is given in cells per square centimeter (cells/cm²) or biovolume per square centimeter (μm³/cm²). (See also “Phytoplankton” and “Periphyton”)

Diel is of or pertaining to a 24-hour period of time; a regular daily cycle.

Discharge, or **flow**, is the rate that matter passes through a cross section of a stream channel or other water body per unit of time. The term commonly refers to the volume of water (including, unless otherwise stated, any sediment or other constituents suspended or dissolved in the water) that passes a cross section in a stream channel, canal, pipeline, and so forth, within a given period of time (cubic feet per second). Discharge also can apply to the rate at which constituents, such as suspended

sediment, bedload, and dissolved or suspended chemicals, pass through a cross section, in which cases the quantity is expressed as the mass of constituent that passes the cross section in a given period of time (tons per day).

Dissolved refers to that material in a representative water sample that passes through a 0.45-micrometer membrane filter. This is a convenient operational definition used by Federal and State agencies that collect water-quality data. Determinations of “dissolved” constituent concentrations are made on sample water that has been filtered.

Dissolved oxygen (DO) is the molecular oxygen (oxygen gas) dissolved in water. The concentration in water is a function of atmospheric pressure, temperature, and dissolved-solids concentration of the water. The ability of water to retain oxygen decreases with increasing temperature or dissolved-solids concentration. Photosynthesis and respiration by plants commonly cause diurnal variations in dissolved-oxygen concentration in water from some streams.

Dissolved-solids concentration in water is the quantity of dissolved material in a sample of water. It is determined either analytically by the “residue-on-evaporation” method, or mathematically by totaling the concentrations of individual constituents reported in a comprehensive chemical analysis. During the analytical determination, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. In the mathematical calculation, the bicarbonate value, in milligrams per liter, is multiplied by 0.4917 to convert it to carbonate. Alternatively, alkalinity concentration (as mg/L CaCO₃) can be converted to carbonate concentration by multiplying by 0.60.

Diversity index (H) (Shannon index) is a numerical expression of evenness of distribution of aquatic organisms. The formula for diversity index is:

$$\bar{d} = - \sum_{i=1}^s \frac{n_i}{n} \log_2 \frac{n_i}{n} ,$$

where n_i is the number of individuals per taxon, n is the total number of individuals, and s is the total number of taxa in the sample of the community. Index values range from zero, when all the organisms in the sample are the same, to some positive number, when some or all of the organisms in the sample are different.

Drainage area of a stream at a specific location is that area upstream from the location, measured in a horizontal plane, that has a common outlet at the site for its surface runoff from precipitation that normally drains by gravity into a stream. Drainage areas given herein include all closed basins, or noncontributing areas, within the area unless otherwise specified.

Drainage basin is a part of the Earth’s surface that contains a drainage system with a common outlet for its surface runoff. (See “Drainage area”)

Dry mass refers to the mass of residue present after drying in an oven at 105 °C, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry-mass values are expressed in the same units as ash mass. (See also “Ash mass,” “Biomass,” and “Wet mass”)

Dry weight refers to the weight of animal tissue after it has been dried in an oven at 65 °C until a constant weight is achieved. Dry weight represents total organic and inorganic matter in the tissue. (See also “Wet weight”)

Embeddedness is the degree to which gravel-sized and larger particles are surrounded or enclosed by finer-sized particles. (See also “Substrate embeddedness class”)

Enterococcus bacteria commonly are found in the feces of humans and other warmblooded animals. Although some strains are ubiquitous and not related to fecal pollution, the presence of enterococci in water is an indication of fecal pollution and the possible presence of enteric pathogens. Enterococcus bacteria are those bacteria that produce pink to red colonies with black or reddish-brown precipitate after incubation at 41 °C on mE agar (nutrient medium for bacterial growth) and subsequent transfer to EIA medium. Enterococci include *Streptococcus faecalis*, *Streptococcus faecium*, *Streptococcus avium*, and their variants. (See also “Bacteria”)

EPT Index is the total number of distinct taxa within the insect orders Ephemeroptera, Plecoptera, and Trichoptera. This index summarizes the taxa richness within the aquatic insects that generally are considered pollution sensitive; the index usually decreases with pollution.

Escherichia coli (*E. coli*) are bacteria present in the intestine and feces of warmblooded animals. *E. coli* are a member species of the fecal coliform

group of indicator bacteria. In the laboratory, they are defined as those bacteria that produce yellow or yellow-brown colonies on a filter pad saturated with urea substrate broth after primary culturing for 22 to 24 hours at 44.5 °C on mTEC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample. (See also “Bacteria”)

Estimated (E) value of a concentration is reported when an analyte is detected and all criteria for a positive result are met. If the concentration is less than the method detection limit (MDL), an E code will be reported with the value. If the analyte is identified qualitatively as present, but the quantitative determination is substantially more uncertain, the National Water Quality Laboratory will identify the result with an E code even though the measured value is greater than the MDL. A value reported with an E code should be used with caution. When no analyte is detected in a sample, the default reporting value is the MDL preceded by a less than sign (<). For bacteriological data, concentrations are reported as estimated when results are based on non-ideal colony counts.

Euglenoids (Euglenophyta) are a group of algae that usually are free-swimming and rarely creeping. They have the ability to grow either photosynthetically in the light or heterotrophically in the dark. (See also “Phytoplankton”)

Extractable organic halides (EOX) are organic compounds that contain halogen atoms such as chlorine. These organic compounds are semivolatile and extractable by ethyl acetate from air-dried streambed sediment. The ethyl acetate extract is combusted, and the concentration is determined by microcoulometric determination of the halides formed. The concentration is reported as micrograms of chlorine per gram of the dry weight of the streambed sediment.

Fecal coliform bacteria are present in the intestines or feces of warmblooded animals. They often are used as indicators of the sanitary quality of the water. In the laboratory, they are defined as all organisms that produce blue colonies within 24 hours when incubated at 44.5 °C plus or minus 0.2 °C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample. (See also “Bacteria”)

Fecal streptococcal bacteria are present in the intestines of warmblooded animals and are ubiquitous in the environment. They are characterized as gram-positive, cocci bacteria that are capable of growth in brain-heart infusion broth. In the laboratory, they are defined as all the organisms that produce red or pink colonies within 48 hours at 35 °C plus or minus 1.0 °C on KF-streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample. (See also “Bacteria”)

Filtered pertains to constituents in a water sample passed through a filter of specified pore diameter, most commonly 0.45 micrometer or less for inorganic analytes and 0.7 micrometer for organic analytes.

Filtered, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that has passed through a filter has been extracted. Complete recovery is not achieved by the extraction procedure and thus the analytical determination represents something less than 95 percent of the total constituent concentration in the sample. To achieve comparability of analytical data, equivalent extraction procedures are required of all laboratories performing such analyses because different procedures are likely to produce different analytical results.

Fire algae (Pyrrophyta) are free-swimming unicells characterized by a red pigment spot. (See also “Phytoplankton”)

Flow-duration percentiles are values on a scale of 100 that indicate the percentage of time for which a flow is exceeded. For example, the 90th percentile of river flow is greater than or equal to 90 percent of all recorded flow rates.

Gage datum is a horizontal surface used as a zero point for measurement of stage or gage height. This surface usually is located slightly below the lowest point of the stream bottom such that the gage height is usually slightly greater than the maximum depth of water. Because the gage datum is not an actual physical object, the datum is usually defined by specifying the elevations of permanent reference marks such as bridge abutments and survey monuments, and the gage is set to agree with the reference marks. Gage datum is a local datum that is maintained independently of any national geodetic datum. However, if the elevation of the gage datum relative to the national datum (North American Vertical Datum of 1988 or National Geodetic

Vertical Datum of 1929) has been determined, then the gage readings can be converted to elevations above the national datum by adding the elevation of the gage datum to the gage reading.

Gage height (G.H.) is the water-surface elevation, in feet above the gage datum. If the water surface is below the gage datum, the gage height is negative. Gage height often is used interchangeably with the more general term “stage,” although gage height is more appropriate in reference to a reading on a gage.

Gage values are values that are recorded, transmitted, and/or computed from a gaging station. Gage values typically are collected at 5-, 15-, or 30-minute intervals.

Gaging station is a site on a stream, canal, lake, or reservoir where systematic observations of stage, discharge, or other hydrologic data are obtained.

Gas chromatography/flame ionization detector (GC/FID) is a laboratory analytical method used as a screening technique for semivolatile organic compounds that are extractable from water in methylene chloride.

Geomorphic channel units, as used in this report, are fluvial geomorphic descriptors of channel shape and stream velocity. Pools, riffles, and runs are types of geomorphic channel units considered for National Water-Quality Assessment (NAWQA) Program habitat sampling.

Green algae (Chlorophyta) are unicellular or colonial algae with chlorophyll pigments similar to those in terrestrial green plants. Some forms of green algae produce mats or floating “moss” in lakes. The abundance of green algae in phytoplankton samples is expressed as the number of cells per milliliter (cells/mL) or biovolume in cubic micrometers per milliliter ($\mu\text{m}^3/\text{mL}$). The abundance of green algae in periphyton samples is given in cells per square centimeter (cells/cm²) or biovolume per square centimeter ($\mu\text{m}^3/\text{cm}^2$). (See also “Phytoplankton” and “Periphyton”)

Habitat, as used in this report, includes all nonliving (physical) aspects of the aquatic ecosystem, although living components like aquatic macrophytes and riparian vegetation also are usually included. Measurements of habitat typically are made over a wider geographic scale than are measurements of species distribution.

Habitat quality index is the qualitative description (level 1) of instream habitat and riparian conditions surrounding the reach sampled. Scores range from 0 to 100 percent with higher scores indicative of desirable habitat conditions for aquatic life. Index only applicable to wadable streams.

Hardness of water is a physical-chemical characteristic that commonly is recognized by the increased quantity of soap required to produce lather. It is computed as the sum of equivalents of polyvalent cations (primarily calcium and magnesium) and is expressed as the equivalent concentration of calcium carbonate (CaCO₃).

High tide is the maximum height reached by each rising tide. The high-high and low-high tides are the higher and lower of the two high tides, respectively, of each tidal day. See NOAA Web site: <http://www.csc.noaa.gov/text/glossary.html> (See “High water”)

Hilsenhoff’s Biotic Index (HBI) is an indicator of organic pollution that uses tolerance values to weight taxa abundances; usually increases with pollution. It is calculated as follows:

$$HBI = \frac{\sum (n)(a)}{N}$$

where n is the number of individuals of each taxon, a is the tolerance value of each taxon, and N is the total number of organisms in the sample.

Horizontal datum (See “Datum”)

Hydrologic index stations referred to in this report are continuous-record gaging stations that have been selected as representative of streamflow patterns for their respective regions. Station locations are shown on index maps.

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as defined by the former Office of Water Data Coordination and delineated on the State Hydrologic Unit Maps by the USGS. Each hydrologic unit is identified by an 8-digit number.

Inch (IN., in.), in reference to streamflow, as used in this report, refers to the depth to which the drainage area would be covered with water if all of the runoff for a given time period were distributed uniformly on it. (See also “Annual runoff”)

Instantaneous discharge is the discharge at a particular instant of time. (See also “Discharge”)

International Boundary Commission Survey Datum refers to a geodetic datum established at

numerous monuments along the United States-Canada boundary by the International Boundary Commission.

Island, as used in this report, is a mid-channel bar that has permanent woody vegetation, is flooded once a year, on average, and remains stable except during large flood events.

Laboratory reporting level (LRL) generally is equal to twice the yearly determined long-term method detection level (LT-MDL). The LRL controls false negative error. The probability of falsely reporting a nondetection for a sample that contained an analyte at a concentration equal to or greater than the LRL is predicted to be less than or equal to 1 percent. The value of the LRL will be reported with a “less than” (<) remark code for samples in which the analyte was not detected. The National Water Quality Laboratory (NWQL) collects quality-control data from selected analytical methods on a continuing basis to determine LT-MDLs and to establish LRLs. These values are reevaluated annually on the basis of the most current quality-control data and, therefore, may change. The LRL replaces the term ‘non-detection value’ (NDV).

Land-surface datum (lsd) is a datum plane that is approximately at land surface at each ground-water observation well.

Latent heat flux (often used interchangeably with latent heat-flux density) is the amount of heat energy that converts water from liquid to vapor (evaporation) or from vapor to liquid (condensation) across a specified cross-sectional area per unit time. Usually expressed in watts per square meter.

Light-attenuation coefficient, also known as the extinction coefficient, is a measure of water clarity. Light is attenuated according to the Lambert-Beer equation:

$$I = I_0 e^{-\lambda L} ,$$

where I_0 is the source light intensity, I is the light intensity at length L (in meters) from the source, λ is the light-attenuation coefficient, and e is the base of the natural logarithm. The light-attenuation coefficient is defined as

$$\lambda = -\frac{1}{L} \log_e \frac{I}{I_0} .$$

Lipid is any one of a family of compounds that are insoluble in water and that make up one of the principal components of living cells. Lipids include fats, oils, waxes, and steroids. Many

environmental contaminants such as organochlorine pesticides are lipophilic.

Long-term method detection level (LT-MDL) is a detection level derived by determining the standard deviation of a minimum of 24 method detection limit (MDL) spike-sample measurements over an extended period of time. LT-MDL data are collected on a continuous basis to assess year-to-year variations in the LT-MDL. The LT-MDL controls false positive error. The chance of falsely reporting a concentration at or greater than the LT-MDL for a sample that did not contain the analyte is predicted to be less than or equal to 1 percent.

Low tide is the minimum height reached by each falling tide. The high-low and low-low tides are the higher and lower of the two low tides, respectively, of each tidal day. See *NOAA Web site: <http://www.csc.noaa.gov/text/glossary.html>* (See “Low water”)

Macrophytes are the macroscopic plants in the aquatic environment. The most common macrophytes are the rooted vascular plants that usually are arranged in zones in aquatic ecosystems and restricted in the area by the extent of illumination through the water and sediment deposition along the shoreline.

Mean concentration of suspended sediment (Daily mean suspended-sediment concentration) is the time-weighted concentration of suspended sediment passing a stream cross section during a given time period. (See also “Daily mean suspended-sediment concentration” and “Suspended-sediment concentration”)

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period. (See also “Discharge”)

Mean high or low tide is the average of all high or low tides, respectively, over a specific period.

Mean sea level is a local tidal datum. It is the arithmetic mean of hourly heights observed over the National Tidal Datum Epoch. Shorter series are specified in the name; for example, monthly mean sea level and yearly mean sea level. In order that they may be recovered when needed, such datums are referenced to fixed points known as benchmarks. (See also “Datum”)

Measuring point (MP) is an arbitrary permanent reference point from which the distance to water surface in a well is measured to obtain water level.

Megahertz is a unit of frequency. One megahertz equals one million cycles per second.

Membrane filter is a thin microporous material of specific pore size used to filter bacteria, algae, and other very small particles from water.

Metamorphic stage refers to the stage of development that an organism exhibits during its transformation from an immature form to an adult form. This developmental process exists for most insects, and the degree of difference from the immature stage to the adult form varies from relatively slight to pronounced, with many intermediates. Examples of metamorphic stages of insects are egg-larva-adult or egg-nymph-adult.

Method code is a one-character code that identifies the analytical or field method used to determine a value stored in the National Water Information System (NWIS).

Method detection limit (MDL) is the minimum concentration of a substance that can be measured and reported with 99-percent confidence that the analyte concentration is greater than zero. It is determined from the analysis of a sample in a given matrix containing the analyte. At the MDL concentration, the risk of a false positive is predicted to be less than or equal to 1 percent.

Method of Cubatures is a method of computing discharge in tidal estuaries based on the conservation of mass equation.

Methylene blue active substances (MBAS) indicate the presence of detergents (anionic surfactants). The determination depends on the formation of a blue color when methylene blue dye reacts with synthetic anionic detergent compounds.

Micrograms per gram (UG/G, $\mu\text{g/g}$) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the element per unit mass (gram) of material analyzed.

Micrograms per kilogram (UG/KG, $\mu\text{g/kg}$) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the constituent per unit mass (kilogram) of the material analyzed. One microgram per kilogram is equivalent to 1 part per billion.

Micrograms per liter (UG/L, $\mu\text{g/L}$) is a unit expressing the concentration of chemical constituents in water as mass (micrograms) of constituent per unit volume (liter) of water. One thousand micrograms per liter is equivalent to 1 milligram per liter. One microgram per liter is equivalent to 1 part per billion.

Microsiemens per centimeter (US/CM, $\mu\text{S/cm}$) is a unit expressing the amount of electrical conductivity of a solution as measured between opposite faces of a centimeter cube of solution at a specified temperature. Siemens is the International System of Units nomenclature. It is synonymous with mhos and is the reciprocal of resistance in ohms.

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in water as the mass (milligrams) of constituent per unit volume (liter) of water. Concentration of suspended sediment also is expressed in milligrams per liter and is based on the mass of dry sediment per liter of water-sediment mixture.

Minimum reporting level (MRL) is the smallest measured concentration of a constituent that may be reliably reported by using a given analytical method.

Miscellaneous site, miscellaneous station, or miscellaneous sampling site is a site where streamflow, sediment, and/or water-quality data or water-quality or sediment samples are collected once, or more often on a random or discontinuous basis to provide better areal coverage for defining hydrologic and water-quality conditions over a broad area in a river basin.

Most probable number (MPN) is an index of the number of coliform bacteria that, more probably than any other number, would give the results shown by the laboratory examination; it is not an actual enumeration. MPN is determined from the distribution of gas-positive cultures among multiple inoculated tubes.

Multiple-plate samplers are artificial substrates of known surface area used for obtaining benthic invertebrate samples. They consist of a series of spaced, hardboard plates on an eyebolt.

Nanograms per liter (NG/L, ng/L) is a unit expressing the concentration of chemical constituents in solution as mass (nanograms) of solute per unit volume (liter) of water. One million nanograms per liter is equivalent to 1 milligram per liter.

National Geodetic Vertical Datum of 1929 (NGVD 29) is a fixed reference adopted as a standard geodetic datum for elevations determined by leveling. It formerly was called "Sea Level Datum of 1929" or "mean sea level." Although the datum was derived from the mean sea level at 26 tide stations, it does not

necessarily represent local mean sea level at any particular place. See NOAA Web site: <http://www.ngs.noaa.gov/faq.shtml#WhatVD29VD88> (See “North American Vertical Datum of 1988”)

Natural substrate refers to any naturally occurring immersed or submersed solid surface, such as a rock or tree, upon which an organism lives. (See also “Substrate”)

Nekton are the consumers in the aquatic environment and consist of large, free-swimming organisms that are capable of sustained, directed mobility.

Nonfilterable refers to the portion of the total residue retained by a filter.

North American Datum of 1927 (NAD 27) is the horizontal control datum for the United States that was defined by a location and azimuth on the Clarke spheroid of 1866.

North American Datum of 1983 (NAD 83) is the horizontal control datum for the United States, Canada, Mexico, and Central America that is based on the adjustment of 250,000 points including 600 satellite Doppler stations that constrain the system to a geocentric origin. NAD 83 has been officially adopted as the legal horizontal datum for the United States by the Federal government.

North American Vertical Datum of 1988 (NAVD 88) is a fixed reference adopted as the official civilian vertical datum for elevations determined by Federal surveying and mapping activities in the United States. This datum was established in 1991 by minimum-constraint adjustment of the Canadian, Mexican, and United States first-order terrestrial leveling networks.

Open or screened interval is the length of unscreened opening or of well screen through which water enters a well, in feet below land surface.

Organic carbon (OC) is a measure of organic matter present in aqueous solution, suspension, or bottom sediment. May be reported as dissolved organic carbon (DOC), particulate organic carbon (POC), or total organic carbon (TOC).

Organic mass or **volatile mass** of a living substance is the difference between the dry mass and ash mass and represents the actual mass of the living matter. Organic mass is expressed in the same units as for ash mass and dry mass. (See also “Ash mass,” “Biomass,” and “Dry mass”)

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meter (m²), acre, or hectare. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliter (mL) or liter (L). Numbers of planktonic organisms can be expressed in these terms.

Organochlorine compounds are any chemicals that contain carbon and chlorine. Organochlorine compounds that are important in investigations of water, sediment, and biological quality include certain pesticides and industrial compounds.

Parameter code is a 5-digit number used in the USGS computerized data system, National Water Information System (NWIS), to uniquely identify a specific constituent or property.

Partial-record station is a site where discrete measurements of one or more hydrologic parameters are obtained over a period of time without continuous data being recorded or computed. A common example is a crest-stage gage partial-record station at which only peak stages and flows are recorded.

Particle size is the diameter, in millimeters (mm), of a particle determined by sieve or sedimentation methods. The sedimentation method uses the principle of Stokes Law to calculate sediment particle sizes. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube, sedigraph) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification, as used in this report, agrees with the recommendation made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

Classification	Size (millimeters)	Method of analysis
Clay	>0.00024–0.004	Sedimentation
Silt	>0.004–0.062	Sedimentation
Sand	>0.062–2.0	Sedimentation or sieve
Gravel	>2.0–64.0	Sieve
Cobble	>64–256	Manual measurement
Boulder	>256	Manual measurement

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. For the sedimentation method, most of the organic matter is removed, and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native water analysis.

Peak flow (peak stage) is an instantaneous local maximum value in the continuous time series of streamflows or stages, preceded by a period of increasing values and followed by a period of decreasing values. Several peak values ordinarily occur in a year. The maximum peak value in a year is called the annual peak; peaks lower than the annual peak are called secondary peaks. Occasionally, the annual peak may not be the maximum value for the year; in such cases, the maximum value occurs at midnight at the beginning or end of the year, on the recession from or rise toward a higher peak in the adjoining year. If values are recorded at a discrete series of times, the peak recorded value may be taken as an approximation of the true peak, which may occur between the recording instants. If the values are recorded with finite precision, a sequence of equal recorded values may occur at the peak; in this case, the first value is taken as the peak.

Percent composition or percent of total is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population, in terms of types, numbers, weight, mass, or volume.

Percent shading is a measure of the amount of sunlight potentially reaching the stream. A clinometer is used to measure left and right bank canopy angles. These values are added together, divided by 180, and multiplied by 100 to compute percentage of shade.

Periodic-record station is a site where stage, discharge, sediment, chemical, physical, or other hydrologic measurements are made one or more times during a year but at a frequency insufficient to develop a daily record.

Periphyton is the assemblage of microorganisms attached to and living upon submerged solid surfaces. Although primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms. Periphyton are useful indicators of water quality.

Pesticides are chemical compounds used to control undesirable organisms. Major categories of

pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides.

pH of water is the negative logarithm of the hydrogen-ion activity. Solutions with pH less than 7.0 standard units are termed "acidic," and solutions with a pH greater than 7.0 are termed "basic." Solutions with a pH of 7.0 are neutral. The presence and concentration of many dissolved chemical constituents found in water are affected, in part, by the hydrogen-ion activity of water. Biological processes including growth, distribution of organisms, and toxicity of the water to organisms also are affected, in part, by the hydrogen-ion activity of water.

Phytoplankton is the plant part of the plankton. They usually are microscopic, and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment and commonly are known as algae. (See also "Plankton")

Picocurie (PC, pCi) is one-trillionth (1×10^{-12}) of the amount of radioactive nuclide represented by a curie (Ci). A curie is the quantity of radioactive nuclide that yields 3.7×10^{10} radioactive disintegrations per second (dps). A picocurie yields 0.037 dps, or 2.22 dpm (disintegrations per minute).

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers. Concentrations are expressed as a number of cells per milliliter (cells/mL) of sample.

Polychlorinated biphenyls (PCBs) are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure to organochlorine insecticides.

Polychlorinated naphthalenes (PCNs) are industrial chemicals that are mixtures of chlorinated naphthalene compounds. They have properties and applications similar to polychlorinated biphenyls (PCBs) and have been identified in commercial PCB preparations.

Pool, as used in this report, is a small part of a stream reach with little velocity, commonly with water deeper than surrounding areas.

Primary productivity is a measure of the rate at which new organic matter is formed and accumulated through photo-synthetic and chemosynthetic activity of producer organisms (chiefly, green plants). The rate of primary production is estimated by measuring the amount of oxygen released (oxygen method) or the amount of carbon assimilated (carbon method) by the plants.

Primary productivity (carbon method) is expressed as milligrams of carbon per area per unit time [$\text{mg C}/(\text{m}^2/\text{time})$] for periphyton and macrophytes or per volume [$\text{mg C}/(\text{m}^3/\text{time})$] for phytoplankton. The carbon method defines the amount of carbon dioxide consumed as measured by radioactive carbon (carbon-14). The carbon-14 method is of greater sensitivity than the oxygen light- and dark-bottle method and is preferred for use with unenriched water samples. Unit time may be either the hour or day, depending on the incubation period. (See also “Primary productivity”)

Primary productivity (oxygen method) is expressed as milligrams of oxygen per area per unit time [$\text{mg O}/(\text{m}^2/\text{time})$] for periphyton and macrophytes or per volume [$\text{mg O}/(\text{m}^3/\text{time})$] for phytoplankton. The oxygen method defines production and respiration rates as estimated from changes in the measured dissolved-oxygen concentration. The oxygen light- and dark-bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period. (See also “Primary productivity”)

Radioisotopes are isotopic forms of elements that exhibit radioactivity. Isotopes are varieties of a chemical element that differ in atomic weight but are very nearly alike in chemical properties. The difference arises because the atoms of the isotopic forms of an element differ in the number of neutrons in the nucleus; for example, ordinary chlorine is a mixture of isotopes having atomic weights of 35 and 37, and the natural mixture has an atomic weight of about 35.453. Many of the elements similarly exist as mixtures of isotopes, and a great many new isotopes have been produced in the operation of nuclear devices such as the cyclotron. There are 275 isotopes of the 81 stable elements, in addition to more than 800 radioactive isotopes.

Reach, as used in this report, is a length of stream that is chosen to represent a uniform set of

physical, chemical, and biological conditions within a segment. It is the principal sampling unit for collecting physical, chemical, and biological data.

Recoverable is the amount of a given constituent that is in solution after a representative water sample has been extracted or digested. Complete recovery is not achieved by the extraction or digestion and thus the determination represents something less than 95 percent of the constituent present in the sample. To achieve comparability of analytical data, equivalent extraction or digestion procedures are required of all laboratories performing such analyses because different procedures are likely to produce different analytical results. (See also “Bed material”)

Recurrence interval, also referred to as return period, is the average time, usually expressed in years, between occurrences of hydrologic events of a specified type (such as exceedances of a specified high flow or nonexceedance of a specified low flow). The terms “return period” and “recurrence interval” do not imply regular cyclic occurrence. The actual times between occurrences vary randomly, with most of the times being less than the average and a few being substantially greater than the average. For example, the 100-year flood is the flow rate that is exceeded by the annual maximum peak flow at intervals whose average length is 100 years (that is, once in 100 years, on average); almost two-thirds of all exceedances of the 100-year flood occur less than 100 years after the previous exceedance, half occur less than 70 years after the previous exceedance, and about one-eighth occur more than 200 years after the previous exceedance. Similarly, the 7-day, 10-year low flow ($7Q_{10}$) is the flow rate below which the annual minimum 7-day-mean flow dips at intervals whose average length is 10 years (that is, once in 10 years, on average); almost two-thirds of the nonexceedances of the $7Q_{10}$ occur less than 10 years after the previous nonexceedance, half occur less than 7 years after, and about one-eighth occur more than 20 years after the previous nonexceedance. The recurrence interval for annual events is the reciprocal of the annual probability of occurrence. Thus, the 100-year flood has a 1-percent chance of being exceeded by the maximum peak flow in any year, and there is a 10-percent chance in any year that the annual minimum 7-day-mean flow will be less than the $7Q_{10}$.

Replicate samples are a group of samples collected in a manner such that the samples are thought to be essentially identical in composition.

Return period (See “Recurrence interval”)

Riffle, as used in this report, is a shallow part of the stream where water flows swiftly over completely or partially submerged obstructions to produce surface agitation.

River mileage is the curvilinear distance, in miles, measured upstream from the mouth along the meandering path of a stream channel in accordance with Bulletin No. 14 (October 1968) of the Water Resources Council and typically is used to denote location along a river.

Run, as used in this report, is a relatively shallow part of a stream with moderate velocity and little or no surface turbulence.

Runoff is the quantity of water that is discharged (“runs off”) from a drainage basin during a given time period. Runoff data may be presented as volumes in acre-feet, as mean discharges per unit of drainage area in cubic feet per second per square mile, or as depths of water on the drainage basin in inches. (See also “Annual runoff”)

Salinity is the total quantity of dissolved salts, measured by weight in parts per thousand. Values in this report are calculated from specific conductance and temperature. Seawater has an average salinity of about 35 parts per thousand (for additional information, refer to: Miller, R.L., Bradford, W.L., and Peters, N.E., 1988, Specific conductance: theoretical considerations and application to analytical quality control: U.S. Geological Survey Water-Supply Paper 2311, 16 p.)

Sea level, as used in this report, refers to one of the two commonly used national vertical datums (NGVD 1929 or NAVD 1988). See separate entries for definitions of these datums.

Sediment is solid material that originates mostly from disintegrated rocks; when transported by, suspended in, or deposited from water, it is referred to as “fluvial sediment.” Sediment includes chemical and biochemical precipitates and decomposed organic material, such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are affected by environmental and land-use factors. Some major factors are topography, soil characteristics, land cover, and depth and intensity of precipitation.

Sensible heat flux (often used interchangeably with latent sensible heat-flux density) is the amount of heat energy that moves by turbulent transport through the air across a specified cross-sectional area per unit time and goes to heating (cooling) the air. Usually expressed in watts per square meter.

Seven-day, 10-year low flow ($7Q_{10}$) is the discharge below which the annual 7-day minimum flow falls in 1 year out of 10 on the long-term average. The recurrence interval of the $7Q_{10}$ is 10 years; the chance that the annual 7-day minimum flow will be less than the $7Q_{10}$ is 10 percent in any given year. (See also “Annual 7-day minimum” and “Recurrence interval”)

Shelves, as used in this report, are streambank features extending nearly horizontally from the flood plain to the lower limit of persistent woody vegetation.

Sodium adsorption ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions within soil and is an index of sodium or alkali hazard to the soil. Sodium hazard in water is an index that can be used to evaluate the suitability of water for irrigating crops.

Soil heat flux (often used interchangeably with soil heat-flux density) is the amount of heat energy that moves by conduction across a specified cross-sectional area of soil per unit time and goes to heating (or cooling) the soil. Usually expressed in watts per square meter.

Soil-water content is the water lost from the soil upon drying to constant mass at 105 °C; expressed either as mass of water per unit mass of dry soil or as the volume of water per unit bulk volume of soil.

Specific electrical conductance (conductivity) is a measure of the capacity of water (or other media) to conduct an electrical current. It is expressed in microsiemens per centimeter at 25 °C. Specific electrical conductance is a function of the types and quantity of dissolved substances in water and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is from 55 to 75 percent of the specific conductance (in microsiemens). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

Stable isotope ratio (per MIL) is a unit expressing the ratio of the abundance of two radioactive isotopes. Isotope ratios are used in hydrologic studies to determine the age or source of specific water, to evaluate mixing of different water, as an aid in determining reaction rates, and other chemical or hydrologic processes.

Stage (See “Gage height”)

Stage-discharge relation is the relation between the water-surface elevation, termed stage (gage height), and the volume of water flowing in a channel per unit time.

Streamflow is the discharge that occurs in a natural channel. Although the term “discharge” can be applied to the flow of a canal, the word “streamflow” uniquely describes the discharge in a surface stream course. The term “streamflow” is more general than “runoff” as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Substrate is the physical surface upon which an organism lives.

Substrate embeddedness class is a visual estimate of riffle streambed substrate larger than gravel that is surrounded or covered by fine sediment (<2 mm, sand or finer). Below are the class categories expressed as the percentage covered by fine sediment::

- 0 < no gravel or larger substrate.
- 1 > 75 percent.
- 2 51–75 percent.
- 3 26–51 percent.
- 4 5–25 percent.
- 5 < 5 percent.

Surface area of a lake is that area (acres) encompassed by the boundary of the lake as shown on USGS topographic maps, or other available maps or photographs. Because surface area changes with lake stage, surface areas listed in this report represent those determined for the stage at the time the maps or photographs were obtained.

Surficial bed material is the upper surface (0.1 to 0.2 foot) of the bed material that is sampled using U.S. Series Bed-Material Samplers.

Surrogate is an analyte that behaves similarly to a target analyte, but that is highly unlikely to occur in a sample. A surrogate is added to a sample in known amounts before extraction and is measured with the same laboratory procedures used to measure the target analyte. Its purpose is

to monitor method performance for an individual sample.

Suspended is the amount (concentration) of undissolved material in a water-sediment mixture. Most commonly refers to that material retained on a 0.45-micrometer filter.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45-micrometer filter has been extracted or digested. Complete recovery is not achieved by the extraction or digestion procedures and thus the determination represents less than 95 percent of the constituent present in the sample. To achieve comparability of analytical data, equivalent extraction or digestion procedures are required of all laboratories performing such analyses because different procedures are likely to produce different analytical results. (See also “Suspended”)

Suspended sediment is sediment carried in suspension by the turbulent components of the fluid or by the Brownian movement (a law of physics). (See also “Sediment”)

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 foot above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L). The analytical technique uses the mass of all of the sediment and the net weight of the water-sediment mixture in a sample to compute the suspended-sediment concentration. (See also “Sediment” and “Suspended sediment”)

Suspended-sediment discharge (tons/d) is the rate of sediment transport, as measured by dry mass or volume, that passes a cross section in a given time. It is calculated in units of tons per day as follows: concentration (mg/L) x discharge (ft³/s) x 0.0027. (See also “Sediment,” “Suspended sediment,” and “Suspended-sediment concentration”)

Suspended-sediment load is a general term that refers to a given characteristic of the material in suspension that passes a point during a specified period of time. The term needs to be qualified, such as “annual suspended-sediment load” or “sand-size suspended-sediment load,” and so on. It is not synonymous with either suspended-sediment discharge or concentration. (See also “Sediment”)

Suspended solids, total residue at 105° C

concentration is the concentration of inorganic and organic material retained on a filter, expressed as milligrams of dry material per liter of water (mg/L). An aliquot of the sample is used for this analysis.

Suspended, total is the total amount of a given constituent in the part of a water-sediment sample that is retained on a 0.45-micrometer membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. Knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as “suspended, total.” Determinations of “suspended, total” constituents are made either by directly analyzing portions of the suspended material collected on the filter or, more commonly, by difference, on the basis of determinations of (1) dissolved and (2) total concentrations of the constituent. (See also “Suspended”)

Synoptic studies are short-term investigations of specific water-quality conditions during selected seasonal or hydrologic periods to provide improved spatial resolution for critical water-quality conditions. For the period and conditions sampled, they assess the spatial distribution of selected water-quality conditions in relation to causative factors, such as land use and contaminant sources.

Taxa (Species) richness is the number of species (taxa) present in a defined area or sampling unit.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchical scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, *Hexagenia limbata*, is the following:

Kingdom: Animal
 Phylum: Arthropoda
 Class: Insecta
 Order: Ephemeroptera
 Family: Ephemeridae
 Genus: *Hexagenia*
 Species: *Hexagenia limbata*

Thalweg is the line formed by connecting points of minimum streambed elevation (deepest part of the channel).

Thermograph is an instrument that continuously records variations of temperature on a chart. The more general term “temperature recorder” is used in the table descriptions and refers to any instrument that records temperature whether on a chart, a tape, or any other medium.

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water resulting from the mixing of flow proportionally to the duration of the concentration.

Tons per acre-foot (T/acre-ft) is the dry mass (tons) of a constituent per unit volume (acre-foot) of water. It is computed by multiplying the concentration of the constituent, in milligrams per liter, by 0.00136.

Tons per day (T/DAY, tons/d) is a common chemical or sediment discharge unit. It is the quantity of a substance in solution, in suspension, or as bedload that passes a stream section during a 24-hour period. It is equivalent to 2,000 pounds per day, or 0.9072 metric ton per day.

Total is the amount of a given constituent in a representative whole-water (unfiltered) sample, regardless of the constituent’s physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as “total.” (Note that the word “total” does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determined at least 95 percent of the constituent in the sample.)

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. This group includes coliforms that inhabit the intestine of warmblooded animals and those that inhabit soils. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria that ferment lactose with

gas formation within 48 hours at 35 °C. In the laboratory, these bacteria are defined as all the organisms that produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35 °C plus or minus 1.0 °C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 milliliters of sample. (See also “Bacteria”)

Total discharge is the quantity of a given constituent, measured as dry mass or volume, that passes a stream cross section per unit of time. When referring to constituents other than water, this term needs to be qualified, such as “total sediment discharge,” “total chloride discharge,” and so on.

Total in bottom material is the amount of a given constituent in a representative sample of bottom material. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as “total in bottom material.”

Total length (fish) is the straight-line distance from the anterior point of a fish specimen’s snout, with the mouth closed, to the posterior end of the caudal (tail) fin, with the lobes of the caudal fin squeezed together.

Total load refers to all of a constituent in transport. When referring to sediment, it includes suspended load plus bed load.

Total organism count is the number of organisms collected and enumerated in any particular sample. (See also “Organism count/volume”)

Total recoverable is the amount of a given constituent in a whole-water sample after a sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the “total” amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data for whole-water samples, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures may produce different analytical results.

Total sediment discharge is the mass of suspended-sediment plus bed-load transport, measured as dry weight, that passes a cross section in a given time. It is a rate and is reported as tons per day. (See also “Bedload,” “Bedload discharge,” “Sediment,” “Suspended sediment,” and “Suspended-sediment concentration”)

Total sediment load or **total load** is the sediment in transport as bedload and suspended-sediment load. The term may be qualified, such as “annual suspended-sediment load” or “sand-size suspended-sediment load,” and so on. It differs from total sediment discharge in that load refers to the material, whereas discharge refers to the quantity of material, expressed in units of mass per unit time. (See also “Sediment,” “Suspended-sediment load,” and “Total load”)

Transect, as used in this report, is a line across a stream perpendicular to the flow and along which measurements are taken, so that morphological and flow characteristics along the line are described from bank to bank. Unlike a cross section, no attempt is made to determine known elevation points along the line.

Turbidity is an expression of the optical properties of a liquid that causes light rays to be scattered and absorbed rather than transmitted in straight lines through water. Turbidity, which can make water appear cloudy or muddy, is caused by the presence of suspended and dissolved matter, such as clay, silt, finely divided organic matter, plankton and other microscopic organisms, organic acids, and dyes (ASTM International, 2003, D1889–00 Standard test method for turbidity of water, *in* ASTM International, Annual Book of ASTM Standards, Water and Environmental Technology, v. 11.01: West Conshohocken, Pennsylvania, 6 p.). The color of water, whether resulting from dissolved compounds or suspended particles, can affect a turbidity measurement. To ensure that USGS turbidity data can be understood and interpreted properly within the context of the instrument used and site conditions encountered, data from each instrument type are stored and reported in the National Water Information System (NWIS) using parameter codes and measurement reporting units that are specific to the instrument type, with specific instruments designated by the method code. The respective measurement units, many of which also are in use internationally, fall into two categories: (1) the designations NTU, NTRU, BU, AU, and NTMU signify the use of a broad spectrum incident light in the wavelength range of 400-680 nanometers (nm),

but having different light detection configurations; (2) The designations FNU, FNRU, FBU, FAU, and FNMU generally signify an incident light in the range between 780-900 nm, also with varying light detection configurations. These reporting units are equivalent when measuring a calibration solution (for example, formazin or polymer beads), but their respective instruments may not produce equivalent results for environmental samples. Specific reporting units are as follows:

NTU (Nephelometric Turbidity Units): white or broadband [400-680 nm] light source, 90 degree detection angle, one detector.

NTRU (Nephelometric Turbidity Ratio Units): white or broadband [400-680 nm] light source, 90 degree detection angle, multiple detectors with ratio compensation.

BU (Backscatter Units): white or broadband [400-680 nm] light source, 30 ± 15 degree detection angle (backscatter).

AU (Attenuation Units): white or broadband [400-680 nm] light source, 180 degree detection angle (attenuation).

NTMU (Nephelometric Turbidity Multibeam Units): white or broadband [400-680 nm] light source, multiple light sources, detectors at 90 degrees and possibly other angles to each beam.

FNU (Formazin Nephelometric Units): near infrared [780-900 nm] or monochrome light source, 90 degree detection angle, one detector.

FNRU (Formazin Nephelometric Ratio Units): near infrared [780-900 nm] or monochrome light source, 90 degree detection angle, multiple detectors, ratio compensation.

FBU (Formazin Backscatter Units): near infrared [780-900 nm] or monochrome light source, 30 ± 15 degree detection angle.

FAU (Formazin Attenuation Units): near infrared [780-900 nm] light source, 180 degree detection angle.

FNMU (Formazin Nephelometric Multibeam Units): near infrared [780-900 nm] or monochrome light source, multiple light sources, detectors at 90 degrees and possibly other angles to each beam.

For more information please see http://water.usgs.gov/owq/FieldManual/Chapter6/6.7_contents.html.

Ultraviolet (UV) absorbance (absorption) at 254 or 280 nanometers is a measure of the aggregate concentration of the mixture of UV absorbing organic materials dissolved in the analyzed water, such as lignin, tannin, humic substances, and various aromatic compounds. UV absorbance (absorption) at 254 or 280 nanometers is measured in UV absorption units per centimeter of path length of UV light through a sample.

Unconfined aquifer is an aquifer whose upper surface is a water table free to fluctuate under atmospheric pressure. (See “Water-table aquifer”)

Unfiltered pertains to the constituents in an unfiltered, representative water-suspended sediment sample.

Unfiltered, recoverable is the amount of a given constituent in a representative water-suspended sediment sample that has been extracted or digested. Complete recovery is not achieved by the extraction or digestion treatment and thus the determination represents less than 95 percent of the constituent present in the sample. To achieve comparability of analytical data, equivalent extraction or digestion procedures are required of all laboratories performing such analyses because different procedures are likely to produce different analytical results.

Vertical datum (See “Datum”)

Volatile organic compounds (VOCs) are organic compounds that can be isolated from the water phase of a sample by purging the water sample with inert gas, such as helium, and, subsequently, analyzed by gas chromatography. Many VOCs are human-made chemicals that are used and produced in the manufacture of paints, adhesives, petroleum products, pharmaceuticals, and refrigerants. They often are components of fuels, solvents, hydraulic fluids, paint thinners, and dry-cleaning agents commonly used in urban settings. VOC contamination of drinking-water supplies is a human-health concern because many are toxic and are known or suspected human carcinogens.

Water table is that surface in a ground-water body at which the water pressure is equal to the atmospheric pressure.

Water-table aquifer is an unconfined aquifer within which the water table is found.

Water year in USGS reports dealing with surface-water supply is the 12-month period October 1 through September 30. The water year is

designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 2002, is called the “2002 water year.”

Watershed (See “Drainage basin”)

WDR is used as an abbreviation for “Water-Data Report” in the REVISED RECORDS paragraph to refer to State annual hydrologic-data reports. (WRD was used as an abbreviation for “Water-Resources Data” in reports published prior to 1976.)

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

Wet mass is the mass of living matter plus contained water. (See also “Biomass” and “Dry mass”)

Wet weight refers to the weight of animal tissue or other substance including its contained water. (See also “Dry weight”)

WSP is used as an acronym for “Water-Supply Paper” in reference to previously published reports.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column and often are large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers. (See also “Plankton”)

Surface-Water Records—Ottawa River Basin

04177000 Ottawa River at University of Toledo, Toledo, Ohio

LOCATION.—Latitude 41°39'29", longitude 83°37'19", in NE ¼ sec. 32, T.9 S., R.7 E., Lucas County, Hydrologic Unit 04100001, on left bank at auto bridge at University of Toledo, Toledo, Ohio, 0.4 mi downstream from Deline Ditch, 5.6 mi upstream from Sibley Creek, and 10.9 mi upstream from mouth.

DRAINAGE AREA.—150 mi². Area at site used prior to Sept. 30, 1948, 150 mi², revised.

PERIOD OF RECORD.—March 1945 to September 1948 (published as "Tenmile Creek at Toledo"), August 1976 to current year.

REVISED RECORDS.—WSP 1307: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is 576.28 ft above sea level. From Aug. 1976-July, 1979, at site 500 ft downstream. Prior to Sept. 30, 1948, water-stage recorder at site 2,500 ft upstream at datum 3.72 ft higher.

REMARKS.—Records fair except for periods of estimated record, which are poor. Water-quality data formerly collected at this site.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood of June 1, 1943, reached a stage of 15.1 ft present datum, from floodmark, Lucas County Sanitary Engineers; discharge, 3,400 ft³/s. Flood of Apr. 25, 1950, reached a stage of 15.0 ft present datum, from floodmark; discharge, 3,300 ft³/s.

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	5.4	17	188	537	e40	212	53	86	23	40	29	13
2	5.5	28	241	341	e39	171	103	69	20	26	21	10
3	4.5	23	130	427	e39	127	74	57	19	14	e10	6.2
4	6.0	102	80	818	e39	119	60	49	19	12	e7.0	5.9
5	5.6	33	62	743	e40	122	52	42	20	11	e6.4	5.5
6	5.4	35	54	342	43	209	48	41	23	10	e5.8	5.6
7	5.0	27	262	227	141	604	47	39	16	8.3	e5.6	6.4
8	4.5	19	795	173	444	615	46	39	16	8.1	e5.4	6.5
9	5.5	16	757	149	678	229	44	37	21	8.5	e5.8	5.6
10	5.1	12	354	150	430	135	41	36	21	6.1	e5.6	4.6
11	5.8	12	e380	171	229	126	37	35	19	5.9	e7.2	5.0
12	6.9	12	e280	589	201	105	35	34	20	11	17	4.8
13	8.5	12	e220	1860	262	87	34	36	24	44	31	5.1
14	14	11	132	2240	401	70	31	63	22	40	43	7.3
15	50	10	90	1780	1140	67	31	41	20	32	22	9.8
16	40	13	75	744	1160	65	30	35	17	133	17	63
17	8.9	14	e64	307	988	66	29	32	14	165	14	15
18	7.7	13	e56	191	463	65	29	28	12	35	11	12
19	11	37	e52	e130	236	72	28	29	11	29	8.5	9.4
20	9.8	55	e45	e97	184	87	32	37	11	23	33	8.7
21	9.1	63	e39	e83	247	93	29	29	9.6	251	23	6.7
22	9.2	41	e38	e95	296	83	39	28	12	87	17	8.1
23	15	28	e35	e84	263	85	107	48	9.5	45	16	25
24	20	137	e33	e68	269	83	184	61	8.2	44	14	10
25	11	326	e31	e58	221	78	357	48	7.0	33	10	9.9
26	11	312	e30	e54	163	81	336	38	6.6	31	8.4	80
27	9.6	146	e29	e49	125	72	310	31	6.6	386	7.2	15
28	7.7	154	e29	e46	132	71	240	34	21	236	7.5	11
29	75	173	e30	e44	---	68	152	28	23	95	7.4	32
30	44	112	36	e42	---	60	112	27	56	46	16	12
31	19	---	196	e41	---	55	---	25	---	33	21	---
TOTAL	445.7	1993	4843	12680	8913	4182	2750	1262	527.5	1948.9	452.8	419.1
MEAN	14.4	66.4	156	409	318	135	91.7	40.7	17.6	62.9	14.6	14.0
MAX	75	326	795	2240	1160	615	357	86	56	386	43	80
MIN	4.5	10	29	41	39	55	28	25	6.6	5.9	5.4	4.6
CFSM	0.10	0.44	1.04	2.73	2.12	0.90	0.61	0.27	0.12	0.42	0.10	0.09
IN.	0.11	0.49	1.20	3.14	2.21	1.04	0.68	0.31	0.13	0.48	0.11	0.10
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945-2005 BY WATER YEAR (WY)												
MEAN	61.9	87.4	129	122	174	265	233	147	130	48.1	29.6	39.4
MAX	407	449	380	561	467	729	438	358	437	264	143	406
(WY)	1987	1993	1978	1993	1990	1978	1977	1945	1989	1992	1980	1981
MIN	0.85	3.04	6.14	4.92	16.7	43.8	20.4	21.4	7.36	8.46	0.82	0.13
(WY)	1947	1947	1947	1977	2003	2000	1946	1988	1988	1984	1946	1946
SUMMARY STATISTICS												
ANNUAL TOTAL				FOR 2004 CALENDAR YEAR			FOR 2005 WATER YEAR			WATER YEARS 1945-2005		
ANNUAL MEAN				31910.5			40417.0					
HIGHEST ANNUAL MEAN				87.2			111			122		
LOWEST ANNUAL MEAN										215		
HIGHEST DAILY MEAN				885			2240			3500		
LOWEST DAILY MEAN				4.5			4.5			0.00		
ANNUAL SEVEN-DAY MINIMUM				5.2			5.2			0.00		
MAXIMUM PEAK FLOW							2370			3950		
MAXIMUM PEAK STAGE							12.58			14.54		
INSTANTANEOUS LOW FLOW										0.00		
ANNUAL RUNOFF (CFSM)				0.58			0.74			0.81		
ANNUAL RUNOFF (INCHES)				7.91			10.02			11.04		
10 PERCENT EXCEEDS				245			262			304		
50 PERCENT EXCEEDS				36			36			39		
90 PERCENT EXCEEDS				11			7.1			7.1		

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.

e Estimated.

Surface-Water Records—Maumee River Basin

04184500 Bean Creek at Powers, Ohio

LOCATION.—Latitude 41°39'35", longitude 84°14'57", in NE ¼ of SE ¼ sec. 5, T.9 S., R.1 E., Fulton County, Hydrologic Unit 04100006, on left bank at downstream side of bridge on Fulton County Road 20, 2.1 mi south of Powers, 0.3 mi upstream from Iron Creek, 5 mi downstream from Siver Creek, and 5.2 mi east of Fayette.

DRAINAGE AREA.—206 mi².

PERIOD OF RECORD.—October 1940 to September 1981, November 2000 to current year.

REVISED RECORDS.—WSP 1307: 1948 (M). WSP 1912: Drainage area WDR OH-76-2: 1975.

GAGE.—Water-stage recorder and crest gage. Datum of gage is 710.0 ft above sea level. Prior to Jan. 18, 1941, nonrecording gage, Jan. 18, 1941-Sept. 30, 1977, water-stage recorder at site 0.5 mi upstream at datum 12.57 ft higher; Oct. 1, 1977-Oct. 30, 1980 at site 0.5 mi upstream at datum 7.57 ft higher.

REMARKS.—Records fair except for periods of estimated record, which are poor. Water-quality data formerly collected at this site.

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	23	47	210	291	e84	245	198	126	62	82	58	16					
2	21	46	255	270	e77	225	186	117	59	65	45	15					
3	18	44	203	367	e72	204	172	110	57	49	38	15					
4	17	51	163	791	e68	196	158	100	56	38	32	17					
5	17	54	133	600	e70	215	148	94	54	37	29	16					
6	19	52	123	422	e90	309	141	90	50	32	26	16					
7	20	52	335	314	152	917	142	87	46	30	24	16					
8	24	48	770	260	337	1120	139	84	43	26	21	15					
9	28	44	554	223	559	707	134	81	40	22	20	14					
10	26	42	388	206	441	492	128	81	38	19	18	13					
11	25	38	351	203	384	400	122	76	43	18	17	13					
12	26	36	309	567	315	321	115	75	40	19	16	14					
13	28	35	252	2910	345	275	109	76	47	22	17	15					
14	27	33	206	3150	989	240	103	115	46	18	35	15					
15	30	32	172	2120	1630	222	99	189	50	19	27	15					
16	31	33	149	1460	2100	214	97	174	45	24	23	20					
17	29	34	131	816	1740	218	96	142	41	31	22	21					
18	27	35	122	516	1090	223	94	119	38	29	21	21					
19	28	42	e105	447	708	237	93	107	33	35	18	20					
20	26	54	e94	350	567	310	90	188	31	52	22	18					
21	26	57	e84	e310	478	306	87	233	30	66	31	18					
22	e26	55	e76	e260	476	281	91	174	25	162	30	19					
23	27	56	e72	e210	408	279	105	143	24	205	27	19					
24	30	65	e68	e180	374	271	125	129	23	137	25	17					
25	32	111	e62	e170	328	254	148	e117	21	96	23	21					
26	35	e210	e58	e155	288	254	159	105	20	78	19	33					
27	33	e160	e55	e140	257	246	179	95	19	151	18	38					
28	33	222	e53	e125	246	238	174	86	19	246	17	32					
29	37	239	e58	e115	---	231	155	78	19	167	17	28					
30	43	193	e100	e100	---	217	138	71	24	108	17	25					
31	49	---	208	e92	---	208	---	66	---	75	17	---					
TOTAL	861	2220	5919	18140	14673	10075	3925	3528	1143	2158	770	575					
MEAN	27.8	74.0	191	585	524	325	131	114	38.1	69.6	24.8	19.2					
MAX	49	239	770	3150	2100	1120	198	233	62	246	58	38					
MIN	17	32	53	92	68	196	87	66	19	18	16	13					
CFSM	0.13	0.36	0.93	2.84	2.54	1.58	0.64	0.55	0.18	0.34	0.12	0.09					
IN.	0.16	0.40	1.07	3.28	2.65	1.82	0.71	0.64	0.21	0.39	0.14	0.10					
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941-2005, BY WATER YEAR (WY)																	
MEAN	49.2	87.4	165	188	291	384	327	230	131	85.6	39.8	41.5					
MAX	285	350	722	761	830	863	1019	1071	540	507	222	431					
(WY)	2002	1973	1968	1952	2001	1978	1950	1943	1981	1951	1980	1981					
MIN	8.30	13.5	13.4	15.5	16.9	64.5	77.1	53.3	25.6	12.1	8.38	7.03					
(WY)	1964	1965	1964	1963	1963	1964	1946	1941	1962	1963	1963	1963					
SUMMARY STATISTICS																	
				FOR 2004 CALENDAR YEAR				FOR 2005 WATER YEAR				WATER YEARS 1941-2005					
ANNUAL TOTAL				54996				63987									
ANNUAL MEAN				150				175				167					
HIGHEST ANNUAL MEAN												329	1950				
LOWEST ANNUAL MEAN												34.8	1964				
HIGHEST DAILY MEAN				1230	May 24			3150	Jan 14			3740	Apr 5	1950			
LOWEST DAILY MEAN				13	Sep 17			13	Sep 10			2.3	Sep 11		2002		
ANNUAL SEVEN-DAY MINIMUM				13	Sep 17			14	Sep 8			2.6	Sep 7		2002		
MAXIMUM PEAK FLOW								3650				Jan 13a		4250	Apr 29		1956
MAXIMUM PEAK STAGE								18.65				Jan 13		20.03	Feb 20		1981
INSTANTANEOUS LOW FLOW								12				Sep 10		5.0	Aug 9		1964
ANNUAL RUNOFF (CFSM)				0.73				0.85				0.81					
ANNUAL RUNOFF (INCHES)				9.93				11.55				11.02					
10 PERCENT EXCEEDS				344				347				410					
50 PERCENT EXCEEDS				80				76				66					
90 PERCENT EXCEEDS				22				19				16					

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.

e Estimated.

04185000 Tiffin River at Stryker, Ohio

LOCATION.—Latitude 41°30'16", longitude 84°25'47", in SE ¼ sec. 5, T.6 N., R.4 E., Williams County, Hydrologic Unit 04100006, on left bank 0.5 mi downstream from bridge on State Highway 191 at west edge of Stryker, Ohio, 0.6 mi upstream from Penn Central bridge, and 1.6 mi downstream from Leatherwood Creek.

DRAINAGE AREA.—410 mi².

PERIOD OF RECORD.—September 1921 to September 1928 (published as "near Stryker"), October 1940 to current year.

REVISED RECORDS.—WSP 1144: 1922-28. WSP 1387: 1925. WSP 1912: Drainage area.

GAGE.—Water-stage recorder and crest gage. Datum of gage is 685.1 ft above sea level. Prior to Sept. 30, 1928, nonrecording gage at site 3.5 mi downstream at different datum; Oct. 13, 1940-Jan. 17, 1941, nonrecording gage; and Jan. 18, 1941-Sept. 30, 1953, water-stage recorder, at site 0.5 mi downstream at same datum.

REMARKS.—Records fair except for periods of estimated record, which are poor. Small diversion upstream from gage for municipal supply of Archbold. Diversion returned as sewage to Brush Creek, which flows into Tiffin River about 15 mi downstream from station. Water-quality and sediment data formerly collected at this site.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood in Mar. 1913 reached a stage of 16.0 ft, from floodmarks; discharge, 7,600 ft³/s. Flood in 1937 reached a stage of 15.0 ft, from information by local resident; discharge, 6,000 ft³/s.

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	39	119	559	710	e180	473	315	258	127	23	71	16
2	33	120	662	811	e165	440	303	227	117	65	e52	15
3	32	116	613	883	e155	385	294	203	110	61	40	13
4	29	123	468	1310	e145	351	268	184	105	43	34	12
5	27	153	360	1430	e140	367	243	168	100	33	30	13
6	27	152	296	1470	e150	534	229	158	101	30	30	e13
7	27	137	532	1290	231	827	224	154	96	24	28	e13
8	27	127	1120	961	611	1040	223	150	85	22	25	14
9	28	116	1230	659	962	1290	217	143	77	21	21	14
10	32	106	1290	499	1030	1390	208	138	72	17	18	15
11	32	100	1190	473	1060	1190	197	134	68	13	17	15
12	30	95	992	924	990	943	185	130	69	13	16	15
13	28	91	780	2400	908	665	173	121	67	18	22	13
14	31	87	555	3590	1250	476	162	153	72	18	42	11
15	33	84	411	4030	1880	395	152	239	68	17	43	13
16	39	83	336	3230	2480	365	144	293	67	21	31	19
17	48	86	293	2720	2650	363	139	269	60	24	26	24
18	50	88	e215	2210	2470	376	138	228	51	29	23	21
19	46	97	e180	1730	2160	399	134	197	46	30	21	22
20	41	127	e155	1230	1790	493	129	325	40	30	20	22
21	38	158	e135	927	1500	584	128	566	36	53	26	20
22	38	157	e125	e540	1320	557	128	522	33	97	30	26
23	40	142	e115	e440	1180	502	163	378	29	159	29	149
24	49	183	e110	e400	1080	476	212	300	26	186	26	62
25	61	509	e100	e380	946	444	275	253	26	137	25	29
26	63	498	e95	e390	757	422	310	221	23	99	24	185
27	65	378	e90	e320	577	411	358	194	21	156	22	145
28	73	596	e96	e280	488	398	384	180	21	208	19	69
29	81	692	e110	e240	---	380	343	172	20	247	18	53
30	89	581	136	e210	---	355	296	156	19	171	16	46
31	101	---	325	e190	---	334	---	142	---	108	15	---
TOTAL	1377	6101	13674	36877	29255	17625	6674	6956	1852	2173	860	1097
MEAN	44.4	203	441	1190	1045	569	222	224	61.7	70.1	27.7	36.6
MAX	101	692	1290	4030	2650	1390	384	566	127	247	71	185
MIN	27	83	90	190	140	334	128	121	19	13	15	11
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922-2005 BY WATER YEAR (WY)												
MEAN	120	224	369	395	555	779	652	403	268	147	73.6	68.6
MAX	933	1339	1785	1687	1586	2563	1990	2112	1422	761	799	460
(WY)	2002	1993	1928	1993	2001	1982	1950	1943	1989	1943	1998	1981
MIN	10.2	14.6	18.4	20.2	21.9	135	106	74.4	24.1	13.7	9.76	7.39
(WY)	1964	1954	1964	1963	1963	1964	1946	1925	1988	1988	1941	1999
SUMMARY STATISTICS												
ANNUAL TOTAL				FOR 2004 CALENDAR YEAR			FOR 2005 WATER YEAR			WATER YEARS 1922-2005		
ANNUAL MEAN				105659			124521					
HIGHEST ANNUAL MEAN				289			341			337		
LOWEST ANNUAL MEAN										671		
HIGHEST DAILY MEAN				1710			4030			7640		
LOWEST DAILY MEAN				17			11			2.5		
ANNUAL SEVEN-DAY MINIMUM				18			13			3.6		
MAXIMUM PEAK FLOW							4150			7800		
MAXIMUM PEAK STAGE							15.10			18.36		
INSTANTANEOUS LOW FLOW										2.5		
10 PERCENT EXCEEDS				812			961			940		
50 PERCENT EXCEEDS				126			140			125		
90 PERCENT EXCEEDS				31			21			23		

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.
e Estimated.

04185440 Unnamed Tributary to Lost Creek near Farmer, Ohio

LOCATION.—Latitude 41°21'42", longitude 84°41'28", Defiance County, Hydrologic Unit 04100006, on right bank 400 ft above bridge on Rosedale Road, 0.5 mi above mouth and 3 mi west from Farmer, Ohio.

DRAINAGE AREA.—4.23 mi².

PERIOD OF RECORD.—October 1985 to current year (discontinued).

GAGE.—Water-stage recorder. Elevation of gage is 760 ft above sea level (from topographic map).

REMARKS.—Records poor.

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	0.17	0.59	20	12	e0.60	4.2	1.2	0.97	0.37	0.37	0.24	0.04
2	0.13	1.7	5.9	17	e0.58	2.9	1.4	0.87	0.35	0.11	0.20	0.04
3	0.12	1.5	3.5	38	e0.58	2.4	1.3	0.81	0.36	0.08	0.17	0.03
4	0.10	5.0	2.3	28	e0.56	2.4	1.1	0.75	0.29	0.07	0.12	0.04
5	0.10	1.7	1.7	23	e0.56	9.3	1.1	0.71	0.27	0.07	0.12	0.03
6	0.10	0.71	2.5	8.3	e0.64	11	0.99	0.69	0.27	0.06	0.10	0.03
7	0.08	0.45	78	5.0	6.0	9.6	0.99	0.77	0.18	0.06	0.09	0.03
8	0.06	0.32	22	3.8	39	4.2	0.84	0.68	0.12	0.04	0.09	0.04
9	0.07	0.26	8.4	3.0	20	2.3	0.78	0.65	0.11	0.04	0.09	0.04
10	0.08	0.23	8.4	3.2	8.8	1.8	0.76	0.62	0.10	0.04	0.09	0.03
11	0.08	0.22	13	18	6.0	1.7	0.70	0.58	0.11	0.03	0.08	0.02
12	0.07	0.19	5.7	129	7.5	1.8	0.70	0.53	0.17	0.03	0.09	0.02
13	0.08	0.17	3.7	80	11	1.7	0.66	0.58	0.23	0.05	0.16	0.01
14	0.09	0.16	2.7	26	97	1.4	0.62	1.1	0.17	0.05	0.16	0.01
15	0.12	0.16	2.2	7.5	31	1.4	0.61	0.83	0.13	0.05	0.10	0.01
16	0.11	0.19	1.9	5.1	36	1.4	0.58	0.65	0.12	0.20	0.08	0.16
17	0.10	0.20	1.7	3.8	14	1.6	0.63	0.60	0.10	0.13	0.07	0.05
18	0.14	0.21	1.5	2.9	6.5	1.7	0.63	0.56	0.10	0.09	0.06	0.05
19	0.14	1.8	1.3	e2.2	4.6	3.1	0.63	1.3	0.10	0.11	0.06	0.05
20	0.13	1.8	e1.0	e1.7	4.7	3.7	0.63	2.1	0.09	0.05	0.09	0.04
21	0.12	0.88	e0.88	e1.5	33	2.3	0.63	0.99	0.07	0.76	0.07	0.04
22	0.12	0.57	e0.78	e1.2	17	1.9	0.73	0.81	0.06	1.6	0.05	0.28
23	0.13	0.46	e0.68	e1.1	11	1.8	1.3	0.74	0.06	0.14	0.05	2.0
24	0.22	29	e0.60	e1.0	8.3	1.8	1.7	0.61	0.06	0.08	0.05	0.38
25	0.19	24	e0.54	e0.90	4.6	2.5	1.5	0.56	0.05	0.68	0.05	0.36
26	0.15	6.6	e0.49	e0.86	3.3	4.2	1.9	0.52	0.05	4.8	0.05	12
27	0.14	22	e0.52	e0.78	3.0	2.7	3.0	0.48	0.05	35	0.05	1.7
28	0.14	27	e0.58	e0.72	3.1	2.2	1.6	0.52	0.41	2.8	0.04	0.58
29	0.16	5.2	e0.74	e0.68	---	1.8	1.3	0.49	0.14	1.00	0.03	0.86
30	0.21	4.1	1.3	e0.64	---	1.6	1.1	0.47	0.19	0.51	0.05	0.60
31	0.37	---	25	e0.62	---	1.4	---	0.41	---	0.34	0.07	---
TOTAL	4.02	137.37	219.51	427.50	378.92	93.8	31.61	22.95	4.88	49.44	2.82	19.57
MEAN	0.13	4.58	7.08	13.8	13.5	3.03	1.05	0.74	0.16	1.59	0.09	0.65
MAX	0.37	29	78	129	97	11	3.0	2.1	0.41	35	0.24	12
MIN	0.06	0.16	0.49	0.62	0.56	1.4	0.58	0.41	0.05	0.03	0.03	0.01
CFSM	0.03	1.08	1.67	3.26	3.20	0.72	0.25	0.18	0.04	0.38	0.02	0.15
IN.	0.04	1.21	1.93	3.76	3.33	0.82	0.28	0.20	0.04	0.43	0.02	0.17
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986-2005 BY WATER YEAR (WY)												
MEAN	2.87	4.03	5.93	5.71	6.94	7.14	7.21	4.84	3.07	1.81	1.97	1.41
MAX	15.7	15.6	23.9	13.9	21.2	14.5	20.6	13.6	9.09	7.75	16.4	9.20
(WY)	2002	1993	1991	1993	1990	1998	1999	2003	1996	1986	1998	2003
MIN	0.03	0.04	0.11	0.44	0.46	1.19	0.55	0.26	0.05	0.01	0.02	0.00
(WY)	1995	2000	1990	2000	1995	2001	2004	1988	1988	1988	1989	1991
SUMMARY STATISTICS												
				FOR 2004 CALENDAR YEAR			FOR 2005 WATER YEAR			WATER YEARS 1986-2005		
ANNUAL TOTAL				1232.12			1392.39					
ANNUAL MEAN				3.37			3.81					
HIGHEST ANNUAL MEAN										4.40		
LOWEST ANNUAL MEAN										1.96		
HIGHEST DAILY MEAN				96 May 31			129 Jan 12			322 Aug 25		
LOWEST DAILY MEAN				0.06 Sep 24			0.01 Sep 13			0.00 Aug 3		
ANNUAL SEVEN-DAY MINIMUM				0.07 Oct 7			0.02 Sep 9			0.00 Aug 3		
MAXIMUM PEAK FLOW							216 Dec 7a			1770 Aug 25		
MAXIMUM PEAK STAGE							4.04 Dec 7			7.59 Aug 25		
INSTANTANEOUS LOW FLOW							0.00 Sep 15			0.00 Jul 27		
ANNUAL RUNOFF (CFSM)				0.80			0.90			1.04		
ANNUAL RUNOFF (INCHES)				10.84			12.25			14.12		
10 PERCENT EXCEEDS				6.6			8.3			9.2		
50 PERCENT EXCEEDS				0.52			0.62			0.64		
90 PERCENT EXCEEDS				0.12			0.05			0.05		

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.

e Estimated.

04186500 Auglaize River near Fort Jennings, Ohio

LOCATION.—Latitude 40°56'55", longitude 84°15'58", in SE ¼ sec. 15, T.1 S., R.5. E., Putnam County, Hydrologic Unit 04100007, on left bank 200 ft upstream from bridge on U. S. Highway 224, 3.5 mi northeast of Fort Jennings, Ohio, 6.0 mi upstream from Ottawa River, and 7.3 mi downstream from Jennings Creek.

DRAINAGE AREA.—332 mi².

PERIOD OF RECORD.—August 1921 to December 1935. October 1940 to current year.

REVISED RECORDS.—WSP 744: 1932. WSP 974: 1930(M). WSP 1307: 1922-24(M), 1926-27(M), 1929(M). WSP 1912: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is 713.6 ft above sea level. Prior to Oct. 6, 1930, nonrecording gage at same site and datum.

REMARKS.—Records good except for periods of estimated record, which are poor. Beginning Jan. 4, 1971, water was diverted for low-flow augmentation and water supply of city of Lima, in Ottawa River Basin. Some diversion from Grand Lake to Auglaize River Basin through Miami and Erie Canal into Jennings Creek at a point 9.2 mi upstream from station. Annual figures of runoff are considered to be within 10 percent of natural yield. Water-quality and sediment data formerly collected at this site.

**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	47	61	1120	2880	e82	205	206	403	40	63	14	526
2	34	267	1290	3210	e78	193	212	310	38	116	9.0	538
3	25	896	657	2600	e76	162	646	231	39	86	15	205
4	19	741	409	3900	e86	145	667	177	38	40	8.8	68
5	26	961	289	e4660	e100	187	416	165	38	22	7.3	30
6	19	614	224	4940	125	685	291	150	26	13	5.4	14
7	14	310	352	4690	259	797	236	114	25	9.4	3.6	7.6
8	12	182	1430	4040	2280	702	214	93	43	5.8	7.6	9.3
9	8.8	115	686	1780	3620	427	200	86	42	4.1	17	6.6
10	15	86	584	957	3330	278	178	104	40	2.9	13	18
11	24	70	916	1610	2900	229	155	104	35	2.0	12	25
12	20	59	816	5110	2500	204	137	91	31	2.0	10	18
13	22	51	511	8120	2120	156	128	89	30	2.2	15	8.3
14	41	51	316	7400	1770	133	120	74	23	2.5	35	5.3
15	40	54	212	4710	1420	136	107	68	61	3.4	21	14
16	55	51	159	2190	1060	128	97	68	63	73	22	41
17	64	46	133	744	1130	125	92	77	48	55	20	99
18	83	142	e100	458	735	124	89	67	39	41	9.6	167
19	527	714	e74	416	436	123	88	63	33	43	5.8	64
20	342	1700	e54	369	309	109	89	85	16	40	10	30
21	147	1350	e46	287	420	117	207	166	8.9	28	10	15
22	90	562	e36	500	621	136	244	99	5.6	87	7.9	37
23	80	336	e38	400	507	148	1250	88	13	52	4.8	101
24	359	442	e43	e230	373	216	3130	99	13	28	17	73
25	351	2430	55	e170	300	247	3460	76	26	17	12	218
26	142	e2900	74	e140	251	640	2670	70	46	22	10	1150
27	95	e1460	69	e120	212	770	2180	67	19	90	15	1650
28	73	760	61	e110	198	497	1800	62	9.9	55	9.3	1430
29	67	613	64	e100	---	370	938	42	89	55	4.9	652
30	95	543	111	e94	---	299	517	29	111	49	4.8	463
31	79	---	1290	e88	---	248	---	33	---	28	43	---
TOTAL	3015.8	18567	12219	67023	27298	8936	20764	3450	1089.4	1137.3	399.8	7683.1
MEAN	97.3	619	394	2162	975	288	692	111	36.3	36.7	12.9	256
MAX	527	2900	1430	8120	3620	797	3460	403	111	116	43	1650
MIN	8.8	46	36	88	76	109	88	29	5.6	2.0	3.6	5.3
CFSM	0.29	1.86	1.19	6.51	2.94	0.87	2.08	0.34	0.11	0.11	0.04	0.77
IN.	0.34	2.08	1.37	7.51	3.06	1.00	2.33	0.39	0.12	0.13	0.04	0.86

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921-2005, BY WATER YEAR (WY)

MEAN	79.0	178	307	449	470	588	504	304	259	189	83.4	93.4
MAX	782	1286	1283	2184	1555	2112	1874	1237	1142	1652	579	1090
(WY)	1927	1973	1991	1950	1950	1978	1957	1943	1981	1992	2003	1926
MIN	5.44	8.53	10.9	8.23	23.6	78.3	51.3	28.7	13.6	12.7	8.10	2.89
(WY)	1989	2000	2000	1977	1964	2000	1971	1934	1988	2002	1991	1999

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 1921-2005
ANNUAL TOTAL	148279.2	171582.4	
ANNUAL MEAN	405	470	291
HIGHEST ANNUAL MEAN			537
LOWEST ANNUAL MEAN			65.3
HIGHEST DAILY MEAN	4510 Jun 15	8120 Jan 13	12000 Jul 15
LOWEST DAILY MEAN	5.1 Sep 28	2.0 Jul 11	0.50 Oct 20
ANNUAL SEVEN-DAY MINIMUM	9.8 Sep 22	2.7 Jul 9	1.1 Sep 19
MAXIMUM PEAK FLOW		8450 Jan 13a	12800 Jul 15
MAXIMUM PEAK STAGE		17.13 Jan 13	20.30 Jan 23
INSTANTANEOUS LOW FLOW		1.9 Jul 13	0.50 Oct 20
ANNUAL RUNOFF (CFSM)	1.22	1.42	0.88
ANNUAL RUNOFF (INCHES)	16.61	19.23	11.93
10 PERCENT EXCEEDS	1100	1310	703
50 PERCENT EXCEEDS	124	97	75
90 PERCENT EXCEEDS	27	12	17

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.

e Estimated.

04189000 Blanchard River near Findlay, Ohio

LOCATION.—Latitude 41°03'21", longitude 83°41'17", on east line of sec. 10, T.1 N., R.10 E., Hancock County, Hydrologic Unit 04100008, on left bank at upstream side of county road bridge, 2 mi west of Findlay, Ohio, 3 mi downstream from Eagle Creek, and 3 mi upstream from Aurand Run.

DRAINAGE AREA.—346 mi².

PERIOD OF RECORD.—October 1923 to December 1935, October 1940 to current year. Monthly discharge only for October 1923, published in WSP 1307.

REVISED RECORDS.—WSP 974: 1942. WSP 1054: 1927-30, 1933(M), 1945. WSP 1387: 1926, 1928(M), 1930(M), 1952. WSP 1912: Drainage area. WDR-OH-81-2: 1959, 1975(M). WDR-OH-97-2: 1996(M).

GAGE.—Water-stage recorder. Datum of gage is 753.65 ft above sea level (North American Vertical Datum of 1988). Prior to July 24, 1930, nonrecording gage at same site and datum.

REMARKS.—Records good except for periods of estimated record, which are poor. Water is diverted upstream from station into Findlay Reservoir. All water returns to stream upstream from station. Water-quality and sediment data formerly collected at this site.

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	22	28	1180	5500	e60	247	187	426	59	181	53	379
2	23	91	1300	5360	e58	238	841	330	53	85	48	205
3	24	135	445	3640	e52	212	2900	267	53	94	42	95
4	21	411	264	5510	e50	204	1870	232	50	61	37	59
5	19	564	190	5560	e47	242	619	200	49	64	35	45
6	18	362	153	5980	e60	522	312	183	55	46	31	41
7	18	183	218	5900	190	628	e244	173	47	33	30	29
8	17	117	425	3900	1820	425	210	159	44	37	31	26
9	15	83	335	1120	3020	260	200	146	42	54	30	24
10	16	64	392	1050	2630	197	178	140	42	37	28	22
11	18	56	555	2220	1130	189	156	138	40	34	28	22
12	21	50	601	5970	518	189	143	132	39	63	27	22
13	22	47	376	6910	614	163	133	116	43	83	47	21
14	23	41	229	6390	1140	141	113	126	42	80	58	20
15	47	40	165	3830	1790	127	102	120	40	145	36	21
16	31	38	144	1440	1380	125	94	145	37	441	26	65
17	19	47	e120	456	1180	130	90	142	35	971	25	36
18	62	45	e100	e260	674	130	93	112	33	335	23	79
19	63	218	e70	e220	345	132	93	113	30	257	22	58
20	62	1020	e60	e190	290	149	110	132	29	249	36	38
21	72	604	e80	e160	608	175	931	114	28	258	41	30
22	49	252	e70	e140	881	171	719	127	26	203	25	28
23	54	147	e64	e125	559	197	2390	120	25	182	21	337
24	77	272	e60	e115	346	343	5440	115	25	99	21	617
25	63	2120	e56	e105	264	380	5340	105	25	85	21	756
26	75	1940	e54	e110	223	746	3590	94	26	76	22	1110
27	56	836	e52	e97	192	662	3210	80	28	453	25	1460
28	44	317	e50	e86	197	363	1850	86	33	413	24	1180
29	38	264	e56	e78	---	266	898	74	52	261	23	623
30	35	236	e80	e70	---	255	532	67	266	120	106	262
31	31	---	2490	e62	---	210	---	64	---	71	470	---
TOTAL	1155	10628	10434	72554	20318	8418	33588	4578	1396	5571	1492	7710
MEAN	37.3	354	337	2340	726	272	1120	148	46.5	180	48.1	257
MAX	77	2120	2490	6910	3020	746	5440	426	266	971	470	1460
MIN	15	28	50	62	47	125	90	64	25	33	21	20
CFSM	0.11	1.02	0.97	6.76	2.10	0.78	3.24	0.43	0.13	0.52	0.14	0.74
IN.	0.12	1.14	1.12	7.80	2.18	0.91	3.61	0.49	0.15	0.60	0.16	0.83

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924-2005, BY WATER YEAR (WY)

MEAN	65.4	157	293	394	426	551	477	294	241	141	66.4	88.0
MAX	623	1435	1482	2340	1402	1814	1588	1081	1612	1075	474	944
(WY)	1927	1973	1991	2005	1959	1978	1957	2003	1981	1992	1979	1926
MIN	2.43	3.67	4.28	6.54	9.86	60.1	33.3	22.1	18.3	4.27	1.24	1.62
(WY)	1935	1935	1935	1945	1964	1941	1925	1925	1988	1934	1934	1934

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1924-2005	
	133871	366	177842	487	266	571
ANNUAL TOTAL	133871	366	177842	487	266	571
ANNUAL MEAN		366		487		571
HIGHEST ANNUAL MEAN						571
LOWEST ANNUAL MEAN						57.5
HIGHEST DAILY MEAN		6180	May 22	6910	Jan 13	12000
LOWEST DAILY MEAN		15	Oct 9	15	Oct 9	0.40
ANNUAL SEVEN-DAY MINIMUM		17	Oct 5	17	Oct 9	0.56
MAXIMUM PEAK FLOW				7290	Jan 13a	13000
MAXIMUM PEAK STAGE				12.79	Jan 13	17.43
INSTANTANEOUS LOW FLOW				13	Oct 10	0.40
ANNUAL RUNOFF (CFSM)		1.06		1.41		0.77
ANNUAL RUNOFF (INCHES)		14.39		19.12		10.43
10 PERCENT EXCEEDS		667		1130		630
50 PERCENT EXCEEDS		100		115		61
90 PERCENT EXCEEDS		31		26		10

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.

e Estimated.

04189950 Blanchard River at Cuba, Ohio

LOCATION.—Latitude 41°03'05", longitude 83°11'53", Putnam County, Hydrologic Unit 04100008, on left downstream abutment of SR 115 bridge, 4.5 mi east of Dupont, Ohio, 1.5 mi upstream from Deer Creek, at Cuba, Ohio..

DRAINAGE AREA.—745 mi².

PERIOD OF RECORD.—July 1, 2005, to September 30, 2005.

GAGE.—Water-stage recorder. Datum of gage is 690.41 ft above sea level.

REMARKS.—Records fair except for periods of estimated record, which are poor.

**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	---	---	---	---	---	---	---	---	---	82	152	504
2	---	---	---	---	---	---	---	---	---	256	102	536
3	---	---	---	---	---	---	---	---	---	188	72	345
4	---	---	---	---	---	---	---	---	---	120	66	197
5	---	---	---	---	---	---	---	---	---	109	52	120
6	---	---	---	---	---	---	---	---	---	81	45	72
7	---	---	---	---	---	---	---	---	---	72	44	52
8	---	---	---	---	---	---	---	---	---	61	40	41
9	---	---	---	---	---	---	---	---	---	46	40	33
10	---	---	---	---	---	---	---	---	---	42	95	30
11	---	---	---	---	---	---	---	---	---	62	73	31
12	---	---	---	---	---	---	---	---	---	52	42	27
13	---	---	---	---	---	---	---	---	---	41	39	24
14	---	---	---	---	---	---	---	---	---	48	67	22
15	---	---	---	---	---	---	---	---	---	97	78	22
16	---	---	---	---	---	---	---	---	---	121	95	47
17	---	---	---	---	---	---	---	---	---	e530	54	77
18	---	---	---	---	---	---	---	---	---	e840	38	87
19	---	---	---	---	---	---	---	---	---	e750	29	69
20	---	---	---	---	---	---	---	---	---	496	22	75
21	---	---	---	---	---	---	---	---	---	444	22	72
22	---	---	---	---	---	---	---	---	---	594	21	51
23	---	---	---	---	---	---	---	---	---	414	38	230
24	---	---	---	---	---	---	---	---	---	298	30	e630
25	---	---	---	---	---	---	---	---	---	212	22	e700
26	---	---	---	---	---	---	---	---	---	149	17	e800
27	---	---	---	---	---	---	---	---	---	e640	10	e990
28	---	---	---	---	---	---	---	---	---	e760	14	e980
29	---	---	---	---	---	---	---	---	---	e690	16	e760
30	---	---	---	---	---	---	---	---	---	446	20	e680
31	---	---	---	---	---	---	---	---	---	239	56	---
TOTAL	---	---	---	---	---	---	---	---	---	8980	1511	8304
MEAN	---	---	---	---	---	---	---	---	---	290	48.7	277
MAX	---	---	---	---	---	---	---	---	---	840	152	990
MIN	---	---	---	---	---	---	---	---	---	41	10	22
CFSM	---	---	---	---	---	---	---	---	---	0.39	0.07	0.37
IN.	---	---	---	---	---	---	---	---	---	0.45	0.08	0.41
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEAR 2005												
MEAN	---	---	---	---	---	---	---	---	---	290	48.7	277
MAX	---	---	---	---	---	---	---	---	---	290	48.7	277
(WY)	---	---	---	---	---	---	---	---	---	2005	2005	2005
MIN	---	---	---	---	---	---	---	---	---	290	48.7	277
(WY)	---	---	---	---	---	---	---	---	---	2005	2005	2005

e Estimated.

04191500 Auglaize River near Defiance, Ohio

LOCATION.—Latitude 41°14'15", longitude 84°23'57", in NE ¼ sec. 9, T.3 N. R.4 E., Defiance County, Hydrologic Unit 04100007, on right bank 125 ft downstream from City of Bryan hydroelectric dam, 0.2 mi upstream from Jackson Ditch, and 3 mi south of Defiance, Ohio.

DRAINAGE AREA.—2,318 mi².

PERIOD OF RECORD.—May to August 1903 (gage heights only), April 1915 to current year. Monthly discharges only for some periods, published in WSP 1307.

REVISED RECORDS.—WSP 954: 1941. WSP 1912: Drainage area. WDR OH-72-1: 1966(M).

GAGE.—Water-stage recorder. Datum of gage is 659.70 ft above sea level. May 20-Aug. 8, 1903, non-recording gage at site 1.8 mi downstream at different datum; Apr. 13, 1915-Dec. 6, 1933, nonrecording gage near right bank on downstream side of dam at datum 6.00 ft higher, and auxiliary tailwater staff gage near right bank on downstream side of dam at present datum; Oct. 1982-Nov. 1984 at dam 125 ft upstream, at present datum.

REMARKS.—Records fair except for periods of estimated record, which are poor. Flow regulated by dam at powerplant at station; reservoir capacity, 9,800 acre-ft. Plant shut down except for occasional gate operation, Jan. 10, 1963-Sept. 7, 1985. Some diversion by Miami and Erie Canal from Grand Lake into Jennings Creek, tributary to Auglaize River 70 mi upstream from station. Water-quality data formerly collected at this site.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood of Mar. 1913 reached a stage of 38.8 ft, from reading on powerplant tailwater gage at present datum; discharge, 120,000 ft³/s, from rating curve extended above 51,000 ft³/s.

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	731	689	7570	12700	e270	1630	1370	3300	200	360	532	1630
2	520	687	7730	14000	e260	1150	1570	2310	135	188	589	2020
3	209	2390	5390	17100	e250	1090	2520	1390	430	888	303	831
4	204	3120	3740	24500	e260	1110	3340	1180	428	274	61	640
5	143	5100	2560	28200	e340	1420	4410	845	133	81	25	320
6	335	3880	2460	29300	e700	3030	3540	769	137	90	24	205
7	86	2570	2580	25600	1090	4180	1590	886	129	89	22	363
8	124	1970	11100	21500	6890	4010	770	734	289	89	91	130
9	156	987	8400	15900	19700	3180	755	751	426	89	128	105
10	153	1060	5030	9240	17400	1580	870	627	231	89	202	61
11	156	768	6670	9720	12400	1340	1250	596	282	91	37	50
12	158	815	5720	23500	6940	1410	1010	665	421	92	139	185
13	358	805	4380	39600	5870	882	684	666	382	92	34	309
14	303	1180	3360	45600	8730	1270	612	807	700	93	34	39
15	345	1500	3100	38300	13500	1080	374	634	382	85	83	32
16	143	177	2820	26000	12600	724	557	604	273	287	455	31
17	96	165	1610	11800	12200	814	570	607	299	911	70	222
18	298	258	642	6200	7940	850	479	624	277	1050	93	818
19	1250	859	628	2780	5020	1140	515	549	278	1530	366	426
20	2110	5410	e150	2000	2870	1000	647	833	120	771	111	86
21	1750	7290	e100	1580	4300	911	1200	849	232	868	100	47
22	294	4110	e74	1570	7270	1280	1660	860	204	337	92	72
23	290	2840	e110	1560	6150	1070	7220	616	66	1160	69	1620
24	1470	2570	e180	926	4330	1510	15000	400	63	690	45	180
25	2340	11900	e290	675	2470	1520	17700	615	60	228	43	2050
26	1250	13900	e460	e540	1920	3030	17200	557	64	243	43	3560
27	572	9750	e600	e460	1310	4200	16400	504	75	970	46	8570
28	577	8640	781	e400	1330	3810	13000	394	107	1550	45	7090
29	582	5580	1450	e340	---	2770	8350	375	224	1230	46	4140
30	999	4010	1310	e320	---	1850	5620	354	503	786	55	3090
31	1060	---	3130	e290	---	1370	---	335	---	529	144	---
TOTAL	19062	104980	94125	412201	164310	56211	130783	25236	7550	15830	4127	38922
MEAN	615	3499	3036	13300	5868	1813	4359	814	252	511	133	1297
MAX	2340	13900	11100	45600	19700	4200	17700	3300	700	1550	589	8570
MIN	86	165	74	290	250	724	374	335	60	81	22	31
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916-2005, BY WATER YEAR (WY)												
MEAN	522	1023	1867	2624	3008	4081	3467	2033	1542	893	386	465
MAX	4151	7856	8510	13350	10170	13090	11210	10490	7519	7006	2668	5571
(WY)	2002	1973	1967	1950	1976	1982	1957	1943	2004	2003	2003	1992
MIN	23.6	7.28	9.34	48.5	111	382	242	69.8	101	42.0	27.1	28.9
(WY)	1953	1953	1977	1977	1964	1941	1946	1934	1988	1930	1932	1963
SUMMARY STATISTICS												
ANNUAL TOTAL				FOR 2004 CALENDAR YEAR				FOR 2005 WATER YEAR				WATER YEARS 1916-2005
ANNUAL MEAN				944029				1073337				
HIGHEST ANNUAL MEAN				2579				2941				1812
LOWEST ANNUAL MEAN												3337
HIGHEST DAILY MEAN				31500 Jun 15				45600 Jan 14				52300 Mar 14
LOWEST DAILY MEAN				74 Dec 22				22 Aug 7				0.50 Oct 13
ANNUAL SEVEN-DAY MINIMUM				157 Feb 1				46 Aug 24				1.1 Oct 12
MAXIMUM PEAK FLOW								46500 Jan 14				52500 Feb 16
MAXIMUM PEAK STAGE								25.67 Jan 14				27.65 Feb 13
INSTANTANEOUS LOW FLOW												0.50 Oct 13
10 PERCENT EXCEEDS				7320				8370				5010
50 PERCENT EXCEEDS				858				769				446
90 PERCENT EXCEEDS				200				89				40

e Estimated.

04192500 Maumee River near Defiance, Ohio

LOCATION.—Latitude 41°17'31", longitude 84°16'52", in NW ¼ sec. 22, T.4 N., R.5 E., Defiance County, Hydrologic Unit 04100009, on left bank 40 ft upstream from Independence Dam, 4 mi downstream from mouth of Auglaize River, and 4.5 mi east of Defiance, Ohio.

DRAINAGE AREA.—5,545 mi².

PERIOD OF RECORD.—October 1924 to December 1935, March 1939 to September 1974, October 1978 to current year.

REVISED RECORDS.—WSP 974: 1926-27, 1930. WSP 1387: 1925-28, 1946. WDR OH-70-1: Drainage Area.

GAGE.—Water-stage recorder. Datum of gage is 658.56 ft above sea level. Prior to Nov. 13, 1924, nonrecording gage at same site and datum.

REMARKS.—Records good except for periods estimated record, which are poor. Flow affected by regulation of Auglaize River at hydroelectric plant of the Hydro-Corporation, 7 mi upstream. Operation of hydroelectric plant there was discontinued Jan. 10, 1963-Sept. 7, 1985. Low flow slightly regulated by powerplant at Ft. Wayne, Indiana. Slight diversion 275 ft upstream into Miami and Erie Canal through a 24-inch conduit, which bypasses station. Two 36-inch diversion pipes installed at dam in 1998 for low-flow augmentation. Water-quality and sediment data formerly collected at this site.

**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	1100	1310	14400	19000	e1600	4920	3300	6980	943	1220	1460	1330
2	947	1140	15800	22200	e1450	4290	3520	5130	835	574	1350	2060
3	441	2770	13000	26400	e1400	3590	4110	3700	879	1520	942	1080
4	416	4010	9360	40200	e1360	3610	5110	2990	1000	997	442	649
5	429	6050	6850	44800	e1330	3740	6190	2470	734	592	424	466
6	525	6170	5950	45900	e1400	5980	5310	1950	e750	496	401	338
7	430	4380	8470	41300	e1600	9050	e3740	2030	641	439	363	518
8	279	3550	23800	35500	10600	9850	2150	1700	769	443	352	441
9	294	2070	22300	e29000	30000	8620	2130	1630	1020	388	387	308
10	315	2110	15500	19900	e32000	6280	2110	1500	772	418	418	259
11	312	1480	14900	18900	23900	5480	2390	1300	788	356	452	220
12	344	1420	14300	39100	15100	5520	2160	1340	899	284	365	287
13	478	1290	12100	65100	13600	4690	1720	1340	959	257	275	422
14	668	1420	9510	81700	21100	4400	1520	1640	1330	258	384	247
15	426	2160	7830	73700	32600	3570	1300	1950	1530	269	742	164
16	513	710	6670	54900	33000	2680	1480	2040	1500	368	957	280
17	370	566	4720	36700	32600	2620	1340	1750	1210	1280	508	262
18	382	511	2860	25600	24600	2540	1220	1470	988	2110	355	1060
19	1440	1140	2420	19400	17600	2920	1160	1420	959	2510	554	881
20	2510	5940	e1300	13500	12900	3190	1300	2140	757	1460	374	424
21	2440	9630	e1100	8910	14900	3380	1650	2460	705	1750	277	256
22	1320	6770	e1000	6750	20200	3940	2390	2490	740	1690	353	293
23	899	4590	e880	4520	17400	3660	7620	2020	400	2370	285	2190
24	2060	4640	e840	2930	12900	3700	17800	1760	367	2000	222	1150
25	3340	18800	e940	e2820	9140	3950	23600	1920	376	1140	260	2700
26	2310	e22200	e1200	e2720	7230	5640	23600	1830	321	959	209	5310
27	1190	e19000	e1430	e2300	5600	7230	22800	1580	357	3950	207	11200
28	1130	17200	1590	e2100	4810	7200	19200	1340	392	5480	235	9140
29	1050	14900	2170	e1950	---	5760	13800	1260	457	4290	193	6180
30	1340	11400	2400	e1800	---	4420	10000	1220	838	2580	187	4870
31	1460	---	4640	e1700	---	3540	---	1100	---	1710	294	---
TOTAL	31158	179327	230230	791300	401920	149960	195720	65450	24216	44158	14227	54985
MEAN	1005	5978	7427	25530	14350	4837	6524	2111	807	1424	459	1833
MAX	3340	22200	23800	81700	33000	9850	23600	6980	1530	5480	1460	11200
MIN	279	511	840	1700	1330	2540	1160	1100	321	257	187	164
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925-2005, BY WATER YEAR (WY)												
MEAN	1453	2713	4626	6139	6992	9282	8458	5316	3836	2194	1125	1189
MAX	11490	16410	18040	30150	22460	33940	23210	27270	20370	13230	7598	11470
(WY)	2002	1973	1967	1950	1959	1982	1957	1943	1981	2003	1998	1926
MIN	63.9	110	158	219	363	1455	789	359	214	211	111	88.1
(WY)	1929	1954	1964	1945	1964	1941	1925	1925	1988	1930	1932	1955
SUMMARY STATISTICS												
				FOR 2004 CALENDAR YEAR			FOR 2005 WATER YEAR			WATER YEARS 1925-2005		
ANNUAL TOTAL				1963311			2182651					
ANNUAL MEAN				5364			5980			4428		
HIGHEST ANNUAL MEAN										8286		
LOWEST ANNUAL MEAN										849		
HIGHEST DAILY MEAN				54100			81700			98800		
LOWEST DAILY MEAN				279			164			3.0		
ANNUAL SEVEN-DAY MINIMUM				350			216			27		
MAXIMUM PEAK FLOW							83100			104000		
MAXIMUM PEAK STAGE							13.20			15.87		
INSTANTANEOUS LOW FLOW										2.0		
10 PERCENT EXCEEDS				14900			18800			12500		
50 PERCENT EXCEEDS				2300			1750			1440		
90 PERCENT EXCEEDS				564			357			231		

e Estimated.

04193500 Maumee River at Waterville, Ohio

LOCATION.—Latitude 41°30'00", longitude 83°42'46", Lucas County, Hydrologic Unit 04100009, on downstream side of first pier from left end of bridge on State Highway 64 at Waterville, Ohio, 3 mi downstream from Tontogany Creek, and 20.7 mi upstream from mouth.

DRAINAGE AREA.—6,330 mi².

PERIOD OF RECORD.—November 1898 to December 1901, August 1921 to December 1935, March 1939 to current year. Miami and Erie Canal flow included at Waterville prior to 1930, when the canal was abandoned.

REVISED RECORDS.—WSP 894: 1930(M). WSP 1084: 1946. WSP 1387: 1900(M), 1922-23, 1933. WDR OH-68-1: 1967. WDR OH-70-1: Drainage area. WRD-OH-82-2: 1981.

GAGE.—Water-stage recorder with auxiliary crest-stage gage. Datum of gage is 595.71 ft above sea level. Nov. 19, 1898-Dec. 31, 1901 and Aug. 26, 1921-July 31, 1930, nonrecording gage; Aug. 1, 1930-Dec. 31, 1935, water-stage recorder; Mar. 14, 1939-Mar. 12, 1940, nonrecording gage at same site and datum.

REMARKS.—Records fair except for periods of estimated record, which are poor. Satellite telemeter at station. Water-quality and sediment data collected at this site.

EXTREMES FOR PERIOD OF RECORD.—Practically no flow at times prior to June 30, 1929, when entire river flow was being diverted by canal.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood in Mar. 1913 reached a stage of 19.9 ft, from information by local resident; estimated discharge, 180,000 ft³/s, from rating curve extended above 94,000 ft³/s.

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	1010	1190	14000	17400	e1800	5250	3070	9420	2140	1340	1430	341			
2	1090	1220	17900	23500	e1700	4950	e3310	6560	2010	867	1280	1650			
3	772	1340	15000	26900	e1700	3770	e4500	5220	1830	930	1230	1690			
4	493	3790	10800	41300	e1700	3890	e5600	3790	2140	1410	825	771			
5	421	5070	7590	47200	e1700	3560	e6600	3260	1860	846	391	609			
6	436	7270	6110	47300	e1700	5310	e5630	2620	1570	563	383	417			
7	513	4610	7080	e42000	1730	8990	4580	2490	1230	476	371	326			
8	421	3720	22600	e36000	7280	10500	2560	2210	1060	486	336	476			
9	357	2580	26500	30200	25300	9320	2160	2090	1350	493	333	360			
10	240	1910	18400	22700	40900	7410	2080	2070	1560	415	390	289			
11	259	1470	15900	18800	28400	5610	2080	1670	1100	422	398	241			
12	306	1380	16500	37000	18800	5490	2270	1600	1140	372	500	203			
13	353	1270	13700	72000	15400	4910	2020	1800	1240	416	381	212			
14	578	1190	10800	88200	20000	4390	1800	2110	1170	414	364	337			
15	594	1630	8260	81900	36200	3930	e1650	2430	1630	426	442	235			
16	678	1470	7020	62700	37300	2910	e1800	2730	1520	393	811	311			
17	456	685	5510	41500	36100	2550	e1700	2610	1380	816	876	336			
18	276	598	3710	27500	28100	2410	e1600	2220	1040	1720	483	428			
19	519	689	2330	21500	20400	2620	e1590	2110	900	2170	477	989			
20	1680	2960	2480	15900	14900	3130	1570	2990	844	2040	520	809			
21	2240	9790	1940	10400	15500	3080	1480	4780	708	1760	446	364			
22	1710	8520	e1300	6830	22500	3460	2920	4330	645	2240	260	279			
23	1050	5130	e1100	5330	20300	3840	5180	4090	583	1910	274	977			
24	1100	4070	e960	4440	15800	3480	20000	3480	334	2500	277	2910			
25	2650	15700	e900	e2900	11400	3930	29100	3270	293	1580	222	1920			
26	2850	26700	e1000	e2900	8050	4610	27900	3760	288	1080	259	5070			
27	1510	21000	e1100	e3000	6440	6860	27900	3320	279	2420	248	12100			
28	1160	17400	e1400	e2600	5320	7540	23300	2960	341	7050	226	12200			
29	1090	17600	e1600	e2300	---	6590	17700	2650	381	5600	191	8550			
30	1200	12800	2340	e2100	---	5060	12600	2610	548	3440	186	5430			
31	1200	---	4170	e2000	---	4000	---	2520	---	2030	291	---			
TOTAL	29212	184752	250000	846300	446420	153350	226250	99770	33114	48625	15101	60830			
MEAN	942	6158	8065	27300	15940	4947	7542	3218	1104	1569	487	2028			
MAX	2850	26700	26500	88200	40900	10500	29100	9420	2140	7050	1430	12200			
MIN	240	598	900	2000	1700	2410	1480	1600	279	372	186	203			
MED	678	3340	6110	22700	15400	4390	2990	2650	1120	1080	383	452			
CFSM	0.15	0.97	1.27	4.31	2.52	0.78	1.19	0.51	0.17	0.25	0.08	0.32			
IN.	0.17	1.09	1.47	4.97	2.62	0.90	1.33	0.59	0.19	0.29	0.09	0.36			
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930-2005, BY WATER YEAR (WY)															
MEAN	1596	3015	5460	7023	7966	10690	9665	6247	4475	2531	1295	1222			
MAX	13810	19010	23830	34010	30000	38210	25890	29540	24030	12740	9665	10320			
(WY)	2002	1993	1967	1950	1976	1982	1957	1943	1981	2003	1998	1992			
MIN	95.5	196	177	235	424	1759	914	587	231	207	146	127			
(WY)	1964	1965	1964	1945	1934	1941	1946	1934	1988	1930	1941	1963			
SUMMARY STATISTICS				FOR 2004 CALENDAR YEAR				FOR 2005 WATER YEAR				WATER YEARS 1930-2005			
ANNUAL TOTAL				2112314				2393724							
ANNUAL MEAN				5771				6558				5081			
HIGHEST ANNUAL MEAN												9370			
LOWEST ANNUAL MEAN												938			
HIGHEST DAILY MEAN				50400	Jun 15			88200	Jan 14			113000	Mar 14		
LOWEST DAILY MEAN				240	Oct 10			186	Aug 30			17	Jun 30		
ANNUAL SEVEN-DAY MINIMUM				350	Oct 7			230	Aug 24			47	Jun 27		
MAXIMUM PEAK FLOW								94100				121000			
MAXIMUM PEAK STAGE								13.80				17.18			
INSTANTANEOUS LOW FLOW												17			
ANNUAL RUNOFF (CFSM)				0.91				1.04				0.80			
ANNUAL RUNOFF (INCHES)				12.41				14.07				10.91			
10 PERCENT EXCEEDS				15600				20000				14200			
50 PERCENT EXCEEDS				2560				2110				1700			
90 PERCENT EXCEEDS				635				364				268			

e Estimated.

Surface-Water Records—Portage River Basin

04195500 Portage River at Woodville, Ohio

LOCATION.—Latitude 41°26'58", longitude 83°21'41", in sec. 28, T.6 N., R.13 E., Sandusky County, Hydrologic Unit 04100010, on left bank at upstream side of bridge on U.S. Highway 20 in Woodville, Ohio, 600 ft downstream from unnamed right bank tributary, and 10.3 mi upstream from Sugar Creek.

DRAINAGE AREA.—428 mi².

PERIOD OF RECORD.—July 1928 to December 1935, October 1939 to current year.

REVISED RECORDS.—WSP 894: 1929-30. WSP 1207: 1933. WSP 1387: 1931, 1933. WSP 1912: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is 614.75 ft above sea level. Prior to Oct. 8, 1933, nonrecording gage; Oct. 9, 1933-Dec. 30, 1935, water-stage recorder; Oct. 17-Nov. 29, 1939, nonrecording gage, all at same site and datum.

REMARKS.—Records fair except for periods of estimated record, which are poor. Flow supplemented by water imported from Maumee River Basin for municipal supply for city of Bowling Green 16 mi upstream. The importation of this water began Sept. 1, 1951. Water-quality data formerly collected at this site 800 ft downstream. Sediment data formerly collected at this site. National Weather Service gage height telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood in Mar. 1913 reached a stage of 17 ft, from information by local residents; discharge, 17,000 ft³/s, from rating curve extended above 11,500 ft³/s.

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	46	40	949	4360	e74	343	168	446	45	68	64	102
2	38	45	1360	2990	e68	360	521	335	39	131	45	97
3	26	117	698	2260	e63	292	3210	258	36	86	35	62
4	19	333	429	4570	e58	271	2160	205	34	56	29	42
5	16	1370	303	4770	e55	301	816	164	33	42	24	30
6	15	773	229	3250	e54	572	481	142	32	37	21	22
7	13	379	435	1870	e110	886	357	136	31	37	19	18
8	13	223	2860	1090	2550	720	305	133	32	26	17	18
9	11	142	1780	728	4020	425	251	124	27	14	15	24
10	8.4	104	903	645	2330	264	203	120	67	9.5	14	17
11	9.5	84	976	1210	1170	259	172	123	48	32	14	15
12	11	74	1160	5420	749	231	150	118	38	21	17	14
13	13	63	775	11100	943	200	139	117	30	16	20	13
14	13	55	463	11500	1500	168	124	117	24	15	31	12
15	23	47	315	8630	3130	151	105	124	21	43	36	12
16	29	44	e230	2840	2790	145	91	116	17	54	27	16
17	51	43	e190	1200	2460	152	86	104	14	107	22	27
18	41	46	e150	e500	1130	160	86	98	11	189	18	28
19	31	60	e110	e400	572	159	90	93	9.6	145	15	24
20	29	664	e90	e200	414	160	96	134	8.7	100	16	20
21	44	905	e100	e160	901	157	98	289	7.5	259	16	17
22	46	440	e80	e140	1710	145	118	189	6.6	199	15	17
23	37	266	e70	e250	1200	138	795	139	5.3	110	14	31
24	31	226	e60	e215	795	150	4080	117	4.7	62	12	294
25	52	2430	e50	e180	539	162	4730	107	4.8	41	11	247
26	77	2520	e48	e160	390	381	3410	95	4.3	30	11	226
27	56	1050	e46	e140	304	493	2990	77	4.1	415	12	1050
28	48	616	e50	e120	276	369	2180	64	4.1	1490	13	552
29	41	535	e60	e105	---	292	1030	62	8.0	588	12	255
30	37	403	e80	e95	---	222	620	60	6.6	225	17	159
31	37	---	1760	e82	---	191	---	52	---	107	36	---
TOTAL	961.9	14097	16809	71180	30355	8919	29662	4458	653.3	4754.5	668	3461
MEAN	31.0	470	542	2296	1084	288	989	144	21.8	153	21.5	115
MAX	77	2520	2860	11500	4020	886	4730	446	67	1490	64	1050
MIN	8.4	40	46	82	54	138	86	52	4.1	9.5	11	12
CFSM	0.07	1.10	1.27	5.36	2.53	0.67	2.31	0.34	0.05	0.36	0.05	0.27
IN.	0.08	1.23	1.46	6.19	2.64	0.78	2.58	0.39	0.06	0.41	0.06	0.30
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928-2005, BY WATER YEAR (WY)												
MEAN	88.2	195	358	475	529	743	650	414	297	149	89.8	85.2
MAX	722	1595	1722	2296	1793	2542	1965	1685	1875	821	1601	1088
(WY)	1951	1973	1991	2005	1976	1982	1957	1943	1981	1958	1998	1981
MIN	2.96	3.61	4.37	2.24	2.00	118	41.7	25.4	9.29	2.81	3.09	3.67
(WY)	1935	1935	1935	1945	1934	1941	1946	1934	1988	1930	1933	1944
(+)	7.8	7.4	6.8	7.2	7.3	7.1	7.6	7.6	10	9.2	9.7	9.1
MEAN≠	23.2	463	535	2289	1077	281	981	136	11.8	144	11.8	106
CFSM≠	0.05	1.09	1.25	5.35	2.52	0.66	2.29	0.32	0.03	0.34	0.03	0.25
IN≠	0.06	1.21	1.44	6.17	2.62	0.76	2.56	0.37	0.03	0.39	0.03	0.28
SUMMARY STATISTICS				FOR 2004 CALENDAR YEAR				FOR 2005 WATER YEAR			WATER YEARS 1928-2005	
ANNUAL TOTAL				124615.9				185978.7				
ANNUAL MEAN				340				510			339	
HIGHEST ANNUAL MEAN											628	
LOWEST ANNUAL MEAN											81.4	
HIGHEST DAILY MEAN				4420				Jun 15			11500	
LOWEST DAILY MEAN				8.4				Oct 10			4.1	
ANNUAL SEVEN-DAY MINIMUM				11				Oct 7			4.8	
MAXIMUM PEAK FLOW								12300			Jan 13a	
MAXIMUM PEAK STAGE								14.40			Jan 13	
INSTANTANEOUS LOW FLOW											14.51	
ANNUAL RUNOFF (CFSM)				0.80				1.19			0.40	
ANNUAL RUNOFF (INCHES)				10.83				16.16			10.77	
10 PERCENT EXCEEDS				915				1200			864	
50 PERCENT EXCEEDS				100				107			71	
90 PERCENT EXCEEDS				19				14			8.5	

(+) Diversion in cubic feet per second, from Maumee River Basin for municipal supply; furnished by City of Bowling Green.

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.

≠ Adjusted for diversion.

e Estimated.

04195820 Portage River near Elmore, Ohio

LOCATION.—Latitude 41°29'28", longitude 83°13'29", Ottawa County, Hydrologic Unit 04100010, on right bank 500 ft upstream from State Route 590, 0.4 mi upstream from Sugar Creek, and 4.2 mi east of Elmore.

DRAINAGE AREA.—494 mi².

PERIOD OF RECORD.—August 1998 to current year.

GAGE.—Water-stage recorder. Datum of gage is 573.79 ft above sea level.

REMARKS.—Records fair except for periods of estimated record, which are poor. Flow supplemented by water imported from Maumee River Basin for municipal supply for city of Bowling Green 30 mi upstream. The importation of this water began Sept. 1, 1951. See station 04195500 for monthly diversion figures.

REVISIONS.—Datum of gage revised from 576.00 ft to 573.79 ft above sea level.

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	19	35	880	5090	e180	408	195	602	75	38	94	74
2	52	46	1790	3770	e170	458	440	459	66	151	60	133
3	36	49	956	2580	e160	371	3750	360	61	134	43	88
4	29	320	595	4930	e150	338	2860	282	57	83	34	60
5	24	1310	421	5470	e140	350	1150	223	56	56	29	40
6	22	1040	317	4000	e130	607	652	191	57	44	24	31
7	22	512	415	2340	e120	1040	478	179	51	42	21	24
8	22	298	3150	1410	e230	913	397	168	58	39	20	20
9	24	178	2530	923	e4000	566	336	157	79	30	18	23
10	22	121	1230	793	3060	356	265	147	198	20	16	25
11	19	92	1110	1150	1530	299	220	144	187	18	15	20
12	17	73	1460	5230	950	279	188	136	101	40	15	18
13	20	61	1070	11400	1120	236	172	127	80	38	21	17
14	21	51	e500	12600	1630	196	157	129	64	30	29	16
15	24	42	e360	9680	3720	170	136	126	56	30	32	15
16	36	37	e280	4250	3360	160	121	124	51	59	34	16
17	37	36	e240	1550	3130	161	119	110	44	155	26	19
18	55	36	e190	e1500	1530	173	125	96	39	213	21	30
19	41	46	e170	e1600	771	175	138	90	37	242	19	32
20	31	439	e160	e1300	524	176	146	99	33	147	17	26
21	31	1180	e150	e1000	918	173	143	252	32	298	18	22
22	49	622	e140	e800	2090	158	153	219	30	347	17	20
23	45	377	e130	e700	1510	150	523	161	28	189	16	27
24	37	281	e120	e600	1020	157	4390	139	26	108	14	167
25	31	2200	e110	e500	702	168	5350	124	25	71	13	330
26	79	3240	e100	e400	503	320	4380	116	25	49	12	231
27	68	1470	e90	e300	389	558	3470	103	25	310	12	966
28	54	802	e80	e260	347	445	2750	97	25	1740	13	742
29	48	672	e90	e230	---	354	1350	92	30	870	14	350
30	41	532	e120	e210	---	264	828	92	36	356	17	187
31	36	---	1610	e200	---	218	---	87	---	162	41	---
TOTAL	1092	16198	20564	86766	34084	10397	35382	5431	1732	6109	775	3769
MEAN	35.2	540	663	2799	1217	335	1179	175	57.7	197	25.0	126
MAX	79	3240	3150	12600	4000	1040	5350	602	198	1740	94	966
MIN	17	35	80	200	120	150	119	87	25	18	12	15
CFSM	0.07	1.09	1.34	5.67	2.46	0.68	2.39	0.35	0.12	0.40	0.05	0.25
IN.	0.08	1.22	1.55	6.53	2.57	0.78	2.66	0.41	0.13	0.46	0.06	0.28

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

MEAN	168	175	480	744	726	705	955	576	496	129	367	78.5
MAX	747	540	905	2799	1217	1351	1515	1227	1169	345	1686	126
(WY)	2002	2005	2004	2005	2005	2003	1999	2003	2000	2003	1998	2005
MIN	22.9	20.1	37.4	99.8	186	335	241	131	57.7	23.6	21.1	13.1
(WY)	2003	2000	1999	2000	2003	2005	2004	1999	2005	2002	1999	1999

SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1998-2005	
ANNUAL TOTAL	150991		222299			
ANNUAL MEAN	413		609		449	
HIGHEST ANNUAL MEAN					609	
LOWEST ANNUAL MEAN					347	
HIGHEST DAILY MEAN	4940	Jun 15	12600	Jan 14	12600	Jan 14
LOWEST DAILY MEAN	13	Aug 15	12	Aug 26	5.7	Jul 17
ANNUAL SEVEN-DAY MINIMUM	15	Aug 12	13	Aug 23	7.1	Jul 14
MAXIMUM PEAK FLOW			13100	Jan 14a	13100	Jan 14
MAXIMUM PEAK STAGE			14.88	Jan 14	14.88	Jan 14
INSTANTANEOUS LOW FLOW			11	Aug 26	5.5	Jul 17
ANNUAL RUNOFF (CFSM)	0.84		1.23		0.91	
ANNUAL RUNOFF (INCHES)	11.37		16.74		12.35	
10 PERCENT EXCEEDS	1130		1530		1220	
50 PERCENT EXCEEDS	142		147		121	
90 PERCENT EXCEEDS	24		22		18	

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.

e Estimated.

Surface-Water Records—Sandusky River Basin

04196000 Sandusky River near Bucyrus, Ohio

LOCATION.—Latitude 40°48'13", longitude 83°00'21", in NE ¼ sec. 10, T.3 S., R.16 E., Crawford County, Hydrologic Unit 04100011, on left bank at downstream side of bridge on township road, 1 mi upstream from unnamed left bank tributary, 1.5 mi west of Bucyrus, Ohio, and 12 mi downstream from Loss Creek.

DRAINAGE AREA.—88.8 mi².

PERIOD OF RECORD.—August 1925 to November 1935, July 1938 to December 1951, December 1963 to September 1981, October 1995 to current year.

REVISED RECORDS.—WSP 744: 1925-32. WSP 874: 1938. WSP 1307: 1926(M), 1928(M), 1931, 1932(M), 1934-35(M), 1939, 1940(M), 1946(M). WDR OH-2003-2: 2002(M). WSP 1912: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is 955.04 ft above sea level. Prior to May 11, 1940, nonrecording gage.

REMARKS.—Records fair except for periods of estimated record, which are poor. Low flow slightly affected by operation of reservoirs for municipal supply of Bucyrus. Water-quality and sediment data formerly collected at this site.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood of Mar. 23, 1913 reached a stage of 14.5 ft, from floodmarks. Flood of Jan. 22, 1959, reached a stage of 11.9 ft, from floodmarks; discharge, 13,500 ft³/s.

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	7.6	22	295	1940	32	69	67	105	18	56	7.3	108
2	7.7	53	204	438	30	66	314	81	17	35	6.2	34
3	6.3	296	100	905	30	54	1070	66	15	15	5.4	17
4	6.1	177	70	1810	31	50	714	55	14	10	5.0	11
5	5.9	120	55	1090	32	62	207	48	13	8.6	5.7	9.2
6	5.6	70	50	1890	38	112	119	44	14	7.6	4.7	7.7
7	5.5	45	57	1260	76	146	90	42	16	13	5.2	7.3
8	5.5	32	109	424	1150	96	77	39	16	25	5.2	6.3
9	5.5	26	89	426	1250	62	64	36	15	17	4.6	6.1
10	5.1	22	107	660	442	49	55	36	17	9.2	4.0	5.7
11	5.9	20	138	625	182	53	50	34	12	6.0	3.9	5.5
12	7.0	19	142	1760	120	50	45	36	10	5.0	3.6	5.3
13	11	16	97	1750	139	45	42	37	9.9	5.0	5.6	4.6
14	7.0	15	63	1690	170	40	38	81	9.4	13	4.9	4.8
15	25	13	43	710	304	39	33	106	8.9	48	19	4.7
16	14	14	37	223	204	45	31	65	9.8	56	9.6	54
17	11	21	39	122	290	54	30	43	9.9	60	6.4	19
18	21	29	31	85	122	58	30	37	9.9	51	4.6	15
19	27	96	28	e76	75	62	30	36	8.5	137	4.2	10
20	37	245	18	e64	68	121	38	38	7.0	65	5.2	8.1
21	20	125	e17	e58	295	104	122	35	7.2	30	4.1	7.2
22	15	68	e16	e50	255	70	131	29	6.2	19	3.6	6.1
23	15	51	e14	e45	118	74	867	28	6.6	18	2.8	42
24	19	87	e13	e41	82	106	1530	30	6.2	14	2.6	20
25	20	663	e12	e37	61	102	960	28	5.4	12	2.6	25
26	25	208	e12	e30	52	211	686	24	5.3	8.7	2.8	138
27	19	100	e11	e21	42	147	589	21	5.1	35	2.5	163
28	15	83	e11	e18	50	177	244	22	5.8	52	2.6	48
29	16	78	e10	e17	---	282	146	20	16	25	2.7	39
30	14	72	e65	e20	---	118	125	20	38	13	25	37
31	18	---	1450	24	---	86	---	18	---	9.3	118	---
TOTAL	422.7	2886	3403	18309	5740	2810	8544	1340	352.1	878.4	289.6	868.6
MEAN	13.6	96.2	110	591	205	90.6	285	43.2	11.7	28.3	9.34	29.0
MAX	37	663	1450	1940	1250	282	1530	106	38	137	118	163
MIN	5.1	13	10	17	30	39	30	18	5.1	5.0	2.5	4.6
CFSM	0.15	1.08	1.24	6.65	2.31	1.02	3.21	0.49	0.13	0.32	0.11	0.33
IN.	0.18	1.21	1.43	7.67	2.40	1.18	3.58	0.56	0.15	0.37	0.12	0.36
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925-2005, BY WATER YEAR (WY)												
MEAN	24.0	57.0	110	147	140	182	155	99.1	79.8	36.8	24.2	23.3
MAX	278	271	405	635	339	471	408	252	428	184	212	125
(WY)	1927	1973	1928	1950	1976	1978	1964	1969	1947	2003	1979	2003
MIN	1.28	1.34	1.39	3.93	2.29	32.9	9.64	4.44	1.93	0.84	1.34	0.38
(WY)	1935	1935	1935	1977	1934	1981	1935	1934	1934	1995	1995	1995
SUMMARY STATISTICS				FOR 2004 CALENDAR YEAR				FOR 2005 WATER YEAR			WATER YEARS 1925-2005	
ANNUAL TOTAL				43633.4				45843.4				
ANNUAL MEAN				119				126			89.4	
HIGHEST ANNUAL MEAN											145	
LOWEST ANNUAL MEAN											20.4	
HIGHEST DAILY MEAN				2780				1940			4600	
LOWEST DAILY MEAN				4.7				2.5			0.34	
ANNUAL SEVEN-DAY MINIMUM				5.6				2.7			0.36	
MAXIMUM PEAK FLOW								3190			5800	
MAXIMUM PEAK STAGE								8.99			9.83	
INSTANTANEOUS LOW FLOW								2.5			0.60	
ANNUAL RUNOFF (CFSM)				1.34				1.41			1.01	
ANNUAL RUNOFF (INCHES)				18.28				19.20			13.68	
10 PERCENT EXCEEDS				247				244			197	
50 PERCENT EXCEEDS				38				34			22	
90 PERCENT EXCEEDS				7.7				5.6			3.4	

^a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.
e Estimated.

04196500 Sandusky River near Upper Sandusky

LOCATION.—Latitude 40°51'02", longitude 83°15'23", Wyandot County, Hydrologic Unit 04100011, on left bank at downstream side of county road bridge, 0.7 mi downstream from unnamed right bank tributary, 0.8 mi upstream from Rocky Run, and 2 mi northeast of Upper Sandusky, Ohio.

DRAINAGE AREA.—298 mi².

PERIOD OF RECORD.—October 1921 to December 1935, January 1938 to September 1981, November 2000 to current year. Gage height records collected at site 3 mi upstream since 1912 (fragmentary) are contained in reports of National Weather Service.

REVISED RECORDS.—WSP 874: 1927-30, 1933. WSP 1387: 1922(tn), 1923-29, 1944. WSP 1912: Drainage area

GAGE.—Water-stage recorder. Datum of gage is 792.25 ft above sea level. Prior to Sept. 14, 1924, nonrecording site and datum. Water-quality data collected at site 1969-1980.

REMARKS.—Records good except for periods of estimated record, which are poor.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood of June 1937 reached a stage of 14.3 ft from high-water marks in gage well.

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	48	49	679	5450	e90	169	204	526	68	102	33	286
2	33	99	991	4410	e84	175	564	389	65	130	24	212
3	30	413	470	2240	e84	149	2340	296	63	87	16	92
4	27	753	272	4310	e86	121	2320	240	59	46	13	50
5	26	766	199	4930	e90	137	1100	201	55	31	11	31
6	20	455	160	5320	e94	213	482	176	52	28	8.8	24
7	17	248	149	5260	117	344	309	162	50	23	9.9	23
8	19	167	203	2660	1450	344	233	150	47	205	7.2	19
9	18	119	297	1350	3550	209	187	137	48	68	7.4	15
10	17	91	296	1490	2730	140	154	127	146	54	8.7	17
11	22	79	468	1790	1080	120	128	114	118	33	8.8	14
12	25	71	500	3590	559	117	110	106	81	23	7.7	12
13	21	67	412	5230	511	108	99	106	59	18	5.4	11
14	22	56	257	5160	679	92	88	126	50	23	18	13
15	43	51	174	3570	1100	85	75	531	41	24	14	13
16	49	48	135	1270	964	83	65	560	37	114	14	149
17	55	50	132	639	1040	90	55	324	33	374	18	221
18	56	62	114	408	692	104	53	190	31	239	12	127
19	60	150	99	e280	343	108	54	157	30	511	10	72
20	113	614	e88	e230	244	131	63	159	28	292	8.8	46
21	118	575	e80	e220	463	232	198	157	26	166	9.0	34
22	73	309	e76	e210	980	201	601	136	22	95	12	23
23	56	207	e70	e200	601	159	1480	123	16	53	8.6	557
24	64	264	e66	e190	348	213	3710	122	14	39	8.9	404
25	84	1320	e62	e170	245	316	4320	119	13	37	8.8	152
26	74	1220	e58	e150	186	497	2800	105	13	35	6.4	1150
27	75	481	e54	e140	150	613	2820	91	17	193	6.1	1240
28	69	290	e52	e96	137	396	1770	85	13	231	5.6	692
29	61	239	e50	e60	---	645	924	88	12	228	6.0	344
30	64	215	e150	e50	---	461	646	83	20	104	48	240
31	56	---	1910	e70	---	276	---	75	---	57	368	---
TOTAL	1515	9528	8723	61143	18697	7048	27952	5961	1327	3663	743.1	6283
MEAN	48.9	318	281	1972	668	227	932	192	44.2	118	24.0	209
MAX	118	1320	1910	5450	3550	645	4320	560	146	511	368	1240
MIN	17	48	50	50	84	83	53	75	12	18	5.4	11
CFSM	0.16	1.07	0.94	6.62	2.24	0.76	3.13	0.65	0.15	0.40	0.08	0.70
IN.	0.19	1.19	1.09	7.63	2.33	0.88	3.49	0.74	0.17	0.46	0.09	0.78
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922-2005, BY WATER YEAR (WY)												
MEAN	57.0	135	276	417	439	565	457	277	200	101	56.2	67.9
MAX	795	891	1107	1972	1069	1490	1399	894	1283	594	504	839
(WY)	1927	1973	1978	2005	1971	1963	1957	2004	1947	2003	1958	1981
MIN	1.67	5.09	5.64	13.9	15.6	114	37.3	18.2	6.44	8.07	4.02	1.22
(WY)	1964	1964	1964	1945	1964	1941	1946	1934	1934	1934	1952	1955
SUMMARY STATISTICS												
				FOR 2004 CALENDAR YEAR			FOR 2005 WATER YEAR			WATER YEARS 1922-2005		
ANNUAL TOTAL				146774			152583.1					
ANNUAL MEAN				401			418			255		
HIGHEST ANNUAL MEAN										470		
LOWEST ANNUAL MEAN										70.0		
HIGHEST DAILY MEAN				4980			5450			8400		
LOWEST DAILY MEAN				13			5.4			0.60		
ANNUAL SEVEN-DAY MINIMUM				17			7.2			0.71		
MAXIMUM PEAK FLOW							5930			10000		
MAXIMUM PEAK STAGE							9.43			15.00		
INSTANTANEOUS LOW FLOW							5.4			0.50		
ANNUAL RUNOFF (CFSM)				1.35			1.40			0.85		
ANNUAL RUNOFF (INCHES)				18.32			19.05			11.61		
10 PERCENT EXCEEDS				988			1010			645		
50 PERCENT EXCEEDS				157			114			65		
90 PERCENT EXCEEDS				34			16			8.3		

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.

e Estimated.

04196800 Tymochtee Creek at Crawford, Ohio

LOCATION.—Latitude 40°55'22", longitude 83°20'56", in SE ¼ sec. 27, T.1 S., R.13 E., Wyandot County, Hydrologic Unit 04100011, on right bank at downstream side of bridge on State Highway 199 (formerly U.S. Highway 23), 0.4 mi northwest of Crawford, Ohio, 1.5 mi downstream from Lick Run, 2.7 mi upstream from Little Tymochtee Creek, and 3 mi southeast of Carey, Ohio.

DRAINAGE AREA.—229 mi².

PERIOD OF RECORD.—Occasional low-flow measurements, water years 1961-63, and annual maximum, water years 1961-64, June 1964 to current year.

REVISED RECORDS.—WDR Ohio 1969: 1964(P), 1966(M), 1967(P).

GAGE.—Water-stage recorder. Datum of gage is 785.86 ft above sea level.

REMARKS.—Records good except for periods of estimated record, which are poor. Water-quality and sediment data formerly collected at this site.

**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	7.3	28	560	2760	e44	108	181	389	24	116	21	418
2	8.5	29	779	3850	e40	124	342	307	21	310	14	382
3	13	90	590	2650	e36	130	973	213	20	184	10	133
4	13	234	273	2850	e34	110	1420	155	19	76	8.8	54
5	11	542	176	3520	e32	112	1130	122	17	35	9.1	24
6	14	468	132	4320	e33	173	438	101	17	21	8.6	14
7	17	224	115	4640	e45	246	224	89	17	15	7.4	10
8	18	119	148	3190	458	251	161	82	15	13	6.2	7.6
9	18	74	182	1540	1170	185	128	72	14	14	5.3	7.1
10	16	53	201	1130	2110	126	109	67	14	17	4.6	6.3
11	12	41	249	1380	1670	103	92	65	18	13	3.9	4.6
12	8.5	32	320	2420	849	95	81	61	474	13	3.7	3.6
13	7.0	27	278	3830	449	89	72	55	481	11	4.2	2.8
14	5.9	24	189	4320	534	81	64	47	158	12	6.5	2.1
15	12	22	133	2720	744	75	60	42	86	14	6.6	2.7
16	16	20	100	1730	825	69	55	137	56	30	9.2	7.6
17	15	19	84	816	732	66	48	137	41	216	9.7	32
18	19	18	e70	403	655	68	45	84	30	47	10	179
19	31	61	e64	e410	396	69	44	59	25	114	9.4	82
20	36	318	e56	e230	207	72	49	49	20	120	8.2	33
21	41	390	e54	e190	241	76	244	48	17	78	6.9	16
22	33	227	e50	e160	538	88	172	72	15	76	5.6	10
23	31	130	e60	e130	607	113	804	69	13	37	4.8	173
24	28	135	e70	e100	336	122	1630	53	12	28	4.1	722
25	38	772	e60	e70	207	146	2710	56	12	20	3.9	964
26	52	952	e56	e60	151	288	2340	54	11	16	4.5	1180
27	42	e850	e52	e78	121	464	1900	47	10	61	4.4	1350
28	39	366	e50	e58	105	396	1430	39	9.3	104	3.9	1550
29	36	251	e48	e45	---	328	1240	31	9.9	134	4.1	1170
30	30	214	e46	e40	---	424	598	29	21	78	12	446
31	29	---	e850	e45	---	268	---	27	---	36	119	---
TOTAL	697.2	6730	6095	49685	13369	5065	18784	2858	1697.2	2059	339.6	8986.4
MEAN	22.5	224	197	1603	477	163	626	92.2	56.6	66.4	11.0	300
MAX	52	952	850	4640	2110	464	2710	389	481	310	119	1550
MIN	5.9	18	46	40	32	66	44	27	9.3	11	3.7	2.1

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964-2005, BY WATER YEAR (WY)

MEAN	33.7	138	228	266	302	398	345	232	154	108	33.7	39.4
MAX	278	844	1104	1603	823	1392	946	813	780	741	201	370
(WY)	1987	1993	1991	2005	1975	1978	1972	2004	1981	1992	1992	1981
MIN	0.08	0.86	1.78	1.67	37.2	35.1	32.8	11.7	1.78	1.04	0.48	0.27
(WY)	1965	1992	1992	1977	1972	1983	1971	1988	1988	1965	1965	1964

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1964-2005	
	101226.3		116365.4			
ANNUAL TOTAL	101226.3		116365.4			
ANNUAL MEAN	277		319		190	
HIGHEST ANNUAL MEAN					330	
LOWEST ANNUAL MEAN					72.2	
HIGHEST DAILY MEAN	4290		4640		6280	
LOWEST DAILY MEAN	3.7		2.1		0.00	
ANNUAL SEVEN-DAY MINIMUM	4.7		4.2		0.00	
MAXIMUM PEAK FLOW			4850		6700	
MAXIMUM PEAK STAGE			8.65		11.21	
INSTANTANEOUS LOW FLOW			2.1		0.00	
10 PERCENT EXCEEDS	779		849		522	
50 PERCENT EXCEEDS	72		67		36	
90 PERCENT EXCEEDS	12		9.2		1.7	

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.

e Estimated.

04197100 Honey Creek at Melmore, Ohio

LOCATION.—Latitude 41°01'20", longitude 83°06'35", Seneca County, Hydrologic Unit 04100011, at bridge on State Highways 67 and 100 at Melmore, Ohio, 1.5 mi upstream from Buckeye Creek.

DRAINAGE AREA.—149 mi².

PERIOD OF RECORD.—Annual maximum, water years 1961-75, February 1976 to current year.

GAGE.—Water-stage recorder. Elevation of gage is 818 ft above sea level (from topographic map).

REMARKS.—Records fair except for periods of estimated record, which are poor. Water-quality data formerly collected at this site.

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	1.8	14	374	2630	e28	81	92	240	22	7.9	19	38
2	5.0	19	468	1570	e25	79	490	165	21	12	12	34
3	3.4	134	211	1430	e23	65	1830	114	18	9.8	8.2	19
4	2.6	254	114	2120	e22	64	1610	87	16	7.5	6.2	9.9
5	1.8	312	81	1880	e21	68	789	69	15	5.4	5.0	5.9
6	1.5	200	65	2380	e20	149	401	61	15	4.1	4.3	4.1
7	1.4	86	65	1960	e50	385	213	55	13	3.2	3.6	3.2
8	1.1	53	210	1140	760	274	139	51	13	2.6	3.3	2.7
9	1.1	37	272	722	1400	130	102	46	12	31	2.9	2.3
10	1.0	27	283	660	1070	79	79	40	11	33	2.6	1.8
11	1.0	22	360	1000	626	70	66	39	10	20	2.5	1.5
12	1.3	19	318	2660	344	62	56	41	9.6	10	2.3	1.4
13	1.6	16	220	2890	360	54	51	37	13	5.9	2.4	1.3
14	1.5	13	128	2700	476	46	46	38	11	12	3.3	1.2
15	2.2	9.9	e80	1680	757	42	40	45	9.7	17	2.7	1.3
16	3.1	8.8	e64	850	712	45	35	156	9.0	32	2.5	2.9
17	7.1	8.5	e56	492	617	54	31	91	7.9	61	2.1	5.0
18	6.5	9.5	e50	701	385	61	30	55	7.3	52	1.9	23
19	12	57	e45	e660	196	62	31	44	6.9	41	1.9	16
20	59	310	e42	e130	127	89	34	41	6.5	32	2.2	9.1
21	36	269	e38	e100	219	128	50	38	5.7	30	2.3	5.6
22	21	113	e35	e88	365	99	122	35	5.2	19	2.0	4.2
23	14	74	e52	e76	306	113	837	34	4.2	13	1.8	9.2
24	10	128	e48	e68	206	307	2070	33	3.8	8.6	1.7	9.4
25	9.6	734	e43	e56	132	456	2120	32	3.5	6.2	1.6	21
26	16	673	e38	e47	97	455	1950	29	3.4	9.7	1.6	233
27	15	285	e34	e55	77	349	1750	25	3.6	168	1.8	391
28	9.7	142	e32	e36	70	216	1100	24	3.3	214	1.8	263
29	7.3	106	e30	e31	---	221	603	24	2.9	159	1.7	84
30	6.2	85	e60	e29	---	190	364	24	3.6	57	3.8	46
31	5.9	---	1580	e36	---	124	---	23	---	29	22	---
TOTAL	266.7	4218.7	5496	30877	9491	4617	17131	1836	286.1	1112.9	133.0	1250.0
MEAN	8.60	141	177	996	339	149	571	59.2	35.9	35.9	4.29	41.7
MAX	59	734	1580	2890	1400	456	2120	240	22	214	22	391
MIN	1.0	8.5	30	29	20	42	30	23	2.9	2.6	1.6	1.2
CFSM	0.06	0.94	1.19	6.68	2.27	1.00	3.83	0.40	0.06	0.24	0.03	0.28
IN.	0.07	1.05	1.37	7.71	2.37	1.15	4.28	0.46	0.07	0.28	0.03	0.31
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976-2005 BY WATER YEAR (WY)												
MEAN	30.0	96.5	163	180	231	260	248	120	114	71.8	43.8	34.3
MAX	186	550	518	996	601	765	571	340	740	373	233	242
(WY)	1991	1993	1978	2005	1976	1978	2005	1997	1981	1992	1998	1981
MIN	0.71	2.51	1.99	1.31	31.1	40.4	44.4	8.69	1.05	0.46	0.91	0.84
(WY)	1989	1995	1977	1977	2003	1981	1976	1988	1988	1988	2002	1995
SUMMARY STATISTICS												
				FOR 2004 CALENDAR YEAR				FOR 2005 WATER YEAR				WATER YEARS 1976-2005
ANNUAL TOTAL				56002.6				76715.4				
ANNUAL MEAN				153				210				133
HIGHEST ANNUAL MEAN												210
LOWEST ANNUAL MEAN												48.1
HIGHEST DAILY MEAN				2050				2890				4000
LOWEST DAILY MEAN				1.0				1.0				0.07
ANNUAL SEVEN-DAY MINIMUM				1.2				1.2				0.09
MAXIMUM PEAK FLOW								3400				4440
MAXIMUM PEAK STAGE								9.94				11.00
INSTANTANEOUS LOW FLOW								1.0				0.07
ANNUAL RUNOFF (CFSM)				1.03				1.41				0.89
ANNUAL RUNOFF (INCHES)				13.98				19.15				12.09
10 PERCENT EXCEEDS				431				621				350
50 PERCENT EXCEEDS				47				38				31
90 PERCENT EXCEEDS				6.7				2.6				2.0

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.

e Estimated.

04197170 Rock Creek at Tiffin, Ohio

LOCATION.—Latitude 41°06'49", longitude 83°10'06", Seneca County, Hydrologic Unit 04100011, on left bank 0.05 mi downstream from bridge on Rebecca Street, at Heidelberg College, Tiffin, Ohio.

DRAINAGE AREA.—34.6 mi².

PERIOD OF RECORD.—June 1983 to current year.

GAGE.—Water-stage recorder. Elevation of gage is 740 ft above sea level (from topographic map).

REMARKS.—Records fair except for periods of estimated record, which are poor.

**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	0.77	4.0	73	583	e6.0	17	12	22	4.7	3.5	5.6	6.1
2	0.77	6.0	50	92	e5.6	15	257	17	4.6	2.5	5.1	3.4
3	0.82	5.4	19	320	e5.2	12	818	15	4.4	2.1	4.8	2.7
4	0.88	7.5	13	587	e5.0	12	166	13	4.4	2.1	4.5	2.2
5	0.86	13	10	268	e6.0	14	43	12	4.4	2.1	4.4	1.9
6	0.90	10	9.2	526	e9.0	38	26	11	4.1	2.1	4.2	1.7
7	0.88	4.5	9.2	188	e26	86	20	11	4.0	1.9	4.1	1.8
8	0.90	2.6	22	57	442	33	17	10	4.0	1.9	4.1	1.7
9	0.84	1.9	27	45	304	16	15	9.1	3.9	3.0	3.9	1.7
10	0.92	1.5	44	107	88	12	13	8.8	3.9	2.9	3.8	1.5
11	1.1	1.3	74	257	38	11	12	8.3	3.5	4.6	3.8	1.5
12	1.1	1.2	63	961	28	11	11	7.9	3.5	4.7	3.8	1.5
13	1.2	1.2	33	513	64	10	10	7.4	3.5	4.7	4.0	1.5
14	1.2	1.2	18	592	98	9.7	9.6	8.0	3.5	7.3	4.0	1.3
15	2.1	1.2	13	103	134	9.3	8.9	8.0	3.3	13	3.8	1.4
16	2.0	1.4	11	38	101	9.6	8.5	7.3	3.2	161	3.8	4.4
17	2.0	1.5	9.8	34	114	10	8.4	6.6	3.1	136	3.5	3.3
18	3.1	1.4	e9.0	e80	31	10	8.4	6.1	3.0	26	3.5	2.9
19	2.9	10	e8.2	e30	26	11	8.3	6.1	3.0	61	3.5	2.4
20	2.1	47	e7.4	e20	16	17	8.8	6.5	3.0	15	4.0	2.1
21	1.9	18	e7.0	e17	58	20	12	5.9	2.8	13	3.8	1.7
22	1.9	6.3	e6.6	e15	85	14	13	5.8	2.8	11	3.5	1.8
23	2.3	3.7	e9.0	e13	44	18	372	5.4	2.6	8.2	3.2	3.8
24	2.6	13	e8.4	e12	27	61	605	5.6	2.5	7.1	3.4	3.8
25	2.3	192	e7.8	e11	18	135	374	5.4	2.7	6.9	3.2	3.0
26	2.3	72	e7.0	e9.6	14	97	315	5.3	2.5	6.8	3.3	107
27	2.6	21	e6.4	e9.0	12	41	413	5.0	2.2	71	4.4	97
28	2.7	15	e6.0	e8.4	13	25	79	5.1	2.2	49	2.0	17
29	3.0	13	e5.8	e7.6	---	20	37	5.0	2.1	16	1.6	5.4
30	3.7	11	e8.0	e7.0	---	17	28	4.7	2.7	8.7	6.4	3.2
31	3.9	---	751	e6.4	---	14	---	4.7	---	6.6	15	---
TOTAL	56.54	488.8	1345.8	5517.0	1817.8	825.6	3728.9	259.0	100.1	661.7	132.0	290.7
MEAN	1.82	16.3	43.4	178	64.9	26.6	124	8.35	3.34	21.3	4.26	9.69
MAX	3.9	192	751	961	442	135	818	22	4.7	161	15	107
MIN	0.77	1.2	5.8	6.4	5.0	9.3	8.3	4.7	2.1	1.9	1.6	1.3
CFSM	0.05	0.47	1.25	5.14	1.88	0.77	3.59	0.24	0.10	0.62	0.12	0.28
IN.	0.06	0.53	1.45	5.93	1.95	0.89	4.01	0.28	0.11	0.71	0.14	0.31

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984-2005, BY WATER YEAR (WY)

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	
MEAN	9.03	25.8	37.9	43.5	55.4	48.3	57.8	29.6	23.1	14.5	10.4	10.8											
MAX	50.3	145	172	178	122	138	124	87.6	90.8	82.0	88.8	99.5											
(WY)	1991	1993	1991	2005	1990	1984	2005	1997	1997	1992	1998	1992											
MIN	1.27	1.73	2.09	9.48	11.7	13.6	17.9	2.29	1.12	0.55	1.19	0.83											
(WY)	2000	2000	1992	2001	2003	1989	1988	1988	1988	1988	2002	1995											

SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 1984-2005		
ANNUAL TOTAL	10740.94	15223.94			
ANNUAL MEAN	29.3	41.7	30.3		
HIGHEST ANNUAL MEAN			48.2		1988
LOWEST ANNUAL MEAN			11.6		1988
HIGHEST DAILY MEAN	751 Dec 31	961 Jan 12	1590 Aug 26		1998
LOWEST DAILY MEAN	0.77 Oct 1	0.77 Oct 1	0.32 Jul 29		1988
ANNUAL SEVEN-DAY MINIMUM	0.83 Sep 28	0.84 Oct 1	0.37 Sep 11		2001
MAXIMUM PEAK FLOW		1310 Dec 31	2640 Aug 26		1998
MAXIMUM PEAK STAGE		7.34 Dec 31	8.96 Aug 26		1998
INSTANTANEOUS LOW FLOW			0.32 Jul 29		1988
ANNUAL RUNOFF (CFSM)	0.85	1.21	0.88		
ANNUAL RUNOFF (INCHES)	11.55	16.37	11.91		
10 PERCENT EXCEEDS	64	87	58		
50 PERCENT EXCEEDS	7.2	7.4	6.2		
90 PERCENT EXCEEDS	1.3	1.9	1.4		

e Estimated.

04198000 Sandusky River near Fremont, Ohio

LOCATION.—Latitude 41°18'28", longitude 83°09'32", in sec. 17, T.4 N., R.15 E., Sandusky County, Hydrologic Unit 04100011, on left bank at downstream side of county road bridge, 2.3 mi upstream from Ballville diversion dam, 2.5 mi downstream from Wolf Creek, and 3.5 mi southwest of Fremont, Ohio.

DRAINAGE AREA.—1,251 mi².

PERIOD OF RECORD.—November 1898 to March 1901 (gage height and discharge measurements only, published as "at Fremont"), October 1923 to December 1935, July 1938 to current year. Monthly discharge only for October 1923, published in WSP 1307.

REVISED RECORDS.—WSP 744: 1931-32. WSP 874: 1938. WSP 1144: 1924-30. WSP 1387: 1925, 1928-29, 1931-35. WSP 1912: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is 626.30 ft (National Geodetic Vertical Datum of 1912). Nov. 18, 1898-Mar. 10, 1901, nonrecording gage at site 4 mi downstream at different datum; Nov. 8, 1923-Sept. 5, 1930, nonrecording gage at present site and datum.

REMARKS.—Records good except for periods of estimated record, which are poor. Water-quality data collected at this site.

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	68	99	1260	13900	e270	648	985	2130	229	75	348	1340
2	70	112	2970	11600	e260	673	1910	1540	208	105	183	933
3	71	149	2650	12500	e250	629	9020	1190	188	300	114	793
4	75	583	1660	15700	e270	585	8120	899	175	368	86	457
5	70	1650	1010	14400	e280	566	5830	707	167	232	72	262
6	68	1830	732	14900	e300	851	3610	592	158	146	62	170
7	66	1270	619	16300	e330	1560	1950	522	144	100	55	113
8	60	752	755	14300	e3000	1630	1270	470	191	77	53	85
9	57	487	1240	10900	e9000	1210	927	425	370	65	54	72
10	54	353	1230	6660	7520	803	737	392	243	146	52	59
11	51	268	1920	6150	6330	613	609	364	179	137	e50	53
12	49	220	2140	8510	4250	522	520	354	197	108	43	47
13	49	193	1860	11500	2820	469	460	332	306	84	40	44
14	49	172	1380	13600	2670	417	409	326	591	68	47	41
15	59	162	944	16000	4480	375	361	331	358	88	44	36
16	80	151	695	11500	4110	347	322	532	218	125	40	51
17	70	145	586	6270	4210	345	297	808	163	956	41	82
18	67	149	512	2520	2920	360	277	682	133	1010	44	253
19	98	177	463	e1800	2080	373	262	467	114	645	44	367
20	112	773	e420	e1300	1410	419	254	385	101	662	43	324
21	187	1640	e390	e1000	1260	522	562	360	94	592	49	213
22	178	1390	e370	e840	2030	568	1920	342	86	399	49	142
23	178	861	e330	e720	2500	600	3580	332	74	271	48	140
24	163	630	e300	e640	2090	1060	11800	336	68	201	41	637
25	137	2980	e280	e540	1400	1770	12500	322	64	143	36	1280
26	133	4730	e260	e430	946	2180	12700	306	59	118	33	2410
27	143	e3300	e250	e340	720	2230	13500	300	55	347	33	6030
28	150	1960	e230	e250	615	1990	9960	280	57	657	53	4170
29	136	1220	e220	e180	---	1580	6470	262	67	780	44	2770
30	136	918	e1100	e150	---	1560	3770	261	64	684	47	2000
31	116	---	e5000	e220	---	1430	---	250	---	515	386	---
TOTAL	3000	29324	33776	215620	68321	28885	114892	16799	5121	10204	2334	25374
MEAN	96.8	977	1090	6955	2440	932	3830	542	171	329	75.3	846
MAX	187	4730	5000	16300	9000	2230	13500	2130	591	1010	386	6030
MIN	49	99	220	150	250	345	254	250	55	65	33	36
CFSM	0.08	0.78	0.87	5.56	1.95	0.74	3.06	0.43	0.14	0.26	0.06	0.68
IN.	0.09	0.87	1.00	6.41	2.03	0.86	3.42	0.50	0.15	0.30	0.07	0.75
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924-2005 BY WATER YEAR (WY)												
MEAN	227	578	1115	1611	1901	2267	1880	1114	839	467	236	261
MAX	2521	4413	5495	7659	7504	8261	5524	3654	6091	3479	1660	3713
(WY)	1927	1993	1991	1930	1984	1978	1957	1969	1981	1992	1958	1981
MIN	9.94	25.4	32.6	53.5	60.3	319	144	100	43.4	30.9	22.4	13.5
(WY)	1964	1954	1964	1961	1964	1941	1946	1941	1988	1934	1952	1953
SUMMARY STATISTICS												
				FOR 2004 CALENDAR YEAR			FOR 2005 WATER YEAR			WATER YEARS 1924-2005		
ANNUAL TOTAL				505271			553650					
ANNUAL MEAN				1381			1517			1036		
HIGHEST ANNUAL MEAN										2167		
LOWEST ANNUAL MEAN										275		
HIGHEST DAILY MEAN				13000			May 22			36000		
LOWEST DAILY MEAN				49			Oct 12			5.0		
ANNUAL SEVEN-DAY MINIMUM				53			Oct 9			6.3		
MAXIMUM PEAK FLOW							17700			36500		
MAXIMUM PEAK STAGE							8.50			16.14		
INSTANTANEOUS LOW FLOW							33			4.4		
ANNUAL RUNOFF (CFSM)				1.10			1.21			0.83		
ANNUAL RUNOFF (INCHES)				15.02			16.46			11.26		
10 PERCENT EXCEEDS				3860			4130			2760		
50 PERCENT EXCEEDS				515			361			284		
90 PERCENT EXCEEDS				111			56			40		

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.

e Estimated

Surface-Water Records—Huron River Basin

04199000 Huron River at Milan, Ohio

LOCATION.—Latitude 41°18'03", longitude 82°36'30", in SW ¼ sec. 4, T.5 N., R.22 W., Erie County, Hydrologic Unit 04100012, on right bank 500 ft downstream from U.S. Highway 250, 0.2 mi northwest of Milan, Ohio, and 2 mi downstream from confluence of east and west branches.

DRAINAGE AREA.—371 mi².

PERIOD OF RECORD.—March 1950 to September 1980, October 1987 to current year.

REVISED RECORDS.—WSP 1912: Drainage area. WDR OH-89-2: 1988.

GAGE.—Water-stage recorder. Datum of gage is 573.26 ft above sea level. October 1987 to May 2005 at site 500 ft upstream at same datum; July 29, 1953, to Oct. 5, 1979, at site of former highway bridge at current site at same datum; prior to July 29, 1953, nonrecording gage at same site and same datum.

REMARKS.—Records fair except for periods of estimated record, which are poor. Water-quality and sediment data formerly collected at this site.

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	43	50	1260	5890	e550	489	217	515	81	39	46	159
2	37	74	899	1740	e490	454	1850	395	73	59	40	63
3	33	327	468	2760	e430	402	6000	309	69	40	36	35
4	32	382	358	5450	e400	397	2720	275	66	31	31	24
5	31	537	297	e3000	e360	443	1070	245	62	28	30	20
6	30	317	280	e5000	e350	683	592	225	63	27	28	18
7	30	203	286	2960	e450	856	435	206	58	26	29	17
8	31	143	446	1200	e4000	637	375	195	53	28	26	16
9	27	101	520	888	3790	434	313	e180	49	26	26	20
10	26	83	663	1280	1860	370	272	169	47	31	45	16
11	26	70	835	2600	1020	362	245	160	63	27	141	14
12	28	63	789	7230	846	345	224	163	65	25	41	14
13	30	58	550	5370	1150	323	208	167	53	43	34	13
14	32	55	389	e5600	1400	303	192	188	50	38	32	12
15	44	53	308	e4000	1840	302	161	429	45	25	30	12
16	46	69	278	e3000	1540	312	134	324	49	32	29	56
17	42	74	276	e2600	1620	340	124	219	69	e67	e28	75
18	43	68	243	e2200	783	354	121	173	50	e62	e25	57
19	60	135	229	e2000	553	367	118	146	44	e55	e22	34
20	135	616	e210	e1700	486	596	124	140	40	e53	e127	26
21	83	462	e200	e1500	1050	596	120	136	39	147	e97	22
22	66	257	e190	e1400	1410	454	207	120	41	e80	e23	19
23	50	180	e180	e1200	1020	e900	2190	133	36	e60	19	43
24	53	308	e170	e1250	748	e1000	5140	141	33	e45	19	36
25	52	2440	e165	e1300	528	867	4570	130	31	e38	18	40
26	58	e1000	e160	e1000	497	793	3950	108	29	e36	18	1070
27	54	e500	e150	e900	418	565	3880	97	31	496	17	1080
28	48	373	e145	e800	410	e450	1460	92	30	677	15	268
29	70	316	e140	e720	---	e400	763	103	29	203	16	107
30	51	285	e200	e660	---	320	615	103	28	92	30	63
31	48	---	e5500	e600	---	259	---	90	---	58	100	---
TOTAL	1439	9599	16784	77798	29999	15373	38390	6076	1476	2694	1218	3449
MEAN	46.4	320	541	2510	1071	496	1280	196	49.2	86.9	39.3	115
MAX	135	2440	5500	7230	4000	1000	6000	515	81	677	141	1080
MIN	26	50	140	600	350	259	118	90	28	25	15	12
CFSM	0.13	0.86	1.46	6.76	2.89	1.34	3.45	0.53	0.13	0.23	0.11	0.31
IN.	0.14	0.96	1.68	7.80	3.01	1.54	3.85	0.61	0.15	0.27	0.12	0.35

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951-2005, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	61.2	177	363	498	541	675	594	327	245	178	102	80.2
MAX	402	1259	1909	2510	1422	1697	1536	929	980	1821	749	573
(WY)	1991	1973	1991	2005	1959	1978	1957	1967	1981	1969	1998	1972
MIN	7.86	14.0	9.23	26.8	24.0	117	86.0	46.5	14.9	11.8	11.3	5.76
(WY)	1964	1964	1964	1977	1964	1981	1971	1962	1988	1963	1952	1955

SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR				FOR 2005 WATER YEAR				WATER YEARS 1951-2005			
ANNUAL TOTAL	157475				204295							
ANNUAL MEAN	430				560				319			
HIGHEST ANNUAL MEAN									560			
LOWEST ANNUAL MEAN									145			
HIGHEST DAILY MEAN	5650				7230				31400			
LOWEST DAILY MEAN	22				12				3.0			
ANNUAL SEVEN-DAY MINIMUM	28				14				3.4			
MAXIMUM PEAK FLOW					9260				49600			
MAXIMUM PEAK STAGE					19.74				31.10			
INSTANTANEOUS LOW FLOW					11				2.2			
ANNUAL RUNOFF (CFSM)	1.16				1.51				0.86			
ANNUAL RUNOFF (INCHES)	15.79				20.48				11.68			
10 PERCENT EXCEEDS	927				1400				726			
50 PERCENT EXCEEDS	180				159				88			
90 PERCENT EXCEEDS	38				28				16			

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.

e Estimated.

Surface-Water Records—Old Woman Creek Basin

04199155 Old Woman Creek at Berlin Road near Huron, Ohio

LOCATION.—Latitude 41°20'54", longitude 82°30'50", Erie County, Hydrologic Unit 04100012, on left downstream side of Berlin Road Bridge, 3.8 mi southeast of Huron, Ohio.

DRAINAGE AREA.—22.1 mi².

PERIOD OF RECORD.—October 1987 to September 1994, October 1995 to current year. Published as "Old Woman's Creek" prior to 2002.

REVISED RECORDS.—WSP 1912: Drainage area. WDR OH-89-2: 1988.

GAGE.—Water-stage recorder. Datum of gage is 570 ft above sea level. Erie County benchmark.

REMARKS.—Records fair except for periods of estimated record, which are poor.

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	2.5	4.0	148	152	e4.8	24	12	34	3.6	0.54	0.63	16	
2	2.4	14	52	83	e4.3	19	268	27	3.3	0.32	0.43	4.1	
3	2.5	73	26	216	e4.0	17	430	23	3.2	0.22	0.29	2.1	
4	2.5	50	18	270	e3.8	18	110	20	3.1	0.17	0.51	1.3	
5	2.3	60	14	147	e4.2	21	54	18	2.8	0.12	0.19	0.79	
6	2.2	19	14	192	e12	43	32	17	3.5	0.10	0.11	0.58	
7	2.1	10	20	101	85	51	26	16	2.6	0.11	0.08	0.44	
8	1.9	6.3	38	61	314	22	26	15	2.2	0.09	0.07	0.35	
9	1.6	4.6	24	58	124	14	20	13	2.0	0.08	0.06	0.34	
10	1.5	3.9	43	99	74	14	18	12	1.8	0.07	1.9	0.31	
11	1.6	3.6	63	220	43	15	16	11	1.7	0.07	4.1	0.26	
12	1.8	3.1	71	665	39	15	14	9.0	1.7	0.07	1.7	0.20	
13	1.9	2.7	41	257	56	13	12	8.3	1.7	0.07	0.88	0.15	
14	2.6	2.4	23	322	72	12	10	13	1.6	0.07	0.58	0.09	
15	2.6	2.3	18	76	68	14	8.9	16	1.3	0.07	0.36	0.08	
16	2.7	2.8	17	44	90	18	8.1	10	2.4	0.59	0.23	2.7	
17	2.0	3.6	16	28	76	21	7.8	8.3	3.4	1.9	0.14	4.1	
18	1.5	4.5	15	e21	28	21	7.7	7.0	2.7	0.69	0.08	6.8	
19	3.6	21	e12	e17	19	19	7.2	6.4	2.0	0.89	0.12	2.7	
20	3.4	63	e10	e15	18	79	7.9	6.1	1.6	0.44	26	1.5	
21	2.2	27	e9.0	e13	105	48	8.0	5.2	1.2	9.2	46	0.81	
22	1.8	13	e8.4	e11	72	25	9.3	4.7	1.1	4.8	4.7	0.57	
23	1.5	8.8	e7.8	e10	61	60	343	7.6	0.79	1.3	2.0	6.9	
24	2.7	49	e7.2	e9.0	46	64	299	8.9	0.53	0.57	1.1	6.8	
25	4.0	181	e6.8	e8.4	23	52	411	5.9	0.43	0.35	0.66	3.0	
26	2.7	54	e6.2	e7.8	19	40	244	4.9	0.38	0.31	0.49	229	
27	2.0	27	e6.0	e7.0	16	25	234	4.4	0.29	64	0.49	51	
28	1.7	20	e10	e6.5	18	22	84	4.4	0.21	15	0.43	13	
29	10	16	e15	e6.0	---	20	54	4.6	0.38	3.5	0.36	7.4	
30	42	16	47	e5.6	---	17	45	4.1	0.43	1.8	1.7	5.4	
31	8.5	---	678	e5.0	---	15	---	3.8	---	0.98	52	---	
TOTAL	124.3	765.6	1484.4	3133.3	1499.1	858	2826.9	348.6	53.94	108.49	148.39	368.77	
MEAN	4.01	25.5	47.9	101	53.5	27.7	94.2	11.2	1.80	3.50	4.79	12.3	
MAX	42	181	678	665	314	79	430	34	3.6	64	52	229	
MIN	1.5	2.3	6.0	5.0	3.8	12	7.2	3.8	0.21	0.07	0.06	0.08	
CFSM	0.18	1.15	2.17	4.57	2.42	1.25	4.26	0.51	0.08	0.16	0.22	0.56	
IN.	0.21	1.29	2.50	5.27	2.52	1.44	4.76	0.59	0.09	0.18	0.25	0.62	
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988-2005, BY WATER YEAR (WY)													
MEAN	4.67	15.2	26.6	33.5	32.4	34.2	45.0	21.6	17.8	7.77	6.03	6.22	
MAX	20.8	68.4	98.2	101	78.6	86.3	94.2	70.6	47.4	35.1	23.7	23.1	
(WY)	1997	1993	1991	2005	1990	1993	2005	2004	1997	1992	1992	1996	
MIN	0.00	0.31	0.70	8.03	5.70	11.2	18.4	2.20	0.17	0.01	0.00	0.00	
(WY)	1995	1992	1992	1988	2003	2001	1988	1988	1988	1991	1991	1991	
SUMMARY STATISTICS													
				FOR 2004 CALENDAR YEAR				FOR 2005 WATER YEAR				WATER YEARS 1988 - 2005	
ANNUAL TOTAL					11480.48				11719.79				
ANNUAL MEAN					31.4				32.1				20.8
HIGHEST ANNUAL MEAN													34.1
LOWEST ANNUAL MEAN													8.48
HIGHEST DAILY MEAN					697 Jul 31				838 Dec 31				1997
LOWEST DAILY MEAN					0.77 Sep 24				0.06 Aug 9				2001
ANNUAL SEVEN-DAY MINIMUM					1.1 Sep 20				0.07 Jul 9				1998
MAXIMUM PEAK FLOW									1340 Dec 31a				1988
MAXIMUM PEAK STAGE									10.82 Dec 31				2004
INSTANTANEOUS LOW FLOW													12.08 Jul 31
ANNUAL RUNOFF (CFSM)					1.42				1.45				1991
ANNUAL RUNOFF (INCHES)					19.32				19.73				0.94
10 PERCENT EXCEEDS					70				72				12.80
50 PERCENT EXCEEDS					10				7.8				46
90 PERCENT EXCEEDS					1.8				0.36				4.7
													0.02

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.

e Estimated.

Surface-Water Records—Vermilion River Basin

04199500 Vermilion River near Vermilion, Ohio

LOCATION.—Latitude 41°22'55", longitude 82°19'01", in T.6 N., R.19 W., Lorain County, Hydrologic Unit 04100012, on right bank downstream wingwall of bridge on North Ridge Road, 3.5 mi southeast of Vermilion and 4.5 mi upstream from mouth of Lake Erie.

DRAINAGE AREA.—262 mi².

PERIOD OF RECORD.—March 1950 to September 1981, November 1, 2000 to current year.

REVISED RECORDS.—WSP 1912: Drainage area. WDR-OH-70-1: 1969.

GAGE.—Water-stage recorder. Datum of gage is 595.14 ft above sea level. Prior to Aug. 3, 1953, nonrecording gage at site 40 ft upstream at same datum.

REMARKS.—Records fair except those for period of estimated record, which are poor. Water-quality data formerly collected at this site.

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	17	49	1170	7390	e100	215	192	308	40	58	39	303
2	17	70	1160	2650	e98	219	1100	248	40	49	27	168
3	16	603	435	2170	e96	189	4270	192	31	30	20	74
4	15	549	257	4650	e92	157	3420	156	27	22	16	42
5	14	617	181	2980	e90	194	1720	130	24	14	11	28
6	14	295	149	4160	e100	343	749	113	21	11	9.9	21
7	13	166	161	3360	e800	671	438	100	17	9.7	9.0	16
8	12	112	282	1280	e4000	498	338	87	16	16	9.9	13
9	11	88	535	810	4840	275	267	76	13	17	9.2	16
10	10	72	468	1060	1670	187	213	68	13	9.0	21	10
11	9.9	63	673	2000	735	170	174	64	115	7.4	67	9.9
12	9.6	57	698	6010	473	163	146	61	86	6.4	15	9.2
13	11	51	475	5370	530	148	127	67	38	6.4	19	9.6
14	14	46	318	4440	628	136	112	105	29	5.6	11	9.3
15	17	42	228	2110	1060	136	98	748	27	5.2	9.1	9.1
16	24	41	197	866	851	179	88	374	28	89	8.0	29
17	17	46	168	e430	942	279	81	183	24	329	7.3	89
18	19	55	154	e340	500	338	78	125	45	114	6.5	70
19	43	83	162	e310	287	300	74	96	33	66	5.7	34
20	118	483	e150	e280	248	514	76	81	23	63	550	23
21	73	488	e205	e250	798	501	75	72	17	90	380	19
22	53	257	e150	e220	1360	317	128	71	14	144	49	14
23	40	159	e125	e200	772	340	1500	80	11	48	20	93
24	44	246	e310	e180	510	633	4070	190	10	24	11	51
25	e67	1720	e650	e160	305	501	3830	122	9.7	18	9.4	57
26	74	e1180	e600	e150	233	446	3840	89	9.2	12	8.1	1340
27	61	e450	e460	e140	195	410	2400	67	9.4	499	8.5	1210
28	46	292	e330	e130	175	317	1100	58	12	906	10	408
29	54	222	e260	e120	---	414	572	58	14	282	7.6	176
30	124	188	e400	e110	---	360	384	59	15	114	24	101
31	65	---	e4000	e105	---	250	---	46	---	61	401	---
TOTAL	1122.5	8790	15511	54431	22488	9800	31660	4294	811.3	3125.7	1799.2	4452.1
MEAN	36.2	293	500	1756	803	316	1055	139	27.0	101	58.0	148
MAX	124	1720	4000	7390	4840	671	4270	748	115	906	550	1340
MIN	9.6	41	125	105	90	136	74	46	9.2	5.2	5.7	9.1
CFSM	0.14	1.12	1.91	6.70	3.07	1.21	4.03	0.53	0.10	0.38	0.22	0.57
IN.	0.16	1.25	2.20	7.73	3.19	1.39	4.50	0.61	0.12	0.44	0.26	0.63

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950-2005 BY WATER YEAR (WY)

	33.9	126	330	397	466	705	481	270	132	130	44.3	49.9
MEAN	33.9	126	330	397	466	705	481	270	132	130	44.3	49.9
MAX	231	906	2340	1756	1289	4759	1170	862	629	2045	329	240
(WY)	1973	1973	1978	2005	1976	1978	1957	2004	1981	1969	1958	1972
MIN	0.41	1.60	1.41	17.3	10.8	96.3	68.3	32.7	11.1	2.56	1.54	0.00
(WY)	1964	1964	1964	1964	1964	1953	1971	1976	1963	1963	1952	1953

SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1950-2005	
ANNUAL TOTAL	143596.0		158284.8			
ANNUAL MEAN	392		434		267	
HIGHEST ANNUAL MEAN					864 1978	
LOWEST ANNUAL MEAN					102 1953	
HIGHEST DAILY MEAN	4830	May 22	7390	Jan 1	22900	Dec 15 1977
LOWEST DAILY MEAN	9.6	Oct 12	5.2	Jul 15	0.00	Aug 27 1953
ANNUAL SEVEN-DAY MINIMUM	11	Aug 12	8.1	Jul 9	0.00	Aug 27 1953
MAXIMUM PEAK FLOW			9260	Jan 1a	40800	Jul 6 1969
MAXIMUM PEAK STAGE			12.44	Feb 8b	17.14	Jul 6 1969
INSTANTANEOUS LOW FLOW			4.7	Jul 16	0.00	Aug 27 1953
ANNUAL RUNOFF (CFSM)	1.50		1.66		1.02	
ANNUAL RUNOFF (INCHES)	20.39		22.47		13.82	
10 PERCENT EXCEEDS	909		989		606	
50 PERCENT EXCEEDS	155		112		59	
90 PERCENT EXCEEDS	20		11		3.9	

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.

b Ice jam.

e Estimated.

Surface-Water Records—Black River Basin

04200500 Black River at Elyria, Ohio

LOCATION.—Latitude 41°22'49", longitude 82°06'17", in T.6 N., R.17 W., Lorain County, Hydrologic Unit 04110001, on left bank in Cascade Park at Elyria, Ohio, 0.8 mi downstream from confluence of east and west branches.

DRAINAGE AREA.—396 mi².

PERIOD OF RECORD.—October 1944 to current year. Records for May 1903 to July 1906 (published as "near Elyria") published in WSP 97, 129, and 205, are unreliable and should not be used.

REVISED RECORDS.—WSP 1912: Drainage area. See also PERIOD OF RECORD.

GAGE.—Water-stage recorder. Datum of gage is 620.83 ft above sea level.

REMARKS.—Records fair except for periods of estimated record, which are poor. Some regulation at low flow for industrial use. Water-quality and sediment data formerly collected at this site.

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	16	124	1200	8880	e105	296	232	376	52	23	48	1760
2	17	162	1560	5170	e100	325	1610	310	46	32	37	561
3	15	742	655	2920	e98	281	5180	248	41	25	30	209
4	15	701	364	5520	e95	241	4390	202	37	19	23	112
5	16	563	258	4760	e90	278	1830	169	34	17	22	73
6	13	389	215	5020	e110	521	698	147	32	18	19	55
7	14	256	243	6040	e280	1290	456	126	28	16	17	45
8	14	168	433	1980	e1300	790	366	112	26	15	45	39
9	13	124	646	1140	e4100	417	286	98	31	14	28	37
10	13	91	693	1500	2330	284	235	88	32	19	36	33
11	11	73	887	2590	850	266	188	93	e31	18	23	30
12	12	62	1000	6540	575	273	159	88	e32	17	22	30
13	16	52	742	7640	564	261	133	83	e31	22	30	24
14	17	46	528	5420	615	241	113	513	e36	15	30	18
15	30	42	392	3240	1020	244	96	1180	e50	15	22	16
16	32	40	297	939	1000	364	82	559	e90	87	19	56
17	30	51	279	e450	1190	583	75	289	e78	134	18	128
18	44	55	247	e355	739	675	71	181	e68	188	18	80
19	78	82	247	e305	347	600	69	130	e45	116	15	48
20	81	252	225	e270	301	704	96	105	e37	63	475	35
21	73	582	309	e240	1200	891	103	87	e30	85	510	25
22	67	356	226	e220	1950	577	119	76	24	83	85	21
23	54	218	190	e200	1110	428	1310	77	20	51	46	127
24	72	291	489	e180	752	759	4910	162	19	32	33	90
25	82	1860	1020	e160	437	733	5090	217	15	31	23	63
26	80	1590	e900	e150	314	509	5010	141	13	38	18	1700
27	78	639	e700	e140	256	468	2420	100	13	489	51	2040
28	65	402	e500	e130	227	379	1290	86	14	922	29	710
29	347	315	e400	e125	---	512	679	70	26	437	21	287
30	814	273	e600	e115	---	475	458	71	23	163	135	168
31	230	---	4410	e110	---	313	---	62	---	79	1820	---
TOTAL	2459	10601	20855	72449	22055	14978	37754	6246	1054	3283	3748	8620
MEAN	79.3	353	673	2337	788	483	1258	201	35.1	106	121	287
MAX	814	1860	4410	8880	4100	1290	5180	1180	90	922	1820	2040
MIN	11	40	190	110	90	241	69	62	13	14	15	16
CFSM	0.20	0.89	1.70	5.90	1.99	1.22	3.18	0.51	0.09	0.27	0.31	0.73
IN.	0.23	1.00	1.96	6.81	2.07	1.41	3.55	0.59	0.10	0.31	0.35	0.81
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945-2005, BY WATER YEAR (WY)												
MEAN	64.9	225	403	506	587	769	648	382	220	139	76.6	86.0
MAX	463	1238	1885	2337	1505	1866	1728	1682	1245	1472	529	701
(WY)	1997	1986	1991	2005	1959	1978	1957	2004	1947	1969	1958	1972
MIN	2.34	5.78	5.82	8.48	16.6	135	22.0	49.3	10.6	7.42	4.72	2.84
(WY)	1945	1945	1945	1945	1964	1953	1946	1999	1988	1991	1952	1946
SUMMARY STATISTICS												
ANNUAL TOTAL				FOR 2004 CALENDAR YEAR			FOR 2005 WATER YEAR			WATER YEARS 1945-2005		
ANNUAL MEAN				210653			204102					
HIGHEST ANNUAL MEAN				576			559			341		
LOWEST ANNUAL MEAN										617		
HIGHEST DAILY MEAN										130		
LOWEST DAILY MEAN										1944		
ANNUAL SEVEN-DAY MINIMUM										1944		
MAXIMUM PEAK FLOW										1969		
MAXIMUM PEAK STAGE										1969		
INSTANTANEOUS LOW FLOW										1956		
ANNUAL RUNOFF (CFSM)				1.45			1.41			0.86		
ANNUAL RUNOFF (INCHES)				19.79			19.17			11.69		
10 PERCENT EXCEEDS				1570			1290			828		
50 PERCENT EXCEEDS				210			135			77		
90 PERCENT EXCEEDS				24			19			11		

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.

e Estimated.

Surface-Water Records—Rocky River Basin

04201500 Rocky River near Berea, Ohio

LOCATION.—Latitude 41°24'24", longitude 81°53'14", in T.6 N., R.15 W., Cuyahoga County, Hydrologic Unit 04110001, on right bank at downstream side of Cedar Point Road Bridge in Rocky River Reservation, just downstream from confluence of east and west branches, and 3 mi northwest of Berea, Ohio.

DRAINAGE AREA.—267 mi².

PERIOD OF RECORD.—October 1923 to September 1935, September 1943 to current year. Monthly discharge only for October 1923, published in WSP 1307.

REVISED RECORDS.—WSP 1437: 1924, 1925(M), 1926, 1927(M), 1928-29, 1930-35(M), 1945. WSP 1912: Drainage area. WDR-OH-2-1983: 1978-1982(M).

GAGE.—Water-stage recorder. Datum of gage is 649.9 ft above sea level. Cuyahoga County benchmark. Prior to Sept. 30, 1935, nonrecording gage at same site and datum.

REMARKS.—Records good except for periods of estimated record, which are poor. Some regulation at low flow by small reservoirs on East Branch. Some interbasin transfer of water from Lake Erie for municipal water supply by Cleveland Metro Water District. Water-quality and sediment data formerly collected at this site.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood in Mar. 1913 reached a stage of 20.9 ft.

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	33	149	1930	5320	e145	384	151	317	56	158	58	730	
2	32	356	985	e3000	e139	316	2250	252	48	91	45	206	
3	47	1310	376	e2000	e135	e280	3620	222	42	50	37	120	
4	39	510	231	e3800	e150	e240	2640	190	38	33	29	82	
5	37	949	178	e3300	e190	e280	1070	161	39	26	72	61	
6	34	355	175	e3400	e350	e500	472	141	52	21	158	53	
7	31	196	240	e4200	e900	e1800	307	128	50	19	69	47	
8	29	141	544	e1400	3670	1400	274	124	44	18	46	40	
9	24	109	473	e800	2140	452	200	113	34	19	36	37	
10	24	99	866	e1000	1130	311	161	111	34	15	46	36	
11	24	91	746	e1800	463	302	139	153	33	10	49	35	
12	25	91	798	e4500	339	283	122	130	35	9.0	43	32	
13	39	77	683	e5200	324	255	104	109	34	44	37	29	
14	125	64	481	e3300	349	220	94	608	41	74	59	27	
15	113	55	357	e2200	910	235	84	616	57	120	45	35	
16	140	52	278	e900	729	311	76	250	125	81	34	130	
17	86	72	256	e500	922	440	72	164	101	213	25	131	
18	77	145	217	e400	413	471	74	128	83	141	27	99	
19	287	155	266	e360	252	495	71	113	52	307	21	66	
20	156	350	229	e320	222	846	90	103	41	154	835	50	
21	89	294	322	e290	2080	912	243	95	35	303	1100	36	
22	63	171	300	e270	1670	423	168	84	37	244	180	28	
23	53	123	e900	e250	874	355	2360	99	31	90	86	245	
24	213	442	e1900	e230	566	571	3540	154	26	53	59	155	
25	189	1900	e1200	e220	305	344	3670	117	23	66	46	83	
26	97	833	e900	e205	254	307	3890	92	25	95	40	2020	
27	71	357	e700	e190	200	266	1900	78	25	1740	127	931	
28	60	277	e600	e175	207	279	832	99	39	627	135	166	
29	526	224	e500	e165	---	393	479	102	195	179	74	149	
30	1260	193	e900	e160	---	224	362	79	211	93	286	84	
31	281	---	5890	e150	---	181	---	74	---	69	3160	---	
TOTAL	4304	10140	24421	50005	20028	14076	29515	5206	1686	5162.0	7064	5943	
MEAN	139	338	788	1613	715	454	984	168	56.2	167	228	198	
MAX	1260	1900	5890	5320	3670	1800	3890	616	211	1740	3160	2020	
MIN	24	52	175	150	135	181	71	74	23	9.0	21	27	
CFSM	0.52	1.27	2.95	6.04	2.68	1.70	3.68	0.63	0.21	0.62	0.85	0.74	
IN.	0.60	1.41	3.40	6.97	2.79	1.96	4.11	0.73	0.23	0.72	0.98	0.83	
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924-2005, BY WATER YEAR (WY)													
MEAN	97.7	222	355	423	468	588	520	315	186	120	81.2	110	
MAX	935	1080	1534	1613	1245	1253	1374	1143	911	887	553	820	
(WY)	1927	1986	1991	2005	1959	1984	1961	2004	1947	1992	1935	1924	
MIN	1.25	9.14	8.15	32.4	17.0	141	40.9	17.6	10.1	4.25	0.90	0.94	
(WY)	1934	1964	1964	1945	1934	1969	1946	1934	1933	1954	1933	1933	
SUMMARY STATISTICS				FOR 2004 CALENDAR YEAR				FOR 2005 WATER YEAR			WATER YEARS 1924-2005		
ANNUAL TOTAL				179299				177550.0					
ANNUAL MEAN				490				486			289		
HIGHEST ANNUAL MEAN											486		
LOWEST ANNUAL MEAN											79.5		
HIGHEST DAILY MEAN				9960		May 22		5890		Dec 31		14300	
LOWEST DAILY MEAN				24		Aug 12		9.0		Jul 12		0.20	
ANNUAL SEVEN-DAY MINIMUM				26		Aug 11		16		Jul 6		0.27	
MAXIMUM PEAK FLOW								8580			21400		
MAXIMUM PEAK STAGE								6.95			18.60		
INSTANTANEOUS LOW FLOW											0.20		
ANNUAL RUNOFF (CFSM)				1.83				1.82			1.08		
ANNUAL RUNOFF (INCHES)				24.98				24.74			14.73		
10 PERCENT EXCEEDS				1220				1220			668		
50 PERCENT EXCEEDS				198				164			88		
90 PERCENT EXCEEDS				42				35			12		

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.
e Estimated.

Surface-Water Records—Cuyahoga River Basin

04202000 Cuyahoga River at Hiram Rapids, Ohio

LOCATION.—Latitude 41°20'26", longitude 81°10'01", in T.5 N., R.7 W., Portage County, Hydrologic Unit 04110002, on left bank at downstream side of bridge on Winchell Road at Hiram Rapids, Ohio, 0.6 mi downstream from Black Brook.

DRAINAGE AREA.—151 mi².

PERIOD OF RECORD.—August 1927 to December 1935 (published as "near Hiram"), October 1944 to current year.

REVISED RECORDS.—WSP 1054: 1945. WSP 1437: 1931. WSP 1912: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is 1,087.46 ft above sea level. Prior to Aug. 26, 1927, nonrecording gage; Aug. 26, 1927-Dec. 31, 1935, water-stage recorder, at site 2.8 mi downstream at different datum; Oct. 20, 1944-Oct. 22, 1946, nonrecording gage at present site and datum.

REMARKS.—Records excellent except for periods estimated record, which are poor. Flow regulated by East Branch Reservoir, usable capacity, 4,140 acre-ft, 14.6 mi upstream since 1939, and by LaDue Reservoir, usable capacity, 18,110 acre-ft, 9.8 mi upstream since 1961. Water-quality data formerly collected at this site.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 3,670 ft³/s Jan. 23, 1959, gage height 8.11 ft; minimum daily, 6.6 ft³/s Sept. 10, 1933.

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	115	85	265	887	e165	287	247	767	70	107	114	227
2	114	87	331	1400	e160	255	313	595	65	101	101	247
3	114	132	397	1580	e165	249	514	487	61	94	92	232
4	114	170	409	1920	e170	249	761	405	58	88	87	197
5	113	214	366	1980	e175	248	925	338	57	87	85	153
6	112	242	310	1920	e180	246	959	285	54	85	83	117
7	110	259	258	1790	210	306	1000	237	51	81	80	89
8	110	249	251	1550	324	497	925	196	48	80	78	77
9	109	212	242	1250	470	585	742	159	45	77	76	74
10	112	161	258	984	613	597	572	133	44	76	75	73
11	112	124	286	811	724	530	452	118	64	74	75	69
12	102	100	316	992	584	450	354	104	89	74	74	66
13	73	89	340	1600	514	382	282	95	90	78	74	64
14	65	82	354	2250	473	327	217	117	96	81	79	61
15	65	78	348	2110	531	285	168	164	103	83	78	60
16	71	77	333	1660	666	254	138	192	114	84	75	60
17	74	77	314	1190	732	247	121	196	121	86	73	71
18	72	87	289	882	650	267	119	178	120	92	71	96
19	89	89	259	649	532	305	115	149	107	105	69	101
20	104	92	208	485	453	410	110	125	95	99	71	86
21	100	99	234	439	424	520	125	107	106	102	80	74
22	90	98	205	372	456	567	126	94	109	100	80	69
23	80	93	238	e280	480	548	190	87	107	97	75	82
24	88	91	377	e230	478	503	297	96	103	94	72	100
25	102	126	514	e210	432	455	499	107	96	94	70	91
26	101	163	463	e200	399	408	867	108	92	95	70	138
27	93	196	477	e190	348	367	1300	100	89	129	71	216
28	85	209	467	e180	311	340	1520	89	88	131	77	252
29	83	202	405	e175	---	318	1330	84	103	133	84	252
30	86	184	376	e170	---	298	1020	79	113	135	88	222
31	90	---	529	e170	---	276	---	74	---	128	202	---
TOTAL	2948	4167	10419	30506	11819	11576	16308	6065	2558	2970	2579	3716
MEAN	95.1	139	336	984	422	373	544	196	85.3	95.8	83.2	124
MAX	115	259	529	2250	732	597	1520	767	121	135	202	252
MIN	65	77	205	170	160	246	110	74	44	74	69	60
CFSM	0.63	0.92	2.23	6.52	2.80	2.47	3.60	1.30	0.56	0.63	0.55	0.82
IN.	0.73	1.03	2.57	7.52	2.91	2.85	4.02	1.49	0.63	0.73	0.64	0.92
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961-2005, BY WATER YEAR (WY)												
MEAN	111	190	272	283	344	432	354	209	136	101	95.4	110
MAX	315	616	816	984	883	835	649	569	542	325	307	374
(WY)	1991	1986	1978	2005	1976	1963	1961	1984	1989	1969	1992	1975
MIN	39.0	33.5	45.2	43.5	56.6	174	134	59.8	35.2	48.4	37.1	36.6
(WY)	1984	1992	1961	1961	1963	1989	1986	1987	1991	1991	1961	1967
SUMMARY STATISTICS				FOR 2004 CALENDAR YEAR			FOR 2005 WATER YEAR			WATER YEARS 1961-2005		
ANNUAL TOTAL				92823			105631					
ANNUAL MEAN				254			289					
HIGHEST ANNUAL MEAN										219		
LOWEST ANNUAL MEAN										318		
HIGHEST DAILY MEAN				993			May 24			125		
LOWEST DAILY MEAN				54			Jul 11			12		
ANNUAL SEVEN-DAY MINIMUM				63			Jul 5			13		
MAXIMUM PEAK FLOW							2310			3320		
MAXIMUM PEAK STAGE							6.54			7.67		
INSTANTANEOUS LOW FLOW							44			12		
ANNUAL RUNOFF (CFSM)				1.68			1.92			1.45		
ANNUAL RUNOFF (INCHES)				22.87			26.02			19.71		
10 PERCENT EXCEEDS				525			603			506		
50 PERCENT EXCEEDS				201			135			127		
90 PERCENT EXCEEDS				74			74			45		

e Estimated.

04206000 Cuyahoga River at Old Portage, Ohio

LOCATION.—Latitude 41°08'08", longitude 81°32'50", Summit County, Hydrologic Unit 04110002, on right bank 230 ft upstream from North Portage Path bridge at Old Portage, Ohio, 1.2 mi downstream from Little Cuyahoga River, and 4 mi northwest of Akron City Hall, Akron, Ohio.

DRAINAGE AREA.—404 mi².

PERIOD OF RECORD.—September 1921 to December 1935, March 1939 to current year.

REVISED RECORDS.—WSP 1307: 1924(M). WSP 1912: Drainage area. WDR OH-79-2: 1974(M), 1976(M).

GAGE.—Water-stage recorder. Datum of gage is 740.11 ft above sea level, unadjusted. Prior to Dec. 21, 1923, nonrecording gage at same site and datum.

REMARKS.—Records good except for periods of estimated record, which are poor. Natural flow of stream affected by diversions, storage reservoirs, and power plants. An average of 59 ft³/s was diverted upstream from gage for municipal supply of city of Akron. Sewage from city enters river 2.9 mi downstream from station. Some diversions from the Tuscarawas River Basin drainage into this basin at Portage Lakes (see REMARKS from station 0311700 in volume 1 of this report). Sediment data formerly collected at this site.

**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	229	281	986	2530	e370	744	522	1720	249	133	195	1180
2	218	326	991	2350	e360	657	1590	1370	235	121	163	e1000
3	221	360	803	3130	e370	571	2180	1100	216	115	150	e800
4	212	372	776	3820	e380	533	2030	896	203	124	139	e700
5	194	443	783	3830	387	557	2050	751	192	124	1210	e500
6	186	460	713	4360	402	553	1940	633	220	129	510	e300
7	186	442	670	4070	452	738	1730	570	194	123	376	e230
8	189	422	776	3800	1060	1080	1580	481	179	117	312	e190
9	190	395	712	3450	1520	1080	1420	419	159	114	211	e170
10	180	373	744	2830	1440	1050	1200	451	140	108	176	e160
11	180	324	700	2570	1200	1160	962	436	137	104	163	e150
12	181	276	703	3440	1270	1020	830	418	132	105	143	144
13	175	242	745	3520	1260	853	762	388	163	114	132	138
14	186	227	739	3740	1130	712	803	784	210	90	171	130
15	190	211	691	3680	1290	646	527	830	179	203	199	122
16	176	194	620	3380	1410	593	192	713	165	217	195	191
17	161	254	547	2850	1520	560	138	623	168	169	144	139
18	297	336	529	2130	1470	554	140	521	151	150	133	128
19	344	448	526	1600	1250	574	145	428	147	267	107	128
20	231	482	457	1260	1120	753	283	422	138	144	177	124
21	245	442	408	1010	1400	919	282	364	147	146	227	117
22	234	416	409	852	1380	945	260	320	140	160	160	125
23	219	386	1130	680	1220	1040	706	400	127	208	129	257
24	284	413	1310	609	1120	1040	894	404	130	170	111	142
25	227	528	1170	e540	966	937	1370	399	135	158	106	122
26	229	434	1050	e500	877	835	1590	372	134	361	105	1020
27	210	430	1000	e460	750	732	1850	312	126	713	100	518
28	192	424	986	e430	715	764	2060	279	127	343	112	463
29	462	378	985	e400	---	734	2240	263	146	330	110	674
30	412	306	951	e390	---	655	2100	255	148	299	621	519
31	300	---	2050	e380	---	592	---	255	---	231	2020	---
TOTAL	7140	11025	25660	68591	28089	24181	34376	17577	4937	5890	8807	10581
MEAN	230	368	828	2213	1003	780	1146	567	165	190	284	353
MAX	462	528	2050	4360	1520	1160	2240	1720	249	713	2020	1180
MIN	161	194	408	380	360	533	138	255	126	90	100	117
CFSM	0.57	0.91	2.05	5.48	2.48	1.93	2.84	1.40	0.41	0.47	0.70	0.87
IN.	0.66	1.02	2.36	6.32	2.59	2.23	3.17	1.62	0.45	0.54	0.81	0.97
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922-2005, BY WATER YEAR (WY)												
MEAN	220	323	479	589	662	858	746	491	322	241	187	218
MAX	1205	1307	1516	2213	1592	1416	1520	1314	1371	1446	772	1150
(WY)	1927	1986	1928	2005	1976	1927	1940	2004	1989	2003	1992	1926
MIN	50.8	56.5	48.3	83.3	86.1	282	166	77.0	72.4	50.4	56.9	47.1
(WY)	1934	1964	1964	1961	1963	1931	1935	1934	1988	1954	1962	1964
SUMMARY STATISTICS												
				FOR 2004 CALENDAR YEAR			FOR 2005 WATER YEAR			WATER YEARS 1922-2005		
ANNUAL TOTAL				248991			246854					
ANNUAL MEAN				680			676			444		
HIGHEST ANNUAL MEAN										716		
LOWEST ANNUAL MEAN										181		
HIGHEST DAILY MEAN				4870			4360			6040		
LOWEST DAILY MEAN				79			90			24		
ANNUAL SEVEN-DAY MINIMUM				90			107			40		
MAXIMUM PEAK FLOW							4550			6500		
MAXIMUM PEAK STAGE							11.27			13.74		
INSTANTANEOUS LOW FLOW										26		
ANNUAL RUNOFF (CFSM)				1.68			1.67			1.10		
ANNUAL RUNOFF (INCHES)				22.93			22.73			14.93		
10 PERCENT EXCEEDS				1350			1490			1040		
50 PERCENT EXCEEDS				505			409			272		
90 PERCENT EXCEEDS				161			133			80		

e Estimated.

04207200 Tinkers Creek at Bedford, Ohio

LOCATION.—Latitude 41°23'04", longitude 81°31'39", in T.6 N., R.11 W., Cuyahoga County, Hydrologic Unit 04110002, on left bank at downstream side of bridge on State Highway 14 in Bedford, Ohio, 5.5 mi upstream from mouth.

DRAINAGE AREA.—83.9 mi².

PERIOD OF RECORD.—November 1962 to current year.

REVISED RECORDS.—WSP 1912: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is 876.18 ft above sea level.

REMARKS.—Records fair except for periods of estimated record, which are poor.

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	33	64	649	1340	e56	184	76	147	29	147	35	650
2	42	224	429	1080	e54	159	835	130	26	117	33	172
3	37	217	175	1290	e58	139	994	117	23	48	31	78
4	33	305	113	1190	62	129	879	87	22	28	30	55
5	31	316	89	985	75	124	418	73	21	27	66	44
6	30	146	104	1280	114	233	189	61	30	26	66	39
7	30	90	134	992	249	697	156	53	23	25	33	36
8	29	70	211	697	964	702	128	110	23	22	29	31
9	27	58	224	485	769	329	97	55	22	21	28	41
10	25	53	338	468	423	186	81	48	22	19	27	32
11	28	50	333	599	198	168	71	47	21	20	33	25
12	29	45	289	1930	161	152	63	e46	19	21	27	24
13	30	38	313	1440	144	140	58	e49	20	22	37	25
14	60	42	252	1210	256	125	52	229	86	97	33	24
15	44	90	225	675	393	124	46	168	54	223	29	26
16	57	80	204	285	335	139	41	84	125	181	26	81
17	37	74	192	e190	312	170	33	e60	60	265	25	98
18	66	78	142	e170	188	204	35	e56	31	101	24	50
19	149	67	141	e150	135	239	35	e50	23	248	22	29
20	67	110	127	e140	117	443	132	e44	20	83	391	26
21	47	90	122	e130	653	416	102	e42	20	366	314	24
22	40	65	106	e120	517	225	135	e34	33	118	75	23
23	36	55	615	e98	338	187	586	e46	23	84	40	243
24	107	165	608	e88	221	194	826	e41	19	90	32	76
25	66	295	e500	e82	154	154	1220	36	21	51	28	73
26	45	184	e450	e76	133	131	1880	33	20	171	27	971
27	38	150	e400	e70	112	115	1160	29	18	633	91	452
28	35	131	e370	e66	130	130	496	55	352	285	65	124
29	67	108	e330	e64	---	129	228	37	182	89	32	120
30	101	99	315	e60	---	107	152	30	385	51	327	113
31	82	---	1820	e58	---	90	---	33	---	40	1410	---
TOTAL	1548	3559	10320	17508	7321	6664	11204	2130	1773	3719	3466	3805
MEAN	49.9	119	333	565	261	215	373	68.7	59.1	120	112	127
MAX	149	316	1820	1930	964	702	1880	229	385	633	1410	971
MIN	25	38	89	58	54	90	33	29	18	19	22	23
CFSM	0.60	1.41	3.97	6.73	3.12	2.56	4.45	0.82	0.70	1.43	1.33	1.51
IN.	0.69	1.58	4.58	7.76	3.25	2.95	4.97	0.94	0.79	1.65	1.54	1.69
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963-2005, BY WATER YEAR (WY)												
MEAN	72.1	135	175	160	194	237	201	130	92.2	85.4	65.9	78.8
MAX	261	402	506	565	463	457	373	345	257	378	255	289
(WY)	1991	1986	1991	2005	1976	1963	2005	2004	1975	2003	1992	1990
MIN	8.55	13.4	16.9	33.1	39.0	79.8	54.1	33.4	16.5	13.1	11.3	8.73
(WY)	1964	1965	1964	1977	1963	2000	1971	1965	1964	1967	1963	1964
SUMMARY STATISTICS												
				FOR 2004 CALENDAR YEAR				FOR 2005 WATER YEAR				WATER YEARS 1963-2005
ANNUAL TOTAL				68615				73017				
ANNUAL MEAN				187				200				
HIGHEST ANNUAL MEAN												200
LOWEST ANNUAL MEAN												81.7
HIGHEST DAILY MEAN				1820				Dec 31				1990
LOWEST DAILY MEAN				25				Oct 10				1964
ANNUAL SEVEN-DAY MINIMUM				28				Oct 6				1963
MAXIMUM PEAK FLOW								3170				1969
MAXIMUM PEAK STAGE								7.43				1969
INSTANTANEOUS LOW FLOW												1963
ANNUAL RUNOFF (CFSM)				2.23				2.38				1.62
ANNUAL RUNOFF (INCHES)				30.42				32.37				22.06
10 PERCENT EXCEEDS				472				498				327
50 PERCENT EXCEEDS				106				90				65
90 PERCENT EXCEEDS				37				26				22

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.

e Estimated.

04208000 Cuyahoga River at Independence, Ohio

LOCATION.—Latitude 41°23'43", longitude 81°37'48", in T.6 N., R.12 W., Cuyahoga County, Hydrologic Unit 04110002, on left bank 240 ft downstream from bridge on Old Rockside Road, 0.8 mi northeast of Independence, Ohio, and 3.0 mi downstream from Tinkers Creek.

DRAINAGE AREA.—707 mi².

PERIOD OF RECORD.—September 1903 to December 1905 (fragmentary), January to July 1906 (gage heights and discharge measurements only), September 1921 to May 1923, September 1927 to December 1935, March 1940 to current year.

REVISED RECORDS.—WSP 1307: 1922-23(M), 1928-30(M), 1933(M), 1940(M), 1947(M), 1950(M). WSP 1912: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is 583.57 ft above sea level. Sept. 21, 1903-July 21, 1906, nonrecording gage at bridge 240 ft upstream at present datum; Sept. 28, 1921-May 30, 1923, nonrecording gage at bridge 240 ft upstream at datum 2.42 ft higher; Sept. 29-Oct. 8, 1927, nonrecording gage; Oct. 9, 1927-Dec. 31, 1935 and Mar. 5, 1940-June 19, 1969, water-stage recorder at site 100 ft upstream at present datum.

REMARKS.—Records fair except for period of estimated record, which are poor. Natural flow of stream affected by diversion, storage reservoirs, and powerplants. Some diversion from the Tuscarawas River Basin drainage into this basin at Portage Lakes (see REMARKS for station 03117000). Water diverted into Ohio Canal at Brecksville, 6 mi upstream from station, bypasses station. These records do not include flow in canal except above about 15,000 ft³/s, when channels merge. Satellite telemeter at gage. Water-quality data formerly collected at this site.

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	392	520	3280	7180	e390	1340	647	2560	398	565	400	2770
2	387	884	2240	4540	e380	1130	4050	2160	378	340	364	1690
3	391	1450	1530	6580	e400	942	5290	1840	356	268	338	1110
4	368	1420	1260	8590	444	833	4610	1500	338	236	322	953
5	348	1600	1200	6260	474	831	3240	1270	322	242	1300	823
6	331	1020	1210	8630	629	1100	2610	1100	364	247	1070	592
7	326	833	1200	7930	1180	2710	2330	968	348	238	589	435
8	329	742	1680	5690	4340	2750	2090	921	304	239	509	360
9	321	684	1460	5010	3320	1800	1840	765	292	225	427	347
10	315	640	2130	4260	2590	1460	1630	678	269	215	366	298
11	312	601	1770	4280	1780	1490	1370	879	262	211	359	271
12	318	532	1620	9440	1550	1410	1210	740	253	210	324	261
13	314	473	1670	8060	1600	1190	1080	651	267	238	316	252
14	385	450	1500	7750	1680	1010	1100	1850	353	318	357	243
15	354	476	1390	5290	2400	912	874	1840	463	477	350	242
16	417	467	1290	4250	2300	920	484	1320	497	642	367	369
17	331	459	1160	3460	2400	977	311	1060	395	891	349	390
18	342	748	1040	2600	1950	1040	309	874	302	461	301	311
19	1090	728	1090	1990	1580	1160	307	699	274	1140	289	256
20	527	1070	951	1630	1380	1870	435	723	262	470	1310	268
21	440	903	872	1340	3380	1840	876	614	261	1100	1600	250
22	414	759	855	1100	2800	1460	595	521	280	483	505	241
23	392	689	2940	e900	2200	1480	3060	557	253	398	375	877
24	714	937	3530	e780	1740	1630	3760	769	241	370	318	467
25	509	1870	2480	e700	1400	1330	5270	609	247	346	295	309
26	425	1280	1940	e600	1200	1180	6550	572	261	404	288	3720
27	398	995	1680	e540	1040	1000	4580	498	241	3120	375	1840
28	368	980	1530	e470	993	1080	3280	494	857	1310	418	978
29	643	858	1650	e420	---	1100	3000	472	1170	676	305	1130
30	1410	696	2050	e410	---	911	2840	420	815	543	792	1010
31	665	---	8060	e400	---	791	---	422	---	453	7120	---
TOTAL	14276	25764	58258	121080	47520	40677	69628	30346	11323	17076	22398	23063
MEAN	461	859	1879	3906	1697	1312	2321	979	377	551	723	769
MAX	1410	1870	8060	9440	4340	2750	6550	2560	1170	3120	7120	3720
MIN	312	450	855	400	380	791	307	420	241	210	288	241
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922-2005, BY WATER YEAR (WY)												
MEAN	390	647	954	1150	1296	1636	1479	984	648	485	378	401
MAX	1747	2713	2889	3906	3217	3008	3175	2736	2450	2799	1363	1866
(WY)	1955	1986	1978	2005	1959	1963	1957	2004	1989	2003	1992	1979
MIN	65.8	74.9	115	191	194	584	244	120	111	82.9	62.3	61.0
(WY)	1934	1931	1964	1945	1934	1931	1946	1934	1934	1954	1933	1933
SUMMARY STATISTICS												
				FOR 2004 CALENDAR YEAR			FOR 2005 WATER YEAR			WATER YEARS 1922-2005		
ANNUAL TOTAL				513890			481409					
ANNUAL MEAN				1404			1319			872		
HIGHEST ANNUAL MEAN										1417		
LOWEST ANNUAL MEAN										278		
HIGHEST DAILY MEAN				13000			May 22			16700		
LOWEST DAILY MEAN				299			Jul 11			21		
ANNUAL SEVEN-DAY MINIMUM				319			Oct 7			37		
MAXIMUM PEAK FLOW							11900			24800		
MAXIMUM PEAK STAGE							19.58			22.41		
INSTANTANEOUS LOW FLOW										21		
10 PERCENT EXCEEDS				2930			3020			2040		
50 PERCENT EXCEEDS				1040			815			500		
90 PERCENT EXCEEDS				390			294			138		

e Estimated.

04208460 Mill Creek at Garfield Heights, Ohio

LOCATION.—Latitude 41°25'26", longitude 81°36'16", Cuyahoga County, Hydrologic Unit 04110002, on left bank 1,000 ft downstream from General Chemical Company plant railroad bridge, 0.6 mi upstream from mouth at Cuyahoga River.

DRAINAGE AREA.—17.9 mi².

PERIOD OF RECORD.—August 2001 to current year.

GAGE.—Water-stage recorder. Elevation of gage is 600 ft above sea level (from topographic map).

REMARKS.—Records fair except for periods of estimated record and discharges above 1,000 ft³/s, which are poor.

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	5.6	6.7	78	91	e6.2	23	9.0	16	6.8	17	7.7	19
2	7.7	45	18	97	e6.6	17	208	13	7.4	12	7.1	13
3	7.3	23	14	339	e7.0	15	134	14	8.2	8.4	6.7	11
4	6.0	41	12	117	e9.0	15	74	12	8.0	8.6	6.6	7.4
5	5.6	36	9.6	65	13	16	44	10	8.0	6.3	6.6	6.5
6	5.5	14	13	206	20	31	25	9.6	12	6.1	6.7	6.1
7	5.3	11	14	49	37	63	21	9.3	8.2	6.1	6.3	5.9
8	5.3	8.6	16	32	172	43	17	9.1	7.1	6.3	6.2	5.8
9	5.2	7.2	24	31	51	24	12	8.7	7.0	6.1	6.3	14
10	5.2	6.4	20	43	30	16	11	9.2	7.7	6.1	6.5	6.7
11	6.2	6.2	41	142	21	17	10	8.8	7.1	6.1	6.7	5.9
12	5.7	6.1	28	548	19	16	9.9	8.1	7.2	6.1	6.3	5.5
13	6.4	6.2	26	151	15	14	9.4	17	7.4	24	6.5	5.5
14	12	6.2	18	115	25	14	8.6	67	29	25	7.7	5.8
15	9.4	6.2	18	31	35	14	8.2	31	15	22	6.7	10
16	13	6.2	17	23	34	16	8.0	15	39	75	6.5	19
17	7.2	22	16	19	24	17	7.9	8.9	19	110	6.4	46
18	21	13	15	16	14	18	7.8	8.0	7.3	21	6.1	17
19	24	11	18	15	13	22	7.7	8.2	6.5	20	6.0	11
20	13	15	26	13	12	50	38	13	6.5	11	178	8.3
21	8.7	10	27	11	123	37	22	8.3	6.7	191	31	6.1
22	6.7	8.0	17	e11	45	18	23	7.3	11	17	12	5.7
23	6.3	7.1	112	e10	35	16	165	7.9	7.5	12	9.3	38
24	25	54	45	e9.2	20	16	167	7.4	6.6	14	7.0	11
25	10	69	27	e8.6	14	13	326	7.2	6.5	9.8	6.8	9.6
26	7.3	19	26	e8.2	13	12	378	6.9	6.5	56	6.9	282
27	6.6	15	20	e7.8	12	11	158	6.9	6.6	118	35	13
28	6.4	16	23	e7.4	15	14	56	31	51	18	24	7.7
29	17	12	23	e7.0	---	13	35	16	24	13	13	14
30	11	18	72	e6.8	---	10	20	8.0	53	11	140	6.9
31	7.7	---	562	e6.4	---	9.5	---	7.0	---	8.1	373	---
TOTAL	289.3	525.1	1395.6	2236.4	840.8	630.5	2020.5	409.8	403.8	871.1	961.6	623.4
MEAN	9.33	17.5	45.0	72.1	30.0	20.3	67.3	13.2	13.5	28.1	31.0	20.8
MAX	25	69	562	548	172	63	378	67	53	191	373	282
MIN	5.2	6.1	9.6	6.4	6.2	9.5	7.7	6.9	6.5	6.1	6.0	5.5

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001-2005 BY WATER YEAR (WY)

MEAN	16.8	23.2	31.9	30.0	24.9	33.5	42.8	43.3	18.5	25.1	20.0	27.5
MAX	31.1	29.6	45.0	72.1	30.0	38.8	67.3	64.2	27.3	38.5	34.1	42.7
(WY)	2002	2003	2005	2005	2005	2003	2005	2003	2003	2003	2001	2003
MIN	7.56	17.4	24.4	13.9	20.8	20.3	30.9	13.2	12.6	13.5	8.73	19.4
(WY)	2003	2002	2002	2002	2004	2005	2003	2005	2002	2004	2003	2004

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 2001-2005
ANNUAL TOTAL	9194.8	11207.9	
ANNUAL MEAN	25.1	30.7	
HIGHEST ANNUAL MEAN			27.8
LOWEST ANNUAL MEAN			30.7
HIGHEST DAILY MEAN	562 Dec 31	562 Dec 31	2005
LOWEST DAILY MEAN	4.3 Aug 17	5.2 Oct 9	2001
ANNUAL SEVEN-DAY MINIMUM	4.8 Aug 6	5.4 Oct 4	2002
MAXIMUM PEAK FLOW		3300 Aug 31	2001
MAXIMUM PEAK STAGE		7.16 Aug 31	2001
INSTANTANEOUS LOW FLOW			0.00 Oct 3
10 PERCENT EXCEEDS	53	56	2001
50 PERCENT EXCEEDS	14	13	
90 PERCENT EXCEEDS	5.6	6.3	5.0

e Estimated.

04208504 Cuyahoga River near Newburgh Heights, Ohio

LOCATION.—Latitude 41°27'45", longitude 81°40'52", Cuyahoga County, Hydrologic Unit 04110002, on left bank at ISG Steel Company footbridge, 1.2 mi downstream from Big Creek, and 5.5 mi upstream from mouth at Cleveland, Ohio.

DRAINAGE AREA.—788 mi².

PERIOD OF RECORD.—October 1991 to current year.

GAGE.—Water-stage and acoustic velocity meter recorder. Elevation of gage is 583.57 ft above sea level (from topographic map).

REMARKS.—Records poor. Previously published as Cuyahoga River at LTV Steel at Cleveland.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, estimated 18,500 ft³/s May 22, 2004; minimum daily discharge, 310 ft³/s Aug. 29, 1993.

EXTREMES FOR CURRENT YEAR.—Maximum daily discharge, 9370 ft³/s Jan. 12; minimum daily discharge, 312 ft³/s Oct. 11.

**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	e392	e802	e3640	e7150	e589	e1710	e1110	e3000	e598	e775	e598	e3110
2	e387	e1270	e2610	e5220	e581	e1470	e4670	e2590	e572	e511	e552	e2030
3	e391	e1850	e1910	e7140	e610	e1260	e5660	e2240	e542	e421	e519	e1450
4	e368	e1850	e1630	e8490	e666	e1140	e4920	e1880	e519	e383	e577	e1270
5	e348	e1930	e1570	e6880	e721	e1180	e3660	e1630	e506	e390	e1650	e1100
6	e331	e1340	e1580	e8730	e955	e1600	e3060	e1440	e554	e395	e1340	e824
7	e326	e1130	e1630	e7900	e1770	e3210	e2780	e1300	e528	e385	e834	e637
8	e329	e1030	e2080	e6040	e4700	e3110	e2520	e1230	e474	e383	e732	e549
9	e321	e958	e1940	e5390	e3730	e2190	e2250	e1050	e455	e365	e629	e525
10	e315	e904	e2550	e4760	e2970	e1870	e2020	e983	e426	e351	e557	e463
11	e312	e851	e2190	e5170	e2190	e1890	e1740	e1180	e416	e345	e544	e428
12	e318	e766	e2050	e9370	e1980	e1780	e1560	e1020	e407	e349	e502	e415
13	e314	e696	e2080	e8260	e2030	e1540	e1440	e1030	e437	e396	e498	e403
14	e385	e673	e1900	e7710	e2190	e1340	e1420	e2300	e557	e516	e546	e391
15	e354	e702	e1770	e5620	e2870	e1240	e1120	e2210	e692	e726	e540	e407
16	e417	e690	e1650	e4650	e2790	e1260	e681	e1670	e713	e943	e557	e567
17	e331	e716	e1510	e3850	e2820	e1320	e484	e1390	e581	e1140	e528	e577
18	e342	e1040	e1400	e3010	e2350	e1410	e482	e1170	e468	e750	e469	e476
19	e1340	e1060	e1420	e2400	e1980	e1610	e497	e986	e432	e1380	e531	e411
20	e754	e1400	e1270	e2010	e1940	e2320	e698	e995	e418	e759	e1730	e423
21	e652	e1210	e1190	e1700	e3810	e2230	e1150	e863	e419	e1340	e1800	e399
22	e619	e1050	e1330	e1430	e3220	e1870	e1010	e766	e438	e698	e718	e443
23	e631	e1000	e3500	e1210	e2610	e1910	e3640	e834	e404	e597	e561	e1120
24	e967	e1360	e3900	e1070	e2130	e2010	e4410	e1040	e389	e561	e491	e663
25	e732	e2230	e2890	e969	e1770	e1700	e5850	e866	e399	e540	e461	e622
26	e633	e1620	e2360	e851	e1550	e1530	e6670	e814	e413	e751	e466	e3930
27	e596	e1330	e2090	e773	e1380	e1360	e4900	e731	e442	e3320	e577	e2140
28	e595	e1300	e1960	e688	e1380	e1440	e3750	e723	e1210	e1590	e608	e1340
29	e989	e1150	e2120	e628	---	e1430	e3480	e689	e1490	e934	e525	e1480
30	e1680	e1150	e2890	e615	---	e1220	e3300	e631	e1080	e774	e1370	e1310
31	e918	---	e8190	e602	---	e1070	---	e629	---	e665	e6760	---
TOTAL	17387	35058	70800	130286	58282	52220	80932	39880	16979	23433	28770	29903
MEAN	561	1169	2284	4203	2082	1685	2698	1286	566	756	928	997
MAX	1680	2230	8190	9370	4700	3210	6670	3000	1490	3320	6760	3930
MIN	312	673	1190	602	581	1070	482	629	389	345	461	391

e Estimated.

Surface-Water Records—Chagrin River Basin

04209000 Chagrin River at Willoughby, Ohio

LOCATION.—Latitude 41°37'51", longitude 81°24'13". in T.9 N., R.10 W., Lake County, Hydrologic Unit 04110003, on left bank, 150 ft downstream from city waterworks dam, 800 ft downstream from East Branch, 1 mi southeast of Willoughby, and 5 mi upstream from mouth.

DRAINAGE AREA.—246 mi².

PERIOD OF RECORD.—July 1925 to November 1935, October 1939 to 1984, March 25, 1988 to September 1994, October 1995 to September 1996, October 1997 to October 1999, October 2001 to current year. (July 1925 to September 1932 monthly runoff in inches, adjusted for diversion, published in WSP 1307; previously published runoff was unadjusted and should not be used).

REVISED RECORDS.—WSP 1084: 1929(M), 1931(M). WSP 1307: 1926-28(M), 1930(M), 1932-35(M), 1942(M). WSP 1912: Drainage area. WDR OH-04-02: 2003(M). See also PERIOD OF RECORD.

GAGE.—Water-stage recorder. Datum of gage is 594.57 ft above sea level. Prior to Dec. 20, 1939, nonrecording gage at site 150 ft upstream at datum 7 ft higher. REMARKS.—Records fair except for periods of estimated record, which are poor. Water diverted 200 ft upstream from station for municipal supply of City of Willoughby until 1988. Water-quality and sediment data formerly collected at this site.

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	87	102	903	e5460	2690	372	206	578	97	589	e66	782
2	88	103	1380	e3240	2450	280	3020	468	91	117	e54	302
3	95	373	722	e5780	1360	258	3450	440	91	79	e50	168
4	92	315	316	5140	1110	249	3200	364	88	68	e48	116
5	89	908	211	3030	1120	275	3310	277	e88	62	e100	92
6	87	619	170	4030	1440	320	2100	233	e100	59	e230	79
7	84	256	176	3330	2940	2280	1160	211	e100	59	e110	72
8	83	165	241	2430	4610	3170	837	191	e88	56	e80	67
9	83	129	258	2300	2720	819	440	175	e82	54	e60	94
10	83	113	465	2320	1380	474	321	e165	e76	53	e44	75
11	83	107	547	2650	447	385	261	e155	e76	52	e39	63
12	81	103	710	8060	424	311	213	e145	e100	50	e42	59
13	81	98	738	4940	413	282	186	139	e140	49	e47	57
14	90	97	725	4420	940	238	158	792	e110	75	e47	55
15	97	94	514	1850	2480	260	138	837	e160	442	e43	60
16	e90	94	398	863	1290	279	126	284	605	e128	e40	84
17	e85	94	355	441	954	322	114	199	268	e200	38	272
18	e140	100	284	375	418	430	123	161	147	e270	37	304
19	e210	105	e270	351	329	798	120	137	109	e140	38	127
20	e155	108	e260	373	288	2790	126	135	95	e105	60	83
21	e130	128	248	1920	2130	1710	238	124	87	489	290	68
22	111	129	275	3070	1970	766	215	110	110	232	82	68
23	102	122	633	3110	909	596	2410	162	91	116	52	441
24	99	125	1830	3140	483	564	3360	174	81	95	44	189
25	120	670	1530	3160	353	384	4150	131	77	99	41	105
26	118	790	e1200	3160	317	322	5790	114	74	e79	40	2170
27	104	342	e930	3010	262	283	4770	105	72	e230	40	981
28	97	263	e740	2940	275	276	2080	156	72	e460	239	330
29	92	236	e800	2920	---	289	1250	162	437	e200	82	249
30	100	184	e900	2870	---	250	729	124	275	e100	96	211
31	109	---	e5800	2740	---	223	---	104	---	e84	3800	---
TOTAL	3165	7072	24529	93423	36502	20255	44601	7552	4087	4891	6079	7823
MEAN	102	236	791	3014	1304	653	1487	244	136	158	196	261
MAX	210	908	5800	8060	4610	3170	5790	837	605	589	3800	2170
MIN	81	94	170	351	262	223	114	104	72	49	37	55
CFSM	0.42	0.96	3.22	12.3	5.30	2.66	6.04	0.99	0.55	0.64	0.80	1.06
IN.	0.48	1.07	3.71	14.13	5.52	3.06	6.74	1.14	0.62	0.74	0.92	1.18
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925-2005, BY WATER YEAR (WY)												
MEAN	158	309	424	502	552	680	567	368	219	131	124	136
MAX	976	850	1284	3014	1304	1234	1487	1088	781	698	602	641
(WY)	1927	1984	1991	2005	2005	1963	2005	1989	1947	1969	1992	1926
MIN	21.9	44.3	60.4	115	48.1	179	120	53.4	23.1	20.3	16.8	17.6
(WY)	1954	1965	1964	1977	1934	1990	1946	1934	1934	1934	1930	1933
SUMMARY STATISTICS			FOR 2004 CALENDAR YEAR				FOR 2005 WATER YEAR			WATER YEARS 1925-2005		
ANNUAL TOTAL				178529			259979					
ANNUAL MEAN				488			712			348		
HIGHEST ANNUAL MEAN										712		
LOWEST ANNUAL MEAN										148		
HIGHEST DAILY MEAN				5800			8060			12300		
LOWEST DAILY MEAN				60			37			3.0		
ANNUAL SEVEN-DAY MINIMUM				68			41			7.0		
MAXIMUM PEAK FLOW							13400			28000		
MAXIMUM PEAK STAGE							12.11			17.95		
INSTANTANEOUS LOW FLOW										3.0		
ANNUAL RUNOFF (CFSM)				1.98			2.90			1.41		
ANNUAL RUNOFF (INCHES)				27.00			39.31			19.20		
10 PERCENT EXCEEDS				1360			2670			788		
50 PERCENT EXCEEDS				205			211			150		
90 PERCENT EXCEEDS				76			68			38		

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.

e Estimated.

Surface-Water Records—Grand River Basin

04212100 Grand River near Painesville, Ohio

LOCATION.—Latitude 41°43'08", longitude 81°13'41", Lake County, Hydrologic Unit 04110004, on downstream left abutment of bridge on State Highway 84 (Walnut Avenue), 0.9 mi downstream from Big Creek in Painesville, Ohio.

DRAINAGE AREA.—685 mi².

PERIOD OF RECORD.—October 1974 to current year.

GAGE.—Water-stage recorder. Datum of gage is 596.37 ft above sea level. Previously published in error as 620.37 ft above sea level.

REMARKS.—Records fair except for periods of estimated record, which are poor. Water-quality data formerly collected at this site.

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	77	212	2250	11800	e280	666	459	1430	154	1020	263	1210
2	74	272	3300	8710	e260	618	2240	1120	138	627	186	851
3	72	577	2070	9370	e250	606	6240	940	120	304	106	470
4	66	810	1600	10800	e240	647	5860	772	108	176	71	222
5	64	1410	1390	8070	e230	640	8010	615	96	211	51	125
6	61	1290	1010	6420	e500	711	10500	495	89	183	38	102
7	59	936	725	6880	1270	2330	9300	403	87	137	31	42
8	58	652	856	5580	3170	5590	5550	332	81	111	30	30
9	55	459	1160	4350	5200	3970	2790	278	82	92	30	27
10	52	340	2500	3860	4580	2400	1460	244	90	88	25	24
11	51	276	2490	3420	2920	1900	918	245	118	91	24	22
12	50	239	2070	7980	2480	1240	648	210	325	80	27	24
13	53	214	2350	10900	2130	795	496	181	586	72	26	26
14	78	195	2420	9980	2360	541	394	488	277	100	33	25
15	65	180	1850	7260	5650	473	330	849	223	148	29	23
16	69	171	1510	4970	4680	499	285	981	267	265	25	32
17	83	166	1420	3310	3430	607	254	941	273	814	21	32
18	84	165	1210	2060	2630	924	228	817	408	641	20	32
19	129	165	1160	1070	1890	1320	200	554	344	703	24	33
20	215	179	881	784	1370	2740	190	358	266	440	42	29
21	239	209	980	e680	1540	3400	208	263	244	615	58	25
22	236	223	1070	e580	1990	2550	263	217	286	437	34	31
23	199	233	2250	e520	2160	1940	2720	278	235	453	30	230
24	189	338	5130	e470	1930	1640	6000	387	173	285	26	92
25	225	1600	4890	e420	1610	1390	7330	491	137	192	23	72
26	247	2070	3890	e400	1320	1180	7460	425	111	250	21	571
27	268	1320	2850	e380	884	972	6060	308	96	1340	23	964
28	228	985	2430	e360	716	819	4630	258	86	1140	35	1090
29	204	940	2400	e330	---	728	3140	216	190	655	35	836
30	213	793	2130	e310	---	647	2060	195	2340	358	116	774
31	229	---	8730	e290	---	560	---	175	---	257	2230	---
TOTAL	3992	17619	70972	132314	57670	45043	96223	15466	8030	12285	3733	8066
MEAN	129	587	2289	4268	2060	1453	3207	499	268	396	120	269
MAX	268	2070	8730	11800	5650	5590	10500	1430	2340	1340	2230	1210
MIN	50	165	725	290	230	473	190	175	81	72	20	22
CFSM	0.19	0.86	3.34	6.23	3.01	2.12	4.68	0.73	0.39	0.58	0.18	0.39
IN.	0.22	0.96	3.85	7.19	3.13	2.45	5.23	0.84	0.44	0.67	0.20	0.44

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975-2005, BY WATER YEAR (WY)

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005					
MEAN	447	1101	1521	1451	1768	1925	1579	866	635	277	246	405																								
MAX	1880	4026	3816	4268	4044	3753	3207	3214	2851	1128	1106	1854																								
(WY)	1991	1986	1978	2005	1981	1993	2005	1989	1986	2003	1980	1990																								
MIN	42.1	67.1	141	109	322	577	450	106	39.8	30.5	17.0	11.0																								
(WY)	1992	1979	1999	1977	1987	1990	1975	1987	1988	1991	1991	1995																								

SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1975-2005		
ANNUAL TOTAL	432488		471413				
ANNUAL MEAN	1182		1292		1014		
HIGHEST ANNUAL MEAN					1406		
LOWEST ANNUAL MEAN					524		
HIGHEST DAILY MEAN	10000	May 22	11800	Jan 1	15300	Nov 6	1985
LOWEST DAILY MEAN	50	Oct 12	20	Aug 18	4.7	Sep 12	2002
ANNUAL SEVEN-DAY MINIMUM	54	Oct 7	24	Sep 9	5.1	Sep 8	2002
MAXIMUM PEAK FLOW			13200	Jan 12a	18700	Jun 11	1986
MAXIMUM PEAK STAGE			10.60	Jan 12	13.16	Dec 25	1979
INSTANTANEOUS LOW FLOW			20	Aug 18	4.2	Sep 10	2002
ANNUAL RUNOFF (CFSM)	1.73		1.89		1.48		
ANNUAL RUNOFF (INCHES)	23.49		25.60		20.12		
10 PERCENT EXCEEDS	3210		3600		2770		
50 PERCENT EXCEEDS	510		403		400		
90 PERCENT EXCEEDS	74		37		38		

a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.

e Estimated.

Surface-Water Records—Conneaut Creek Basin

04213000 Conneaut Creek at Conneaut, Ohio

LOCATION.—Latitude 41°55'37", longitude 80°36'15", Ashtabula County, Hydrologic Unit 04120101, on right bank at downstream side of Keefus Road bridge at Conneaut, Ohio, and 6.4 mi upstream from mouth.

DRAINAGE AREA.—175 mi².

PERIOD OF RECORD.—July 1922 to December 1935, March 1950 to September 1961 (published as "at Amboy"), October 1961 to current year.

REVISED RECORDS.—WSP 714: 1926. WSP 784: 1933. WSP 1437: 1923-25(M), 1926-30, 1931-32(M), 1933, 1935(M). WSP 1912: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is 610.3 ft above sea level. Prior to Aug. 17, 1924, nonrecording gage at same site and datum.

REMARKS.—Records fair except for periods of estimated record, which are poor. Water-quality and sediment data formerly collected at this site.

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	35	182	704	e4000	e75	e190	195	328	41	37	32	507				
2	35	143	1510	e2300	e72	e195	621	354	39	23	26	172				
3	33	860	521	e4000	e70	e180	1930	376	37	18	22	73				
4	32	720	277	e3000	e70	e165	1090	280	33	16	19	43				
5	32	935	183	e2050	e250	e180	1770	194	33	13	17	29				
6	29	783	140	e2600	e600	e190	2870	156	30	13	15	22				
7	27	361	121	e2200	e1300	e1900	2760	137	26	12	14	19				
8	26	214	196	e1700	e3200	e2400	1020	122	24	16	12	18				
9	25	149	320	e1650	e1700	e810	483	114	22	15	11	17				
10	23	116	794	e1650	e600	503	315	99	21	12	11	15				
11	22	97	827	e2100	e310	352	221	110	21	11	11	14				
12	21	84	727	e6100	e295	236	177	95	135	10	10	13				
13	22	75	e680	e5000	e290	210	148	85	54	10	11	12				
14	24	64	e600	e3300	e800	160	129	111	38	25	14	11				
15	24	58	e500	e2200	e1950	152	111	245	34	46	13	10				
16	27	58	e420	e1100	e900	165	105	348	60	40	16	29				
17	73	58	e320	e500	e400	177	95	190	54	41	24	27				
18	55	56	e270	e270	e220	265	88	132	41	30	17	21				
19	60	56	e210	e240	e200	419	82	111	34	54	14	17				
20	157	64	e180	e210	e190	1040	80	90	28	33	16	14				
21	100	111	e165	e190	e1800	1630	84	67	24	33	30	13				
22	65	160	e175	e170	e1750	846	100	62	22	25	15	13				
23	55	125	e185	e155	e540	705	552	60	20	18	12	53				
24	81	132	e1000	e135	e250	800	1720	78	19	15	13	45				
25	370	823	e1200	e120	e220	747	1390	107	18	78	11	40				
26	210	973	e900	e115	e190	591	1240	82	16	277	9.4	134				
27	120	490	e700	e100	e170	492	1300	60	15	231	8.7	509				
28	79	325	e540	e95	e180	435	1290	51	15	352	9.1	263				
29	79	480	e520	e88	---	404	572	48	18	129	9.3	144				
30	212	366	e570	e83	---	314	363	52	54	63	15	327				
31	325	---	e2000	e77	---	235	---	44	---	40	528	---				
TOTAL	2478	9118	17455	47498	18592	17088	22901	4388	1026	1736	985.5	2624				
MEAN	79.9	304	563	1532	664	551	763	142	34.2	56.0	31.8	87.5				
MAX	370	973	2000	6100	3200	2400	2870	376	135	352	528	509				
MIN	21	56	121	77	70	152	80	44	15	10	8.7	10				
CFSM	0.46	1.74	3.22	8.76	3.79	3.15	4.36	0.81	0.20	0.32	0.18	0.50				
IN.	0.53	1.94	3.71	10.10	3.95	3.63	4.87	0.93	0.22	0.37	0.21	0.56				
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922-2005, BY WATER YEAR (WY)																
MEAN	135	314	416	431	460	530	400	245	138	76.5	69.6	111				
MAX	804	1373	1049	1532	1115	987	839	759	1013	415	493	742				
(WY)	1927	1986	1928	2005	1981	1972	1957	2004	1986	1969	1980	2004				
MIN	4.95	17.1	35.1	81.0	39.6	147	69.9	20.2	5.46	2.79	3.19	3.56				
(WY)	1924	1954	1961	1977	1934	2000	1935	1934	1934	1934	1923	1932				
SUMMARY STATISTICS																
ANNUAL TOTAL				FOR 2004 CALENDAR YEAR				FOR 2005 WATER YEAR				WATER YEARS 1922-2005				
149680				409				145889.5								
ANNUAL MEAN				409				400				277				
HIGHEST ANNUAL MEAN												442				
LOWEST ANNUAL MEAN												140				
HIGHEST DAILY MEAN				9060		Sep 10		6100		Jan 12e		11000	Jan 31	1968		
LOWEST DAILY MEAN				21		Aug 26		8.7		Aug 27		0.30	Jul 30	1933		
ANNUAL SEVEN-DAY MINIMUM				23		Oct 9		10		Aug 23		0.64	Aug 27	1933		
MAXIMUM PEAK FLOW								e8000				Jan 12a		17000	Jan 22	1959
MAXIMUM PEAK STAGE												12.94		Mar 4	1934	
INSTANTANEOUS LOW FLOW												0.20		Jul 31	1933	
ANNUAL RUNOFF (CFSM)				2.34				2.28				1.58				
ANNUAL RUNOFF (INCHES)				31.82				31.01				21.47				
10 PERCENT EXCEEDS				899				1140				695				
50 PERCENT EXCEEDS				182				116				100				
90 PERCENT EXCEEDS				35				15				11				

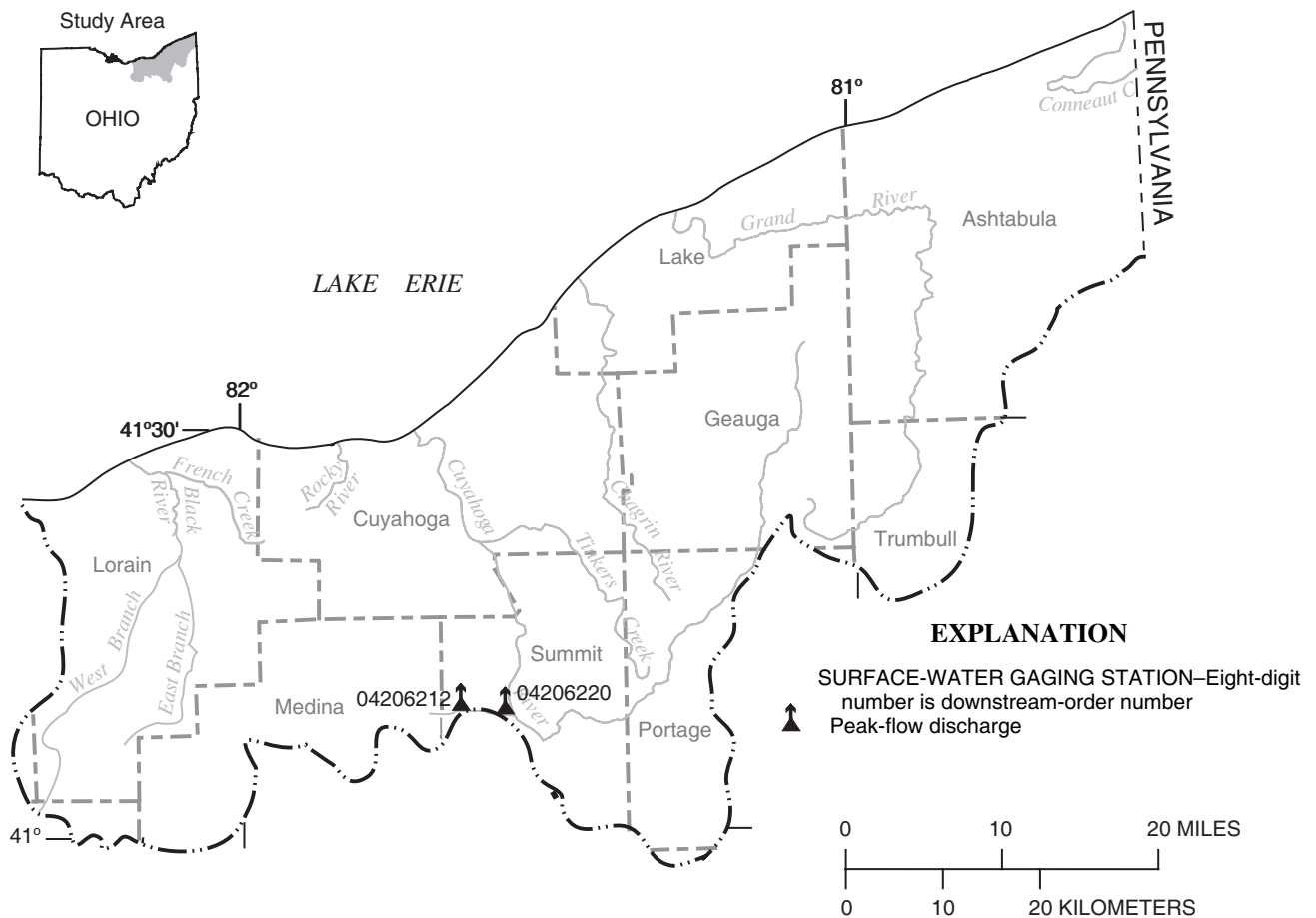
a Peaks above base shown in table of peak discharges and stages at continuous-record surface-water-discharge stations.

e Estimated.

Discharge at Partial-Record Stations and Miscellaneous Sites

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the USGS collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or flood-flow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at crest-stage partial-record stations are presented in the following table. Discharge measurements made at low-flow partial-record sites and at miscellaneous sites for special studies are given in separate tables in Volume 2 of this report.



The following table contains annual maximum discharge for crest-stage stations. A crest-stage gage is a device that will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained, but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

MEASUREMENTS OF DISCHARGE AT MISCELLANEOUS SITES

[mi², square miles; ft, feet; ft³/s, cubic feet per second; ≠, operated as a continuous-record gaging station]

Location	Drainage area (mi ²)	Period of record	Water year 2005 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft ³ /s)	Date	Gage height (ft)	Discharge (ft ³ /s)
Cuyahoga River Basin								
04206212—NORTH FORK AT BATH CENTER, OHIO								
Latitude 41°10'08", longitude 81°38'04", Summit County, Hydrologic Unit 04110002, onleft upstream side of bridge on Bath Road, 750 ft east of Cleveland- Massillon Road at Bath Center, 3.1 mi northwest of Akron Corporate Boundary	5.58	1991-04≠ 2005	01/12/05	11.93	278	07/21/03	15.93	1,810
04206220—YELLOW CREEK AT BOTZUM, OHIO								
Latitude 41°09'47", longitude 81°35'03", Summit County, Hydrologic Unit 04110002, on right downstream bank near Bath Road concrete deck bridge over Yellow Creek, 0.5 mi upstream from confluence with Cuyahoga River, 0.7 mi west of Akron Sewage Treatment Plant.	30.7	1991-04≠ 2005	01/12/05	15.28	1,350	07/21/03	19.53	2,960

Peak Discharge and Stage at Continuous-Record Surface Discharge Stations

For continuous-record surface-water-discharge stations meeting certain criteria, all peak discharges and stages occurring during the water year and greater than a selected base discharge are presented in this table. The peaks greater than the base discharge, excluding the highest one, are referred to as secondary peaks. The peaks are listed in chronological order. Peak discharges are not published for canals, ditches, drains, or streams for which the peaks are subject to substantial control by human intervention. The time of occurrence for peaks is expressed in 24-hour local standard time. For example, 12:30 a.m. is 0030 and 1:30 p.m. is 1330.

PEAK DISCHARGES EQUAL TO OR GREATER THAN BASE DISCHARGES, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

[ft³/s, cubic feet per second; ft, feet; *, maximum peak discharge and gage height; --, no data; e, estimated]

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
OTTAWA RIVER BASIN							
04177000 Ottawa River at Toledo University, Toledo, Ohio (Base discharge: 1,150 ft ³ /s)							
Jan. 14	0000	*2,370	*12.58	Feb. 15	1800	1,310	10.25
MAUMEE RIVER BASIN							
04184500 Bean Creek at Powers, Ohio (Base discharge: 1,200 ft ³ /s)							
Jan. 13	2315	*3,650	*18.65	Mar. 8	0300	1,270	14.04
Feb. 16	1745	2,180	16.16				
04185000 Tiffin River at Stryker, Ohio (Base discharge: 1,850 ft ³ /s)							
Jan. 15	0730	*4,150	*15.10	Feb. 17	0030	2,680	13.74
04185440 Unnamed Tributary to Lost Creek near Farmer, Ohio (Base discharge: 120 ft ³ /s)							
Dec. 7	1445	*216	*4.04	Feb. 14	1030	173	3.82
Jan. 12	1815	175	3.83				
04186500 Auglaize River near Fort Jennings, Ohio (Base discharge: 2,700 ft ³ /s)							
Nov. 26	0430	3,020	11.06	Feb. 9	1400	3,690	12.31
Jan. 6	1030	5,000	14.29	Apr. 25	0500	3,560	12.07
Jan. 13	0930	*8,450	*17.13				
04189000 Blanchard River near Findlay, Ohio (Base discharge: 2,800 ft ³ /s)							
Jan. 1	1330	5,800	11.13	Apr. 3	0900	3,190	7.67
Jan. 7	0030	6,350	11.77	Apr. 24	1500	5,710	11.34
Jan. 13	0000	*7,290	*12.79	Apr. 27	0530	3,570	8.96
Feb. 9	0600	3,140	7.60				
PORTAGE RIVER BASIN							
04195500 Portage River at Woodville, Ohio (Base discharge: 3,500 ft ³ /s)							
Jan. 5	0200	5,330	10.05	Apr. 3	1300	3,510	8.33
Jan. 13	2130	*12,300	*14.40	Apr. 25	1430	4,830	9.61
Feb. 9	0930	4,290	9.11				

PEAK DISCHARGES EQUAL TO OR GREATER THAN BASE DISCHARGES, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—Continued

[ft³/s, cubic feet per second; ft, feet; *, maximum peak discharge and gage height; --, no data; e, estimated]

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
PORTAGE RIVER BASIN—Continued							
04195820 Portage River at Elmore, Ohio							
(Base discharge: 3,800 ft ³ /s)							
Dec. 8	1730	3,880	7.87	Feb. 8	2330	(Ice jam)	13.12
Jan. 1	1300	5,230	9.13	Feb. 15	1300	4,000	7.98
Jan. 5	0500	5,760	9.66	Apr. 3	1430	4,460	8.42
Jan. 14	0230	*13,100	*14.88	Apr. 25	1730	5,490	9.39
SANDUSKY RIVER BASIN							
04196000 Sandusky River near Bucyrus, Ohio							
(Base discharge: 1,200 ft ³ /s)							
Jan. 1	0030	*3,190	*8.99	Feb. 9	0100	1,820	7.39
Jan. 6	1700	2,020	7.83	Apr. 24	0530	1,760	7.26
Jan. 12	2300	2,420	8.32				
04196500 Sandusky River near Upper Sandusky, Ohio							
(Base discharge: 2,500 ft ³ /s)							
Jan. 2	0230	*5,930	*9.43	Feb. 9	2245	3,860	7.31
Jan. 6	2230	5,680	9.19	Apr. 3	1930	2,610	5.83
Jan. 14	0230	5,630	9.14	Apr. 25	0545	4,680	8.18
04196800 Tymochtee Creek at Crawford, Ohio							
(Base discharge: 1,800 ft ³ /s)							
Jan. 2	0745	4,210	8.13	Feb. 10	2115	2,440	6.62
Jan. 7	0830	4,790	8.55	Apr. 25	1315	2,990	7.14
Jan. 14	0330	*4,850	*8.65				
04197100 Honey Creek at Melmore, Ohio							
(Base discharge: 1,500 ft ³ /s)							
Jan. 1	0330	2,890	9.24	Feb. 9	1930	1,520	7.08
Jan. 6	0800	2,510	8.70	Apr. 3	1600	2,080	8.05
Jan. 12	2330	*3,400	*9.94	Apr. 24	1830	2,260	8.33
Jan. 19	0100	1,730	7.47				
04198000 Sandusky River near Fremont, Ohio							
(Base discharge: 10,000 ft ³ /s)							
Jan. 7	0730	16,700	8.19	Apr. 3	1230	11,400	6.54
Jan. 15	0030	*17,700	*8.50	Apr. 27	1530	14,000	7.31
Feb. 9	--	e11,600	(Ice jam)				
HURON RIVER BASIN							
04199000 Huron River at Milan, Ohio							
(Base discharge: 4,700 ft ³ /s)							
Dec. 31	2330	*9,260	*19.74	Feb. 8	1930	5,950	16.38
Jan. 4	0530	6,360	16.84	Apr. 3	0745	6,940	17.46
Jan. 6	1630	6,070	16.52	Apr. 25	2130	6,100	16.55
Jan. 12	1800	9,170	19.66				

PEAK DISCHARGES EQUAL TO OR GREATER THAN BASE DISCHARGES, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—Continued

[ft³/s, cubic feet per second; ft, feet; *, maximum peak discharge and gage height; --, no data; e, estimated]

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)	
OLD WOMAN CREEK BASIN								
		04199155	Old Woman Creek at Berlin Road near Huron, Ohio					
		(Base discharge: 400 ft ³ /s)						
Dec. 31	1100	*1,340	*10.82	Apr. 3	0030	690	9.28	
Jan. 4	0115	610	8.94	Apr. 25	2030	981	10.08	
Jan. 12	1345	1,090	10.33	Sept. 26	1415	519	8.52	
Feb. 8	1015	460	8.22					
VERMILION RIVER BASIN								
		04199500	Vermilion River near Vermilion, Ohio					
		(Base discharge: 3,200 ft ³ /s)						
Jan. 1	0230	*9,260	8.60	Apr. 3	1030	4,760	6.53	
Jan. 6	2030	5,330	6.82	Apr. 25	2345	6,060	7.17	
Jan. 12	1545	8,400	8.24	Aug. 20	2030	3,800	6.00	
Feb. 8	1200	(Ice jam)	*12.44					
BLACK RIVER BASIN								
		04200500	Black River at Elyria, Ohio					
		(Base discharge: 3,200 ft ³ /s)						
Jan. 1	2100	*9,820	*14.63	Feb. 9	1530	4,460	9.49	
Jan. 7	0500	7,100	12.29	Apr. 3	2000	5,550	10.72	
Jan. 12	2000	8,340	13.45	Apr. 26	0600	5,620	10.79	
ROCKY RIVER BASIN								
		04201500	Rocky River near Berea, Ohio					
		(Base discharge: 4,000 ft ³ /s)						
Jan. 1	0100	*8,580	*6.95	Apr. 2	2100	4,220	4.77	
Jan. 6	---	Unknown	Unknown	Apr. 26	0030	5,680	5.62	
Jan. 12	---	Unknown	Unknown	Aug. 31	0630	4,100	4.69	
Feb. 8	1530	4,550	4.97					
CUYAHOGA RIVER BASIN								
		04207200	Tinkers Creek at Bedford, Ohio					
		(Base discharge: 1,500 ft ³ /s)						
Dec. 31	1115	2,300	6.74	June 28	2015	2,460	6.88	
Jan. 12	1215	3,150	7.41	Aug. 20	2015	2,390	6.82	
Feb. 8	0815	1,530	5.98	Aug. 31	0115	*3,170	*7.43	
Apr. 26	1815	2,570	6.97	Sept. 26	0845	2,300	6.74	

PEAK DISCHARGES EQUAL TO OR GREATER THAN BASE DISCHARGES, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—Continued

[ft³/s, cubic feet per second; ft, feet; *, maximum peak discharge and gage height; --, no data; e, estimated]

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
CHAGRIN RIVER BASIN							
		04209000		Chagrin River at Willoughby, Ohio			
		(Base discharge: 4,800 ft ³ /s)					
Dec. 31	1930	8,990	8.39	Mar. 7	2300	4,880	6.85
Jan. 3	2330	7,580	8.68	Apr. 2	2030	4,850	6.83
Jan. 6	1800	5,660	7.38	Apr. 26	2330	7,750	8.80
Jan. 12	1600	*13,400	*12.11	Aug. 31	0430	7,800	9.00
Feb. 7	2300	7,580	8.68				
GRAND RIVER BASIN							
		04212100		Grand River near Painesville, Ohio			
		(Base discharge: 6,500 ft ³ /s)					
Jan. 1	1430	12,300	10.18	Feb. 8	2300	7,350	7.75
Jan. 4	0100	12,600	10.35	Apr. 6	2200	11,300	9.71
Jan. 12	1730	*13,200	*10.60	Apr. 26	2230	9,280	8.75
CONNEAUT CREEK BASIN							
		04213000		Conneaut Creek at Conneaut, Ohio			
		(Base discharge: 2,900 ft ³ /s)					
Jan. 1	--	e5,200	--	Feb. 8	--	e4,200	--
Jan. 3	--	e5,200	--	Mar. 8	--	e3,100	--
Jan. 12	--	*e8,000	*e9.18	Apr. 6	2200	3,750	6.54

Ground-Water Records—Crawford County

404838082563100. Local Number, CR-1

LOCATION.—Latitude 40°48'38", longitude 82°56'31", Crawford County, Hydrologic Unit 04100011, Timken Roller Bearing Company, U.S. 30 in Bucyrus.
 Owner: Timken Roller Bearing Company.

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled test water-table well, diameter 6 in., depth 54 ft, cased.

INSTRUMENTATION.—Digital recorder, 60-minute punch.

DATUM.—Elevation of land-surface datum is 1039.13 ft above sea level. Measuring point: Floor of instrument shelter 3.50 ft above land-surface datum.

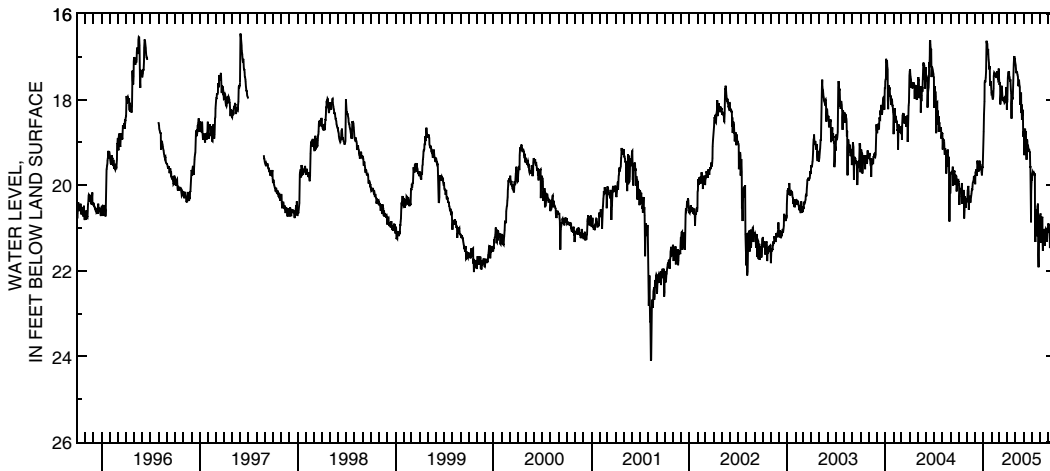
REMARKS.—Station operated by Ohio Department of Natural Resources (ODNR), Division of Water. Some historical records not published by the USGS are available from ODNR.

PERIOD OF RECORD.—January 1960 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 37.64 ft below land-surface datum, Dec. 11, 1962; minimum daily low, 16.04 ft below land-surface datum, Apr. 29, 1993.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.91	20.39	19.77	19.04	17.85	17.50	18.00	17.16	18.74	19.87	20.70	20.91
2	19.98	20.33	19.98	18.85	17.84	17.61	17.67	17.20	18.91	19.87	20.68	20.91
3	19.98	20.33	19.81	18.75	17.89	17.66	17.50	17.29	19.30	19.76	20.66	20.94
4	20.46	20.11	19.68	18.35	17.95	17.60	17.39	17.37	19.19	19.73	21.35	21.12
5	20.27	20.12	19.78	18.05	18.00	17.69	17.35	17.37	18.71	19.69	21.28	21.06
6	20.14	20.02	19.63	17.61	17.98	18.12	17.37	17.34	18.68	19.72	20.86	21.47
7	20.14	20.15	19.67	17.55	17.94	17.92	17.37	17.37	18.81	19.72	20.79	21.38
8	20.07	20.58	19.78	17.60	17.75	17.81	17.47	17.42	18.74	19.71	20.76	21.08
9	20.09	20.43	19.63	17.57	17.45	17.83	17.48	17.43	18.76	19.74	20.74	21.08
10	20.13	20.25	19.43	17.49	17.39	17.75	17.54	17.47	19.14	19.77	21.32	21.09
11	20.12	20.26	19.50	17.35	17.37	17.68	17.58	17.64	19.41	19.74	21.54	21.11
12	20.06	20.30	19.50	17.13	17.38	17.82	17.53	17.69	19.13	19.74	21.35	21.07
13	19.95	20.38	19.61	16.63	17.44	17.94	17.70	17.65	18.93	20.98	21.10	21.43
14	20.44	20.41	19.68	16.68	17.44	17.99	17.77	17.54	18.97	21.33	21.04	21.34
15	20.24	20.35	19.67	16.69	17.44	18.02	17.86	17.60	19.21	20.56	21.24	21.20
16	20.13	20.28	19.54	16.70	17.41	18.02	18.45	17.68	19.13	20.78	21.19	21.12
17	20.22	20.25	19.58	16.85	17.39	17.95	18.09	17.71	19.06	21.05	21.02	21.04
18	20.23	20.20	19.43	16.94	17.46	17.98	17.95	18.13	19.13	21.11	21.42	21.11
19	20.11	20.15	19.57	16.82	17.50	17.97	17.96	17.97	19.16	21.10	21.24	21.11
20	20.17	20.08	19.54	16.94	17.48	18.04	18.00	17.86	19.21	21.19	21.09	21.08
21	20.20	20.12	19.51	17.07	17.35	18.08	17.97	17.88	19.16	20.68	21.05	21.09
22	20.78	20.04	19.56	17.15	17.40	18.07	17.88	17.84	19.21	20.50	21.02	21.06
23	20.60	19.94	19.61	17.30	17.44	17.94	17.68	18.32	19.22	20.47	21.04	21.07
24	20.26	19.92	19.63	17.26	17.39	18.02	17.40	18.12	19.23	20.43	21.06	21.02
25	20.29	19.91	19.59	17.22	17.40	17.98	17.17	18.48	19.59	21.63	21.05	20.96
26	20.31	19.89	19.70	17.53	17.55	17.93	17.03	18.37	19.56	21.92	21.32	20.83
27	20.32	19.79	19.77	17.67	17.54	17.86	16.99	18.36	20.41	21.53	21.28	21.26
28	20.32	19.92	19.65	17.68	17.28	17.71	17.05	18.27	20.87	21.03	21.10	21.09
29	20.53	19.92	19.58	17.57	---	17.81	17.05	18.24	20.18	20.86	21.07	20.90
30	20.34	19.80	19.58	17.67	---	18.24	17.13	18.87	19.93	20.81	21.03	20.84
31	20.39	---	19.37	17.74	---	17.99	---	18.79	---	20.76	20.91	---
MAX	20.78	20.58	19.98	19.04	18.00	18.24	18.45	18.87	20.87	21.92	21.54	21.47
CAL YR 2004		LOW	20.85									
WTR YR 2005		LOW	21.92									



Ground-Water Records—Geauga County

412518081221500. Local Number, GE-3A

LOCATION.—Latitude 41°25'18", longitude 81°22'15", Geauga County, Hydrologic Unit 04110003, 1.2 miles southeast of Chagrin Falls, Ohio. Owner: City of Chagrin Falls.

AQUIFER.—Sandstone of Pennsylvanian Age.

WELL CHARACTERISTICS.—Drilled unused artesian well, diameter 6 in., depth drilled 120 ft, present depth 89 ft, cased.

INSTRUMENTATION.—Digital recorder, 60-minute punch.

DATUM.—Elevation of land-surface datum is 1,130 ft above sea level (from topographic map). Measuring point: Floor of instrument shelter, 3.00 ft above land-surface datum.

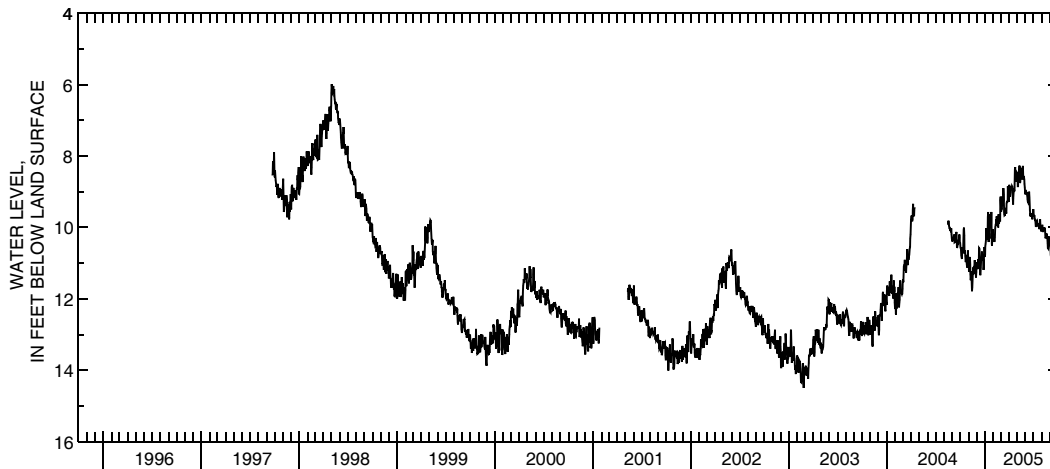
REMARKS.—Station operated by Ohio Department of Natural Resources (ODNR), Division of Water. Some historical records not published by the USGS are available from ODNR. Water level affected by pumping wells nearby.

PERIOD OF RECORD.—October 1951 to September 1991 continuous. Discontinued October 1991 to March 1996. Periodic measurements April 1996 to September 1997. Continuous September 1997 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 52.85 ft below land-surface datum, Oct. 18, 1965; minimum daily low, 5.99 ft below land-surface datum, May 2, 1998.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.44	11.10	11.10	10.83	10.35	9.14	9.29	8.49	9.08	9.49	9.99	10.40
2	10.56	11.03	11.12	10.76	10.34	9.45	8.81	8.51	9.05	9.63	9.98	10.50
3	10.59	11.25	11.00	10.53	10.19	9.56	8.91	8.66	9.00	9.66	9.95	10.64
4	10.62	11.04	10.98	10.47	10.31	9.51	9.11	8.85	8.99	9.69	9.95	10.77
5	10.79	10.91	11.17	10.32	10.41	9.49	9.14	8.85	9.06	9.66	10.08	10.83
6	10.83	10.83	11.12	10.02	10.38	9.48	9.05	8.64	9.01	9.75	10.13	10.86
7	10.89	11.03	10.89	10.29	10.28	9.14	8.85	8.43	9.09	9.80	10.09	10.79
8	10.77	11.31	11.13	10.35	10.02	9.31	8.91	8.48	9.14	9.81	10.09	10.62
9	10.56	11.48	11.09	10.32	9.99	9.39	8.94	8.43	9.21	9.93	10.06	10.65
10	10.70	11.37	10.58	10.09	9.93	9.24	8.90	8.27	9.29	9.99	10.01	10.74
11	10.70	11.24	10.59	10.05	9.93	8.90	8.94	8.55	9.31	9.96	10.06	10.82
12	10.59	11.39	10.62	9.71	9.78	9.08	8.85	8.76	9.29	9.87	10.05	10.73
13	10.25	11.69	10.89	9.57	9.95	9.45	8.87	8.72	9.16	9.81	10.01	10.59
14	10.06	11.79	11.30	10.31	9.69	9.57	9.03	8.33	9.12	9.80	10.19	10.53
15	10.01	11.67	11.34	10.41	9.80	9.67	9.21	8.41	9.00	9.87	10.31	10.70
16	10.23	11.43	11.19	10.29	9.69	9.66	9.36	8.56	9.15	9.91	10.28	10.62
17	10.65	11.31	11.13	10.17	9.74	9.47	9.18	8.63	9.29	9.90	10.26	10.65
18	10.74	11.17	10.92	10.32	9.93	9.51	9.03	8.66	9.51	9.89	10.23	10.82
19	10.65	11.13	10.85	9.81	9.99	9.48	8.96	8.55	9.65	9.96	10.17	10.89
20	10.80	11.12	10.86	9.63	9.99	9.48	8.91	8.48	9.69	9.99	10.25	10.83
21	10.94	11.31	10.68	9.84	9.63	9.59	8.99	8.54	9.60	9.91	10.25	10.89
22	10.97	11.24	10.83	9.65	9.75	9.59	8.88	8.43	9.66	9.95	10.31	10.76
23	10.91	11.06	10.83	9.96	9.89	9.33	8.39	8.28	9.69	10.05	10.46	10.97
24	10.77	10.92	10.89	9.95	9.80	9.29	8.31	8.54	9.65	9.99	10.58	10.95
25	10.95	10.97	10.88	9.57	9.63	9.29	8.48	8.66	9.66	9.81	10.59	10.86
26	11.07	11.12	10.92	9.93	9.81	9.29	8.48	8.59	9.72	9.78	10.47	10.71
27	11.10	11.07	11.19	10.46	9.81	9.24	8.63	8.61	9.78	9.90	10.25	10.89
28	11.13	11.27	11.10	10.52	9.24	8.85	8.72	8.66	9.71	9.96	10.37	10.83
29	10.92	11.40	10.74	10.28	---	9.09	8.61	8.78	9.65	10.04	10.38	10.82
30	10.65	11.25	10.76	10.05	---	9.15	8.48	8.88	9.62	10.11	10.31	10.89
31	10.97	---	10.55	10.17	---	9.15	---	9.03	---	10.08	10.29	---
MAX	11.13	11.79	11.34	10.83	10.41	9.67	9.36	9.03	9.78	10.11	10.59	10.97
CAL YR 2004	LOW	12.45										
WTR YR 2005	LOW	11.79										



Ground-Water Records—Hancock County

405940083275500. Local Number, HA-3

LOCATION.—Latitude 40°59'40", longitude 83°27'55", Hancock County, Hydrologic Unit 0410008, 2 miles north of Vanlue, Ohio. Owner: City of Findlay.
 AQUIFER.—Limestone of Silurian Age.

WELL CHARACTERISTICS.—Drilled artesian well, diameter 10 in., diameter 6 in. below 55 ft, depth 240 ft, cased to 55 ft.

INSTRUMENTATION.—Digital recorder, 60-minute punch.

DATUM.—Elevation of land-surface datum is 815 ft above sea level (from topographic map). Measuring point: Floor of instrument shelter 1.40 ft above land-surface datum.

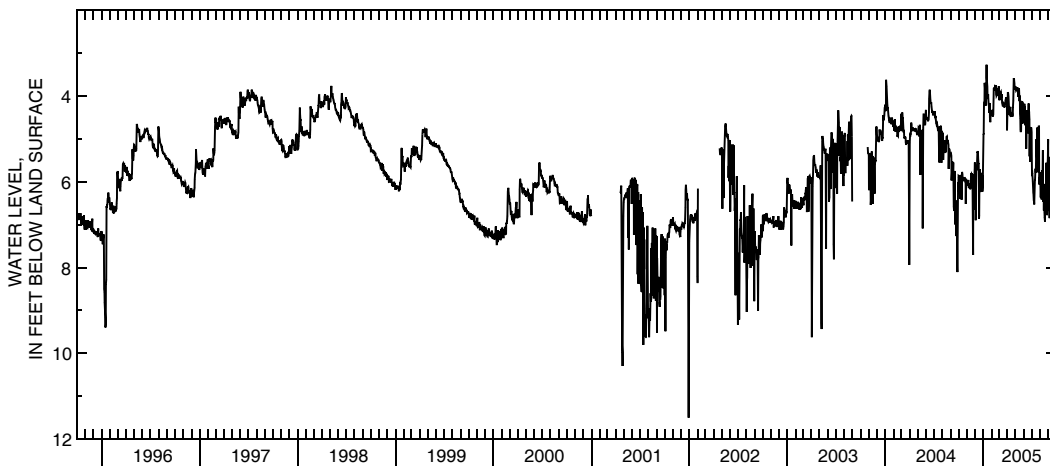
REMARKS.—Station operated by Ohio Department of Natural Resources (ODNR), Division of Water. Some historical records not published by the USGS are available from ODNR.

PERIOD OF RECORD.—May 1947 to September 1972 and August 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 20.67 ft below land-surface datum, Sept. 22, 1988; minimum daily low, 3.27 ft below land-surface datum, Jan. 13, 2005.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.88	6.06	5.55	5.38	4.46	4.02	4.33	3.77	4.24	5.45	5.78	6.32
2	5.89	6.08	6.60	4.88	4.43	4.08	4.11	3.80	4.18	5.81	5.96	6.68
3	5.87	6.09	5.73	4.89	4.32	4.10	3.91	3.84	4.61	5.80	6.35	6.62
4	5.88	6.00	6.90	4.16	4.44	4.02	3.93	3.87	4.25	5.87	6.37	6.25
5	5.91	6.03	5.95	4.12	4.48	4.09	4.00	3.86	4.24	5.99	6.10	6.85
6	6.40	5.96	5.61	3.69	4.46	3.92	4.18	3.82	4.68	6.24	6.41	6.35
7	5.91	6.11	5.66	3.81	4.43	3.90	4.35	3.83	4.57	6.27	5.80	5.42
8	5.84	6.15	5.73	4.10	4.12	4.01	4.42	3.84	4.58	6.43	5.73	6.56
9	5.86	6.13	5.51	4.10	3.82	4.03	4.43	3.82	4.33	6.47	6.13	5.46
10	5.89	6.03	5.29	4.22	3.81	3.98	4.28	3.82	5.23	6.53	5.87	6.29
11	6.01	6.09	5.32	4.07	3.81	3.95	4.29	4.02	4.72	6.23	5.26	5.53
12	6.42	6.13	5.28	3.73	3.83	4.15	4.25	4.00	4.79	5.98	6.47	6.77
13	5.91	6.16	5.49	3.27	3.87	4.20	4.37	3.93	4.35	5.96	6.36	5.52
14	5.77	6.16	5.58	3.57	3.77	4.21	4.41	3.82	4.35	5.76	6.20	6.54
15	5.83	6.12	5.57	3.67	3.78	4.24	4.46	3.91	4.71	5.69	6.67	5.55
16	5.91	5.83	6.86	3.78	3.74	4.21	4.48	4.12	4.43	5.79	6.05	5.47
17	5.97	5.82	6.79	3.97	3.81	4.16	4.41	3.99	4.87	5.17	6.71	5.46
18	5.97	5.87	5.76	4.07	3.91	4.17	4.39	4.41	4.53	5.01	6.83	6.81
19	5.90	5.80	5.74	3.96	3.99	4.20	4.43	4.52	4.17	5.29	6.93	5.66
20	5.94	5.92	5.71	4.07	3.98	4.25	4.48	4.79	4.49	5.44	6.37	5.53
21	5.95	5.98	6.24	4.19	3.85	4.25	4.40	4.84	4.36	5.54	6.63	5.53
22	5.95	5.91	5.79	4.24	3.86	4.24	4.26	4.80	4.54	4.73	6.20	5.51
23	5.89	7.34	5.85	4.39	3.87	4.18	4.11	4.36	5.41	5.78	6.23	5.39
24	5.94	7.71	5.84	4.27	3.83	4.20	3.73	4.14	4.72	5.58	5.56	5.28
25	5.98	6.14	5.81	4.16	3.85	4.11	3.58	4.15	5.22	5.65	6.19	5.23
26	6.00	5.82	6.11	4.50	3.98	4.08	3.61	4.37	5.54	4.81	6.68	5.16
27	6.00	6.66	5.99	4.61	3.96	4.03	3.70	4.13	5.23	4.69	6.78	5.03
28	6.52	5.88	5.84	4.59	3.77	4.08	3.76	4.64	5.31	4.71	6.63	4.96
29	5.93	5.86	6.23	4.35	---	4.10	3.82	4.21	4.73	6.06	5.64	5.08
30	5.97	5.72	6.13	4.36	---	4.10	3.85	4.16	4.84	5.89	5.46	5.09
31	6.07	---	5.68	4.41	---	4.80	---	4.50	---	5.92	5.01	---
MAX	6.52	7.71	6.90	5.38	4.48	4.80	4.48	4.84	5.54	6.53	6.93	6.85
CAL YR 2004		LOW	8.11									
WTR YR 2005		LOW	7.71									



Ground-Water Records—Hardin County

404648083412600. Local Number, HN-2A

LOCATION.—Latitude 40°46'48", longitude 83°41'26", Hardin County, Hydrologic Unit 04100007, at southeast edge of Dola, Ohio. Owner: Kevin Eikenbary.
AQUIFER.—Limestone of Silurian Age.

WELL CHARACTERISTICS.—Drilled unused artesian well, diameter 6 in., depth 51 ft, cased.

INSTRUMENTATION.—Electronic data logger, 60-minute log interval. Satellite telemeter at site.

DATUM.—Elevation of land-surface datum is 945 ft above sea level (from topographic map). Measuring point: Floor of instrument shelter 2.88 ft above land-surface datum.

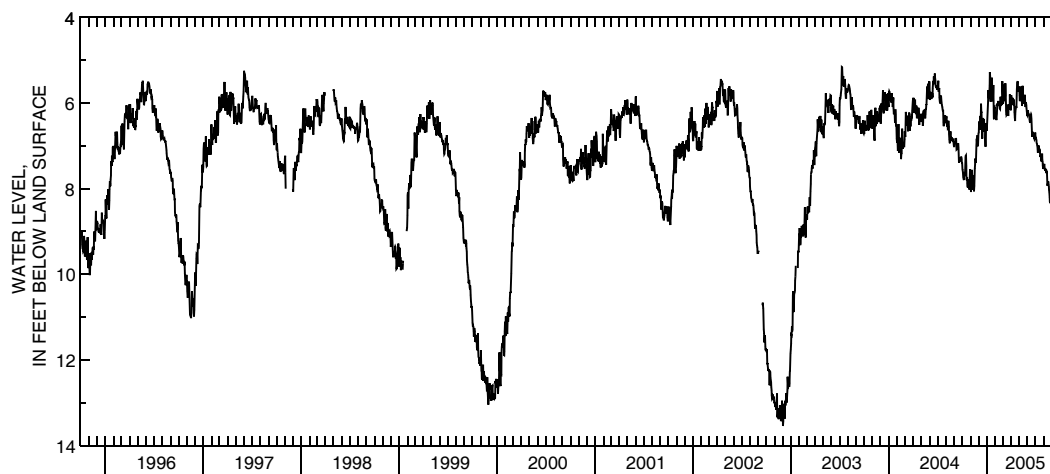
REMARKS.—Station operated by Ohio Department of Natural Resources (ODNR), Division of Water. Some historical records not published by the USGS are available from ODNR.

PERIOD OF RECORD.—December 1954 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 15.86 ft below land-surface datum, Jan. 20, 21, 1965; minimum daily low, 5.16 ft below land-surface datum, July 10, 2003.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.40	7.95	6.70	6.65	6.34	5.70	6.17	5.65	6.29	6.69	7.45	8.34
2	7.55	7.96	6.68	6.44	6.30	5.92	5.82	5.68	6.21	6.81	7.45	8.46
3	7.56	8.08	6.55	6.33	6.23	6.01	5.95	5.83	6.17	6.81	7.42	8.55
4	7.63	7.68	6.43	6.17	6.31	5.87	6.04	5.96	6.19	6.83	7.44	8.65
5	7.75	7.74	6.63	5.97	6.40	5.96	6.01	5.94	6.26	6.87	7.54	8.72
6	7.77	7.56	6.41	5.70	6.35	5.92	6.00	5.78	6.26	6.95	7.58	8.73
7	7.80	7.75	6.30	5.82	6.25	5.56	5.88	5.65	6.30	6.97	7.56	8.67
8	7.64	7.95	6.63	5.89	6.07	5.89	5.98	5.71	6.32	7.00	7.55	8.53
9	7.61	8.02	6.42	5.87	6.01	5.93	5.99	5.65	6.38	7.09	7.57	8.58
10	7.71	7.79	6.02	5.76	6.07	5.82	6.00	5.61	6.44	7.16	7.55	8.67
11	7.70	7.69	6.22	5.59	6.05	5.54	6.05	5.92	6.46	7.11	7.64	8.75
12	7.56	7.78	6.22	5.28	5.95	5.81	5.92	6.07	6.39	7.03	7.58	8.67
13	7.26	7.99	6.58	5.37	6.05	6.08	6.10	5.94	6.28	6.99	7.63	8.55
14	7.23	8.06	6.82	5.90	5.98	6.18	6.21	5.60	6.26	7.03	7.83	8.59
15	7.22	7.93	6.83	5.97	6.01	6.28	6.34	5.82	6.27	7.09	7.93	8.71
16	7.47	7.68	6.59	5.83	5.96	6.27	6.42	5.93	6.37	7.12	7.89	8.67
17	7.78	7.54	6.62	5.90	6.02	6.07	6.26	5.98	6.46	7.14	7.89	8.73
18	7.78	7.42	6.35	5.96	6.13	6.07	6.14	6.01	6.66	7.13	7.83	8.85
19	7.73	7.32	6.55	5.41	6.14	6.04	6.11	5.89	6.77	7.24	7.90	8.90
20	7.87	7.29	6.50	5.45	6.08	6.22	6.07	5.94	6.79	7.26	7.95	8.90
21	7.96	7.40	6.38	5.65	5.85	6.28	6.12	6.00	6.67	7.22	8.03	8.93
22	7.97	7.26	6.51	5.66	5.99	6.28	5.93	5.89	6.77	7.28	8.09	8.80
23	7.81	6.99	6.64	5.96	6.06	6.03	5.67	5.81	6.79	7.36	8.21	8.93
24	7.78	6.83	6.67	5.84	5.89	6.16	5.57	5.99	6.74	7.30	8.31	8.91
25	7.91	6.88	6.59	5.58	5.86	6.12	5.51	6.09	6.76	7.23	8.32	8.75
26	7.98	6.88	6.84	6.03	6.04	6.16	5.49	6.03	6.82	7.18	8.20	8.59
27	8.00	6.75	7.02	6.37	6.02	6.10	5.66	5.99	6.84	7.33	8.13	8.67
28	8.02	6.98	6.81	6.38	5.49	5.80	5.73	6.05	6.81	7.37	8.23	8.50
29	7.74	7.01	6.61	6.11	---	5.98	5.63	6.12	6.75	7.46	8.24	8.48
30	7.55	6.82	6.63	6.10	---	5.93	5.61	6.19	6.71	7.54	8.19	8.43
31	7.90	---	6.47	6.19	---	6.12	---	6.28	---	7.51	8.25	---
MAX	8.02	8.08	7.02	6.65	6.40	6.28	6.42	6.28	6.84	7.54	8.32	8.93
CAL YR 2004		LOW	8.08									
WTR YR 2005		LOW	8.93									



Ground-Water Records—Henry County

412123083574000. Local Number, HY-2

LOCATION.—Latitude 41°21'23", longitude 83°57'40", Henry County, Hydrologic Unit 04100009, 1.4 mi southwest of McClure, Ohio. Owner: State of Ohio.
 AQUIFER.—Limestone of Silurian Age.

WELL CHARACTERISTICS.—Drilled unused artesian well, diameter 12 in., depth drilled 300 ft, cased to 43 ft.

INSTRUMENTATION.—Digital recorder, 60-minute punch.

DATUM.—Elevation of land-surface datum is 680 ft above sea level (from topographic map). Measuring point: Floor of instrument shelter 3.00 ft above land-surface datum.

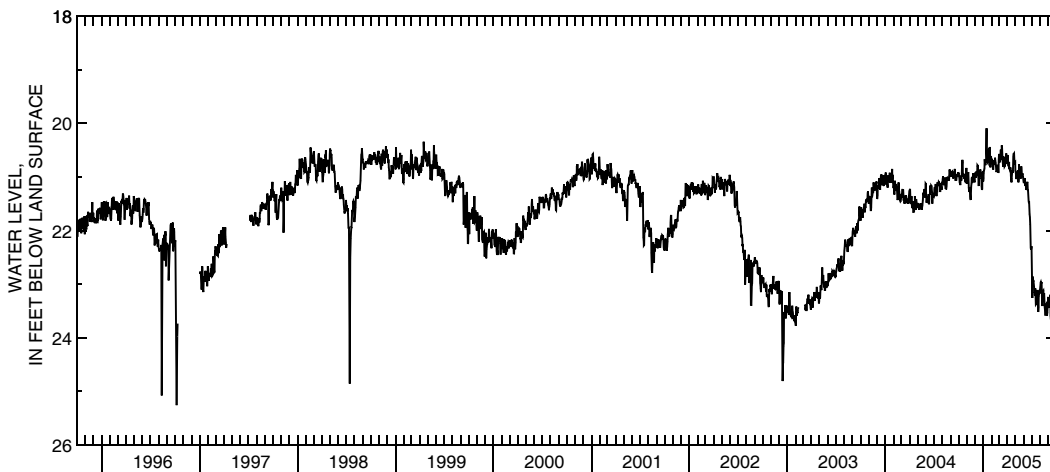
REMARKS.—Station operated by Ohio Department of Natural Resources (ODNR), Division of Water. Some historical records not published by the USGS are available from ODNR.

PERIOD OF RECORD.—June 1971 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 26.38 ft below land-surface datum, Dec. 3, 1994; minimum daily low, 14.55 ft below land-surface datum, Mar. 22, 1978.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.93	21.05	20.96	21.08	20.72	20.57	20.73	20.88	21.10	22.45	23.10	23.32
2	20.94	21.00	21.00	21.02	20.69	20.69	20.59	20.90	21.10	23.04	23.05	23.33
3	20.98	21.13	20.95	20.93	20.66	20.73	20.73	20.96	21.04	23.26	22.97	23.39
4	21.01	21.00	20.91	20.88	20.72	20.70	20.78	21.01	21.07	23.19	22.96	23.38
5	21.11	20.95	21.01	20.84	20.81	20.68	20.79	21.04	21.02	22.86	22.99	23.44
6	21.12	20.91	20.97	20.67	20.85	20.66	20.80	20.99	21.14	22.95	22.96	23.40
7	21.15	21.10	20.89	20.72	20.85	20.49	20.72	20.92	21.17	22.93	23.16	23.34
8	21.10	21.20	20.96	20.77	20.71	20.66	20.84	20.97	21.09	22.99	23.37	23.20
9	20.97	21.28	20.95	20.78	20.71	20.66	20.86	20.91	21.12	23.05	23.41	23.59
10	21.05	21.22	20.78	20.68	20.75	20.61	20.83	20.88	21.24	23.15	23.32	23.66
11	21.07	21.20	20.79	20.69	20.77	20.41	20.87	20.98	21.17	23.15	23.23	23.56
12	21.04	21.27	20.80	20.54	20.71	20.46	20.82	21.10	21.16	23.21	23.13	23.44
13	20.89	21.37	20.92	20.09	20.74	20.63	20.87	21.03	21.11	23.15	23.12	23.32
14	20.76	21.40	21.10	20.55	20.64	20.69	20.98	20.76	21.09	23.08	23.21	23.18
15	20.68	21.43	21.17	20.67	20.70	20.75	21.04	20.96	21.11	23.22	23.20	23.19
16	20.73	21.27	21.01	20.63	20.74	20.81	21.10	20.98	21.26	23.38	23.17	23.08
17	20.96	21.17	20.95	20.73	20.78	20.71	21.03	20.98	21.24	23.37	23.31	22.99
18	20.99	21.12	20.89	20.74	20.83	20.66	20.94	21.01	21.33	23.26	23.42	22.98
19	20.97	21.03	20.94	20.53	20.91	20.62	20.90	20.98	21.45	23.26	23.48	22.99
20	20.94	21.00	20.93	20.48	20.89	20.73	20.88	20.93	21.47	23.27	23.57	22.89
21	21.01	21.11	20.86	20.50	20.77	20.80	20.92	21.03	21.47	23.16	23.59	22.91
22	21.03	21.10	20.93	20.47	20.84	20.79	20.89	20.94	21.62	23.11	23.49	22.85
23	20.94	21.01	20.93	20.64	20.85	20.72	20.62	20.80	21.69	23.15	23.46	22.71
24	20.98	20.94	21.02	20.64	20.82	20.68	20.56	20.89	21.75	23.26	23.37	22.73
25	21.07	20.93	21.03	20.44	20.78	20.73	20.57	21.00	21.89	23.52	23.36	22.68
26	21.08	20.99	21.17	20.57	20.92	20.76	20.56	20.97	22.08	23.43	23.58	22.53
27	21.10	20.99	21.24	20.79	20.91	20.73	20.69	20.93	22.32	23.23	23.59	22.59
28	21.10	21.05	21.22	20.82	20.68	20.56	20.77	20.95	22.36	23.19	23.53	22.57
29	21.00	21.10	20.97	20.68	---	20.67	20.74	20.99	22.34	23.14	23.46	22.54
30	20.83	21.08	21.03	20.61	---	20.65	20.73	21.02	22.29	23.18	23.36	22.57
31	21.02	---	20.89	20.65	---	20.68	---	21.08	---	23.11	23.24	---
MAX	21.15	21.43	21.24	21.08	20.92	20.81	21.10	21.10	22.36	23.52	23.59	23.66
CAL YR 2004		LOW	21.67									
WTR YR 2005		LOW	23.66									



Ground-Water Records—Lucas County

413704083362200. Local Number, LU-1

LOCATION.—Latitude 41°37'04", longitude 83°36'22", Lucas County, Hydrologic Unit 04100001, at Toledo State Hospital, Toledo, Ohio. Owner: State of Ohio.
AQUIFER.—Limestone of Silurian Age.

WELL CHARACTERISTICS.—Drilled unused artesian well, diameter 12 in., depth drilled 525 ft, present depth 523 ft, cased to 93 ft.

INSTRUMENTATION.—Digital recorder, 60-minute punch.

DATUM.—Elevation of land-surface datum is 624 ft above sea level (from topographic map). Measuring point: Floor of instrument shelter 2.98 ft above land-surface datum (revised from 1978 and 1979).

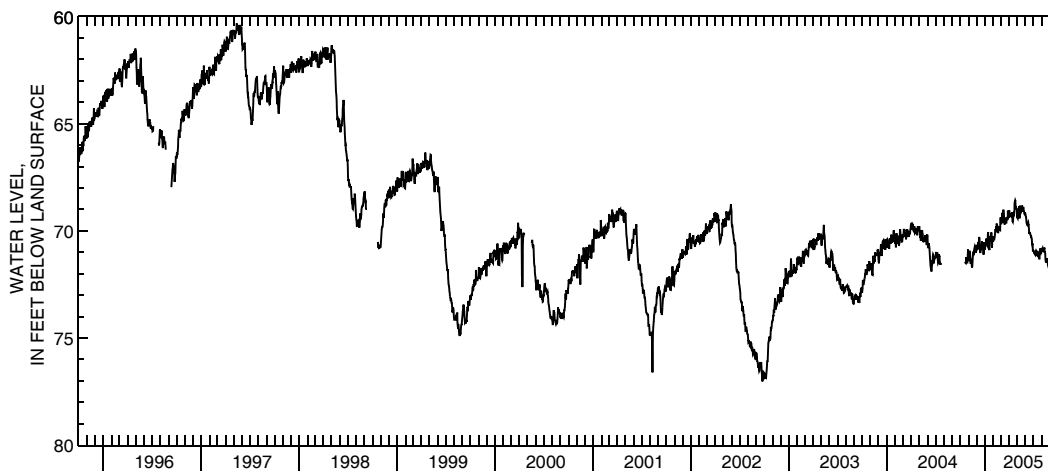
REMARKS.—Station operated by Ohio Department of Natural Resources (ODNR), Division of Water. Some historical records not published by the USGS are available from ODNR. Prior to Aug. 23, 1978, measuring point was 3.10 ft above land-surface datum. Reported in 1979 as 3 ft above land-surface datum.

PERIOD OF RECORD.—June 1950 to July 1982 continuous, November 1982 to January 1985 periodic, continuous thereafter. This well replaced LU-1A, which has continuous record from March 1946 to June 1950.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 117.80 ft below land-surface datum, Nov. 5-7, 1957; minimum daily low, 56.87 ft below land-surface datum, Apr. 16, 1987.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	71.27	70.79	70.87	70.49	69.38	69.41	69.13	69.21	70.92	70.86	71.57
2	---	71.24	70.81	70.78	70.45	69.63	69.05	69.39	69.26	70.96	70.84	71.61
3	---	71.41	70.75	70.69	70.26	69.69	69.19	69.42	69.34	70.99	70.82	71.83
4	---	71.11	70.65	70.69	70.31	69.59	69.29	69.30	69.39	70.94	70.81	71.92
5	---	71.07	70.87	70.59	70.35	69.60	69.27	69.05	69.52	71.05	70.94	71.99
6	---	70.93	70.75	70.37	70.29	69.58	69.26	69.12	69.65	71.05	70.96	72.07
7	---	71.16	70.52	70.55	70.22	69.16	69.20	69.00	69.72	71.11	70.91	72.06
8	---	71.42	70.78	70.68	69.98	69.46	69.30	68.86	69.74	71.13	70.90	72.02
9	---	71.54	70.72	70.69	69.98	69.48	69.30	69.22	69.70	71.05	70.88	71.96
10	---	71.39	70.29	70.48	69.96	69.39	69.31	69.42	69.63	70.98	70.86	71.88
11	---	71.31	70.33	70.47	69.97	69.01	69.38	69.23	69.60	70.92	70.79	71.93
12	---	71.44	70.37	70.17	69.80	69.17	69.14	68.83	69.70	70.94	71.00	72.02
13	---	71.65	70.69	70.06	69.92	69.46	69.38	69.02	69.71	70.96	70.96	72.11
14	---	71.71	70.99	70.74	69.67	69.59	69.56	69.12	69.93	70.99	71.10	72.07
15	---	71.65	71.04	70.83	69.74	69.68	69.59	69.15	70.07	71.14	71.33	71.97
16	---	71.39	70.84	70.77	69.77	69.68	69.46	69.11	70.14	71.18	71.43	71.85
17	---	71.22	70.90	70.83	69.92	69.45	69.27	68.92	70.06	71.19	71.43	71.88
18	---	71.07	70.67	70.90	70.03	69.45	69.29	69.05	70.10	71.15	71.49	72.17
19	---	71.00	70.80	70.32	70.07	69.43	69.11	68.95	70.14	71.01	71.36	72.10
20	71.44	70.98	70.77	70.25	70.07	69.55	69.26	68.82	70.20	71.02	71.28	72.18
21	71.51	71.14	70.49	70.41	69.78	69.62	69.11	68.88	70.24	71.07	71.40	72.21
22	71.52	71.07	70.66	70.23	69.94	69.62	68.71	69.10	70.28	71.16	71.34	72.22
23	71.38	70.85	70.75	70.48	69.98	69.43	68.64	69.00	70.27	71.33	71.28	72.10
24	71.22	70.76	70.78	70.43	69.93	69.43	68.58	68.93	70.34	71.20	71.57	72.08
25	71.35	70.73	70.79	70.07	69.86	69.44	68.60	68.93	70.39	70.93	71.63	71.98
26	71.42	70.77	70.93	70.36	69.97	69.50	68.95	69.04	70.53	70.83	71.59	71.99
27	71.46	70.70	71.12	70.76	69.98	69.43	68.99	69.10	70.63	71.00	71.40	71.86
28	71.47	70.94	71.01	70.79	69.42	69.06	68.94	69.19	70.60	71.03	71.50	71.75
29	71.22	71.02	70.66	70.47	---	69.24	68.97	69.23	70.91	70.99	71.50	71.86
30	70.87	70.93	70.68	70.27	---	69.19	68.99	69.24	70.90	71.07	71.55	71.69
31	71.19	---	70.53	70.35	---	69.31	---	69.15	---	70.97	71.49	---
MAX	71.52	71.71	71.12	70.90	70.49	69.69	69.59	69.42	70.91	71.33	71.63	72.22
CAL YR 2004	LOW	71.90										
WTR YR 2005	LOW	72.22										



Ground-Water Records—Medina County

410142082005700. Local Number, MD-1A

LOCATION.—Latitude 41°01'42", longitude 82°00'57", Medina County, Hydrologic Unit 04110001, at Lodi, Ohio. Owner: Village of Lodi.

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled unused water-table well, diameter 6 in., depth 77 ft, cased to 71 ft.

INSTRUMENTATION.—Digital recorder, 60-minute punch.

DATUM.—Elevation of land-surface datum is 910 ft above sea level (from topographic map). Measuring point: Floor of instrument shelter 3.00 ft above land-surface datum.

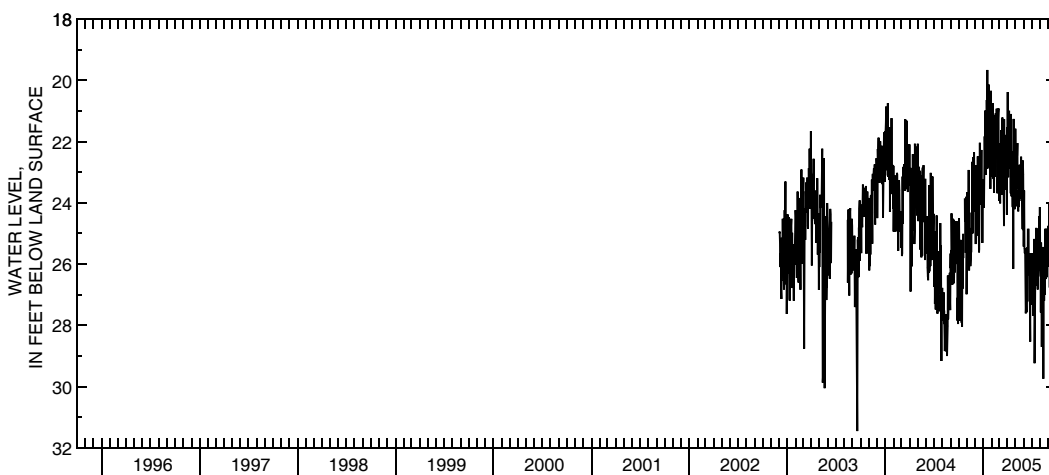
REMARKS.—Station operated by Ohio Department of Natural Resources (ODNR), Division of Water.

PERIOD OF RECORD.—December 2002 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 31.46 ft below land-surface datum, Sept. 19, 2003; minimum daily low, 19.66 ft below land-surface datum, Jan. 16, 2005.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26.36	24.63	22.92	24.16	22.27	22.56	22.23	21.58	25.43	25.79	25.65	24.75
2	26.69	23.66	23.22	23.84	23.15	23.94	20.38	22.60	24.71	25.90	26.15	26.09
3	24.50	24.90	24.12	23.50	21.01	22.05	20.85	23.57	23.60	25.65	26.20	24.76
4	26.27	24.35	25.35	24.16	22.96	23.37	23.17	24.11	25.49	25.86	27.58	24.00
5	27.33	24.73	22.78	22.87	23.00	24.02	21.04	22.05	25.65	26.56	25.30	26.77
6	27.85	24.60	23.99	21.83	20.74	22.52	21.73	22.37	25.48	27.69	27.15	26.74
7	26.82	22.93	23.86	22.73	23.21	22.75	20.99	22.46	26.53	27.28	28.71	24.84
8	27.18	24.51	24.90	22.70	22.70	21.63	22.82	22.05	27.61	26.82	27.42	25.65
9	25.21	26.21	23.03	20.98	23.27	22.88	22.88	23.57	27.51	27.26	27.73	25.10
10	26.21	24.32	23.61	23.08	23.68	22.13	22.19	23.97	27.06	25.18	26.34	26.46
11	27.43	25.23	22.48	21.91	21.15	22.67	22.23	24.28	27.58	29.24	25.44	23.71
12	27.92	25.62	22.99	21.87	22.73	23.74	21.73	23.72	26.58	27.92	25.51	25.71
13	27.53	25.39	25.07	22.40	21.18	21.21	23.69	24.14	26.54	27.44	29.75	25.23
14	28.05	26.07	24.81	20.64	23.15	22.52	21.10	22.79	25.45	26.56	25.57	25.07
15	25.57	25.85	24.82	22.24	21.31	23.19	22.33	23.46	27.22	25.56	26.31	26.00
16	26.80	25.08	25.62	19.66	21.08	22.30	23.79	22.75	24.85	26.27	27.20	24.44
17	25.35	25.62	25.51	22.88	21.78	22.57	22.32	23.00	---	24.82	26.43	24.74
18	25.02	24.90	23.43	21.54	21.87	23.69	22.56	23.75	---	25.84	27.00	23.19
19	25.81	24.82	22.04	20.85	22.05	24.75	23.18	23.53	24.85	26.13	25.74	25.04
20	---	24.90	23.00	20.95	20.92	21.27	24.10	23.07	26.37	26.40	25.87	24.11
21	---	22.66	22.99	22.82	21.88	22.10	24.14	23.85	26.26	26.71	24.85	26.94
22	---	23.99	24.07	20.14	21.39	23.58	22.69	22.49	25.94	26.27	26.49	25.14
23	---	25.00	23.81	20.69	23.69	23.33	26.16	23.48	26.96	26.83	26.00	23.50
24	23.85	23.19	23.23	21.58	22.51	23.10	21.26	23.94	27.46	24.85	25.65	24.30
25	24.62	22.50	22.27	20.99	21.39	21.78	23.51	23.22	28.54	26.41	26.44	24.64
26	24.13	22.84	22.51	21.15	21.03	22.17	24.13	23.46	25.65	26.18	26.14	24.86
27	25.64	24.02	23.60	22.83	20.91	22.24	22.48	24.85	27.34	25.19	25.65	24.59
28	24.35	22.35	23.76	23.54	23.23	22.22	23.60	24.86	26.83	24.45	24.85	24.93
29	24.72	24.28	25.31	21.99	---	23.74	24.21	22.62	25.66	24.64	26.02	25.25
30	23.80	23.00	23.24	20.34	---	24.39	22.31	23.07	26.26	25.16	25.45	24.77
31	26.99	---	23.50	23.06	---	21.53	---	25.05	---	24.14	25.64	---
MAX	28.05	26.21	25.62	24.16	23.69	24.75	26.16	25.05	28.54	29.24	29.75	26.94
CAL YR 2004	LOW	29.17										
WTR YR 2005	LOW	29.75										



411233081474200. Local Number, MD-6

LOCATION.—Latitude 41°12'33", longitude 81°47'42", Medina County, Hydrologic Unit 04110001, south of Brunswick. Owner: State of Ohio.

AQUIFER.—Sandstone of Mississippian Age.

WELL CHARACTERISTICS.—Drilled unused water-table well, diameter 6 in., depth 170 ft, cased to 70 ft.

INSTRUMENTATION.—Electronic data logger, 60-minute log interval.

DATUM.—Elevation of land-surface datum is 1,090 ft above sea level (from topographic map). Measuring point: Floor of instrument shelter 3.50 ft above land-surface datum.

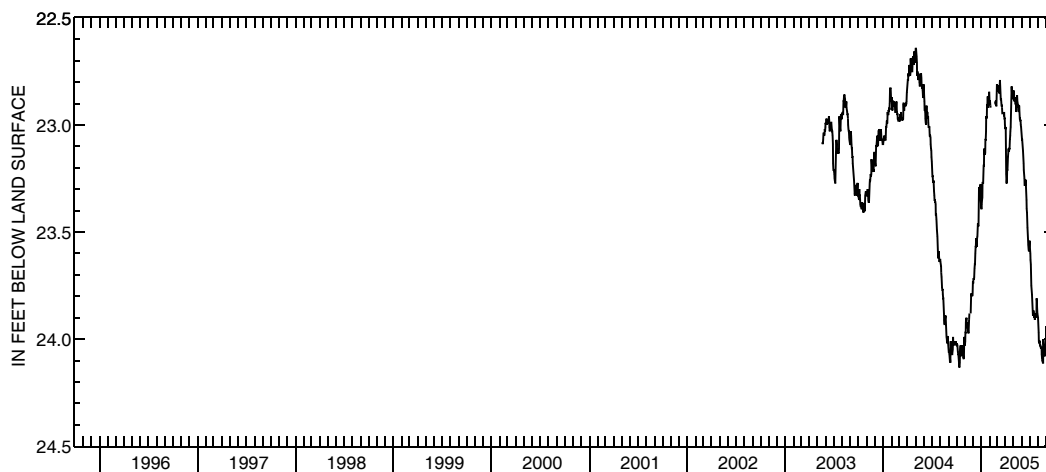
REMARKS.—Station operated by Ohio Department of Natural Resources (ODNR), Division of Water.

PERIOD OF RECORD.—May 2003 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 24.13 ft below land-surface datum, Oct. 11-12, 2004; minimum daily low, 22.64 ft below land-surface datum, May 2, 2004.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.03	24.03	23.73	23.39	22.89	22.81	23.02	22.85	23.05	23.54	23.90	23.97
2	24.02	24.01	23.74	23.39	22.89	22.82	23.01	22.84	23.07	23.58	23.93	23.99
3	24.03	23.97	23.72	23.37	22.89	22.82	23.12	22.85	23.07	23.60	23.97	24.01
4	24.03	23.97	23.72	23.35	22.91	22.82	23.23	22.88	23.09	23.63	24.01	24.03
5	24.05	23.92	23.72	23.34	22.92	22.84	23.27	22.89	23.11	23.65	24.02	24.05
6	24.06	23.91	23.71	23.27	---	22.84	23.27	22.88	23.12	23.71	24.01	24.05
7	24.07	23.90	23.67	23.27	---	22.82	23.25	22.87	23.15	23.75	24.01	24.05
8	24.07	23.94	23.65	23.27	---	22.85	23.21	22.90	23.18	23.77	24.03	24.04
9	24.09	23.95	23.65	23.24	---	22.85	23.21	22.90	23.21	23.79	24.03	24.04
10	24.11	23.94	23.60	23.19	---	22.85	23.17	22.90	23.23	23.81	24.03	24.05
11	24.13	23.92	23.57	23.19	22.95	22.82	23.15	22.92	23.25	23.84	24.04	24.07
12	24.13	23.95	23.57	23.13	---	22.79	23.13	22.94	23.28	23.87	24.04	24.08
13	24.11	23.96	23.53	23.11	---	22.83	23.11	22.93	23.28	23.89	24.04	24.08
14	24.07	23.97	23.55	23.13	---	22.85	23.12	22.88	23.28	23.87	24.04	24.08
15	24.05	23.97	23.57	23.14	---	22.88	23.12	22.86	23.26	23.87	24.07	24.10
16	24.03	23.93	23.54	23.13	---	22.88	23.11	22.89	23.26	23.87	24.09	24.09
17	24.07	23.91	23.53	23.07	---	22.89	23.11	22.90	23.28	23.88	24.10	24.05
18	24.08	23.88	23.52	23.07	---	22.91	23.07	22.92	23.31	23.89	24.10	24.07
19	24.03	---	23.48	23.03	---	22.91	23.05	22.91	23.35	23.88	24.11	24.08
20	24.04	---	23.46	22.96	---	22.92	23.03	22.91	23.39	23.91	24.11	24.07
21	24.05	---	23.47	22.97	22.89	22.95	23.01	22.93	23.41	23.89	24.00	24.08
22	24.06	---	23.47	22.96	22.89	---	22.99	22.94	23.45	23.88	24.02	24.08
23	24.06	23.88	23.38	22.91	22.90	---	22.92	22.91	23.48	23.90	24.04	24.04
24	24.03	23.82	23.29	22.91	22.90	---	22.86	22.94	23.51	23.89	24.07	24.05
25	24.07	23.79	23.30	22.87	22.90	---	22.82	22.97	23.54	23.89	24.07	24.04
26	24.08	23.79	23.30	22.87	22.91	---	22.85	22.97	23.56	23.89	24.08	24.02
27	24.09	23.80	23.31	22.91	22.91	22.96	22.86	22.98	23.58	23.81	24.07	23.95
28	24.09	23.79	23.31	22.92	22.87	22.94	22.88	22.98	23.59	23.82	24.07	23.95
29	24.08	23.80	23.28	22.90	---	22.97	22.86	23.00	23.57	23.85	24.07	23.95
30	23.99	23.79	23.28	22.85	---	22.97	22.84	23.01	23.55	23.88	24.07	23.95
31	24.01	---	23.35	22.85	---	23.00	---	23.03	---	23.89	23.94	---
MAX	24.13	24.03	23.74	23.39	22.95	23.00	23.27	23.03	23.59	23.91	24.11	24.10
CAL YR 2004		LOW	24.13									
WTR YR 2005		LOW	24.13									



Ground-Water Records—Ottawa County

413434082494000. Local Number, O-2

LOCATION.—Latitude 41°34'34", longitude 82°49'40", Ottawa County, Hydrologic Unit 04100010. Catawba Island near Port Clinton, Ohio. Owner: William Williams.

AQUIFER.—Limestone of Silurian Age.

WELL CHARACTERISTICS.—Drilled water table well, diameter 6 in., depth 62 ft, cased to 26 ft.

INSTRUMENTATION.—Digital recorder, 60-minute punch.

DATUM.—Elevation of land-surface datum is 591 ft above sea level (from topographic map). Measuring point: Floor of instrument shelter 1.60 ft above land-surface datum.

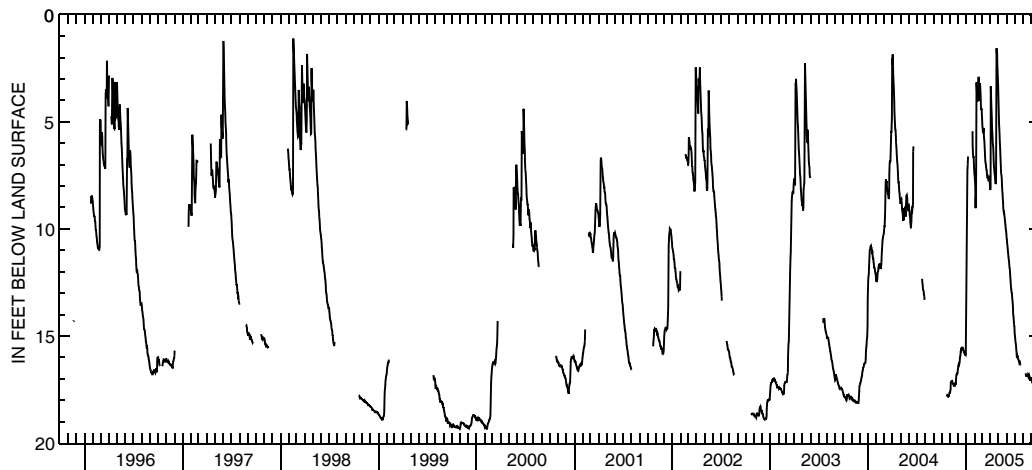
REMARKS.—Station operated by Ohio Department of Natural Resources (ODNR), Division of Water.

PERIOD OF RECORD.—March 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 19.34 ft below land-surface datum, Oct. 31, 1999, Feb. 9, and 10, 2000; minimum daily low, 1.12 ft below land-surface datum, Feb. 18, 1998.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	17.65	16.60	13.60	7.42	4.81	8.18	3.77	10.44	14.82	---	16.94
2	---	17.63	16.46	12.30	7.60	5.09	8.07	4.25	10.51	14.99	---	17.01
3	---	17.55	16.37	11.61	7.75	5.25	3.35	4.71	10.64	15.13	---	17.07
4	---	17.51	16.33	9.42	7.95	5.35	3.80	5.13	10.78	15.24	---	17.12
5	---	17.22	16.36	7.93	9.04	5.53	4.18	5.41	10.91	15.36	---	17.19
6	---	17.13	16.32	7.29	8.57	5.48	4.52	5.63	11.03	15.46	---	17.21
7	---	17.11	16.30	7.00	8.41	5.29	4.88	6.01	11.17	15.60	---	17.20
8	---	17.12	16.16	6.62	7.09	5.59	5.31	6.27	11.34	15.74	---	17.21
9	---	17.13	16.06	---	3.17	5.77	5.52	6.52	11.40	15.99	---	17.28
10	---	17.11	15.96	---	3.55	5.88	5.82	6.81	11.51	16.00	---	17.33
11	---	17.14	15.85	---	3.71	6.04	6.04	7.18	11.71	15.92	16.75	17.36
12	---	17.20	15.74	---	4.01	6.36	6.15	7.45	11.80	15.95	16.79	17.41
13	---	17.24	15.65	---	4.05	6.68	6.49	7.50	11.87	15.98	16.89	17.42
14	---	17.26	15.67	---	3.87	6.85	6.78	7.68	12.08	16.06	16.86	17.46
15	---	17.29	15.63	---	3.21	6.95	7.09	7.93	12.24	16.09	16.84	17.49
16	---	17.32	15.57	---	3.09	7.02	7.22	8.21	12.42	16.14	16.84	17.49
17	---	17.31	15.58	---	2.90	7.13	7.35	8.38	12.58	16.17	16.83	17.54
18	---	17.32	15.51	---	3.41	7.25	7.48	8.57	12.78	16.18	16.83	17.57
19	---	17.32	15.58	---	3.90	7.28	7.60	8.76	12.86	16.28	16.88	17.61
20	17.76	17.26	15.58	---	4.01	7.44	7.79	9.01	12.98	16.27	16.90	17.59
21	17.75	17.27	15.62	---	3.73	7.56	7.91	9.15	13.01	16.25	16.80	17.62
22	17.77	17.25	15.65	---	3.20	7.63	7.88	9.25	13.20	16.34	16.82	17.64
23	17.79	17.25	15.70	---	3.33	7.58	7.83	9.24	13.30	16.38	16.80	17.66
24	17.80	17.27	15.74	---	3.62	7.64	6.06	9.36	13.45	---	16.83	17.69
25	17.82	17.01	15.78	5.45	3.88	7.62	1.57	9.48	13.68	---	16.86	17.70
26	17.84	16.84	15.82	6.15	4.36	7.65	1.84	9.54	13.99	---	16.93	17.67
27	17.83	16.78	15.86	6.53	4.44	7.60	1.80	9.72	14.09	16.30	16.99	17.47
28	17.83	16.75	15.84	6.64	4.39	7.62	2.27	9.84	14.26	---	17.06	17.45
29	17.80	16.76	15.85	6.64	---	7.78	2.83	9.97	14.48	---	17.06	17.41
30	17.66	16.72	15.87	6.98	---	7.83	3.27	10.11	14.58	---	17.10	17.47
31	17.65	---	15.76	7.19	---	8.07	---	10.26	---	---	16.98	---
MAX	17.84	17.65	16.60	13.60	9.04	8.07	8.18	10.26	14.58	16.38	17.10	17.70
CAL YR 2004		LOW	17.84									
WTR YR 2005		LOW	17.84									



Ground-Water Records—Portage County

410931081192900. Local Number, P0-123

LOCATION.—Latitude 41°09'31", longitude 81°19'29", Portage County, Hydrologic Unit 04110002, east of Kent, Ohio. Owner: City of Kent.

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled unused artesian well, diameter 6 in., cased.

INSTRUMENTATION.—Digital recorder, 60-minute punch.

DATUM.—Elevation of land-surface datum is 1,042 ft above sea level (from topographic map). Measuring point: Floor of instrument shelter 3.5 ft above land-surface datum.

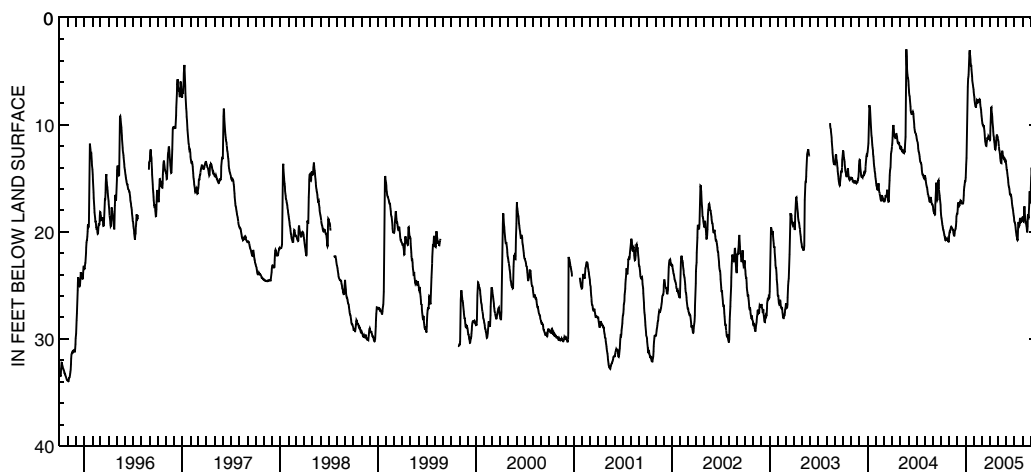
REMARKS.—Station operated by Ohio Department of Natural Resources (ODNR), Division of Water.

PERIOD OF RECORD.—September 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 33.97 ft below land-surface datum, Nov. 3, 1995; minimum daily low, 2.97 ft below land-surface datum, May 25, 2004.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.42	20.13	18.30	14.95	7.24	9.19	11.43	11.39	13.72	18.99	18.91	15.92
2	18.69	19.98	17.91	14.23	7.44	9.46	11.39	11.45	13.99	19.09	18.95	14.96
3	18.77	20.00	17.48	13.70	7.70	9.64	10.57	11.63	14.21	19.14	18.58	14.50
4	19.00	19.89	17.42	13.11	7.96	9.86	9.80	11.90	14.27	19.20	18.95	14.01
5	19.21	19.86	17.25	12.08	8.13	9.98	8.93	12.06	14.54	19.38	19.00	14.47
6	19.41	19.74	17.37	11.20	8.24	10.07	8.40	12.31	14.66	19.64	18.54	15.05
7	19.51	19.54	17.47	9.53	8.29	10.13	8.36	12.42	14.93	19.84	18.00	15.54
8	19.64	19.52	17.56	7.81	8.42	10.10	8.81	12.66	15.15	20.05	17.62	16.19
9	19.80	19.57	17.52	6.47	8.28	10.12	8.97	12.76	15.38	20.32	18.09	16.81
10	19.83	19.61	17.36	5.71	8.00	10.14	9.28	13.12	15.68	20.39	18.43	16.94
11	19.96	19.69	17.25	5.53	7.90	10.35	9.67	13.36	15.83	20.51	18.72	16.64
12	20.11	19.76	17.24	5.32	7.71	10.60	9.98	13.51	15.86	20.75	18.91	15.85
13	20.26	19.80	17.08	4.63	7.76	10.97	10.31	13.59	16.03	20.79	19.05	15.16
14	20.33	19.80	17.11	4.09	7.95	11.26	10.64	13.61	16.31	20.73	19.17	14.81
15	20.50	19.86	17.19	3.34	7.96	11.59	11.03	13.27	16.49	20.19	19.33	14.43
16	20.61	20.05	17.22	3.05	7.82	11.71	11.15	12.77	16.53	19.32	19.49	13.97
17	20.79	20.25	17.35	3.44	7.73	11.86	11.42	12.44	16.60	19.09	19.74	14.01
18	20.81	20.34	17.37	3.57	7.74	11.97	11.63	12.52	16.62	19.19	19.99	14.39
19	20.78	20.38	17.31	3.90	7.77	12.00	11.89	12.65	16.60	19.31	20.00	14.86
20	20.65	20.38	17.32	4.30	7.65	11.83	12.16	12.93	16.67	19.41	19.50	15.40
21	20.69	20.16	17.34	4.53	7.79	11.60	12.31	12.97	16.85	19.37	18.52	15.91
22	20.74	19.88	17.35	4.53	7.63	11.39	12.32	12.99	17.10	18.90	18.40	16.09
23	20.75	19.84	17.32	4.86	7.65	11.20	12.21	13.15	17.32	18.77	18.69	15.81
24	20.66	19.76	17.06	5.16	7.85	11.27	11.95	13.21	17.55	18.71	18.71	15.62
25	20.71	19.70	16.60	5.48	8.12	11.31	11.53	13.13	17.76	18.85	18.17	15.98
26	20.74	19.47	16.11	5.90	8.37	11.32	11.22	13.13	17.83	19.11	17.42	16.08
27	20.83	19.04	15.83	6.09	8.62	11.09	10.98	13.22	18.02	19.10	16.64	16.09
28	20.91	18.57	15.63	6.29	8.86	11.13	10.93	13.42	18.30	18.97	16.22	16.11
29	20.94	18.34	15.32	6.53	---	11.35	11.11	13.41	18.52	18.87	16.73	16.24
30	20.89	18.30	15.31	6.72	---	11.37	11.17	13.38	18.70	18.71	17.19	16.37
31	20.40	---	15.30	6.95	---	11.38	---	13.62	---	18.73	17.23	---
MAX	20.94	20.38	18.30	14.95	8.86	12.00	12.32	13.62	18.70	20.79	20.00	16.94
CAL YR 2004	LOW	20.94										
WTR YR 2005	LOW	20.94										



Ground-Water Records—Putnam County

405505084032900. Local Number, PU-1

LOCATION.—Latitude 40°55'05", longitude 84°03'29", Putnam County, Hydrologic Unit 04100007, Center and Broadway Street, Columbus Grove, Ohio.

Owner: Village of Columbus Grove.

AQUIFER.—Limestone of Silurian Age.

WELL CHARACTERISTICS.—Drilled unused artesian well, diameter 6 in., depth 110 ft, cased.

INSTRUMENTATION.—Digital recorder, 60-minute punch.

DATUM.—Elevation of land-surface datum is 770 ft above sea level (from topographic map). Measuring point: Floor of instrument shelter 3.00 ft above land-surface datum.

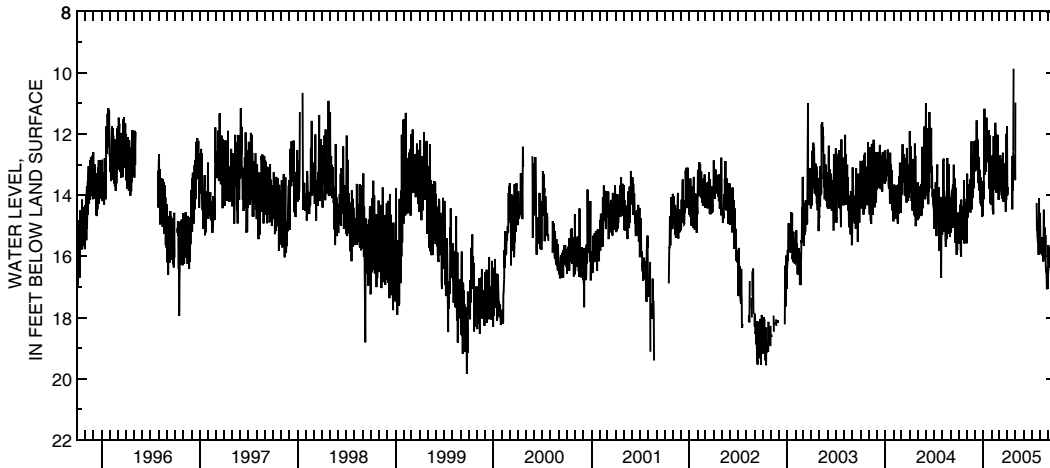
REMARKS.—Station operated by Ohio Department of Natural Resources (ODNR), Division of Water. Some historical records not published by the USGS are available from ODNR.

PERIOD OF RECORD.—July 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 24.30 ft below land-surface datum, Aug. 24, 1962; minimum daily low, 8.80 ft below land-surface datum, Dec. 30, 1990.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.59	15.58	13.20	13.56	13.49	13.63	14.01	10.98	---	---	14.58	15.63
2	15.00	13.30	13.19	14.14	14.25	13.88	13.74	---	---	---	15.50	15.82
3	15.46	14.34	12.77	14.10	14.26	13.62	13.98	---	---	---	15.90	16.37
4	15.32	14.74	12.21	13.27	12.70	13.86	---	---	---	---	15.57	15.70
5	15.21	13.80	12.71	11.18	14.51	13.06	---	---	---	---	15.92	16.23
6	14.87	14.55	13.08	12.60	13.93	12.70	---	---	---	---	15.37	15.99
7	14.31	14.49	11.56	13.33	14.63	13.79	---	---	---	---	15.91	16.31
8	15.51	14.04	13.18	13.06	12.08	13.79	---	---	---	---	15.97	16.37
9	15.89	13.91	12.12	12.58	12.80	12.83	---	---	---	---	15.92	16.42
10	16.01	13.65	13.15	13.23	12.43	14.01	---	---	---	---	15.64	16.58
11	14.15	14.48	13.22	13.04	13.58	13.51	---	---	---	---	15.43	17.15
12	15.47	14.21	12.19	11.48	13.82	13.84	---	---	---	---	15.57	16.04
13	14.72	13.49	13.61	11.60	12.87	14.12	---	---	---	---	16.17	17.84
14	15.39	14.57	13.29	11.48	13.55	13.43	---	---	---	---	15.37	14.32
15	14.52	14.39	13.51	12.64	11.64	12.62	---	---	---	---	14.48	17.05
16	15.37	13.49	12.75	12.91	12.77	13.78	---	---	---	---	15.90	16.86
17	14.70	13.39	13.85	11.89	12.00	14.22	---	---	---	---	15.66	16.70
18	14.36	12.24	13.64	12.93	13.44	12.96	12.72	---	---	---	15.06	16.55
19	15.32	14.47	13.83	12.23	13.93	13.16	14.47	---	---	14.26	16.08	15.24
20	15.18	14.21	13.18	12.38	13.66	13.91	13.10	---	---	15.16	15.85	16.87
21	13.51	12.96	14.14	11.87	12.68	13.84	13.85	---	---	14.79	15.31	16.43
22	15.10	14.10	14.28	13.78	13.35	14.12	13.30	---	---	15.31	16.31	15.72
23	15.59	13.79	13.43	12.84	12.57	13.53	12.57	---	---	15.46	16.52	16.29
24	14.28	12.87	13.52	13.38	12.03	13.99	9.87	---	---	15.56	16.45	15.49
25	15.53	12.64	14.37	13.74	13.63	13.97	---	---	---	15.11	16.59	16.09
26	14.43	13.78	14.35	12.05	13.02	14.54	---	---	---	15.95	17.08	15.55
27	14.24	13.15	14.04	14.07	14.16	12.00	---	---	---	15.44	17.00	14.24
28	15.22	12.57	14.72	14.27	13.66	14.17	13.39	---	---	14.11	16.60	15.23
29	15.13	12.24	13.56	13.58	---	13.19	12.71	---	---	15.49	16.37	14.36
30	15.39	12.42	14.61	14.21	---	13.73	13.51	---	---	15.51	17.06	15.33
31	14.12	---	14.68	14.32	---	11.76	---	---	---	14.82	15.90	---
MAX	16.01	15.58	14.72	14.32	14.63	14.54	14.47	10.98	---	15.95	17.08	17.84
CAL YR 2004	LOW	16.71										
WTR YR 2005	LOW	17.84										



Ground-Water Records—Sandusky County

411914083045300. Local Number, S-3

LOCATION.—Latitude 41°19'14", longitude 83°04'53", Sandusky County, Hydrologic Unit 04100011, 2.6 mi southeast of Fremont Post Office, Fremont, Ohio.

Owner: State of Ohio.

AQUIFER.—Limestone of Silurian Age.

WELL CHARACTERISTICS.—Drilled test artesian well, diameter 12 in., depth 121 ft, cased to 93 ft.

INSTRUMENTATION.—Digital recorder, 60-minute punch.

DATUM.—Elevation of land-surface datum is 627 ft above sea level (from topographic map). Measuring point: Floor of instrument shelter 3.00 ft above land-surface datum.

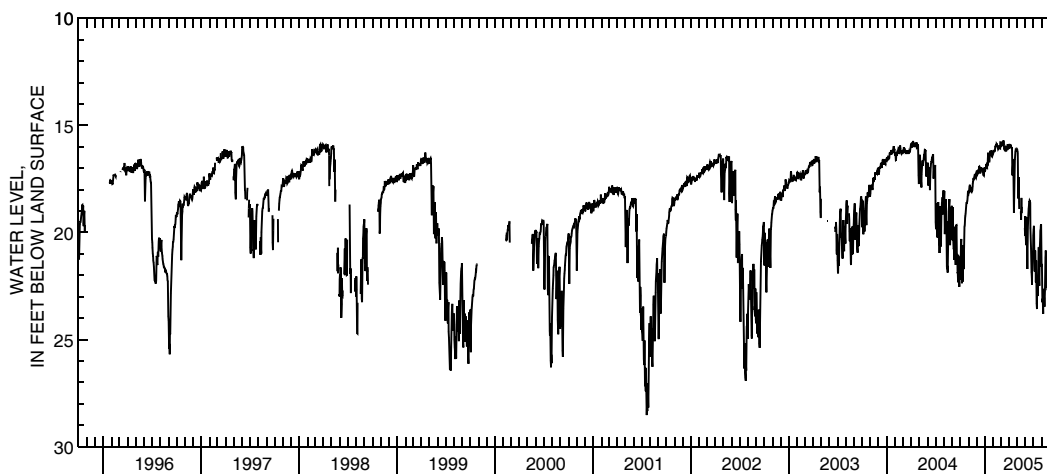
REMARKS.—Station operated by Ohio Department of Natural Resources (ODNR), Division of Water. Some historical records not published by the USGS are available from ODNR.

PERIOD OF RECORD.—December 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 28.53 ft below land-surface datum, July 20, 2001; minimum daily low, 14.02 ft below land-surface datum, Mar. 24, 1975.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.63	18.18	17.24	17.17	16.31	15.80	16.09	16.12	19.24	20.13	21.60	20.65
2	22.19	18.05	17.26	17.12	16.26	15.95	15.87	16.16	19.59	19.87	21.47	20.45
3	21.33	18.12	17.15	17.08	16.19	15.96	15.90	16.22	20.17	19.69	22.80	20.32
4	20.54	17.97	17.11	16.99	16.19	15.90	15.99	16.29	20.59	19.95	23.26	20.22
5	20.30	17.87	17.24	16.95	16.20	15.97	15.97	17.69	19.68	21.37	23.09	21.91
6	21.53	17.77	17.19	16.80	16.18	15.93	15.96	18.41	19.31	21.82	23.80	22.35
7	22.37	17.92	17.07	16.84	16.17	15.76	15.90	17.42	20.91	20.84	23.05	22.53
8	21.38	18.04	17.18	16.97	16.01	15.93	15.99	18.49	21.70	20.88	22.63	23.18
9	21.91	18.06	17.16	16.98	15.97	15.93	16.01	18.91	20.61	21.94	23.08	22.23
10	22.30	18.00	16.93	16.80	15.96	15.89	16.04	---	19.84	22.33	23.08	22.74
11	21.27	17.88	16.92	16.81	15.98	15.70	16.10	---	19.43	21.31	23.47	23.18
12	20.59	17.92	16.95	16.56	15.87	15.77	16.01	---	19.20	22.24	23.14	22.22
13	21.33	18.04	17.06	16.28	15.97	15.99	17.12	---	18.90	23.31	22.73	22.70
14	21.71	18.07	17.21	16.64	15.87	16.10	17.34	---	18.73	23.58	21.60	23.36
15	20.64	18.03	17.24	16.73	15.89	16.14	16.97	19.02	18.59	22.16	21.18	22.33
16	19.97	17.85	17.11	16.68	15.94	16.12	16.72	19.40	18.57	22.10	20.84	21.50
17	19.74	17.72	17.08	16.66	15.99	16.01	16.57	18.40	18.52	22.70	21.12	20.91
18	19.65	17.61	16.96	16.67	16.05	16.05	18.27	19.09	18.55	22.97	22.28	20.60
19	19.32	17.53	17.09	16.41	16.10	16.02	19.08	18.80	18.62	21.69	22.57	20.42
20	19.24	17.46	17.07	16.29	16.09	16.12	18.13	---	19.79	21.12	21.57	21.20
21	19.13	17.55	16.99	16.32	15.95	16.18	17.46	18.91	20.36	20.70	20.96	21.84
22	19.01	17.53	17.06	16.24	16.02	16.17	17.08	---	20.75	22.09	22.28	20.84
23	18.82	17.39	17.12	16.38	16.04	16.05	16.59	---	21.30	22.49	22.70	20.23
24	18.63	17.31	17.16	16.38	16.04	16.02	16.38	---	21.84	21.41	22.47	20.02
25	18.63	17.31	17.17	16.16	15.99	16.03	16.24	18.99	22.10	20.68	23.13	19.74
26	18.63	17.32	17.27	16.27	16.07	16.11	16.15	---	22.44	20.31	22.69	19.41
27	18.55	17.30	17.34	16.45	16.08	16.11	16.17	---	21.32	19.93	23.16	19.39
28	18.52	17.43	17.35	16.46	15.79	15.89	16.22	---	20.94	19.85	23.52	19.25
29	18.32	17.46	17.10	16.27	---	16.05	16.13	---	21.17	19.69	22.28	19.08
30	18.05	17.38	17.13	16.21	---	15.99	16.10	19.78	20.76	19.62	21.53	19.00
31	18.16	---	16.96	16.24	---	16.05	---	20.14	---	21.15	20.78	---
MAX	22.37	18.18	17.35	17.17	16.31	16.18	19.08	20.14	22.44	23.58	23.80	23.36
CAL YR 2004	LOW	22.53										
WTR YR 2005	LOW	23.80										



412703083213600. Local Number, S-2

LOCATION.—Latitude 41°27'03", longitude 83°21'36", Sandusky County, Hydrologic Unit 04100010, at Woodville, Ohio. Owner: Village of Woodville.
 AQUIFER.—Limestone of Silurian Age.

WELL CHARACTERISTICS.—Drilled unused artesian well, diameter 8 in., depth 198 ft cased.

INSTRUMENTATION.—Digital recorder, 60-minute punch.

DATUM.—Elevation of land-surface datum is 635 ft above sea level (from topographic map). Measuring point: Top of casing at land-surface datum.

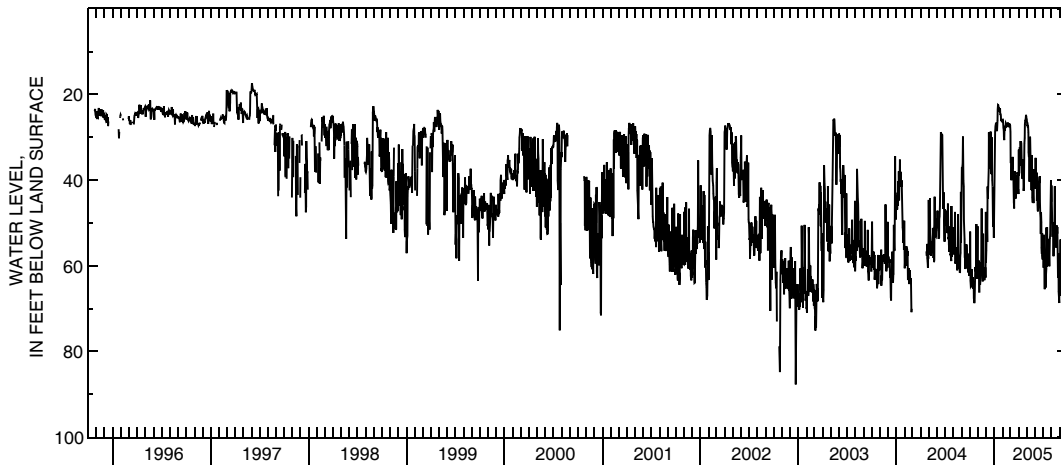
REMARKS.—Station operated by Ohio Department of Natural Resources (ODNR), Division of Water. Some historical records not published by the USGS are available from ODNR.

PERIOD OF RECORD.—June 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 100.97 ft below land-surface datum, Jan. 29, 1982; minimum daily low, 17.43 ft below land-surface datum, June 3, 1997.

**DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
 DAILY MAXIMUM VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59.89	62.20	59.27	46.95	25.89	27.23	43.29	25.72	42.05	56.07	45.12	63.96
2	59.95	62.92	56.51	37.16	26.49	28.79	32.97	25.93	38.43	57.35	41.27	63.23
3	52.06	62.47	51.64	32.56	26.63	35.57	39.02	26.73	39.37	53.56	44.61	57.35
4	63.55	58.82	47.96	28.80	27.82	35.51	38.21	27.38	34.84	60.48	46.16	59.64
5	64.75	62.93	52.87	27.58	28.43	35.73	33.99	27.23	39.36	52.79	48.77	53.89
6	64.68	66.24	54.47	27.31	29.91	40.09	32.36	27.71	41.32	58.85	53.31	62.40
7	64.42	59.28	41.53	26.80	30.69	35.07	33.20	27.41	38.54	60.69	52.61	66.98
8	61.00	59.81	44.31	26.80	28.00	34.82	36.57	28.96	38.50	65.54	49.93	65.30
9	60.84	64.48	43.30	27.17	28.41	35.95	30.95	33.48	44.87	58.33	51.53	59.16
10	63.41	63.62	39.99	27.83	27.63	37.41	33.30	34.66	39.30	59.05	57.81	62.44
11	64.57	62.84	37.47	28.61	27.54	34.61	31.05	34.48	45.83	65.17	51.78	62.56
12	65.11	59.96	28.90	27.68	27.87	38.33	31.54	40.26	47.04	61.95	55.99	61.33
13	62.75	59.64	34.04	26.14	26.73	38.99	35.95	40.28	47.32	62.22	54.46	63.99
14	65.41	56.67	36.36	23.57	26.82	41.36	38.13	29.92	45.56	60.78	50.50	58.55
15	63.61	46.68	35.44	22.47	27.61	45.09	39.67	30.12	42.31	51.07	41.49	63.73
16	64.53	58.03	37.29	22.57	27.06	46.61	35.15	34.20	41.04	60.32	54.02	62.96
17	67.54	58.90	36.33	23.64	26.79	40.14	36.60	35.20	40.85	51.06	51.33	58.90
18	68.75	62.30	28.73	23.36	27.05	37.98	38.07	36.42	40.39	56.29	51.37	63.33
19	68.20	63.65	33.99	23.50	26.92	41.59	39.89	42.41	39.09	57.30	52.99	65.35
20	65.29	52.53	36.83	23.88	26.58	40.03	42.56	42.27	44.84	53.89	55.83	65.27
21	61.86	61.86	38.66	24.12	26.91	44.38	41.72	34.29	47.72	53.78	53.67	55.32
22	60.38	62.81	30.06	23.32	27.22	38.95	36.22	40.27	49.09	55.67	50.64	58.21
23	61.28	61.82	36.72	24.60	27.64	42.44	31.43	44.07	52.52	57.29	52.53	59.31
24	60.24	61.25	40.00	24.63	26.84	43.01	30.21	45.28	47.55	57.79	50.99	63.41
25	62.56	63.43	41.54	25.06	27.10	42.64	27.03	40.43	49.88	60.17	56.20	65.11
26	50.31	61.52	44.18	25.87	27.47	42.83	26.13	43.55	55.81	56.96	62.90	65.34
27	61.48	62.03	50.84	26.28	26.87	38.66	26.07	45.42	57.24	53.77	57.17	66.29
28	63.06	60.39	46.16	26.16	27.59	38.22	25.77	37.47	52.37	52.76	58.81	60.23
29	61.07	62.82	48.76	25.80	---	39.05	24.80	38.76	57.62	48.67	66.03	55.61
30	50.79	47.46	53.54	26.51	---	42.76	25.37	40.22	58.56	42.91	67.23	61.21
31	59.28	---	50.26	25.93	---	42.13	---	40.90	---	40.05	68.71	---
MAX	68.75	66.24	59.27	46.95	30.69	46.61	43.29	45.42	58.56	65.54	68.71	66.98
CAL YR 2004		LOW	70.84									
WTR YR 2005		LOW	68.75									



Ground-Water Records—Seneca County

410802083093900. Local Number, SE-2

LOCATION.—Latitude 41°08'02", longitude 83°09'39", Seneca County, Hydrologic Unit 04100011, Tiffin State Hospital, Tiffin, Ohio. Owner: State of Ohio.
AQUIFER.—Limestone of Silurian Age.

WELL CHARACTERISTICS.—Drilled unused artesian well, diameter 12 in., depth 250 ft, cased.

INSTRUMENTATION.—Digital recorder, 60-minute punch.

DATUM.—Elevation of land-surface datum is 740 ft above sea level (from topographic map). Measuring point: Floor of instrument shelter 0.50 ft above land-surface datum.

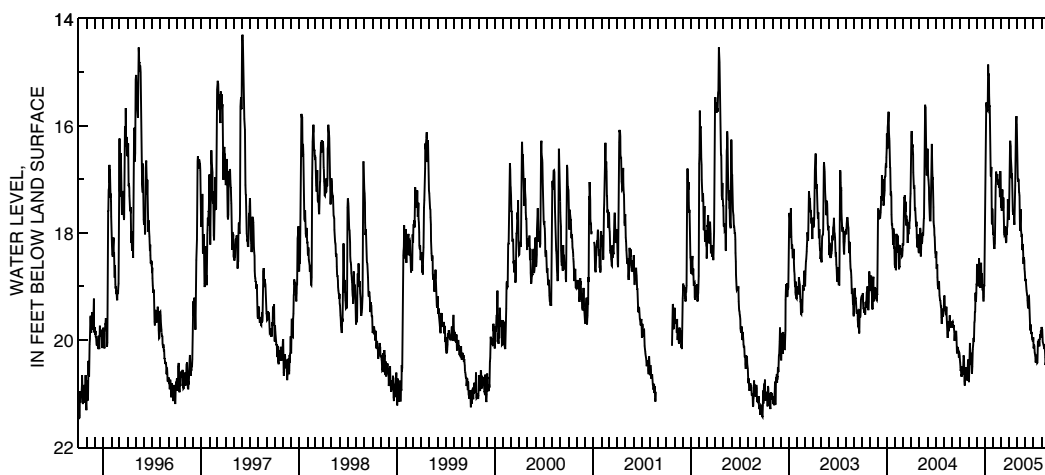
REMARKS.—Station operated by Ohio Department of Natural Resources (ODNR), Division of Water. Some historical records not published by the USGS are available from ODNR.

PERIOD OF RECORD.—July 1962 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 23.76 ft below land-surface datum, Nov. 22, 1964; minimum daily low, 14.11 ft below land-surface datum, Jan. 2, 1991.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.42	20.74	18.95	18.29	18.04	17.23	17.76	16.20	18.90	19.95	19.76	20.42
2	20.51	20.69	18.96	17.56	17.99	17.47	17.37	16.46	18.86	20.16	19.79	20.35
3	20.58	20.79	18.63	17.04	18.07	17.53	17.15	16.74	18.88	20.12	19.81	20.40
4	20.54	20.43	18.58	16.51	18.23	17.40	16.62	16.98	18.95	20.09	19.87	20.43
5	20.68	20.30	18.83	16.09	18.30	17.59	16.30	17.04	19.03	20.12	20.04	20.44
6	20.65	20.06	18.70	15.58	18.27	17.49	16.28	16.99	19.08	20.24	20.07	20.43
7	20.68	20.23	18.66	15.58	18.20	17.19	16.38	17.02	19.15	20.27	20.08	20.40
8	20.51	20.43	19.00	15.66	17.96	17.59	16.60	17.24	19.17	20.32	20.11	20.31
9	20.51	20.47	18.88	15.66	17.64	17.58	16.71	17.25	19.26	20.42	20.11	20.37
10	20.65	20.30	18.48	15.71	17.14	17.53	16.82	17.31	19.36	20.40	20.08	20.49
11	20.62	20.24	18.64	15.72	17.09	17.34	16.98	17.67	19.41	20.32	20.17	20.57
12	20.53	20.42	18.65	15.44	16.86	17.68	16.89	17.96	19.34	20.31	20.13	20.51
13	20.30	20.60	18.82	14.86	16.98	17.90	17.18	17.81	19.20	20.34	20.20	20.45
14	20.29	20.63	19.00	15.04	16.95	17.99	17.39	17.56	19.19	20.40	20.33	20.51
15	20.33	20.50	19.03	15.06	16.97	18.05	17.59	17.85	19.23	20.43	20.47	20.71
16	20.54	20.26	18.76	15.03	16.90	18.04	17.66	17.97	19.39	20.42	20.42	20.59
17	20.77	20.17	18.76	15.42	16.92	17.88	17.58	18.02	19.48	20.19	20.41	20.56
18	20.85	20.10	18.56	15.64	17.01	17.93	17.56	18.08	19.66	20.02	20.33	20.53
19	20.61	20.06	18.86	15.64	17.10	17.89	17.61	18.03	19.81	20.05	20.37	20.52
20	20.66	19.96	18.80	15.94	17.06	18.11	17.77	18.18	19.82	20.06	20.44	20.42
21	20.73	20.04	18.76	16.20	17.05	18.19	17.85	18.32	19.71	19.99	20.52	20.50
22	20.71	19.85	18.88	16.46	17.14	18.16	17.69	18.24	19.82	20.00	20.53	20.36
23	20.51	19.67	19.06	16.93	17.14	17.94	17.33	18.21	19.89	20.12	20.60	20.49
24	20.54	19.64	19.06	16.93	17.01	18.04	17.12	18.44	19.85	19.99	20.67	20.51
25	20.67	19.48	19.06	16.77	17.04	17.92	16.53	18.58	19.88	19.98	20.71	20.23
26	20.71	19.47	19.21	17.49	17.32	17.87	16.23	18.46	19.96	19.90	20.56	19.95
27	20.75	19.12	19.28	17.83	17.32	17.71	15.94	18.47	19.99	19.96	20.46	19.90
28	20.75	19.26	19.19	17.84	16.85	17.37	15.89	18.52	19.99	19.93	20.65	19.60
29	20.53	19.29	18.97	17.55	---	17.60	15.82	18.67	20.03	19.83	20.64	19.58
30	20.37	19.13	19.00	17.69	---	17.52	15.98	18.73	20.01	19.85	20.54	19.57
31	20.70	---	18.76	17.83	---	17.68	---	18.84	---	19.78	20.45	---
MAX	20.85	20.79	19.28	18.29	18.30	18.19	17.85	18.84	20.03	20.43	20.71	20.71
CAL YR 2004	LOW	20.85										
WTR YR 2005	LOW	20.85										



Ground-Water Records—Summit County

410330081282000. Local Number, SU-6

LOCATION.—Latitude 41°03'30", longitude 81°28'20", Summit County, Hydrologic Unit 04110002, Seiberling Street, Akron, Ohio. Owner: Goodyear Tire and Rubber Company.

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled unused artesian well, diameter 24 in., depth 89 ft, cased.

INSTRUMENTATION.—Digital recorder, 60-minute punch.

DATUM.—Elevation of land-surface datum is 1,000 ft above sea level (from topographic map). Measuring point: Floor of instrument shelter 2.63 ft above land-surface datum.

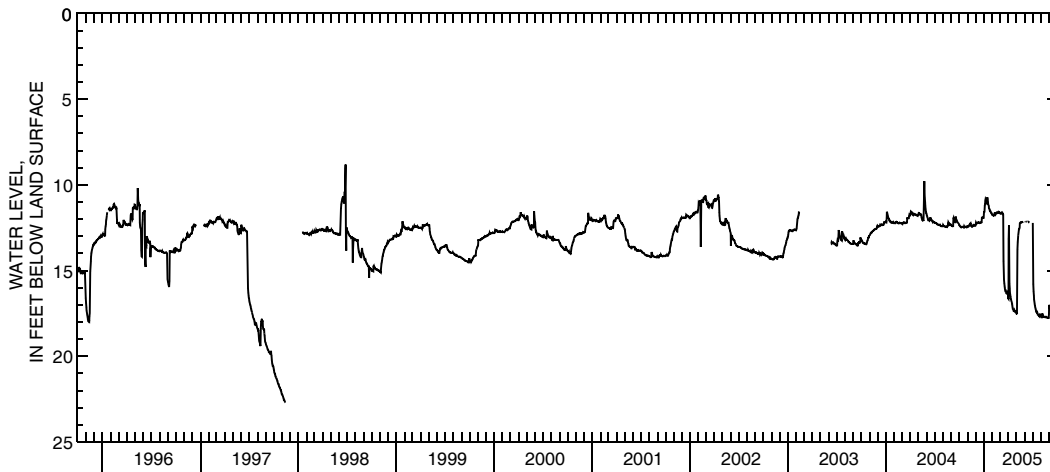
REMARKS.—Station operated by Ohio Department of Natural Resources (ODNR), Division of Water. Some historical records not published by the USGS are available from ODNR.

PERIOD OF RECORD.—July 1941 to February 1944 periodic, March 1944 to current year continuous. Records for May 14-Sept. 30, 1980, published in USGS-WDR-OH-80-1, are unreliable and should not be used.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 59.47 ft below land-surface datum, Oct. 18, 1946; minimum daily low, 8.82 ft below land-surface datum, June 26, 1998.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.35	12.45	12.33	11.59	11.75	11.63	16.63	17.49	---	---	17.67	17.01
2	12.39	12.45	12.21	11.58	11.76	11.65	16.66	17.52	---	12.23	17.69	17.08
3	12.40	12.44	12.23	11.56	11.77	11.67	13.16	17.53	---	14.78	17.71	17.17
4	12.43	12.43	12.23	11.22	11.79	11.66	12.38	17.55	---	15.79	17.73	17.23
5	12.45	12.41	12.27	11.11	11.80	11.68	15.05	15.09	12.17	16.22	17.73	17.25
6	12.46	12.39	12.26	10.95	11.81	11.67	15.75	13.77	12.16	16.48	17.50	17.30
7	12.48	12.33	12.24	10.84	11.80	11.63	16.04	13.34	12.15	16.70	17.54	17.33
8	12.46	12.32	12.24	10.88	11.78	11.66	16.27	13.08	12.17	16.83	17.59	17.35
9	12.45	12.31	12.23	10.93	11.67	11.68	16.42	12.93	---	16.96	17.63	17.38
10	12.45	12.30	12.18	11.04	11.65	11.68	16.54	12.78	---	17.04	17.65	17.42
11	12.46	12.26	12.18	11.07	11.65	11.66	16.63	12.63	---	17.14	17.68	17.43
12	12.46	12.24	12.18	11.04	11.67	11.71	16.69	12.59	12.16	17.21	17.70	17.44
13	12.45	12.34	12.19	10.77	11.71	11.73	16.78	12.57	---	17.25	17.71	17.43
14	12.45	12.40	12.22	10.73	11.69	11.74	16.83	12.48	12.17	17.33	17.70	17.42
15	12.45	12.42	12.23	10.86	11.66	14.46	16.89	12.25	12.15	17.38	17.70	17.43
16	12.47	12.43	12.22	11.00	11.64	15.18	16.96	12.22	12.16	17.37	17.71	17.41
17	12.49	12.44	12.23	11.12	11.62	15.53	17.07	12.22	12.18	17.42	17.72	17.35
18	12.50	12.43	12.22	11.20	11.64	15.75	17.17	12.21	12.20	17.46	17.73	17.36
19	12.42	12.43	12.21	11.25	11.66	15.91	17.24	12.21	12.21	17.46	17.73	17.37
20	12.44	12.38	12.21	11.37	11.66	16.02	17.29	12.19	---	17.53	17.73	17.37
21	12.46	12.39	12.19	11.43	11.60	16.14	17.34	12.19	---	17.57	17.70	17.38
22	12.47	12.38	12.21	11.45	11.58	16.23	17.37	12.17	---	17.60	17.72	17.38
23	12.47	12.39	12.20	11.53	11.60	16.25	17.37	12.16	---	17.63	17.73	17.39
24	12.45	12.39	11.91	11.53	11.60	16.27	17.32	12.17	---	17.65	17.74	17.37
25	12.46	12.35	11.90	11.54	11.61	16.31	17.36	12.18	---	17.67	17.75	17.38
26	12.47	12.36	11.90	11.60	11.64	16.34	17.39	12.17	---	17.69	17.76	17.37
27	12.49	12.36	11.93	11.64	11.64	16.35	17.39	---	---	17.59	17.77	17.03
28	12.49	12.37	11.93	11.66	11.61	16.24	17.42	---	---	17.52	17.77	17.07
29	12.48	12.39	11.93	11.66	---	16.27	17.43	---	---	17.59	17.77	17.07
30	12.39	12.38	11.93	11.70	---	16.28	17.46	12.16	---	17.63	17.77	17.06
31	12.43	---	11.90	11.74	---	16.21	---	12.17	---	17.65	17.55	---
MAX	12.50	12.45	12.33	11.74	11.81	16.35	17.46	17.55	12.21	17.69	17.77	17.44
CAL YR 2004		LOW	12.50									
WTR YR 2005		LOW	17.77									



410846081271600. Local Number, SU-7

LOCATION.—Latitude 41°08'46", longitude 81°27'16", Summit County, Hydrologic Unit 04110002, Monroe Falls Road, Cuyahoga Falls, Ohio. Owner: City of Cuyahoga Falls.

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled unused water-table, diameter 6 in., depth 100 ft, cased.

INSTRUMENTATION.—Digital recorder, 60-minute punch.

DATUM.—Elevation of land-surface datum is 994 ft above sea level (from topographic map). Measuring point: Floor of instrument shelter 5.00 ft above land-surface datum.

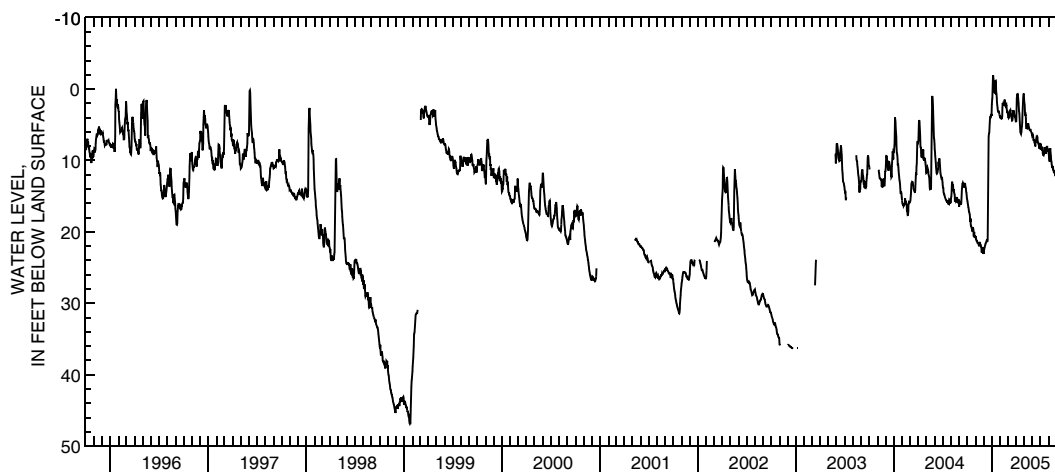
REMARKS.—Station operated by Ohio Department of Natural Resources (ODNR), Division of Water. Some historical records not published by the USGS are available from ODNR.

PERIOD OF RECORD.—August 1968 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 46.90 ft below land-surface datum, Jan. 22, 1999; minimum daily low, 1.95 ft above land-surface datum, Jan. 6, 2005.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.54	20.61	23.10	2.18	3.96	3.16	4.55	1.19	6.45	7.69	8.98	9.81
2	15.77	20.86	22.86	1.50	3.91	3.62	4.52	1.96	6.39	7.72	9.44	8.68
3	15.98	21.02	22.58	1.33	4.02	3.94	2.93	2.19	6.50	7.78	9.85	7.77
4	16.22	21.12	22.39	0.15	4.07	4.05	1.26	2.72	6.59	8.40	10.09	7.67
5	16.53	21.24	22.17	-1.71	4.11	3.95	0.96	3.70	7.07	8.44	10.10	7.75
6	16.64	21.27	22.06	-1.95	4.14	4.06	0.72	3.64	7.23	8.28	8.61	8.45
7	16.93	21.38	21.89	-1.45	4.12	3.92	0.69	3.61	7.04	8.35	8.26	9.00
8	17.20	21.52	21.75	-1.00	3.81	3.56	0.78	4.11	7.33	8.12	8.90	10.28
9	17.28	21.54	21.62	-0.72	2.57	3.06	1.16	5.24	7.53	8.36	9.31	10.17
10	17.57	21.60	21.45	0.38	1.97	3.06	1.96	5.59	7.72	8.97	10.02	10.04
11	17.81	21.64	21.36	0.54	2.19	2.95	2.40	5.36	7.96	9.26	10.28	10.39
12	18.61	21.72	21.28	0.56	2.02	3.29	3.11	5.41	7.96	9.31	10.51	10.74
13	18.13	21.92	21.20	-0.44	2.09	3.72	3.46	5.54	7.33	9.15	10.88	11.12
14	18.98	22.02	21.44	-1.08	2.35	3.87	3.90	5.50	7.34	8.97	10.99	11.35
15	19.18	21.42	21.37	-1.14	2.16	3.99	4.81	5.11	7.03	9.10	10.77	11.45
16	19.24	21.54	21.16	-0.80	1.97	4.18	5.55	4.82	6.86	8.94	10.94	11.05
17	19.49	21.61	19.80	0.31	1.59	4.43	5.99	4.99	6.73	8.18	11.18	10.80
18	19.59	21.79	10.08	0.68	1.59	4.40	6.20	5.23	6.80	8.23	11.39	11.02
19	19.78	21.78	7.70	1.24	2.21	4.13	6.33	5.38	6.74	8.25	11.50	11.15
20	19.89	21.87	6.63	1.85	2.37	3.47	6.18	5.53	6.90	8.25	11.60	11.62
21	19.99	21.97	6.28	2.30	2.43	2.99	6.05	5.68	7.36	8.20	11.68	12.00
22	19.36	22.08	6.11	2.65	2.27	3.10	5.62	5.75	7.53	9.09	11.76	12.42
23	19.50	22.13	5.72	3.00	2.34	3.10	5.26	5.73	7.68	8.21	11.76	12.41
24	19.71	22.91	4.73	3.12	2.26	3.17	4.70	5.73	7.80	8.21	11.36	11.69
25	20.53	22.21	3.99	3.19	2.53	3.36	3.78	5.73	7.94	8.22	11.88	11.67
26	20.53	22.94	3.85	3.30	2.99	3.68	2.76	5.81	7.87	7.98	12.21	11.64
27	20.01	22.16	3.82	3.06	3.29	3.77	1.72	5.97	8.29	8.60	11.76	11.19
28	20.80	22.28	3.87	3.25	3.27	3.96	1.24	6.11	8.30	8.66	11.38	10.78
29	20.47	23.04	3.70	3.55	---	4.06	0.72	6.18	7.72	8.59	11.75	10.34
30	20.72	22.71	3.51	3.71	---	4.20	0.62	6.23	7.74	8.35	11.49	10.06
31	20.74	---	3.78	3.85	---	4.48	---	6.51	---	8.68	11.01	---
MAX	20.80	23.04	23.10	3.85	4.14	4.48	6.33	6.51	8.30	9.31	12.21	12.42
CAL YR 2004	LOW	23.10										
WTR YR 2005	LOW	23.10										



Ground-Water Records—Van Wert County

405215084335400. Local Number, VW-1

LOCATION.—Latitude 40°52'15", longitude 84°33'54", Van Wert County, Hydrologic Unit 04100007, Ridge Road near Van Wert, Ohio. Owner: Marsh Foundation.

AQUIFER.—Limestone of Silurian Age.

WELL CHARACTERISTICS.—Drilled unused artesian well, diameter 8 in., depth 340 ft, cased.

INSTRUMENTATION.—Type F continuous recorder.

DATUM.—Elevation of land-surface datum is 790.37 ft above sea level. Measuring point: Floor of instrument shelter 6.15 ft above land-surface datum.

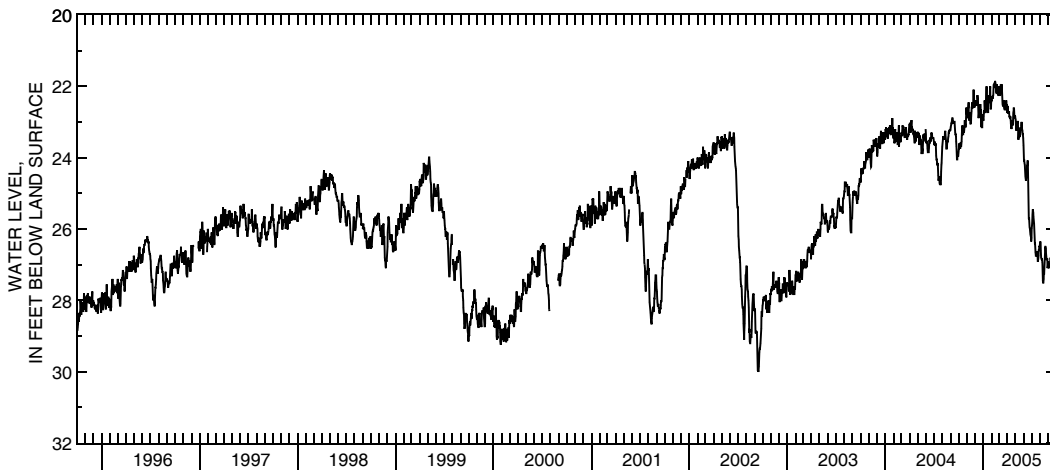
REMARKS.—Station operated by Ohio Department of Natural Resources (ODNR), Division of Water. Some historical records not published by the USGS are available from ODNR.

PERIOD OF RECORD.—August 1957 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low 33.20 ft below land-surface datum, Dec. 20-21, 1991; minimum daily low, 18.85 ft below land-surface datum, Mar. 6, 1959.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.85	22.80	22.40	22.95	22.40	22.05	22.75	22.90	23.85	26.00	26.40	27.00
2	23.75	22.70	22.45	22.95	22.40	22.15	22.55	22.95	24.10	25.90	26.35	27.05
3	23.75	22.90	22.45	22.85	22.30	22.25	22.65	23.10	24.05	25.75	26.40	27.10
4	23.60	22.80	22.45	22.70	22.30	22.20	22.75	23.20	24.15	25.60	26.60	27.05
5	23.70	22.65	22.55	22.70	22.35	22.25	22.75	23.25	24.20	25.45	26.80	27.05
6	23.70	22.60	22.50	22.40	22.30	22.25	22.75	23.15	24.35	25.55	26.85	27.05
7	23.75	22.45	22.40	22.60	22.25	21.95	22.70	23.00	24.55	25.65	26.85	27.00
8	23.60	22.90	22.55	22.65	22.00	22.20	22.85	23.05	24.60	25.75	26.85	26.90
9	23.60	22.95	22.50	22.75	21.95	22.20	22.85	23.00	24.65	25.85	26.95	26.80
10	23.70	22.95	22.25	22.65	22.00	22.15	22.90	23.00	24.55	25.95	27.15	26.90
11	23.65	22.75	22.35	22.60	22.05	21.95	22.90	23.30	24.50	26.20	27.45	27.15
12	23.55	22.75	22.35	22.35	21.90	22.15	22.85	23.50	24.25	26.40	27.50	27.40
13	23.30	22.90	22.60	22.00	21.95	22.35	22.95	23.40	24.25	26.40	27.50	27.45
14	23.25	23.05	22.90	22.45	21.85	22.50	23.05	23.20	24.20	26.55	27.40	27.45
15	23.10	23.05	22.85	22.65	21.90	22.55	23.15	23.30	24.10	26.65	27.25	27.50
16	23.20	23.00	22.75	22.65	21.95	22.55	23.20	23.35	24.10	26.75	27.25	27.55
17	23.35	22.85	22.75	22.60	22.05	22.45	23.15	23.40	24.45	26.75	27.05	27.75
18	23.35	22.70	22.65	22.70	22.15	22.45	23.05	23.40	24.95	26.65	26.95	27.85
19	23.15	22.60	22.75	22.75	22.20	22.40	23.00	23.30	25.45	26.70	26.75	27.85
20	23.20	22.55	22.75	22.30	22.20	22.60	22.95	23.15	25.70	26.70	26.50	27.75
21	23.30	22.45	22.50	22.30	21.95	22.65	23.10	23.25	25.70	26.65	26.50	27.35
22	23.25	22.60	22.70	22.35	22.05	22.65	23.05	23.20	25.85	26.65	26.55	27.25
23	23.15	22.60	22.65	22.25	22.15	22.55	22.75	23.10	25.95	26.90	26.70	27.00
24	22.95	22.50	22.70	22.45	22.10	22.60	22.70	23.00	26.00	26.90	26.75	26.90
25	23.05	22.35	23.15	22.45	22.10	22.65	22.60	23.15	26.10	26.85	26.85	26.85
26	23.10	22.10	22.80	22.15	22.25	22.65	22.65	23.20	26.15	26.75	26.85	26.65
27	23.05	22.35	23.15	22.00	22.25	22.65	22.85	23.25	26.20	26.60	26.85	26.40
28	23.15	22.35	23.15	22.45	22.00	22.40	22.90	23.35	26.20	26.60	26.85	26.35
29	22.85	22.60	22.90	22.65	---	22.60	22.85	23.35	26.35	26.50	27.10	26.25
30	22.60	22.55	22.90	22.60	---	22.50	22.85	23.45	26.25	26.50	27.05	26.15
31	22.75	---	22.80	22.45	---	22.70	---	23.65	---	26.45	26.90	---
MAX	23.85	23.05	23.15	22.95	22.40	22.70	23.20	23.65	26.35	26.90	27.50	27.85
CAL YR 2004		LOW	24.75									
WTR YR 2005		LOW	27.85									



Ground-Water Records—Williams County

412819084323800. Local Number, WM-1A

LOCATION.—Latitude 41°28'19", longitude 84°32'38", Williams County, Hydrologic Unit 04100006, at Bryan, Ohio. Owner: City of Bryan.

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled unused production well, diameter 8 in., depth 143 ft, cased to 126 ft.

INSTRUMENTATION.—Electronic data logger. 60-minute log interval.

DATUM.—Elevation of land-surface datum is 745ft above sea level (from topographic map). Measuring point: Floor of instrument shelter 3.00 ft above land-surface datum.

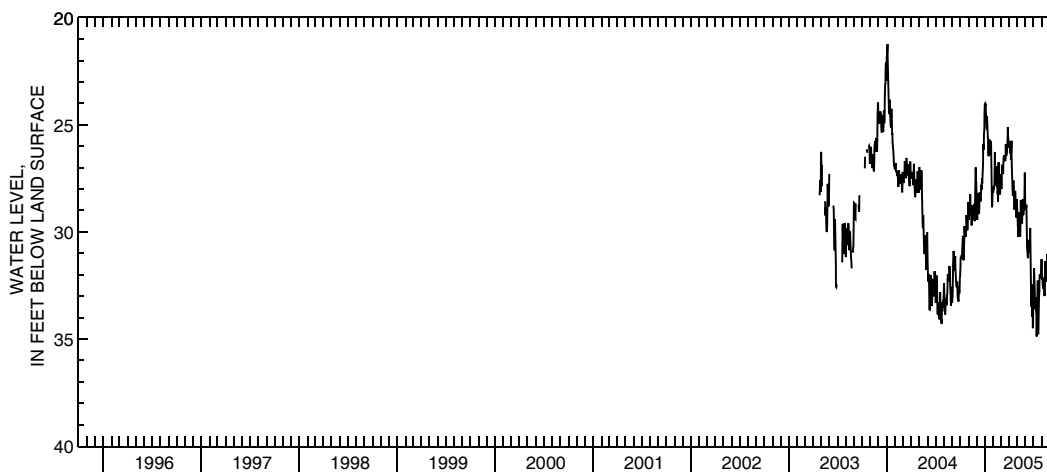
REMARKS.—Station operated by Ohio Department of Natural Resources (ODNR), Division of Water.

PERIOD OF RECORD.—April 2003 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 34.89 ft below land-surface datum, July 13, 2005; minimum daily low, 21.24 ft below land-surface datum, Jan. 4, 2004.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32.02	28.73	28.42	24.03	28.16	27.30	25.90	28.47	28.90	33.36	31.28	31.24
2	31.61	29.04	28.93	24.01	28.05	27.55	26.08	29.07	28.98	33.05	31.92	31.23
3	31.19	29.43	29.23	24.12	28.00	27.68	25.95	29.35	28.87	32.24	32.22	30.94
4	31.24	29.11	29.43	24.01	28.00	28.00	25.80	29.64	28.94	31.70	32.12	29.98
5	31.13	29.10	28.99	24.65	27.78	27.70	26.25	29.93	28.73	32.28	32.45	29.96
6	31.12	29.16	28.25	24.64	27.15	26.91	26.24	30.23	29.63	32.78	32.65	30.28
7	31.14	28.24	28.18	25.07	26.27	26.92	26.19	29.61	30.68	33.27	32.22	30.60
8	30.92	28.69	28.86	25.23	26.87	27.10	26.61	29.08	30.91	33.61	32.22	30.85
9	30.58	29.08	29.09	24.60	27.40	27.30	26.16	29.45	30.96	33.08	32.48	31.01
10	30.32	28.94	29.17	24.90	27.55	27.25	25.75	29.67	31.22	33.06	32.72	31.10
11	30.19	29.23	28.79	25.33	27.78	26.82	26.76	30.23	31.18	33.73	33.00	30.95
12	30.45	29.70	28.19	25.60	27.80	26.48	27.13	30.20	30.38	33.94	32.95	31.00
13	31.33	29.60	28.15	25.77	27.40	26.53	27.60	30.19	30.83	34.89	32.47	31.23
14	30.84	29.36	28.44	26.35	26.94	26.42	27.97	29.43	30.75	33.75	31.37	31.41
15	30.70	28.76	28.57	26.47	27.40	26.51	28.31	28.52	30.46	33.48	32.09	31.04
16	30.32	29.24	28.54	25.68	27.68	26.60	28.20	29.49	30.40	33.29	31.94	30.81
17	29.73	29.39	28.51	25.72	28.14	26.60	27.65	29.60	30.97	32.28	32.29	30.21
18	30.08	29.36	28.00	25.81	28.12	26.70	27.64	29.60	30.26	33.65	32.08	29.52
19	30.10	29.16	27.80	25.70	28.59	26.58	27.94	29.41	29.84	34.78	32.32	29.86
20	29.91	29.18	28.03	26.08	27.66	25.91	28.68	29.59	30.13	34.04	32.17	29.96
21	29.89	28.86	27.51	26.38	26.75	26.42	28.95	29.14	31.20	33.60	31.05	30.09
22	30.22	28.69	27.74	26.27	27.48	26.42	28.86	28.48	32.42	33.07	31.54	29.73
23	29.98	29.29	27.60	26.02	27.90	26.41	28.73	28.76	33.36	32.78	31.52	29.71
24	29.23	29.50	27.29	25.76	27.96	26.33	28.09	29.19	33.50	32.10	31.51	29.22
25	29.27	29.19	26.83	26.40	28.16	26.23	28.25	29.18	33.17	31.97	31.49	28.97
26	29.48	28.28	25.90	27.16	28.15	25.85	28.49	28.96	32.46	32.16	31.52	28.82
27	29.76	27.60	26.18	28.43	28.25	25.52	28.91	28.99	33.96	32.13	31.37	28.90
28	29.93	26.99	25.88	28.85	27.57	25.11	29.19	28.70	33.38	32.07	30.65	28.85
29	29.74	27.43	25.40	28.71	---	25.59	29.33	27.82	34.50	32.02	30.93	28.96
30	29.35	27.88	25.26	27.87	---	25.70	29.02	27.24	34.24	31.82	30.98	28.85
31	28.60	---	24.50	27.96	---	26.07	---	28.17	---	31.36	30.91	---
MAX	32.02	29.70	29.43	28.85	28.59	28.00	29.33	30.23	34.50	34.89	33.00	31.41
CAL YR 2004	LOW	34.30										
WTR YR 2005	LOW	34.89										



412930084320900. Local Number, WM-3

LOCATION.—Latitude 41°29'30", longitude 84°32'09", Williams County, Hydrologic Unit 04100006, Union Street, Bryan, Ohio. Owner: City of Bryan.

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled unused test well, diameter 8 in., depth 174 ft, cased.

INSTRUMENTATION.—Electronic data logger, 60-minute log interval.

DATUM.—Elevation of land-surface datum is 760 ft above sea level (from topographic map). Measuring point: Floor of instrument shelter 2.00 ft above land-surface datum.

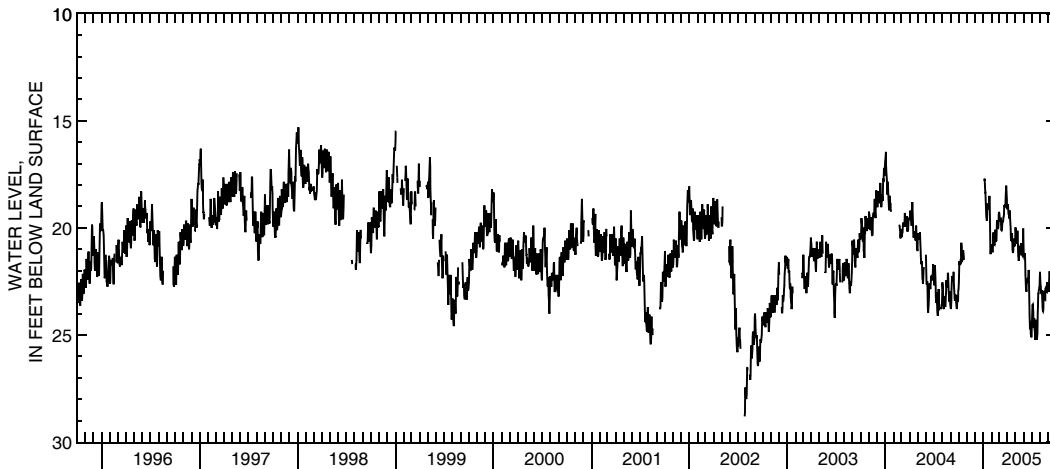
REMARKS.—Station operated by Ohio Department of Natural Resources (ODNR), Division of Water.

PERIOD OF RECORD.—October 1984 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 28.80 ft below land-surface datum, July 26, 2002; minimum daily low, 15.15 ft below land-surface datum, Jan. 4, 1987.

**DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.85	---	---	---	21.00	19.26	19.08	20.01	21.09	24.93	22.05	22.94
2	22.55	---	---	---	21.08	19.35	19.14	19.98	21.32	24.59	22.46	22.95
3	22.05	---	---	---	21.11	19.44	18.90	20.25	21.36	24.12	22.70	22.94
4	21.55	---	---	---	21.11	19.67	19.02	20.45	21.33	23.60	22.74	22.43
5	21.70	---	---	17.80	21.11	19.68	19.36	20.66	21.18	23.58	23.03	22.02
6	21.70	---	---	17.70	20.82	19.59	19.40	20.73	21.45	23.91	23.09	22.25
7	21.70	---	---	18.00	20.22	19.58	19.44	20.64	22.20	24.29	22.91	22.58
8	21.65	---	---	18.35	20.43	19.86	19.55	20.13	22.55	24.65	23.13	22.82
9	21.45	---	---	18.35	20.58	20.09	19.55	20.33	22.76	24.60	23.46	22.97
10	21.65	---	---	18.75	20.67	20.11	19.20	20.75	22.95	24.22	23.69	23.00
11	20.70	---	---	19.15	20.78	20.09	19.53	21.29	22.95	24.71	23.88	22.88
12	20.85	---	---	19.45	20.79	19.98	19.83	21.38	22.50	24.87	23.90	22.88
13	21.55	---	---	19.55	20.42	19.71	20.07	21.54	22.38	25.22	23.81	23.00
14	21.55	---	---	19.65	20.09	19.71	20.47	21.42	22.47	25.14	23.10	23.12
15	21.50	---	---	19.60	20.28	19.71	20.58	20.88	22.46	24.97	22.94	23.09
16	21.45	---	---	19.15	20.45	19.65	20.60	20.90	22.34	24.87	23.13	22.92
17	21.20	---	---	18.90	20.58	19.55	20.30	21.09	22.38	24.29	23.30	22.70
18	21.05	---	---	18.90	20.61	19.47	20.25	21.14	22.34	24.38	23.33	22.11
19	21.20	21.60	---	18.90	20.60	19.38	20.57	21.14	21.96	25.11	23.34	21.95
20	21.25	---	---	18.95	20.31	18.99	21.00	21.27	22.05	25.23	23.36	22.07
21	21.50	---	---	19.10	19.64	18.93	21.12	21.24	22.67	25.08	22.83	22.11
22	---	---	---	19.10	19.80	18.99	21.17	20.81	23.43	24.95	22.79	22.11
23	---	---	---	18.75	19.95	19.00	21.08	20.72	24.12	23.93	22.88	21.78
24	---	---	---	18.50	19.98	18.93	20.55	21.05	24.62	23.75	22.91	21.74
25	---	---	---	18.90	19.98	18.93	20.51	21.20	24.60	23.07	22.98	21.35
26	---	---	---	19.60	20.00	18.45	20.69	21.21	24.35	23.06	23.00	21.06
27	---	---	---	20.67	19.83	18.15	20.81	21.26	24.83	22.92	22.88	21.20
28	---	---	---	21.17	19.36	18.03	20.82	21.21	24.80	22.88	22.53	21.20
29	---	---	---	21.22	---	18.40	20.78	20.60	25.11	22.79	22.61	21.29
30	---	---	---	20.91	---	18.66	20.58	20.03	25.08	22.74	22.71	21.29
31	---	---	---	20.76	---	19.11	---	20.55	---	22.32	22.68	---
MAX	22.85	21.60	---	21.22	21.11	20.11	21.17	21.54	25.11	25.23	23.90	23.12
CAL YR 2004		LOW	24.10									
WTR YR 2005		LOW	25.23									



413108084415300. Local Number, WM-12

LOCATION.—Latitude 41°31'08", longitude 84°41'53", Williams County, Hydrologic Unit 04100003, 1.7 mi east of Blakeslee, Ohio. Owner: State of Ohio.

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled test artesian well, diameter 10 in., depth 115 ft, cased to 85 ft, screened 85 ft to 115 ft.

INSTRUMENTATION.—Electronic data logger. 60-minute log interval.

DATUM.—Elevation of land-surface datum is 830 ft above sea level (from topographic map). Measuring point: Floor of instrument shelter 1.50 ft above land-surface datum.

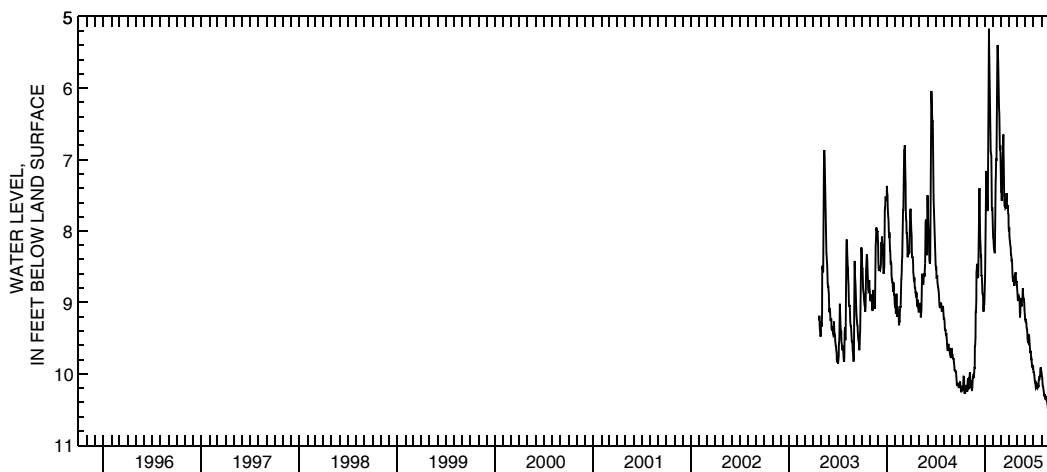
REMARKS.—Station operated by Ohio Department of Natural Resources (ODNR), Division of Water. Some historical records not published by the USGS are available from ODNR.

PERIOD OF RECORD.—December 1974 to October 1982 continuous, periodic November 1982 to December 1984, continuous January 1985 to November 1986, periodic December 1986 to April 2003, continuous thereafter.

EXTREMES FOR PERIOD OF RECORD.—Maximum measured low, 10.75 ft below land-surface datum, Nov. 29, 1999, and Sept. 15, 2005; minimum daily low, 3.83 ft below land-surface datum, Mar. 17, 1982.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.11	10.21	8.58	8.75	8.09	7.12	8.01	8.77	9.25	9.93	10.00	10.56
2	10.19	10.17	8.53	8.61	8.11	7.35	7.95	8.83	9.24	9.99	10.03	10.61
3	10.19	10.21	8.46	8.39	8.15	7.46	8.07	8.90	9.24	9.97	10.06	10.63
4	10.22	10.05	8.48	7.80	8.24	7.45	8.13	8.96	9.27	10.00	10.10	10.65
5	10.26	10.06	8.65	7.47	8.29	7.58	8.16	8.98	9.30	10.03	10.17	10.66
6	10.23	9.98	8.65	7.16	8.30	7.49	8.19	8.92	9.35	10.09	10.19	10.64
7	10.24	10.11	8.64	7.19	8.30	7.07	8.24	8.91	9.38	10.12	10.21	10.63
8	10.17	10.19	8.13	7.44	7.97	6.91	8.32	8.95	9.43	10.12	10.24	10.59
9	10.20	10.19	7.96	7.46	7.55	6.91	8.34	8.93	9.50	10.18	10.27	10.65
10	10.24	10.09	7.67	7.71	7.28	6.73	8.38	8.96	9.55	10.20	10.28	10.67
11	10.23	10.10	7.44	7.71	7.24	6.65	8.43	9.13	9.56	10.19	10.32	10.70
12	10.17	10.17	7.40	7.65	6.98	7.02	8.40	9.21	9.53	10.17	10.29	10.69
13	10.04	10.23	7.84	6.85	7.02	7.32	8.53	9.15	9.46	10.14	10.32	10.66
14	10.04	10.24	8.10	6.08	6.86	7.50	8.61	8.95	9.46	10.15	10.33	10.71
15	10.05	10.19	8.13	5.56	6.32	7.64	8.68	8.99	9.47	10.19	10.36	10.75
16	10.16	10.09	8.24	5.17	5.97	7.66	8.71	9.02	9.53	10.20	10.34	10.67
17	10.27	10.05	8.37	5.40	5.41	7.65	8.66	9.04	9.58	10.17	10.34	10.67
18	10.27	10.05	8.33	5.54	5.41	7.68	8.65	9.06	9.64	10.13	10.31	10.68
19	10.20	10.05	8.63	5.74	5.59	7.67	8.66	9.02	9.69	10.17	10.37	10.68
20	10.23	10.00	8.62	6.09	5.65	7.58	8.71	8.96	9.71	10.19	10.37	10.68
21	10.26	10.06	8.66	6.33	5.92	7.57	8.77	8.96	9.68	10.09	10.40	10.68
22	10.24	10.01	8.77	6.61	6.17	7.56	8.71	8.82	9.77	10.06	10.41	10.62
23	10.17	9.92	8.87	6.89	6.28	7.47	8.63	8.80	9.81	10.09	10.45	10.46
24	10.17	9.92	8.89	6.92	6.37	7.56	8.61	8.91	9.80	10.03	10.48	10.46
25	10.22	9.62	8.89	6.95	6.52	7.65	8.59	8.97	9.86	10.05	10.48	10.41
26	10.24	9.60	9.06	7.42	6.83	7.69	8.58	8.94	9.90	10.01	10.43	10.26
27	10.24	9.49	9.13	7.67	6.87	7.68	8.69	8.97	9.91	9.94	10.41	10.32
28	10.24	9.13	9.07	7.71	6.80	7.64	8.73	9.03	9.89	9.92	10.47	10.26
29	10.11	9.13	9.03	7.67	---	7.76	8.70	9.11	9.89	9.91	10.48	10.33
30	10.06	8.97	9.04	7.84	---	7.77	8.72	9.16	9.88	9.97	10.45	10.33
31	10.21	---	8.95	7.95	---	7.94	---	9.24	---	9.97	10.52	---
MAX	10.27	10.24	9.13	8.75	8.30	7.94	8.77	9.24	9.91	10.20	10.52	10.75
CAL YR 2004		LOW	10.27									
WTR YR 2005		LOW	10.75									



Ground-Water Records—Wyandot County

405009083172600. Local Number, WY-1

LOCATION.—Latitude 40°50'09", longitude 83°17'26", Wyandot County, Hydrologic Unit 04100011, State Route 199, Upper Sandusky, Ohio. Owner: Karg Supply Company.

AQUIFER.—Limestone of Silurian Age.

WELL CHARACTERISTICS.—Drilled unused artesian well, diameter 5 in, depth 90 ft, cased.

INSTRUMENTATION.—Digital recorder, 60-minute punch.

DATUM.—Elevation of land-surface datum is 850 ft above sea level (from topographic map). Measuring point: Floor of instrument shelter 3.00 ft above land-surface datum.

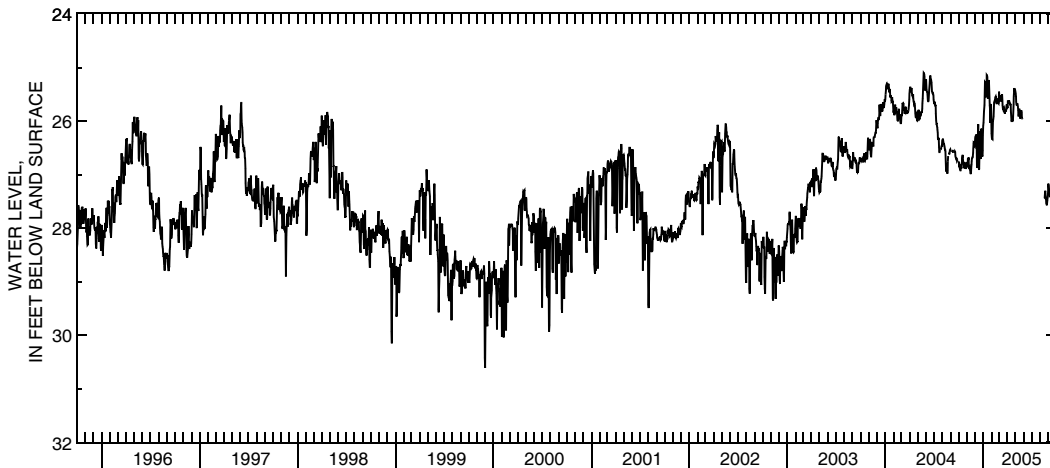
REMARKS.—Station operated by Ohio Department of Natural Resources (ODNR), Division of Water. Some historical records not published by the USGS are available from ODNR.

PERIOD OF RECORD.—September 1951 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 40.90 ft below land-surface datum, July 12, 15, 17, 21, Aug. 26, 1961; minimum daily low, 25.10 ft below land-surface datum, May 24, 2004.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26.76	26.83	26.40	26.09	26.23	25.45	25.75	25.45	---	---	---	27.17
2	26.78	26.83	26.32	26.03	26.31	25.53	25.74	25.48	---	---	---	27.21
3	26.82	26.85	26.30	25.94	26.33	25.61	25.63	25.54	---	---	---	27.28
4	26.81	26.85	26.28	25.82	26.34	25.62	25.63	25.64	---	---	---	27.30
5	26.87	26.72	26.26	25.70	26.11	25.62	25.63	25.69	---	---	---	27.33
6	26.90	26.72	26.26	25.54	26.00	25.62	25.64	25.69	---	---	---	27.40
7	26.92	26.68	26.40	25.27	25.97	25.58	25.63	25.68	---	---	---	27.41
8	26.92	26.81	26.86	25.28	25.91	25.52	25.63	25.68	---	---	---	27.41
9	26.86	26.88	26.86	25.32	25.80	25.59	25.66	25.69	---	---	---	27.35
10	26.87	26.89	26.73	25.38	25.66	25.60	25.67	25.73	---	---	---	27.34
11	26.87	26.86	26.72	25.54	25.64	25.56	25.69	25.81	---	---	---	27.40
12	26.87	26.85	26.26	25.54	25.62	25.50	25.69	25.90	---	---	---	27.40
13	26.79	26.91	26.06	25.46	25.62	25.61	25.69	25.90	---	---	---	27.38
14	26.70	26.97	26.52	25.14	25.60	25.70	25.81	25.86	---	---	---	27.37
15	26.66	26.99	26.87	25.15	25.55	25.77	25.91	25.77	---	---	---	27.43
16	26.63	26.96	26.91	25.18	25.54	25.79	26.00	25.79	---	---	---	27.44
17	26.75	26.89	26.89	25.42	25.56	25.78	26.00	25.85	---	---	27.44	27.38
18	26.79	26.81	26.55	25.58	25.63	25.76	25.97	25.94	---	---	27.44	27.34
19	26.77	26.75	26.19	25.54	25.67	25.75	26.00	25.94	---	---	27.35	27.34
20	26.78	26.69	26.38	25.33	25.67	25.78	26.00	25.87	---	---	27.30	27.33
21	26.84	26.68	26.63	25.25	25.60	25.83	25.99	25.87	---	---	27.35	27.33
22	26.87	26.68	26.71	25.25	25.58	25.86	25.98	25.87	---	---	27.41	27.33
23	26.87	26.66	26.53	25.34	25.63	25.85	25.84	25.80	---	---	27.47	27.28
24	26.80	26.59	26.16	25.53	25.64	25.79	25.69	25.84	---	---	27.54	27.27
25	26.80	26.51	26.15	25.71	25.63	25.80	25.54	25.93	---	---	27.56	27.27
26	26.84	26.41	26.14	25.75	25.66	25.81	25.44	25.95	---	---	27.56	27.24
27	26.86	26.42	26.31	26.03	25.67	25.81	25.38	25.97	---	26.90	27.54	27.29
28	26.88	26.38	26.63	26.00	25.63	25.76	25.43	---	---	---	27.48	27.31
29	26.88	26.46	26.66	25.85	---	25.70	25.43	---	---	---	27.44	27.28
30	26.79	26.47	26.55	25.68	---	25.70	25.43	---	---	---	27.41	27.24
31	26.76	---	26.27	25.97	---	25.70	---	---	---	---	27.28	---
MAX	26.92	26.99	26.91	26.09	26.34	25.86	26.00	25.97	---	26.90	27.56	27.44
CAL YR 2004	LOW		26.99									
WTR YR 2005	LOW		27.56									



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		Jul 8		
10 PERCENT EXCEEDS	21		20		2003		
50 PERCENT EXCEEDS	19		17		2002		
90 PERCENT EXCEEDS	16		15		2002		

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

	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1998-2005	
ANNUAL TOTAL	7498.1		6585.6			
ANNUAL MEAN	20.5		18.0		19.4	
HIGHEST ANNUAL MEAN					27.1	
LOWEST ANNUAL MEAN					14.5	
HIGHEST DAILY MEAN	126	May 22	93	Sep 26	214	Jul 8
LOWEST DAILY MEAN	4.1	Aug 2	4.0	Jun 23	0.70	Dec 15
ANNUAL SEVEN-DAY MINIMUM	9.9	Mar 9	10	Jun 22	2.2	Nov 12
MAXIMUM PEAK FLOW			227	Sep 26	337	Aug 25
MAXIMUM PEAK STAGE			2.65	Aug 5	3.44	Aug 25
INSTANTANEOUS LOW FLOW			0.00	Sep 1	0.00	Sep 1
10 PERCENT EXCEEDS	30		25		31	
50 PERCENT EXCEEDS	18		16		17	
90 PERCENT EXCEEDS	12		10		9.1	

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.

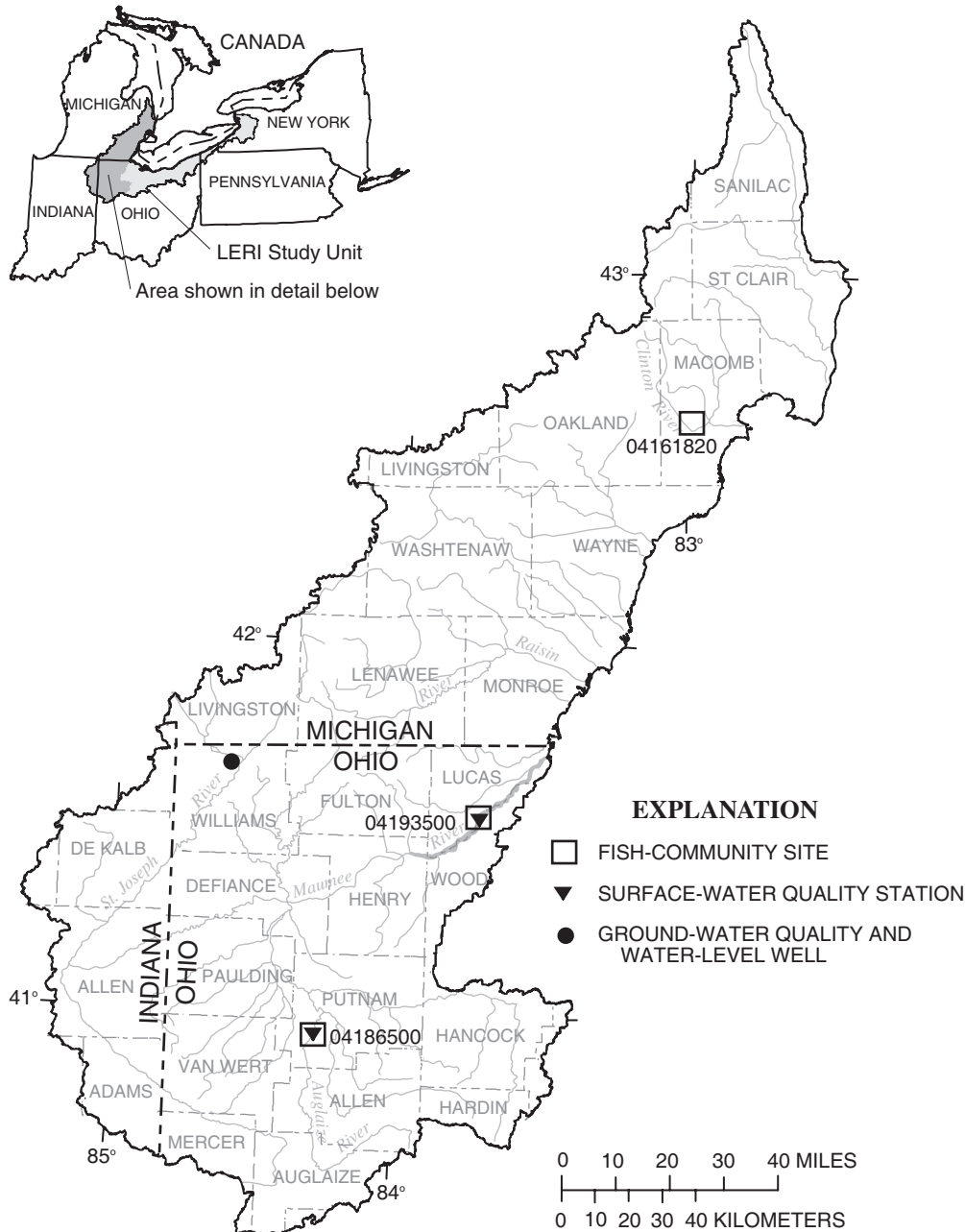
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005 DAILY MEAN VALUES

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, flt, inc titr., field, mg/L as CaCO ₃ (39086)	Bicarbonate, water, flt, incrm. titr., field, mg/L (00453)	Carbonate, water, flt, 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)	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. 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)	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. 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; $\mu\text{g/L}$, micrograms per liter; mg/L , milligrams per liter; E, estimated; <, concentration or value reported is less than that indicated]

Date	Tri- flur- alin, water, fltfd, 0.7 μ GF, $\mu\text{g/L}$ (82661)	Di- chlor- vos, water, fltfd, $\mu\text{g/L}$ (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., 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>Carpionodes 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

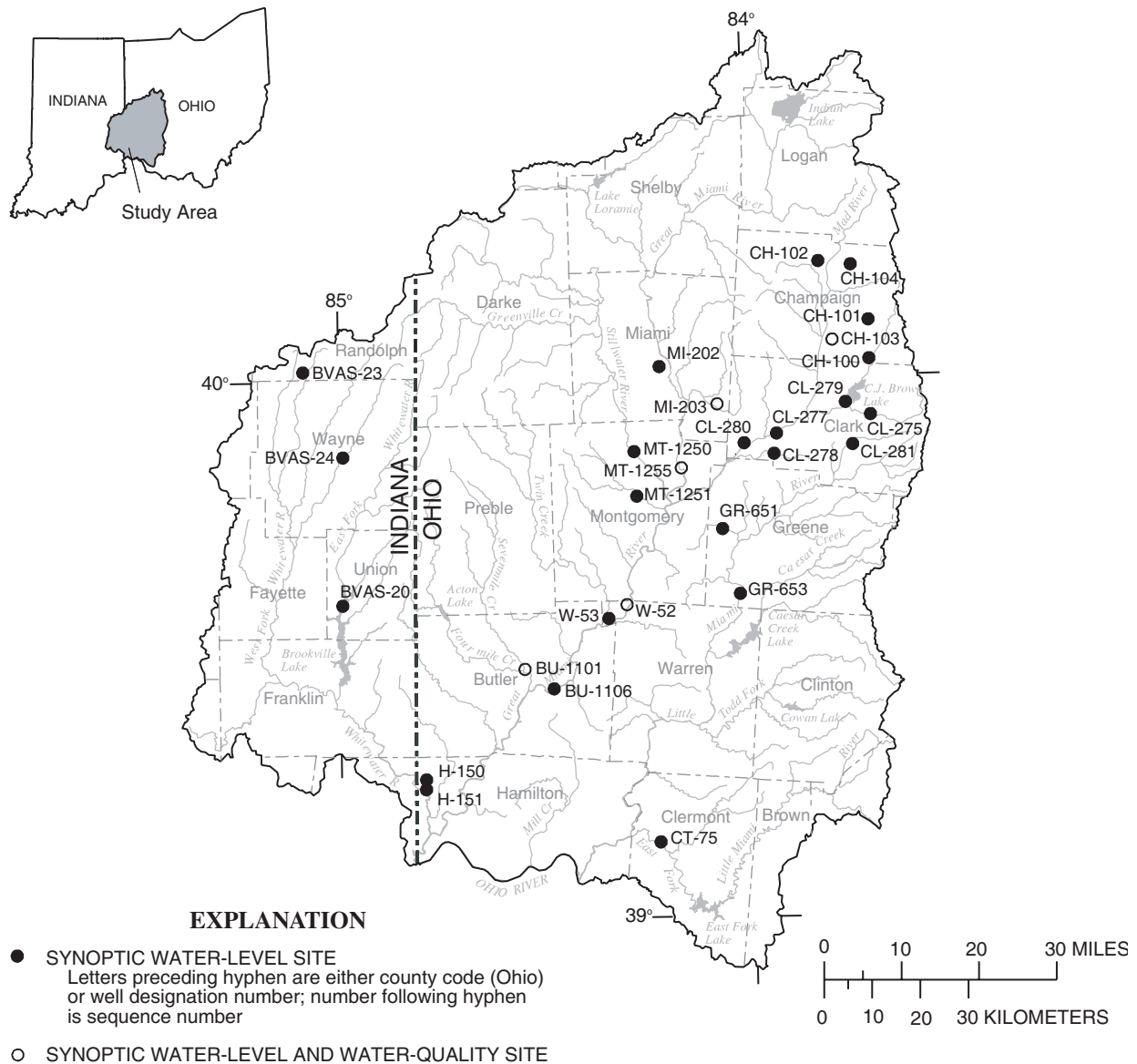
Family	Scientific name	Common name	STATION NAME						
			Auglaize River near Fort Jennings, Ohio		Maumee River at Waterville, Ohio		Clinton River at Sterling Heights, Michigan		
			Abundance	Batch weight (g)	Abundance	Batch weight (g)	Abundance	Batch weight (g)	
Ictaluridae	<i>Ameiurus natalis</i>	yellow 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	

Project Data—Results from Selected Sites in the Great and Little Miami River Basins

The following tables contain water-level and water-quality data from ground-water studies in the Great and Little Miami River Basins. The studies are part of the NAWQA (National Water-Quality Assessment) of the White, Great, and Little Miami River Basins (WHMI study unit). Data are from three networks of wells that produce water from glacial valley-fill deposits, also referred to as the buried valley aquifer system. The well networks were first sampled during 1999–2001. In 2005, the wells were revisited for the purpose of investigating changes in water levels and water quality. Water-level surveys were done in each network. In addition, water-quality data were collected from subsets of wells in each network.

DOMESTIC WELLS

A network of 30 domestic wells that produce water from glacial valley-fill deposits was initially sampled in 1999 (Shindel and others, 2000). During 2005, water levels were measured in 28 of the 30 wells. In addition, five of the wells were sampled for water-quality constituents (field parameters, major ions, nutrients, trace elements, pesticides, and other organic compounds).



DOMESTIC WELLS—Continued

[Water levels known to have been measured after a well had been recently pumped are designated with an asterisk (*)]

Station number	Local well number	Map location name	Altitude of land surface datum (feet)	Well depth (feet)	Water-level date	Water-level time	Water level, below land surface (feet)
BUTLER COUNTY, OHIO							
392756084330100	BU-1101	Hamilton, Ohio	625	92	07-14-2005	0930	11.64
392544084290300	BU-1106	Trenton, Ohio	612	40	08-16-2005	1735	18.52
CHAMPAIGN COUNTY, OHIO							
400142083423900	CH-100	Urbana East, Ohio	1,108	70	07-27-2005	1326	32.78
400542083420900	CH-101	Urbana East, Ohio	1,151	87	07-27-2005	1422	49.01
401237083485800	CH-102	Northville, Ohio	1,080	39	07-26-2005	1615	16.90
400409083464500	CH-103	Urbana West, Ohio	995	45	07-26-2005	1527	21.40
401200083443100	CH-104	Urbana East, Ohio	1,115	65	07-27-2005	1455	32.99
CLARK COUNTY, OHIO							
395528083414400	CL-275	New Moorefield, Ohio	1060	21	08-01-2005	1148	3.03
395407083553400	CL-277	Donnelsville, Ohio	868	32	07-22-2005	1257	9.85
395127083551300	CL-278	Yellow Springs, Ohio	912	65	07-27-2005	1422	29.88
395635083445900	CL-279	New Moorefield, Ohio	978	56	07-22-2005	1110	10.75
395248084010900	CL-280	New Carlisle, Ohio	841	33	07-22-2005	1219	12.28
395235083445700	CL-281	New Moorefield, Ohio	1,038	60	07-22-2005	1415	13.01
CLERMONT COUNTY, OHIO							
390832084133300	CT-75	Batavia, Ohio	578	80	07-19-2005	1346	31.34
GREENE COUNTY, OHIO							
394302084032700	GR-651	Bellbrook, Ohio	835	40	07-14-2005	1217	12.26
393605084013400	GR-653	Waynesville, Ohio	663	60	07-12-2005	1307	27.33
HAMILTON COUNTY, OHIO							
391544084474200	H-150	Harrison, Ohio	589	50	07-13-2005	1105	34.89*
391444084474600	H-151	Hooven, Ohio	518	68	08-22-2005	1122	38.38
MIAMI COUNTY, OHIO							
400049084125300	MI-202	Troy, Ohio	849	45	07-20-2005	1710	21.33
395706084035400	MI-203	New Carlisle, Ohio	880	78	07-26-2005	1404	36.53
MONTGOMERY COUNTY, OHIO							
395125084154800	MT-1250	Trotwood, Ohio	821	101	07-20-2005	0922	56.14
394654084160800	MT-1251	Trotwood, Ohio	795	41.3	07-27-2005	1800	8.76
394918084100100	MT-1255	Dayton North, Ohio	780	69	07-27-2005	1711	31.85
WARREN COUNTY, OHIO							
393455084180600	W-52	Franklin, Ohio	695	52	07-14-2005	1107	22.64
393330084204500	W-53	Franklin, Ohio	665	38	07-12-2005	1518	11.77
RANDOLPH COUNTY, INDIANA							
400113085051300	BVAS-23	Carlos, Indiana	1150	71	07-28-2005	1316	24.73
UNION COUNTY, INDIANA							
393512084594500	BVAS-20	New Fairfield, Indiana	749	121	07-13-2005	1423	26.60
WAYNE COUNTY, INDIANA							
395149084592900	BVAS-24	Richmond, Indiana	1,015	63	07-28-2005	1359	25.85

DOMESTIC WELLS—Continued

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; $\mu\text{S}/\text{cm}$, microsiemens per centimeter; deg C, degrees Celsius; std, standard; mg/L, milligrams per liter; R, data value under review and subject to revision]

Station number	Local well number	Date	Time	Depth of well, feet below LSD (72008)	Depth to water level, feet below LSD (72019)	Altitude of land surface, feet (72000)	Turbidity, water, unfltrd, field, NTU (61028)
392756084330100	BU-1101	8/9/2005	1600	92	12.19	625	1.1
400409083464500	CH-103	8/11/2005	1800	45	21.92	995	1.6
395706084035400	MI-203	8/12/2005	1400	78	36.84	880	1.6
394918084100100	MT-1255	8/9/2005	1300	75	32.22	780	.9
393455084180600	W-52	8/12/2005	1100	52	23.45	695	1.0

Local well number	Dis-solved oxygen, mg/L (00300)	pH, water, unfltrd, field, std units (00400)	pH, water, unfltrd, lab, std units (00403)	Specif. conduc-tance, water, unf, lab, $\mu\text{S}/\text{cm}$ 25 degC (90095)	Specif. conduc-tance, water, unf, $\mu\text{S}/\text{cm}$ 25 degC (00095)	Temper-ature, air, deg C (00020)	Temper-ature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Magnes-ium, water, fltrd, mg/L (00925)
BU-1101	.2	7.2	7.3	750	689	35.0	16.4	112	31.6
CH-103	9.0	7.1	7.4	712	701	33.5	13.8	101	37.8
MI-203	.3	7.0	7.3	900	804	36.0	17.3	119	44.4
MT-1255	.8	7.0	7.3	869	857	31.0	15.5	110	32.9
W-52	4.5	7.0	7.3	825	833	30.5	20.3	106	37.2

Local well number	Potas-sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	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)	Hydrox-ide, water, flt incrm. titr., field, mg/L (71834)	Bromide water, fltrd, mg/L (71870)	Chlor-ide, water, fltrd, mg/L (00940)	Fluor-ide, water, fltrd, mg/L (00950)
BU-1101	2.13	9.78	288	351	.0	.0	R.28	26.2	.2
CH-103	1.92	7.01	294	358	.0	.0	R.16	18.1	.2
MI-203	1.74	23.2	296	361	.0	.0	R.17	63.4	.5
MT-1255	3.64	29.6	302	368	.0	.0	R.18	68.2	.3
W-52	2.31	29.0	310	378	.0	.0	R.19	55.8	.2

DOMESTIC WELLS—Continued

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

[(00955), USGS National Water Information System parameter code; mg/L, milligrams per liter; µg/L, micrograms per liter; U, undetected; E, estimated; <, concentration or value reported is less than that indicated]

Local well number	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)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Total nitrogen, water, flt, by analysis, mg/L (62854)	Aluminum, water, fltrd, µg/L (01106)
BU-1101	12.6	59.2	454	E.03	<.06	<.008	<.006	<.06	<2
CH-103	11.3	30.2	414	<.04	7.65	<.008	E.005	7.93	<2
MI-203	14.8	60.6	572	<.04	<.06	<.008	<.006	<.06	<2
MT-1255	10.4	43.4	485	<.04	1.5	<.008	<.006	1.64	<2
W-52	11.7	32.6	484	<.04	4.12	<.008	<.006	4.08	E1

Local well number	Anti-mony, 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)	Copper, water, fltrd, µg/L (01040)
BU-1101	<.20	.9	201	<.06	37	<.04	<.8	.144	.4
CH-103	<.20	.3	112	<.06	8	<.04	<.8	.131	6.8
MI-203	<.20	.6	112	<.06	29	<.04	<.8	.275	2.9
MT-1255	<.20	.3	165	<.06	57	E.03	<.8	.224	6.6
W-52	<.20	<.2	109	<.06	57	<.04	<.8	.139	4.1

Local well number	Hydrogen sulfide, water, unfltrd, mg/L (71875)	Iron, water, fltrd, µg/L (01046)	Lead, water, fltrd, µg/L (01049)	Lithium, water, fltrd, µg/L (01130)	Manganese, water, fltrd, µg/L (01056)	Molybdenum, water, fltrd, µg/L (01060)	Nickel, water, fltrd, µg/L (01065)	Selenium, water, fltrd, µg/L (01145)	Silver, water, fltrd, µg/L (01075)
BU-1101	U	3330	<.08	4.0	70.2	2.3	3.19	<.4	<.2
CH-103	U	<6	.10	1.5	<.2	2.2	2.15	E.4	<.2
MI-203	U	548	.55	4.5	62.7	6.3	3.07	<.4	<.2
MT-1255	U	E3	.24	3.7	2.3	1.9	4.13	4.6	<.2
W-52	U	<6	.30	2.1	.6	1.9	2.58	.9	<.2

DOMESTIC WELLS—Continued

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

[(01080), USGS National Water Information System parameter code; µg/L, micrograms per liter; E, estimated; <, concentration or value reported is less than that indicated]

Local well number	Strontium, water, fltrd, µg/L (01080)	Thallium, water, fltrd, µg/L (01057)	Vanadium, water, fltrd, µg/L (01085)	Zinc, water, fltrd, µg/L (01090)	1-Naphthol, water, fltrd, 0.7µ GF µg/L (49295)	2,4-D methyl ester, water, fltrd, µg/L (50470)	2,4-D, water, fltrd, µg/L (39732)	2,4-DB, water, fltrd, 0.7µ GF µg/L (38746)	2,6-Diethyl-aniline, water, fltrd, 0.7µ GF µg/L (82660)
BU-1101	166	<.04	.4	15.6	<.09	<.016	<.04	<.02	<.006
CH-103	266	<.04	.4	1.3	<.09	<.050	<.04	<.02	<.006
MI-203	1240	E.02	E.1	6.5	<.09	<.050	<.04	<.02	<.006
MT-1255	1220	E.03	.3	15.7	<.09	<.016	<.04	<.02	<.006
W-52	444	<.04	E.1	260	<.09	<.050	<.04	<.02	<.006

Local well number	2-Chloro-2',6'-diethyl acet-anilide, water, flt, µg/L (61618)	CIAT, water, fltrd, µg/L (04040)	CEAT, water, fltrd, µg/L (04038)	2-Ethyl-6-methyl-aniline, water, fltrd, µg/L (61620)	OIET, water, fltrd, µg/L (50355)	3,4-Di-chloro-aniline, water, fltrd, µg/L (61625)	3,5-Di-chloro-aniline, water, fltrd, µg/L (61627)	3-Hydroxy-carbo-furan, water, flt, 0.7µ GF µg/L (49308)	3-Keto-carbo-furan, water, fltrd, µg/L (50295)
BU-1101	<.005	<.006	<.08	<.004	<.032	<.004	<.004	<.008	<.02
CH-103	<.005	E.011	<.08	<.004	<.032	<.004	<.004	<.008	<.25
MI-203	<.005	<.006	<.08	<.004	<.032	<.004	<.004	<.008	<.25
MT-1255	<.005	<.006	<.08	<.004	<.032	<.004	<.004	<.008	<.02
W-52	<.005	<.006	<.08	<.004	<.032	<.004	<.004	<.008	<.25

Local well number	4-Chloro 2-methyl phenol, water, fltrd, µg/L (61633)	Aceto-chlor, water, fltrd, µg/L (49260)	Aci-fluor-fen, water, fltrd, 0.7µ GF µg/L (49315)	Ala-chlor, water, fltrd, µg/L (46342)	Aldi-carb sulfone, water, fltrd, 0.7µ GF µg/L (49313)	Aldi-carb sulf-oxide, water, flt, 0.7µ GF µg/L (49314)	Aldi-carb, water, fltrd, 0.7µ GF µg/L (49312)	alpha-Endo-sulfan, water, fltrd, µg/L (34362)	alpha-HCH-d6, surrog, Sch2003, water, flt, percent recovery (99995)
BU-1101	<.006	<.006	<.028	<.005	<.02	<.022	<.04	<.005	97.8
CH-103	<.006	<.006	<.028	<.005	<.02	<.022	<.04	<.005	81.7
MI-203	<.006	<.006	<.028	<.005	<.02	<.022	<.04	<.005	78.4
MT-1255	<.006	<.006	<.028	<.005	<.02	<.022	<.04	<.005	91.2
W-52	<.006	<.006	<.028	<.005	<.02	<.022	<.04	<.005	79.4

DOMESTIC WELLS—Continued

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

[(39632), USGS National Water Information System parameter code; µg/L, micrograms per liter; E, estimated; <, concentration or value reported is less than that indicated]

Local well number	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)	Barban, surrog, Sched. 2060/ 9060, water, flt, pct rcv (90640)	Bendio-carb, water, fltrd, µg/L (50299)	Ben-flur-alin, water, fltrd, 0.7µ GF µg/L (82673)	Benomyl, water, fltrd, µg/L (50300)	Bensul-furon, water, fltrd, µg/L (61693)	Ben-tazon, water, fltrd, 0.7µ GF µg/L (38711)
BU-1101	<.007	<.07	<.050	80.6	<.02	<.010	<.022	<.02	<.01
CH-103	<.007	<.07	<.050	110	<.02	<.010	<.022	<.02	<.01
MI-203	<.007	<.07	<.050	104	<.02	<.010	<.022	<.02	<.01
MT-1255	<.007	<.07	<.050	80.5	<.02	<.010	<.022	<.02	<.01
W-52	<.007	<.07	<.050	105	<.02	<.010	<.022	<.02	<.01

Local well number	Broma-cil, water, fltrd, µg/L (04029)	Brom-oxynil, water, fltrd, 0.7µ GF µg/L (49311)	Caf-feine, water, fltrd, µg/L (50305)	Caf-feine-13C, surrog, water, flt, recovery percent (99959)	Car-baryl, water, fltrd, 0.7µ GF µg/L (49310)	Car-baryl, water, fltrd, 0.7µ GF µg/L (82680)	Carbo-furan, water, fltrd, 0.7µ GF µg/L (49309)	Carbo-furan, water, fltrd, 0.7µ GF µg/L (82674)	Chlor-amben methyl ester, water, fltrd, µg/L (61188)
BU-1101	<.02	<.03	<.018	99.1	<.02	<.041	<.016	<.020	<.02
CH-103	<.02	<.03	<.018	116	<.02	<.041	<.016	<.020	<.05
MI-203	<.02	<.03	<.018	117	<.02	<.041	<.016	<.020	<.05
MT-1255	<.02	<.03	<.018	97.1	<.02	<.041	<.016	<.020	<.02
W-52	<.02	<.03	<.018	119	<.02	<.041	<.016	<.020	<.05

Local well number	Chlori-muron, water, fltrd, µg/L (50306)	Chloro-di-amino-s-tri-azine, water, flt µg/L (04039)	Chloro-thalo-nil, water, fltrd, 0.7µ GF µg/L (49306)	Chlor-pyri-fos oxon, water, fltrd, µg/L (61636)	Chlor-pyri-fos, 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)	Clopyr-alid, water, fltrd, 0.7µ GF µg/L (49305)	Cyana-zine, water, fltrd, µg/L (04041)
BU-1101	<.032	<.02	<.04	<.06	<.005	<.006	<.008	<.02	<.018
CH-103	<.032	E.01	<.04	<.06	<.005	<.006	<.008	<.02	<.018
MI-203	<.032	<.04	<.04	<.06	<.005	<.006	<.008	<.02	<.018
MT-1255	<.032	<.02	<.04	<.06	<.005	<.006	<.008	<.02	<.018
W-52	<.032	<.04	<.04	<.06	<.005	<.006	<.008	<.02	<.018

DOMESTIC WELLS—Continued

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

[(04031), USGS National Water Information System parameter code; µg/L, micrograms per liter; <, concentration or value reported is less than that indicated]

Local well number	Cyclo-ate, water, fltrd, µg/L (04031)	Cyflu-thrin, water, fltrd, µg/L (61585)	lambda-Cyhalo-thrin, water, fltrd, µg/L (61595)	Cyper-methrin, water, fltrd, µg/L (61586)	Dacthal mono-acid, water, fltrd, 0.7µ GF µg/L (49304)	DCPA, water, fltrd, 0.7µ GF µg/L (82682)	Desulf-inyl fipro-nil, water, fltrd, µg/L (62170)	Diazi-non, water, fltrd, µg/L (39572)	Diazi-non-d10 surrog, Sch2003, water, flt, percent recovery (99994)
BU-1101	<.01	<.027	<.009	<.009	<.03	<.003	<.012	<.005	82.4
CH-103	<.05	<.027	<.009	<.009	<.03	<.003	<.012	<.005	78.6
MI-203	<.05	<.027	<.009	<.009	<.03	<.003	<.012	<.005	77.5
MT-1255	<.01	<.027	<.009	<.009	<.03	<.003	<.012	<.005	75.8
W-52	<.05	<.027	<.009	<.009	<.03	<.003	<.012	<.005	75.4

Local well number	Dicamba, water, fltrd, 0.7µ GF µg/L (38442)	Di-chlor-prop, water, fltrd, 0.7µ GF µg/L (49302)	Dicro-tophos, water, fltrd, µg/L (38454)	Diel-drin, water, fltrd, µg/L (39381)	Dimeth-oate, water, fltrd, 0.7µ GF µg/L (82662)	Dinoseb, water, fltrd, 0.7µ GF µg/L (49301)	Diphen-amid, water, fltrd, µg/L (04033)	Disulf-oton sulfone, water, fltrd, µg/L (61640)	Disul-foton, water, fltrd, 0.7µ GF µg/L (82677)
BU-1101	<.04	<.03	<.08	<.009	<.006	<.04	<.01	<.01	<.02
CH-103	<.04	<.03	<.08	<.009	<.006	<.04	<.01	<.01	<.02
MI-203	<.04	<.03	<.08	<.009	<.006	<.04	<.01	<.01	<.02
MT-1255	<.04	<.03	<.08	<.009	<.006	<.04	<.01	<.01	<.02
W-52	<.04	<.03	<.08	<.009	<.006	<.04	<.01	<.01	<.02

Local well number	Diuron, water, fltrd, 0.7µ GF µg/L (49300)	Endo-sulfan sulfate, water, fltrd, µg/L (61590)	EPTC, water, fltrd, 0.7µ GF µg/L (82668)	Ethion monoxon, water, fltrd, µg/L (61644)	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)
BU-1101	<.01	<.014	<.004	<.002	<.004	<.005	<.049	<.04	<.03
CH-103	<.02	<.014	<.004	<.002	<.004	<.005	<.049	<.04	<.03
MI-203	<.02	<.014	<.004	<.002	<.004	<.005	<.049	<.04	<.03
MT-1255	<.01	<.014	<.004	<.002	<.004	<.005	<.049	<.04	<.03
W-52	<.02	<.014	<.004	<.002	<.004	<.005	<.049	<.04	<.03

DOMESTIC WELLS—Continued

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

[(49297), USGS National Water Information System parameter code; µg/L, micrograms per liter; <, concentration or value reported is less than that indicated]

Local well number	Fenuron, water, fltrd, 0.7µ GF µg/L (49297)	Desulf-inyl-fipro-nil amide, water, fltrd, 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)	Flumet-sulam, water, fltrd, µg/L (61694)	Fluo-meturon, water, fltrd, 0.7µ GF µg/L (38811)	Fonofos, water, fltrd, µg/L (04095)	Hexa-zinone, water, fltrd, µg/L (04025)
BU-1101	<.03	<.029	<.013	<.024	<.016	<.04	<.02	<.003	<.013
CH-103	<.02	<.029	<.013	<.024	<.016	<.04	<.02	<.003	<.013
MI-203	<.02	<.029	<.013	<.024	<.016	<.04	<.02	<.003	<.013
MT-1255	<.03	<.029	<.013	<.024	<.016	<.04	<.02	<.003	<.013
W-52	<.02	<.029	<.013	<.024	<.016	<.04	<.02	<.003	<.013

Local well number	Imaza-quin, water, fltrd, µg/L (50356)	Imaze-thapyr, water, fltrd, µg/L (50407)	Imida-cloprid, water, fltrd, µg/L (61695)	lpro-dione, water, fltrd, µg/L (61593)	Isofen-phos, water, fltrd, µg/L (61594)	Linuron, water, fltrd, 0.7µ GF µg/L (38478)	Mala-oxon, water, fltrd, µg/L (61652)	Mala-thion, water, fltrd, µg/L (39532)	MCPA, water, fltrd, 0.7µ GF µg/L (38482)
BU-1101	<.04	<.04	<.020	<.538	<.003	<.01	<.030	<.027	<.03
CH-103	<.04	<.04	<.020	<.538	<.003	<.01	<.030	<.027	--
MI-203	<.04	<.04	<.020	<.538	<.003	<.01	<.030	<.027	--
MT-1255	<.04	<.04	<.020	<.538	<.003	<.01	<.030	<.027	<.03
W-52	<.04	<.04	<.020	<.538	<.003	<.01	<.030	<.027	--

Local well number	MCPB, water, fltrd, 0.7µ GF µg/L (38487)	Meta-laxyl, water, fltrd, µg/L (50359)	Meta-laxyl, water, fltrd, µg/L (61596)	Methi-althion, water, fltrd, µg/L (61598)	Methio-carb, water, fltrd, 0.7µ GF µg/L (38501)	Meth-omyl, water, fltrd, 0.7µ GF µg/L (49296)	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)
BU-1101	<.01	<.01	<.005	<.006	<.010	<.020	<.03	<.015	<.006
CH-103	<.01	<.01	<.005	<.006	<.010	<.020	<.03	<.015	<.006
MI-203	<.01	<.01	<.005	<.006	<.010	<.020	<.03	<.015	<.006
MT-1255	<.01	<.01	<.005	<.006	<.010	<.020	<.03	<.015	<.006
W-52	<.01	<.01	<.005	<.006	<.010	<.020	<.03	<.015	<.006

DOMESTIC WELLS—Continued

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

[(82630), USGS National Water Information System parameter code; µg/L, micrograms per liter; <, concentration or value reported is less than that indicated]

Local well number	Metribuzin, water, fltrd, µg/L (82630)	Metsulfuron, water, fltrd, µg/L (61697)	Molinate, water, fltrd, 0.7µ GF µg/L (82671)	Myclobutanil, water, fltrd, µg/L (61599)	N-(4-Chlorophenyl)-N'-methylurea, µg/L (61692)	Neburon water, fltrd, 0.7µ GF µg/L (49294)	Nicosulfuron, water, fltrd, µg/L (50364)	Norflurazone, water, fltrd, 0.7µ GF µg/L (49293)	Oryzalin, water, fltrd, 0.7µ GF µg/L (49292)
BU-1101	<.006	<.03	<.003	<.008	<.04	<.01	<.04	<.02	<.01
CH-103	<.006	<.07	<.003	<.008	<.04	<.01	<.04	<.02	<.01
MI-203	<.006	<.07	<.003	<.008	<.04	<.01	<.04	<.02	<.01
MT-1255	<.006	<.03	<.003	<.008	<.04	<.01	<.04	<.02	<.01
W-52	<.006	<.07	<.003	<.008	<.04	<.01	<.04	<.02	<.01
Local well number	Oxamyl, water, fltrd, 0.7µ GF µg/L (38866)	Oxyfluorfen, water, fltrd, µg/L (61600)	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)	Phosmet, water, fltrd, µg/L (61601)	Picloram, water, fltrd, 0.7µ GF µg/L (49291)	Prometon, water, fltrd, µg/L (04037)
BU-1101	<.03	<.007	<.022	<.10	<.011	<.05	<.008	<.03	<.01
CH-103	<.03	<.007	<.022	<.10	<.011	<.05	<.008	<.03	<.01
MI-203	<.03	<.007	<.022	<.10	<.011	<.05	<.008	<.03	<.01
MT-1255	<.03	<.007	<.022	<.10	<.011	<.05	<.008	<.03	<.01
W-52	<.03	<.007	<.022	<.10	<.011	<.05	<.008	<.03	<.01
Local well number	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)	Propham, water, fltrd, 0.7µ GF µg/L (49236)	Propiconazole, water, fltrd, µg/L (50471)	Propoxur, water, fltrd, 0.7µ GF µg/L (38538)	Siduron, water, fltrd, µg/L (38548)	Simazine, water, fltrd, µg/L (04035)
BU-1101	<.005	<.004	<.011	<.02	<.030	<.01	<.008	<.02	<.005
CH-103	<.005	<.004	<.011	<.02	<.030	<.01	<.008	<.02	<.005
MI-203	<.005	<.004	<.011	<.02	<.030	<.01	<.008	<.02	<.005
MT-1255	<.005	<.004	<.011	<.02	<.030	<.01	<.008	<.02	<.005
W-52	<.005	<.004	<.011	<.02	<.030	<.01	<.008	<.02	<.005

DOMESTIC WELLS—Continued

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

[(50337), USGS National Water Information System parameter code; µg/L, micrograms per liter; <, concentration or value reported is less than that indicated]

Local well number	Sulfo- met- ruron, water, fltrd, µg/L (50337)	Tebu- thiuron, water, fltrd, 0.7µ GF µg/L (82670)	Teflu- thrin, water, fltrd, µg/L (61606)	Terba- cil, water, fltrd, µg/L (04032)	Ter- bufos oxon sulfone, water, fltrd, µg/L (61674)	Terbu- fos, water, fltrd, 0.7µ GF µg/L (82675)	Ter- buthyl- azine, water, fltrd, µg/L (04022)	Thio- bencarb, water, fltrd, 0.7µ GF µg/L (82681)	trans- Propi- cona- zole, water, fltrd, µg/L (79847)
BU-1101	<.038	<.02	<.008	<.016	<.07	<.02	<.01	<.010	<.01
CH-103	<.090	<.02	<.008	<.016	<.07	<.02	<.01	<.010	<.01
MI-203	<.090	<.02	<.008	<.016	<.07	<.02	<.01	<.010	<.01
MT-1255	<.038	<.02	<.008	<.016	<.07	<.02	<.01	<.010	<.01
W-52	<.090	<.02	<.008	<.016	<.07	<.02	<.01	<.010	<.01

Local well number	Tribu- pos, water, fltrd, µg/L (61610)	Tri- clopyr, water, fltrd, 0.7µ GF µg/L (49235)	Tri- flur- alin, 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)
BU-1101	<.004	<.03	<.009	<.03	<.03	<.08	<.04	<.04	<.04
CH-103	<.004	<.03	<.009	<.03	<.03	<.08	<.04	<.04	<.04
MI-203	<.004	<.03	<.009	<.03	<.03	<.08	<.04	<.04	<.04
MT-1255	<.004	<.03	<.009	<.03	<.03	<.08	<.04	<.04	<.04
W-52	<.004	<.03	<.009	<.03	.10	<.08	<.04	<.04	<.04

Local well number	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)
BU-1101	<.02	<.03	<.1	<.1	<.2	<.18	<.1	<.1	<.06
CH-103	<.02	<.03	<.1	<.1	<.2	<.18	<.1	<.1	<.06
MI-203	<.02	<.03	<.1	<.1	<.2	<.18	<.1	<.1	<.06
MT-1255	<.02	<.03	<.1	<.1	<.2	<.18	<.1	<.1	<.06
W-52	<.02	<.03	<.1	<.1	<.2	<.18	<.1	<.1	<.06

DOMESTIC WELLS—Continued

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

[(82625), USGS National Water Information System parameter code; µg/L, micrograms per liter; E, estimated <, concentration or value reported is less than that indicated]

Local well number	Dibromo- chloro- propane, water, unfltrd, µg/L (82625)	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)
BU-1101	<.5	<.04	<.05	<.1	<.03	<.04	<.03	<.1	<.03
CH-103	<.5	<.04	<.05	<.1	<.03	<.04	<.03	<.1	<.03
MI-203	<.5	<.04	<.05	<.1	<.03	<.04	<.03	<.1	<.03
MT-1255	<.5	<.04	<.05	<.1	<.03	<.04	<.03	<.1	<.03
W-52	<.5	<.04	<.05	<.1	<.03	<.04	<.03	<.1	<.03

Local well number	2,2-Di- chloro- propane, water, unfltrd, µg/L (77170)	2- Chloro- toluene, water, unfltrd, µg/L (77275)	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)
BU-1101	<.05	<.04	<.06	<.50	<.05	<.08	<6	<.8	<.02
CH-103	<.05	<.04	<.06	<.50	<.05	<.08	<6	<.8	<.02
MI-203	<.05	<.04	<.06	<.50	<.05	<.08	<6	<.8	<.02
MT-1255	<.05	<.04	<.06	<.50	<.05	<.08	<6	<.8	<.02
W-52	<.05	<.04	<.06	<.50	<.05	<.08	<6	<.8	<.02

Local well number	Bromo- benzene, water, unfltrd, µg/L (81555)	Bromo- chloro- methane, water, unfltrd, µg/L (77297)	Bromo- di- chloro- methane, water, unfltrd, µg/L (32101)	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)
BU-1101	<.03	<.12	<.03	<.1	<.3	<.04	<.03	<.1	<.2
CH-103	<.03	<.12	<.03	<.1	<.3	E.02	<.03	<.1	<.2
MI-203	<.03	<.12	<.03	<.1	<.3	<.04	<.03	<.1	<.2
MT-1255	<.03	<.12	<.03	<.1	<.3	<.04	<.03	<.1	<.2
W-52	<.03	<.12	<.03	<.1	<.3	<.04	<.03	<.1	E.1

DOMESTIC WELLS—Continued

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

[(77093), USGS National Water Information System parameter code; µg/L, micrograms per liter; <, concentration or value reported is less than that indicated]

Local well number	cis-1,2-Dichloroethene, water, unfltrd, µg/L (77093)	cis-1,3-Dichloropropene, water, unfltrd, µg/L (34704)	Di-bromochloromethane, water, unfltrd, µg/L (32105)	Di-bromomethane, water, unfltrd, µg/L (30217)	Di-chloro-di-fluoromethane, water, unf, µg/L (34668)	Di-chloromethane, water, unfltrd, µg/L (34423)	Di-ethyl ether, water, unfltrd, µg/L (81576)	Diiso-propyl ether, water, unfltrd, µg/L (81577)	Ethyl methacrylate, water, unfltrd, µg/L (73570)
BU-1101	<.02	<.05	<.1	<.05	<.18	<.1	<.1	<.10	<.2
CH-103	<.02	<.05	<.1	<.05	<.18	<.1	<.1	<.10	<.2
MI-203	<.02	<.05	<.1	<.05	<.18	<.1	<.1	<.10	<.2
MT-1255	<.02	<.05	<.1	<.05	<.18	<.1	<.1	<.10	<.2
W-52	<.02	<.05	<.1	<.05	<.18	<.1	<.1	<.10	<.2

Local well number	Ethyl methyl ketone, water, unfltrd, µg/L (81595)	Ethylbenzene, water, unfltrd, µg/L (34371)	Hexachlorobutadiene, water, unfltrd, µg/L (39702)	Hexachloroethane, water, unfltrd, µg/L (34396)	Iodomethane, water, unfltrd, µg/L (77424)	Iso-butyl methyl ketone, water, unfltrd, µg/L (78133)	Iso-propylbenzene, water, unfltrd, µg/L (77223)	Methyl acrylonitrile, water, unfltrd, µg/L (81593)	Methyl acrylate, water, unfltrd, µg/L (49991)
BU-1101	<2.0	<.03	<.1	<.1	<.50	<.4	<.04	<.4	<1.0
CH-103	<2.0	<.03	<.1	<.1	<.50	<.4	<.04	<.4	<1.0
MI-203	<2.0	<.03	<.1	<.1	<.50	<.4	<.04	<.4	<1.0
MT-1255	<2.0	<.03	<.1	<.1	<.50	<.4	<.04	<.4	<1.0
W-52	<2.0	<.03	<.1	<.1	<.50	<.4	<.04	<.4	<1.0

Local well number	Methyl methacrylate, water, unfltrd, µg/L (81597)	Methyl tert-pentyl ether, water, unfltrd, µg/L (50005)	meta+ para-Xylene, water, unfltrd, µg/L (85795)	Naphthalene, water, unfltrd, µg/L (34696)	Methyl n-butyl ketone, water, unfltrd, µg/L (77103)	n-Butyl benzene, water, unfltrd, µg/L (77342)	n-propylbenzene, water, unfltrd, µg/L (77224)	o-Xylene, water, unfltrd, µg/L (77135)	sec-Butylbenzene, water, unfltrd, µg/L (77350)
BU-1101	<.2	<.04	<.06	<.5	<.4	<.1	<.04	<.04	<.06
CH-103	<.2	<.04	<.06	<.5	<.4	<.1	<.04	<.04	<.06
MI-203	<.2	<.04	<.06	<.5	<.4	<.1	<.04	<.04	<.06
MT-1255	<.2	<.04	<.06	<.5	<.4	<.1	<.04	<.04	<.06
W-52	<.2	<.04	<.06	<.5	<.4	<.1	<.04	<.04	<.06

DOMESTIC WELLS—Continued

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

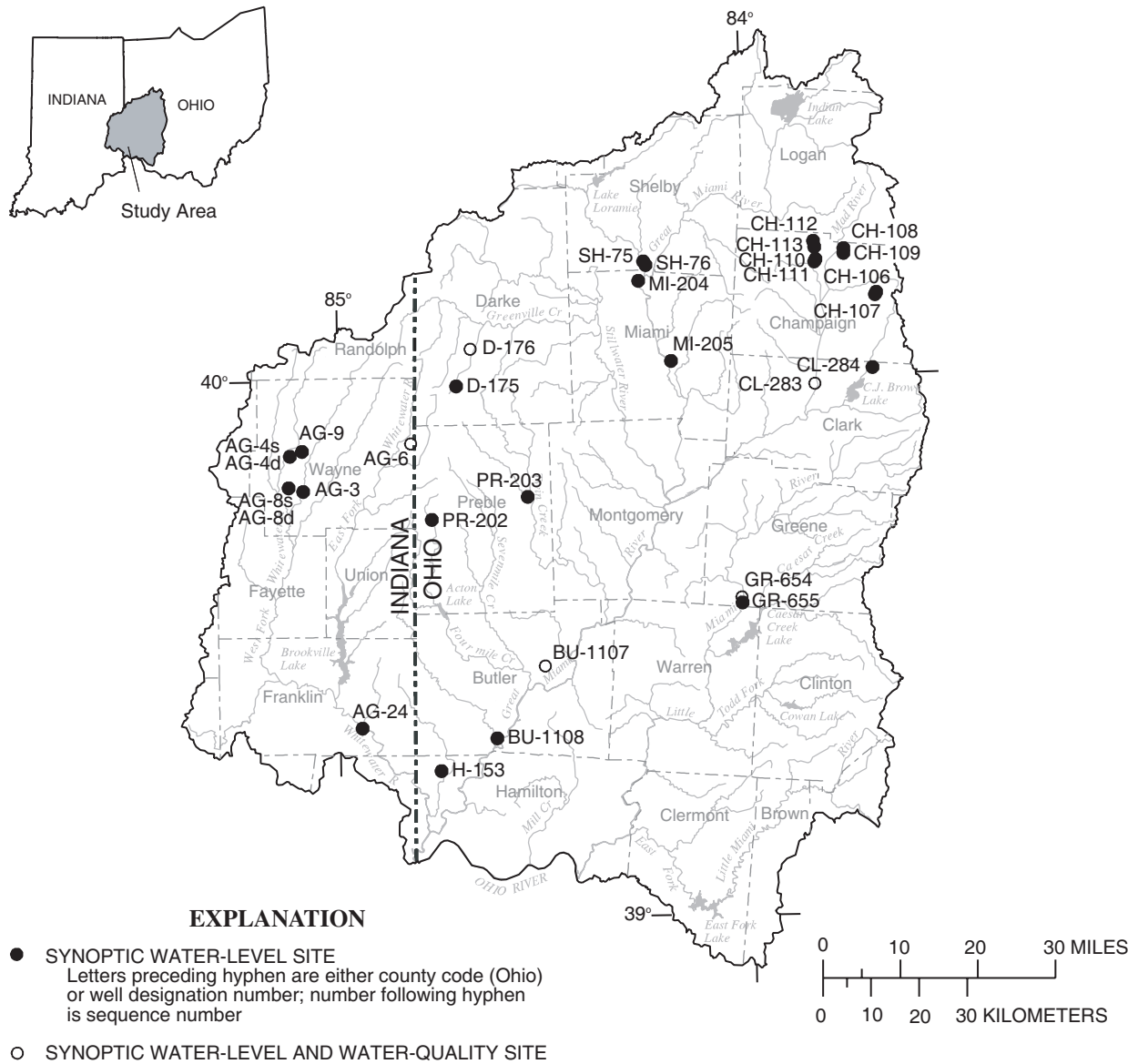
[77128], USGS National Water Information System parameter code; µg/L, micrograms per liter; <, concentration or value reported is less than that indicated]

Local well number	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)	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)
BU-1101	<.04	<.03	<.1	<.06	<.03	<.06	<1	<.02	<.03
CH-103	<.04	<.03	<.1	<.06	<.03	<.06	<1	<.02	<.03
MI-203	<.04	<.03	<.1	<.06	<.03	<.06	<1	<.02	<.03
MT-1255	<.04	<.03	<.1	<.06	<.03	<.06	<1	<.02	<.03
W-52	<.04	<.03	<.1	<.06	<.03	<.06	<1	<.02	<.03

Local well number	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)	Di-chlor-vo-s, water, fltrd, µg/L (38775)	Uranium, natural, water, fltrd, µg/L (22703)
BU-1101	<.09	<.7	<.10	<.04	<.08	<.02	<.1	<.01	.37
CH-103	<.09	<.7	<.10	<.04	<.08	<.02	<.1	<.01	.59
MI-203	<.09	<.7	<.10	<.04	<.08	<.02	<.1	<.01	1.55
MT-1255	<.09	<.7	<.10	<.04	<.08	<.02	<.1	<.01	1.94
W-52	<.09	<.7	<.10	<.04	<.08	<.02	<.1	<.01	.70

SHALLOW MONITOR WELLS IN AGRICULTURAL AREAS

During 2000, water-level and water-quality data were collected from a network of 34 shallow monitor wells in agricultural areas overlying glacial valley-fill deposits (Shindel and others, 2001). During 2005, water levels were measured in 31 of the 34 wells. In addition, five of the wells were sampled for water-quality constituents (field parameters, major ions, nutrients, trace elements, pesticides, and other organic compounds).



SHALLOW MONITOR WELLS IN AGRICULTURAL AREAS—Continued

[Water levels known to have been measured after a well had been recently pumped are designated with an asterisk (*)]

Station number	Local well number	Map location name	Altitude of land surface datum (feet)	Well depth (feet)	Water-level date	Water-level time	Water level, below land surface (feet)
BUTLER COUNTY, OHIO							
392018084371800	BU-1108	Shandon, Ohio	560	42	07-12-2005	1741	16.49
392756084300900	BU-1107	Trenton, Ohio	640	42	07-12-2005	1622	21.33
CHAMPAIGN COUNTY, OHIO							
400850083404700	CH-106	Kingscreek, Ohio	1,145	27	07-21-2005	1528	14.27
400850083404701	CH-107	Kingscreek, Ohio	1,145	53	07-21-2005	1536	14.24
401240083492600	CH-110	Northville, Ohio	1,052	20	07-21-2005	1230	14.96
401240083492601	CH-111	Northville, Ohio	1,052	49	07-21-2005	1231	14.68
401307083450600	CH-108	Northville, Ohio	1,072	18	07-21-2005	1421	6.69
401307083450601	CH-109	Northville, Ohio	1,072	49	07-21-2005	1427	6.97
401359083493100	CH-112	Northville, Ohio	1,079	27	07-21-2005	1348	18.07
401359083493101	CH-113	Northville, Ohio	1,079	45	07-21-2005	1528	14.27
CLARK COUNTY, OHIO							
395849083494501	CL-283	Springfield, Ohio	930	35	07-25-2005	1148	11.63
400019083412000	CL-284	Urbana East, Ohio	1,030	11	07-25-2005	1322	5.14
DARKE COUNTY, OHIO							
395911084422700	D-175	New Madison, Ohio	1,100	19	07-20-2005	1407	14.78
400320084402400	D-176	Greenville West, Ohio	1,018	24	07-20-2005	1622	5.16*
GREENE COUNTY, OHIO							
393421084003300	GR-654	Waynesville, Ohio	710	25	07-12-2005	1152	21.77
393421084003301	GR-655	Waynesville, Ohio	710	55	07-12-2005	1136	41.12
HAMILTON COUNTY, OHIO							
391636084452800	H-153	Harrison, Ohio	570	40	07-13-2005	1006	30.26
MIAMI COUNTY, OHIO							
400145084106000	MI-205	Troy, Ohio	820	24	07-20-2005	1019	6.04
401040084154000	MI-204	Piqua West, Ohio	890	32	07-20-2005	1124	20.96
PREBLE COUNTY, OHIO							
394420084463001	PR-202	Fairhaven, Ohio	1,100	27	07-28-2005	1139	4.41*
394650084320300	PR-203	Lewisburg, Ohio	900	33	07-28-2005	0928	25.35
SHELBY COUNTY, OHIO							
401238084144400	SH-75	Piqua East, Ohio	890	20	07-20-2005	1217	DRY
401238084144401	SH-76	Piqua East, Ohio	890	43	07-20-2005	1227	19.71
FRANKLIN COUNTY, INDIANA							
392134084563200	AG-24	Cedar Grove, Indiana	600	50	07-13-2005	1525	34.82
WAYNE COUNTY, INDIANA							
394745085051300	AG-3	Jacksonburg, Indiana	960	46	07-28-2005	1632	36.55*
394759085071000	AG-8s	Jacksonburg, Indiana	938	18	07-29-2005	1244	11.89
394759085071001	AG-8d	Jacksonburg, Indiana	938	45	07-29-2005	1254	9.78
395135085070000	AG-4s	Jacksonburg, Indiana	995	20	07-29-2005	1032	9.41
395135085070001	AG-4d	Jacksonburg, Indiana	995	47	07-29-2005	1219	17.89*
395213085052200	AG-9	Jacksonburg, Indiana	1,008	15	07-28-2005	1551	10.04*
395248084491600	AG-6	Whitewater, Indiana	1,068	18	07-28-2005	1224	1.81*

SHALLOW MONITOR WELLS IN AGRICULTURAL AREAS—Continued

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

[72008), USGS National Water Information System parameter code; LSD, land-surface datum; NTU, nephelometric turbidity units, $\mu\text{S}/\text{cm}$, microsiemens per centimeter; deg C, degrees Celsius; std, standard; mg/L, milligrams per liter; $\mu\text{g}/\text{L}$, micrograms per liter; R, data value under review and subject to revision]

Station number	Local well number	Date	Time	Depth of well, feet below LSD (72008)	Depth to water level, feet below LSD (72019)	Altitude of land surface, feet (72000)	Sampling depth, feet (00003)
392756084300900	BU-1107	08-05-05	1300	42	22.35	640	35
395849083494501	CL-283	08-08-05	1400	35	12.12	930	25
400320084402400	D-176	08-11-05	1500	24	5.53	1018	15
393421084003300	GR-654	08-08-05	1100	25	22.09	710	24
395248084491600	AG-6	08-10-05	1300	18	2.41	1068	15

Local well number	Turbidity, water, unftrd, field, NTU (61028)	Dissolved oxygen, mg/L (00300)	pH, water, unftrd, field, std units (00400)	pH, water, unftrd, lab, std units (00403)	Specif. conductance, water, unf, lab, $\mu\text{S}/\text{cm}$ 25 degC (90095)	Specif. conductance, water, unf, $\mu\text{S}/\text{cm}$ 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)
BU-1107	2.4	7.2	7.0	7.1	792	759	33.0	13.8	108
CL-283	1.2	6.0	7.2	7.5	653	603	31.5	13.3	96.4
D-176	4.4	3.9	7.1	7.3	1140	771	33.5	22.2	135
GR-654	4.8	9.5	7.2	7.2	572	484	27.0	13.9	80.4
AG-6	6.4	1.8	8.1	8.4	544	509	28.5	20.8	42.4

Local well number	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Alkalinity, water, flt, inc. titr., field, mg/L as CaCO_3 (39086)	Bicarbonate, water, flt, incrm. titr., field, mg/L (00453)	Carbonate, water, flt, incrm. titr., field, mg/L (00452)	Hydroxide, water, flt, incrm. titr., field, mg/L (71834)	Bromide water, fltrd, mg/L (71870)	Chloride, water, fltrd, mg/L (00940)
BU-1107	33.9	2.48	14.2	276	336	.0	.0	R.17	39.9
CL-283	29.5	1.33	3.79	272	331	.0	.0	R.15	10.3
D-176	68.6	3.95	31.7	357	435	.0	.0	R.24	26.2
GR-654	28.9	.63	2.12	268	326	.0	.0	R.15	4.52
AG-6	18.8	1.72	44.0	118	142	1	.0	R.14	2.90

SHALLOW MONITOR WELLS IN AGRICULTURAL AREAS—Continued

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

[(00950), USGS National Water Information System parameter code; deg C, degrees Celsius; mg/L, milligrams per liter; µg/L, micrograms per liter; U, undetected; E, estimated; <, concentration or value reported is less than that indicated]

Local well number	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)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Total nitrogen, water, flt, by analysis, mg/L (62854)
BU-1107	.2	10.1	36.2	475	<.04	10.3	<.008	.028	10.2
CL-283	.2	8.46	23.9	398	<.04	7.42	<.008	<.006	7.42
D-176	1.3	19.9	234	780	.10	E.05	<.008	<.006	.19
GR-654	<.2	10.2	12.8	334	<.04	2.38	<.008	<.006	2.51
AG-6	2.5	10.8	145	372	.18	<.06	<.008	<.006	.30

Local well number	Aluminum, water, fltrd, µg/L (01106)	Anti-mony, 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)
BU-1107	<2	<.20	.5	54	<.06	27	<.04	<.8	.176
CL-283	<2	<.20	.3	128	<.06	25	<.04	<.8	.127
D-176	<16	<.20	.8	29	<.06	95	.06	<.8	.171
GR-654	<2	<.20	E.1	34	<.06	14	<.04	<.8	.106
AG-6	17	<.20	3.6	37	<.06	291	.41	1.1	.156

Local well number	Copper, water, fltrd, µg/L (01040)	Hydrogen sulfide, water, unfltrd, mg/L (71875)	Iron, water, fltrd, µg/L (01046)	Lead, water, fltrd, µg/L (01049)	Lithium, water, fltrd, µg/L (01130)	Manganese, water, fltrd, µg/L (01056)	Molybdenum, water, fltrd, µg/L (01060)	Nickel, water, fltrd, µg/L (01065)	Selenium, water, fltrd, µg/L (01145)
BU-1107	3.1	U	<6	.11	2.0	<.2	E.3	3.79	.4
CL-283	2.8	U	<6	.17	1.8	<.2	1.4	2.41	3.5
D-176	3.1	U	<6	<.08	18.4	1.9	17.2	3.74	<.4
GR-654	3.0	U	<6	<.08	E.5	<.2	<.4	2.03	E.3
AG-6	2.4	U	<6	E.05	18.9	36.5	178	1.90	<.4

SHALLOW MONITOR WELLS IN AGRICULTURAL AREAS—Continued

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

[(01075), USGS National Water Information System parameter code; µg/L, micrograms per liter; E, estimated; <, concentration or value reported is less than that indicated]

Local well number	Silver, water, fltrd, µg/L (01075)	Strontium, water, fltrd, µg/L (01080)	Thallium, water, fltrd, µg/L (01057)	Vanadium, water, fltrd, µg/L (01085)	Zinc, water, fltrd, µg/L (01090)	1-Naphthol, water, fltrd, 0.7µ GF µg/L (49295)	2,4-D methyl ester, water, fltrd, µg/L (50470)	2,4-D, water, fltrd, µg/L (39732)	2,4-DB, water, fltrd, 0.7µ GF µg/L (38746)
BU-1107	<.2	205	<.04	.6	1.0	<.09	<.016	<.04	<.02
CL-283	<.2	473	<.04	1.3	E.6	<.09	<.016	<.04	<.02
D-176	<.2	13400	E.03	.7	11.1	<.09	<.050	<.04	<.02
GR-654	<.2	70.6	<.04	1.4	E.3	<.09	<.016	<.04	<.02
AG-6	<.2	16000	<.04	.5	1.4	<.09	<.050	<.04	<.02

Local well number	2,6-Diethyl-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)	CEAT, water, fltrd, µg/L (04038)	2-Ethyl-6-methyl-aniline, water, fltrd, µg/L (61620)	OIET, water, fltrd, µg/L (50355)	3,4-Di-chloro-aniline, water, fltrd, µg/L (61625)	3,5-Di-chloro-aniline, water, fltrd, µg/L (61627)	3-Hydroxy carbo-furan, water, flt, 0.7µ GF µg/L (49308)
BU-1107	<.006	<.005	E.008	<.08	<.004	<.032	<.004	<.004	<.008
CL-283	<.006	<.005	<.006	<.08	<.004	<.032	<.004	<.004	<.008
D-176	<.006	<.005	<.006	<.08	<.004	<.032	<.004	<.004	<.008
GR-654	<.006	<.005	<.006	<.08	<.004	<.032	<.004	<.004	<.008
AG-6	<.006	<.005	<.006	<.08	<.004	<.032	<.004	<.004	<.008

Local well number	3-Keto-carbo-furan, water, fltrd, µg/L (50295)	4-Chloro-2-methyl phenol, water, fltrd, µg/L (61633)	Aceto-chlor, water, fltrd, µg/L (49260)	Aci-fluor-fen, water, fltrd, 0.7µ GF µg/L (49315)	Ala-chlor, water, fltrd, µg/L (46342)	Aldi-carb sulfone water, fltrd, 0.7µ GF µg/L (49313)	Aldi-carb sulf-oxide, water, flt, 0.7µ GF µg/L (49314)	Aldi-carb, water, fltrd, 0.7µ GF µg/L (49312)	alpha-Endo-sulfan, water, fltrd, µg/L (34362)
BU-1107	<.02	<.006	<.006	<.028	<.005	<.02	<.022	<.04	<.005
CL-283	<.02	<.006	<.006	<.028	<.005	<.02	<.022	<.04	<.005
D-176	<.25	<.006	<.006	<.028	<.005	<.02	<.022	<.04	<.005
GR-654	<.02	<.006	<.006	<.028	<.005	<.02	<.022	<.04	<.005
AG-6	<.25	<.006	<.006	<.028	<.005	<.02	<.022	<.04	<.005

SHALLOW MONITOR WELLS IN AGRICULTURAL AREAS—Continued

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

[(39632), USGS National Water Information System parameter code; µg/L, micrograms per liter; E, estimated; <, concentration or value reported is less than that indicated]

Local well number	Atrazine, 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)	Bendio-carb, water, fltrd, µg/L (50299)	Ben-flur-alin, water, fltrd, 0.7µ GF µg/L (82673)	Benomyl, water, fltrd, µg/L (50300)	Bensul-furon, water, fltrd, µg/L (61693)	Ben-tazon, water, fltrd, 0.7µ GF µg/L (38711)	Broma-cil, water, fltrd, µg/L (04029)
BU-1107	<.007	<.07	<.050	<.02	<.010	<.022	<.02	<.01	<.02
CL-283	<.007	<.07	<.050	<.02	<.010	<.022	<.02	<.01	<.02
D-176	<.007	<.07	<.050	<.02	<.010	<.022	<.02	<.01	<.02
GR-654	<.007	<.07	<.050	<.02	<.010	<.022	<.02	<.01	<.02
AG-6	<.007	<.07	<.050	<.02	<.010	<.022	<.02	<.01	<.02

Local well number	Brom-oxynil, water, fltrd, 0.7µ GF µg/L (49311)	Caf-feine, water, fltrd, µg/L (50305)	Car-baryl, water, fltrd, 0.7µ GF µg/L (49310)	Car-baryl, water, fltrd, 0.7µ GF µg/L (82680)	Carbo-furan, water, fltrd, 0.7µ GF µg/L (49309)	Carbo-furan, water, fltrd, 0.7µ GF µg/L (82674)	Chlor-amben methyl ester, water, fltrd, µg/L (61188)	Chlori-muron, water, fltrd, µg/L (50306)	Chloro-di-amino-s-tri-azine, water, flt, µg/L (04039)
BU-1107	<.03	<.018	<.02	<.041	<.016	<.020	<.02	<.032	E.03
CL-283	<.03	<.018	<.02	<.041	<.016	<.020	<.02	<.032	<.02
D-176	<.03	<.018	<.02	<.041	<.016	<.020	<.05	<.032	<.04
GR-654	<.03	<.018	<.02	<.041	<.016	<.020	<.02	<.032	<.02
AG-6	<.03	<.018	<.02	<.041	<.016	<.020	<.05	<.032	<.04

Local well number	Chloro-thalo-nil, water, fltrd, 0.7µ GF µg/L (49306)	Chlor-pyri-fos oxon, water, fltrd, µg/L (61636)	Chlor-pyri-fos, 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)	Clopyr-alid, water, fltrd, 0.7µ GF µg/L (49305)	Cyana-zine, water, fltrd, µg/L (04041)	Cyclo-ate, water, fltrd, µg/L (04031)	Cyflu-thrin, water, fltrd, µg/L (61585)
BU-1107	<.04	<.06	<.005	<.006	<.008	<.02	<.018	<.01	<.027
CL-283	<.04	<.06	<.005	<.006	<.008	<.02	<.018	<.01	<.027
D-176	<.04	<.06	<.005	<.006	<.008	<.02	<.018	<.05	<.027
GR-654	<.04	<.06	<.005	<.006	<.008	<.02	<.018	<.01	<.027
AG-6	<.04	<.06	<.005	<.006	<.008	<.02	<.018	<.05	<.027

SHALLOW MONITOR WELLS IN AGRICULTURAL AREAS—Continued

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

[(61595), USGS National Water Information System parameter code; µg/L, micrograms per liter; E, estimated; <, concentration or value reported is less than that indicated]

Local well number	lambda-Cyhalothrin, water, fltrd, µg/L (61595)	Cypermethrin, water, fltrd, µg/L (61586)	Dacthal mono-acid, water, fltrd, 0.7µ GF µg/L (49304)	DCPA, water, fltrd, 0.7µ GF µg/L (82682)	Desulf-inyl fipro-nil, water, fltrd, µg/L (62170)	Diazi-non, water, fltrd, µg/L (39572)	Dicamba, water, fltrd, 0.7µ GF µg/L (38442)	Di-chlor-prop, water, fltrd, 0.7µ GF µg/L (49302)	Dicro-tophos, water, fltrd, µg/L (38454)
BU-1107	<.009	<.009	<.03	<.003	<.012	<.005	<.04	<.03	<.08
CL-283	<.009	<.009	<.03	<.003	<.012	<.005	<.04	<.03	<.08
D-176	<.009	<.009	<.03	<.003	<.012	<.005	<.04	<.03	<.08
GR-654	<.009	<.009	<.03	<.003	<.012	<.005	<.04	<.03	<.08
AG-6	<.009	<.009	<.03	<.003	<.012	<.005	<.04	<.03	<.08

Local well number	Diel-drin, water, fltrd, µg/L (39381)	Dimeth-oate, water, fltrd, 0.7µ GF µg/L (82662)	Dinoseb water, fltrd, 0.7µ GF µg/L (49301)	Diphen-amid, water, fltrd, µg/L (04033)	Disulf-oton sulfone, water, fltrd, µg/L (61640)	Disul-foton, water, fltrd, 0.7µ GF µg/L (82677)	Diuron, water, fltrd, 0.7µ GF µg/L (49300)	Endo-sulfan sulfate, water, fltrd, µg/L (61590)	EPTC, water, fltrd, 0.7µ GF µg/L (82668)
BU-1107	<.009	<.006	<.04	<.01	<.01	<.02	<.01	<.014	<.004
CL-283	<.009	<.006	<.04	<.01	<.01	<.02	<.01	<.014	<.004
D-176	<.009	<.006	<.04	<.01	<.01	<.02	<.02	<.014	<.004
GR-654	<.009	<.006	<.04	<.01	<.01	<.02	<.01	<.014	<.004
AG-6	<.009	<.006	<.04	<.01	<.01	<.02	<.02	<.014	<.004

Local well number	Ethion monoxon, water, fltrd, µg/L (61644)	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)	Fenuron, water, fltrd, 0.7µ GF µg/L (49297)	Desulf-inyl-fipro-nil amide, water, flt, µg/L (62169)	Fipro-nil sulfide, water, fltrd, µg/L (62167)
BU-1107	<.002	<.004	<.005	<.049	<.04	<.03	<.02	<.029	<.013
CL-283	<.002	<.004	<.005	<.049	<.04	<.03	<.03	<.029	<.013
D-176	<.002	<.004	<.005	<.049	<.04	<.03	<.02	<.029	<.013
GR-654	<.002	<.004	<.005	<.049	<.04	<.03	<.03	<.029	<.013
AG-6	<.002	<.004	<.005	<.049	<.04	<.03	E.01	<.029	<.013

SHALLOW MONITOR WELLS IN AGRICULTURAL AREAS—Continued

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

[(62168), USGS National Water Information System parameter code; µg/L, micrograms per liter; --, not reported; <, concentration or value reported is less than that indicated]

Local well number	Fipro-nil sulfone, water, fltrd, µg/L (62168)	Fipro-nil, water, fltrd, µg/L (62166)	Flumet-sulam, water, fltrd, µg/L (61694)	Fluo-meturon, water, fltrd, 0.7µ GF µg/L (38811)	Fonofos water, fltrd, µg/L (04095)	Hexa-zinone, water, fltrd, µg/L (04025)	Imaza-quin, water, fltrd, µg/L (50356)	Imaze-thapyr, water, fltrd, µg/L (50407)	Imida-cloprid, water, fltrd, µg/L (61695)
BU-1107	<.024	<.016	<.04	<.02	<.003	<.013	<.04	<.04	<.020
CL-283	<.024	<.016	<.04	<.02	<.003	<.013	<.04	<.04	<.020
D-176	<.024	<.016	<.04	<.02	<.003	<.013	<.04	<.04	<.020
GR-654	<.024	<.016	<.04	<.02	<.003	<.013	<.04	<.04	<.020
AG-6	<.024	<.016	<.04	<.02	<.003	<.013	<.04	<.04	<.020

Local well number	Ipro-dione, water, fltrd, µg/L (61593)	Isofen-phos, water, fltrd, µg/L (61594)	Linuron, water, fltrd, 0.7µ GF µg/L (38478)	Mala-oxon, water, fltrd, µg/L (61652)	Mala-thion, water, fltrd, µg/L (39532)	MCPA, water, fltrd, 0.7µ GF µg/L (38482)	MCPB, water, fltrd, 0.7µ GF µg/L (38487)	Meta-laxyl, water, fltrd, µg/L (50359)	Meta-laxyl, water, fltrd, µg/L (61596)
BU-1107	<.538	<.003	<.01	<.030	<.027	<.03	<.01	<.01	<.010
CL-283	<.538	<.003	<.01	<.030	<.027	<.03	<.01	<.01	<.005
D-176	<.538	<.003	<.01	<.030	<.027	--	<.01	<.01	<.005
GR-654	<.538	<.003	<.01	<.030	<.027	<.03	<.01	<.01	<.005
AG-6	<.538	<.003	<.01	<.030	<.027	--	<.01	<.01	<.005

Local well number	Methi-althion, water, fltrd, µg/L (61598)	Methio-carb, water, fltrd, 0.7µ GF µg/L (38501)	Meth-omyl, water, fltrd, 0.7µ GF µg/L (49296)	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)	Metri-buzin, water, fltrd, µg/L (82630)	Metsul-furon, water, fltrd, µg/L (61697)	Moli-nate, water, fltrd, 0.7µ GF µg/L (82671)
BU-1107	<.006	<.010	<.020	<.03	<.015	<.006	<.006	<.03	<.003
CL-283	<.006	<.010	<.020	<.03	<.015	<.006	<.006	<.03	<.003
D-176	<.006	<.010	<.020	<.03	<.015	<.006	<.006	<.07	<.003
GR-654	<.006	<.010	<.020	<.03	<.015	<.006	<.006	<.03	<.003
AG-6	<.006	<.010	<.020	<.03	<.015	<.006	<.006	<.07	<.003

SHALLOW MONITOR WELLS IN AGRICULTURAL AREAS—Continued

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

[(61599), USGS National Water Information System parameter code; µg/L, micrograms per liter; --, not reported; <, concentration or value reported is less than that indicated]

Local well number	Myclobutanol, water, fltrd, µg/L (61599)	N-(4-Chlorophenyl)-N'-methylurea, µg/L (61692)	Neburon, water, fltrd, 0.7µ GF µg/L (49294)	Nicosulfuron, water, fltrd, µg/L (50364)	Norflurazon, water, fltrd, 0.7µ GF µg/L (49293)	Oryzalin, water, fltrd, 0.7µ GF µg/L (49292)	Oxamyl, water, fltrd, 0.7µ GF µg/L (38866)	Oxyfluorfen, water, fltrd, µg/L (61600)	Pendimethalin, water, fltrd, 0.7µ GF µg/L (82683)
BU-1107	<.008	<.04	<.01	<.04	<.02	<.01	<.03	<.007	<.022
CL-283	<.008	<.04	<.01	<.04	<.02	<.01	<.03	<.007	<.022
D-176	<.008	<.04	<.01	<.04	<.02	<.01	<.03	<.007	<.022
GR-654	<.008	<.04	<.01	<.04	<.02	<.01	<.03	<.007	<.022
AG-6	<.008	<.04	<.01	<.04	<.02	<.01	<.03	<.007	<.022

Local well number	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)	Picloram, water, fltrd, 0.7µ GF µg/L (49291)	Prometon, water, fltrd, µg/L (04037)	Prometryn, water, fltrd, µg/L (04036)	Propyzamide, water, fltrd, 0.7µ GF µg/L (82676)	Propanil, water, fltrd, 0.7µ GF µg/L (82679)
BU-1107	<.10	<.011	<.05	<.008	<.03	<.01	<.005	<.004	<.011
CL-283	<.10	<.011	<.05	<.008	<.03	<.01	<.005	<.004	<.011
D-176	<.10	<.011	<.05	<.008	<.03	<.01	<.005	<.004	<.011
GR-654	<.10	<.011	<.05	<.008	<.03	<.01	<.005	<.004	<.011
AG-6	<.10	<.011	--	<.008	<.03	<.01	<.005	<.004	<.011

Local well number	Propargite, water, fltrd, 0.7µ GF µg/L (82685)	Propham, water, fltrd, 0.7µ GF µg/L (49236)	Propiconazole, water, fltrd, µg/L (50471)	Propoxur, water, fltrd, 0.7µ GF µg/L (38538)	Siduron, water, fltrd, µg/L (38548)	Simazine, water, fltrd, µg/L (04035)	Sulfometuron, water, fltrd, µg/L (50337)	Tebu-thiuron, water, fltrd, 0.7µ GF µg/L (82670)	Tefluthrin, water, fltrd, µg/L (61606)
BU-1107	<.02	<.030	<.01	<.008	<.02	<.005	<.038	<.02	<.008
CL-283	<.02	<.030	<.01	<.008	<.02	<.005	<.038	<.02	<.008
D-176	<.02	<.030	<.01	<.008	<.02	<.005	<.090	<.02	<.008
GR-654	<.02	<.030	<.01	<.008	<.02	<.005	<.038	<.02	<.008
AG-6	<.02	<.030	<.01	<.008	<.02	<.005	<.090	<.02	<.008

SHALLOW MONITOR WELLS IN AGRICULTURAL AREAS—Continued

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

[(04032), USGS National Water Information System parameter code; µg/L, micrograms per liter; <, concentration or value reported is less than that indicated]

Local well number	Terbacil, water, fltrd, µg/L (04032)	Terbufos oxon sulfone, water, fltrd, µg/L (61674)	Terbufos, water, fltrd, 0.7µ GF µg/L (82675)	Terbuthylazine, water, fltrd, µg/L (04022)	Thio-bencarb, water, fltrd, 0.7µ GF µg/L (82681)	trans-Propiconazole, water, fltrd, µg/L (79847)	Tribu-phos, water, fltrd, µg/L (61610)	Tri-clopyr, water, fltrd, 0.7µ GF µg/L (49235)	Tri-flur-alin, water, fltrd, 0.7µ GF µg/L (82661)
BU-1107	<.016	<.07	<.02	<.01	<.010	<.01	<.004	<.03	<.009
CL-283	<.016	<.07	<.02	<.01	<.010	<.01	<.004	<.03	<.009
D-176	<.016	<.07	<.02	<.01	<.010	<.01	<.004	<.03	<.009
GR-654	<.016	<.07	<.02	<.01	<.010	<.01	<.004	<.03	<.009
AG-6	<.016	<.07	<.02	<.01	<.010	<.01	<.004	<.03	<.009

Local well number	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)	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)
BU-1107	<.03	<.03	<.08	<.04	<.04	<.04	<.02	<.03	<.1
CL-283	<.03	<.03	<.08	<.04	<.04	<.04	<.02	<.03	<.1
D-176	<.03	<.03	<.08	<.04	<.04	<.04	<.02	<.03	<.1
GR-654	<.03	<.03	<.08	<.04	<.04	<.04	<.02	<.03	<.1
AG-6	<.03	<.03	<.08	<.04	<.04	<.04	<.02	<.03	<.1

Local well number	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)	1,2-Di-bromo-ethane, water, unfltrd, µg/L (77651)	1,2-Di-chloro-benzene, water, unfltrd, µg/L (34536)
BU-1107	<.1	<.2	<.18	<.1	<.1	<.06	<.5	<.04	<.05
CL-283	<.1	<.2	<.18	<.1	<.1	<.06	<.5	<.04	<.05
D-176	<.1	<.2	<.18	<.1	<.1	<.06	<.5	<.04	<.05
GR-654	<.1	<.2	<.18	<.1	<.1	<.06	<.5	<.04	<.05
AG-6	<.1	<.2	<.18	<.1	<.1	<.06	<.5	<.04	<.05

SHALLOW MONITOR WELLS IN AGRICULTURAL AREAS—Continued

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

[(32103), USGS National Water Information System parameter code; µg/L, micrograms per liter; E, estimated; <, concentration or value reported is less than that indicated]

Local well number	1,2-Di-chloro-ethane, water, unfltrd, µg/L (32103)	1,2-Di-chloro-ethane-d, sur, Sch2090, water, unfltrd, pct rcv (99832)	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)
BU-1107	<.1	98.7	<.03	<.04	<.03	<.1	<.03	<.05	<.04
CL-283	<.1	137	<.03	<.04	<.03	<.1	<.03	<.05	<.04
D-176	<.1	112	<.03	<.04	<.03	<.1	<.03	<.05	<.04
GR-654	<.1	137	<.03	<.04	<.03	<.1	<.03	<.05	<.04
AG-6	<.1	108	<.03	<.04	<.03	<.1	<.03	<.05	<.04

Local well number	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)
BU-1107	<.06	<.50	<.05	<.08	<6	<.8	<.02	<.03	<.12
CL-283	<.06	<.50	<.05	<.08	<6	<.8	<.02	<.03	<.12
D-176	<.06	<.50	<.05	<.08	E2	<.8	<.02	<.03	<.12
GR-654	<.06	<.50	<.05	<.08	<6	<.8	<.02	<.03	<.12
AG-6	<.06	<.50	<.05	<.08	<6	<.8	E.02	<.03	<.12

Local well number	Bromo-di-chloro-methane, water, unfltrd, µg/L (32101)	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)
BU-1107	<.03	<.1	<.3	<.04	<.03	<.1	<.2	<.02	<.05
CL-283	<.03	<.1	<.3	<.04	<.03	<.1	<.2	<.02	<.05
D-176	<.03	<.1	<.3	.18	E.01	<.1	<.2	<.02	<.05
GR-654	<.03	<.1	<.3	<.04	<.03	<.1	<.2	<.02	<.05
AG-6	<.03	<.1	<.3	E.10	<.03	<.1	<.2	<.02	<.05

SHALLOW MONITOR WELLS IN AGRICULTURAL AREAS—Continued

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

[(32105), USGS National Water Information System parameter code; µg/L, micrograms per liter; <, concentration or value reported is less than that indicated]

Local well number	Di-bromo-chloro-methane, water, unfltrd, µg/L (32105)	Di-bromo-methane, water, unfltrd, µg/L (30217)	Di-chloro-di-fluoro-methane, water, unfltrd, µg/L (34668)	Di-chloro-methane, water, unfltrd, µg/L (34423)	Di-ethyl ether, water, unfltrd, µg/L (81576)	Diiso-propyl ether, water, unfltrd, µg/L (81577)	Ethyl methacrylate, water, unfltrd, µg/L (73570)	Ethyl methyl ketone, water, unfltrd, µg/L (81595)	Ethyl-benzene, water, unfltrd, µg/L (34371)
BU-1107	<.1	<.05	<.18	<.1	<.1	<.10	<.2	<.2.0	<.03
CL-283	<.1	<.05	<.18	<.1	<.1	<.10	<.2	<.2.0	<.03
D-176	<.1	<.05	<.18	<.1	<.1	<.10	<.2	<.2.0	<.03
GR-654	<.1	<.05	<.18	<.1	<.1	<.10	<.2	<.2.0	<.03
AG-6	<.1	<.05	<.18	<.1	<.1	<.10	<.2	<.2.0	<.03
Local well number	Hexa-chloro-buta-diene, water, unfltrd, µg/L (39702)	Hexa-chloro-ethane, water, unfltrd, µg/L (34396)	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)
BU-1107	<.1	<.1	<.50	<.4	<.04	<.4	<.1.0	<.2	<.04
CL-283	<.1	<.1	<.50	<.4	<.04	<.4	<.1.0	<.2	<.04
D-176	<.1	<.1	<.50	<.4	<.04	<.4	<.1.0	<.2	<.04
GR-654	<.1	<.1	<.50	<.4	<.04	<.4	<.1.0	<.2	<.04
AG-6	<.1	<.1	<.50	<.4	<.04	<.4	<.1.0	<.2	<.04
Local well number	meta-+ para-Xylene, water, unfltrd, µg/L (85795)	Naphth-alene, water, unfltrd, µg/L (34696)	Methyl n-butyl ketone, water, unfltrd, µg/L (77103)	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)
BU-1107	<.06	<.5	<.4	<.1	<.04	<.04	<.06	<.04	<.03
CL-283	<.06	<.5	<.4	<.1	<.04	<.04	<.06	<.04	<.03
D-176	<.06	<.5	<.4	<.1	<.04	<.04	<.06	<.04	<.03
GR-654	<.06	<.5	<.4	<.1	<.04	<.04	<.06	<.04	<.03
AG-6	<.06	<.5	<.4	<.1	<.04	<.04	<.06	<.04	<.03

SHALLOW MONITOR WELLS IN AGRICULTURAL AREAS—Continued

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

[(78032), USGS National Water Information System parameter code; µg/L, micrograms per liter; E, estimated; <, concentration or value reported is less than that indicated]

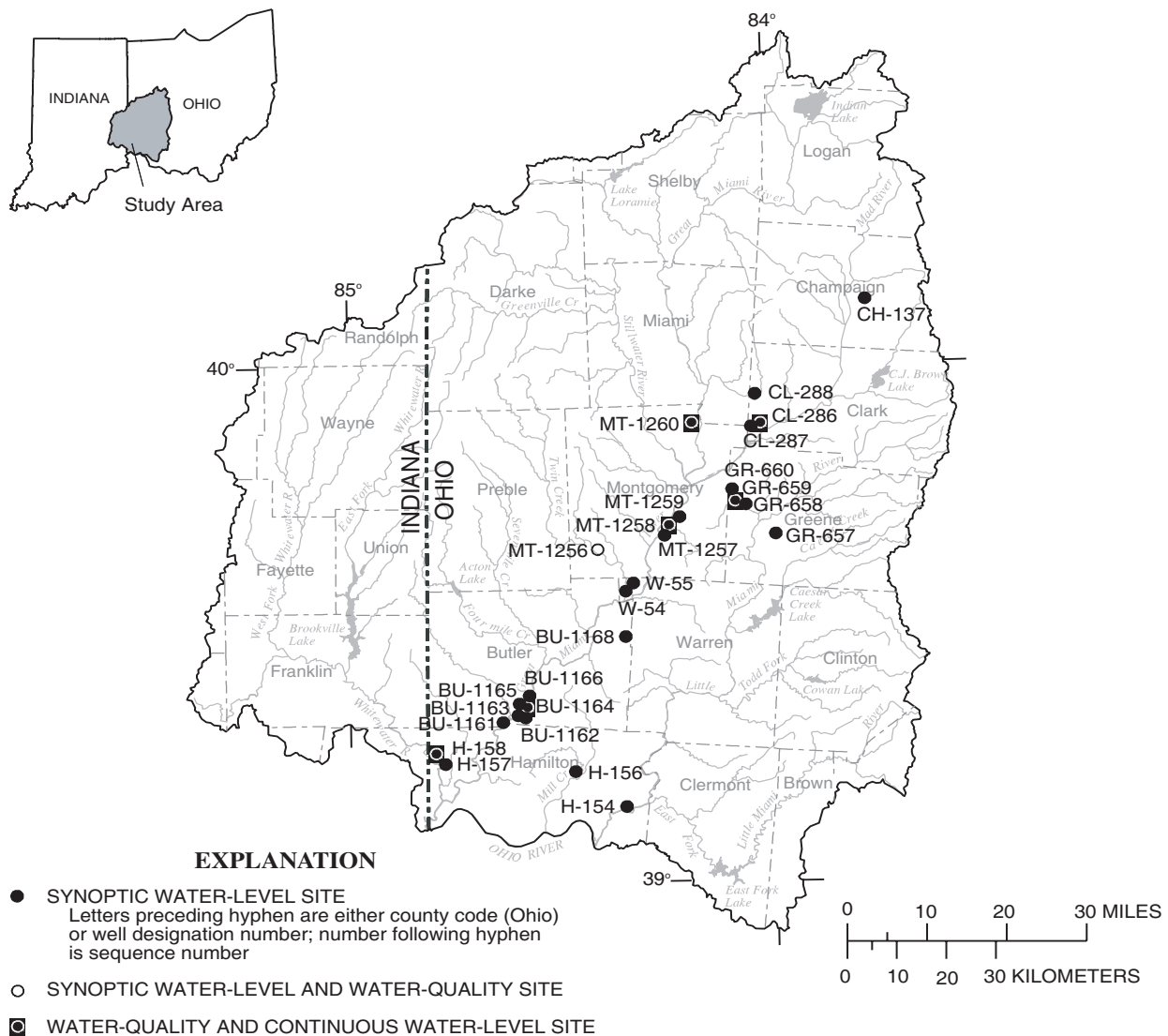
Local well number	Methyl t-butyl ether, water, unfltrd, µg/L (78032)	tert-Butylbenzene, water, unfltrd, µg/L (77353)	Tetrachloroethene, water, unfltrd, µg/L (34475)	Tetrachloromethane, water, unfltrd, µg/L (32102)	Tetrahydrofuran, water, unfltrd, µg/L (81607)	Toluene, water, unfltrd, µg/L (34010)	trans-1,2-Dichloroethene, water, unfltrd, µg/L (34546)	trans-1,3-Dichloropropene, water, unfltrd, µg/L (34699)	trans-1,4-Dichloro-2-butene, water, unf, µg/L (73547)
BU-1107	<.1	<.06	<.03	<.06	<.1	<.02	<.03	<.09	<.7
CL-283	<.1	<.06	<.03	<.06	<.1	<.02	<.03	<.09	<.7
D-176	<.1	<.06	<.03	<.06	<.1	<.02	<.03	<.09	<.7
GR-654	<.1	<.06	<.03	<.06	<.1	<.02	<.03	<.09	<.7
AG-6	<.1	<.06	<.03	<.06	<.1	E.01	<.03	<.09	<.7

Local well number	Tri-bromomethane, water, unfltrd, µg/L (32104)	Tri-chloroethene, water, unfltrd, µg/L (39180)	Tri-chloro-fluoro-methane, water, unfltrd, µg/L (34488)	Tri-chloro-methane, water, unfltrd, µg/L (32106)	Vinyl chloride, water, unfltrd, µg/L (39175)	Di-chlorvos, water, fltrd, µg/L (38775)	Uranium, natural, water, fltrd, µg/L (22703)
BU-1107	<.10	<.04	<.08	<.02	<.1	<.01	.30
CL-283	<.10	<.04	<.08	<.02	<.1	<.01	2.82
D-176	<.10	<.04	<.08	E.03	<.1	<.01	2.95
GR-654	<.10	<.04	<.08	<.02	<.1	<.01	.27
AG-6	<.10	<.04	<.08	<.02	<.1	<.01	1.00

SHALLOW MONITOR WELLS IN RESIDENTIAL AREAS

During 2001, water-level and water-quality data were collected from a network of 25 shallow monitor wells in residential areas overlying glacial valley-fill deposits (Shindel and others, 2002). Data were also collected from two “reference” wells (MT-1256 and MT-1260), which are shallow monitor wells that were installed in areas where ground-water quality was presumed to be minimally influenced by human activities.

During 2005, seven wells (five residential wells and two reference wells) were sampled for water-quality constituents (field parameters, major ions, nutrients, trace elements, pesticides, and other organic compounds).



SHALLOW MONITOR WELLS IN RESIDENTIAL AREAS—Continued

[Water level affected by pressure release when well cap was removed is designated with an asterisk (*)]

Station number	Local well number	Map location name	Altitude of land surface datum (feet)	Well depth (feet)	Water-level date	Water-level time	Water level, below land surface (feet)
BUTLER COUNTY, OHIO							
391849084381901	BU-1161	Shandon, Ohio	560	43.5	12-17-2004	1415	35.08
392008084335501	BU-1162	Greenhills, Ohio	588	49.5	12-16-2004	1314	44.48
392008084343801	BU-1163	Greenhills, Ohio	576	47.5	12-16-2004	1404	35.46
392049084340301	BU-1165	Greenhills, Ohio	572	44.5	12-16-2004	1429	33.62
392917084205601	BU-1168	Monroe, Ohio	668	47	12-16-2004	1127	13.94
392047084325101	BU-1164	Greenhills, Ohio	598	52.5	12-02-2004	1600	39.60
392121084332101	BU-1166	Greenhills, Ohio	595	43	12-16-2004	1247	40.36
CHAMPAIGN COUNTY, OHIO							
400642083441601	CH-137	Urbana East, Ohio	1076	23.5	12-21-2004	1030	9.00
CLARK COUNTY, OHIO							
395614084020301	CL-288	New Carlisle, Ohio	910	51.5	12-22-2004	1112	39.12
395247084015801	CL-287	New Carlisle, Ohio	853	43	12-22-2004	1016	20.58
395244084011901	CL-286	New Carlisle, Ohio	845	32.5	11-30-2004	1600	15.34
GREENE COUNTY, OHIO							
394234084024301	GR-658	Bellbrook, Ohio	829	22	12-21-2004	1156	8.61*
394256084040701	GR-659	Bellbrook, Ohio	847	28.5	12-01-2004	1400	11.48
394320084044301	GR-660	Bellbrook, Ohio	865	38	12-21-2004	1218	24.48
393956083575601	GR-657	Xenia, Ohio	908	38.5	12-20-2004	1629	28.51
HAMILTON COUNTY, OHIO							
390744084212501	H-154	Madeira, Ohio	502	32.8	12-20-2004	1201	19.80
391518084485201	H-158	Harrison, Ohio	521	37.8	12-15-2004	1600	19.59
391434084474601	H-157	Hooven, Ohio	499	22	12-17-2004	1345	3.03
391226084272501	H-156	Cincinnati East, Ohio	545	43	12-20-2004	1317	22.42
MONTGOMERY COUNTY, OHIO							
394025084132501	MT-1258	Dayton South, Ohio	725	37	12-02-2004	1200	24.44
393954084132001	MT-1257	Dayton South, Ohio	750	30	12-21-2004	1439	15.37
394103084124901	MT-1259	Dayton South, Ohio	739	47.5	12-21-2004	1507	32.75
395218084100801	MT-1260	Dayton North, Ohio	800	22	12-01-2004	1000	9.07
393812084240001	MT-1256	Farmersville, Ohio	732	15.5	12-15-2004	1100	12.34
WARREN COUNTY, OHIO							
393405084203701	W-54	Franklin, Ohio	675	33	12-20-2004	1450	13.53
393453084131801	W-55	Franklin, Ohio	696	29	12-20-2004	1519	20.78

SHALLOW MONITOR WELLS IN RESIDENTIAL AREAS—Continued

391518084485201. LOCAL NUMBER H-158

LOCATION.—Latitude 39°15'18", longitude 84°48'53", Hydrologic Unit 05080003.

AQUIFER.—Buried valley.

WELL CHARACTERISTICS.—Drilled observation water well, 2 in. diameter, 37.75 ft deep.

INSTRUMENTATION.—Pressure transducer with data recorder (records hourly).

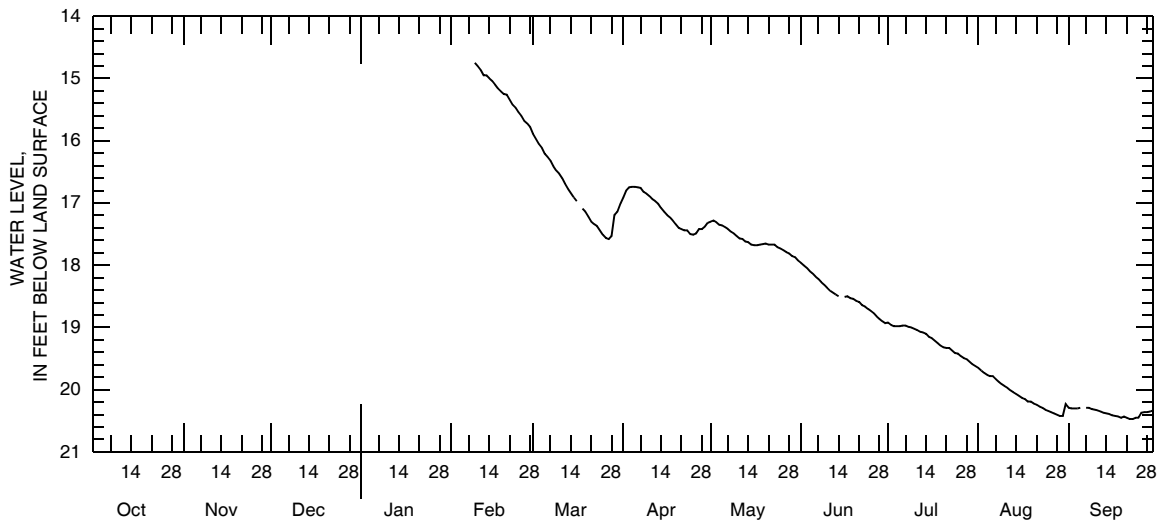
DATUM.—Elevation of land-surface datum is 521 ft above sea level. Measuring point: Top of PVC casing, 0.28 ft below land-surface datum.

PERIOD OF RECORD.—Feb. 9, 2005, to Sept. 30, 2005.

EXTREMES FOR PERIOD OF RECORD.—Minimum daily low, 14.75 ft below land-surface datum, February 9, 2005; maximum daily low, 20.47 ft below land-surface datum, September 22 and 23, 2005.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	15.89	16.91	17.30	17.96	18.92	19.65	20.29
2	---	---	---	---	---	15.97	16.80	17.28	18.00	18.96	19.69	20.30
3	---	---	---	---	---	16.05	16.75	17.31	18.04	18.98	19.73	20.30
4	---	---	---	---	---	16.11	16.74	17.35	18.09	18.98	19.76	20.30
5	---	---	---	---	---	16.21	16.74	17.36	18.13	18.98	19.78	20.29
6	---	---	---	---	---	16.26	16.75	17.39	18.18	18.97	19.78	---
7	---	---	---	---	---	16.32	16.76	17.42	18.22	18.97	19.83	20.29
8	---	---	---	---	---	16.41	16.82	17.46	18.27	18.99	19.87	20.29
9	---	---	---	---	14.75	16.48	16.85	17.49	18.31	19.00	19.91	20.31
10	---	---	---	---	14.80	16.53	16.89	17.53	18.36	19.02	19.94	20.32
11	---	---	---	---	14.86	16.60	16.94	17.57	18.41	19.04	19.97	20.33
12	---	---	---	---	14.95	16.69	16.97	17.58	18.44	19.07	20.01	20.35
13	---	---	---	---	14.95	16.77	17.01	17.62	18.47	19.08	20.04	20.37
14	---	---	---	---	15.00	16.84	17.08	17.63	18.50	19.10	20.07	20.38
15	---	---	---	---	15.04	16.91	17.14	17.67	---	19.15	20.10	20.39
16	---	---	---	---	15.10	16.97	17.19	17.68	18.51	19.17	20.13	20.41
17	---	---	---	---	15.16	---	17.23	17.68	18.50	19.21	20.15	20.42
18	---	---	---	---	15.21	17.09	17.28	17.67	18.53	19.25	20.19	20.43
19	---	---	---	---	15.25	17.14	17.34	17.66	18.54	19.29	20.19	20.45
20	---	---	---	---	15.26	17.22	17.40	17.65	18.57	19.32	20.22	20.43
21	---	---	---	---	15.34	17.30	17.42	17.67	18.59	19.33	20.24	20.45
22	---	---	---	---	15.42	17.34	17.44	17.67	18.64	19.33	20.27	20.47
23	---	---	---	---	15.47	17.37	17.44	17.67	18.66	19.37	20.29	20.47
24	---	---	---	---	15.54	17.44	17.50	17.71	18.70	19.41	20.32	20.45
25	---	---	---	---	15.60	17.51	17.51	17.73	18.73	19.42	20.34	20.45
26	---	---	---	---	15.68	17.56	17.49	17.76	18.77	19.46	20.36	20.37
27	---	---	---	---	15.72	17.58	17.42	17.79	18.82	19.49	20.38	20.36
28	---	---	---	---	15.78	17.53	17.42	17.81	18.86	19.51	20.40	20.36
29	---	---	---	---	---	17.19	17.38	17.85	18.90	19.55	20.42	20.35
30	---	---	---	---	---	17.14	17.32	17.87	18.93	19.59	20.42	20.33
31	---	---	---	---	---	17.01	---	17.92	---	19.62	20.23	---
MAX	---	---	---	---	15.78	17.58	17.51	17.92	18.93	19.62	20.42	20.47
MIN	---	---	---	---	14.75	15.89	16.74	17.28	17.96	18.92	19.65	20.29



SHALLOW MONITOR WELLS IN RESIDENTIAL AREAS—Continued

392047084325101. LOCAL NUMBER BU-1164

LOCATION.—Latitude 39°20'47", longitude 84°32'51", Hydrologic Unit 05080002.

AQUIFER.—Buried valley.

WELL CHARACTERISTICS.—Drilled observation water well, 2 in. diameter, 52.5 ft deep.

INSTRUMENTATION.—Pressure transducer with data recorder (records hourly).

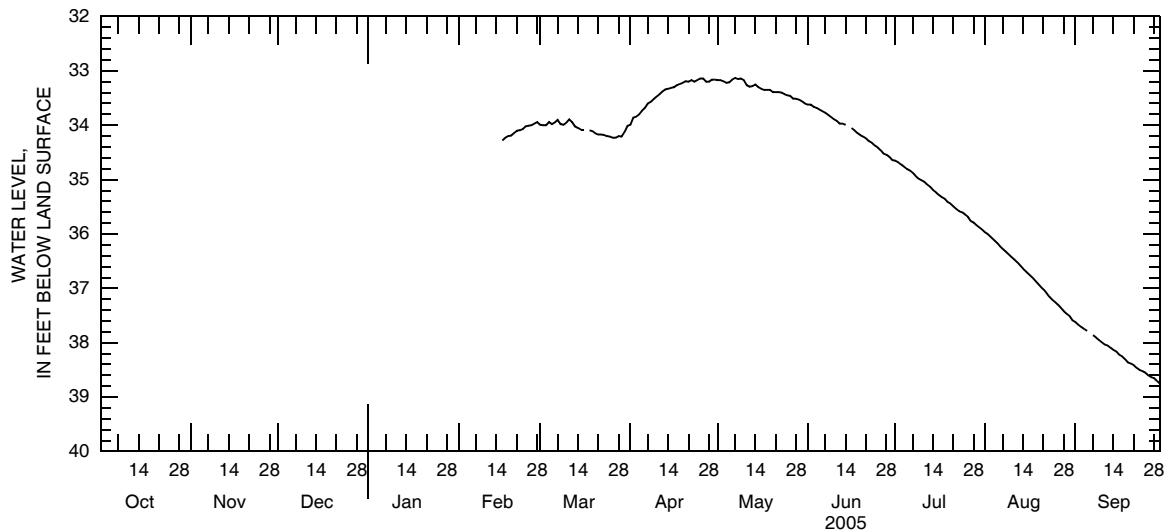
DATUM.—Elevation of land-surface datum is 598 ft above sea level. Measuring point: Top of PVC casing, 0.49 ft below land-surface datum.

PERIOD OF RECORD.—Feb. 16, 2005 to Sept. 30, 2005.

EXTREMES FOR PERIOD OF RECORD.—Minimum daily low, 33.13 ft below land-surface datum, May 7, 2005; maximum daily low, 38.75 ft below land-surface datum, September 30, 2005.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	33.99	33.99	33.17	33.62	34.65	35.97	37.62
2	---	---	---	---	---	34.00	33.86	33.17	33.62	34.68	36.01	37.67
3	---	---	---	---	---	34.00	33.84	33.19	33.66	34.72	36.06	37.71
4	---	---	---	---	---	33.94	33.80	33.22	33.68	34.76	36.11	37.75
5	---	---	---	---	---	33.98	33.73	33.21	33.71	34.80	36.16	37.78
6	---	---	---	---	---	33.95	33.68	33.16	33.74	34.83	36.22	---
7	---	---	---	---	---	33.90	33.60	33.13	33.77	34.87	36.27	37.86
8	---	---	---	---	---	33.98	33.57	33.15	33.81	34.93	36.32	37.90
9	---	---	---	---	---	33.99	33.52	33.14	33.85	34.98	36.37	37.95
10	---	---	---	---	---	33.95	33.47	33.17	33.89	35.01	36.42	37.99
11	---	---	---	---	---	33.89	33.43	33.26	33.92	35.04	36.47	38.03
12	---	---	---	---	---	33.94	33.38	33.29	33.97	35.09	36.52	38.05
13	---	---	---	---	---	34.02	33.34	33.28	33.97	35.13	36.58	38.09
14	---	---	---	---	---	34.05	33.33	33.25	33.99	35.19	36.64	38.13
15	---	---	---	---	---	34.08	33.31	33.30	---	35.23	36.69	38.16
16	---	---	---	---	34.28	34.08	33.30	33.33	34.05	35.28	36.74	38.22
17	---	---	---	---	34.23	---	33.26	33.35	34.09	35.32	36.79	38.25
18	---	---	---	---	34.20	34.09	33.24	33.35	34.14	35.35	36.85	38.30
19	---	---	---	---	34.19	34.11	33.22	33.35	34.18	35.41	36.91	38.36
20	---	---	---	---	34.14	34.15	33.19	33.39	34.21	35.44	36.97	38.38
21	---	---	---	---	34.10	34.17	33.20	33.39	34.24	35.49	37.02	38.41
22	---	---	---	---	34.09	34.17	33.17	33.39	34.29	35.54	37.08	38.46
23	---	---	---	---	34.07	34.18	33.20	33.40	34.32	35.58	37.15	38.50
24	---	---	---	---	34.02	34.20	33.17	33.43	34.37	35.60	37.21	38.52
25	---	---	---	---	34.01	34.21	33.14	33.45	34.41	35.64	37.25	38.55
26	---	---	---	---	34.00	34.23	33.14	33.46	34.46	35.68	37.30	38.60
27	---	---	---	---	33.97	34.23	33.20	33.51	34.52	35.76	37.36	38.63
28	---	---	---	---	33.94	34.20	33.20	33.51	34.54	35.79	37.42	38.65
29	---	---	---	---	---	34.21	33.16	33.53	34.58	35.84	37.47	38.70
30	---	---	---	---	---	34.12	33.16	33.56	34.64	35.88	37.51	38.75
31	---	---	---	---	---	34.01	---	33.60	---	35.92	37.59	---
MAX	---	---	---	---	34.28	34.23	33.99	33.60	34.64	35.92	37.59	38.75
MIN	---	---	---	---	33.94	33.89	33.14	33.13	33.62	34.65	35.97	37.62



SHALLOW MONITOR WELLS IN RESIDENTIAL AREAS—Continued

394025084132501. LOCAL NUMBER MT-1258

LOCATION.—Latitude 39°40'25", longitude 84°13'25", Hydrologic Unit 05080002.

AQUIFER.—Buried valley.

WELL CHARACTERISTICS.—Drilled observation water well, 2 in. diameter, 37 ft deep.

INSTRUMENTATION.—Pressure transducer with data recorder (records hourly).

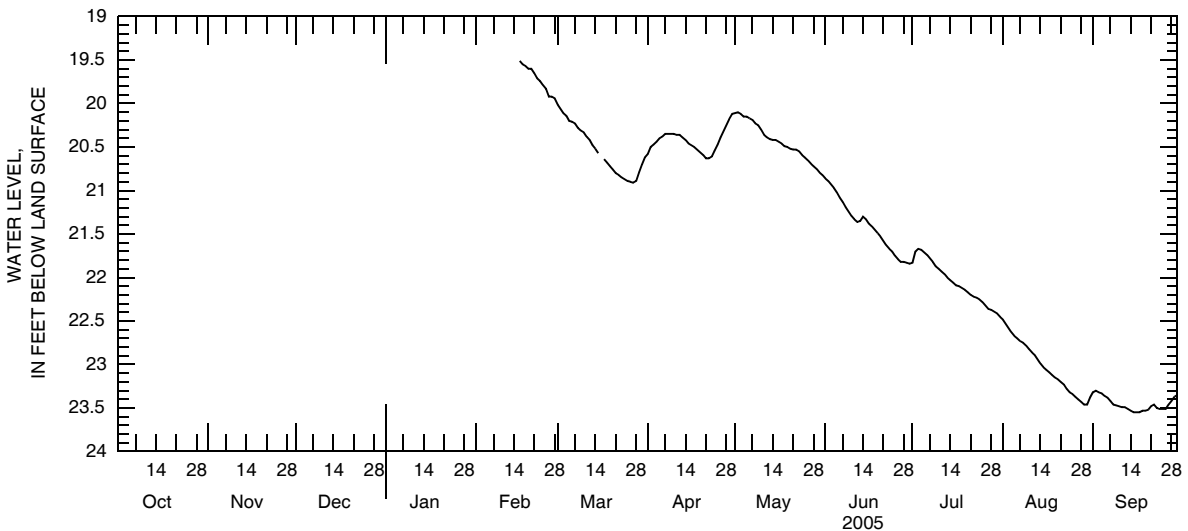
DATUM.—Elevation of land-surface datum is 725 ft above sea level. Measuring point: Top of PVC casing, 0.23 ft below land-surface datum.

PERIOD OF RECORD.—Feb. 16, 2005 to Sept. 30, 2005.

EXTREMES FOR PERIOD OF RECORD.—Minimum daily low, 19.51 ft below land-surface datum, February 16, 2005; maximum daily low, 23.55 ft below land-surface datum, September 15–17, 2005.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	20.01	20.58	20.11	20.86	21.83	22.48	23.32
2	---	---	---	---	---	20.06	20.50	20.10	20.89	21.70	22.53	23.30
3	---	---	---	---	---	20.11	20.47	20.12	20.93	21.67	22.58	23.32
4	---	---	---	---	---	20.14	20.44	20.15	20.97	21.68	22.63	23.33
5	---	---	---	---	---	20.20	20.40	20.15	21.02	21.71	22.67	23.36
6	---	---	---	---	---	20.21	20.38	20.17	21.08	21.74	22.70	23.38
7	---	---	---	---	---	20.23	20.35	20.19	21.13	21.78	22.73	23.42
8	---	---	---	---	---	20.28	20.35	20.23	21.19	21.82	22.75	23.46
9	---	---	---	---	---	20.31	20.35	20.25	21.24	21.87	22.78	23.47
10	---	---	---	---	---	20.33	20.35	20.30	21.29	21.90	22.82	23.48
11	---	---	---	---	---	20.38	20.36	20.36	21.33	21.93	22.86	23.49
12	---	---	---	---	---	20.42	20.36	20.39	21.36	21.96	22.89	23.49
13	---	---	---	---	---	20.48	20.39	20.41	21.35	22.00	22.94	23.51
14	---	---	---	---	---	20.52	20.42	20.42	21.30	22.03	22.99	23.53
15	---	---	---	---	---	20.57	20.46	20.42	21.33	22.06	23.03	23.55
16	---	---	---	---	19.51	---	20.48	20.44	21.38	22.09	23.06	23.55
17	---	---	---	---	19.55	20.64	20.50	20.46	21.41	22.10	23.09	23.55
18	---	---	---	---	19.57	20.68	20.53	20.49	21.45	22.12	23.12	23.53
19	---	---	---	---	19.60	20.72	20.56	20.50	21.49	22.14	23.15	23.53
20	---	---	---	---	19.60	20.76	20.59	20.52	21.53	22.17	23.17	23.52
21	---	---	---	---	19.65	20.80	20.63	20.53	21.58	22.20	23.20	23.48
22	---	---	---	---	19.71	20.82	20.63	20.53	21.63	22.22	23.23	23.46
23	---	---	---	---	19.74	20.85	20.61	20.55	21.67	22.23	23.28	23.50
24	---	---	---	---	19.79	20.87	20.54	20.59	21.70	22.25	23.32	23.51
25	---	---	---	---	19.83	20.89	20.47	20.62	21.75	22.28	23.34	23.51
26	---	---	---	---	19.92	20.90	20.39	20.65	21.79	22.32	23.37	23.51
27	---	---	---	---	19.92	20.91	20.32	20.69	21.82	22.36	23.40	23.46
28	---	---	---	---	19.94	20.89	20.25	20.72	21.82	22.37	23.43	23.42
29	---	---	---	---	---	20.79	20.18	20.75	21.83	22.39	23.46	23.37
30	---	---	---	---	---	20.70	20.12	20.79	21.84	22.41	23.46	23.35
31	---	---	---	---	---	20.62	---	20.82	---	22.45	23.38	---
MAX	---	---	---	---	19.94	20.91	20.63	20.82	21.84	22.45	23.46	23.55
MIN	---	---	---	---	19.51	20.01	20.12	20.10	20.86	21.67	22.48	23.30



SHALLOW MONITOR WELLS IN RESIDENTIAL AREAS—Continued

395218084100801. LOCAL NUMBER MT-1260

LOCATION.—Latitude 39°52'18", longitude 84°10'09", Hydrologic Unit 05080001.

AQUIFER.—Buried valley.

WELL CHARACTERISTICS.—Drilled observation water well, 2 in. diameter, 22 ft deep.

INSTRUMENTATION.—Pressure transducer with data recorder (records hourly).

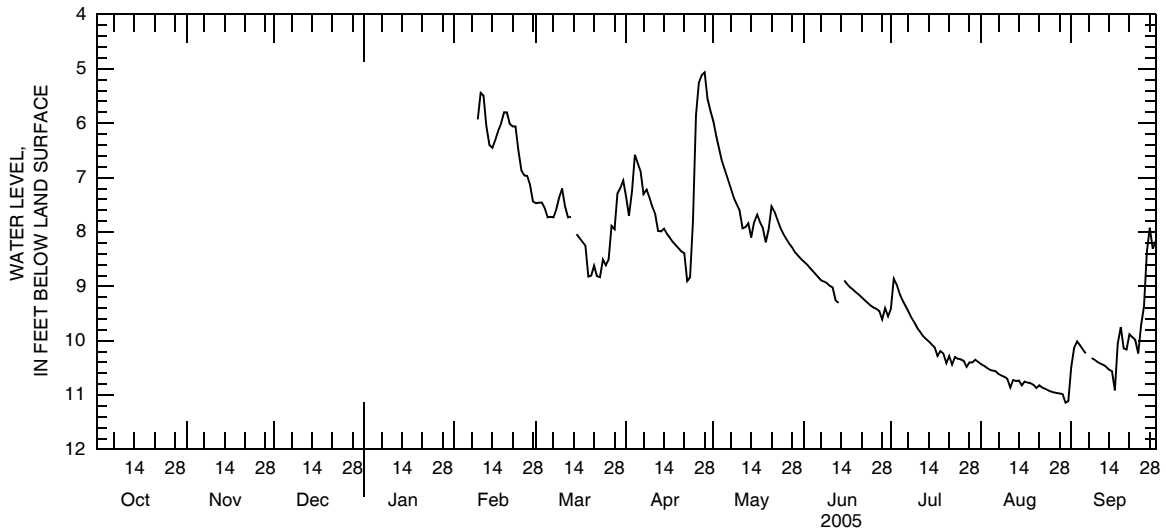
DATUM.—Elevation of land-surface datum is 800 ft above sea level. Measuring point: Top of PVC casing, 0.28 ft below land-surface datum.

PERIOD OF RECORD.—Feb. 9, 2005 to Sept. 30, 2005.

EXTREMES FOR PERIOD OF RECORD.—Minimum daily low, 5.06 ft below land-surface datum, April 29, 2005; maximum daily low, 11.14 ft below land-surface datum, August 30, 2005.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	7.47	7.35	5.97	8.54	9.41	10.43	10.49
2	---	---	---	---	---	7.46	7.70	6.24	8.59	8.86	10.46	10.12
3	---	---	---	---	---	7.46	7.25	6.48	8.65	8.97	10.50	10.01
4	---	---	---	---	---	7.56	6.58	6.71	8.71	9.14	10.53	10.08
5	---	---	---	---	---	7.73	6.74	6.88	8.77	9.26	10.55	10.16
6	---	---	---	---	---	7.72	6.89	7.04	8.83	9.36	10.56	10.23
7	---	---	---	---	---	7.73	7.30	7.21	8.89	9.46	10.61	---
8	---	---	---	---	---	7.58	7.22	7.37	8.91	9.57	10.64	10.32
9	---	---	---	---	5.93	7.36	7.37	7.49	8.94	9.66	10.66	10.35
10	---	---	---	---	5.44	7.20	7.54	7.60	8.99	9.76	10.70	10.39
11	---	---	---	---	5.49	7.52	7.67	7.93	9.02	9.83	10.86	10.42
12	---	---	---	---	6.06	7.73	7.98	7.91	9.26	9.91	10.72	10.44
13	---	---	---	---	6.40	7.72	7.99	7.84	9.30	9.96	10.74	10.48
14	---	---	---	---	6.45	---	7.94	8.10	---	10.01	10.73	10.53
15	---	---	---	---	6.31	8.04	8.03	7.82	8.89	10.07	10.82	10.56
16	---	---	---	---	6.14	8.11	8.10	7.68	8.96	10.12	10.75	10.91
17	---	---	---	---	6.01	8.18	8.18	7.82	9.02	10.28	10.77	10.05
18	---	---	---	---	5.80	8.25	8.24	7.93	9.06	10.19	10.78	9.75
19	---	---	---	---	5.80	8.82	8.30	8.19	9.11	10.23	10.81	10.14
20	---	---	---	---	6.01	8.80	8.36	7.95	9.15	10.41	10.87	10.16
21	---	---	---	---	6.06	8.62	8.39	7.53	9.20	10.28	10.82	9.88
22	---	---	---	---	6.06	8.81	8.90	7.63	9.25	10.44	10.86	9.93
23	---	---	---	---	6.50	8.83	8.83	7.78	9.30	10.30	10.88	9.98
24	---	---	---	---	6.87	8.51	7.80	7.92	9.35	10.33	10.91	10.23
25	---	---	---	---	6.96	8.61	5.85	8.03	9.39	10.34	10.93	9.71
26	---	---	---	---	6.97	8.50	5.25	8.12	9.41	10.37	10.95	9.37
27	---	---	---	---	7.14	7.89	5.11	8.21	9.45	10.48	10.96	8.36
28	---	---	---	---	7.44	7.95	5.06	8.28	9.61	10.40	10.97	7.92
29	---	---	---	---	---	7.29	5.55	8.37	9.40	10.40	10.98	8.31
30	---	---	---	---	---	7.19	5.78	8.43	9.55	10.35	11.14	8.16
31	---	---	---	---	---	7.05	---	8.49	---	10.39	11.11	---
MAX	---	---	---	---	7.44	8.83	8.90	8.49	9.61	10.48	11.14	10.91
MIN	---	---	---	---	5.44	7.05	5.06	5.97	8.54	8.86	10.43	7.92



SHALLOW MONITOR WELLS IN RESIDENTIAL AREAS—Continued

395244084011901. LOCAL NUMBER CL-286

LOCATION.—Latitude 39°52'45", longitude 84°01'20", Hydrologic Unit 05080001.

AQUIFER.—Buried valley.

WELL CHARACTERISTICS.—Drilled observation water well, 2 in. diameter, 32.5 ft deep.

INSTRUMENTATION.—Pressure transducer with data recorder (records hourly).

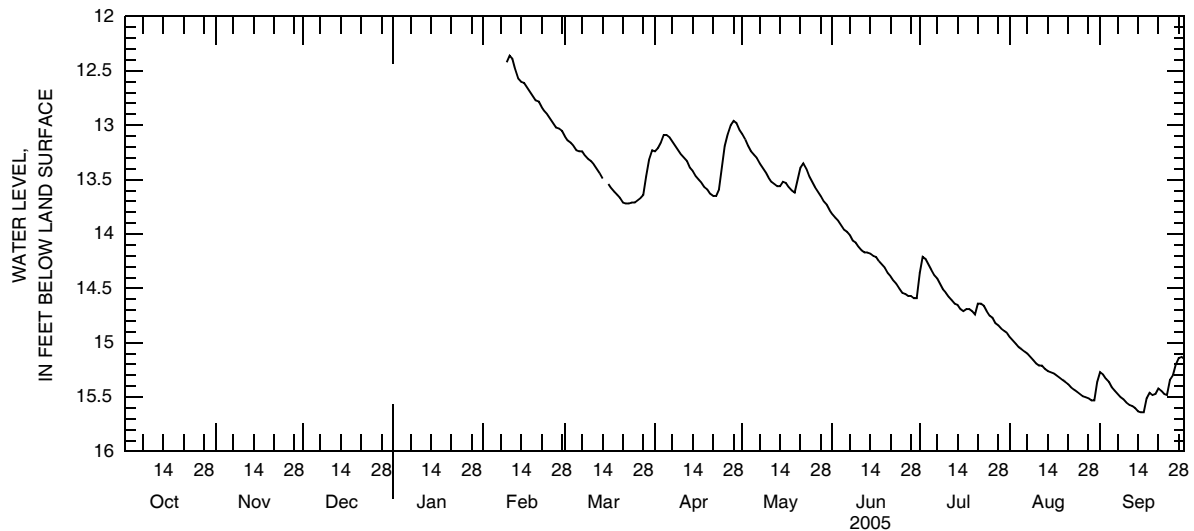
DATUM.—Elevation of land-surface datum is 845 ft above sea level. Measuring point: Top of PVC casing, 0.27 ft below land-surface datum.

PERIOD OF RECORD.—Feb. 9, 2005 to Sept. 30, 2005.

EXTREMES FOR PERIOD OF RECORD.—Minimum daily low, 12.36 ft below land-surface datum, February 10, 2005; maximum daily low, 15.64 ft below land-surface datum, September 15 and 16, 2005.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	13.10	13.24	13.08	13.82	14.36	14.95	15.27
2	---	---	---	---	---	13.14	13.21	13.13	13.85	14.21	14.98	15.29
3	---	---	---	---	---	13.16	13.16	13.19	13.88	14.23	15.01	15.33
4	---	---	---	---	---	13.19	13.09	13.24	13.92	14.28	15.04	15.36
5	---	---	---	---	---	13.23	13.09	13.27	13.96	14.33	15.06	15.41
6	---	---	---	---	---	13.24	13.11	13.30	13.98	14.38	15.08	15.44
7	---	---	---	---	---	13.24	13.15	13.35	14.01	14.41	15.10	15.47
8	---	---	---	---	---	13.28	13.19	13.39	14.06	14.46	15.13	15.50
9	---	---	---	---	12.42	13.31	13.23	13.43	14.08	14.51	15.16	15.52
10	---	---	---	---	12.36	13.33	13.27	13.48	14.12	14.54	15.19	15.55
11	---	---	---	---	12.39	13.36	13.30	13.52	14.15	14.58	15.21	15.57
12	---	---	---	---	12.49	13.40	13.33	13.54	14.17	14.61	15.21	15.58
13	---	---	---	---	12.57	13.44	13.39	13.56	14.17	14.64	15.24	15.60
14	---	---	---	---	12.60	13.49	13.42	13.56	14.18	14.65	15.26	15.63
15	---	---	---	---	12.61	---	13.47	13.52	14.20	14.69	15.27	15.64
16	---	---	---	---	12.65	13.54	13.50	13.53	14.21	14.71	15.28	15.64
17	---	---	---	---	12.69	13.58	13.53	13.57	14.25	14.69	15.30	15.51
18	---	---	---	---	12.73	13.61	13.57	13.60	14.28	14.69	15.32	15.46
19	---	---	---	---	12.77	13.64	13.59	13.62	14.31	14.71	15.34	15.48
20	---	---	---	---	12.78	13.67	13.63	13.50	14.36	14.74	15.36	15.47
21	---	---	---	---	12.83	13.71	13.65	13.39	14.39	14.64	15.38	15.42
22	---	---	---	---	12.87	13.72	13.65	13.35	14.43	14.64	15.41	15.44
23	---	---	---	---	12.90	13.72	13.59	13.40	14.46	14.66	15.43	15.47
24	---	---	---	---	12.94	13.71	13.39	13.47	14.50	14.71	15.45	15.48
25	---	---	---	---	12.98	13.71	13.19	13.52	14.54	14.75	15.47	15.34
26	---	---	---	---	13.02	13.69	13.08	13.57	14.55	14.77	15.49	15.30
27	---	---	---	---	13.03	13.67	13.00	13.61	14.57	14.82	15.50	15.20
28	---	---	---	---	13.05	13.64	12.96	13.65	14.57	14.84	15.51	15.14
29	---	---	---	---	---	13.47	12.98	13.70	14.59	14.87	15.53	15.13
30	---	---	---	---	---	13.31	13.04	13.73	14.59	14.89	15.53	15.15
31	---	---	---	---	---	13.23	---	13.78	---	14.91	15.36	---
MAX	---	---	---	---	13.05	13.72	13.65	13.78	14.59	14.91	15.53	15.64
MIN	---	---	---	---	12.36	13.10	12.96	13.08	13.82	14.21	14.95	15.13



SHALLOW MONITOR WELLS IN RESIDENTIAL AREAS—Continued

394256084040701. LOCAL NUMBER GR-659

LOCATION.—Latitude 39°42'57", longitude 84°04'08", Hydrologic Unit 05090202.

AQUIFER.—Buried valley.

WELL CHARACTERISTICS.—Drilled observation water well, 2 in. diameter, 28.5 ft deep.

INSTRUMENTATION.—Pressure transducer with data recorder (records hourly).

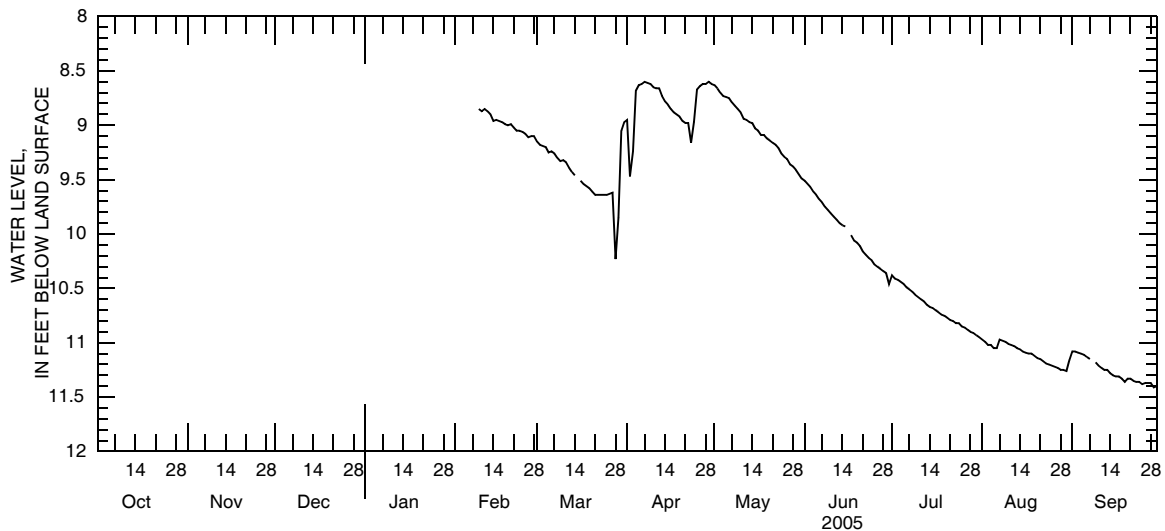
DATUM.—Elevation of land-surface datum is 847 ft above sea level. Measuring point: Top of PVC casing, 0.25 ft below land-surface datum.

PERIOD OF RECORD.—Feb. 9, 2005 to Sept. 30, 2005.

EXTREMES FOR PERIOD OF RECORD.—Minimum daily low, 8.60 ft below land-surface datum, April 7 and 29, 2005; maximum daily low, 11.41 ft below land-surface datum, September 29, 2005.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	9.15	8.95	8.63	9.51	10.38	10.97	11.08
2	---	---	---	---	---	9.18	9.47	8.66	9.54	10.41	10.99	11.08
3	---	---	---	---	---	9.19	9.24	8.70	9.57	10.42	11.02	11.09
4	---	---	---	---	---	9.20	8.68	8.73	9.61	10.44	11.02	11.10
5	---	---	---	---	---	9.25	8.63	8.74	9.64	10.46	11.05	11.11
6	---	---	---	---	---	9.24	8.62	8.75	9.68	10.49	11.05	11.13
7	---	---	---	---	---	9.26	8.60	8.79	9.71	10.51	10.97	11.15
8	---	---	---	---	---	9.30	8.61	8.82	9.75	10.53	10.98	---
9	---	---	---	---	8.85	9.33	8.62	8.85	9.78	10.56	10.99	11.18
10	---	---	---	---	8.87	9.32	8.65	8.88	9.81	10.58	11.01	11.21
11	---	---	---	---	8.85	9.34	8.66	8.94	9.84	10.60	11.02	11.23
12	---	---	---	---	8.87	9.39	8.66	8.95	9.87	10.62	11.03	11.25
13	---	---	---	---	8.90	9.43	8.73	8.97	9.90	10.65	11.05	11.25
14	---	---	---	---	8.96	9.46	8.78	8.98	9.92	10.67	11.06	11.28
15	---	---	---	---	8.95	---	8.81	9.03	9.93	10.68	11.08	11.30
16	---	---	---	---	8.96	9.51	8.85	9.05	---	10.70	11.09	11.31
17	---	---	---	---	8.97	9.54	8.88	9.09	10.01	10.72	11.10	11.31
18	---	---	---	---	8.99	9.56	8.90	9.09	10.06	10.74	11.10	11.33
19	---	---	---	---	9.00	9.58	8.92	9.12	10.08	10.75	11.12	11.36
20	---	---	---	---	8.99	9.61	8.96	9.14	10.11	10.77	11.14	11.33
21	---	---	---	---	9.02	9.64	8.98	9.16	10.16	10.79	11.15	11.33
22	---	---	---	---	9.05	9.64	8.98	9.18	10.19	10.80	11.17	11.35
23	---	---	---	---	9.05	9.64	9.16	9.21	10.22	10.82	11.19	11.36
24	---	---	---	---	9.06	9.64	8.97	9.26	10.24	10.82	11.20	11.36
25	---	---	---	---	9.08	9.64	8.67	9.29	10.28	10.85	11.21	11.38
26	---	---	---	---	9.11	9.63	8.64	9.31	10.30	10.86	11.22	11.37
27	---	---	---	---	9.10	9.62	8.62	9.36	10.32	10.88	11.23	11.37
28	---	---	---	---	9.10	10.23	8.62	9.38	10.34	10.90	11.25	11.37
29	---	---	---	---	---	9.85	8.60	9.41	10.36	10.91	11.25	11.41
30	---	---	---	---	---	9.05	8.62	9.45	10.46	10.93	11.26	11.40
31	---	---	---	---	---	8.97	---	9.49	---	10.95	11.16	---
MAX	---	---	---	---	9.11	10.23	9.47	9.49	10.46	10.95	11.26	11.41
MIN	---	---	---	---	8.85	8.97	8.60	8.63	9.51	10.38	10.97	11.08



SHALLOW MONITOR WELLS IN RESIDENTIAL AREAS—Continued

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

[(72008), USGS National Water Information System parameter code; LSD, land-surface datum]

Station number	Local well number	Date	Time	Depth of well, feet below LSD (72008)	Depth to water level, feet below LSD (72019)	Altitude of land surface, feet (72000)	Sampling depth, feet (00003)
391518084485201	H-158	12/15/2004	1600	37.8	19.54	521	27.0
		3/17/2005	1100	37.8	16.94	521	27.0
		6/15/2005	1100	37.8	18.45	521	27.0
		9/6/2005	1200	37.8	20.24	521	27.0
392047084325101	BU-1164	12/2/2004	1600	52.5	39.6	598	41.0
		3/17/2005	1500	52.5	33.87	598	41.0
		6/15/2005	1400	52.5	33.82	598	41.0
		9/6/2005	1500	52.5	37.63	598	41.0
393812084240001	MT-1256	12/15/2004	1100	15.5	12.34	732	13.5
		3/16/2005	1400	15.5	10.94	732	13.5
		6/17/2005	1200	15.5	11.56	732	13.5
		9/7/2005	1200	15.5	13.05	732	14.0
394025084132501	MT-1258	12/2/2004	1200	37	24.44	725	29.0
		3/16/2005	1000	37	20.59	725	28.0
		6/16/2005	1200	37	21.37	725	28.0
		9/7/2005	1500	37	23.41	725	28.0
395218084100801	MT-1260	12/1/2004	1000	22	9.07	800	12.0
		3/14/2005	1400	22	7.91	800	13.0
		6/14/2005	1200	22	8.88	800	13.0
		9/7/2005	0900	22	10.23	800	13.0
395244084011901	CL-286	11/30/2004	1600	32.5	15.34	845	25.0
		3/15/2005	1000	32.5	13.54	845	25.0
		6/14/2005	1600	32.5	14.18	845	25.0
		9/8/2005	1200	32.5	15.28	845	25.0
394256084040701	GR-659	12/1/2004	1400	28.5	11.48	847	20.0
		3/15/2005	1400	28.5	9.47	847	20.0
		6/16/2005	1000	28.5	9.97	847	20.0
		9/8/2005	1000	28.5	11.16	847	20.0

SHALLOW MONITOR WELLS IN RESIDENTIAL AREAS—Continued

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

[(61028), USGS National Water Information System parameter code; NTU, nephelometric turbidity units; mm, millimeters; $\mu\text{S}/\text{cm}$, microsiemens per centimeter; deg C, degrees Celsius; std, standard; mg/L, milligrams per liter]

Local well number	Date	Turbidity, water, unfltrd field, NTU (61028)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd, field, std units (00400)	pH, water, unfltrd, lab, std units (00403)	Specif. conductance, water, unf, lab, $\mu\text{S}/\text{cm}$ 25 degC (90095)	Specif. conductance, water, unf, $\mu\text{S}/\text{cm}$ 25 degC (00095)	Temperature, air, deg C (00020)
H-158	12/15/2004	.5	760	5.1	7.1	7.4	945	933	1.5
	3/17/2005	.5	750	6.4	6.9	7.6	1440	1480	11.5
	6/15/2005	.7	737	6.2	7.0	7.4	1050	1100	28.0
	9/6/2005	.4	758	6.3	7.0	7.2	1040	1050	26.0
BU-1164	12/2/2004	2.9	744	1.6	7.0	7.2	942	995	8.5
	3/17/2005	.7	742	.7	6.9	7.6	984	1000	17.5
	6/15/2005	.6	735	1.5	6.9	7.3	909	994	28.0
	9/6/2005	.9	754	1.9	7.0	7.4	1040	1040	30.5
MT-1256	12/15/2004	.3	758	.2	6.8	7.2	937	938	-.5
	3/16/2005	.4	746	.4	7.0	7.3	807	813	10.5
	6/17/2005	.8	736	.5	6.9	7.1	790	829	25.0
	9/7/2005	1.1	752	.8	6.8	7.0	950	944	31.0
MT-1258	12/2/2004	.3	745	4.1	7.1	7.2	935	984	5.5
	3/16/2005	.4	750	5.7	7.1	7.3	1160	1170	5.0
	6/16/2005	.5	737	6.1	7.0	7.3	1010	1050	23.0
	9/7/2005	.6	749	5.1	7.0	7.2	1070	1050	29.0
MT-1260	12/1/2004	.6	743	3.7	7.1	6.9	825	885	1.0
	3/14/2005	.8	744	2.8	6.9	7.3	837	854	7.0
	6/14/2005	1.4	732	2.3	6.7	7.2	815	873	30.5
	9/7/2005	.6	747	4.7	7.0	7.1	890	864	19.0
CL-286	11/30/2004	.6	738	.3	7.2	E7.0	762	813	9.5
	3/15/2005	.3	747	.1	7.2	7.2	677	714	7.0
	6/14/2005	1.6	727	.8	7.0	7.4	666	696	32.5
	9/8/2005	.6	740	.6	7.1	7.3	779	748	33.0
GR-659	12/1/2004	1.3	742	.1	7.0	7.0	730	778	4.5
	3/15/2005	1.8	745	.1	7.0	7.1	777	810	8.0
	6/16/2005	1.1	736	.5	6.8	7.1	727	789	15.5
	9/8/2005	1.9	744	.2	6.9	7.2	757	765	20.0

SHALLOW MONITOR WELLS IN RESIDENTIAL AREAS—Continued

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

[(00100), USGS National Water Information System parameter code; deg C, degrees Celsius; mg/L, milligrams per liter; E, estimated]

Local well number	Date	Temperature, water, deg C (00010)	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., field, mg/L as CaCO ₃ (39086)	Bicarbonate, water, flt, incrm. titr., field, mg/L (00453)	Carbonate, water, flt, incrm. titr., field, mg/L (00452)
H-158	12/15/2004	14.2	117	27.9	7.91	46.0	294	E358	E.0
	3/17/2005	12.5	165	39.4	8.14	96.3	236	287	.0
	6/15/2005	15.2	119	27.9	6.45	84.5	308	375	.0
	9/6/2005	18.6	127	29.7	6.6	48.3	300	365	.0
BU-1164	12/2/2004	14.0	126	37.1	2.6	39.3	405	494	.0
	3/17/2005	14.6	128	39.3	2.67	41.9	252	307	.0
	6/15/2005	16.3	126	39.1	2.63	41.2	333	405	.0
	9/6/2005	16.0	129	40.8	2.7	41.0	333	405	.0
MT-1256	12/15/2004	13.0	163	39.5	3.06	6.16	385	469	.0
	3/16/2005	9.9	134	33.5	2.89	9.94	363	442	.0
	6/17/2005	13.1	136	35.7	3.13	9.15	337	410	.0
	9/7/2005	16.9	151	39.6	3.28	6.95	353	430	.0
MT-1258	12/2/2004	14.6	96.7	29.9	2.69	70.0	284	E346	E.0
	3/16/2005	14.7	117	37.6	3.15	87.4	337	411	.0
	6/16/2005	15.7	113	37.5	2.83	61.5	290	353	.0
	9/7/2005	16.0	111	37.7	2.77	59.2	292	356	.0
MT-1260	12/1/2004	13.2	113	36.4	2.17	33.5	395	E481	E.0
	3/14/2005	12.4	123	39.3	1.69	18.6	390	475	.0
	6/14/2005	13.7	120	42.5	1.66	17.2	361	439	.0
	9/7/2005	13.6	110	38.1	1.78	28.4	331	402	.0
CL-286	11/30/2004	12.8	106	40.1	1.68	16.8	335	407	.0
	3/15/2005	12.8	98.8	38.1	1.41	9.60	309	376	.0
	6/14/2005	15.2	92.5	40.4	1.46	7.34	294	358	.0
	9/8/2005	14.5	106	40.8	1.43	9.99	304	370	.0
GR-659	12/1/2004	12.5	127	29.6	.69	10.2	391	476	.0
	3/15/2005	12.4	137	32.6	.61	10.5	370	451	.0
	6/16/2005	12.7	126	32.1	.58	10.5	331	403	.0
	9/8/2005	14.4	126	31.3	.59	10.9	341	415	.0

SHALLOW MONITOR WELLS IN RESIDENTIAL AREAS—Continued

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

[(71834), USGS National Water Information System parameter code; deg C, degrees Celsius; mg/L, milligrams per liter; --, not reported; E, estimated; R, data value under review and subject to revision; <, concentration or value reported is less than that indicated]

Local well number	Date	Hydroxide, water, flt, incrm. titr., field, mg/L (71834)	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)
H-158	12/15/2004	.0	E.11	79.1	.1	13.9	26.9	532	E.02
	3/17/2005	.0	R.14	259	.1	12.8	28.7	821	<.04
	6/15/2005	.0	R.19	130	.1	11.7	29.4	662	<.04
	9/6/2005	.0	R.19	103	.1	13.1	29.2	597	<.04
BU-1164	12/2/2004	.0	<.20	82.9	.2	15.0	51.3	567	<.04
	3/17/2005	.0	R.17	90.9	.2	15.3	52.6	575	<.04
	6/15/2005	.0	R.21	90.0	.2	14.8	53.0	594	<.04
	9/6/2005	.0	R.23	96.9	.2	14.5	51.9	605	<.04
MT-1256	12/15/2004	.0	<.20	10.3	.2	9.66	87.8	577	E.03
	3/16/2005	.0	R.16	21.7	.2	8.01	66.9	494	<.04
	6/17/2005	.0	R.14	18.8	.2	7.97	91.6	428	<.04
	9/7/2005	.0	R.21	12.7	.2	9.31	123	624	<.04
MT-1258	12/2/2004	.0	<.20	114	.2	10.1	38.4	552	<.04
	3/16/2005	.0	R.21	155	.2	10.9	40.8	643	<.04
	6/16/2005	.0	R.18	125	.2	10.4	41.2	609	<.04
	9/7/2005	.0	R.26	124	.2	10.2	42.2	605	<.04
MT-1260	12/1/2004	.0	.12	59.8	.1	10.7	31.7	512	<.04
	3/14/2005	.0	R.32	33.4	.1	11.2	26.5	487	<.04
	6/14/2005	.0	R.32	39.7	.1	10.8	26.3	504	<.04
	9/7/2005	.0	R.27	57.5	.1	9.88	31.5	487	<.04
CL-286	11/30/2004	.0	<.20	38.0	.3	15.0	51.4	460	<.04
	3/15/2005	.0	R.16	20.1	.3	15.1	50.9	417	<.04
	6/14/2005	.0	R.14	19.7	.4	15.0	50.9	429	<.04
	9/8/2005	.0	R.22	24.2	.3	14.2	51.5	434	<.04
GR-659	12/1/2004	.0	.07	21.5	.2	10.7	18.4	463	E.03
	3/15/2005	.0	R.22	26.0	.2	10.3	18.8	459	<.04
	6/16/2005	.0	R.23	26.0	.2	9.62	20.5	465	E.03
	9/8/2005	.0	R.33	24.5	.2	9.98	18.6	450	E.04

SHALLOW MONITOR WELLS IN RESIDENTIAL AREAS—Continued

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

[(00631), USGS National Water Information System parameter code; mg/L, milligrams per liter; µg/L, micrograms per liter; --, not reported; E, estimated; <, concentration or value reported is less than that indicated]

Local well number	Date	Nitrite + nitrate, water, fltrd, mg/L as N (00631)	Nitrite, water, fltrd, mg/L as N (00613)	Ortho-phosphate, water, fltrd, mg/L as P (671)	Total nitrogen, water, fltrd, by analysis, mg/L (62854)	Aluminum, water, fltrd, µg/L (01106)	Antimony, water, fltrd, µg/L (01095)	Arsenic, water, fltrd, µg/L (01000)	Barium, water, fltrd, µg/L (01005)
H-158	12/15/2004	6.5.0	<.008	<.006	6.69	<2	<.20	.3	68
	3/17/2005	7.00	E.005	<.006	7.55	--	--	--	--
	6/15/2005	8.39	<.008	E.003	8.40	--	--	--	--
	9/6/2005	7.40	<.008	E.004	7.48	--	--	--	--
BU-1164	12/2/2004	3.82	<.008	<.006	3.86	E1	<.20	E.1	101
	3/17/2005	2.63	<.008	<.006	2.60	--	--	--	--
	6/15/2005	2.76	<.008	<.006	2.82	--	--	--	--
	9/6/2005	2.82	<.008	<.006	2.88	--	--	--	--
MT-1256	12/15/2004	0.14	<.008	<.006	.22	<2	<.20	.4	145
	3/16/2005	0.07	<.008	<.006	.15	--	--	--	--
	6/17/2005	E.04	<.008	<.006	.09	--	--	--	--
	9/7/2005	0.50	<.008	<.006	.58	--	--	--	--
MT-1258	12/2/2004	2.37	<.008	E.005	2.4	<2	<.20	.5	143
	3/16/2005	2.93	<.008	E.005	3.04	--	--	--	--
	6/16/2005	2.96	<.008	E.005	3.00	--	--	--	--
	9/7/2005	2.76	<.008	E.005	2.89	--	--	--	--
MT-1260	12/1/2004	.49	<.008	<.006	.56	<2	<.20	E.2	97
	3/14/2005	.49	<.008	<.006	.55	--	--	--	--
	6/14/2005	.37	<.008	<.006	.41	--	--	--	--
	9/7/2005	.43	<.008	<.006	.48	--	--	--	--
CL-286	11/30/2004	2.11	<.008	<.006	2.17	<2	<.20	.2	272
	3/15/2005	.73	<.008	<.006	.74	--	--	--	--
	6/14/2005	.67	<.008	<.006	.69	--	--	--	--
	9/8/2005	1.21	<.008	<.006	1.26	--	--	--	--
GR-659	12/1/2004	<.06	<.008	.011	.11	<2	<.20	.7	161
	3/15/2005	<.06	<.008	.006	.12	--	--	--	--
	6/16/2005	<.06	<.008	.007	.1	--	--	--	--
	9/8/2005	<.06	<.008	<.006	.12	--	--	--	--

SHALLOW MONITOR WELLS IN RESIDENTIAL AREAS—Continued

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

[(01010), USGS National Water Information System parameter code; µg/L, micrograms per liter; --, not reported; E, estimated; U, undetected; M, detected but not quantified; <, concentration or value reported is less than that indicated]

Local well number	Date	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)	Copper, water, fltrd, µg/L (01040)	Hydrogen sulfide, water, unfltrd, mg/L (71875)	Iron, water, fltrd, µg/L (01046)
H-158	12/15/2004	<.06	59	<.04	<.8	.253	0.8	U	<6
	3/17/2005	--	--	--	--	--	--	U	<6
	6/15/2005	--	--	--	--	--	--	U	E4
	9/6/2005	--	--	--	--	--	--	U	E3
BU-1164	12/2/2004	<.06	49	E.03	E.7	.402	11.4	U	E4
	3/17/2005	--	--	--	--	--	--	U	<6
	6/15/2005	--	--	--	--	--	--	U	<6
	9/6/2005	--	--	--	--	--	--	U	<6
MT-1256	12/15/2004	<.06	45	E.03	E.6	.542	1.1	U	146
	3/16/2005	--	--	--	--	--	--	U	19
	6/17/2005	--	--	--	--	--	--	U	68
	9/7/2005	--	--	--	--	--	--	U	64
MT-1258	12/2/2004	<.06	46	<.04	E.5	.281	6.4	U	<6
	3/16/2005	--	--	--	--	--	--	U	<6
	6/16/2005	--	--	--	--	--	--	U	<6
	9/7/2005	--	--	--	--	--	--	U	<6
MT-1260	12/1/2004	<.06	50	<.04	<.8	.334	5.8	U	<6
	3/14/2005	--	--	--	--	--	--	U	<6
	6/14/2005	--	--	--	--	--	--	U	<6
	9/7/2005	--	--	--	--	--	--	U	<6
CL-286	11/30/2004	<.06	36	<.04	<.8	.284	8.7	U	<6
	3/15/2005	--	--	--	--	--	--	U	<6
	6/14/2005	--	--	--	--	--	--	U	E5
	9/8/2005	--	--	--	--	--	--	M	<6
GR-659	12/1/2004	<.06	23	<.04	<.8	.364	.6	M	2090
	3/15/2005	--	--	--	--	--	--	U	1930
	6/16/2005	--	--	--	--	--	--	U	2180
	9/8/2005	--	--	--	--	--	--	U	2040

SHALLOW MONITOR WELLS IN RESIDENTIAL AREAS—Continued

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

[(01049), USGS National Water Information System parameter code; µg/L, micrograms per liter; --, not reported; E, estimated; <, concentration or value reported is less than that indicated]

Local well number	Date	Lead, water, fltrd, µg/L (01049)	Lithium, water, fltrd, µg/L (01130)	Manganese, water, fltrd, µg/L (01056)	Molybdenum, water, fltrd, µg/L (01060)	Nickel, water, fltrd, µg/L (01065)	Selenium, water, fltrd, µg/L (01145)	Silver, water, fltrd, µg/L (01075)	Strontium, water, fltrd, µg/L (01080)
H-158	12/15/2004	E.04	3.3	<.2	.9	1.62	2.5	<.2	152
	3/17/2005	--	--	<.6	--	--	--	--	--
	6/15/2005	--	--	<.6	--	--	--	--	--
	9/6/2005	--	--	<.6	--	--	--	--	--
BU-1164	12/2/2004	E.08	4.5	0.6	1.7	1.96	1.0	<.2	157
	3/17/2005	--	--	<.6	--	--	--	--	--
	6/15/2005	--	--	<.6	--	--	--	--	--
	9/6/2005	--	--	<.6	--	--	--	--	--
MT-1256	12/15/2004	<.08	4.8	97.0	1.2	2.72	.5	<.2	384
	3/16/2005	--	--	14.3	--	--	--	--	--
	6/17/2005	--	--	40.5	--	--	--	--	--
	9/7/2005	--	--	62.3	--	--	--	--	--
MT-1258	12/2/2004	.12	3.2	.3	1.3	.80	.5	<.2	373
	3/16/2005	--	--	<.6	--	--	--	--	--
	6/16/2005	--	--	<.6	--	--	--	--	--
	9/7/2005	--	--	<.6	--	--	--	--	--
MT-1260	12/1/2004	<.08	1.7	16.5	.7	1.91	.8	<.2	341
	3/14/2005	--	--	8.7	--	--	--	--	--
	6/14/2005	--	--	11.9	--	--	--	--	--
	9/7/2005	--	--	5.9	--	--	--	--	--
CL-286	11/30/2004	<.08	3.1	4.2	2.9	.66	.7	<.2	511
	3/15/2005	--	--	2.0	--	--	--	--	--
	6/14/2005	--	--	3.5	--	--	--	--	--
	9/8/2005	--	--	3.2	--	--	--	--	--
GR-659	12/1/2004	<.08	2.2	177	1	16.1	E.2	<.2	191
	3/15/2005	--	--	176	--	--	--	--	--
	6/16/2005	--	--	168	--	--	--	--	--
	9/8/2005	--	--	163	--	--	--	--	--

SHALLOW MONITOR WELLS IN RESIDENTIAL AREAS—Continued

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

[(01057), USGS National Water Information System parameter code; µg/L, micrograms per liter; --, not reported; <, concentration or value reported is less than that indicated]

Local well number	Date	Thal- lium, water, fltrd, µg/L (01057)	Vana- dium, water, fltrd, µg/L (01085)	Zinc, water, fltrd, µg/L (01090)	1-Naph- thol, water, fltrd, 0.7µ GF µg/L (49295)	2,4-D methyl ester, water, fltrd, µg/L (50470)	2,4-D, water, fltrd, µg/L (39732)	2,4-DB, water, fltrd, 0.7µ GF µg/L (38746)	2,6-Di- ethyl- aniline, water, fltrd, 0.7µ GF µg/L (82660)
H-158	12/15/2004	<.04	.6	1.6	<.09	<.016	<.04	<.02	<.006
	3/17/2005	--	--	--	<.09	<.016	<.04	<.02	<.006
	6/15/2005	--	--	--	<.09	<.016	<.04	<.02	<.006
	9/6/2005	--	--	--	<.09	<.016	<.04	<.02	<.006
BU-1164	12/2/2004	<.04	.2	6.7	<.09	<.016	<.04	<.02	<.006
	3/17/2005	--	--	--	<.09	<.016	<.04	<.02	<.006
	6/15/2005	--	--	--	<.09	<.016	<.04	<.02	<.006
	9/6/2005	--	--	--	<.09	<.016	<.04	<.02	<.006
MT-1256	12/15/2004	<.04	.2	.9	<.09	<.016	<.04	<.02	<.006
	3/16/2005	--	--	--	<.09	<.016	<.04	<.02	<.006
	6/17/2005	--	--	--	<.09	<.016	<.04	<.02	<.006
	9/7/2005	--	--	--	<.09	<.016	<.04	<.02	<.006
MT-1258	12/2/2004	<.04	.2	1.3	<.09	<.016	<.04	<.02	<.006
	3/16/2005	--	--	--	<.09	<.016	<.04	<.02	0.008
	6/16/2005	--	--	--	<.09	<.016	<.04	<.02	<.006
	9/7/2005	--	--	--	<.09	<.016	<.04	<.02	<.006
MT-1260	12/1/2004	<.04	.4	1.2	<.09	<.016	<.04	<.02	<.006
	3/14/2005	--	--	--	<.09	<.016	<.04	<.02	<.006
	6/14/2005	--	--	--	<.09	<.016	<.04	<.02	<.006
	9/7/2005	--	--	--	<.09	<.016	<.04	<.02	<.006
CL-286	11/30/2004	<.04	.6	1.2	<.09	<.016	<.04	<.02	<.006
	3/15/2005	--	--	--	<.09	<.016	<.04	<.02	<.006
	6/14/2005	--	--	--	<.09	<.016	<.04	<.02	<.006
	9/8/2005	--	--	--	<.09	<.016	<.04	<.02	<.006
GR-659	12/1/2004	<.04	.4	.8	<.09	<.016	<.04	<.02	<.006
	3/15/2005	--	--	--	<.09	<.016	<.04	<.02	<.006
	6/16/2005	--	--	--	<.09	<.016	<.04	<.02	<.006
	9/8/2005	--	--	--	<.09	<.016	<.04	<.02	<.006

SHALLOW MONITOR WELLS IN RESIDENTIAL AREAS—Continued

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

[(61618), USGS National Water Information System parameter code; µg/L, micrograms per liter; --, not reported; E, estimated; M, detected but not quantified; <, concentration or value reported is less than that indicated]

Local well number	Date	2-Chloro-2',6'-diethyl acetanilide, water, flt, µg/L (61618)	CIAT, water, fltrd, µg/L (04040)	CEAT, water, fltrd, µg/L (04038)	2-Ethyl-6-methyl-aniline, water, fltrd, µg/L (61620)	OIET, water, fltrd, µg/L (50355)	3,4-Di-chloro-aniline, water, fltrd, µg/L (61625)	3,5-Di-chloro-aniline, water, fltrd, µg/L (61627)	3-Hydroxy carbo-furan, water, flt, 0.7µ GF µg/L (49308)
H-158	12/15/2004	<.005	<.006	<.08	<.004	<.032	<.004	--	<.008
	3/17/2005	<.005	E.006	<.08	<.004	<.032	<.004	--	<.008
	6/15/2005	<.005	<.006	<.08	<.004	<.032	<.004	<.004	<.008
	9/6/2005	<.005	<.006	<.08	<.004	<.032	<.004	<.004	<.008
BU-1164	12/2/2004	<.005	<.006	<.08	<.009	<.032	<.004	--	<.008
	3/17/2005	<.005	E.007	<.08	<.004	<.032	<.004	--	<.008
	6/15/2005	<.005	<.006	<.08	<.004	<.032	<.004	<.004	<.008
	9/6/2005	<.005	<.006	<.08	<.004	<.032	<.004	<.004	<.008
MT-1256	12/15/2004	<.005	E.009	<.08	<.004	.062	<.004	--	<.008
	3/16/2005	<.005	E.006	<.08	<.004	.037	<.004	--	<.008
	6/17/2005	<.005	E.005	<.08	<.004	.069	<.004	<.004	<.008
	9/7/2005	<.005	E.006	<.08	<.004	.055	<.004	<.004	<.008
MT-1258	12/2/2004	<.005	E.008	M	<.009	<.032	<.004	--	<.008
	3/16/2005	<.005	<.006	<.08	E.008	<.032	<.004	--	<.008
	6/16/2005	<.005	E.007	<.08	<.004	<.032	<.004	<.004	<.008
	9/7/2005	<.005	E.008	<.08	<.004	<.032	<.004	<.004	<.008
MT-1260	12/1/2004	<.005	<.006	<.08	<.004	<.032	<.004	--	<.008
	3/14/2005	<.005	<.006	<.08	<.004	<.032	<.004	--	<.008
	6/14/2005	<.005	<.006	<.08	<.004	<.032	<.004	<.004	<.008
	9/7/2005	<.005	<.006	<.08	<.004	<.032	<.004	<.004	<.008
CL-286	11/30/2004	<.005	<.006	<.08	<.004	<.032	<.004	--	<.008
	3/15/2005	<.005	<.006	<.08	<.004	<.032	<.004	--	<.008
	6/14/2005	<.005	<.006	<.08	<.004	<.032	<.004	<.004	<.008
	9/8/2005	<.005	<.006	<.08	<.004	<.032	<.004	<.004	<.008
GR-659	12/1/2004	<.005	<.006	<.08	<.004	<.032	<.004	--	<.008
	3/15/2005	<.005	<.006	<.08	<.004	<.032	<.004	--	<.008
	6/16/2005	<.005	<.007	<.08	<.004	<.032	<.004	<.004	<.008
	9/8/2005	<.005	<.006	<.08	<.004	<.032	<.004	<.004	<.008

SHALLOW MONITOR WELLS IN RESIDENTIAL AREAS—Continued

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

[(50295), USGS National Water Information System parameter code; µg/L, micrograms per liter; <, concentration or value reported is less than that indicated]

Local well number	Date	3-Keto-carbo-furan, water, fltrd, µg/L (50295)	4-Chloro-2-methyl phenol, water, fltrd, µg/L (61633)	Aceto-chlor, water, fltrd, µg/L (49260)	Aci-fluor-fen, water, fltrd, 0.7µ GF µg/L (49315)	Ala-chlor, water, fltrd, µg/L (46342)	Aldi-carb sulfone, water, fltrd, 0.7µ GF µg/L (49313)	Aldi-carb sulf-oxide, water, flt, 0.7µ GF µg/L (49314)	Aldi-carb, water, fltrd, 0.7µ GF µg/L (49312)
H-158	12/15/2004	<.02	<.006	<.006	<.028	<.005	<.02	<.022	<.04
	3/17/2005	<.02	<.006	<.006	<.028	<.005	<.02	<.022	<.04
	6/15/2005	<.02	<.006	<.006	<.028	<.005	<.02	<.022	<.04
	9/6/2005	<.02	<.006	<.006	<.028	<.005	<.02	<.022	<.04
BU-1164	12/2/2004	<.02	<.006	<.006	<.028	<.005	<.02	<.022	<.04
	3/17/2005	<.02	<.006	<.006	<.028	<.005	<.02	<.022	<.04
	6/15/2005	<.02	<.006	<.006	<.028	<.005	<.02	<.022	<.04
	9/6/2005	<.02	<.006	<.006	<.028	<.005	<.02	<.022	<.04
MT-1256	12/15/2004	<.02	<.006	<.006	<.028	<.005	<.02	<.022	<.04
	3/16/2005	<.02	<.006	<.006	<.028	<.005	<.02	<.022	<.04
	6/17/2005	<.02	<.006	<.006	<.028	<.005	<.02	<.022	<.04
	9/7/2005	<.02	<.006	<.006	<.028	<.005	<.02	<.022	<.04
MT-1258	12/2/2004	<.02	<.006	<.006	<.028	<.005	<.02	<.022	<.04
	3/16/2005	<.02	<.006	<.006	<.028	<.005	<.02	<.022	<.04
	6/16/2005	<.02	<.006	<.006	<.028	<.005	<.02	<.022	<.04
	9/7/2005	<.02	<.006	<.006	<.028	<.005	<.02	<.022	<.04
MT-1260	12/1/2004	<.02	<.006	<.006	<.028	<.005	<.02	<.022	<.04
	3/14/2005	<.02	<.006	<.006	<.028	<.005	<.02	<.022	<.04
	6/14/2005	<.02	<.006	<.006	<.028	<.005	<.02	<.022	<.04
	9/7/2005	<.02	<.006	<.006	<.028	<.005	<.02	<.022	<.04
CL-286	11/30/2004	<.02	<.006	<.006	<.028	<.005	<.02	<.022	<.04
	3/15/2005	<.02	<.006	<.006	<.028	<.005	<.02	<.022	<.04
	6/14/2005	<.02	<.006	<.006	<.028	<.005	<.02	<.022	<.04
	9/8/2005	<.02	<.006	<.006	<.028	<.005	<.02	<.022	<.04
GR-659	12/1/2004	<.02	<.006	<.006	<.028	<.005	<.02	<.022	<.04
	3/15/2005	<.02	<.006	<.006	<.028	<.005	<.02	<.022	<.04
	6/16/2005	<.02	<.006	<.006	<.028	<.005	<.02	<.022	<.04
	9/8/2005	<.02	<.006	<.006	<.028	<.005	<.02	<.022	<.04

SHALLOW MONITOR WELLS IN RESIDENTIAL AREAS—Continued

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

[(34362), USGS National Water Information System parameter code; µg/L, micrograms per liter; --, not reported; <, concentration or value reported is less than that indicated]

Local well number	Date	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)	Bendio-carb, water, fltrd, µg/L (50299)	Ben-flur-alin, water, fltrd, 0.7µ GF µg/L (82673)	Benomyl, water, fltrd, µg/L (50300)	Bensul-furon, water, fltrd, µg/L (61693)
H-158	12/15/2004	--	<.007	<.07	<.050	<.02	<.010	<.022	<.02
	3/17/2005	--	<.007	<.07	<.050	<.02	<.010	<.022	<.02
	6/15/2005	<.005	<.007	<.07	<.050	<.02	<.010	<.022	<.02
	9/6/2005	<.005	<.007	<.07	<.050	<.02	<.010	<.022	<.02
BU-1164	12/2/2004	--	<.007	<.07	<.050	<.02	<.010	<.022	<.02
	3/17/2005	--	<.007	<.10	<.050	<.02	<.010	<.022	<.02
	6/15/2005	<.005	<.007	<.07	<.050	<.02	<.010	<.022	<.02
	9/6/2005	<.005	<.007	<.07	<.050	<.02	<.010	<.022	<.02
MT-1256	12/15/2004	--	0.016	<.07	<.050	<.02	<.010	<.022	<.02
	3/16/2005	--	0.008	<.07	<.050	<.02	<.010	<.022	<.02
	6/17/2005	<.005	0.01	<.07	<.050	<.02	<.010	<.022	<.02
	9/7/2005	<.005	0.013	<.07	<.050	<.02	<.010	<.022	<.02
MT-1258	12/2/2004	--	E.005	<.07	<.050	<.02	<.010	<.022	<.02
	3/16/2005	--	<.007	<.07	<.050	<.02	<.010	<.022	<.02
	6/16/2005	<.005	E.006	<.07	<.050	<.02	<.010	<.022	<.02
	9/7/2005	<.005	E.005	<.07	<.050	<.02	<.010	<.022	<.02
MT-1260	12/1/2004	--	<.007	<.07	<.050	<.02	<.010	<.022	<.02
	3/14/2005	--	<.007	<.07	<.050	<.02	<.010	<.022	.03
	6/14/2005	<.005	<.007	<.07	<.050	<.02	<.010	<.022	<.02
	9/7/2005	<.005	<.007	<.07	<.050	<.02	<.010	<.022	<.02
CL-286	11/30/2004	--	<.007	<.07	<.050	<.02	<.010	<.022	<.02
	3/15/2005	--	<.007	<.07	<.050	<.02	<.010	<.022	.03
	6/14/2005	<.005	<.007	<.07	<.050	<.02	<.010	<.022	<.02
	9/8/2005	<.005	<.007	<.07	<.050	<.02	<.010	<.022	<.02
GR-659	12/1/2004	--	<.007	<.07	<.050	<.02	<.010	<.022	<.02
	3/15/2005	--	<.007	<.07	<.050	<.02	<.010	<.022	.09
	6/16/2005	<.005	<.007	<.07	<.050	<.02	<.010	<.022	.03
	9/8/2005	<.005	<.007	<.07	<.050	<.02	<.010	<.022	.02

SHALLOW MONITOR WELLS IN RESIDENTIAL AREAS—Continued

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

[(38711), USGS National Water Information System parameter code; µg/L, micrograms per liter; --, not reported; E, estimated; <, concentration or value reported is less than that indicated]

Local well number	Date	Ben-tazon, water, fltrd, 0.7µ GF µg/L (38711)	Broma-cil, water, fltrd, µg/L (04029)	Brom-oxynil, water, fltrd, 0.7µ GF µg/L (49311)	Caf-feine, water, fltrd, µg/L (50305)	Car-baryl, water, fltrd, 0.7µ GF µg/L (49310)	Car-baryl, water, fltrd, 0.7µ GF µg/L (82680)	Carbo-furan, water, fltrd, 0.7µ GF µg/L (49309)	Carbo-furan, water, fltrd, 0.7µ GF µg/L (82674)
H-158	12/15/2004	<.01	<.02	<.03	E.014	<.02	<.041	<.016	--
	3/17/2005	<.01	<.02	<.03	<.018	<.02	<.041	<.016	--
	6/15/2005	<.01	<.02	<.03	<.018	<.02	<.041	<.016	<.020
	9/6/2005	<.01	<.02	<.03	E.010	<.02	<.041	<.016	<.020
BU-1164	12/2/2004	<.01	<.02	<.03	<.018	<.02	<.041	<.016	--
	3/17/2005	<.01	<.02	<.03	<.018	<.02	<.041	<.016	--
	6/15/2005	<.01	<.02	<.03	<.018	<.02	<.041	<.016	<.020
	9/6/2005	<.01	<.02	<.03	<.018	<.02	<.041	<.016	<.020
MT-1256	12/15/2004	<.01	<.02	<.03	<.018	<.02	<.041	<.016	--
	3/16/2005	<.01	<.02	<.03	<.018	<.02	<.041	<.016	--
	6/17/2005	<.01	<.02	<.03	<.018	<.02	<.041	<.016	<.020
	9/7/2005	<.01	<.02	<.03	E.009	<.02	<.041	<.016	<.020
MT-1258	12/2/2004	<.01	<.02	<.03	<.018	<.02	<.041	<.016	--
	3/16/2005	<.01	<.02	<.03	<.018	<.02	<.041	<.016	--
	6/16/2005	<.01	<.02	<.03	<.018	<.02	<.041	<.016	<.020
	9/7/2005	<.01	<.02	<.03	E.017	<.02	<.041	<.016	<.020
MT-1260	12/1/2004	<.01	<.02	<.03	<.018	<.02	<.041	<.016	--
	3/14/2005	<.01	<.02	<.03	<.018	<.02	<.041	<.016	--
	6/14/2005	<.01	<.02	<.03	<.018	<.02	<.041	<.016	<.020
	9/7/2005	<.01	<.02	<.03	<.018	<.02	<.041	<.016	<.020
CL-286	11/30/2004	<.01	<.02	<.03	<.018	<.02	<.041	<.016	--
	3/15/2005	<.01	<.02	<.03	<.018	<.02	<.041	<.016	--
	6/14/2005	<.01	<.02	<.03	<.018	<.02	<.041	<.016	<.020
	9/8/2005	<.01	<.02	<.03	<.018	<.02	<.041	<.016	<.020
GR-659	12/1/2004	<.01	<.02	<.03	<.018	<.02	<.041	<.016	--
	3/15/2005	<.01	<.02	<.03	E.004	<.02	<.041	<.016	--
	6/16/2005	<.01	<.02	<.03	<.018	<.02	<.041	<.016	<.020
	9/8/2005	<.01	<.02	<.03	<.018	<.02	<.041	<.016	<.020

SHALLOW MONITOR WELLS IN RESIDENTIAL AREAS—Continued

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

[(61188), USGS National Water Information System parameter code; µg/L, micrograms per liter; --, not reported; <, concentration or value reported is less than that indicated]

Local well number	Date	Chlor-amben methyl ester, water, fltrd, µg/L (61188)	Chlorimuron, water, fltrd, µg/L (50306)	Chloro-di-amino-s-triazine, water, fltrd, µg/L (4039)	Chloro-thalonil, water, fltrd, 0.7µ GF µg/L (49306)	Chlor-pyrifos oxon, water, fltrd, µg/L (61636)	Chlor-pyrifos, water, fltrd, µg/L (38933)	cis-Permethrin, water, fltrd, 0.7µ GF µg/L (82687)	cis-Propiconazole, water, fltrd, µg/L (79846)
H-158	12/15/2004	<.02	<.032	<.04	<.04	<.06	<.005	<.006	--
	3/17/2005	<.02	<.032	<.04	<.04	<.06	<.005	<.006	--
	6/15/2005	<.02	<.032	<.04	<.04	<.06	<.005	<.006	<.008
	9/6/2005	<.02	<.032	<.04	<.04	<.06	<.005	<.006	<.008
BU-1164	12/2/2004	<.02	<.032	<.04	<.04	<.06	<.005	<.006	--
	3/17/2005	<.02	<.032	<.04	<.04	<.06	<.005	<.006	--
	6/15/2005	<.02	<.032	<.04	<.04	<.06	<.005	<.006	<.008
	9/6/2005	<.02	<.032	<.04	<.04	<.06	<.005	<.006	<.008
MT-1256	12/15/2004	<.02	<.032	<.04	<.04	<.06	<.005	<.006	--
	3/16/2005	<.02	<.032	<.04	<.04	<.06	<.005	<.006	--
	6/17/2005	<.02	<.032	<.04	<.04	<.06	<.005	<.006	<.008
	9/7/2005	<.02	<.032	<.04	<.04	<.06	<.005	<.006	<.008
MT-1258	12/2/2004	<.02	<.032	<.04	<.04	<.06	<.005	<.006	--
	3/16/2005	<.02	<.032	<.04	<.04	<.06	<.005	<.006	--
	6/16/2005	<.02	<.032	<.04	<.04	<.06	<.005	<.006	<.008
	9/7/2005	<.02	<.032	<.04	<.04	<.06	<.005	<.006	<.008
MT-1260	12/1/2004	<.02	<.032	<.04	<.04	<.06	<.005	<.006	--
	3/14/2005	<.02	<.032	<.04	<.04	<.06	<.005	<.006	--
	6/14/2005	<.02	<.032	<.04	<.04	<.06	<.005	<.006	<.008
	9/7/2005	<.02	<.032	<.04	<.04	<.06	<.005	<.006	<.008
CL-286	11/30/2004	<.02	<.032	<.04	<.04	<.06	<.005	<.006	--
	3/15/2005	<.02	<.032	<.04	<.04	<.06	<.005	<.006	--
	6/14/2005	<.02	<.032	<.04	<.04	<.06	<.005	<.006	<.008
	9/8/2005	<.02	<.032	<.04	<.04	<.06	<.005	<.006	<.008
GR-659	12/1/2004	<.02	<.032	<.04	<.04	<.06	<.005	<.006	--
	3/15/2005	<.02	<.032	<.04	<.04	<.06	<.005	<.006	--
	6/16/2005	<.02	<.032	<.04	<.04	<.06	<.005	<.006	<.008
	9/8/2005	<.02	<.032	<.04	<.04	<.06	<.005	<.006	<.008

SHALLOW MONITOR WELLS IN RESIDENTIAL AREAS—Continued

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

[(49305), USGS National Water Information System parameter code; µg/L, micrograms per liter; --not reported; <, concentration or value reported is less than that indicated]

Local well number	Date	Clopyr-	Cyana-	Cyclo-	Cyflu-	lambda-	Cyper-	Dacthal	DCPA,
		alid, water, fltrd, 0.7µ GF µg/L (49305)	zine, water, fltrd, µg/L (04041)	ate, water, fltrd, µg/L (04031)	thrin, water, fltrd, µg/L (61585)	Cyhalo- thrin, water, fltrd, µg/L (61595)	methrin, water, fltrd, µg/L (61586)	mono- acid, water, fltrd, 0.7µ GF µg/L (49304)	water, fltrd, 0.7µ GF µg/L (82682)
H-158	12/15/2004	<.02	--	<.01	<.008	--	<.009	<.03	<.003
	3/17/2005	<.02	--	<.01	<.027	--	<.009	<.03	<.003
	6/15/2005	<.02	<.018	<.01	<.027	<.009	<.009	<.03	<.003
	9/6/2005	<.02	<.018	<.01	<.027	<.009	<.009	<.03	<.003
BU-1164	12/2/2004	<.02	--	<.01	<.008	--	<.009	<.03	<.003
	3/17/2005	<.02	--	<.01	<.027	--	<.009	<.03	<.003
	6/15/2005	<.02	<.018	<.01	<.027	<.009	<.009	<.03	<.003
	9/6/2005	<.02	<.018	<.01	<.027	<.009	<.009	<.03	<.003
MT-1256	12/15/2004	<.02	--	<.01	<.008	--	<.009	<.03	<.003
	3/16/2005	<.02	--	<.01	<.008	--	<.009	<.03	<.003
	6/17/2005	<.02	<.018	<.01	<.027	<.009	<.009	<.03	<.003
	9/7/2005	<.02	<.018	<.01	<.027	<.009	<.009	<.03	<.003
MT-1258	12/2/2004	<.02	--	<.01	<.008	--	<.009	<.03	<.003
	3/16/2005	<.02	--	<.01	<.008	--	<.009	<.03	<.003
	6/16/2005	<.02	<.018	<.01	<.027	<.009	<.009	<.03	<.003
	9/7/2005	<.02	<.018	<.01	<.027	<.009	<.009	<.03	<.003
MT-1260	12/1/2004	<.02	--	<.01	<.008	--	<.009	<.03	<.003
	3/14/2005	<.02	--	<.01	<.027	--	<.009	<.03	<.003
	6/14/2005	<.02	<.018	<.01	<.027	<.009	<.009	<.03	<.003
	9/7/2005	<.02	<.018	<.01	<.027	<.009	<.009	<.03	<.003
CL-286	11/30/2004	<.02	--	<.01	<.008	--	<.009	<.03	<.003
	3/15/2005	<.02	--	<.01	<.008	--	<.009	<.03	<.003
	6/14/2005	<.02	<.018	<.01	<.027	<.009	<.009	<.03	<.003
	9/8/2005	<.02	<.018	<.01	<.027	<.009	<.009	<.03	<.003
GR-659	12/1/2004	<.02	--	<.01	<.008	--	<.009	<.03	<.003
	3/15/2005	<.02	--	<.01	<.008	--	<.009	<.03	<.003
	6/16/2005	<.02	<.018	<.01	<.027	<.009	<.009	<.03	<.003
	9/8/2005	<.02	<.018	<.01	<.027	<.009	<.009	<.03	<.003

SHALLOW MONITOR WELLS IN RESIDENTIAL AREAS—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; --, not reported; <, concentration or value reported is less than that indicated]

Local well number	Date	Desulf- inyl fipro- nil, water, fltrd, µg/L (62170)	Diaz- inon oxon, water, fltrd, µg/L (61638)	Diazi- non, water, fltrd, µg/L (39572)	Diazi- non-d10 surrog, Sch2003, water, flt, percent recovry (99994)	Dicamba, water, fltrd, 0.7µ GF µg/L (38442)	Di- chlor- prop, water, fltrd, 0.7µ GF µg/L (49302)	Dicro- tophos, water, fltrd, µg/L (38454)	Diel- drin, water, fltrd, µg/L (39381)
H-158	12/15/2004	<.012	<.01	<.005	101	<.04	<.03	<.08	<.009
	3/17/2005	<.012	<.01	<.005	79.3	<.04	<.03	<.08	<.009
	6/15/2005	<.012	--	<.005	87.9	<.04	<.03	<.08	<.009
	9/6/2005	<.012	--	<.005	88.7	<.04	<.03	<.08	<.009
BU-1164	12/2/2004	<.012	<.01	<.005	103	<.04	<.03	<.08	<.009
	3/17/2005	<.012	<.01	<.005	88.6	<.04	<.03	<.08	<.009
	6/15/2005	<.012	--	<.005	93.0	<.04	<.03	<.08	<.009
	9/6/2005	<.012	--	<.005	95.4	<.04	<.03	<.08	<.009
MT-1256	12/15/2004	<.012	<.01	<.005	107	<.04	<.03	<.08	<.009
	3/16/2005	<.012	<.01	<.005	105	<.04	<.03	<.08	<.009
	6/17/2005	<.012	--	<.005	82.9	<.04	<.03	<.08	<.009
	9/7/2005	<.012	--	<.005	97.0	<.04	<.03	--	<.009
MT-1258	12/2/2004	<.012	<.01	<.005	100	<.04	<.03	<.08	<.009
	3/16/2005	<.012	<.01	<.005	118	<.04	<.03	<.08	<.009
	6/16/2005	<.012	--	<.005	101	<.04	<.03	<.08	<.009
	9/7/2005	<.012	--	<.005	93.8	<.04	<.03	--	<.009
MT-1260	12/1/2004	<.012	<.01	<.005	87.2	<.04	<.03	<.08	<.009
	3/14/2005	<.012	<.01	<.005	107	<.04	<.03	<.08	<.009
	6/14/2005	<.012	--	<.005	87.7	<.04	<.03	<.08	<.009
	9/7/2005	<.012	--	<.005	87.5	<.04	<.03	--	<.009
CL-286	11/30/2004	<.012	<.01	<.005	90.2	<.04	<.03	<.08	<.009
	3/15/2005	<.012	<.01	<.005	99.5	<.04	<.03	<.08	<.009
	6/14/2005	<.012	--	<.005	86.1	<.04	<.03	<.08	<.009
	9/8/2005	<.012	--	<.005	70.0	<.04	<.03	<.08	<.009
GR-659	12/1/2004	<.012	<.01	<.005	99.6	<.04	<.03	<.08	<.009
	3/15/2005	<.012	<.01	<.005	91.5	<.04	<.03	<.08	<.009
	6/16/2005	<.012	--	<.005	107	<.04	<.03	<.08	<.009
	9/8/2005	<.012	--	<.005	63.1	<.04	<.03	<.08	<.009

SHALLOW MONITOR WELLS IN RESIDENTIAL AREAS—Continued

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

[(82662), USGS National Water Information System parameter code; µg/L, micrograms per liter; --, not reported; <, concentration or value reported is less than that indicated]

Local well number	Date	Dimeth-oate, water, fltrd, 0.7µ GF µg/L (82662)	Dinoseb, water, fltrd, 0.7µ GF µg/L (49301)	Diphen-amid, water, fltrd, µg/L (04033)	Disulf-oton sulfone, water, fltrd, µg/L (61640)	Disul-foton, water, fltrd, 0.7µ GF µg/L (82677)	Diuron, water, fltrd, 0.7µ GF µg/L (49300)	Endo-sulfan sulfate, water, fltrd, µg/L (61590)	EPTC, water, fltrd, 0.7µ GF µg/L (82668)
H-158	12/15/2004	<.006	<.04	<.01	--	--	<.01	--	--
	3/17/2005	<.006	<.04	<.01	--	--	<.01	--	--
	6/15/2005	<.006	<.04	<.01	<.01	<.02	<.01	<.014	<.004
	9/6/2005	<.006	<.04	<.01	<.01	<.02	<.01	<.014	<.004
BU-1164	12/2/2004	<.006	<.04	<.01	--	--	<.01	--	--
	3/17/2005	<.006	<.04	<.01	--	--	<.01	--	--
	6/15/2005	<.006	<.04	<.01	<.01	<.02	<.01	<.014	<.004
	9/6/2005	<.006	<.04	<.01	<.01	<.02	<.01	<.014	<.004
MT-1256	12/15/2004	<.006	<.04	<.01	--	--	<.01	--	--
	3/16/2005	<.006	<.04	<.01	--	--	<.01	--	--
	6/17/2005	<.006	<.04	<.01	<.01	<.02	<.01	<.014	<.004
	9/7/2005	<.006	<.04	<.01	<.01	<.02	<.01	<.014	<.004
MT-1258	12/2/2004	<.006	<.04	<.01	--	--	<.01	--	--
	3/16/2005	<.006	<.04	<.01	--	--	<.01	--	--
	6/16/2005	<.006	<.04	<.01	<.01	<.02	<.01	<.014	<.004
	9/7/2005	<.006	<.04	<.01	<.01	<.02	<.01	<.014	<.004
MT-1260	12/1/2004	<.006	<.04	<.01	--	--	<.01	--	--
	3/14/2005	<.006	<.04	<.01	--	--	<.01	--	--
	6/14/2005	<.006	<.04	<.01	<.01	<.02	<.01	<.014	<.004
	9/7/2005	<.006	<.04	<.01	<.01	<.02	<.01	<.014	<.004
CL-286	11/30/2004	<.006	<.04	<.01	--	--	<.01	--	--
	3/15/2005	<.006	<.04	<.01	--	--	<.01	--	--
	6/14/2005	<.006	<.04	<.01	<.01	<.02	<.01	<.014	<.004
	9/8/2005	<.006	<.04	<.01	<.01	<.02	<.01	<.014	<.004
GR-659	12/1/2004	<.006	<.04	<.01	--	--	<.01	--	--
	3/15/2005	<.006	<.04	<.01	--	--	<.01	--	--
	6/16/2005	<.006	<.04	<.01	<.01	<.02	<.01	<.014	<.004
	9/8/2005	<.006	<.04	<.01	<.01	<.02	<.01	<.014	<.004

SHALLOW MONITOR WELLS IN RESIDENTIAL AREAS—Continued

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

[(61664), USGS National Water Information System parameter code; µg/L, micrograms per liter; --, not reported; <, concentration or value reported is less than that indicated]

Local well number	Date	Ethion monoxon, water, fltrd, µg/L (61644)	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)	Fenuron water, fltrd, 0.7µ GF µg/L (49297)	Desulf-inyl-fipro-nil amide, water, flt, µg/L (62169)
H-158	12/15/2004	<.0020	<.004	--	<.049	--	<.03	<.02	<.029
	3/17/2005	<.0020	<.004	--	<.049	<.04	<.03	<.02	<.029
	6/15/2005	<.002	<.004	<.005	<.049	<.04	<.03	<.02	<.029
	9/6/2005	<.002	<.004	<.005	<.049	<.04	<.03	<.02	<.029
BU-1164	12/2/2004	<.0020	<.004	--	<.049	<.04	<.03	<.02	<.029
	3/17/2005	<.0020	<.004	--	<.049	<.04	<.03	<.02	<.029
	6/15/2005	<.002	<.004	<.005	<.049	<.04	<.03	<.02	<.029
	9/6/2005	<.002	<.004	<.005	<.049	<.04	<.03	<.02	<.029
MT-1256	12/15/2004	<.0020	<.004	--	<.049	--	<.03	<.02	<.029
	3/16/2005	<.0020	<.004	--	<.049	<.04	<.03	<.02	<.029
	6/17/2005	<.002	<.004	<.005	<.049	<.04	<.03	<.02	<.029
	9/7/2005	<.002	<.004	<.005	<.049	<.04	<.03	<.02	<.029
MT-1258	12/2/2004	<.0020	<.004	--	<.049	<.04	<.03	<.02	<.029
	3/16/2005	<.0020	<.004	--	<.049	<.04	<.03	<.02	<.029
	6/16/2005	<.002	<.004	<.005	<.049	<.04	<.03	<.02	<.029
	9/7/2005	<.002	<.004	<.005	<.049	<.04	<.03	<.02	<.029
MT-1260	12/1/2004	<.0020	<.004	--	<.049	--	<.03	<.02	<.029
	3/14/2005	<.0020	<.004	--	<.049	<.04	<.03	<.02	<.029
	6/14/2005	<.002	<.004	<.005	<.049	<.04	<.03	<.02	<.029
	9/7/2005	<.002	<.004	<.005	<.049	<.04	<.03	<.02	<.029
CL-286	11/30/2004	<.0020	<.004	--	<.049	<.04	<.03	<.02	<.029
	3/15/2005	<.0020	<.004	--	<.049	<.04	<.03	<.02	<.029
	6/14/2005	<.002	<.004	<.005	<.049	<.04	<.03	<.02	<.029
	9/8/2005	<.002	<.004	<.005	<.049	<.04	<.03	<.02	<.029
GR-659	12/1/2004	<.0020	<.004	--	<.049	--	<.03	<.02	<.029
	3/15/2005	<.0020	<.004	--	<.049	<.04	<.03	<.02	<.029
	6/16/2005	<.002	<.004	<.005	<.049	<.04	<.03	<.02	<.029
	9/8/2005	<.002	<.004	<.005	<.049	<.04	<.03	<.02	<.029

SHALLOW MONITOR WELLS IN RESIDENTIAL AREAS—Continued

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

[(62167), USGS National Water Information System parameter code; µg/L, micrograms per liter; --, not reported; <, concentration or value reported is less than that indicated]

Local well number	Date	Fipro-nil sulfide, water, fltrd, µg/L (62167)	Fipro-nil sulfone, water, fltrd, µg/L (62168)	Fipro-nil, water, fltrd, µg/L (62166)	Flumet-sulam, water, fltrd, µg/L (61694)	Fluo-meturon, water, fltrd, 0.7µ GF µg/L (38811)	Fonofos, oxon, water, fltrd, µg/L (61649)	Fonofos water, fltrd, µg/L (04095)	Hexa-zinone, water, fltrd, µg/L (04025)
H-158	12/15/2004	<.013	<.024	<.016	<.04	<.02	<.003	<.003	<.013
	3/17/2005	<.013	<.024	<.016	<.04	<.02	--	<.003	<.013
	6/15/2005	<.013	<.024	<.016	<.04	<.02	--	<.003	<.013
	9/6/2005	<.013	<.024	<.016	<.04	<.02	--	<.003	<.013
BU-1164	12/2/2004	<.013	<.024	<.016	<.04	<.02	<.003	<.003	<.013
	3/17/2005	<.013	<.024	<.016	<.04	<.02	--	<.003	<.013
	6/15/2005	<.013	<.024	<.016	<.04	<.02	--	<.003	<.013
	9/6/2005	<.013	<.024	<.016	<.04	<.02	--	<.003	<.013
MT-1256	12/15/2004	<.013	<.024	<.016	<.04	<.02	<.003	<.003	<.013
	3/16/2005	<.013	<.024	<.016	<.04	<.02	--	<.003	<.013
	6/17/2005	<.013	<.024	<.016	<.04	<.02	--	<.003	<.013
	9/7/2005	<.013	<.024	<.016	<.04	<.02	--	<.003	<.013
MT-1258	12/2/2004	<.013	<.024	<.016	<.04	<.02	<.003	<.003	<.013
	3/16/2005	<.013	<.024	<.016	<.04	<.02	--	<.003	0.06
	6/16/2005	<.013	<.024	<.016	<.04	<.02	--	<.003	<.013
	9/7/2005	<.013	<.024	<.016	<.04	<.02	--	<.003	<.013
MT-1260	12/1/2004	<.013	<.024	<.016	<.04	<.02	<.003	<.003	<.013
	3/14/2005	<.013	<.024	<.016	<.04	<.02	--	<.003	<.013
	6/14/2005	<.013	<.024	<.016	<.04	<.02	--	<.003	<.013
	9/7/2005	<.013	<.024	<.016	<.04	<.02	--	<.003	<.013
CL-286	11/30/2004	<.013	<.024	<.016	<.04	<.02	<.003	<.003	<.013
	3/15/2005	<.013	<.024	<.016	<.04	<.02	--	<.003	<.013
	6/14/2005	<.013	<.024	<.016	<.04	<.02	--	<.003	<.013
	9/8/2005	<.013	<.024	<.016	<.04	<.02	--	<.003	<.013
GR-659	12/1/2004	<.013	<.024	<.016	<.04	<.02	<.003	<.003	<.013
	3/15/2005	<.013	<.024	<.016	<.04	<.02	--	<.003	<.013
	6/16/2005	<.013	<.024	<.016	<.04	<.02	--	<.003	<.013
	9/8/2005	<.013	<.024	<.016	<.04	<.02	--	<.003	<.013

SHALLOW MONITOR WELLS IN RESIDENTIAL AREAS—Continued

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

[(50356), USGS National Water Information System parameter code; µg/L, micrograms per liter; <, concentration or value reported is less than that indicated]

Local well number	Date	Imaza-quin, water, fltrd, µg/L (50356)	Imazethapyr, water, fltrd, µg/L (50407)	Imidacloprid, water, fltrd, µg/L (61695)	Iprodione, water, fltrd, µg/L (61593)	Isofenphos, water, fltrd, µg/L (61594)	Linuron, water, fltrd, 0.7µ GF µg/L (38478)	Malathion, water, fltrd, µg/L (61652)	Malathion, water, fltrd, µg/L (39532)
H-158	12/15/2004	<.04	<.04	<.020	<.387	<.003	<.01	<.030	<.027
	3/17/2005	<.04	<.04	<.020	<.538	<.003	<.01	<.030	<.027
	6/15/2005	<.04	<.04	<.020	<.538	<.003	<.01	<.030	<.027
	9/6/2005	<.04	<.04	<.020	<.538	<.003	<.01	<.030	<.027
BU-1164	12/2/2004	<.04	<.04	<.020	<.387	<.003	<.01	<.030	<.027
	3/17/2005	<.04	<.04	<.020	<.538	<.003	<.01	<.030	<.027
	6/15/2005	<.04	<.04	<.020	<.538	<.003	<.01	<.030	<.027
	9/6/2005	<.04	<.04	<.020	<.538	<.003	<.01	<.030	<.027
MT-1256	12/15/2004	<.04	<.04	<.020	<.387	<.003	<.01	<.030	<.027
	3/16/2005	<.04	<.04	<.020	<.387	<.003	<.01	<.030	<.027
	6/17/2005	<.04	<.04	<.020	<.538	<.003	<.01	<.030	<.027
	9/7/2005	<.04	<.04	<.020	<.538	<.003	<.01	<.030	<.027
MT-1258	12/2/2004	<.04	<.04	<.020	<.387	<.003	<.01	<.030	<.027
	3/16/2005	<.04	<.04	<.020	<.387	<.003	<.01	<.030	<.027
	6/16/2005	<.04	<.04	<.020	<.538	<.003	<.01	<.030	<.027
	9/7/2005	<.04	<.04	<.020	<.538	<.003	<.01	<.030	<.027
MT-1260	12/1/2004	<.04	<.04	<.020	<.387	<.003	<.01	<.030	<.027
	3/14/2005	<.04	<.04	<.020	<.538	<.003	<.01	<.030	<.027
	6/14/2005	<.04	<.04	<.020	<.538	<.003	<.01	<.030	<.027
	9/7/2005	<.04	<.04	<.020	<.538	<.003	<.01	<.030	<.027
CL-286	11/30/2004	<.04	<.04	<.020	<.387	<.003	<.01	<.030	<.027
	3/15/2005	<.04	<.04	<.020	<.387	<.003	<.01	<.030	<.027
	6/14/2005	<.04	<.04	<.020	<.538	<.003	<.01	<.030	<.027
	9/8/2005	<.04	<.04	<.020	<.538	<.003	<.01	<.030	<.027
GR-659	12/1/2004	<.04	<.04	<.020	<.387	<.003	<.01	<.030	<.027
	3/15/2005	<.04	<.04	<.020	<.387	<.003	<.01	<.030	<.027
	6/16/2005	<.04	<.04	<.020	<.538	<.003	<.01	<.030	<.027
	9/8/2005	<.04	<.04	<.020	<.538	<.003	<.01	<.030	<.027

SHALLOW MONITOR WELLS IN RESIDENTIAL AREAS—Continued

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

[(34842), USGS National Water Information System parameter code; µg/L, micrograms per liter; --, not reported; <, concentration or value reported is less than that indicated]

Local well number	Date	MCPA, water, fltrd, 0.7µ GF µg/L (38482)	MCPB, water, fltrd, 0.7µ GF µg/L (38487)	Meta-laxyl, water, fltrd, µg/L (50359)	Meta-laxyl, water, fltrd, µg/L (61596)	Methi-althion, water, fltrd, µg/L (61598)	Methio-carb, water, fltrd, 0.7µ GF µg/L (38501)	Meth-omyl, water, fltrd, 0.7µ GF µg/L (49296)	Methyl para-oxon, water, fltrd, µg/L (61664)
H-158	12/15/2004	--	<.01	<.01	<.005	<.006	<.010	<.020	<.03
	3/17/2005	<.03	<.01	<.01	<.005	<.006	<.010	<.020	<.03
	6/15/2005	<.03	<.01	<.01	<.005	<.006	<.010	<.020	<.03
	9/6/2005	<.03	<.01	<.01	<.005	<.006	<.010	<.020	<.03
BU-1164	12/2/2004	<.03	<.01	<.01	<.005	<.006	<.010	<.020	<.03
	3/17/2005	<.03	<.01	<.01	<.005	<.006	<.010	<.020	<.03
	6/15/2005	<.03	<.01	<.01	<.005	<.006	<.010	<.020	<.03
	9/6/2005	<.03	<.01	<.01	<.005	<.006	<.010	<.020	<.03
MT-1256	12/15/2004	--	<.01	<.01	<.005	<.006	<.010	<.020	<.03
	3/16/2005	<.03	<.01	<.01	<.005	<.006	<.010	<.020	<.03
	6/17/2005	<.03	<.01	<.01	<.005	<.006	<.010	<.020	<.03
	9/7/2005	<.03	<.01	<.01	<.005	<.006	<.010	<.020	<.03
MT-1258	12/2/2004	<.03	<.01	<.01	<.005	<.006	<.010	<.020	<.03
	3/16/2005	<.03	<.01	<.01	<.005	<.006	<.010	<.020	<.03
	6/16/2005	<.03	<.01	<.01	<.005	<.006	<.010	<.020	<.03
	9/7/2005	<.03	<.01	<.01	<.005	<.006	<.010	<.020	<.03
MT-1260	12/1/2004	<.03	<.01	<.01	<.005	<.006	<.010	<.020	<.03
	3/14/2005	<.03	<.01	<.01	<.005	<.006	<.010	<.020	<.03
	6/14/2005	<.03	<.01	<.01	<.005	<.006	<.010	<.020	<.03
	9/7/2005	<.03	<.01	<.01	<.005	<.006	<.010	<.020	<.03
CL-286	11/30/2004	<.03	<.01	<.01	<.005	<.006	<.010	<.020	<.03
	3/15/2005	<.03	<.01	<.01	<.005	<.006	<.010	<.020	<.03
	6/14/2005	<.03	<.01	<.01	<.005	<.006	<.010	<.020	<.03
	9/8/2005	<.03	<.01	<.01	<.005	<.006	<.010	<.020	<.03
GR-659	12/1/2004	<.03	<.01	<.01	<.005	<.006	<.010	<.020	<.03
	3/15/2005	<.03	<.01	<.01	<.005	<.006	<.010	<.020	<.03
	6/16/2005	<.03	<.01	<.01	<.005	<.006	<.010	<.020	<.03
	9/8/2005	<.03	<.01	<.01	<.005	<.006	<.010	<.020	<.03

SHALLOW MONITOR WELLS IN RESIDENTIAL AREAS—Continued

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

[(82667), USGS National Water Information System parameter code; µg/L, micrograms per liter; --, not reported; E, estimated; <, concentration or value reported is less than that indicated]

Local well number	Date	Methyl parathion, water, fltrd, 0.7µ GF µg/L (82667)	Metolachlor, water, fltrd, µg/L (39415)	Metribuzin, water, fltrd, µg/L (82630)	Metsulfuron, water, fltrd, µg/L (61697)	Molinate, water, fltrd, 0.7µ GF µg/L (82671)	Myclobutanol, water, fltrd, µg/L (61599)	N-(4-Chlorophenyl)-N'-methylurea, µg/L (61692)	Neburon water, fltrd, 0.7µ GF µg/L (49294)
H-158	12/15/2004	<.015	<.006	<.006	<.03	--	<.008	<.04	<.01
	3/17/2005	<.015	<.006	<.006	<.03	--	<.008	<.04	<.01
	6/15/2005	<.015	<.006	<.006	<.03	<.003	<.008	<.04	<.01
	9/6/2005	<.015	<.006	<.006	<.03	<.003	<.008	<.04	<.01
BU-1164	12/2/2004	<.015	<.006	<.006	<.03	--	<.008	<.04	<.01
	3/17/2005	<.015	<.006	<.006	<.03	--	<.008	<.04	<.01
	6/15/2005	<.015	<.006	<.006	<.03	<.003	<.008	<.04	<.01
	9/6/2005	<.015	<.006	<.006	<.03	<.003	<.008	<.04	<.01
MT-1256	12/15/2004	<.015	<.006	<.006	<.03	--	<.008	<.04	<.01
	3/16/2005	<.015	<.006	<.006	<.03	--	<.008	<.04	<.01
	6/17/2005	<.015	E.004	<.006	<.03	<.003	<.008	<.04	<.01
	9/7/2005	<.015	E.005	<.006	<.03	<.003	<.008	<.04	<.01
MT-1258	12/2/2004	<.015	<.006	<.006	<.03	--	<.008	<.04	<.01
	3/16/2005	<.015	<.006	<.006	<.03	--	<.008	<.04	<.01
	6/16/2005	<.015	<.006	<.006	<.03	<.003	<.008	<.04	<.01
	9/7/2005	<.015	<.006	<.006	<.03	<.003	<.008	<.04	<.01
MT-1260	12/1/2004	<.015	<.006	<.006	<.03	--	<.008	<.04	<.01
	3/14/2005	<.015	<.006	<.006	<.03	--	<.008	<.04	<.01
	6/14/2005	<.015	<.006	<.006	<.03	<.003	<.008	<.04	<.01
	9/7/2005	<.015	<.006	<.006	<.03	<.003	<.008	<.04	<.01
CL-286	11/30/2004	<.015	<.006	<.006	<.03	--	<.008	<.04	<.01
	3/15/2005	<.015	<.006	<.006	<.03	--	<.008	<.04	<.01
	6/14/2005	<.015	<.006	<.006	<.03	<.003	<.008	<.04	<.01
	9/8/2005	<.015	<.006	<.006	<.03	<.003	<.008	<.04	<.01
GR-659	12/1/2004	<.015	<.006	<.006	<.03	--	<.008	<.04	<.01
	3/15/2005	<.015	<.006	<.006	<.03	--	<.008	<.04	<.01
	6/16/2005	<.015	<.006	<.006	<.03	<.003	<.008	<.04	<.01
	9/8/2005	<.015	<.006	<.006	<.03	<.003	<.008	<.04	<.01

SHALLOW MONITOR WELLS IN RESIDENTIAL AREAS—Continued

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

[(50364), USGS National Water Information System parameter code; µg/L, micrograms per liter; --, not reported; <, concentration or value reported is less than that indicated]

Local well number	Date	Nico-sul-furon, water, fltrd, µg/L (50364)	Norflur-azon, water, fltrd, 0.7µ GF µg/L (49293)	Ory-zalin, water, fltrd, 0.7µ GF µg/L (49292)	Oxamyl, water, fltrd, 0.7µ GF µg/L (38866)	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)
H-158	12/15/2004	<.04	<.02	<.01	<.03	--	<.022	<.10	<.011
	3/17/2005	<.04	<.02	<.01	<.03	--	<.022	<.10	<.011
	6/15/2005	<.04	<.02	<.01	<.03	<.007	<.022	<.10	<.011
	9/6/2005	<.04	<.02	<.01	<.03	<.007	<.022	<.10	<.011
BU-1164	12/2/2004	<.04	<.02	<.01	<.03	--	<.022	<.10	<.011
	3/17/2005	<.04	<.02	<.01	<.03	--	<.022	<.10	<.011
	6/15/2005	<.04	<.02	<.01	<.03	<.007	<.022	<.10	<.011
	9/6/2005	<.04	<.02	<.01	<.03	<.007	<.022	<.10	<.011
MT-1256	12/15/2004	<.04	<.02	<.01	<.03	--	<.022	<.10	<.011
	3/16/2005	<.04	<.02	<.01	<.03	--	<.022	<.10	<.011
	6/17/2005	<.04	<.02	<.01	<.03	<.007	<.022	<.10	<.011
	9/7/2005	<.04	<.02	<.01	<.03	<.007	<.022	<.10	<.011
MT-1258	12/2/2004	<.04	<.02	<.01	<.03	--	<.022	<.10	<.011
	3/16/2005	<.04	<.02	<.01	<.03	--	<.022	<.10	<.011
	6/16/2005	<.04	<.02	<.01	<.03	<.007	<.022	<.10	<.011
	9/7/2005	<.04	<.02	<.01	<.03	<.007	<.022	<.10	<.011
MT-1260	12/1/2004	<.04	<.02	<.01	<.03	--	<.022	<.10	<.011
	3/14/2005	<.04	<.02	<.01	<.03	--	<.022	<.10	<.011
	6/14/2005	<.04	<.02	<.01	<.03	<.007	<.022	<.10	<.011
	9/7/2005	<.04	<.02	<.01	<.03	<.007	<.022	<.10	<.011
CL-286	11/30/2004	<.04	<.02	<.01	<.03	--	<.022	<.10	<.011
	3/15/2005	<.04	<.02	<.01	<.03	--	<.022	<.10	<.011
	6/14/2005	<.04	<.02	<.01	<.03	<.007	<.022	<.10	<.011
	9/8/2005	<.04	<.02	<.01	<.03	<.007	<.022	<.10	<.011
GR-659	12/1/2004	<.04	<.02	<.01	<.03	--	<.022	<.10	<.011
	3/15/2005	<.04	<.02	<.01	<.03	--	<.022	<.10	<.011
	6/16/2005	<.04	<.02	<.01	<.03	<.007	<.022	<.10	<.011
	9/8/2005	<.04	<.02	<.01	<.03	<.007	<.022	<.10	<.011

SHALLOW MONITOR WELLS IN RESIDENTIAL AREAS—Continued

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

[(61668), USGS National Water Information System parameter code; µg/L, micrograms per liter; E, estimated; <, concentration or value reported is less than that indicated]

Local well number	Date	Phosmet oxon, water, fltrd, µg/L (61668)	Phosmet, water, fltrd, µg/L (61601)	Picloram, water, fltrd, 0.7µ GF µg/L (49291)	Prometon, water, fltrd, µg/L (04037)	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)
H-158	12/15/2004	<.05	<.008	<.03	<.01	<.005	<.004	--	--
	3/17/2005	<.05	<.008	<.03	<.01	<.005	<.004	--	--
	6/15/2005	--	--	<.03	<.01	<.005	<.004	<.011	<.02
	9/6/2005	<.05	<.008	<.03	<.01	<.005	<.004	<.011	<.02
BU-1164	12/2/2004	<.05	<.008	<.03	<.01	<.005	<.004	--	--
	3/17/2005	<.05	<.008	<.03	<.01	<.005	<.004	--	--
	6/15/2005	--	--	<.03	<.01	<.005	<.004	<.011	<.02
	9/6/2005	<.05	<.008	<.03	<.01	<.005	<.004	<.011	<.02
MT-1256	12/15/2004	<.05	<.008	<.03	0.01	<.005	<.004	--	--
	3/16/2005	<.05	<.008	<.03	E.01	<.005	<.004	--	--
	6/17/2005	--	--	<.03	E.01	<.005	<.004	<.011	<.02
	9/7/2005	--	<.008	<.03	0.01	<.005	<.004	<.011	<.02
MT-1258	12/2/2004	<.05	<.008	<.03	E.01	<.005	<.004	--	--
	3/16/2005	<.05	<.008	<.03	<.01	<.005	<.004	--	--
	6/16/2005	--	--	<.03	E.01	<.005	<.004	<.011	<.02
	9/7/2005	--	<.008	<.03	E.01	<.005	<.004	<.011	<.02
MT-1260	12/1/2004	--	<.008	<.03	<.01	<.005	<.004	--	--
	3/14/2005	<.05	<.008	<.03	<.01	<.005	<.004	--	--
	6/14/2005	<.05	<.008	<.03	<.01	<.005	<.004	<.011	<.02
	9/7/2005	--	<.008	<.03	<.01	<.005	<.004	<.011	<.02
CL-286	11/30/2004	<.05	<.008	<.03	<.01	<.005	<.004	--	--
	3/15/2005	<.05	<.008	<.03	<.01	<.005	<.004	--	--
	6/14/2005	<.05	<.008	<.03	<.01	<.005	<.004	<.011	<.02
	9/8/2005	--	--	<.03	<.01	<.005	<.004	<.011	<.02
GR-659	12/1/2004	--	<.008	<.03	<.01	<.005	<.004	--	--
	3/15/2005	<.05	<.008	<.03	<.01	<.005	<.004	--	--
	6/16/2005	--	--	<.03	<.01	<.005	<.004	<.011	<.02
	9/8/2005	--	--	<.03	<.01	<.005	<.004	<.011	<.02

SHALLOW MONITOR WELLS IN RESIDENTIAL AREAS—Continued

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

[(49236), USGS National Water Information System parameter code; µg/L, micrograms per liter; --, not reported; E, estimated; <, concentration or value reported is less than that indicated]

Local well number	Date	Propham, water, fltrd, 0.7µ GF µg/L (49236)	Propi-conazole, water, fltrd, µg/L (50471)	Pro-poxur, water, fltrd, 0.7µ GF µg/L (38538)	Siduron, water, fltrd, µg/L (38548)	Sima-zine, water, fltrd, µg/L (04035)	Sulfo-met-ruron, water, fltrd, µg/L (50337)	Tebu-thiuron, water, fltrd, 0.7µ GF µg/L (82670)	Teflu-thrin, water, fltrd, µg/L (61606)
H-158	12/15/2004	<.030	<.01	<.008	<.02	<.005	<.038	<.02	--
	3/17/2005	<.030	<.01	<.008	<.02	<.005	<.038	<.02	--
	6/15/2005	<.030	<.01	<.008	<.02	<.005	<.038	<.02	<.008
	9/6/2005	<.030	<.01	<.008	<.02	<.005	<.038	<.02	<.008
BU-1164	12/2/2004	<.030	<.01	<.008	<.02	<.005	<.038	<.02	--
	3/17/2005	<.030	<.01	<.008	<.02	<.005	<.038	<.02	--
	6/15/2005	<.030	<.01	<.008	<.02	<.005	<.038	<.02	<.008
	9/6/2005	<.030	<.01	<.008	<.02	<.005	<.038	<.02	<.008
MT-1256	12/15/2004	<.030	<.01	<.008	<.02	<.005	<.038	<.02	--
	3/16/2005	<.030	<.01	<.008	<.02	<.005	<.038	<.02	--
	6/17/2005	<.030	<.01	<.008	<.02	E.006	<.038	<.02	<.008
	9/7/2005	<.030	<.01	<.008	<.02	<.005	<.038	E.01	<.008
MT-1258	12/2/2004	<.030	<.01	<.008	<.02	.007	<.038	<.02	--
	3/16/2005	<.030	<.01	<.008	<.02	<.005	<.038	<.02	--
	6/16/2005	<.030	<.01	<.008	<.02	E.007	<.038	<.02	<.008
	9/7/2005	<.030	<.01	<.008	<.02	E.007	<.038	<.02	<.008
MT-1260	12/1/2004	<.030	<.01	<.008	<.02	<.005	<.038	<.02	--
	3/14/2005	<.030	<.01	<.008	<.02	<.005	<.038	<.02	--
	6/14/2005	<.030	<.01	<.008	<.02	<.005	<.038	<.02	<.008
	9/7/2005	<.030	<.01	<.008	<.02	<.005	<.038	<.02	<.008
CL-286	11/30/2004	<.030	<.01	<.008	<.02	<.005	<.038	<.02	--
	3/15/2005	<.030	<.01	<.008	<.02	<.005	<.038	<.02	--
	6/14/2005	<.030	<.01	<.008	<.02	<.005	<.038	<.02	<.008
	9/8/2005	<.030	<.01	<.008	<.02	<.005	<.038	<.02	<.008
GR-659	12/1/2004	<.030	<.01	<.008	<.02	<.005	<.038	<.02	--
	3/15/2005	<.030	<.01	<.008	<.02	<.005	<.038	<.02	--
	6/16/2005	<.030	<.01	<.008	<.02	<.005	<.038	<.02	<.008
	9/8/2005	<.030	<.01	<.008	<.02	<.005	<.038	<.02	<.008

SHALLOW MONITOR WELLS IN RESIDENTIAL AREAS—Continued

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

[(04032), USGS National Water Information System parameter code; µg/L, micrograms per liter; --, not reported; <, concentration or value reported is less than that indicated]

Local well number	Date	Terbacil, water, fltrd, µg/L (04032)	Terbufos oxon sulfone, water, fltrd, µg/L (61674)	Terbufos, water, fltrd, 0.7µ GF µg/L (82675)	Terbutylazine, water, fltrd, µg/L (04022)	Thio-bencarb, water, fltrd, 0.7µ GF µg/L (82681)	trans-Propiconazole, water, fltrd, µg/L (79847)	Tribu-phos, water, fltrd, µg/L (61610)	Tri-clopyr, water, fltrd, 0.7µ GF µg/L (49235)
H-158	12/15/2004	<.016	<.07	<.02	<.01	--	--	--	<.03
	3/17/2005	<.016	<.07	<.02	<.01	--	--	--	<.03
	6/15/2005	<.016	<.07	<.02	<.01	<.010	<.01	<.004	<.03
	9/6/2005	<.016	<.07	<.02	<.01	<.010	<.01	<.004	<.03
BU-1164	12/2/2004	<.016	<.07	<.02	<.01	--	--	--	<.03
	3/17/2005	<.016	<.07	<.02	<.01	--	--	--	<.03
	6/15/2005	<.016	<.07	<.02	<.01	<.010	<.01	<.004	<.03
	9/6/2005	<.016	<.07	<.02	<.01	<.010	<.01	<.004	<.03
MT-1256	12/15/2004	<.016	<.07	<.02	<.01	--	--	--	<.03
	3/16/2005	<.016	<.07	<.02	<.01	--	--	--	<.03
	6/17/2005	<.016	<.07	<.02	<.01	<.010	<.01	<.004	<.03
	9/7/2005	<.016	<.07	<.02	<.01	<.010	<.01	<.004	<.03
MT-1258	12/2/2004	<.016	<.07	<.02	<.01	--	--	--	<.03
	3/16/2005	<.016	<.07	<.02	<.01	--	--	--	<.03
	6/16/2005	<.016	<.07	<.02	<.01	<.010	<.01	<.004	<.03
	9/7/2005	<.016	<.07	<.02	<.01	<.010	<.01	<.004	<.03
MT-1260	12/1/2004	<.016	<.07	<.02	<.01	--	--	--	<.03
	3/14/2005	<.016	<.07	<.02	<.01	--	--	--	<.03
	6/14/2005	<.016	<.07	<.02	<.01	<.010	<.01	<.004	<.03
	9/7/2005	<.016	<.07	<.02	<.01	<.010	<.01	<.004	<.03
CL-286	11/30/2004	<.016	<.07	<.02	<.01	--	--	--	<.03
	3/15/2005	<.016	<.07	<.02	<.01	--	--	--	<.03
	6/14/2005	<.016	<.07	<.02	<.01	<.010	<.01	<.004	<.03
	9/8/2005	<.016	<.07	<.02	<.01	<.010	<.01	<.004	<.03
GR-659	12/1/2004	<.016	<.07	<.02	<.01	--	--	--	<.03
	3/15/2005	<.016	<.07	<.02	<.01	--	--	--	<.03
	6/16/2005	<.016	<.07	<.02	<.01	<.010	<.01	<.004	<.03
	9/8/2005	<.016	<.07	<.02	<.01	<.010	<.01	<.004	<.03

SHALLOW MONITOR WELLS IN RESIDENTIAL AREAS—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; <, concentration or value reported is less than that indicated]

Local well number	Date	Tri-fluor-alin, 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)	1,1-Di-chloro-ethene, water, unfltrd, µg/L (34501)
H-158	12/15/2004	<.009	<.03	.14	<.08	<.04	<.04	<.04	<.02
	3/17/2005	<.009	<.03	.14	<.08	<.04	<.04	<.04	<.02
	6/15/2005	<.009	<.03	.17	<.08	<.04	<.04	<.04	<.02
	9/6/2005	<.009	<.03	.19	<.08	<.04	<.04	<.04	<.02
BU-1164	12/2/2004	<.009	<.03	.21	<.08	<.04	<.04	<.04	<.02
	3/17/2005	<.009	<.03	.16	<.08	<.04	<.04	<.04	<.02
	6/15/2005	<.009	<.03	.18	<.08	<.04	<.04	<.04	<.02
	9/6/2005	<.009	<.03	.17	<.08	<.04	<.04	<.04	<.02
MT-1256	12/15/2004	<.009	<.03	<.03	<.08	<.04	<.04	<.04	<.02
	3/16/2005	<.009	<.03	<.03	<.08	<.04	<.04	<.04	<.02
	6/17/2005	<.009	<.03	<.03	<.08	<.04	<.04	<.04	<.02
	9/7/2005	<.009	<.03	<.03	<.08	<.04	<.04	<.04	<.02
MT-1258	12/2/2004	<.009	<.03	<.03	<.08	<.04	<.04	<.04	<.02
	3/16/2005	<.009	<.03	<.03	<.08	<.04	<.04	<.04	<.02
	6/16/2005	<.009	<.03	<.03	<.08	<.04	<.04	<.04	<.02
	9/7/2005	<.009	<.03	<.03	<.08	<.04	<.04	<.04	<.02
MT-1260	12/1/2004	<.009	<.03	<.03	<.08	<.04	<.04	<.04	<.02
	3/14/2005	<.009	<.03	<.03	<.08	<.04	<.04	<.04	<.02
	6/14/2005	<.009	<.03	<.03	<.08	<.04	<.04	<.04	<.02
	9/7/2005	<.009	<.03	<.03	<.08	<.04	<.04	<.04	<.02
CL-286	11/30/2004	<.009	<.03	<.03	<.08	<.04	<.04	<.04	<.02
	3/15/2005	<.009	<.03	<.03	<.08	<.04	<.04	<.04	<.02
	6/14/2005	<.009	<.03	<.03	<.08	<.04	<.04	<.04	<.02
	9/8/2005	<.009	<.03	<.03	<.08	<.04	<.04	<.04	<.02
GR-659	12/1/2004	<.009	<.03	<.03	<.08	<.04	<.04	<.04	<.02
	3/15/2005	<.009	<.03	<.03	<.08	<.04	<.04	<.04	<.02
	6/16/2005	<.009	<.03	<.03	<.08	<.04	<.04	<.04	<.02
	9/8/2005	<.009	<.03	<.03	<.08	<.04	<.04	<.04	<.02

SHALLOW MONITOR WELLS IN RESIDENTIAL AREAS—Continued

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

[(77168), USGS National Water Information System parameter code; µg/L, micrograms per liter; E, estimated; <, concentration or value reported is less than that indicated]

Local well number	Date	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-propene, 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)
H-158	12/15/2004	<.03	<.1	<.1	<.2	<.18	<.1	<.1	<.06
	3/17/2005	<.03	<.1	<.1	<.2	<.18	<.1	<.1	<.06
	6/15/2005	<.03	<.1	<.1	<.2	<.18	<.1	<.1	<.06
	9/6/2005	<.03	<.1	<.1	<.2	<.18	<.1	<.1	<.06
BU-1164	12/2/2004	<.03	<.1	<.1	<.2	<.18	<.1	<.1	<.06
	3/17/2005	<.03	<.1	<.1	<.2	<.18	<.1	<.1	<.06
	6/15/2005	<.03	<.1	<.1	<.2	<.18	<.1	<.1	<.06
	9/6/2005	<.03	<.1	<.1	<.2	<.18	<.1	<.1	<.06
MT-1256	12/15/2004	<.03	<.1	<.1	<.2	<.18	<.1	<.1	<.06
	3/16/2005	<.03	<.1	<.1	<.2	<.18	<.1	<.1	<.06
	6/17/2005	<.03	<.1	<.1	<.2	<.18	<.1	<.1	<.06
	9/7/2005	<.03	<.1	<.1	<.2	<.18	<.1	<.1	<.06
MT-1258	12/2/2004	<.03	<.1	<.1	<.2	<.18	<.1	<.1	<.06
	3/16/2005	<.03	<.1	<.1	<.2	<.18	<.1	<.1	<.06
	6/16/2005	<.03	<.1	<.1	<.2	<.18	<.1	<.1	<.06
	9/7/2005	<.03	<.1	<.1	<.2	<.18	<.1	<.1	<.06
MT-1260	12/1/2004	<.03	<.1	<.1	<.2	<.18	<.1	<.1	<.06
	3/14/2005	<.03	<.1	<.1	<.2	<.18	<.1	<.1	<.06
	6/14/2005	<.03	<.1	<.1	<.2	<.18	<.1	<.1	<.06
	9/7/2005	<.03	<.1	<.1	<.2	<.18	<.1	<.1	<.06
CL-286	11/30/2004	<.03	<.1	<.1	<.2	<.18	<.1	<.1	E.01
	3/15/2005	<.03	<.1	<.1	<.2	<.18	<.1	<.1	<.06
	6/14/2005	<.03	<.1	<.1	<.2	<.18	<.1	<.1	<.06
	9/8/2005	<.03	<.1	<.1	<.2	<.18	<.1	<.1	<.06
GR-659	12/1/2004	<.03	<.1	<.1	<.2	<.18	<.1	<.1	<.06
	3/15/2005	<.03	<.1	<.1	<.2	<.18	<.1	<.1	<.06
	6/16/2005	<.03	<.1	<.1	<.2	<.18	<.1	<.1	<.06
	9/8/2005	<.03	<.1	<.1	<.2	<.18	<.1	<.1	<.06

SHALLOW MONITOR WELLS IN RESIDENTIAL AREAS—Continued

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

[(82625), USGS National Water Information System parameter code; µg/L, micrograms per liter; <, concentration or value reported is less than that indicated]

Local well number	Date	Dibromo- chloro- propane, water, unfltrd, µg/L (82625)	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)
H-158	12/15/2004	<.5	<.04	<.05	<.1	<.03	<.04	<.03	<.1
	3/17/2005	<.5	<.04	<.05	<.1	<.03	<.04	<.03	<.1
	6/15/2005	<.5	<.04	<.05	<.1	<.03	<.04	<.03	<.1
	9/6/2005	<.5	<.04	<.05	<.1	<.03	<.04	<.03	<.1
BU-1164	12/2/2004	<.5	<.04	<.05	<.1	<.03	<.04	<.03	<.1
	3/17/2005	<.5	<.04	<.05	<.1	<.03	<.04	<.03	<.1
	6/15/2005	<.5	<.04	<.05	<.1	<.03	<.04	<.03	<.1
	9/6/2005	<.5	<.04	<.05	<.1	<.03	<.04	<.03	<.1
MT-1256	12/15/2004	<.5	<.04	<.05	<.1	<.03	<.04	<.03	<.1
	3/16/2005	<.5	<.04	<.05	<.1	<.03	<.04	<.03	<.1
	6/17/2005	<.5	<.04	<.05	<.1	<.03	<.04	<.03	<.1
	9/7/2005	<.5	<.04	<.05	<.1	<.03	<.04	<.03	<.1
MT-1258	12/2/2004	<.5	<.04	<.05	<.1	<.03	<.04	<.03	<.1
	3/16/2005	<.5	<.04	<.05	<.1	<.03	<.04	<.03	<.1
	6/16/2005	<.5	<.04	<.05	<.1	<.03	<.04	<.03	<.1
	9/7/2005	<.5	<.04	<.05	<.1	<.03	<.04	<.03	<.1
MT-1260	12/1/2004	<.5	<.04	<.05	<.1	<.03	<.04	<.03	<.1
	3/14/2005	<.5	<.04	<.05	<.1	<.03	<.04	<.03	<.1
	6/14/2005	<.5	<.04	<.05	<.1	<.03	<.04	<.03	<.1
	9/7/2005	<.5	<.04	<.05	<.1	<.03	<.04	<.03	<.1
CL-286	11/30/2004	<.5	<.04	<.05	<.1	<.03	<.04	<.03	<.1
	3/15/2005	<.5	<.04	<.05	<.1	<.03	<.04	<.03	<.1
	6/14/2005	<.5	<.04	<.05	<.1	<.03	<.04	<.03	<.1
	9/8/2005	<.5	<.04	<.05	<.1	<.03	<.04	<.03	<.1
GR-659	12/1/2004	<.5	<.04	<.05	<.1	<.03	<.04	<.03	<.1
	3/15/2005	<.5	<.04	<.05	<.1	<.03	<.04	<.03	<.1
	6/16/2005	<.5	<.04	<.05	<.1	<.03	<.04	<.03	<.1
	9/8/2005	<.5	<.04	<.05	<.1	<.03	<.04	<.03	<.1

SHALLOW MONITOR WELLS IN RESIDENTIAL AREAS—Continued

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

[(34571), USGS National Water Information System parameter code; µg/L, micrograms per liter; E, estimated; <, concentration or value reported is less than that indicated]

Local well number	Date	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)	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)
H-158	12/15/2004	<.03	<.05	<.04	<.06	<.50	<.05	<.08	<6
	3/17/2005	<.03	<.05	<.04	<.06	<.50	<.05	<.08	<6
	6/15/2005	<.03	<.05	<.04	<.06	<.50	<.05	<.08	<6
	9/6/2005	E.01	<.05	<.04	<.06	<.50	<.05	<.08	<6
BU-1164	12/2/2004	<.03	<.05	<.04	<.06	<.50	<.05	<.08	<6
	3/17/2005	<.03	<.05	<.04	<.06	<.50	<.05	<.08	<6
	6/15/2005	<.03	<.05	<.04	<.06	<.50	<.05	<.08	<6
	9/6/2005	E.01	<.05	<.04	<.06	<.50	<.05	<.08	<6
MT-1256	12/15/2004	<.03	<.05	<.04	<.06	<.50	<.05	<.08	<6
	3/16/2005	<.03	<.05	<.04	<.06	<.50	<.05	<.08	<6
	6/17/2005	<.03	<.05	<.04	<.06	<.50	<.05	<.08	<6
	9/7/2005	<.03	<.05	<.04	<.06	<.50	<.05	<.08	<6
MT-1258	12/2/2004	<.03	<.05	<.04	<.06	<.50	<.05	<.08	<6
	3/16/2005	<.03	<.05	<.04	<.06	<.50	<.05	<.08	<6
	6/16/2005	<.03	<.05	<.04	<.06	<.50	<.05	<.08	<6
	9/7/2005	<.03	<.05	<.04	<.06	<.50	<.05	<.08	<6
MT-1260	12/1/2004	<.03	<.05	<.04	<.06	<.50	<.05	<.08	<6
	3/14/2005	<.03	<.05	<.04	<.06	<.50	<.05	<.08	<6
	6/14/2005	<.03	<.05	<.04	<.06	<.50	<.05	<.08	<6
	9/7/2005	<.03	<.05	<.04	<.06	<.50	<.05	<.08	<6
CL-286	11/30/2004	<.03	<.05	<.04	<.06	<.50	<.05	<.08	<6
	3/15/2005	<.03	<.05	<.04	<.06	<.50	<.05	<.08	<6
	6/14/2005	<.03	<.05	<.04	<.06	<.50	<.05	<.08	<6
	9/8/2005	<.03	<.05	<.04	<.06	<.50	<.05	<.08	<6
GR-659	12/1/2004	<.03	<.05	<.04	<.06	<.50	<.05	<.08	<6
	3/15/2005	<.03	<.05	<.04	<.06	<.50	<.05	<.08	<6
	6/16/2005	<.03	<.05	<.04	<.06	<.50	<.05	<.08	<6
	9/8/2005	<.03	<.05	<.04	<.06	<.50	<.05	<.08	<6

SHALLOW MONITOR WELLS IN RESIDENTIAL AREAS—Continued

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

[(34215), USGS National Water Information System parameter code; µg/L, micrograms per liter; E, estimated; <, concentration or value reported is less than that indicated]

Local well number	Date	Acrylonitrile, water, unfltrd, µg/L (34215)	Benzene, water, unfltrd, µg/L (34030)	Bromobenzene, water, unfltrd, µg/L (81555)	Bromochloromethane, water, unfltrd, µg/L (77297)	Bromodichloromethane, water, unfltrd, µg/L (32101)	Bromoethene, water, unfltrd, µg/L (50002)	Bromomethane, water, unfltrd, µg/L (34413)	Carbon disulfide, water, unfltrd, µg/L (77041)
H-158	12/15/2004	<.8	<.02	<.03	<.12	<.03	<.1	<.3	<.04
	3/17/2005	<.8	<.02	<.03	<.12	<.03	<.1	<.3	<.04
	6/15/2005	<.8	<.02	<.03	<.12	<.03	<.1	<.3	<.04
	9/6/2005	<.8	<.02	<.03	<.12	<.03	<.1	<.3	<.04
BU-1164	12/2/2004	<.8	<.02	<.03	<.12	<.03	<.1	<.3	<.04
	3/17/2005	<.8	<.02	<.03	<.12	<.03	<.1	<.3	<.04
	6/15/2005	<.8	<.02	<.03	<.12	<.03	<.1	<.3	<.04
	9/6/2005	<.8	<.02	<.03	<.12	<.03	<.1	<.3	E.05
MT-1256	12/15/2004	<.8	<.02	<.03	<.12	<.03	<.1	<.3	<.04
	3/16/2005	<.8	<.02	<.03	<.12	<.03	<.1	<.3	<.04
	6/17/2005	<.8	<.02	<.03	<.12	<.03	<.1	<.3	<.04
	9/7/2005	<.8	<.02	<.03	<.12	<.03	<.1	<.3	E.03
MT-1258	12/2/2004	<.8	<.02	<.03	<.12	<.03	<.1	<.3	<.04
	3/16/2005	<.8	<.02	<.03	<.12	<.03	<.1	<.3	<.04
	6/16/2005	<.8	<.02	<.03	<.12	<.03	<.1	<.3	<.04
	9/7/2005	<.8	<.02	<.03	<.12	<.03	<.1	<.3	.10
MT-1260	12/1/2004	<.8	<.02	<.03	<.12	<.03	<.1	<.3	<.04
	3/14/2005	<.8	<.02	<.03	<.12	<.03	<.1	<.3	<.04
	6/14/2005	<.8	<.02	<.03	<.12	<.03	<.1	<.3	<.04
	9/7/2005	<.8	<.02	<.03	<.12	<.03	<.1	<.3	E.02
CL-286	11/30/2004	<.8	<.02	<.03	<.12	<.03	<.1	<.3	<.04
	3/15/2005	<.8	<.02	<.03	<.12	<.03	<.1	<.3	<.04
	6/14/2005	<.8	<.02	<.03	<.12	<.03	<.1	<.3	<.04
	9/8/2005	<.8	<.02	<.03	<.12	<.03	<.1	<.3	<.04
GR-659	12/1/2004	<.8	<.02	<.03	<.12	<.03	<.1	<.3	<.04
	3/15/2005	<.8	<.02	<.03	<.12	<.03	<.1	<.3	<.04
	6/16/2005	<.8	<.02	<.03	<.12	<.03	<.1	<.3	<.04
	9/8/2005	<.8	<.02	<.03	<.12	<.03	<.1	<.3	.17

SHALLOW MONITOR WELLS IN RESIDENTIAL AREAS—Continued

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

[(34301), USGS National Water Information System parameter code; µg/L, micrograms per liter; <, concentration or value reported is less than that indicated]

Local well number	Date	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)	Di- chloro- di- fluoro- methane, water, unf, µg/L (34668)
H-158	12/15/2004	<.03	<.1	<.2	<.02	<.05	<.1	<.05	<.18
	3/17/2005	<.03	<.1	<.2	<.02	<.05	<.1	<.05	<.18
	6/15/2005	<.03	<.1	<.2	<.02	<.05	<.1	<.05	<.18
	9/6/2005	<.03	<.1	<.2	<.02	<.05	<.1	<.05	<.18
BU-1164	12/2/2004	<.03	<.1	<.2	<.02	<.05	<.1	<.05	<.18
	3/17/2005	<.03	<.1	<.2	<.02	<.05	<.1	<.05	<.18
	6/15/2005	<.03	<.1	<.2	<.02	<.05	<.1	<.05	<.18
	9/6/2005	<.03	<.1	<.2	<.02	<.05	<.1	<.05	<.18
MT-1256	12/15/2004	<.03	<.1	<.2	<.02	<.05	<.1	<.05	<.18
	3/16/2005	<.03	<.1	<.2	<.02	<.05	<.1	<.05	<.18
	6/17/2005	<.03	<.1	<.2	<.02	<.05	<.1	<.05	<.18
	9/7/2005	<.03	<.1	<.2	<.02	<.05	<.1	<.05	<.18
MT-1258	12/2/2004	<.03	<.1	<.2	<.02	<.05	<.1	<.05	<.18
	3/16/2005	<.03	<.1	<.2	<.02	<.05	<.1	<.05	<.18
	6/16/2005	<.03	<.1	<.2	<.02	<.05	<.1	<.05	<.18
	9/7/2005	<.03	<.1	<.2	<.02	<.05	<.1	<.05	<.18
MT-1260	12/1/2004	<.03	<.1	<.2	<.02	<.05	<.1	<.05	<.18
	3/14/2005	<.03	<.1	<.2	<.02	<.05	<.1	<.05	<.18
	6/14/2005	<.03	<.1	<.2	<.02	<.05	<.1	<.05	<.18
	9/7/2005	<.03	<.1	<.2	<.02	<.05	<.1	<.05	<.18
CL-286	11/30/2004	<.03	<.1	<.2	<.02	<.05	<.1	<.05	<.18
	3/15/2005	<.03	<.1	<.2	<.02	<.05	<.1	<.05	<.18
	6/14/2005	<.03	<.1	<.2	<.02	<.05	<.1	<.05	<.18
	9/8/2005	<.03	<.1	<.2	<.02	<.05	<.1	<.05	<.18
GR-659	12/1/2004	<.03	<.1	<.2	<.02	<.05	<.1	<.05	<.18
	3/15/2005	<.03	<.1	<.2	<.02	<.05	<.1	<.05	<.18
	6/16/2005	<.03	<.1	<.2	<.02	<.05	<.1	<.05	<.18
	9/8/2005	<.03	<.1	<.2	<.02	<.05	<.1	<.05	<.18

SHALLOW MONITOR WELLS IN RESIDENTIAL AREAS—Continued

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

[(34423), USGS National Water Information System parameter code; µg/L, micrograms per liter; <, concentration or value reported is less than that indicated]

Local well number	Date	Di-chloro-methane, water, unfltrd, µg/L (34423)	Di-ethyl ether, water, unfltrd, µg/L (81576)	Diiso-propyl ether, water, unfltrd, µg/L (81577)	Ethyl methacrylate, 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)
H-158	12/15/2004	<.1	<.1	<.10	<.2	<2.0	<.03	<.1	<.1
	3/17/2005	<.1	<.1	<.10	<.2	<2.0	<.03	<.1	<.1
	6/15/2005	<.1	<.1	<.10	<.2	<2.0	<.03	<.1	<.1
	9/6/2005	<.1	<.1	<.10	<.2	<2.0	<.03	<.1	<.1
BU-1164	12/2/2004	<.1	<.1	<.10	<.2	<2.0	<.03	<.1	<.1
	3/17/2005	<.1	<.1	<.10	<.2	<2.0	<.03	<.1	<.1
	6/15/2005	<.1	<.1	<.10	<.2	<2.0	<.03	<.1	<.1
	9/6/2005	<.1	<.1	<.10	<.2	<2.0	<.03	<.1	<.1
MT-1256	12/15/2004	<.1	<.1	<.10	<.2	<2.0	<.03	<.1	<.1
	3/16/2005	<.1	<.1	<.10	<.2	<2.0	<.03	<.1	<.1
	6/17/2005	<.1	<.1	<.10	<.2	<2.0	<.03	<.1	<.1
	9/7/2005	<.1	<.1	<.10	<.2	<2.0	<.03	<.1	<.1
MT-1258	12/2/2004	<.1	<.1	<.10	<.2	<2.0	<.03	<.1	<.1
	3/16/2005	<.1	<.1	<.10	<.2	<2.0	<.03	<.1	<.1
	6/16/2005	<.1	<.1	<.10	<.2	<2.0	<.03	<.1	<.1
	9/7/2005	<.1	<.1	<.10	<.2	<2.0	<.03	<.1	<.1
MT-1260	12/1/2004	<.1	<.1	<.10	<.2	<2.0	<.03	<.1	<.1
	3/14/2005	<.1	<.1	<.10	<.2	<2.0	<.03	<.1	<.1
	6/14/2005	<.1	<.1	<.10	<.2	<2.0	<.03	<.1	<.1
	9/7/2005	<.1	<.1	<.10	<.2	<2.0	<.03	<.1	<.1
CL-286	11/30/2004	<.1	<.1	<.10	<.2	<2.0	<.03	<.1	<.1
	3/15/2005	<.1	<.1	<.10	<.2	<2.0	<.03	<.1	<.1
	6/14/2005	<.1	<.1	<.10	<.2	<2.0	<.03	<.1	<.1
	9/8/2005	<.1	<.1	<.10	<.2	<2.0	<.03	<.1	<.1
GR-659	12/1/2004	<.1	<.1	<.10	<.2	<2.0	<.03	<.1	<.1
	3/15/2005	<.1	<.1	<.10	<.2	<2.0	<.03	<.1	<.1
	6/16/2005	<.1	<.1	<.10	<.2	<2.0	<.03	<.1	<.1
	9/8/2005	<.1	<.1	<.10	<.2	<2.0	<.03	<.1	<.1

SHALLOW MONITOR WELLS IN RESIDENTIAL AREAS—Continued

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

[(77424), USGS National Water Information System parameter code; µg/L, micrograms per liter; <, concentration or value reported is less than that indicated]

Local well number	Date	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)
H-158	12/15/2004	<.50	<.4	<.04	<.4	<1.0	<.2	<.04	<.06
	3/17/2005	<.50	<.4	<.04	<.4	<1.0	<.2	<.04	<.06
	6/15/2005	<.50	<.4	<.04	<.4	<1.0	<.2	<.04	<.06
	9/6/2005	<.50	<.4	<.04	<.4	<1.0	<.2	<.04	<.06
BU-1164	12/2/2004	<.50	<.4	<.04	<.4	<1.0	<.2	<.04	<.06
	3/17/2005	<.50	<.4	<.04	<.4	<1.0	<.2	<.04	<.06
	6/15/2005	<.50	<.4	<.04	<.4	<1.0	<.2	<.04	<.06
	9/6/2005	<.50	<.4	<.04	<.4	<1.0	<.2	<.04	<.06
MT-1256	12/15/2004	<.50	<.4	<.04	<.4	<1.0	<.2	<.04	<.06
	3/16/2005	<.50	<.4	<.04	<.4	<1.0	<.2	<.04	<.06
	6/17/2005	<.50	<.4	<.04	<.4	<1.0	<.2	<.04	<.06
	9/7/2005	<.50	<.4	<.04	<.4	<1.0	<.2	<.04	<.06
MT-1258	12/2/2004	<.50	<.4	<.04	<.4	<1.0	<.2	<.04	<.06
	3/16/2005	<.50	<.4	<.04	<.4	<1.0	<.2	<.04	<.06
	6/16/2005	<.50	<.4	<.04	<.4	<1.0	<.2	<.04	<.06
	9/7/2005	<.50	<.4	<.04	<.4	<1.0	<.2	<.04	<.06
MT-1260	12/1/2004	<.50	<.4	<.04	<.4	<1.0	<.2	<.04	<.06
	3/14/2005	<.50	<.4	<.04	<.4	<1.0	<.2	<.04	<.06
	6/14/2005	<.50	<.4	<.04	<.4	<1.0	<.2	<.04	<.06
	9/7/2005	<.50	<.4	<.04	<.4	<1.0	<.2	<.04	<.06
CL-286	11/30/2004	<.50	<.4	<.04	<.4	<1.0	<.2	<.04	<.06
	3/15/2005	<.50	<.4	<.04	<.4	<1.0	<.2	<.04	<.06
	6/14/2005	<.50	<.4	<.04	<.4	<1.0	<.2	<.04	<.06
	9/8/2005	<.50	<.4	<.04	<.4	<1.0	<.2	<.04	<.06
GR-659	12/1/2004	<.50	<.4	<.04	<.4	<1.0	<.2	<.04	<.06
	3/15/2005	<.50	<.4	<.04	<.4	<1.0	<.2	<.04	<.06
	6/16/2005	<.50	<.4	<.04	<.4	<1.0	<.2	<.04	<.06
	9/8/2005	<.50	<.4	<.04	<.4	<1.0	<.2	<.04	<.06

SHALLOW MONITOR WELLS IN RESIDENTIAL AREAS—Continued

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

[(34696), USGS National Water Information System parameter code; µg/L, micrograms per liter; <, concentration or value reported is less than that indicated]

Local well number	Date	Naphthalene, water, unfltrd, µg/L (34696)	Methyl n-butyl ketone, water, unfltrd, µg/L (77103)	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)
H-158	12/15/2004	<.5	<.4	<.1	<.04	<.04	<.06	<.04	<.03
	3/17/2005	<.5	<.4	<.1	<.04	<.04	<.06	<.04	<.03
	6/15/2005	<.5	<.4	<.1	<.04	<.04	<.06	<.04	<.03
	9/6/2005	<.5	<.4	<.1	<.04	<.04	<.06	<.04	<.03
BU-1164	12/2/2004	<.5	<.4	<.1	<.04	<.04	<.06	<.04	<.03
	3/17/2005	<.5	<.4	<.1	<.04	<.04	<.06	<.04	<.03
	6/15/2005	<.5	<.4	<.1	<.04	<.04	<.06	<.04	<.03
	9/6/2005	<.5	<.4	<.1	<.04	<.04	<.06	<.04	<.03
MT-1256	12/15/2004	<.5	<.4	<.1	<.04	<.04	<.06	<.04	<.03
	3/16/2005	<.5	<.4	<.1	<.04	<.04	<.06	<.04	<.03
	6/17/2005	<.5	<.4	<.1	<.04	<.04	<.06	<.04	<.03
	9/7/2005	<.5	<.4	<.1	<.04	<.04	<.06	<.04	<.03
MT-1258	12/2/2004	<.5	<.4	<.1	<.04	<.04	<.06	<.04	<.03
	3/16/2005	<.5	<.4	<.1	<.04	<.04	<.06	<.04	<.03
	6/16/2005	<.5	<.4	<.1	<.04	<.04	<.06	<.04	<.03
	9/7/2005	<.5	<.4	<.1	<.04	<.04	<.06	<.04	<.03
MT-1260	12/1/2004	<.5	<.4	<.1	<.04	<.04	<.06	<.04	<.03
	3/14/2005	<.5	<.4	<.1	<.04	<.04	<.06	<.04	<.03
	6/14/2005	<.5	<.4	<.1	<.04	<.04	<.06	<.04	<.03
	9/7/2005	<.5	<.4	<.1	<.04	<.04	<.06	<.04	<.03
CL-286	11/30/2004	<.5	<.4	<.1	<.04	<.04	<.06	<.04	<.03
	3/15/2005	<.5	<.4	<.1	<.04	<.04	<.06	<.04	<.03
	6/14/2005	<.5	<.4	<.1	<.04	<.04	<.06	<.04	<.03
	9/8/2005	<.5	<.4	<.1	<.04	<.04	<.06	<.04	<.03
GR-659	12/1/2004	<.5	<.4	<.1	<.04	<.04	<.06	<.04	<.03
	3/15/2005	<.5	<.4	<.1	<.04	<.04	<.06	<.04	<.03
	6/16/2005	<.5	<.4	<.1	<.04	<.04	<.06	<.04	<.03
	9/8/2005	<.5	<.4	<.1	<.04	<.04	<.06	<.04	<.03

SHALLOW MONITOR WELLS IN RESIDENTIAL AREAS—Continued

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

[(78032), USGS National Water Information System parameter code; µg/L, micrograms per liter; E, estimated; <, concentration or value reported is less than that indicated]

Local well number	Date	Methyl t-butyl ether, water, unfltrd, µg/L (78032)	tert-Butylbenzene, water, unfltrd, µg/L (77353)	Tetra-chloro-ethene, water, unfltrd, µg/L (34475)	Tetra-chloro-methane, water, unfltrd, µg/L (32102)	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)
H-158	12/15/2004	<.1	<.06	<.03	<.06	<1	<.02	<.03	<.09
	3/17/2005	<.1	<.06	<.03	<.06	<1	<.02	<.03	<.09
	6/15/2005	<.1	<.06	<.03	<.06	<1	<.02	<.03	<.09
	9/6/2005	<.1	<.06	<.03	<.06	<1	<.02	<.03	<.09
BU-1164	12/2/2004	<.1	<.06	<.03	<.06	<1	<.02	<.03	<.09
	3/17/2005	<.1	<.06	<.03	<.06	<1	<.02	<.03	<.09
	6/15/2005	<.1	<.06	<.03	<.06	<1	<.02	<.03	<.09
	9/6/2005	<.1	<.06	<.03	<.06	<1	<.02	<.03	<.09
MT-1256	12/15/2004	<.1	<.06	<.03	<.06	<1	E.02	<.03	<.09
	3/16/2005	<.1	<.06	<.03	<.06	<1	<.02	<.03	<.09
	6/17/2005	<.1	<.06	<.03	<.06	<1	<.02	<.03	<.09
	9/7/2005	<.1	<.06	<.03	<.06	<1	<.02	<.03	<.09
MT-1258	12/2/2004	<.1	<.06	<.03	<.06	<1	<.02	<.03	<.09
	3/16/2005	<.1	<.06	E.02	<.06	<1	<.02	<.03	<.09
	6/16/2005	<.1	<.06	<.03	<.06	<1	<.02	<.03	<.09
	9/7/2005	<.1	<.06	E.01	<.06	<1	<.02	<.03	<.09
MT-1260	12/1/2004	<.1	<.06	<.03	<.06	<1	<.02	<.03	<.09
	3/14/2005	<.1	<.06	<.03	<.06	<1	<.02	<.03	<.09
	6/14/2005	<.1	<.06	<.03	<.06	<1	<.02	<.03	<.09
	9/7/2005	<.1	<.06	<.03	<.06	<1	<.02	<.03	<.09
CL-286	11/30/2004	<.1	<.06	<.03	<.06	<1	E.01	<.03	<.09
	3/15/2005	<.1	<.06	<.03	<.06	<1	<.02	<.03	<.09
	6/14/2005	<.1	<.06	<.03	<.06	<1	<.02	<.03	<.09
	9/8/2005	<.1	<.06	<.03	<.06	<1	<.02	<.03	<.09
GR-659	12/1/2004	<.1	<.06	<.03	<.06	<1	<.02	<.03	<.09
	3/15/2005	<.1	<.06	<.03	<.06	<1	<.02	<.03	<.09
	6/16/2005	<.1	<.06	<.03	<.06	<1	<.02	<.03	<.09
	9/8/2005	<.1	<.06	<.03	<.06	<1	<.02	<.03	<.09

SHALLOW MONITOR WELLS IN RESIDENTIAL AREAS—Continued

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

[(73547), USGS National Water Information System parameter code; µg/L, micrograms per liter; --, not reported; E, estimated; <, concentration or value reported is less than that indicated]

Local well number	Date	trans-1,4-Di-chloro-2 butene, water, unfltrd, 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)	Di-chlor-vo-s, water, fltrd, µg/L (38775)	Uranium, natural, water, fltrd, µg/L (22703)
H-158	12/15/2004	<.7	<.10	<.04	<.08	E.03	<.1	<.01	.43
	3/17/2005	<.7	<.10	<.04	<.08	E.04	<.1	<.01	--
	6/15/2005	<.7	<.10	<.04	<.08	E.06	<.1	<.01	--
	9/6/2005	<.7	<.10	<.04	<.08	E.07	<.1	<.01	--
BU-1164	12/2/2004	<.7	<.10	<.04	<.08	E.08	<.1	<.01	1.09
	3/17/2005	<.7	<.10	<.04	<.08	<.02	<.1	<.01	--
	6/15/2005	<.7	<.10	<.04	<.08	<.02	<.1	<.01	--
	9/6/2005	<.7	<.10	<.04	<.08	<.02	<.1	<.01	--
MT-1256	12/15/2004	<.7	<.10	<.04	<.08	<.02	<.1	<.01	1.88
	3/16/2005	<.7	<.10	<.04	<.08	<.02	<.1	<.01	--
	6/17/2005	<.7	<.10	<.04	<.08	<.02	<.1	<.01	--
	9/7/2005	<.7	<.10	<.04	<.08	<.02	<.1	<.01	--
MT-1258	12/2/2004	<.7	<.10	<.04	<.08	E.02	<.1	<.01	.88
	3/16/2005	<.7	<.10	<.04	<.08	<.02	<.1	<.01	--
	6/16/2005	<.7	<.10	<.04	<.08	<.02	<.1	<.01	--
	9/7/2005	<.7	<.10	<.04	<.08	<.02	<.1	<.01	--
MT-1260	12/1/2004	<.7	<.10	<.04	<.08	<.02	<.1	<.01	.70
	3/14/2005	<.7	<.10	<.04	<.08	<.02	<.1	<.01	--
	6/14/2005	<.7	<.10	<.04	<.08	<.02	<.1	<.01	--
	9/7/2005	<.7	<.10	<.04	<.08	<.02	<.1	<.01	--
CL-286	11/30/2004	<.7	<.10	<.04	<.08	<.02	<.1	<.01	1.29
	3/15/2005	<.7	<.10	<.04	<.08	<.02	<.1	<.01	--
	6/14/2005	<.7	<.10	<.04	<.08	<.02	<.1	<.01	--
	9/8/2005	<.7	<.10	<.04	<.08	<.02	<.1	<.01	--
GR-659	12/1/2004	<.7	<.10	<.04	<.08	<.02	<.1	<.01	1.03
	3/15/2005	<.7	<.10	<.04	<.08	<.02	<.1	<.01	--
	6/16/2005	<.7	<.10	<.04	<.08	<.02	<.1	<.01	--
	9/8/2005	<.7	<.10	<.04	<.08	<.02	<.1	<.01	--

Project Data—Developing a Method to Rapidly Estimate Fecal-Indicator Bacteria Concentrations in the Cuyahoga River

The following tables list the results of bacteriological and physical measurements of water samples collected at four locations along the Cuyahoga River in Cuyahoga Valley National Park, Summit and Cuyahoga Counties, Ohio, from October 2004 through September 2005. Samples were collected as part of a study to identify a method that best provides an estimate of concentrations of fecal-indicator bacteria so that daily information can be furnished to the public on the safety of the river for recreational use.



Water-Quality Records

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

[(00065), USGS National Water Information System parameter code; cfs, cubic feet per second; NTRU, Nephelometric Turbidity Ratio Units; *E. coli*, *Escherichia coli*; col/100 mL, colonies per 100 milliliters, --, no data; E, estimated; >, greater than; <, less than]

Date	Time	Gage height, (feet) (00065)	Instantaneous discharge (cfs) (00061)	Turbidity (NTRU) (63676)	<i>E. coli</i> modified mTEC, water, (col/100 mL) (90902)
04206000—CUYAHOGA RIVER AT OLD PORTAGE, OHIO					
Oct 18	0946	2.48	114	4.4	210
Nov 01	0957	2.98	225	10	1100
Nov 22	1019	3.43	356	7.7	330
Nov 29	1031	3.35	331	6.4	1200
Dec 13	1009	4.28	678	12	360
Jan 10	1017	8.09	2850	28	1100
Jan 30	0939	3.62	420	7.6	200
Feb 13	0930	5.52	1310	14	240
Mar 03	1001	4.06	584	7.6	87
Mar 20	1003	4.47	766	15	2600
Apr 02	0831	4.37	719	8.2	550
Apr 16	0938	4.16	626	4.7	320
Apr 28	0946	6.62	2020	18	220
May 16	1124	4.14	618	21	670
May 18	1101	3.70	448	7.8	210
May 19	1031	3.42	353	7.2	930
May 23	0958	3.05	243	6.5	520
May 24	0939	3.35	331	13	1500
May 25	0939	3.34	327	9.4	360
May 26	0953	3.26	303	8.7	270
May 27	0953	3.04	240	7.0	240
May 31	0954	2.83	189	6.0	110
Jun 01	0938	2.81	184	6.0	140
Jun 02	0928	2.75	171	5.2	200
Jun 03	0949	2.66	151	5.4	200
Jun 06	0946	2.84	191	12	E3600
Jun 07	1001	2.57	131	8.2	800
Jun 08	0924	2.52	121	5.9	370
Jun 09	0944	2.47	112	5.1	220
Jun 13	1220	2.46	110	6.2	770
Jun 14	1113	2.39	97	7.0	240
Jun 15	1125	2.46	110	10	E19000
Jun 20	0851	2.31	84	8.0	530
Jun 21	1137	2.38	95	7.4	380
Jun 22	1112	2.37	94	7.6	400

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

[(00065), USGS National Water Information System parameter code; cfs, cubic feet per second; NTRU, Nephelometric Turbidity Ratio Units; *E. coli*, *Escherichia coli*; col/100 mL, colonies per 100 milliliters, --, no data; E, estimated; >, greater than; <, less than]

Date	Time	Gage height, (feet) (00065)	Instantaneous discharge (cfs) (00061)	Turbidity (NTRU) (63676)	<i>E. coli</i> modified mTEC, water, (col/100 mL) (90902)
04206000—CUYAHOGA RIVER AT OLD PORTAGE, OHIO—Continued					
Jun 23	1110	2.29	80	7.4	280
Jun 27	1108	2.29	80	6.8	230
Jun 28	1129	2.25	74	5.9	210
Jun 29	1151	2.37	94	5.2	E220
Jun 30	1203	2.30	82	4.4	220
Jul 01	1149	2.32	85	5.0	1600
Jul 05	1058	2.27	77	5.8	390
Jul 06	1212	2.30	82	6.0	550
Jul 07	1215	2.27	77	5.2	640
Jul 08	1158	2.24	73	6.3	220
Jul 11	1201	2.17	63	6.5	180
Jul 12	1157	2.15	60	6.2	210
Jul 14	1158	2.07	50	6.0	870
Jul 15	1202	2.07	50	5.9	360
Jul 18	1208	2.38	95	4.9	490
Jul 19	1149	2.87	198	18	5600
Jul 20	1209	2.35	90	7.8	800
Jul 21	1200	2.38	95	10	1200
Jul 22	1155	2.37	94	10	770
Jul 25	1115	2.46	110	8.6	520
Jul 26	1135	2.35	90	7.7	270
Jul 27	1141	3.96	544	35	5500
Jul 28	1133	3.11	259	11	1300
Aug 01	1340	2.57	131	7.2	210
Aug 02	1152	2.44	106	11	250
Aug 03	1146	2.38	95	6.9	260
Aug 04	1130	2.33	87	6.5	390
Aug 05	1131	5.96	1570	100	7000
Aug 08	1141	3.06	246	33	700
Aug 09	1125	2.64	146	25	410
Aug 10	1117	2.51	119	32	630
Aug 11	1116	2.46	110	11	400
Aug 15	1029	2.40	99	5.7	E560
Aug 16	1004	2.44	106	6.9	E280
Aug 17	1011	2.31	84	6.4	E240
Aug 18	1000	2.23	71	7.4	E240
Aug 22	1017	2.42	103	8.2	E930
Aug 23	1005	2.31	84	8.3	E780

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

[(00065), USGS National Water Information System parameter code; cfs, cubic feet per second; NTRU, Nephelometric Turbidity Ratio Units; *E. coli*, *Escherichia coli*; col/100 mL, colonies per 100 milliliters, --, no data; E, estimated; >, greater than; <, less than]

Date	Time	Gage height, (feet) (00065)	Instantaneous discharge (cfs) (00061)	Turbidity (NTRU) (63676)	<i>E. coli</i> modified mTEC, water, (col/100 mL) (90902)
04206000—CUYAHOGA RIVER AT OLD PORTAGE, OHIO—Continued					
Aug 24	0941	2.22	70	7.3	E790
Aug 25	1005	2.17	63	6.7	E270
Aug 29	1011	2.16	61	5.8	E210
Aug 30	1016	2.93	212	12	E260
Aug 31	1028	6.11	1670	94	E16000
Sep 01	1007	5.24	1150	62	E4700
04207300—TINKERS CREEK NEAR INDEPENDENCE, OHIO					
May 16	1239	--	--	9.2	220
May 19	1200	--	--	4.2	90
May 24	1044	--	--	9.2	140
May 26	1131	--	--	6.0	E45
May 31	1109	--	--	7.4	120
Jun 02	1049	--	--	8.0	91
Jun 06	1057	--	--	25	160
Jun 08	1032	--	--	19	120
Jun 13	1130	--	--	12	370
Jun 14	1005	--	--	84	E30000
Jun 15	1004	--	--	45	2500
Jun 20	0947	--	--	7.1	300
Jun 21	1029	--	--	6.2	210
Jun 22	1010	--	--	12	1700
Jun 23	0954	--	--	6.5	270
Jun 27	1007	--	--	5.8	240
Jun 28	1015	--	--	5.6	150
Jun 29	1033	--	--	100	13000
Jun 30	1045	--	--	18	970
Jul 01	1022	--	--	84	2700
Jul 05	0934	--	--	11	320
Jul 06	1047	--	--	13	340
Jul 07	1049	--	--	8.6	340
Jul 08	1037	--	--	4.4	230
Jul 11	1037	--	--	3.7	160
Jul 12	1048	--	--	3.2	150
Jul 14	1032	--	--	5.1	240
Jul 15	1048	--	--	44	5200
Jul 18	1041	--	--	45	750
Jul 19	1035	--	--	150	4700

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

[(00065), USGS National Water Information System parameter code; cfs, cubic feet per second; NTRU, Nephelometric Turbidity Ratio Units; *E. coli*, *Escherichia coli*; col/100 mL, colonies per 100 milliliters, --, no data; E, estimated; >, greater than; <, less than]

Date	Time	Gage height, (feet) (00065)	Instantaneous discharge (cfs) (00061)	Turbidity (NTRU) (63676)	<i>E. coli</i> modified mTEC, water, (col/100 mL) (90902)
04207300—TINKERS CREEK NEAR INDEPENDENCE, OHIO—Continued					
Jul 20	1048	--	--	65	460
Jul 21	1045	--	--	1000	E22000
Jul 22	1040	--	--	60	2400
Jul 25	1005	--	--	21	730
Jul 26	1015	--	--	18	640
Jul 27	1010	--	--	380	18000
Jul 28	1000	--	--	180	2400
Aug 01	1153	--	--	4.3	130
Aug 02	1015	--	--	3.8	130
Aug 03	1006	--	--	2.8	180
Aug 04	0954	--	--	4.1	430
Aug 05	0952	--	--	11	4100
Aug 08	1009	--	--	4.7	150
Aug 09	0946	--	--	5.2	180
Aug 10	0943	--	--	6.0	160
Aug 11	0949	--	--	9.0	570
04208000—CUYAHOGA RIVER AT INDEPENDENCE, OHIO					
May 18	1229	--	--	16	190
May 23	1059	--	--	9.3	100
May 25	1146	--	--	9.0	240
May 27	1121	--	--	8.8	70
Jun 01	1059	--	--	7.4	70
Jun 03	1116	--	--	14	95
Jun 07	1128	--	--	11	170
Jun 09	1059	3.02	298	14	97
Jun 13	1115	2.93	268	17	790
Jun 14	1025	3.28	408	35	E6400
Jun 15	1026	3.48	505	42	5800
Jun 20	1010	2.91	262	14	260
Jun 21	1045	2.93	268	14	180
Jun 22	1030	2.98	284	16	200
Jun 23	1016	2.89	255	14	150
Jun 27	1025	2.85	243	11	150
Jun 28	1040	2.84	240	10	120
Jun 29	1056	4.06	854	1900	15000
Jun 30	1109	3.19	368	89	2100
Jul 01	1049	3.49	510	140	2700

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

[(00065), USGS National Water Information System parameter code; cfs, cubic feet per second; NTRU, Nephelometric Turbidity Ratio Units; *E. coli*, *Escherichia coli*; col/100 mL, colonies per 100 milliliters, --, no data; E, estimated; >, greater than; <, less than]

Date	Time	Gage height, (feet) (00065)	Instantaneous discharge (cfs) (00061)	Turbidity (NTRU) (63676)	<i>E. coli</i> modified mTEC, water, (col/100 mL) (90902)
04208000—CUYAHOGA RIVER AT INDEPENDENCE, OHIO—Continued					
Jul 05	0958	2.87	249	20	230
Jul 06	1055	2.89	255	16	290
Jul 07	1109	2.86	246	13	230
Jul 08	1059	2.88	252	12	230
Jul 11	1058	2.76	217	7.5	73
Jul 12	1105	2.76	217	8.1	90
Jul 14	1059	2.80	229	10	200
Jul 15	1114	2.97	280	98	3600
Jul 18	1103	3.33	431	53	580
Jul 19	1058	5.18	1510	430	4200
Jul 20	1112	3.41	470	93	1100
Jul 21	1110	6.68	2480	920	E18000
Jul 22	1105	3.48	505	130	2700
Jul 25	1028	3.15	351	31	610
Jul 26	1035	3.00	290	21	180
Jul 27	1039	9.52	4460	820	E36000
Jul 28	1030	4.85	1310	130	2600
Aug 01	1222	3.11	334	16	170
Aug 02	1043	3.04	306	14	160
Aug 03	1033	2.95	274	10	140
Aug 04	1021	2.94	271	8	130
Aug 05	1018	3.08	322	15	E170
Aug 08	1035	3.41	470	37	490
Aug 09	1010	3.21	377	24	330
Aug 10	1009	3.04	306	13	210
Aug 11	1015	3.05	310	12	250
411011081345100—CUYAHOGA RIVER AT BOTZUM, OHIO					
Oct 18	0933	6.95	489	3.4	200
Nov 01	0940	7.05	521	10	460
Nov 22	1006	7.35	622	8.1	430
Nov 29	1020	7.35	622	6.3	550
Dec 13	0958	8.00	880	12	410
Jan 10	1007	11.33	>2200	32	790
Jan 30	0927	7.95	854	7.9	400
Feb 13	0918	9.00	1330	16	200
Mar 03	0951	7.85	816	8.4	240
Mar 20	0951	8.55	1120	32	1100

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

[(00065), USGS National Water Information System parameter code; cfs, cubic feet per second; NTRU, Nephelometric Turbidity Ratio Units; *E. coli*, *Escherichia coli*; col/100 mL, colonies per 100 milliliters, --, no data; E, estimated; >, greater than; <, less than]

Date	Time	Gage height, (feet) (00065)	Instantaneous discharge (cfs) (00061)	Turbidity (NTRU) (63676)	<i>E. coli</i> modified mTEC, water, (col/100 mL) (90902)
411011081345100—CUYAHOGA RIVER AT BOTZUM, OHIO—Continued					
Apr 02	0852	8.80	1240	15	800
Apr 16	0920	8.98	1320	8.3	390
Apr 28	0925	9.85	1790	21	E140
May 16	1144	7.95	854	30	530
May 18	1124	7.73	766	9	240
May 19	1103	7.46	661	18	250
May 23	1009	7.13	544	7.1	800
May 24	0953	7.40	636	15	1700
May 25	1020	7.37	629	9.9	390
May 26	1026	7.19	567	9.9	340
May 27	1009	7.17	560	6.7	190
May 31	1013	6.91	477	5.7	130
Jun 01	0956	7.01	508	10	260
Jun 02	0956	6.93	483	5.6	210
Jun 03	1009	6.83	449	5.0	250
Jun 06	1003	7.16	557	79	E5200
Jun 07	1022	6.79	437	6.2	870
Jun 08	0942	6.73	423	5.8	380
Jun 09	0959	6.60	385	6.0	260
Jun 13	1157	6.70	411	6.0	830
Jun 14	1134	6.55	372	5.9	400
Jun 15	1107	6.71	417	9.0	E14000
Jun 20	0901	6.45	341	7.9	500
Jun 21	1129	6.61	385	12	820
Jun 22	1100	6.61	385	6.5	320
Jun 23	1058	6.54	366	7.1	220
Jun 27	1055	6.50	358	5.6	190
Jun 28	1114	6.44	341	5.2	210
Jun 29	1140	6.71	417	6.8	870
Jun 30	1152	6.60	385	5.7	500
Jul 01	1138	6.60	385	6.9	1900
Jul 05	1046	6.48	352	5.0	200
Jul 06	1201	6.50	358	5.8	550
Jul 07	1155	6.50	358	13	580
Jul 08	1140	6.43	338	5.6	360
Jul 11	1145	6.40	327	4.5	200
Jul 12	1143	6.41	333	6.3	230
Jul 14	1144	6.37	322	5.0	520

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

[(00065), USGS National Water Information System parameter code; cfs, cubic feet per second; NTRU, Nephelometric Turbidity Ratio Units; *E. coli*, *Escherichia coli*; col/100 mL, colonies per 100 milliliters, --, no data; E, estimated; >, greater than; <, less than]

Date	Time	Gage height, (feet) (00065)	Instantaneous discharge (cfs) (00061)	Turbidity (NTRU) (63676)	<i>E. coli</i> modified mTEC, water, (col/100 mL) (90902)
411011081345100—CUYAHOGA RIVER AT BOTZUM, OHIO—Continued					
Jul 15	1153	6.31	303	9.2	570
Jul 18	1150	6.60	385	8.3	510
Jul 19	1207	7.31	604	42	6000
Jul 20	1155	6.69	411	--	--
411747081341300—CUYAHOGA RIVER AT JAITE, OHIO					
Oct 18	0911	6.55	458	4.2	110
Nov 01	0918	7.60	916	13	650
Nov 22	0950	6.55	458	10	600
Nov 29	1000	6.65	488	8.8	670
Dec 13	1036	7.50	851	19	870
Jan 10	0945	11.50	>1900	71	1300
Jan 30	0900	6.95	607	12	790
Feb 13	0900	8.55	1480	24	520
Mar 03	0930	7.25	735	13	620
Mar 20	0930	8.40	1390	86	350
Apr 02	0924	8.20	1280	17	640
Apr 16	0858	8.90	1670	9.5	540
Apr 28	0900	9.55	>1900	32	340
May 16	1209	7.45	817	19	580
May 18	1149	7.00	634	12	220
May 19	1130	6.71	514	9.3	160
May 23	1030	6.50	441	6.6	250
May 24	1017	6.71	514	27	2400
May 25	1101	6.57	464	7.7	290
May 26	1050	6.55	458	7.3	160
May 27	1045	6.50	441	6.6	180
May 31	1045	6.18	341	5.3	83
Jun 01	1021	6.25	362	5.2	98
Jun 02	1022	6.01	288	5.3	70
Jun 03	1034	6.06	300	5.8	130
Jun 06	1031	5.95	267	5.8	140
Jun 07	1046	6.00	285	5.5	1700
Jun 08	1009	5.89	252	6.5	170
Jun 09	1020	5.80	228	7.8	130
Jun 13	1031	5.85	241	9.8	630
Jun 14	0945	5.81	228	10	130
Jun 15	0944	6.13	322	26	8000

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

[(00065), USGS National Water Information System parameter code; cfs, cubic feet per second; NTRU, Nephelometric Turbidity Ratio Units; *E. coli*, *Escherichia coli*; col/100 mL, colonies per 100 milliliters, --, no data; E, estimated; >, greater than; <, less than]

Date	Time	Gage height, (feet) (00065)	Instantaneous discharge (cfs) (00061)	Turbidity (NTRU) (63676)	<i>E. coli</i> modified mTEC, water, (col/100 mL) (90902)
411747081341300—CUYAHOGA RIVER AT JAITE, OHIO—Continued					
Jun 20	0926	5.47	<155	10	260
Jun 21	1005	5.78	<155	9.7	270
Jun 22	0950	5.83	233	9.7	240
Jun 23	0934	5.61	179	10	220
Jun 27	0945	5.75	215	8.2	210
Jun 28	0947	5.68	198	8.9	150
Jun 29	1011	6.25	362	630	7200
Jun 30	1028	5.87	247	36	970
Jul 01	1003	5.96	273	60	1100
Jul 05	0915	5.70	201	16	260
Jul 06	1017	5.72	205	14	290
Jul 07	1021	5.66	193	5.1	360
Jul 08	1013	5.74	210	12	250
Jul 11	1010	5.59	176	7.2	110
Jul 12	1026	5.57	171	8.4	97
Jul 14	1022	5.60	179	8.5	460
Jul 15	1029	5.61	179	5.7	360
Jul 18	1015	5.84	238	24	620
Jul 19	1014	7.50	851	510	3500
Jul 20	1027	6.03	294	44	1100
Jul 21	1023	6.44	422	290	7100
Jul 22	1021	--	--	56	660
Jul 25	0947	6.29	371	24	380
Jul 26	0950	6.18	341	19	260
Jul 27	0928	10.86	>1900	1200	E31000
Jul 28	0920	7.38	786	72	2100
Aug 01	1126	6.28	371	14	350
Aug 02	0943	6.21	351	12	200
Aug 03	0938	6.15	328	8.0	200
Aug 04	0926	6.14	328	6.9	230
Aug 05	0924	6.45	422	440	3100
Aug 08	0941	6.68	503	36	570
Aug 09	0919	6.40	405	23	280
Aug 10	0918	6.22	351	13	240
Aug 11	0921	6.21	351	12	330
Aug 15	0946	6.19	345	5.2	E480
Aug 16	0929	6.25	362	6.5	E320
Aug 17	0938	6.18	341	5.4	E230

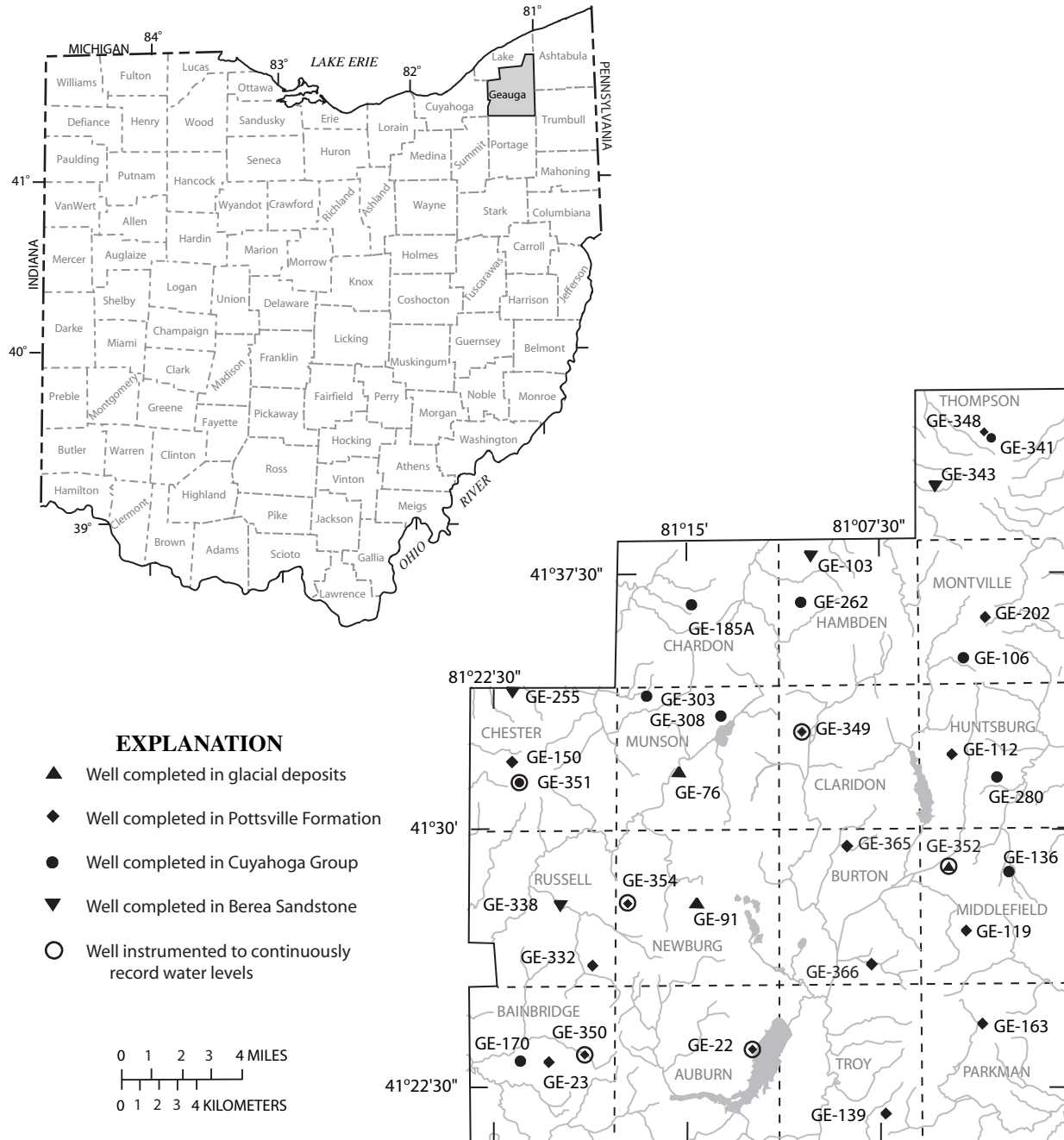
WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

[(00065), USGS National Water Information System parameter code; cfs, cubic feet per second; NTRU, Nephelometric Turbidity Ratio Units; *E. coli*, *Escherichia coli*; col/100 mL, colonies per 100 milliliters, --, no data; E, estimated; >, greater than; <, less than]

Date	Time	Gage height, (feet) (00065)	Instantaneous discharge (cfs) (00061)	Turbidity (NTRU) (63676)	<i>E. coli</i> modified mTEC, water, (col/100 mL) (90902)
411747081341300—CUYAHOGA RIVER AT JAITE, OHIO—Continued					
Aug 18	0928	6.07	306	4.7	E190
Aug 22	0945	6.36	393	22	E880
Aug 23	0932	6.17	338	17	E540
Aug 24	0910	6.04	294	16	E340
Aug 25	0930	5.99	279	14	E310
Aug 29	0938	5.99	279	9.8	E420
Aug 30	0945	6.39	405	12	E430
Aug 31	0938	13.45	>1900	370	E39000
Sep 01	0932	9.38	>1900	140	E6100

Project Data—Ground-Water Data for Geauga County, Ohio

Ground-water-level data were collected as part of a USGS cooperative study with the Geauga County Planning Commission and the Board of County Commissioners. Measurements from 32 wells that comprise the long-term ground-water monitoring network in Geauga County are shown on the following pages. The purpose of the water-level study is to determine whether fluctuations in water levels represent consistent, long-term trends caused by human activity or are predominantly the result of seasonal and annual variations in recharge. Land-surface datums are accurate within ± 5 ft. Water levels known to have been measured after a well had been recently pumped are designated with an asterisk (*).



412331081123000. Local Number, GE-22

LOCATION.—Latitude 41°23'31", longitude 81°12'30", Geauga County, west of Valley View Road by La Due Reservoir at old Sugar House, Auburn Township.
 Owner: City of Akron.

AQUIFER.—Pottsville Formation (sandstone) of Pennsylvanian age.

WELL CHARACTERISTICS.—Water-supply well not currently in use; diameter 6.25 in., depth 80 ft.

INSTRUMENTATION.—Pressure transducer and data logger (records hourly).

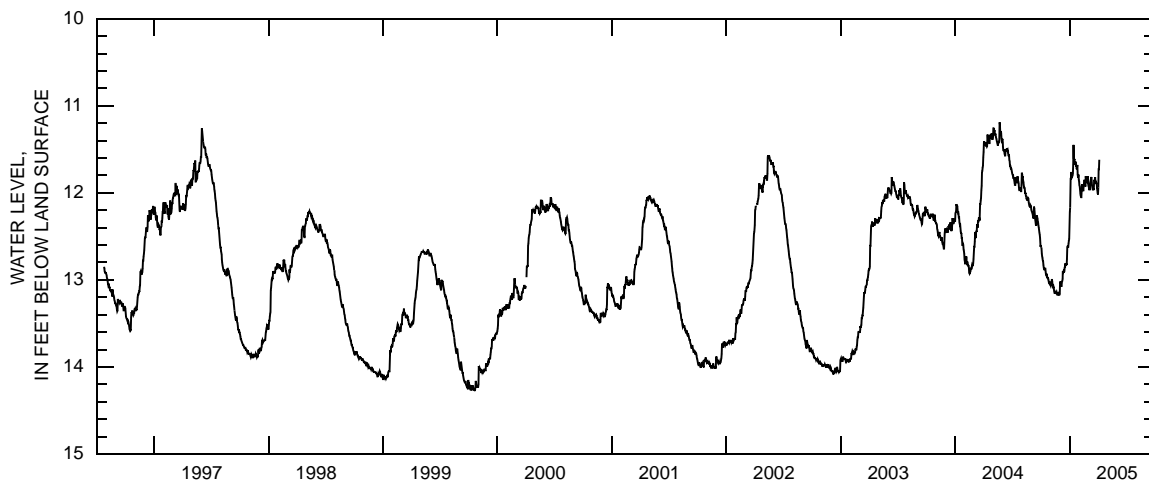
DATUM.—Elevation of land-surface datum is 1,160 ft above sea level. Measuring point: mark on wooden base of instrument shelter; changed from 3.96 ft below land-surface datum to 3.20 ft above land-surface datum on May 13, 1997.

PERIOD OF RECORD.—Periodic water-level measurements from June 8, 1978 through September 8, 1994. Continuous water-level data from July 24, 1996 to current year. No continuous data Apr. 6, 2005 to Sept. 30, 2005 due to transducer malfunction.

EXTREMES FOR PERIOD OF RECORD.—Minimum daily low, 11.19 ft below land-surface datum, May 22, 2004; maximum daily low, 14.34 ft below land-surface datum, Nov. 12, 1980.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.60	13.07	13.02	12.22	11.92	11.90	12.02	---	---	---	---	---
2	12.63	13.05	13.03	12.17	11.93	11.93	11.94	---	---	---	---	---
3	12.64	13.03	13.04	11.99	11.97	11.94	11.73	---	---	---	---	---
4	12.70	13.02	13.05	11.84	12.01	11.93	11.73	---	---	---	---	---
5	12.73	12.99	13.08	11.84	12.04	11.97	11.62	---	---	---	---	---
6	12.75	13.02	13.05	11.76	12.05	11.96	---	---	---	---	---	---
7	12.78	13.06	13.02	11.81	12.05	11.89	---	---	---	---	---	---
8	12.79	13.08	13.01	11.82	11.97	11.87	---	---	---	---	---	---
9	12.83	13.09	12.99	11.81	11.90	11.85	---	---	---	---	---	---
10	12.86	13.08	12.90	11.80	11.93	11.83	---	---	---	---	---	---
11	12.88	13.10	12.91	11.78	11.93	11.82	---	---	---	---	---	---
12	12.88	13.13	12.90	11.68	11.95	11.88	---	---	---	---	---	---
13	12.87	13.15	12.91	11.45	11.98	11.92	---	---	---	---	---	---
14	12.87	13.15	12.91	11.61	11.93	11.94	---	---	---	---	---	---
15	12.87	13.15	12.90	11.62	11.90	11.96	---	---	---	---	---	---
16	12.91	13.15	12.85	11.61	11.85	11.96	---	---	---	---	---	---
17	12.94	13.15	12.86	11.66	11.87	11.95	---	---	---	---	---	---
18	12.95	13.14	12.81	11.68	11.90	11.97	---	---	---	---	---	---
19	12.93	13.15	12.84	11.64	11.92	11.95	---	---	---	---	---	---
20	12.95	13.14	12.82	11.66	11.92	11.85	---	---	---	---	---	---
21	12.97	13.16	12.82	11.70	11.81	11.86	---	---	---	---	---	---
22	12.98	13.17	12.83	11.69	11.83	11.86	---	---	---	---	---	---
23	12.98	13.17	12.76	11.73	11.84	11.82	---	---	---	---	---	---
24	12.98	13.17	12.63	11.71	11.82	11.87	---	---	---	---	---	---
25	13.00	13.14	12.61	11.68	11.83	11.87	---	---	---	---	---	---
26	13.02	13.15	12.62	11.79	11.88	11.89	---	---	---	---	---	---
27	13.04	13.14	12.62	11.82	11.88	11.89	---	---	---	---	---	---
28	13.04	13.17	12.58	11.82	11.81	11.89	---	---	---	---	---	---
29	13.03	13.17	12.55	11.79	---	11.95	---	---	---	---	---	---
30	13.03	13.16	12.53	11.85	---	11.97	---	---	---	---	---	---
31	13.06	---	12.39	11.87	---	12.01	---	---	---	---	---	---
MEAN	12.89	13.12	12.83	11.77	11.91	11.91	11.81	---	---	---	---	---
MAX	13.06	13.17	13.08	12.22	12.05	12.01	12.02	---	---	---	---	---
MIN	12.60	12.99	12.39	11.45	11.81	11.82	11.62	---	---	---	---	---



412309081202400. Local Number, GE-23

LOCATION.—Latitude 41°23'09", longitude 81°20'24", Geauga County, Alltel building on Bainbridge Road, west of State Route 306, Bainbridge Township.

Owner: Alltel Telephone Company.

AQUIFER.—Pottsville Formation (sandstone) of Pennsylvanian age.

WELL CHARACTERISTICS.—Commercial water-supply well; diameter 5.63 in., depth 40 ft.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 1,162 ft above sea level. Measuring point: top of casing, 1.32 ft above land-surface datum.

PERIOD OF RECORD.—April 26, 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 10.46 ft below land-surface datum, Apr. 26, 1978; lowest measured, 20.61 ft below land-surface datum, Nov. 6, 2002.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-12-2004	17.36
12-08-2004	17.63
02-02-2005	16.43
04-06-2005	15.76
06-08-2005	16.06
08-03-2005	16.86

413138081152000. Local Number, GE-76

LOCATION.—Latitude 41°31'38", longitude 81°15'20", Geauga County, 10755 Mayfield Road, Munson Township. Owner: Fowler's Mill Christian Church.

AQUIFER.—Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.—Private water-supply well; diameter 6 in., depth 150 ft.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 1,170 ft above sea level. Measuring point: top of casing, 1.68 ft above land-surface datum.

PERIOD OF RECORD.—June 15, 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 21.19 ft below land-surface datum, June 15, 1978; lowest measured, 25.29 ft below land-surface datum, July 11, 2001.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-13-2004	23.13
12-08-2004	23.04
02-03-2005	22.55
04-07-2005	22.20
06-09-2005	22.78
08-04-2005	23.32

412748081143900. Local Number, GE-91

LOCATION.—Latitude 41°27'48", longitude 81°14'39", Geauga County, northeast corner of Auburn Road and State Route 87 intersection, Newbury Township.

Owner: Dairy Mart.

AQUIFER.—Pottsville Formation (sandstone) of Pennsylvanian age.

WELL CHARACTERISTICS.—Commercial water-supply well; diameter 5.63 in., depth 85 ft.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 1,250 ft above sea level. Measuring point: top of casing, 1.16 ft above land-surface datum.

PERIOD OF RECORD.—October 19, 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 40.10 ft below land-surface datum, Oct. 19, 1978; lowest measured, 47.73* ft below land-surface datum, May 21, 2003.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-12-2004	43.48
12-09-2004	43.80
02-03-2005	43.98*
04-07-2005	43.52
06-09-2005	43.22
08-04-2005	43.48

413755081101200. Local Number, GE-103

LOCATION.—Latitude 41°37'55", longitude 81°10'12", Geauga County, 8755 Old State Road (State Route 608), Hambden Township. Owner: privately owned.

AQUIFER.—Berea Sandstone of Mississippian age.

WELL CHARACTERISTICS.—Domestic water-supply well; diameter 5.63 in., depth 136 ft.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 1,158 ft above sea level. Measuring point: top of casing, 0.40 ft above land-surface datum.

PERIOD OF RECORD.—May 7, 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 79.44 ft below land-surface datum, May 7, 1980; lowest measured, 92.75 ft below land-surface datum, Feb. 5, 2004.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-13-2004	91.45
12-08-2004	91.91
02-02-2005	92.07
04-06-2005	91.69
06-09-2005	91.63
08-03-2005	91.70

413456081035600. Local Number, GE-106

LOCATION.—Latitude 41°34'56", longitude 81°03'56", Geauga County, 10691 Clay Street, Montville Township. Owner: privately owned.

AQUIFER.—Cuyahoga Group (interbedded shales and sandstones) of Mississippian age.

WELL CHARACTERISTICS.—Domestic water-supply well; diameter 5.63 in., depth 72 ft.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 1,255 ft above sea level. Measuring point: top of casing, 1.20 ft above land-surface datum.

PERIOD OF RECORD.—May 7, 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 30.84 ft below land-surface datum, May 7, 1980; lowest measured, 37.44 ft below land-surface datum, May 29, 1996.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-13-2004	35.58
12-08-2004	35.88
02-02-2005	36.15
04-06-2005	35.72
06-08-2005	35.46
08-03-2005	35.52

413207081044400. Local Number, GE-112

LOCATION.—Latitude 41°32'07", longitude 81°04'44", Geauga County, by golf course maintenance building at 15900 Mayfield Road, Huntsburg Township.

Owner: Rolling Green Golf Course.

AQUIFER.—Pottsville Formation (sandstone) of Pennsylvanian age.

WELL CHARACTERISTICS.—Commercial water-supply well for shop and house (not used for irrigation); diameter 5.63 in., depth 80 ft.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 1,265 ft above sea level. Measuring point: top of casing, 1.30 ft above land-surface datum.

PERIOD OF RECORD.—May 8, 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 43.86 ft below land-surface datum, May 5, 1980; lowest measured, 50.61 ft below land-surface datum, Jan. 15, 2002.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-13-2004	47.34
12-08-2004	47.85
02-02-2005	47.58
04-06-2005	47.48
06-08-2005	47.15
08-03-2005	47.03

412657081040500. Local Number, GE-119

LOCATION.—Latitude 41°26'58", longitude 81°04'12", Geauga County, 15400 State Route 608, Middlefield Township. Owner: Geauga County Airport.

AQUIFER.—Pottsville Formation (sandstone) of Pennsylvanian age.

WELL CHARACTERISTICS.—Commercial water-supply well; diameter 5.63 in., depth 79 ft.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 1,185 ft above sea level. Measuring point: top of casing, 1.50 ft above land-surface datum.

PERIOD OF RECORD.—August 20, 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 7.96 ft below land-surface datum, Aug. 20, 1980; lowest measured, 16.61 ft below land-surface datum, Mar. 12, 2003.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-12-2004	15.65
12-08-2004	16.14
02-02-2005	15.80
04-06-2005	15.33
06-08-2005	15.25
08-03-2005	15.80

412841081023200. Local Number, GE-136

LOCATION.—Latitude 41°28'41", longitude 81°02'32", Geauga County, 16826 Nauvoo Road, Middlefield Township. Owner: privately owned.

AQUIFER.—Cuyahoga Group (interbedded shales and sandstones) of Mississippian age.

WELL CHARACTERISTICS.—Domestic water-supply well; diameter 5.63 in., depth 58 ft; water level not static in spring and summer months (pump removes approximately 1 gallon per minute of water from well during the growing season).

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 1,130 ft above sea level. Measuring point: top of casing 1.20 ft above land-surface datum.

PERIOD OF RECORD.—August 8, 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 13.31 ft below land-surface datum, May 8, 1986; lowest measured, 24.27* ft below land-surface datum, May 28, 1996.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-12-2004	17.61
12-08-2004	17.41
02-02-2005	18.46*
04-06-2005	17.79
06-08-2005	21.85*
08-03-2005	20.95

412138081072000. Local Number, GE-139

LOCATION.—Latitude 41°21'38", longitude 81°07'20", Geauga County, 14515 Hoover Road, Troy Township. Owner: privately owned.

AQUIFER.—Pottsville Formation (sandstone) of Pennsylvanian age.

WELL CHARACTERISTICS.—Domestic water-supply well; diameter 5.63 in., depth 90 ft.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 1,171 ft above sea level. Measuring point: top of casing, 0.37 ft above land-surface datum.

PERIOD OF RECORD.—August 15, 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 32.16 ft below land-surface datum, Apr. 17, 2004; lowest measured, 39.94 ft below land-surface datum, Oct. 26, 1999.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-12-2004	34.04
12-08-2004	34.12
02-02-2005	33.03
04-06-2005	32.27
06-08-2005	33.51
08-03-2005	35.26

413155081214900. Local Number, GE-150

LOCATION.—Latitude 41°31'55", longitude 81°21'49", Geauga County, 12390 Caves Road, Chester Township. Owner: privately owned.

AQUIFER.—Pottsville Formation (sandstone) of Pennsylvanian age.

WELL CHARACTERISTICS.—Domestic water-supply well; diameter 6.63 in., depth 90 ft.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 1,220 ft above sea level. Measuring point: top of casing, 1.65 ft above land-surface datum.

PERIOD OF RECORD.—February 13, 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 22.07 ft below land-surface datum, May 14, 1997; lowest measured, 30.75 ft below land-surface datum, Sept. 19, 2001 (water level has been lower than 30.75 but blockage prevents measurement beyond this point).

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-13-2004	28.20
12-09-2004	29.21
02-03-2005	28.48
04-07-2005	26.88
06-09-2005	27.79
08-04-2005	28.72

412415081033500. Local Number, GE-163

LOCATION.—Latitude 41°24'15", longitude 81°03'35", Geauga County, 17115 Madison Road, Parkman Township. Owner: privately owned.

AQUIFER.—Pottsville Formation (sandstone) of Pennsylvanian age.

WELL CHARACTERISTICS.—Domestic water-supply well; diameter 5.63 in., depth 60 ft.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 1,182 ft above sea level. Measuring point: top of casing, 1.10 ft above land-surface datum.

PERIOD OF RECORD.—February 5, 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 8.17 ft below land-surface datum, Feb. 5, 1986; lowest measured, 17.11 ft below land-surface datum, Sept. 23, 2002.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-12-2004	14.78
12-08-2004	14.32
02-02-2005	14.23
04-06-2005	13.62
06-08-2005	14.20
08-03-2005	15.24

412311081213000. Local Number, GE-170

LOCATION.—Latitude 41°23'11", longitude 81°21'30", Geauga County, 7956 Bainbridge Road, Bainbridge Township. Owner: privately owned.

AQUIFER.—Cuyahoga Group (interbedded shales and sandstones) of Mississippian age.

WELL CHARACTERISTICS.—Domestic water-supply well; diameter 5.63 in., depth 92 ft.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 1,110 ft above sea level. Measuring point: top of casing, 1.47 ft above land-surface datum.

PERIOD OF RECORD.—February 4, 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 43.82 ft below land-surface datum, Nov. 19, 1996; lowest measured, 51.66 ft below land-surface datum, Nov. 6, 2002.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-12-2004	46.63
12-08-2004	46.06
02-02-2005	45.38
04-06-2005	44.73
06-08-2005	46.42
08-03-2005	47.47

413630081145001. Local Number, GE-185A

LOCATION.—Latitude 41°36'30", longitude 81°14'50", Geauga County, 9673 Mentor Road, Chardon Township. Owner: privately owned.

AQUIFER.—Cuyahoga Group (interbedded shales and sandstones) of Mississippian age.

WELL CHARACTERISTICS.—Domestic water-supply well; diameter 5.5 in., depth 90 ft.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 1,260 ft above sea level. Measuring point: top of casing 0.84 ft above land-surface datum.

PERIOD OF RECORD.—January 1, 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 32.39 ft below land-surface datum, Nov. 21, 1996; lowest measured, 38.48 ft below land-surface datum, Oct. 21, 2003.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-13-2004	38.10
12-09-2004	37.33
02-02-2005	36.30
04-06-2005	35.29
06-09-2005	36.37
08-03-2005	36.76

413607081032500. Local Number, GE-202

LOCATION.—Latitude 41°36'07", longitude 81°03'25", Geauga County, 9915 Plank Road, Montville Township. Owner: privately owned.

AQUIFER.—Pottsville Formation (sandstone) of Pennsylvanian age.

WELL CHARACTERISTICS.—Domestic water-supply well; diameter 5.63 in., depth 74 ft.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 1,247 ft above sea level. Measuring point: top of casing, 1.60 ft above land-surface datum.

PERIOD OF RECORD.—February 10, 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 27.60 ft below land-surface datum, Feb. 10, 1986; lowest measured, 30.81 ft below land-surface datum, Oct. 27, 1999.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-13-2004	29.60
12-08-2004	30.07
02-02-2005	29.65
04-06-2005	29.43
06-08-2005	29.33
08-03-2005	29.73

413357081214800. Local Number, GE-255

LOCATION.—Latitude 41°33'57", longitude 81°21'48", Geauga County, 11240 Caves Road, Chester Township. Owner: privately owned.

AQUIFER.—Berea Sandstone of Mississippian age.

WELL CHARACTERISTICS.—Domestic water-supply well; diameter 5.63 in., depth 123 ft.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 1,075 ft above sea level. Measuring point: Top of casing, 2.08 ft above land-surface datum.

PERIOD OF RECORD.—September 8, 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 50.97 ft below land surface datum, Oct. 13, 2004; lowest measured, 55.82* ft below land-surface datum, Jan. 15, 2002.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-13-2004	50.97
12-09-2004	51.82
02-03-2005	51.88
04-07-2005	51.32
06-09-2005	53.51*
08-04-2005	52.11

413634081103500. Local Number, GE-262

LOCATION.—Latitude 41°36'34", longitude 81°10'35", Geauga County, 9593 Wildwood Road, Hambden Township. Owner: privately owned.

AQUIFER.—Cuyahoga Group (interbedded shales and sandstones) of Mississippian age.

WELL CHARACTERISTICS.—Domestic water-supply well; diameter 6 in., depth 100 ft.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 1,200 ft above sea level. Measuring point: top of casing 1.60 ft above land-surface datum.

PERIOD OF RECORD.—September 7, 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 34.19 ft below land-surface datum, Sept. 10, 1996; lowest measured, 42.55 ft below land-surface datum, Jan. 16, 2002.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-13-2004	36.64
12-08-2004	37.10
02-02-2005	38.46
04-06-2005	37.57
06-09-2005	37.79
08-03-2005	38.00

413127081025900. Local Number, GE-280

LOCATION.—Latitude 41°31'27", longitude 81°02'59", Geauga County, 12972 Madison Road, Huntsburg Township. Owner: privately owned.

AQUIFER.—Cuyahoga Group (interbedded shales and sandstones) of Mississippian age.

WELL CHARACTERISTICS.—Domestic water-supply well; diameter 6 in., depth 162 ft.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 1,145 ft above sea level. Measuring point: top of casing 1.45 ft above land-surface datum.

PERIOD OF RECORD.—September 8, 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 31.60 ft below land-surface datum, Apr. 7, 2004; lowest measured, 35.96 ft below land-surface datum, Dec. 14, 1998.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-13-2004	33.43
12-08-2004	33.43
02-02-2005	32.44
04-06-2005	31.64
06-08-2005	32.55
08-03-2005	33.52

413350081163500. Local Number, GE-303

LOCATION.—Latitude 41°33'50", longitude 81°16'35", Geauga County, 10250 Mulberry Road, Munson Township. Owner: privately owned.

AQUIFER.—Cuyahoga Group (interbedded shales and sandstones) of Mississippian age.

WELL CHARACTERISTICS.—Domestic water-supply well; diameter 6 in., depth 95 ft.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 1,230 ft above sea level. Measuring point: top of casing 1.60 ft above land-surface datum.

PERIOD OF RECORD.—September 7, 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 57.23 ft below land-surface datum, May 14, 1997; lowest measured, 63.15 ft below land-surface datum, Jan. 15, 2002.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-13-2004	62.19
12-09-2004	62.44
02-03-2005	62.25
04-07-2005	61.35
06-09-2005	61.91
08-04-2005	62.32

413315081134200. Local Number, GE-308

LOCATION.—Latitude 41°33'15", longitude 81°13'42", Geauga County, 11675 Chestnutdale Drive, Munson Township. Owner: privately owned.

AQUIFER.—Cuyahoga Group (interbedded shales and sandstones) of Mississippian age.

WELL CHARACTERISTICS.—Domestic water-supply well; diameter 6 in., depth 98 ft.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 1,165 ft above sea level. Measuring point: top of casing 1.68 ft above land-surface datum.

PERIOD OF RECORD.—September 7, 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 20.05 ft below land-surface datum, Apr. 20, 1999; lowest measured, 27.74 ft below land-surface datum, Sept. 24, 2002.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-13-2004	24.08
12-08-2004	23.77
02-03-2005	23.21
04-07-2005	22.22
06-09-2005	23.06
08-04-2005	24.11

412558081184200. Local Number, GE-332

LOCATION.—Latitude 41°25'58", longitude 81°18'42", Geauga County, 103 Silver Springs, Russell Township. Owner: privately owned.

AQUIFER.—Pottsville Formation (sandstone) of Pennsylvanian age.

WELL CHARACTERISTICS.—Domestic water-supply well; diameter 5.63 in., depth 104 ft.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 1,180 ft above sea level. Measuring point: top of casing, 1.14 ft above land-surface datum.

PERIOD OF RECORD.—September 8, 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 33.83 ft below land-surface datum, May 14, 1997; lowest measured, 36.10 ft below land-surface datum, Jan. 16, 2002.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water Level
10-13-2004	34.68
12-09-2004	34.88
02-03-2005	34.66
04-07-2005	34.35
06-09-2005	34.37
08-04-2005	34.59

412743081195700. Local Number, GE-338

LOCATION.—Latitude 41°27'43", longitude 81°19'57", Geauga County, 14940 Surrey Downs, Russell Township. Owner: privately owned.

AQUIFER.—Berea Sandstone of Mississippian age.

WELL CHARACTERISTICS.—Domestic water-supply well; diameter 5.56 in., depth 160 ft.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 1,078 ft above sea level. Measuring point: top of casing, 1.38 ft above land-surface datum.

PERIOD OF RECORD.—September 8, 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 58.67 ft below land-surface datum, Oct. 22, 2003; lowest measured, 73.29 ft below land-surface datum, Jan. 22, 1997.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-13-2004	59.79
12-09-2004	59.74
02-03-2005	59.72
04-07-2005	59.11*
06-09-2005	61.11
08-04-2005	60.20

414121081030800. Local Number, GE-341

LOCATION.—Latitude 41°41'21", longitude 81°03'08", Geauga County, 6758 Madison Road, Thompson Township. Owner: Thompson United Methodist Church.

AQUIFER.—Cuyahoga Group (interbedded shales and sandstones) of Mississippian age.

WELL CHARACTERISTICS.—Private water-supply well; diameter 6.63 in., depth 120 ft.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 1,267 ft above sea level. Measuring point: top of casing 2.00 ft above land-surface datum.

PERIOD OF RECORD.—September 7, 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 3.36 ft below land-surface datum, Apr. 6, 2005; lowest measured, 10.11 ft below land-surface datum, Sept. 7, 1994.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-13-2004	7.18
12-08-2004	7.06*
02-02-2005	5.15
04-06-2005	3.36
06-08-2005	5.71
08-03-2005	7.09

413957081052100. Local Number, GE-343

LOCATION.—Latitude 41°39'57", longitude 81°05'21", Geauga County, 15554 Valentine Road, Thompson Township. Owner: privately owned.

AQUIFER.—Berea Sandstone of Mississippian age.

WELL CHARACTERISTICS.—Domestic water-supply well; diameter 5.63 in., depth 120 ft.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 1,145 ft above sea level. Measuring point: top of casing, 1.54 ft above land-surface datum.

PERIOD OF RECORD.—September 7, 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 68.79 ft below land-surface datum, Apr. 7, 2004; lowest measured, 72.93 ft below land-surface datum, Sept. 7, 1994.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-13-2004	70.30
12-08-2004	70.57
02-02-2005	69.51
04-06-2005	69.37
06-08-2005	69.50
08-03-2005	70.32

414125081031500. Local Number, GE-348

LOCATION.—Latitude 41°41'25", longitude 81°03'15", Geauga County, 16506 W. Thompson Road, Thompson Township. Owner: privately owned.

AQUIFER.—Pottsville Formation (sandstone) of Pennsylvanian age.

WELL CHARACTERISTICS.—Domestic water-supply well, not currently in use; diameter 6 in., depth 53 ft.

INSTRUMENTATION.—Instrumentation removed on May 21, 2002 due to new owner use of the well. Periodic water level measurements by steel or electric tape will continue.

DATUM.—Elevation of land-surface datum is 1,265 ft above sea level. Measuring point: mark on wooden base of instrument shelter, 2.55 ft above land-surface datum.

PERIOD OF RECORD.—July 23, 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 0.76 ft below land-surface datum, Apr. 6, 2005; lowest measured, 7.74 ft below land-surface datum, Sept. 11, 2001.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-13-2004	5.07
12-08-2004	2.69
02-02-2005	4.59
04-06-2005	0.76
06-08-2005	4.40
08-03-2005	5.55

413247081103300. Local Number, GE-349

LOCATION.—Latitude 41°32'47", longitude 81°10'33", Geauga County, 121 Berkshire Drive, Aquilla Village, Claridon Township. Owner: privately owned.

AQUIFER.—Pottsville Formation (sandstone) of Pennsylvanian age.

WELL CHARACTERISTICS.—Domestic water-supply well, not currently in use; diameter 5.63 in., depth 58.19 ft.

INSTRUMENTATION.—Pressure transducer and data logger (records hourly).

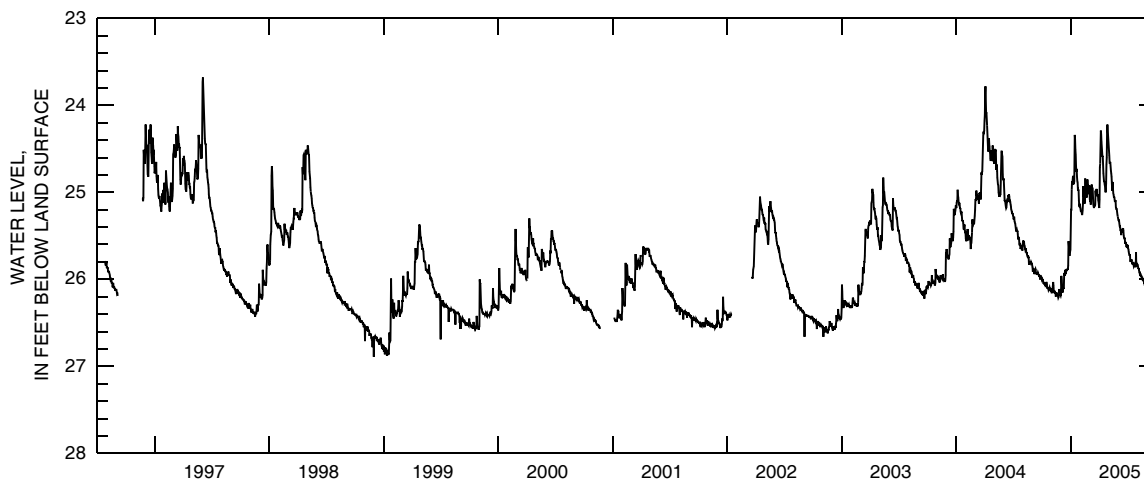
DATUM.—Elevation of land-surface datum is 1,190 ft above sea level. Measuring point: mark on wooden base of instrument shelter, 1.05 ft above land-surface datum.

PERIOD OF RECORD.—July 24, 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.—Minimum daily low, 23.68 ft below land-surface datum, June 3, 1997; maximum daily low, 26.89 ft below land-surface datum, Nov. 30, 1998.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.99	26.15	25.96	25.20	25.22	25.01	25.18	24.44	25.32	25.61	25.83	25.98
2	26.02	26.11	26.01	25.20	25.21	25.08	25.08	24.52	25.32	25.65	25.84	26.03
3	26.00	26.11	26.08	24.97	25.23	25.10	24.71	24.58	25.33	25.66	25.86	26.07
4	26.04	26.08	26.09	24.87	25.24	25.10	24.67	24.67	25.36	25.68	25.88	26.09
5	26.04	26.03	26.15	24.90	25.26	25.14	24.43	24.66	25.39	25.70	25.87	26.12
6	26.04	26.07	26.11	24.85	25.25	25.11	24.29	24.65	25.39	25.72	25.90	26.13
7	26.03	26.14	26.10	24.81	25.21	24.95	24.33	24.70	25.43	25.72	25.92	26.11
8	26.06	26.15	26.11	24.91	25.14	24.91	24.42	24.75	25.43	25.72	25.92	26.11
9	26.04	26.15	26.08	24.89	24.93	24.95	24.48	24.78	25.46	25.78	25.96	26.12
10	26.07	26.13	25.93	24.90	25.04	24.95	24.53	24.82	25.49	25.80	25.93	26.15
11	26.04	26.16	25.96	24.87	25.04	24.96	24.59	24.90	25.42	25.77	25.96	26.15
12	26.08	26.15	25.92	24.70	25.06	25.05	24.58	24.98	25.45	25.78	25.96	26.12
13	26.08	26.19	25.89	24.34	25.13	25.14	24.70	24.94	25.44	25.77	25.96	26.14
14	26.03	26.19	25.93	24.39	25.08	25.16	24.78	24.88	25.45	25.80	25.98	26.16
15	26.04	26.17	25.94	24.51	24.84	25.18	24.83	24.96	25.45	25.82	25.98	26.16
16	26.06	26.16	25.90	24.57	24.90	25.16	24.88	25.02	25.41	25.82	25.98	26.15
17	26.10	26.16	25.90	24.70	24.95	25.14	24.87	25.03	25.44	25.80	26.00	26.17
18	26.10	26.17	25.88	24.76	25.02	25.16	24.91	25.06	25.50	25.82	26.02	26.21
19	26.10	26.17	25.89	24.73	25.06	25.14	24.93	25.05	25.52	25.83	26.01	26.21
20	26.10	26.19	25.89	24.82	25.05	24.98	24.98	25.08	25.53	25.85	26.01	26.19
21	26.12	26.21	25.88	24.87	24.93	25.02	25.00	25.11	25.52	25.84	26.02	26.27
22	26.11	26.20	25.88	24.89	24.85	25.02	24.99	25.10	25.56	25.83	26.05	26.21
23	26.10	26.17	25.84	24.98	24.91	24.96	24.90	25.09	25.59	25.85	26.04	26.21
24	26.09	26.18	25.56	24.97	24.92	25.00	24.68	25.17	25.57	25.83	26.07	26.22
25	26.11	26.11	25.60	24.98	24.94	25.02	24.60	25.19	25.59	25.86	26.06	26.21
26	26.12	26.16	25.67	25.09	25.02	25.04	24.30	25.19	25.62	25.85	26.05	26.17
27	26.13	26.15	25.73	25.16	25.01	25.04	24.22	25.20	25.63	25.69	26.05	26.17
28	26.13	26.18	25.68	25.16	24.92	25.02	24.27	25.23	25.61	25.79	26.09	26.18
29	26.11	26.19	25.68	25.13	---	25.10	24.32	25.26	25.60	25.84	26.10	26.20
30	26.13	26.17	25.66	25.17	---	25.11	24.38	25.28	25.64	25.81	26.09	26.21
31	26.15	---	25.48	25.19	---	25.15	---	25.30	---	25.83	25.79	---
MEAN	26.08	26.15	25.88	24.89	25.05	25.06	24.66	24.95	25.48	25.78	25.97	26.15
MAX	26.15	26.21	26.15	25.20	25.26	25.18	25.18	25.30	25.64	25.86	26.10	26.27
MIN	25.99	26.03	25.48	24.34	24.84	24.91	24.22	24.44	25.32	25.61	25.79	25.98



412322081190000. Local Number, GE-350

LOCATION.—Latitude 41°23'32", longitude 81°19'00", Geauga County, 9100 Bainbridge Road, Bainbridge Township. Owner: privately owned.

AQUIFER.—Pottsville Formation (sandstone) of Pennsylvanian age.

WELL CHARACTERISTICS.—Domestic water-supply well, not currently in use; diameter 6 in., depth 59.87 ft.

INSTRUMENTATION.—Pressure transducer and data logger (records hourly).

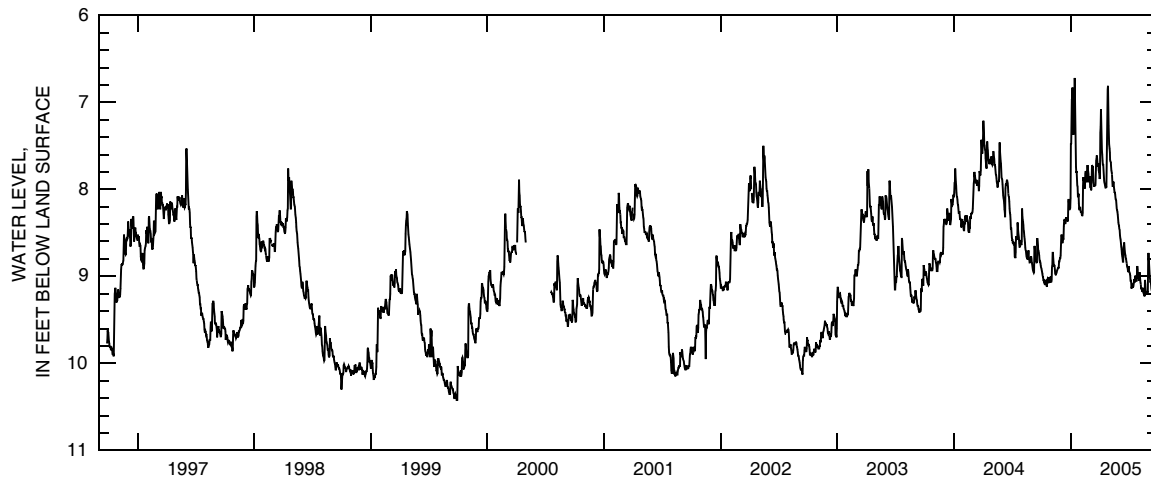
DATUM.—Elevation of land-surface datum is 1,120 ft above sea level. Measuring point: mark on wooden base of instrument shelter, 0.77 ft above land-surface datum.

PERIOD OF RECORD.—September 26, 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.—Minimum daily low, 6.72 ft below land-surface datum, Jan. 13, 2005; maximum daily low, 10.41 ft below land-surface datum, Sept. 27, 1999.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.91	9.06	8.65	7.47	8.26	7.86	7.88	7.48	8.42	8.88	9.02	8.73
2	8.93	9.04	8.54	7.48	8.26	7.95	7.84	7.53	8.46	8.93	9.04	8.81
3	8.95	8.89	8.52	7.13	8.25	7.98	7.35	7.58	8.47	8.95	9.05	8.87
4	8.97	8.88	8.54	6.96	8.29	7.97	7.28	7.66	8.53	8.96	8.95	8.94
5	9.00	8.73	8.61	6.97	8.30	8.01	7.08	7.68	8.56	8.97	9.00	9.00
6	9.01	8.73	8.61	6.83	8.30	8.00	7.25	7.69	8.58	8.99	9.03	9.03
7	9.04	8.80	8.58	7.18	8.27	7.86	7.40	7.73	8.62	9.05	9.07	9.07
8	9.04	8.84	8.57	7.34	7.96	7.72	7.55	7.78	8.66	9.05	9.09	9.06
9	9.07	8.89	8.57	7.37	7.86	7.75	7.60	7.81	8.69	9.07	9.14	9.09
10	9.08	8.87	8.42	7.27	7.90	7.74	7.67	7.83	8.74	9.14	9.14	9.14
11	9.09	8.88	8.36	7.36	7.91	7.75	7.72	7.91	8.77	9.12	9.13	9.16
12	9.09	8.92	8.36	6.99	7.94	7.83	7.71	7.97	8.79	9.12	9.17	9.16
13	9.07	8.97	8.34	6.72	7.99	7.92	7.78	7.96	8.83	9.11	9.17	9.17
14	9.05	8.98	8.39	7.02	7.98	7.94	7.84	7.92	8.83	9.13	9.13	9.19
15	9.05	8.98	8.39	7.41	7.82	7.97	7.90	7.92	8.67	9.12	9.17	9.20
16	9.07	8.96	8.37	7.62	7.79	7.96	7.93	7.97	8.65	9.11	9.19	9.20
17	9.11	8.96	8.34	7.74	7.80	7.94	7.94	8.00	8.61	9.08	9.20	9.18
18	9.12	8.94	8.32	7.81	7.87	7.96	7.96	8.04	8.66	9.06	9.20	9.10
19	9.04	8.93	8.35	7.79	7.91	7.94	7.98	8.03	8.71	9.03	9.22	9.12
20	9.03	8.92	8.34	7.88	7.91	7.83	7.98	8.06	8.74	9.06	9.23	9.16
21	9.04	8.91	8.36	7.96	7.82	7.67	7.97	8.10	8.76	9.06	9.04	9.17
22	9.07	8.90	8.37	7.97	7.72	7.65	7.98	8.12	8.79	8.99	9.09	9.18
23	9.07	8.90	8.34	8.08	7.79	7.61	7.84	8.13	8.80	9.02	9.16	9.17
24	9.02	8.90	8.14	8.08	7.79	7.64	7.66	8.18	8.83	9.05	9.21	9.09
25	9.02	8.83	8.11	8.05	7.82	7.68	7.49	8.23	8.85	9.05	9.18	9.09
26	9.04	8.83	8.16	8.16	7.91	7.73	6.85	8.24	8.88	9.05	9.19	9.08
27	9.06	8.81	8.23	8.23	7.91	7.73	6.81	8.26	8.90	8.95	9.20	8.76
28	9.06	8.79	8.23	8.23	7.85	7.70	7.00	8.29	8.91	8.88	9.17	8.78
29	9.06	8.79	8.21	8.21	---	7.79	7.27	8.33	8.94	8.92	9.19	8.83
30	9.00	8.76	8.21	8.20	---	7.80	7.38	8.38	8.95	8.97	9.17	8.86
31	9.06	---	8.10	8.23	---	7.83	---	8.41	---	8.98	8.81	---
MEAN	9.04	8.89	8.38	7.60	7.97	7.83	7.60	7.97	8.72	9.03	9.12	9.05
MAX	9.12	9.06	8.65	8.23	8.30	8.01	7.98	8.41	8.95	9.14	9.23	9.20
MIN	8.91	8.73	8.10	6.72	7.72	7.61	6.81	7.48	8.42	8.88	8.81	8.73



413119081213200. Local Number, GE-351

LOCATION.—Latitude 41°31'19", longitude 81°21'32", Geauga County, south side of State Route 322, east of intersection with Caves Road and west of Bloom Brothers Hardware, Chester Township. Owner: privately owned.

AQUIFER.—Cuyahoga Group (interbedded shales and sandstones) of Mississippian age.

WELL CHARACTERISTICS.—Domestic water-supply well, not currently in use; diameter 6 in., depth 126.5 ft.

INSTRUMENTATION.—Pressure transducer and data logger (records hourly).

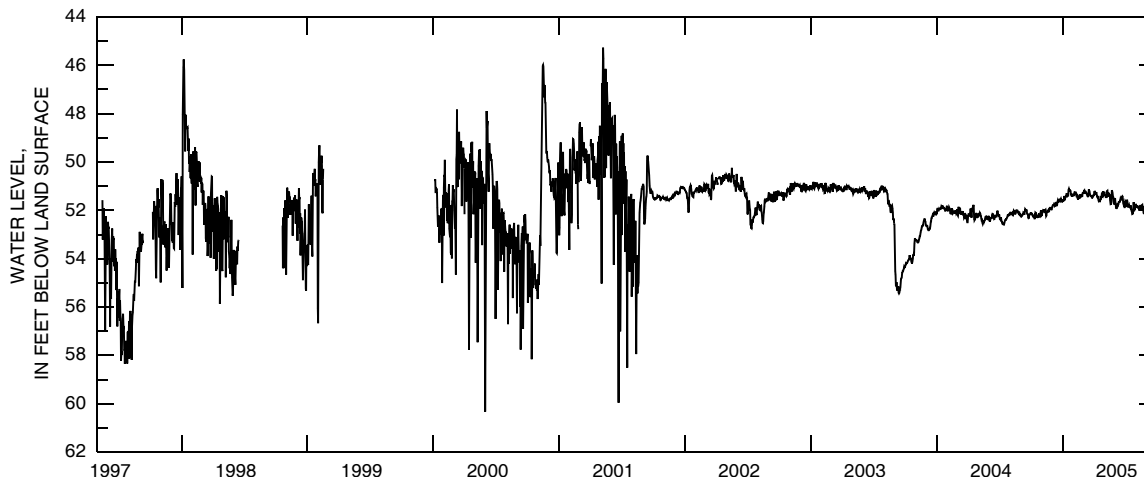
DATUM.—Elevation of land-surface datum is 1,135 ft above sea level. Measuring point: mark on wooden base of instrument shelter, 1.25 ft above land-surface datum.

PERIOD OF RECORD.—May 15, 1997 through February 16, 1999, and January 6, 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.—Minimum daily low, 45.27 ft below land-surface datum, May 8, 2001; maximum daily low, 60.33 ft below land-surface datum, May 31, 2000.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52.11	52.20	51.88	51.61	51.36	51.28	51.38	51.31	51.54	51.78	51.73	51.40
2	52.12	52.18	51.87	51.62	51.38	51.28	51.37	51.23	51.49	51.61	51.77	51.72
3	52.13	52.05	51.80	51.61	51.37	51.24	51.23	51.36	51.67	51.63	51.85	51.83
4	52.14	52.04	51.78	51.58	51.30	51.18	51.22	51.36	51.76	51.81	51.84	51.75
5	52.20	51.98	51.78	51.51	51.22	51.17	51.29	51.41	51.90	51.81	51.82	51.61
6	52.20	51.99	51.78	51.40	51.31	51.28	51.32	51.45	51.91	51.68	51.82	51.57
7	52.22	52.01	51.74	51.55	51.32	51.29	51.32	51.45	51.91	51.56	51.88	51.70
8	52.27	52.05	51.77	51.55	51.32	51.28	51.28	51.41	51.87	51.66	51.88	51.73
9	52.27	52.07	51.82	51.45	51.36	51.24	51.25	51.37	51.80	51.84	51.82	51.59
10	52.23	52.06	51.81	51.42	51.32	51.27	51.35	51.20	51.70	51.84	51.89	51.64
11	52.33	51.99	51.76	51.42	51.37	51.28	51.44	51.19	51.77	51.77	51.98	51.84
12	52.33	51.97	51.65	51.35	51.40	51.32	51.46	51.41	51.74	51.75	51.98	51.84
13	52.26	52.10	51.71	51.29	51.50	51.37	51.45	51.40	51.66	51.85	51.92	51.69
14	52.09	52.23	51.75	51.40	51.53	51.41	51.40	51.30	51.66	51.89	51.86	51.58
15	52.10	52.20	51.78	51.42	51.53	51.42	51.59	51.30	51.66	51.79	51.78	51.78
16	52.16	52.09	51.75	51.40	51.45	51.37	51.63	51.37	51.61	51.89	51.90	51.90
17	52.23	52.06	51.66	51.38	51.48	51.30	51.62	51.37	51.59	51.90	51.90	51.92
18	52.25	52.02	51.60	51.14	51.49	51.13	51.60	51.37	51.52	51.80	51.87	51.79
19	52.21	52.03	51.64	51.10	51.49	51.19	51.61	51.58	51.55	51.96	51.79	51.71
20	52.28	52.00	51.64	51.15	51.40	51.20	51.57	51.74	51.55	52.03	51.77	51.88
21	52.28	52.05	51.64	51.20	51.34	51.30	51.45	51.73	51.47	52.04	51.92	52.07
22	52.24	52.05	51.58	51.20	51.44	51.39	51.46	51.68	51.44	52.15	51.93	52.12
23	52.16	52.03	51.52	51.18	51.43	51.40	51.48	51.46	51.41	52.14	51.91	52.11
24	52.13	51.94	51.58	51.21	51.33	51.39	51.39	51.16	51.43	52.13	52.11	52.00
25	52.24	51.86	51.60	51.34	51.37	51.40	51.27	51.21	51.56	51.87	52.12	51.95
26	52.26	51.91	51.54	51.34	51.41	51.41	51.43	51.28	51.71	51.66	52.01	51.85
27	52.27	51.92	51.51	51.38	51.41	51.47	51.44	51.43	51.74	51.81	51.92	52.00
28	52.22	51.93	51.60	51.43	51.29	51.48	51.21	51.45	51.83	51.94	51.99	52.01
29	52.11	51.96	51.63	51.35	---	51.45	51.28	51.65	51.87	51.97	51.95	52.02
30	52.00	51.96	51.64	51.35	---	51.39	51.33	51.75	51.87	51.93	51.82	52.07
31	52.15	---	51.54	51.36	---	51.37	---	51.70	---	51.87	51.39	---
MEAN	52.20	52.03	51.69	51.38	51.39	51.32	51.40	51.42	51.67	51.85	51.87	51.82
MAX	52.33	52.23	51.88	51.62	51.53	51.48	51.63	51.75	51.91	52.15	52.12	52.12
MIN	52.00	51.86	51.51	51.10	51.22	51.13	51.21	51.16	51.41	51.56	51.39	51.40



412851081045200. Local Number, GE-352

LOCATION.—Latitude 41°28'51", longitude 81°04'52", Geauga County, west side of State Route 608, north of Middlefield Village, by hunters' parking lot, Middlefield Township. Owner: City of Akron.

AQUIFER.—Glacial deposits of Quaternary age.

WELL CHARACTERISTICS.—Domestic water-supply well, not currently in use; diameter 6 in., depth 122.3 ft.

INSTRUMENTATION.— Pressure transducer and data logger (records hourly).

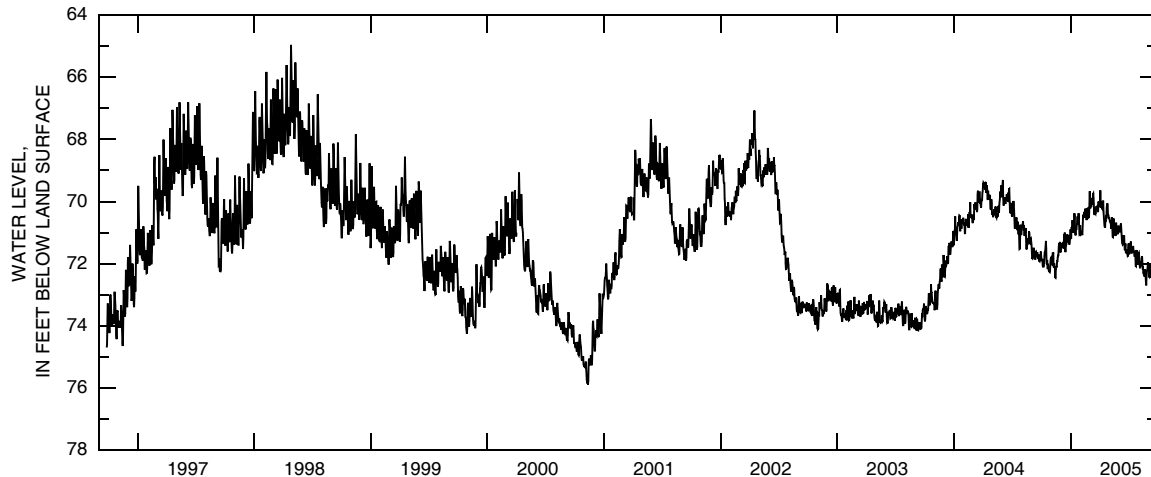
DATUM.—Elevation of land-surface datum is 1,140 ft above sea level. Measuring point: mark on wooden base of instrument shelter, 1.15 ft above land-surface datum.

PERIOD OF RECORD.—September 25, 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.—Minimum daily low, 64.96 ft below land-surface datum, Apr. 26,1998; maximum daily low, 75.90 ft below land-surface datum, Nov. 11, 2000.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71.84	71.79	71.39	71.17	71.07	69.67	70.18	70.50	70.86	71.35	71.67	72.08
2	71.92	71.78	71.39	71.17	71.06	70.13	70.00	70.57	70.97	71.67	71.65	72.07
3	71.89	72.05	71.44	70.82	70.99	70.22	69.64	70.66	70.97	71.70	71.79	72.38
4	71.85	72.03	71.44	70.85	70.99	70.04	69.97	70.60	70.85	71.52	71.92	72.45
5	72.09	71.71	71.39	70.88	71.06	70.15	70.14	70.69	70.91	71.41	72.12	72.33
6	72.12	71.72	71.39	70.60	71.06	70.15	70.20	70.74	70.74	71.47	72.15	72.42
7	72.06	71.64	71.30	70.82	70.73	69.89	70.00	70.85	70.71	71.36	72.01	72.40
8	72.07	72.09	71.51	71.00	70.48	69.91	70.04	70.88	70.88	71.29	71.93	72.05
9	71.99	72.09	71.48	70.97	70.49	70.08	70.24	70.66	71.08	71.55	72.03	72.10
10	71.82	71.99	71.31	70.74	70.43	70.08	70.25	70.51	71.24	71.67	72.04	72.34
11	71.65	72.14	71.06	70.66	70.42	69.76	70.06	70.83	71.35	71.63	71.82	72.46
12	71.65	72.09	71.12	70.38	70.33	69.74	69.97	71.14	71.38	71.50	71.77	72.28
13	71.57	72.45	71.00	70.47	70.53	69.90	70.33	71.15	71.36	71.55	71.94	72.12
14	71.44	72.46	71.51	70.88	70.33	70.20	70.49	70.98	71.09	71.56	72.15	72.31
15	71.27	72.20	71.63	71.07	70.23	70.41	70.63	70.55	71.20	71.43	72.14	72.36
16	71.52	72.08	71.47	71.07	70.34	70.41	70.78	70.95	71.23	71.53	72.28	72.20
17	71.98	72.13	71.40	70.76	70.27	70.18	70.82	71.02	71.10	71.65	72.34	72.22
18	72.02	72.07	71.39	70.92	70.48	70.37	70.82	70.85	71.41	71.60	72.22	72.28
19	71.88	71.92	71.14	70.79	70.60	70.39	70.62	70.75	71.57	71.71	72.38	72.24
20	72.15	71.92	71.08	70.73	70.53	70.29	70.62	71.05	71.47	71.78	72.42	72.24
21	72.15	71.80	71.08	70.64	70.24	70.16	70.50	71.11	71.35	71.59	72.18	72.37
22	72.05	71.74	71.31	70.48	70.23	70.19	70.51	70.88	71.62	71.73	72.29	72.38
23	72.07	71.73	71.22	70.74	70.39	70.17	70.20	70.68	71.66	72.08	72.41	72.15
24	72.23	71.48	71.27	70.69	70.44	70.25	70.20	70.96	71.60	72.09	72.58	72.28
25	72.24	71.33	71.27	70.38	70.52	70.17	70.06	70.96	71.67	71.64	72.70	72.35
26	72.27	71.52	71.08	70.60	70.51	70.30	70.17	70.81	71.55	71.56	72.42	72.22
27	72.28	71.52	71.39	70.86	70.44	70.34	70.45	71.03	71.68	71.85	72.26	72.12
28	72.22	71.30	71.32	71.07	70.05	70.00	70.42	71.03	71.76	71.92	72.19	72.19
29	71.97	71.60	71.17	71.06	---	70.03	70.53	70.78	71.75	71.93	72.17	72.23
30	71.85	71.64	71.18	70.76	---	70.13	70.54	70.83	71.49	72.03	71.96	72.20
31	71.81	---	70.90	70.95	---	70.08	---	70.82	---	71.93	72.08	---
MEAN	71.93	71.87	71.29	70.81	70.54	70.12	70.31	70.83	71.28	71.65	72.13	72.26
MAX	72.28	72.46	71.63	71.17	71.07	70.41	70.82	71.15	71.76	72.09	72.70	72.46
MIN	71.27	71.30	70.90	70.38	70.05	69.67	69.64	70.50	70.71	71.29	71.65	72.05



412748081172000. Local Number, GE-354

LOCATION.—Latitude 41°27'48", longitude 81°17'20", Geauga County, northwest corner of intersection of Sperry Road and State Route 87, Newbury Township.

Owner: privately owned.

AQUIFER.—Pottsville Formation (sandstone) of Pennsylvanian age.

WELL CHARACTERISTICS.—Domestic water-supply well, not currently in use; diameter 6 in., depth 113.9 ft.

INSTRUMENTATION.—Pressure transducer and data logger (records hourly).

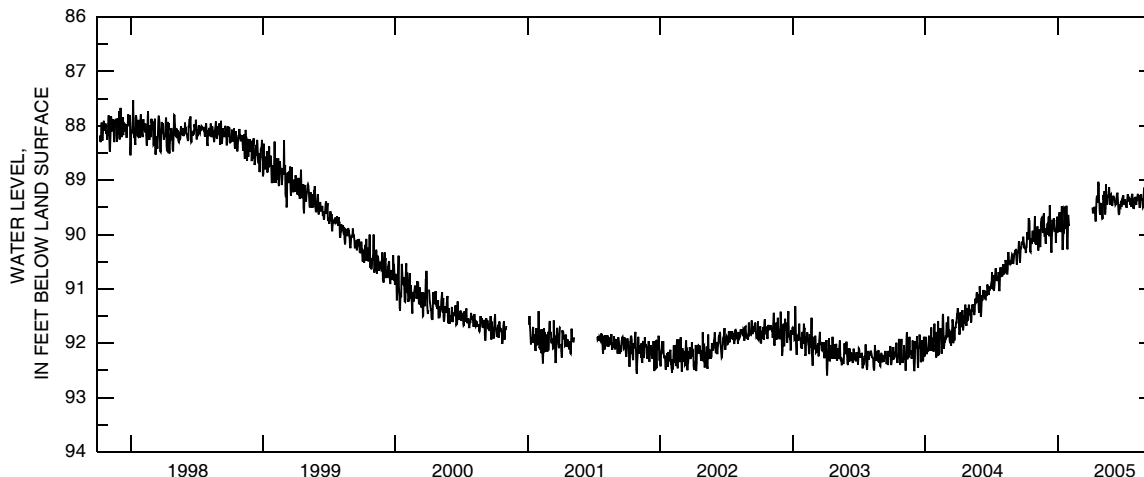
DATUM.—Elevation of land-surface datum is 1,275 ft above sea level. Measuring point: mark on wooden base of instrument shelter, 4.15 ft above land-surface datum.

PERIOD OF RECORD.—October 7, 1997 to current year.

EXTREMES FOR PERIOD OF RECORD.—Minimum daily low, 87.53 ft below land-surface datum, Jan. 8, 1998; maximum daily low, 92.59 ft below land-surface datum, Apr. 6, 2003.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	90.20	90.17	89.88	89.96	89.83	---	---	89.45	89.45	89.28	89.34	89.48
2	90.25	90.00	89.90	89.89	89.83	---	---	89.47	89.36	89.45	89.34	89.47
3	90.26	90.19	89.81	89.69	---	---	---	89.59	89.30	89.44	89.32	89.55
4	90.23	89.93	89.80	89.73	---	---	---	89.71	89.30	89.41	89.32	89.57
5	90.34	89.92	90.00	89.65	---	---	---	89.70	89.35	89.35	89.44	89.56
6	90.25	89.85	89.91	89.59	---	---	---	89.42	89.32	89.43	89.44	89.51
7	90.23	90.08	89.67	89.89	---	---	89.50	89.27	89.38	89.46	89.36	89.40
8	90.10	90.28	90.03	89.95	---	---	89.59	89.36	89.40	89.40	89.35	89.24
9	89.96	90.28	89.98	89.93	---	---	89.61	89.30	89.45	89.48	89.31	89.35
10	90.09	90.10	89.46	89.72	---	---	89.55	89.20	89.44	89.51	89.25	89.42
11	90.07	89.91	89.70	89.71	---	---	89.58	89.45	89.44	89.42	89.33	89.44
12	89.97	90.03	89.74	89.48	---	---	89.49	89.63	89.38	89.32	89.32	89.34
13	89.70	90.21	90.05	89.54	---	---	89.52	89.51	89.26	89.26	89.27	89.22
14	89.74	90.23	90.32	90.26	---	---	89.60	89.08	89.25	89.29	89.44	89.26
15	89.75	90.04	90.32	90.28	---	---	89.72	89.27	89.23	89.36	89.51	89.42
16	90.04	89.78	90.02	90.08	---	---	89.76	89.42	89.37	89.39	89.46	89.38
17	90.31	89.70	89.91	89.86	---	---	89.53	89.45	89.47	89.35	89.36	89.33
18	90.32	89.69	89.73	89.98	---	---	89.35	89.42	89.60	89.34	89.31	89.43
19	90.07	89.71	89.80	89.50	---	---	89.30	89.31	89.64	89.42	89.26	89.48
20	90.13	89.80	89.80	89.51	---	---	89.30	89.27	89.59	89.45	89.35	89.38
21	90.16	89.97	89.70	89.70	---	---	89.41	89.32	89.45	89.34	89.35	89.43
22	90.16	89.88	89.84	89.54	---	---	89.29	89.19	89.47	89.40	89.36	89.29
23	90.02	89.67	89.92	89.90	---	---	89.03	89.13	89.49	89.49	89.44	89.50
24	89.93	89.61	89.95	89.87	---	---	89.07	89.36	89.40	89.39	89.50	89.50
25	90.08	89.96	89.89	89.47	---	---	89.40	89.45	89.39	89.27	89.49	89.33
26	90.13	90.04	89.92	89.93	---	---	89.41	89.33	89.44	89.25	89.31	89.26
27	90.07	89.96	90.15	90.27	---	---	89.59	89.27	89.45	89.44	89.14	89.49
28	90.07	90.11	90.02	90.26	---	---	89.64	89.26	89.34	89.50	89.32	89.42
29	89.85	90.17	89.73	89.85	---	---	89.56	89.38	89.32	89.50	89.32	89.44
30	89.66	89.96	89.76	89.64	---	---	89.42	89.38	89.30	89.53	89.24	89.49
31	90.10	---	89.67	89.75	---	---	---	89.47	---	89.46	89.39	---
MEAN	90.07	89.97	89.88	89.82	89.83	---	89.47	89.38	89.40	89.40	89.35	89.41
MAX	90.34	90.28	90.32	90.28	89.83	---	89.76	89.71	89.64	89.53	89.51	89.57
MIN	89.66	89.61	89.46	89.47	89.83	---	89.03	89.08	89.23	89.25	89.14	89.22



412934081084600. Local Number, GE-365

LOCATION.—Latitude 41°29'34", longitude 81°08'46", Geauga County, 13800 Claridon-Troy Road, Burton Township. Owner: privately owned.

AQUIFER.—Pottsville Formation (sandstone) of Pennsylvanian age.

WELL CHARACTERISTICS.—Domestic water-supply well; diameter 6 in., depth 57 ft.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 1,190 ft above sea level. Measuring point: top of casing 1.17 ft above land-surface datum.

PERIOD OF RECORD.—March 21, 2002 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 12.58 ft below land-surface datum, Apr. 8, 2004; lowest measured, 14.83 ft below land-surface datum, Sept. 24, 2002.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-12-2004	14.45
12-09-2004	13.96
02-03-2005	13.45
04-07-2005	12.63
06-09-2005	14.01
08-04-2005	14.58

412603081074000. Local Number, GE-366

LOCATION.—Latitude 41°26'03", longitude 81°07'40", Geauga County, 14350 Hubbard Road, Burton Township. Owner: privately owned.

AQUIFER.—Pottsville Formation (sandstone) of Pennsylvanian age.

WELL CHARACTERISTICS.—Private water-supply well; diameter 5.63 in., depth 86 ft.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 1,170 ft above sea level. Measuring point: top of casing 1.45 ft above land-surface datum.

PERIOD OF RECORD.—May 22, 2002 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 18.74 ft below land-surface datum, Apr. 7, 2005; lowest measured, 33.05* ft below land-surface datum, Aug. 4, 2005.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-12-2004	23.58
12-09-2004	24.70
02-03-2005	21.41
04-07-2005	18.74
06-09-2005	22.06*
08-04-2005	33.05*

Project Data—Columbus Well Field, Southern Franklin County, Ohio

The following tables contain ground-water-level measurements from a network of wells in southern Franklin County. The data were collected as part of a cooperative study with the City of Columbus.



394956083002700. Local Number, FR-18

LOCATION.—Latitude 39°49'56", longitude 83°00'27", Hydrologic Unit 05060001. Owner: City of Columbus.
 AQUIFER.—Sand and gravel of Pleistocene age.
 WELL CHARACTERISTICS.—Drilled observation water well, diameter 6 in., depth 86.4 ft.
 INSTRUMENTATION.—Electronic data logger operated by Ohio Department of Natural Resources, Division of Water. Periodic measurement with steel or electric tape by USGS personnel.
 DATUM.—Elevation of land-surface datum is 691.07 ft above sea level. Measuring point: Top of casing, 3.85 ft above land-surface datum.
 PERIOD OF RECORD.—Continuous data March 1986 to current year. Periodic measurements November 1985 to current year.
 EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 6.74 ft below land-surface datum, June 4, 1997; lowest measured, 33.15 ft below land-surface datum, Feb. 19, 20, 21 and 22, 1992.

WATER LEVEL,
 IN FEET BELOW LAND-SURFACE DATUM
 INSTANTANEOUS OBSERVATION
 WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-07-2004	28.23
08-25-2005	32.86

395037082581900. Local Number, FR-36

LOCATION.—Latitude 39°50'37", longitude 82°58'19", Hydrologic Unit 05060001. Owner: J.P. Sand and Gravel.
 AQUIFER.—Sand and gravel of Quaternary age.
 WELL CHARACTERISTICS.—Drilled observation water well, diameter 4 in., depth 31 ft.
 INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.
 DATUM.—Elevation of land-surface datum is 711.07 ft above sea level. Measuring point: Top of casing, 1.46 ft above land-surface datum.
 PERIOD OF RECORD.—October 1974 to current year.
 EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 10.03 ft below land-surface datum, Oct. 17, 1979; lowest measured, 21.69 ft below land-surface datum, Mar. 16, 1992.

WATER LEVEL,
 IN FEET BELOW LAND-SURFACE DATUM
 INSTANTANEOUS OBSERVATION
 WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-07-2004	16.07
08-25-2005	13.76

394927082595800. Local Number, FR-70

LOCATION.—Latitude 39°49'27", longitude 82°59'58", Hydrologic Unit 05060001. Owner: St. Joseph Cemetery.
 AQUIFER.—Sand and gravel of Quaternary age.
 WELL CHARACTERISTICS.—Drilled observation water well, depth 59 ft; 4 in. casing.
 INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.
 DATUM.—Elevation of land-surface datum is 698.90 ft above sea level. Measuring point: Top of concrete base, 0.35 ft above land-surface datum.
 PERIOD OF RECORD.—April 1975 to current year.
 EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 13.24 ft below land-surface datum, Mar. 18, 1991; lowest measured, 34.06 ft below land-surface datum, Aug. 25, 2005.

WATER LEVEL,
 IN FEET BELOW LAND-SURFACE DATUM
 INSTANTANEOUS OBSERVATION
 WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-07-2004	28.88
08-25-2005	34.06

395019083003300. Local Number, FR-104

LOCATION.—Latitude 39°50'19", longitude 83°00'33", Hydrologic Unit 05060001. Owner: City of Columbus

AQUIFER.—Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.—Drilled observation well, diameter 6 in., depth 79.3 ft.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 683.97 ft above sea level. Measuring point: Top of casing, 3.06 ft above land-surface datum.

PERIOD OF RECORD.—December 1989 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 11.51 ft below land-surface datum, May 31, 1996; lowest measured, 53.59 ft below land-surface datum, Dec. 11, 1991.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-08-2004	31.49
08-26-2005	41.98

395039082585800. Local Number, FR-115

LOCATION.—Latitude 39°50'39", longitude 82°58'58", Hydrologic Unit 05060001, near Hamilton Meadows. Owner: City of Columbus.

AQUIFER.—Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.—Drilled observation well, diameter 6 in., depth 116 ft.

INSTRUMENTATION.—Data logger and pressure transducer, 60-minute record.

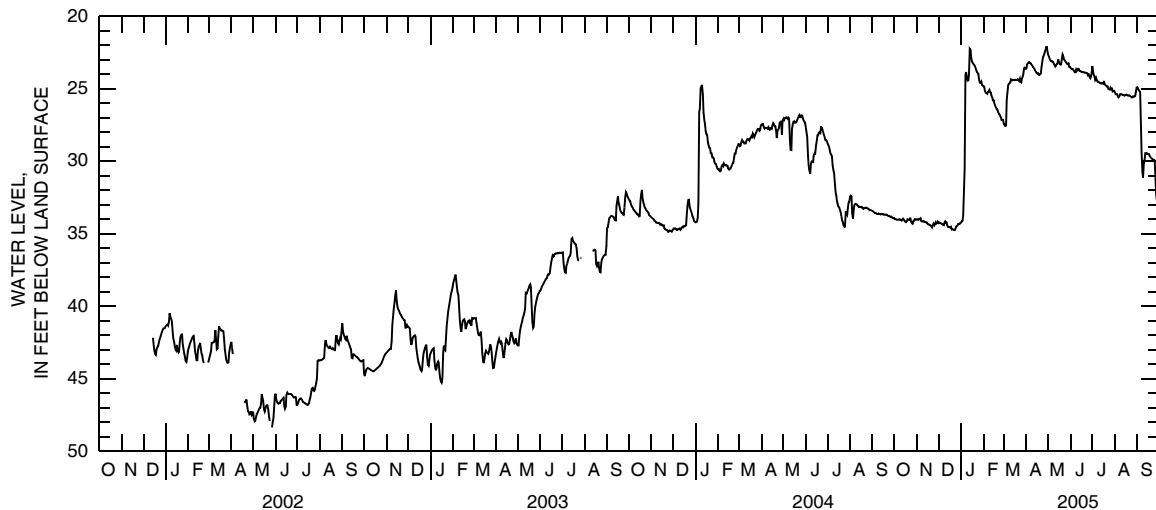
DATUM.—Elevation of land-surface datum is 720.52 ft above sea level. Measuring point: Floor of instrument shelter, 2.10 ft above land-surface datum.

PERIOD OF RECORD.—August 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 48.35 ft below land-surface datum, May 27, 2002; minimum daily low, 22.06 ft below land-surface datum, Apr. 29, 2005.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33.92	34.00	34.26	34.22	24.79	27.41	23.60	22.66	23.56	23.44	25.24	24.88
2	33.98	34.02	34.23	34.13	24.90	27.50	23.33	22.76	23.62	23.82	25.37	25.00
3	33.98	34.03	34.24	34.09	25.16	27.56	23.23	22.94	23.62	24.05	25.35	25.09
4	34.02	33.96	34.26	33.70	25.27	27.53	23.17	23.01	23.64	24.16	25.37	25.17
5	34.03	33.98	34.32	32.02	25.30	25.76	23.16	23.08	23.72	24.36	25.52	25.21
6	34.02	33.93	34.32	30.56	25.34	25.17	23.22	23.11	23.79	24.23	25.60	27.08
7	34.02	34.10	34.37	24.05	25.20	24.75	23.24	23.10	23.86	24.36	25.54	29.42
8	33.99	34.15	34.40	23.84	25.16	24.65	23.34	23.16	23.85	24.49	25.38	30.71
9	34.01	34.15	34.25	24.16	25.07	24.60	23.38	23.28	23.65	24.51	25.35	31.11
10	34.05	34.11	34.14	24.43	25.22	24.54	23.49	23.38	23.72	24.54	25.38	30.13
11	34.08	34.16	34.22	24.42	25.25	24.34	23.56	23.46	23.64	24.57	25.40	29.88
12	34.00	34.17	34.22	24.04	25.50	24.39	23.60	23.38	23.62	24.61	25.40	29.45
13	33.94	34.20	34.42	22.23	25.59	24.42	23.74	23.28	23.74	24.63	25.43	29.47
14	33.99	34.19	34.51	22.31	25.80	24.38	23.80	23.25	23.77	24.60	25.47	29.43
15	34.10	34.22	34.52	22.84	25.80	24.40	23.92	22.96	23.80	24.63	25.44	29.50
16	34.15	34.32	34.52	23.13	26.03	24.38	23.97	23.19	23.83	24.64	25.42	29.51
17	34.19	34.36	34.58	23.22	26.18	24.37	23.92	23.28	23.84	24.46	25.39	29.51
18	34.13	34.37	34.53	23.29	26.26	24.40	24.02	23.33	23.84	24.69	25.42	29.64
19	34.00	34.38	34.69	23.34	26.40	24.38	24.04	23.31	23.85	24.74	25.47	29.70
20	34.01	34.43	34.66	23.42	26.40	24.33	23.98	22.88	23.89	24.78	25.47	29.76
21	34.03	34.50	34.70	23.57	26.60	24.38	23.94	22.64	23.89	24.85	25.44	29.81
22	34.03	34.56	34.73	23.75	26.71	24.45	23.46	22.78	23.89	24.84	25.49	29.85
23	33.89	34.37	34.75	23.86	26.76	24.29	23.15	22.98	23.90	25.01	25.53	29.94
24	34.16	34.29	34.68	23.91	26.88	24.49	22.80	23.03	23.93	25.00	25.59	29.90
25	34.25	34.40	34.50	23.98	26.96	24.55	22.71	23.13	24.06	25.05	25.59	29.95
26	34.30	34.30	34.47	24.44	27.15	24.29	22.55	23.18	24.01	24.91	25.52	31.11
27	34.14	34.19	34.44	24.57	27.15	24.14	22.36	23.26	24.17	25.03	25.53	32.29
28	34.10	34.29	34.32	24.57	27.14	23.95	22.21	23.28	24.26	24.99	25.53	32.76
29	34.00	34.27	34.32	24.49	---	23.57	22.06	23.24	24.14	25.18	25.49	33.13
30	34.00	34.16	34.31	24.74	---	23.53	22.37	23.48	23.90	25.15	25.24	32.32
31	34.02	---	34.24	24.78	---	23.61	---	23.48	---	25.14	24.90	---
MAX	34.30	34.56	34.75	34.22	27.15	27.56	24.04	23.48	24.26	25.18	25.60	33.13
MIN	33.89	33.93	34.14	22.23	24.79	23.53	22.06	22.64	23.56	23.44	24.90	24.88
WTR YR 2005		HIGH	22.06	LOW	34.75							



395058083002400. Local Number, FR-119

LOCATION.—Latitude 39°50'58", longitude 83°00'24", Hydrologic Unit 05060001. Owner: Franklin County.

AQUIFER.—Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.—Drilled observation water well, diameter 2 in., depth 85 ft.

INSTRUMENTATION.—Data logger and pressure transducer, 60-minute record.

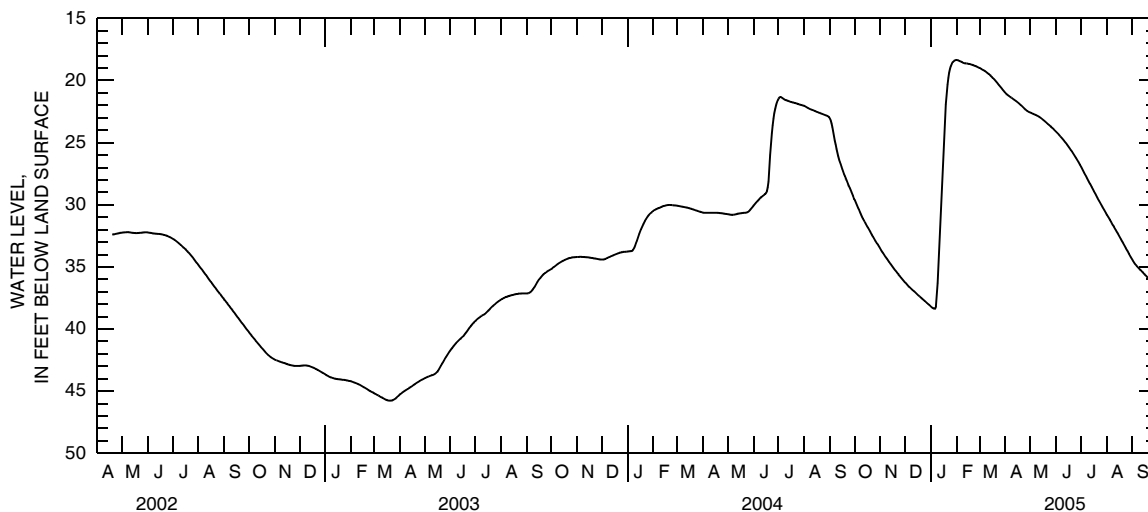
DATUM.—Elevation of land-surface datum is 700 ft above sea level. Measuring point: Floor of shelter, 2.48 ft above land-surface datum.

PERIOD OF RECORD.—October 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 52.34 ft below land-surface datum, Mar. 4-7, 1992; minimum daily low, 11.10 ft below land-surface datum, June 17, 1981.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29.61	33.54	36.26	38.19	18.35	19.00	21.00	22.58	24.12	26.92	30.77	34.42
2	29.77	33.66	36.34	38.25	18.36	19.04	21.07	22.61	24.19	27.05	30.87	34.53
3	29.93	33.77	36.41	38.31	18.38	19.08	21.13	22.64	24.26	27.18	30.99	34.63
4	30.08	33.87	36.49	38.34	18.41	19.12	21.20	22.67	24.33	27.31	31.10	34.73
5	30.24	33.97	36.55	38.36	18.44	19.15	21.24	22.70	24.41	27.44	31.22	34.82
6	30.39	34.07	36.62	38.36	18.47	19.19	21.29	22.73	24.49	27.56	31.33	34.90
7	30.55	34.17	36.68	38.20	18.50	19.24	21.34	22.75	24.56	27.69	31.45	34.98
8	30.70	34.25	36.75	37.44	18.54	19.28	21.39	22.79	24.64	27.82	31.57	35.05
9	30.85	34.35	36.81	36.30	18.57	19.33	21.43	22.82	24.72	27.95	31.68	35.12
10	30.99	34.45	36.86	34.98	18.60	19.38	21.48	22.86	24.80	28.07	31.80	35.19
11	31.12	34.55	36.93	33.59	18.62	19.44	21.53	22.90	24.88	28.20	31.92	35.26
12	31.25	34.64	36.98	32.19	18.62	19.49	21.57	22.95	24.97	28.31	32.02	35.33
13	31.37	34.74	37.04	30.77	18.63	19.55	21.62	22.99	25.05	28.44	32.14	35.40
14	31.49	34.83	37.11	29.16	18.64	19.62	21.67	23.04	25.13	28.57	32.26	35.47
15	31.61	34.92	37.17	27.46	18.65	19.68	21.73	23.09	25.22	28.69	32.38	35.54
16	31.73	35.01	37.24	25.78	18.67	19.75	21.77	23.14	25.32	28.82	32.50	35.61
17	31.84	35.10	37.30	24.29	18.68	19.82	21.83	23.20	25.41	28.95	32.62	35.68
18	31.96	35.19	37.35	23.00	18.70	19.89	21.89	23.25	25.51	29.08	32.73	35.75
19	32.08	35.28	37.42	21.92	18.72	19.96	21.94	23.31	25.61	29.20	32.86	35.83
20	32.20	35.37	37.47	21.03	18.74	20.04	22.01	23.37	25.70	29.33	32.98	35.90
21	32.32	35.45	37.54	20.32	18.77	20.12	22.07	23.43	25.81	29.46	33.10	35.96
22	32.45	35.54	37.59	19.79	18.79	20.20	22.13	23.49	25.91	29.58	33.22	36.03
23	32.57	35.62	37.65	19.36	18.82	20.28	22.20	23.55	26.01	29.70	33.34	36.11
24	32.68	35.71	37.71	19.07	18.85	20.37	22.26	23.61	26.12	29.82	33.46	36.18
25	32.79	35.79	37.77	18.84	18.87	20.45	22.33	23.67	26.23	29.94	33.58	36.25
26	32.91	35.88	37.83	18.66	18.91	20.53	22.39	23.74	26.34	30.06	33.70	36.32
27	33.01	35.96	37.89	18.55	18.94	20.61	22.44	23.79	26.45	30.18	33.83	36.39
28	33.12	36.04	37.94	18.47	18.97	20.70	22.49	23.85	26.55	30.29	33.95	36.46
29	33.21	36.11	38.01	18.42	---	20.79	22.52	23.92	26.67	30.41	34.07	36.53
30	33.32	36.19	38.06	18.38	---	20.86	22.55	23.99	26.80	30.53	34.19	36.60
31	33.43	---	38.13	18.35	---	20.94	---	24.05	---	30.65	34.31	---
MAX	33.43	36.19	38.13	38.36	18.97	20.94	22.55	24.05	26.80	30.65	34.31	36.60
MIN	29.61	33.54	36.26	18.35	18.35	19.00	21.00	22.58	24.12	26.92	30.77	34.42
WTR YR 2005		HIGH	18.35	LOW	38.36							



395117083011600. Local Number, FR-120

LOCATION.—Latitude 39°51'17", longitude 83°01'16", Hydrologic Unit 05060001, near Columbus. Owner: Franklin County.

AQUIFER.—Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.—Drilled observation water well, diameter 2 in., depth 72 ft.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 685 ft above sea level. Measuring point: Floor of instrument shelter, 6.65 ft above land-surface datum.

PERIOD OF RECORD.—Continuous data April 1981 to June 1987. Periodic measurements October 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 3.36 ft above land-surface datum, Mar. 21, 1984; lowest measured, 35.24 ft below land-surface datum, Mar. 16, 1992.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-08-2004	14.30
08-26-2005	22.04

395123083003301. Local Number, FR-121A

LOCATION.—Latitude 39°51'23", longitude 83°00'33", Hydrologic Unit 05060001. Owner: City of Columbus.

AQUIFER.—Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.—Drilled observation water well, diameter 2 in., depth 52 ft.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 690.99 ft above sea level. Measuring point: Top of outer steel casing, 3.16 ft above land-surface datum.

PERIOD OF RECORD.—March 1993 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 8.53 ft below land-surface datum, Mar. 26, 1993; lowest measured, 40.35 ft below land-surface datum, Mar. 2, 2000.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-08-2004	21.84
08-25-2005	25.58

395059083000901. Local Number, FR-122A

LOCATION.—Latitude 39°50'59", longitude 83°00'09", Hydrologic Unit 05060002, U.S. 23 south of Olen quarry, near Shadeville. Owner: Franklin County.

AQUIFER.—Clay, sand and gravel of Quaternary age.

WELL CHARACTERISTICS.—Drilled observation water well, diameter 4 in., depth 52.17 ft.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 730.18 ft above sea level. Measuring point: Top of PVC casing, 2.72 ft above land-surface datum.

PERIOD OF RECORD.—September 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 40.69 ft below land-surface datum, Sept. 4, 1996; lowest measured, 49.94 ft below land-surface datum, Mar. 2, 2000.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-07-2004	42.49
08-25-2005	41.53

395131082592400. Local Number, FR-123

LOCATION.—Latitude 39°51'31", longitude 82°59'24", Hydrologic Unit 05060001, near Hamilton Meadows. Owner: Franklin County.

AQUIFER.—Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.—Drilled observation water well, diameter 2 in., depth 36.5 ft.

INSTRUMENTATION.—Data logger, 60-minute record. Instrumentation removed Aug. 11, 2003. Periodic measurements by steel or electric tape will continue.

DATUM.—Elevation of land-surface datum is 705.87 ft above sea level. Measuring point: Floor of shelter, 2.25 ft above land-surface datum.

PERIOD OF RECORD.—November 1977 to Aug. 11 2003, daily record; periodic measurements thereafter.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 18.55 ft below land-surface datum, May 12, 1992; minimum daily low, 6.20 ft below land-surface datum, June 9, 1996.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-07-2004	13.40
08-26-2005	7.91

395008082593100. Local Number, FR-126

LOCATION.—Latitude 39°50'08", longitude 82°59'31", Hydrologic Unit 05060001, near Shadeville. Owner: Franklin County.

AQUIFER.—Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.—Drilled observation water well, diameter 2 in., depth 122 ft.

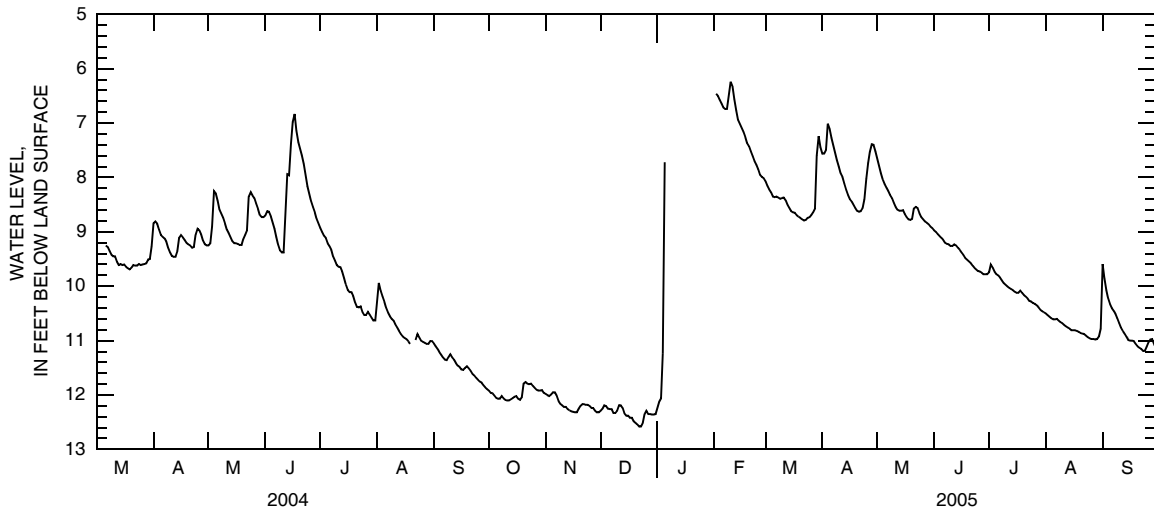
INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel. Data logger and pressure transducer March 2004 to present.

DATUM.—Elevation of land-surface datum is 701.06 ft above sea level. Measuring point: Top of PVC casing, 4.0 ft above land-surface datum.

PERIOD OF RECORD.—October 1977 to current year. Water level data from Jan. 6 to Feb. 1, 2005 not used in daily values calculations when high stage in Big Walnut Creek crested above the top of the well casing.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 51.42 ft below land-surface datum, Nov. 9, 1977; minimum daily low, 1.96 ft below land-surface datum, June 17, 1981.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.92	11.98	12.29	12.24	---	8.07	7.56	7.65	8.97	9.74	10.50	9.59
2	11.96	12.00	12.25	12.12	6.46	8.15	7.56	7.79	9.00	9.60	10.53	9.85
3	11.97	12.02	12.19	12.06	6.50	8.22	7.49	7.92	9.04	9.66	10.56	10.07
4	12.01	11.99	12.20	11.23	6.57	8.27	7.01	8.04	9.08	9.73	10.59	10.22
5	12.05	11.95	12.25	7.72	6.64	8.35	7.11	8.12	9.11	9.78	10.61	10.33
6	12.07	11.95	12.26	---	6.71	8.36	7.27	8.19	9.15	9.80	10.61	10.40
7	12.07	12.01	12.26	---	6.74	8.35	7.40	8.25	9.20	9.84	10.60	10.45
8	12.02	12.11	12.33	---	6.74	8.37	7.55	8.32	9.22	9.89	10.63	10.51
9	12.06	12.16	12.33	---	6.48	8.39	7.68	8.38	9.23	9.94	10.66	10.59
10	12.09	12.19	12.29	---	6.24	8.38	7.80	8.46	9.26	9.97	10.68	10.68
11	12.10	12.22	12.19	---	6.33	8.37	7.92	8.54	9.26	10.00	10.71	10.76
12	12.10	12.22	12.19	---	6.56	8.42	7.99	8.59	9.23	10.03	10.74	10.82
13	12.08	12.26	12.24	---	6.77	8.50	8.11	8.61	9.25	10.05	10.76	10.87
14	12.06	12.28	12.34	---	6.94	8.56	8.23	8.61	9.29	10.07	10.78	10.93
15	12.03	12.30	12.38	---	7.01	8.62	8.32	8.60	9.33	10.10	10.81	10.99
16	12.02	12.31	12.38	---	7.09	8.64	8.40	8.67	9.38	10.12	10.81	11.00
17	12.07	12.32	12.42	---	7.16	8.65	8.44	8.73	9.42	10.12	10.81	11.00
18	12.09	12.32	12.42	---	7.26	8.69	8.50	8.77	9.48	10.08	10.82	11.01
19	12.04	12.25	12.48	---	7.37	8.72	8.56	8.78	9.51	10.12	10.84	11.06
20	11.79	12.20	12.51	---	7.43	8.74	8.61	8.76	9.54	10.16	10.86	11.10
21	11.76	12.17	12.54	---	7.52	8.77	8.63	8.57	9.57	10.19	10.87	11.13
22	11.79	12.17	12.58	---	7.61	8.79	8.62	8.54	9.62	10.22	10.88	11.15
23	11.80	12.18	12.58	---	7.70	8.78	8.56	8.56	9.66	10.27	10.91	11.19
24	11.79	12.18	12.51	---	7.77	8.74	8.40	8.66	9.69	10.28	10.94	11.19
25	11.83	12.20	12.35	---	7.85	8.73	8.02	8.73	9.72	10.31	10.96	11.11
26	11.87	12.24	12.29	---	7.95	8.69	7.74	8.77	9.73	10.32	10.97	11.03
27	11.90	12.24	12.35	---	7.99	8.64	7.53	8.81	9.75	10.35	10.97	10.98
28	11.92	12.29	12.35	---	8.01	8.57	7.39	8.83	9.78	10.39	10.98	10.97
29	11.92	12.32	12.36	---	---	7.60	7.40	8.86	9.78	10.43	10.97	11.06
30	11.91	12.32	12.36	---	---	7.24	7.52	8.90	9.78	10.46	10.92	11.13
31	11.96	---	12.35	---	---	7.44	---	8.93	---	10.48	10.78	---
MAX	12.10	12.32	12.58	12.24	8.01	8.79	8.63	8.93	9.78	10.48	10.98	11.19
MIN	11.76	11.95	12.19	7.72	6.24	7.24	7.01	7.65	8.97	9.60	10.50	9.59
WTR YR 2005		HIGH	6.24	LOW	12.58							



395126083014000. Local Number, FR-131

LOCATION.—Latitude 39°51'26", longitude 83°01'40", Hydrologic Unit 05060001, near Columbus. Owner: Franklin County.

AQUIFER.—Clay, sand, and gravel of Quaternary age.

WELL CHARACTERISTICS.—Drilled observation water well, diameter 2 in., depth 53 ft.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 728.06 ft above sea level. Measuring point: Top of plastic coupling, 1.52 ft above land-surface datum.

PERIOD OF RECORD.—October 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 37.41 ft below land-surface datum, Sept. 5, 1996; lowest measured, dry on Dec. 10, 1991, Mar. 16, June 12, July 28, 1992, Apr. 11, 1995, and Mar. 2, 2000.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-08-2004	49.78
08-26-2005	51.46

395020083014400. Local Number, FR-141

LOCATION.—Latitude 39°50'20", longitude 83°01'44", Hydrologic Unit 05060001. Owner: privately owned.

AQUIFER.—Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.—Drilled domestic water well, diameter 4.25 in., depth 64 ft.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 719.45 ft above sea level. Measuring point: Top of casing, 0.57 ft above land-surface datum.

PERIOD OF RECORD.—September 1987 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 25.60 ft below land-surface datum, June 3, 1996; lowest measured, 31.72 ft below land-surface datum, Dec. 10, 1991.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-08-2004	27.98
08-25-2005	28.95

395027082592500. Local Number, FR-151

LOCATION.—Latitude 39°50'27", longitude 82°59'25", Hydrologic Unit 05060001, near Shadeville. Owner: City of Columbus.

AQUIFER.—Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.—Drilled observation water well, diameter 2 in., depth 60.3 ft.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 716.51 ft above sea level. Measuring point: Top of plastic pipe, 3.14 ft above land-surface datum.

PERIOD OF RECORD.—July 1983 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 22.38 ft below land-surface datum, Aug. 25, 2005; lowest measured, 37.56 ft below land-surface datum, Mar. 16, 1992.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-07-2004	27.67
08-25-2005	22.38

395314083021900. Local Number, FR-202

LOCATION.—Latitude 39°53'14", longitude 83°02'19", Hydrologic Unit 05060001. Owner: privately owned.

AQUIFER.—Devonian limestone.

WELL CHARACTERISTICS.—Drilled domestic water well, diameter 4 in., depth 220 ft, cased to 175 ft.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 751.38 ft above sea level. Measuring point: Top of casing, 1.06 ft above land-surface datum.

PERIOD OF RECORD.—June 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 66.17 ft below land-surface datum, June 25, 1979; lowest measured, 96.50 ft below land-surface datum, July 19, 1984.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-08-2004	86.36
08-25-2005	88.80

395206083014501. Local Number, FR-209

LOCATION.—Latitude 39°52'06", longitude 83°01'45", Hydrologic Unit 05060001. Owner: privately owned.

AQUIFER.—Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.—Drilled domestic water well, diameter 4 in.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 706.17 ft above sea level. Measuring point: Top of casing, 0.78 ft above land-surface datum.

PERIOD OF RECORD.—June 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 12.51 ft below land-surface datum, May 23, 1984; lowest measured, 18.11 ft below land-surface datum, Mar. 16, 1992.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-08-2004	15.47
08-25-2005	16.23

395315083020002. Local Number, FR-213

LOCATION.—Latitude 39°53'15", longitude 83°02'00", Hydrologic Unit 05060001. Owner: Tom Cannon Company.

AQUIFER.—Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.—Drilled commercial water well, diameter 5 in., depth 97 ft, cased to 97 ft.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 731.42 ft above sea level. Measuring point: Top of casing, 0.80 ft above land-surface datum.

PERIOD OF RECORD.—June 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 71.38 ft below land-surface datum, June 8, 1982; lowest measured, 84.83 ft below land-surface datum, Mar. 16, 1992.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-08-2004	79.60
08-25-2005	79.00

395055082592400. Local Number, FR-271

LOCATION.—Latitude 39°50'55", longitude 82°59'24", Hydrologic Unit 0506000. Owner: Franklin County.

AQUIFER.—Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.—Drilled observation water well, depth 86.00 ft; 76 ft of 2 in. casing.

INSTRUMENTATION.—Data logger, 60-minute record.

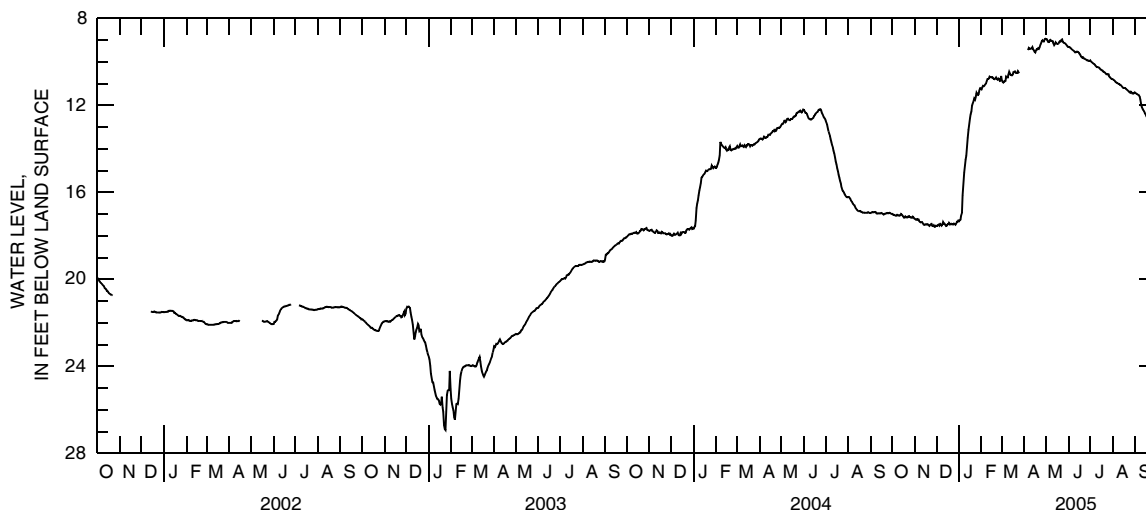
DATUM.—Elevation of land-surface datum is 708.28 ft above sea level. Measuring point: Top of PVC casing, 2.53 ft above land-surface datum.

PERIOD OF RECORD.—September 1987 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 26.93 ft below land-surface datum, Jan. 24, 2003; minimum daily low, 8.94 ft below land-surface datum, Apr. 30, 2005.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.99	17.22	17.54	17.32	11.26	10.84	---	8.96	9.31	9.93	10.80	11.42
2	17.03	17.24	17.54	17.28	11.16	10.92	---	8.96	9.32	9.99	10.83	11.45
3	17.03	17.26	17.50	17.25	11.10	10.95	---	9.03	9.34	10.02	10.85	11.47
4	17.04	17.23	17.48	17.05	11.12	10.90	---	9.09	9.38	10.04	10.88	11.50
5	17.06	17.26	17.52	16.93	11.10	10.90	---	9.09	9.40	10.07	10.93	11.52
6	17.07	17.24	17.45	16.13	11.04	10.88	9.46	9.01	9.44	10.10	10.96	11.54
7	17.07	17.32	17.48	15.55	10.99	10.67	9.36	8.99	9.47	10.12	10.97	11.60
8	17.03	17.36	17.53	15.09	10.89	10.71	9.41	9.04	9.49	10.17	11.00	11.74
9	17.04	17.38	17.47	14.83	10.79	10.72	9.40	9.04	9.52	10.22	11.01	11.95
10	17.07	17.36	17.37	14.49	10.79	10.59	9.39	9.05	9.56	10.25	11.02	12.08
11	17.07	17.37	17.44	14.32	10.77	10.46	9.38	9.15	9.56	10.24	11.06	12.17
12	17.04	17.42	17.44	13.86	10.67	10.53	9.32	9.23	9.53	10.25	11.07	12.21
13	16.99	17.48	17.49	13.49	10.70	10.60	9.42	9.19	9.53	10.26	11.11	12.27
14	17.02	17.49	17.54	13.12	10.71	10.61	9.47	9.10	9.54	10.30	11.15	12.35
15	17.06	17.48	17.53	12.91	10.72	10.62	9.53	9.14	9.57	10.35	11.19	12.41
16	17.11	17.47	17.47	12.61	10.70	10.59	9.57	9.17	9.63	10.37	11.20	12.48
17	17.16	17.48	17.46	12.42	10.74	10.47	9.48	9.18	9.67	10.39	11.20	12.55
18	17.16	17.46	17.40	12.28	10.78	10.46	9.42	9.16	9.75	10.40	11.20	12.63
19	17.10	17.47	17.48	12.01	10.80	10.44	9.43	9.09	9.79	10.45	11.25	12.68
20	17.13	17.51	17.48	11.89	10.77	10.50	9.37	9.05	9.81	10.47	11.27	12.74
21	17.15	17.54	17.44	11.81	10.72	10.51	9.40	9.06	9.79	10.49	11.30	12.76
22	17.15	17.51	17.47	11.68	10.79	10.51	9.33	8.99	9.84	10.53	11.33	12.80
23	17.10	17.46	17.47	11.73	10.82	10.42	9.21	8.97	9.86	10.57	11.37	12.91
24	17.09	17.45	17.48	11.62	10.77	10.49	9.14	9.08	9.87	10.57	11.40	12.94
25	17.13	17.54	17.43	11.42	10.79	10.46	9.04	9.12	9.89	10.58	11.42	12.93
26	17.15	17.54	17.46	11.48	10.87	---	9.00	9.13	9.92	10.57	11.37	12.99
27	17.16	17.51	17.49	11.53	10.86	---	9.06	9.14	9.94	10.67	11.41	13.09
28	17.17	17.58	17.43	11.50	10.65	---	9.06	9.18	9.94	10.70	11.45	13.12
29	17.12	17.58	17.35	11.29	---	---	8.96	9.22	9.96	10.75	11.46	13.31
30	17.14	17.53	17.35	11.21	---	---	8.94	9.27	9.96	10.78	11.44	13.37
31	17.20	---	17.29	11.23	---	---	---	9.31	---	10.78	11.40	---
MAX	17.20	17.58	17.54	17.32	11.26	10.95	9.57	9.31	9.96	10.78	11.46	13.37
MIN	16.99	17.22	17.29	11.21	10.65	10.42	8.94	8.96	9.31	9.93	10.80	11.42
WTR YR 2005		HIGH	8.94	LOW	17.58							



395055082592401. Local Number, FR-272

LOCATION.—Latitude 39°50'55", longitude 82°59'24", Hydrologic Unit 05060001. Owner: City of Columbus.

AQUIFER.—Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.—Drilled observation water well, diameter 2 in., depth 45 ft.

INSTRUMENTATION.—Data logger and pressure transducer, 60-minute record.

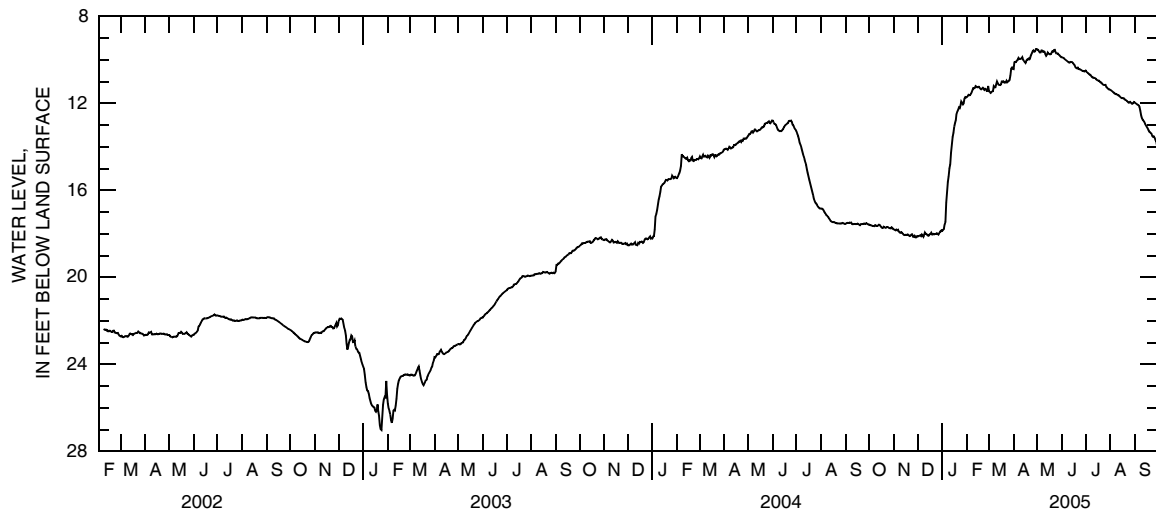
DATUM.—Elevation of land-surface datum is 708.87 ft above sea level. Measuring point: Floor of shelter, 2.36 ft above land-surface datum.

PERIOD OF RECORD.—September 1987 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 27.02 ft below land-surface datum, Jan. 24, 2003; minimum daily low, 9.50 ft below land-surface datum, Apr. 30, 2005.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.57	17.79	18.12	17.86	11.71	11.42	10.42	9.52	9.88	10.49	11.38	11.96
2	17.60	17.81	18.11	17.81	11.67	11.49	10.11	9.53	9.89	10.55	11.40	11.99
3	17.60	17.84	18.09	17.78	11.61	11.52	10.09	9.60	9.91	10.58	11.43	12.02
4	17.62	17.80	18.06	17.56	11.63	11.47	10.10	9.66	9.95	10.61	11.46	12.05
5	17.64	17.84	18.10	17.45	11.62	11.45	10.03	9.66	9.98	10.65	11.50	12.06
6	17.64	17.81	18.03	16.56	11.56	11.44	10.01	9.57	10.01	10.68	11.54	12.09
7	17.65	17.89	18.07	16.11	11.50	11.21	9.91	9.57	10.04	10.69	11.55	12.17
8	17.60	17.93	18.13	15.62	11.40	11.26	9.96	9.62	10.07	10.74	11.58	12.34
9	17.61	17.95	18.05	15.35	11.30	11.26	9.96	9.61	10.10	10.79	11.58	12.55
10	17.64	17.92	17.93	14.99	11.31	11.13	9.95	9.63	10.13	10.82	11.60	12.68
11	17.64	17.94	18.00	14.80	11.29	11.00	9.94	9.74	10.12	10.81	11.63	12.76
12	17.61	17.99	18.00	14.26	11.20	11.08	9.88	9.81	10.09	10.83	11.64	12.80
13	17.57	18.04	18.05	13.93	11.23	11.14	10.00	9.76	10.10	10.84	11.68	12.86
14	17.59	18.06	18.09	13.55	11.26	11.15	10.04	9.66	10.11	10.87	11.72	12.95
15	17.64	18.05	18.08	13.36	11.26	11.16	10.10	9.71	10.14	10.92	11.75	13.01
16	17.69	18.04	18.02	13.07	11.24	11.13	10.14	9.74	10.20	10.94	11.76	13.08
17	17.73	18.05	18.01	12.90	11.28	11.00	10.04	9.75	10.25	10.96	11.76	13.14
18	17.73	18.02	17.95	12.76	11.33	11.00	9.99	9.73	10.34	10.96	11.76	13.22
19	17.67	18.04	18.03	12.48	11.36	10.98	9.99	9.65	10.37	11.02	11.82	13.28
20	17.70	18.08	18.03	12.37	11.32	11.04	9.94	9.61	10.39	11.04	11.83	13.33
21	17.72	18.10	18.00	12.29	11.28	11.05	9.97	9.62	10.36	11.05	11.86	13.35
22	17.72	18.08	18.02	12.18	11.35	11.04	9.89	9.55	10.42	11.11	11.89	13.39
23	17.68	18.03	18.00	12.22	11.39	10.96	9.77	9.54	10.43	11.14	11.93	13.50
24	17.68	18.02	18.01	12.10	11.33	11.03	9.69	9.65	10.44	11.15	11.97	13.54
25	17.71	18.13	17.97	11.92	11.35	11.00	9.60	9.70	10.46	11.16	11.97	13.52
26	17.73	18.13	18.01	11.98	11.43	10.97	9.56	9.70	10.49	11.15	11.93	13.58
27	17.74	18.09	18.04	12.05	11.42	10.92	9.62	9.71	10.51	11.25	11.97	13.69
28	17.75	18.16	17.97	12.00	11.20	10.72	9.61	9.76	10.51	11.27	12.01	13.72
29	17.70	18.16	17.90	11.78	---	10.40	9.51	9.80	10.53	11.32	12.02	13.93
30	17.72	18.11	17.90	11.71	---	10.35	9.50	9.84	10.52	11.36	11.99	13.98
31	17.78	---	17.84	11.73	---	10.41	---	9.88	---	11.36	11.94	---
MAX	17.78	18.16	18.13	17.86	11.71	11.52	10.42	9.88	10.53	11.36	12.02	13.98
MIN	17.57	17.79	17.84	11.71	11.20	10.35	9.50	9.52	9.88	10.49	11.38	11.96
WTR YR 2005		HIGH	9.50	LOW	18.16							



395224083000500. Local Number, FR-273

LOCATION.—Latitude 39°52'24", longitude 83°00'05", Hydrologic Unit 05060001. Owner: Franklin County.

AQUIFER.—Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.—Drilled observation water well, depth 91.5 ft; 2 in. casing.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 704.82 ft above sea level. Measuring point: Top of steel protective casing, 1.23 ft above land-surface datum.

PERIOD OF RECORD.—June 1990 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 13.50 ft below land-surface datum, June 27, 1990; lowest measured, 20.78 ft below land-surface datum, Mar. 16, 1992.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-07-2004	17.53
08-25-2005	18.13

395224083000501. Local Number, FR-274

LOCATION.—Latitude 39°52'24", longitude 83°00'05", Hydrologic Unit 05060001. Owner: Franklin County.

AQUIFER.—Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.—Drilled observation water well, depth 25 ft; 4 in. casing.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel. Continuous data Jan. 1991 to Sept. 1991.

DATUM.—Elevation of land-surface datum is 704.75 ft above sea level. Measuring point: Top of steel protective casing, 3.03 ft above land-surface datum.

PERIOD OF RECORD.—June 1990 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 12.38 ft below land-surface datum, Apr. 19, 1991; lowest measured, 17.35 ft below land-surface datum, Dec. 2, 1996.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-07-2004	14.69
08-25-2005	15.02

395239083021400. Local Number, FR-276

LOCATION.—Latitude 39°52'39", longitude 83°02'14", Hydrologic Unit 05060001. Owner: privately owned.

AQUIFER.—Devonian limestone.

WELL CHARACTERISTICS.—Drilled domestic water well, depth 155 ft.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 754.68 ft above sea level. Measuring point: Top of casing, 1.11 ft above land-surface datum.

PERIOD OF RECORD.—July 1984 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 71.46 ft below land-surface datum, Mar. 18, 1991; lowest measured, 76.05 ft below land-surface datum, Mar. 16, 1992.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-08-2004	73.00
08-25-2005	74.51

394930083013100. Local Number, FR-277

LOCATION.—Latitude 39°49'30", longitude 83°01'31", Hydrologic unit 05060001. Owner: privately owned.
 AQUIFER.—Sand and gravel of Quaternary age.
 WELL CHARACTERISTICS.—Drilled domestic water well, depth 52 ft.
 INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.
 DATUM.—Elevation of land-surface datum is 711.31 ft above sea level. Measuring point: Top of casing, 1.15 ft above land-surface datum.
 PERIOD OF RECORD.—September 1972 to current year.
 EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 14.79 ft below land-surface datum, June 3, 1996; lowest measured, 21.33 ft below land-surface datum, Dec. 10, 1991.

WATER LEVEL,
 IN FEET BELOW LAND-SURFACE DATUM
 INSTANTANEOUS OBSERVATION
 WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-08-2004	19.10
08-25-2005	19.49

395115083022600. Local Number, FR-278

LOCATION.—Latitude 39°51'15", longitude 83°02'26", Hydrologic Unit 05060001. Owner: privately owned.
 AQUIFER.—Quaternary sand and gravel-primary; Devonian limestone-secondary.
 WELL CHARACTERISTICS.—Drilled domestic water well, diameter 5 in., depth 114 ft, 10 ft screen.
 INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.
 DATUM.—Elevation of land-surface datum is 739.32 ft above sea level. Measuring point: Top of casing, 0.81 ft above land-surface datum.
 PERIOD OF RECORD.—September 1986 to current year.
 EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 29.07 ft below land-surface datum, Dec. 15, 1993; lowest measured, 37.91 ft below land-surface datum, Aug. 25, 2005.

WATER LEVEL,
 IN FEET BELOW LAND-SURFACE DATUM
 INSTANTANEOUS OBSERVATION
 WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-08-2004	32.02
08-25-2005	37.91

394932083022700. Local Number, FR-279

LOCATION.—Latitude 39°49'32", longitude 83°02'27", Hydrologic unit 05060001. Owner: privately owned.
 AQUIFER.—Devonian limestone.
 WELL CHARACTERISTICS.—Drilled domestic water well, diameter 5 in., depth 145 ft, cased to 102 ft.
 INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.
 DATUM.—Elevation of land-surface datum is 734.71 ft above sea level. Measuring point: Top of casing, 1.32 ft above land-surface datum.
 PERIOD OF RECORD.—October 1985 to current year.
 EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 7.85 ft below land-surface datum, Mar. 18, 1991; lowest measured, 23.54 ft below land-surface datum, Sept. 12, 1991

WATER LEVEL,
 IN FEET BELOW LAND-SURFACE DATUM
 INSTANTANEOUS OBSERVATION
 WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-08-2004	12.38
08-25-2005	11.46

395000082581700. Local Number, FR-281

LOCATION.—Latitude 39°50'00", longitude 82°58'17", Hydrologic Unit 05060001. Owner: Hamilton Township Trustees.

AQUIFER.—Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.—Drilled domestic water-supply well, depth 83 ft, 4 in. steel casing.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 731.42 ft above sea level. Measuring point: top of casing, 1.20 ft above land-surface datum.

PERIOD OF RECORD.—January 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 35.21 ft below land-surface datum, May 31, 1996; lowest measured, 42.42 ft below land-surface datum, Mar. 16, 1992.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-07-2004	38.32
08-25-2005	37.31

394921083004700. Local Number, FR-282

LOCATION.—Latitude 39°49'21", longitude 83°00'47", Hydrologic Unit 05060001. Owner: City of Columbus.

AQUIFER.—Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.—Drilled observation water well, depth 56 ft, 2 in. PVC.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 679.28 ft above sea level. Measuring point: top of casing, 2.85 ft above land-surface datum.

PERIOD OF RECORD.—June 1992 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 0.75 ft below land-surface datum, Mar. 26, 1993; lowest measured, 16.37 ft below land-surface datum, Aug. 25, 2005.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-07-2004	14.47
08-25-2005	16.37

395048083004500. Local Number, FR-310

LOCATION.—Latitude 39°50'48", longitude 83°00'45", Hydrologic Unit 05060001. Owner: City of Columbus.

AQUIFER.—Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.—Drilled observation water well, 2 in. diameter PVC, 61 ft deep.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 682.72 ft above sea level. Measuring point: top of outer steel protective casing, 3.80 ft above land-surface datum.

PERIOD OF RECORD.—March 1993 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 8.21 ft below land-surface datum, May 31, 1996; lowest measured, 24.61 ft below land-surface datum, Aug. 9, 2002.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-08-2004	20.29
08-25-2005	24.15

395044083010500. Local Number, FR-311

LOCATION.—Latitude 39°50'44", longitude 83°01'05", Hydrologic Unit 05060001. Owner: City of Columbus.

AQUIFER.—Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.—Drilled observation water well, 2 in. diameter PVC, 42 ft deep.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 685.15 ft above sea level. Measuring point: top of outer steel protective casing, 3.95 ft above land-surface datum.

PERIOD OF RECORD.—March 1993 to current year

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 5.86 ft below land-surface datum, May 31, 1996; lowest measured, 18.53 ft below land-surface datum, Aug. 25, 2005.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-08-2004	14.86
08-25-2005	18.53

395151082591700. Local Number, FR-312

LOCATION.—Latitude 39°51'51", longitude 82°59'17", Hydrologic Unit 05060001. Owner: privately owned.

AQUIFER.—Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.—Drilled observation water well, 4 in. diameter, 54.5 ft deep.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 725.62 ft above sea level. Measuring point: Top of PVC casing, 0.20 ft below land-surface datum.

PERIOD OF RECORD.—September 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 11.45 ft below land-surface datum, Nov. 19, 1996; lowest measured, 33.24 ft below land-surface datum, Mar. 2, 2000.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
08-26-2005	26.38

394948082583400. Local Number, FR-313

LOCATION.—Latitude 39°49'48", longitude 82°58'34", Hydrologic Unit 05060001. Owner: privately owned.

AQUIFER.—Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.—Drilled observation water well, 4 in. diameter, 79 ft deep.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 744.55 ft above sea level. Measuring point: Top of PVC casing, 0.18 ft below land-surface datum.

PERIOD OF RECORD.—September 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 51.58 ft below land-surface datum, May 31, 1996; lowest measured, 57.48 ft below land-surface datum, Dec. 7, 1995.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-07-2004	53.18
08-25-2005	52.62

395241082584500. Local Number, FR-314

LOCATION.—Latitude 39°52'41", longitude 82°58'45", Hydrologic Unit 05060001. Owner: WTVN.

AQUIFER.—Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.—Drilled observation water well, 4 in. diameter, 72 ft deep.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 733.30 ft above sea level. Measuring point: Top of PVC casing, 0.12 ft below land-surface datum.

PERIOD OF RECORD.—September 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 16.97 ft below land-surface datum, Mar. 31, 1996; lowest measured, 25.21 ft below land-surface datum, Mar. 2, 2000.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-08-2004	21.51
08-26-2005	21.44

395100083015700. Local Number, FR-315

LOCATION.—Latitude 39°51'00", longitude 83°01'57", Hydrologic Unit 05060001. Owner: SW Conservation Club.

AQUIFER.—Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.—Drilled observation water well, 4 in. diameter, 65 ft deep.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 729.31 ft above sea level. Measuring point: Top of PVC casing, 0.24 ft below land-surface datum.

PERIOD OF RECORD.—September 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 18.63 ft below land-surface datum, June 3, 1996; lowest measured, 30.89 ft below land-surface datum, Mar. 2, 2000.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-08-2004	26.79
08-25-2005	27.33

395035083014700. Local Number, FR-316

LOCATION.—Latitude 39°50'35", longitude 83°01'47", Hydrologic Unit 05060001. Owner: SW Conservation Club.

AQUIFER.—Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.—Drilled observation water well, 4 in. diameter, 62 ft deep.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 725.53 ft above sea level. Measuring point: Top of PVC casing, 3.05 ft above land-surface datum.

PERIOD OF RECORD.—September 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 29.68 ft below land-surface datum, Nov. 20, 1996; lowest measured, 39.41 ft below land-surface datum, Dec. 10, 1997.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-08-2004	35.32
08-25-2005	35.43

395153083014000. Local Number, FR-317

LOCATION.—Latitude 39°51'53", longitude 83°01'40", Hydrologic Unit 05060001. Owner: Heimat Haus.

AQUIFER.—Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.—Drilled observation water well, 4 in. diameter, 40 ft deep.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 689.53 ft above sea level. Measuring point: Top of PVC casing, 0.12 ft below land-surface datum.

PERIOD OF RECORD.—September 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 2.44 ft below land-surface datum, Feb. 28, 1996; lowest measured, 7.01 ft below land-surface datum, Mar. 2, 2000.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-08-2004	6.37
08-25-2005	6.50

395042082585900. Local Number, FR-318

LOCATION.—Latitude 39°50'42", longitude 82°58'59", Hydrologic Unit 05060001. Owner: City of Columbus.

AQUIFER.—Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.—Drilled observation water well, 4 in. diameter, 85 ft deep.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 738.69 ft above sea level. Measuring point: Top of PVC casing, 3.37 ft above land-surface datum.

PERIOD OF RECORD.—August 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 43.02 ft below land-surface datum, Aug. 25, 2005; lowest measured, 56.83 ft below land-surface datum, Aug. 9, 2002.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-07-2004	49.67
08-25-2005	43.02

395205083001500. Local Number, FR-319

LOCATION.—Latitude 39°52'05", longitude 83°00'15", Hydrologic Unit 05060001. Owner: City of Columbus.

AQUIFER.—Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.—Drilled observation water well, 4 in. diameter, 55 ft deep.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 721.59 ft above sea level. Measuring point: Top of PVC casing, 2.50 ft above land-surface datum.

PERIOD OF RECORD.—September 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 29.75 ft below land-surface datum, June 3, 1996; lowest measured, 37.47 ft below land-surface datum, Sept. 14, 1997.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-07-2004	33.45
08-25-2005	33.69

394954083002801. Local Number, FR-320

LOCATION.—Latitude 39°49'54", longitude 83°00'28", Hydrologic Unit 05060001. Owner: City of Columbus.

AQUIFER.—Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.—Drilled observation water well, 4 in. diameter, 70 ft deep.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 690.64 ft above sea level. Measuring point: Top of PVC casing, 3.22 ft above land-surface datum.

PERIOD OF RECORD.—September 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 12.25 ft below land-surface datum, May 31, 1996; lowest measured, 32.48 ft below land-surface datum, Aug. 25, 2005.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-07-2004	28.00
08-25-2005	32.48

395038083002100. Local Number, FR-321

LOCATION.—Latitude 39°50'38", longitude 83°00'21", Hydrologic Unit 05060001. Owner: City of Columbus.

AQUIFER.—Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.—Drilled observation water well, 4 in. diameter, 68 ft deep.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 696.87 ft above sea level. Measuring point: Top of PVC casing, 2.87 ft above land-surface datum.

PERIOD OF RECORD.—September 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 22.41 ft below land-surface datum, Mar. 17, 1997; lowest measured, 56.11 ft below land-surface datum, Aug. 25, 2005.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-08-2004	43.66
08-25-2005	56.11

395146082594300. Local Number, FR-323

LOCATION.—Latitude 39°51'46", longitude 82°59'43", Hydrologic Unit 05060001. Owner: City of Columbus.

AQUIFER.—Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.—Drilled observation water well, 4 in. diameter, 59.5 ft deep.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 714.21 ft above sea level. Measuring point: Top of PVC casing, 2.74 ft above land-surface datum.

PERIOD OF RECORD.—February 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 16.69 ft below land-surface datum, May 31, 1996; lowest measured, 24.49 ft below land-surface datum, Mar. 2, 2000.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-07-2004	23.87
08-25-2005	18.25

395146082594301. Local Number, FR-324

LOCATION.—Latitude 39°51'46", longitude 82°59'43", Hydrologic Unit 05060001. Owner: City of Columbus.

AQUIFER.—Devonian limestone.

WELL CHARACTERISTICS.—Drilled observation water well, 4 in. diameter, 169.98 ft deep.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 714.28 ft above sea level. Measuring point: Top of PVC casing, 2.62 ft above land-surface datum.

PERIOD OF RECORD.—March 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 29.75 ft below land-surface datum, Aug. 25, 2005; lowest measured, 156.30 ft below land-surface datum, Aug. 13, 1996.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-07-2004	76.98
08-25-2005	29.75

395010083000200. Local Number, FR-325

LOCATION.—Latitude 39°50'10", longitude 83°00'02", Hydrologic Unit 05060001. Owner: City of Columbus.

AQUIFER.—Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.—Drilled observation water well, 4 in. diameter, 93 ft deep.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 718.82 ft above sea level. Measuring point: Top of PVC casing, 3.24 ft above land-surface datum.

PERIOD OF RECORD.—February 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 29.49 ft below land-surface datum, May 31, 1996; lowest measured, 36.80 ft below land-surface datum, Mar. 2, 2000.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-07-2004	32.38
08-25-2005	32.64

395133083001800. Local Number, FR-327

LOCATION.—Latitude 39°51'33", longitude 83°00'18", Hydrologic Unit 05060001. Owner: City of Columbus.

AQUIFER.—Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.—Drilled observation water well, 4 in. diameter, 74.75 ft deep.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 740.78 ft above sea level. Measuring point: Top of PVC casing, 2.76 ft above land-surface datum.

PERIOD OF RECORD.—September 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 44.77 ft below land-surface datum, Aug. 20, 1996; lowest measured, 57.07 ft below land-surface datum, Mar. 2, 2000.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-08-2004	50.70
08-25-2005	49.98

395108082591100. Local Number, FR-329

LOCATION.—Latitude 39°51'08", longitude 82°59'11", Hydrologic Unit 05060001. Owner: City of Columbus.

AQUIFER.—Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.—Drilled observation water well, 4 in. diameter, 69.19 ft deep.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 733.01 ft above sea level. Measuring point: Top of PVC casing, 3.05 ft above land-surface datum.

PERIOD OF RECORD.—May 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 34.38 ft below land-surface datum, Mar. 17, 1997; lowest measured, 44.61 ft below land-surface datum, Mar. 2, 2000.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-07-2004	41.01
08-25-2005	35.30

395108082591101. Local Number, FR-330

LOCATION.—Latitude 39°51'08", longitude 82°59'11", Hydrologic Unit 05060001. Owner: City of Columbus.

AQUIFER.—Devonian limestone.

WELL CHARACTERISTICS.—Drilled observation water well, 4 in. diameter, 211 ft deep.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 734.58 ft above sea level. Measuring point: Top of PVC casing, 2.32 ft above land-surface datum.

PERIOD OF RECORD.—October 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 88.71 ft below land-surface datum, Aug. 25, 2005; lowest measured, 95.00 ft below land-surface datum, Oct. 12, 1995.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-07-2004	90.76
08-25-2005	88.71

395054082585300. Local Number, FR-331

LOCATION.—Latitude 39°50'54", longitude 82°58'53", Hydrologic Unit 05060001. Owner: City of Columbus.

AQUIFER.—Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.—Drilled observation water well, 4 in. diameter, 74.33 ft deep.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 738.36 ft above sea level. Measuring point: Top of PVC casing, 2.95 ft above land-surface datum.

PERIOD OF RECORD.—December 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 40.86 ft below land-surface datum, Aug. 25, 2005; lowest measured, 51.31 ft below land-surface datum, Aug. 9, 2002.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-07-2004	46.72
08-25-2005	40.86

395031082590000. Local Number, FR-332

LOCATION.—Latitude 39°50'31", longitude 82°59'00", Hydrologic Unit 05060001. Owner: City of Columbus.
 AQUIFER.—Sand and gravel of Quaternary age.
 WELL CHARACTERISTICS.—Drilled observation water well, 4 in. diameter, 48.03 ft deep.
 INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.
 DATUM.—Elevation of land-surface datum is 707.25 ft above sea level. Measuring point: Top of PVC casing, 2.97 ft above land-surface datum.
 PERIOD OF RECORD.—September 1995 to current year.
 EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 12.56 ft below land-surface datum, Aug. 25, 2005; lowest measured, 31.57 ft below land-surface datum, Aug. 9, 2002.

WATER LEVEL,
 IN FEET BELOW LAND-SURFACE DATUM
 INSTANTANEOUS OBSERVATION
 WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-07-2004	24.98
08-25-2005	12.56

395031082590001. Local Number, FR-333

LOCATION.—Latitude 39°50'31", longitude 82°59'00", Hydrologic Unit 05060001. Owner: City of Columbus.
 AQUIFER.—Devonian limestone.
 WELL CHARACTERISTICS.—Drilled observation water well, 4 in. diameter, 194.39 ft deep.
 INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.
 DATUM.—Elevation of land-surface datum is 706.75 ft above sea level. Measuring point: Top of PVC casing, 2.90 ft above land-surface datum.
 PERIOD OF RECORD.—September 1995 to current year.
 EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 39.93 ft below land-surface datum, Aug. 25, 2005; lowest measured, 135.40 ft below land-surface datum, Mar. 13, 1996.

WATER LEVEL,
 IN FEET BELOW LAND-SURFACE DATUM
 INSTANTANEOUS OBSERVATION
 WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-07-2004	40.27
08-25-2005	39.93

395139082581600. Local Number, FR-334

LOCATION.—Latitude 39°51'39", longitude 82°58'16", Hydrologic Unit 05060001. Owner: City of Columbus.
 AQUIFER.—Sand and gravel of Quaternary age.
 WELL CHARACTERISTICS.—Drilled observation water well, 4 in. diameter, 64.42 ft deep.
 INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.
 DATUM.—Elevation of land-surface datum is 740.14 ft above sea level. Measuring point: Top of PVC casing, 0.34 ft below land-surface datum.
 PERIOD OF RECORD.—March 1996 to current year.
 EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 28.45 ft below land-surface datum, May 31, 1996; lowest measured, 36.36 ft below land-surface datum, Mar. 2, 2000.

WATER LEVEL,
 IN FEET BELOW LAND-SURFACE DATUM
 INSTANTANEOUS OBSERVATION
 WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-07-2004	34.03
08-25-2005	33.62

395134082590600. Local Number, FR-335

LOCATION.—Latitude 39°51'34", longitude 82°59'06", Hydrologic Unit 05060001. Owner: City of Columbus.

AQUIFER.—Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.—Drilled observation water well, 4 in. diameter, 59.86 ft deep.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 734.59 ft above sea level. Measuring point: Top of PVC casing, 0.30 ft below land-surface datum.

PERIOD OF RECORD.—May 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 34.03 ft below land-surface datum, May 31, 1996; lowest measured, 43.62 ft below land-surface datum, Mar. 2, 2000.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-07-2004	40.77
08-25-2005	35.62

395108083010601. Local Number, FR-336

LOCATION.—Latitude 39°51'08", longitude 83°01'06", Hydrologic Unit 05060001. Owner: City of Columbus.

AQUIFER.—Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.—Drilled observation water well, 4 in. diameter, 59 ft deep.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 685.43 ft above sea level. Measuring point: Top of PVC casing, 3.27 ft above land-surface datum.

PERIOD OF RECORD.—December 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 10.61 ft below land-surface datum, May 31, 1996; lowest measured, 31.75 ft below land-surface datum, Nov. 21, 1996.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-08-2004	19.56
08-25-2005	30.50

395115083010601. Local Number, FR-337

LOCATION.—Latitude 39°51'15", longitude 83°01'06", Hydrologic Unit 05060001. Owner: City of Columbus.

AQUIFER.—Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.—Drilled observation water well, 4 in. diameter, 55 ft deep.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 686.6 ft above sea level. Measuring point: Top of PVC casing, 2.64 ft above land-surface datum.

PERIOD OF RECORD.—September 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 11.76 ft below land-surface datum, May 31, 1996; lowest measured, 33.23 ft below land-surface datum, Aug. 25, 2005.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-08-2004	21.26
08-25-2005	33.23

395115083010602. Local Number, FR-338

LOCATION.—Latitude 39°51'15", longitude 83°01'06", Hydrologic Unit 05060001. Owner: City of Columbus.

AQUIFER.—Devonian limestone.

WELL CHARACTERISTICS.—Drilled observation water well, 4 in. diameter, 105 ft deep.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 685.85 ft above sea level. Measuring point: Top of PVC casing, 3.12 ft above land-surface datum.

PERIOD OF RECORD.—February 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 4.87 ft below land-surface datum, May 31, 1996; lowest measured, 42.71 ft below land-surface datum, Mar. 2, 2000.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-08-2004	17.21
08-25-2005	25.56

395046083003106. Local Number, FR-339

LOCATION.—Latitude 39°50'46", longitude 83°00'31", Hydrologic Unit 05060001. Owner: City of Columbus.

AQUIFER.—Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.—Drilled observation water well, 4 in. diameter, 70 ft deep.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 696.17 ft above sea level. Measuring point: Top of PVC casing, 2.78 ft above land-surface datum.

PERIOD OF RECORD.—June 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 21.11 ft below land-surface datum, Mar. 17, 1997; lowest measured, 59.50 ft below land-surface datum, Aug. 25, 2005.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-08-2004	44.50
08-25-2005	59.50

395046083003107. Local Number, FR-340

LOCATION.—Latitude 39°50'46", longitude 83°00'31", Hydrologic Unit 05060001. Owner: City of Columbus.

AQUIFER.—Devonian limestone.

WELL CHARACTERISTICS.—Drilled observation water well, 4 in. diameter, 138 ft deep.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 696.15 ft above sea level. Measuring point: Top of PVC casing, 2.91 ft above land-surface datum.

PERIOD OF RECORD.—February 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 21.95 ft below land-surface datum, Mar. 17, 1997; lowest measured, 55.90 ft below land-surface datum, Aug. 25, 2005.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-08-2004	42.83
08-25-2005	55.90

395020083003406. Local Number, FR-341

LOCATION.—Latitude 39°50'20", longitude 83°00'34", Hydrologic Unit 05060001. Owner: City of Columbus.

AQUIFER.—Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.—Drilled observation water well, 4 in. diameter, 75 ft deep.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 683.06 ft above sea level. Measuring point: Top of PVC casing, 3.16 ft above land-surface datum.

PERIOD OF RECORD.—November 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 11.79 ft below land-surface datum, May 31, 1996; lowest measured, 41.03 ft below land-surface datum, Aug. 25, 2005.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-08-2004	30.73
08-25-2005	41.03

395020083003407. Local Number, FR-342

LOCATION.—Latitude 39°50'20", longitude 83°00'34", Hydrologic Unit 05060001. Owner: City of Columbus.

AQUIFER.—Devonian limestone.

WELL CHARACTERISTICS.—Drilled observation water well, 4 in. diameter, 123 ft deep.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 683.35 ft above sea level. Measuring point: Top of PVC casing, 2.77 ft above land-surface datum.

PERIOD OF RECORD.—February 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 11.80 ft below land-surface datum, Mar. 17, 1997; lowest measured, 27.02 ft below land-surface datum, Mar. 2, 2000.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-08-2004	20.14
08-25-2005	26.14

395222083002901. Local Number, FR-344

LOCATION.—Latitude 39°52'22", longitude 83°00'29", Hydrologic Unit 05060001. Owner: City of Columbus.

AQUIFER.—Sand and gravel of Quaternary age.

WELL CHARACTERISTICS.—Drilled observation water well, 4 in. diameter, 134 ft deep.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 707.61 ft above sea level. Measuring point: Top of PVC casing, 2.52 ft above land-surface datum.

PERIOD OF RECORD.—May 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 37.26 ft below land-surface datum, Aug. 13, 1996; lowest measured, 95.68 ft below land-surface datum, Mar. 17, 1997.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-07-2004	47.69
08-25-2005	45.15

395236083004201. Local Number, FR-345

LOCATION.—Latitude 39°52'36", longitude 83°00'42", Hydrologic Unit 05060001. Owner: City of Columbus.

AQUIFER.—Sand and gravel.

WELL CHARACTERISTICS.—Drilled observation water well, 4 in. diameter, 45 ft deep.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 688.90 ft above sea level. Measuring point: Top of PVC casing, 2.97 ft above land-surface datum.

PERIOD OF RECORD.—August 1996 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 14.40 ft below land-surface datum, Apr. 29, 2004; lowest measured, 25.52 ft below land-surface datum, Mar. 2, 2000.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-07-2004	18.04
08-25-2005	22.34

395156082571800. Local Number, FR-351

LOCATION.—Latitude 39°51'56", longitude 82°57'18", Hydrologic Unit 05060001. Owner: Privately owned.

AQUIFER.—Sand and gravel.

WELL CHARACTERISTICS.—Drilled observation water well, 4.25 in. diameter, 60 ft deep.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 740 ft above sea level. Measuring point: Top of PVC casing, 0.30 ft above land-surface datum.

PERIOD OF RECORD.—August 2003 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 33.61 ft below land-surface datum, Apr. 29, 2004; lowest measured, 35.42 ft below land-surface datum, Aug. 25, 2003.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-08-2004	35.26
08-26-2005	35.10

395237082591600. Local Number, FR-352

LOCATION.—Latitude 39°52'37", longitude 82°59'16", Hydrologic Unit 05060001. Owner: Privately owned.

AQUIFER.—Sand and gravel.

WELL CHARACTERISTICS.—Drilled observation water well, 4.25 in. diameter, 87 ft deep.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 735 ft above sea level. Measuring point: Top of PVC casing, 1.25 ft above land-surface datum.

PERIOD OF RECORD.—August 2003 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 30.01 ft below land-surface datum, Apr. 29, 2004; lowest measured, 32.79 ft below land-surface datum, Aug. 25, 2003.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-08-2004	31.43
08-25-2005	31.71

395325082582400. Local Number, FR-353

LOCATION.—Latitude 39°53'25", longitude 82°58'24", Hydrologic Unit 05060001. Owner: Privately owned.

AQUIFER.—Sand and gravel.

WELL CHARACTERISTICS.—Drilled observation water well, 6 in. diameter, 58 ft deep.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 745 ft above sea level. Measuring point: Top of PVC casing, 1.20 ft above land-surface datum.

PERIOD OF RECORD.—August 2003 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 30.15 ft below land-surface datum, Apr. 29, 2004; lowest measured, 32.27 ft below land-surface datum, Aug. 25, 2003.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-08-2004	30.83
08-25-2005	30.73

395328082582100. Local Number, FR-354

LOCATION.—Latitude 39°53'28", longitude 82°58'21", Hydrologic Unit 05060001. Owner: Privately owned.

AQUIFER.—Gravel.

WELL CHARACTERISTICS.—Drilled observation water well, 5 in. diameter, 50 ft deep.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 745 ft above sea level. Measuring point: Top of PVC casing, 1.20 ft above land-surface datum.

PERIOD OF RECORD.—August 2003 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 30.47 ft below land-surface datum, Apr. 29, 2004; lowest measured, 32.55 ft below land-surface datum, Aug. 25, 2003.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-08-2004	31.12
08-25-2005	30.98

The following table contains discharge data collected August 2005. Location may not match Site ID for existing sites, which are noted with asterisks (*). DRY, indicates no visible surface-water flow.

[ft³/s, cubic feet per second]

Stream Discharge Measurements

Site ID	Site Name	Location	Date	Discharge (ft ³ /s)
395417083003200*	Jackson Pike STP outfall at Columbus OH	Lat 39°54'31", Long 83°00'50"	08/25/05	102 ^a
395325083004200	Columbus Limestone outflow to Scioto River	Lat 39°53'25", Long 83°00'42"	08/25/05	15.6 ^b
395406083001100	Scioto River above Kian Run near Columbus OH	Lat 39°54'06", Long 83°00'11"	08/25/05	156
395408083000200*	Kian Run at Columbus OH	Lat 39°54'07", Long 83°00'04"	08/25/05	1.95
395328083003500*	Scioto R 2.4 mi below Frank Rd at Columbus OH	Lat 39°53'28", Long 83°00'37"	08/25/05	172
395250083010900*	Scioto Big Run at Columbus OH	Lat 39°52'49", Long 83°01'09"	08/25/05	6.02
395301083014000	Unnamed trib to Scioto R at SR104 0.1 mi S of I270	Lat 39°53'01", Long 83°01'40"	08/25/05	DRY
395244083010700*	Scioto R below Scioto Big Run at Columbus OH	Lat 39°52'41", Long 83°01'09"	08/25/05	168
395226083013900	Unnamed trib to Scioto R at SR104 0.8 mi S of I270	Lat 39°52'26", Long 83°01'39"	08/25/05	0.02
395151083014000	Unnamed trib to Scioto R at SR104 1.5 mi S of I270	Lat 39°51'51", Long 83°01'40"	08/25/05	0.30
395110083011000	Scioto R above CW-101 near Columbus OH	Lat 39°51'10", Long 83°01'10"	08/25/05	176
395037083010100*	Grant Run near Shadeville OH	Lat 39°50'35", Long 83°01'09"	08/25/05	DRY
395042083004701	Scioto R between CW-101 and CW-103 nr Columbus OH	Lat 39°50'42", Long 83°00'47"	08/25/05	169
395046083003200*	Scioto River at FR-103-CW Columbus OH	Lat 39°50'46", Long 83°00'33"	08/25/05	173
395021083003600*	Scioto River at CW-104 near Columbus OH	Lat 39°50'22", Long 83°00'35"	08/25/05	164
394928083003900	Scioto R at Scioto Canoe Livery near Shadeville OH	Lat 39°49'28", Long 83°00'39"	08/25/05	170
394902083010200	S. Waste Water Plant lagoon outflow to Scioto R	Lat 39°49'02", Long 83°01'02"	08/25/05	3.40 ^c
394902083010300*	Plum Run near Shadeville OH	Lat 39°49'01", Long 83°01'04"	08/25/05	0.14
394856083005800	Scioto R at S. Waste Water Plant nr Shadeville OH	Lat 39°48'56", Long 83°00'58"	08/25/05	184

Stream Discharge Measurements

Site ID	Site Name	Location	Date	Discharge (ft ³ /s)
394852083004900	S. Waste Water Treatment Plant outflow to Scioto R	Lat 39°48'52", Long 83°00'49"	08/25/05	95.8 ^c
394804083003500	Scioto River above Big Walnut Creek	Lat 39°48'04", Long 83°00'35"	08/25/05	261
395123082562100	Big Walnut Creek at Alum Creek Drive	Lat 39°51'23", Long 82°56'21"	08/25/05	64.9
03229500*	Big Walnut Creek at Reese Road	Lat 39°51'16", Long 82°57'29"	08/25/05	69.8
395058082582200	Big Walnut Creek at Lockbourne Road	Lat 39°50'58", Long 82°58'22"	08/25/05	70.1
395039082585500	J&P Gravel outflow to Big Walnut Creek	Lat 39°50'39", Long 82°58'55"	08/25/05	0.00 ^d
394958082593400	Big Walnut Creek at SR317	Lat 39°49'58", Long 82°59'34"	08/25/05	56.2
394918082585400	Big Walnut Creek near Camp St. Joseph	Lat 39°49'18", Long 82°58'54"	08/25/05	65.9
394918082585100	S&S Aggregate outflow to Big Walnut Creek	Lat 39°49'18", Long 82°58'51"	08/25/05	0.00 ^e
394838082583100	Big Walnut Creek at Rowe Road	Lat 39°48'38", Long 82°58'31"	08/25/05	66.8
394826082594300	Big Walnut Creek at US23	Lat 39°48'26", Long 82°59'43"	08/25/05	90.0
394759083002800	Big Walnut Creek above mouth	Lat 39°47'59", Long 83°00'28"	08/25/05	73.3

a Discharge reported from Jackson Pike Sewage Treatment Plant.

b Discharge reported from Columbus Limestone.

c Discharge reported from Columbus Southern Waste Water Treatment Plant.

d Discharge reported from J&P Gravel.

e Discharge reported from S&S Aggregate.

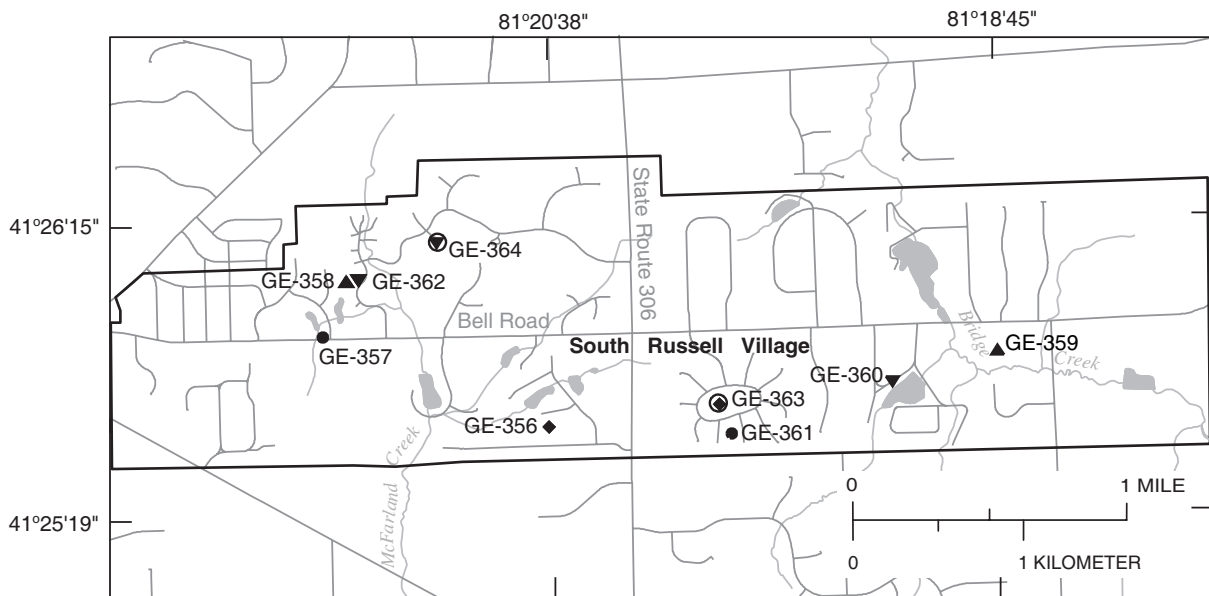
Project Data—Ground-Water Data for South Russell Village, Ohio

Ground-water-level measurements from the nine wells that comprise the long-term ground-water monitoring network in South Russell Village are shown on the following pages. The purpose of the water-level study is to determine whether fluctuations in water levels represent consistent, long-term trends caused by human activity or are predominantly the result of seasonal and annual variations in recharge. Land-surface datums are accurate within ± 5 ft. Water levels known to have been measured after a well had been recently pumped are designated with an asterisk (*).



EXPLANATION

- ▲ Well completed in glacial deposits
- ◆ Well completed in Pottsville Formation
- Well completed in Cuyahoga Group
- ▼ Well completed in Berea Sandstone
- Well instrumented to continuously record water levels



412536081203800. Local Number, GE-356

LOCATION.—Latitude 41°25'36", longitude 81°20'38", Geauga County, 6006 Parkland Drive, South Russell Village. Owner: Privately owned.

AQUIFER.—Pottsville Formation (sandstone).

WELL CHARACTERISTICS.—Domestic water-supply well; diameter 5.63 in.; depth 80 ft.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 1,155 ft above sea level. Measuring point: top of casing, 1.30 ft above land-surface datum.

PERIOD OF RECORD.—May 2, 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 10.27 ft below land-surface datum, Apr. 8, 2004 and Apr. 7, 2005; lowest measured, 13.25 ft below land-surface datum, Nov. 7, 2002.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-13-2004	12.50
12-09-2004	11.30
02-03-2005	11.17
04-07-2005	10.27
06-09-2005	11.47
08-04-2005	12.02

412553081213500. Local Number, GE-357

LOCATION.—Latitude 41°25'53", longitude 81°21'35", Geauga County, 101 Spring Drive, South Russell Village. Owner: Privately owned.

AQUIFER.—Cuyahoga Formation (shale).

WELL CHARACTERISTICS.—Domestic water-supply well; diameter 6 in.; depth 71 ft.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 1,120 ft above sea level. Measuring point: top of casing, 1.40 ft above land-surface datum.

PERIOD OF RECORD.—May 3, 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 10.39 ft below land-surface datum, June 9, 2004; lowest measured, 14.32 ft below land-surface datum, Nov. 14, 2001.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-13-2004	11.20
12-09-2004	11.76
02-03-2005	11.41
04-07-2005	10.66
06-09-2005	10.90
08-04-2005	11.51

412604081212600. Local Number, GE-358

LOCATION.—Latitude 41°26'04", longitude 81°21'26", Geauga County, 127 Alderwood Drive, South Russell Village. Owner: Privately owned.

AQUIFER.—Berea Formation (sandstone).

WELL CHARACTERISTICS.—Domestic water-supply well; diameter 6 in.; depth 258 ft.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 1,105 ft above sea level. Measuring point: top of casing, 1.35 ft above land-surface datum.

PERIOD OF RECORD.—May 3, 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 158.97 ft below land-surface datum, Apr. 8, 2004; lowest measured, 177.21* ft below land-surface datum, July 31, 2002.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-13-2004	163.85
12-09-2004	163.75
02-03-2005	163.40
04-07-2005	159.27
06-09-2005	169.39
08-04-2005	169.61

412548081184300. Local Number, GE-359

LOCATION.—Latitude 41°25'48", longitude 81°18'43", Geauga County, 1478 Bell Road, South Russell Village. Owner: Privately owned.

AQUIFER.—Sand and gravel.

WELL CHARACTERISTICS.—Domestic water-supply well; diameter 5.63 in.; depth 90 ft.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 1,153 ft above sea level. Measuring point: top of casing, 2.05 ft above land-surface datum.

PERIOD OF RECORD.—August 29, 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 11.14 ft below land-surface datum, May 23, 2002; lowest measured, 12.87 ft below land-surface datum, Nov. 14, 2001.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-13-2004	12.07
12-09-2004	11.94
02-03-2005	11.57
04-07-2005	11.30
06-09-2005	11.77
08-04-2005	11.74

412545081191000. Local Number, GE-360

LOCATION.—Latitude 41°25'45", longitude 81°19'10", Geauga County, 55 Garden Park, South Russell Village. Owner: Privately owned.

AQUIFER.—Berea Formation (sandstone).

WELL CHARACTERISTICS.—Domestic water-supply well; diameter 6 in.; depth 290 ft.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 1,162 ft above sea level. Measuring point: top of casing, 1.05 ft above land-surface datum.

PERIOD OF RECORD.—August 29, 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 151.13 ft below land-surface datum, Apr. 7, 2005; lowest measured, 164.50* ft below land-surface datum, Sept. 20, 2001.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-13-2004	152.25
12-09-2004	152.82*
02-03-2005	153.18
04-07-2005	151.13
06-09-2005	154.49
08-04-2005	157.55

412533081195100. Local Number, GE-361

LOCATION.—Latitude 41°25'33", longitude 81°19'51", Geauga County, 60 Potomac Drive, South Russell Village. Owner: Privately owned.

AQUIFER.—Cuyahoga Formation (shale).

WELL CHARACTERISTICS.—Domestic water-supply well; diameter 6 in.; depth 120 ft.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 1,240 ft above sea level. Measuring point: top of casing, 2.10 ft above land-surface datum.

PERIOD OF RECORD.—August 29, 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 65.16 ft below land-surface datum, June 9, 2005; lowest measured, 69.69 ft below land-surface datum, Jan. 9, 2003.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-13-2004	65.39
12-09-2004	66.00
02-03-2005	65.75
04-07-2005	65.22
06-09-2005	65.16
08-04-2005	65.34

412604081212700. Local Number, GE-362

LOCATION.—Latitude 41°26'04", longitude 81°21'27", Geauga County, 125 Button Bush Circle, South Russell Village. Owner: Privately owned.

AQUIFER.—Sand and gravel.

WELL CHARACTERISTICS.—Domestic water-supply well; diameter 5.63 in.; depth 35 ft.

INSTRUMENTATION.—Periodic measurement with steel or electric tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 1,106 ft above sea level. Measuring point: top of casing, 1.90 ft above land-surface datum.

PERIOD OF RECORD.—August 29, 2000 to current year.

EXTREMES FOR PERIOD OF RECORD.—Highest water level measured, 6.69 ft below land-surface datum, Apr. 8, 2004; lowest measured, 9.51 ft below land-surface datum, Sept. 24, 2002.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Water level
10-13-2004	8.81
12-09-2004	7.74
02-03-2005	7.44
04-07-2005	6.83
06-09-2005	9.00
08-04-2005	9.29

412541081194500. Local Number, GE-363

LOCATION.—Latitude 41°25'41", longitude 81°19'45", Geauga County, Kensington Green, South Russell Village. Owner: South Russell Village.

WELL CHARACTERISTICS.—Water-supply well, not currently in use; diameter 6.25 in.; depth 93.7 ft.

INSTRUMENTATION.—Pressure transducer data logger (records hourly).

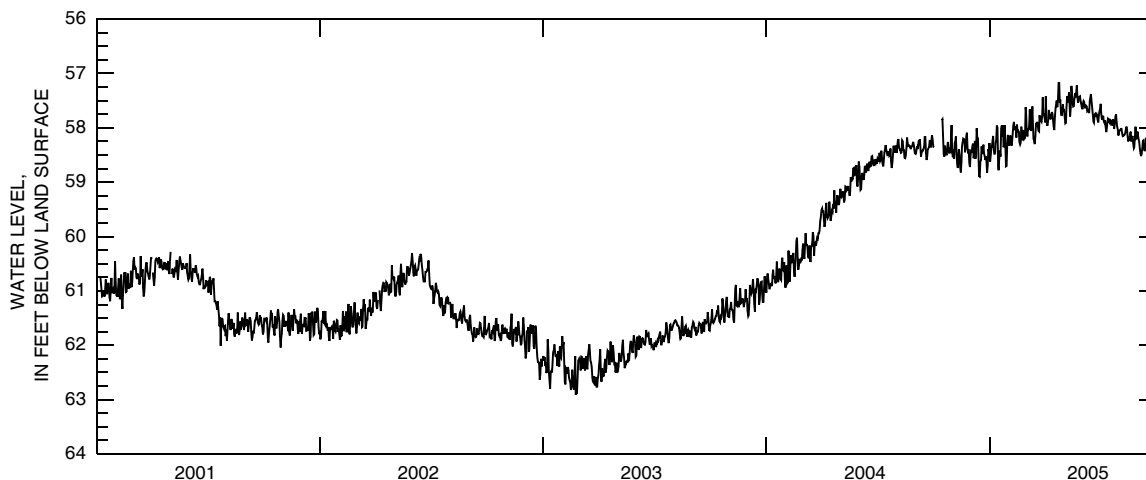
DATUM.—Elevation of land-surface datum is 1,232 ft above sea level. Measuring point: top of casing.

PERIOD OF RECORD.—Continuous water-level data from January 6, 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 62.91 ft below land-surface datum, Feb. 23, 2003; minimum daily low, 57.18 ft below land-surface datum, Apr. 23 and 24, 2005.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58.36	58.54	58.42	58.62	58.33	57.73	57.90	57.67	57.66	57.56	58.05	58.22
2	---	58.40	58.43	58.50	58.30	58.08	57.42	57.67	57.55	57.76	58.04	58.26
3	---	58.57	58.34	58.35	58.14	58.16	57.73	57.80	57.51	57.85	58.02	58.39
4	---	58.28	58.29	58.35	58.25	58.01	57.95	57.92	57.53	57.81	58.02	58.47
5	---	58.26	58.56	58.24	58.33	58.04	57.95	57.91	57.64	57.78	58.10	58.52
6	---	58.16	58.46	58.15	58.23	57.96	57.86	57.64	57.59	57.88	58.15	58.48
7	---	58.46	58.24	58.41	58.12	57.66	57.67	57.42	57.59	57.91	58.14	58.38
8	---	58.66	58.57	58.49	57.96	57.99	57.77	57.53	57.61	57.86	58.14	58.24
9	---	58.74	58.48	58.46	57.89	58.06	57.84	57.49	57.70	57.98	58.13	58.23
10	---	58.54	58.01	58.27	58.02	57.90	57.80	57.35	57.69	58.08	58.10	58.40
11	---	58.39	58.19	58.24	58.01	57.61	57.84	57.60	57.68	57.99	58.04	58.43
12	---	58.50	58.20	57.96	57.97	57.87	57.71	57.79	57.73	57.89	57.98	58.36
13	---	58.73	58.59	58.00	58.18	58.21	57.75	57.63	57.51	57.83	58.04	58.23
14	57.86	58.82	58.89	58.69	57.94	58.24	57.84	57.23	57.45	57.84	58.14	58.18
15	57.84	58.62	58.90	58.78	58.09	58.30	57.98	57.39	57.38	57.90	58.25	58.36
16	58.13	58.35	58.62	58.57	58.06	58.15	58.04	57.54	57.52	57.92	58.17	58.27
17	58.49	58.27	58.59	58.42	58.08	57.91	57.79	57.61	57.64	57.86	58.24	58.25
18	58.53	58.20	58.34	58.53	58.27	57.97	57.64	57.60	57.77	57.87	58.10	58.40
19	58.33	58.21	58.46	58.02	58.31	57.89	57.56	57.46	57.89	57.89	58.07	58.46
20	58.41	58.24	58.44	57.96	58.27	57.96	57.50	57.36	57.91	57.96	58.25	58.39
21	58.49	58.45	58.31	58.16	57.98	58.06	57.62	57.44	57.76	57.84	58.18	58.43
22	58.49	58.37	58.47	57.95	58.11	58.07	57.49	57.31	57.74	57.89	58.15	58.25
23	58.34	58.16	58.52	58.36	58.23	57.77	57.18	57.22	57.77	58.02	58.28	58.43
24	58.26	58.09	58.59	58.30	58.12	57.87	57.18	57.45	57.75	57.93	58.37	58.42
25	58.40	58.38	58.52	57.95	58.04	57.87	57.51	57.54	57.79	57.80	58.35	58.28
26	58.47	58.47	58.60	58.33	58.20	57.89	57.50	57.45	57.85	57.75	58.16	58.20
27	58.41	58.39	58.83	58.71	58.18	57.80	57.73	57.43	57.90	57.90	57.98	58.44
28	58.43	58.65	58.69	58.70	57.62	57.44	57.78	57.42	57.76	57.98	58.20	58.32
29	58.20	58.72	58.39	58.31	---	57.76	57.70	57.50	57.69	58.03	58.19	58.36
30	57.95	58.49	58.43	58.13	---	57.76	57.57	57.55	57.64	58.14	58.07	58.49
31	58.42	---	58.28	58.24	---	57.80	---	57.63	---	58.07	58.12	---
MAX	58.53	58.82	58.90	58.78	58.33	58.30	58.04	57.92	57.91	58.14	58.37	58.52
MIN	57.84	58.09	58.01	57.95	57.62	57.44	57.18	57.22	57.38	57.56	57.98	58.18



412611081210600. Local Number, GE-364

LOCATION.—Latitude 41°26'11", longitude 81°21'06", Geauga County, cul-de-sac at the end of Fawn Court, South Russell Village. Owner: South Russell Village.

AQUIFER.—Berea Formation (sandstone).

WELL CHARACTERISTICS.—Monitoring well; diameter 5.63 in.; depth 241.2 ft.

INSTRUMENTATION.—Pressure transducer data logger (records hourly).

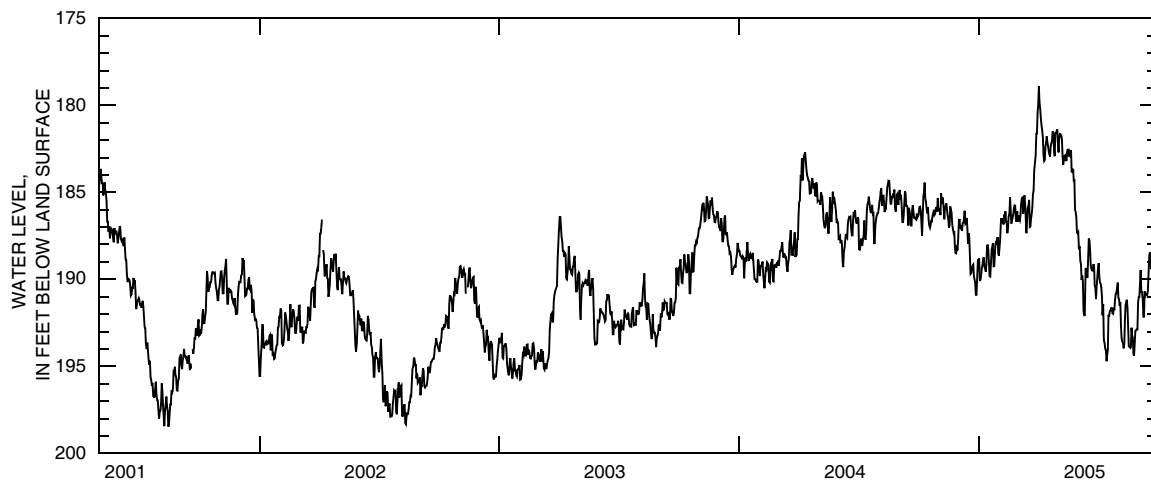
DATUM.—Elevation of land-surface datum is 1,130 ft above sea level. Measuring point: top of casing, 1.27 ft above land-surface datum.

PERIOD OF RECORD.—Continuous water-level data from May 2, 2001 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 198.46 ft below land-surface datum, Aug. 15, 2001; minimum daily low, 178.91 ft below land-surface datum, Apr. 2, 2005.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	186.27	186.06	186.71	188.80	188.16	186.68	179.92	182.16	187.30	189.32	191.08	191.02
2	185.85	185.98	186.52	190.04	187.70	186.34	178.91	182.70	188.19	189.06	191.13	191.01
3	185.83	186.30	187.06	190.02	186.81	186.54	179.83	181.93	188.15	189.86	191.52	190.15
4	186.08	185.04	186.91	189.78	186.48	186.63	180.17	181.65	188.93	190.18	191.32	189.46
5	186.82	185.65	187.14	189.38	186.74	186.31	180.81	181.68	189.14	190.25	192.64	190.72
6	187.48	185.28	187.16	189.20	186.49	185.65	181.19	181.75	190.04	190.46	193.38	190.72
7	186.27	185.46	186.76	188.89	186.84	185.34	181.45	181.94	189.79	190.96	193.58	191.11
8	185.26	185.91	186.76	188.72	186.28	185.30	181.86	182.90	190.13	192.06	193.62	192.14
9	184.97	186.54	186.46	189.30	186.55	186.22	182.84	183.41	191.80	191.42	193.96	192.14
10	184.44	185.89	186.06	189.34	186.08	185.53	183.20	183.16	192.06	193.47	193.71	190.69
11	185.36	185.76	186.77	189.56	186.71	185.17	183.13	182.91	192.05	193.68	192.26	190.96
12	185.54	185.63	186.70	189.13	186.73	185.66	182.35	182.87	189.39	194.00	191.43	190.91
13	185.91	186.03	186.47	188.05	187.34	186.60	182.14	183.16	189.39	194.08	191.31	190.85
14	186.20	186.32	187.06	188.03	187.03	187.34	181.78	183.15	189.87	194.70	191.17	190.88
15	185.86	186.52	187.95	188.29	186.40	186.54	182.17	182.70	189.87	194.31	191.68	190.68
16	186.58	187.02	187.35	189.12	186.18	185.88	182.38	182.77	188.74	194.06	192.51	189.71
17	186.92	186.87	187.63	189.82	185.28	185.75	182.67	182.50	187.66	192.04	193.84	188.64
18	187.04	185.81	188.86	189.84	186.02	185.43	182.85	182.90	187.77	192.13	193.88	188.45
19	186.88	186.00	189.68	188.94	186.80	186.98	182.94	182.92	188.32	191.84	193.94	189.12
20	186.64	186.15	189.61	188.27	186.62	186.96	182.32	182.66	189.19	191.80	193.86	189.41
21	186.66	186.89	189.31	188.13	186.44	186.51	182.17	182.59	189.40	191.65	192.78	189.21
22	186.36	187.12	189.22	187.91	186.27	186.25	182.04	183.85	189.49	191.65	193.25	188.61
23	186.18	187.31	189.15	189.24	185.89	185.85	181.49	183.77	189.49	191.96	193.36	188.61
24	186.00	187.22	189.82	189.22	185.75	185.10	181.59	183.65	189.12	191.99	194.30	188.87
25	186.28	188.12	190.00	188.57	185.77	184.91	182.59	184.33	189.25	191.70	194.38	189.68
26	186.20	188.48	190.19	187.90	186.67	183.72	182.92	184.31	190.37	191.71	193.61	189.68
27	186.01	188.50	190.88	187.82	186.41	183.27	181.60	186.03	190.44	191.17	192.96	188.74
28	185.84	188.02	190.88	188.02	186.08	182.87	181.60	186.14	191.13	190.84	192.91	189.14
29	186.12	188.33	189.80	187.56	---	181.62	181.46	186.42	190.42	190.79	192.88	188.38
30	185.32	187.77	188.90	188.49	---	181.61	181.38	187.31	189.95	190.49	192.88	187.78
31	186.03	---	188.87	188.64	---	180.40	---	187.36	---	190.18	191.32	---
MAX	187.48	188.50	190.88	190.04	188.16	187.34	183.20	187.36	192.06	194.70	194.38	192.14
MIN	184.44	185.04	186.06	187.56	185.28	180.40	178.91	181.65	187.30	189.06	191.08	187.78



Project Data—Water-Quality Data for the Elk Creek Watershed, Southwestern Ohio

The following tables contain ground-water-quality data and stream-quality and discharge data from the Elk Creek watershed in southwestern Ohio. The data were collected in cooperation with the Miami Conservancy District to assess the water chemistry and identify possible sources of elevated nitrate in ground water. Ground-water samples were collected from domestic wells. Stream-water samples were collected and measurements were made at intervals from the source to the mouth of Elk Creek.



GROUND-WATER-QUALITY DATA, SEPTEMBER–OCTOBER 2004

[(72008), USGS National Water Information System parameter code; LSD, land-surface datum; NTU, Nephelometric Turbidity Units; mm, millimeter; mg/L, milligrams per liter; $\mu\text{S}/\text{cm}$, microsiemens per centimeter; E, estimated --, no data]

Local number	Well identifier	Date	Depth of well, feet below LSD (72008)	Depth to water level, feet below LSD (72019)	Altitude of land surface feet (72000)	Turbidity, water, unfltrd, field, NTU (61028)	Barometric pressure, mm Hg (00025)
BU-1187	393402084282000	09/17/2004	34.64	24.97	830	.6	733
BU-1188	393406084270600	09/17/2004	42	12	925	3	731
BU-1189	393321084270200	09/20/2004	90	62.02	890	.8	738
BU-1190	393347084281000	09/22/2004	28.58	18.42	812	.7	741
BU-1191	393346084281600	09/23/2004	84	1.22	805	7.7	743
BU-1192	393354084275500	09/27/2004	57.3	27.14	870	3.1	737
BU-1193	393412084271300	09/27/2004	53	23.7	910	4.7	733
BU-1194	393405084271300	09/28/2004	42	12	875	24	734
BU-1195	393357084281000	09/28/2004	60	15	825	4.0	732
BU-1196	393216084265100	10/19/2004	50	22	780	2.0	737
BU-1197	393226084264600	10/19/2004	50.96	28.33	815	4.8	736
BU-1198	393315084270900	10/22/2004	63.27	44.99	880	23	742
PR-230	393604084334000	09/20/2004	105	50	1095	1.1	737
PR-231	393545084342000	09/21/2004	43.55	27.98	1075	4.9	734
PR-232	393424084295900	10/07/2004	55	35.38	840	1.7	745
PR-233	393550084305500	10/08/2004	59.54	32.73	985	2.1	739
PR-234	393418084344600	10/12/2004	10.33	7.57	973	.2	730
PR-235	393422084294900	10/12/2004	73	34.59	830	.2	730
PR-236	393510084325700	10/21/2004	56.59	26.88	1020	.8	736
PR-237	393418084344200	10/21/2004	42.49	2.76	973	2	736

Local number	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd, field, std units (00400)	pH, water, unfltrd, lab, std units (00403)	Specif. conductance, water, unfltrd, lab, $\mu\text{S}/\text{cm}$ 25 deg C (90095)	Specif. conductance, water, unfltrd, lab, $\mu\text{S}/\text{cm}$ 25 deg C (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Calcium water, ffltrd, mg/L (00915)
BU-1187	5.1	7.2	--	--	747	19.5	13.1	--
BU-1188	.1	7.4	--	--	812	19.5	15.2	--
BU-1189	.2	6.9	--	--	788	26.0	17.6	--
BU-1190	.1	7.0	--	--	674	28.5	14.7	--
BU-1191	.2	7.5	--	--	703	29.5	21.0	--
BU-1192	.1	7.1	--	--	809	23.5	14.7	--
BU-1193	.2	7.5	7.4	723	749	25.5	14.4	59.1
BU-1194	3.7	7.5	--	--	780	26.5	15.2	--
BU-1195	.2	7.2	E7.0	810	851	27.0	18.3	83.0
BU-1196	.1	7.2	--	--	789	11.0	14.1	--
BU-1197	.2	7.1	--	--	784	13.0	13.7	--
BU-1198	.2	7.0	--	--	766	13.0	14.5	--
PR-230	.2	7.3	--	--	697	25.0	15.5	--
PR-231	.6	7.3	--	--	729	27.5	16.0	--
PR-232	.1	7.1	--	--	831	22.5	17.3	--
PR-233	.1	7.1	--	--	761	22.5	15.0	--
PR-234	.4	7.1	--	--	1390	18.0	17.9	--
PR-235	.1	7.3	--	--	648	17.5	15.6	--
PR-236	.1	7.1	--	--	720	16.0	14.1	--
PR-237	.1	7.3	--	--	671	16.0	13.3	--

GROUND-WATER-QUALITY DATA, SEPTEMBER–OCTOBER 2004—Continued

[(00925), USGS National Water Information System parameter code; mg/L, milligrams per liter; E, estimated; --, no data]

Local number	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Alkalinity, water, flt, inc titr., field, mg/L as CaCO ₃ (39086)	Bicarbonate, water, flt, incrm. titr., field, mg/L (00453)	Carbonate, water, flt, incrm. titr., field, mg/L (00452)	Bromide, water, fltrd, mg/L (71870)	Chloride, water, fltrd, mg/L (00940)
BU-1187	--	--	--	338	410	.0	--	--
BU-1188	--	--	--	449	546	1	--	--
BU-1189	--	--	--	366	446	.0	--	--
BU-1190	--	--	--	305	372	.0	--	--
BU-1191	--	--	--	388	471	1	--	--
BU-1192	--	--	--	363	442	.0	--	--
BU-1193	40.7	1.93	25.9	385	468	1	.03	2.77
BU-1194	--	--	--	395	479	1	--	--
BU-1195	41.3	4.78	33.3	413	502	.0	.29	34.7
BU-1196	--	--	--	413	502	.0	--	--
BU-1197	--	--	--	398	485	.0	--	--
BU-1198	--	--	--	370	450	.0	--	--
PR-230	--	--	--	370	450	.0	--	--
PR-231	--	--	--	392	477	.0	--	--
PR-232	--	--	--	310	378	.0	--	--
PR-233	--	--	--	368	448	.0	--	--
PR-234	--	--	--	281	342	.0	--	--
PR-235	--	--	--	267	324	.0	--	--
PR-236	--	--	--	348	423	.0	--	--
PR-237	--	--	--	328	398	.0	--	--

Local number	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 + org-N, water, fltrd, mg/L as N (00623)	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)
BU-1187	--	--	--	--	<.10	<.04	2.33	<.008
BU-1188	--	--	--	--	.76	.71	<.06	<.008
BU-1189	--	--	--	--	<.10	<.04	.21	<.008
BU-1190	--	--	--	--	E.06	E.03	<.06	<.008
BU-1191	--	--	--	--	1.8	1.67	<.06	<.008
BU-1192	--	--	--	--	E.06	.05	<.06	<.008
BU-1193	2.4	17.4	40.5	481	1.1	1.03	<.06	<.008
BU-1194	--	--	--	--	1.1	1.09	<.06	E.007
BU-1195	1.1	16.8	10.4	455	.94	.92	<.06	<.008
BU-1196	--	--	--	--	1.2	1.00	<.06	<.008
BU-1197	--	--	--	--	.56	.46	<.06	<.008
BU-1198	--	--	--	--	.19	.13	<.06	<.008
PR-230	--	--	--	--	.66	.62	.19	E.005
PR-231	--	--	--	--	.61	.56	<.06	<.008
PR-232	--	--	--	--	E.06	.05	<.06	E.007
PR-233	--	--	--	--	.30	.27	<.06	<.008
PR-234	--	--	--	--	<.10	<.04	1.14	E.007
PR-235	--	--	--	--	.21	.22	<.06	<.008
PR-236	--	--	--	--	.15	.09	<.06	<.008
PR-237	--	--	--	--	.87	.73	<.06	<.008

GROUND-WATER-QUALITY DATA, SEPTEMBER–OCTOBER 2004—Continued

[(00671), USGS National Water Information System parameter code; milligrams per liter; col/100 mL, colonies per 100 milliliters; µg/L, micrograms per liter; --, no data; E, estimated]

Local number	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Organic carbon, water, fltrd, mg/L (00681)	E coli, MI MF, water, col/100 mL (90901)	Total coli-form, MI MF, water, col/100 mL (90900)	Iron, water, fltrd, µg/L (01046)	Manganese, water, fltrd, µg/L (01056)	N-15 / N-14 in nitrate water, fltrd, per mil (82690)	O-18/ O-16 ratio in nitrate water, fltrd, per mil (63041)
BU-1187	<.02	<.04	.9	<1	E2	--	--	8.85	6.92
BU-1188	<.02	<.04	1.1	<1	E2	--	--	--	--
BU-1189	<.02	<.04	.9	<1	<1	--	--	9.62	8.46
BU-1190	<.02	<.04	.5	<1	<1	--	--	--	--
BU-1191	.02	E.03	1.2	<1	<1	--	--	--	--
BU-1192	<.02	<.04	.6	<1	79	--	--	--	--
BU-1193	<.02	<.04	1.0	<1	<1	1610	8.5	--	--
BU-1194	<.02	<.04	.9	<1	<1	--	--	--	--
BU-1195	E.02	E.03	.8	<1	<1	1970	17.3	--	--
BU-1196	E.01	<.04	1.4	<1	<1	--	--	--	--
BU-1197	<.02	<.04	.8	E2	>80	--	--	--	--
BU-1198	E.01	<.04	.7	<1	<1	--	--	--	--
PR-230	<.02	<.04	.9	<1	<1	--	--	-22.36	-2.50
PR-231	<.02	<.04	1.2	<1	<1	--	--	--	--
PR-232	<.02	<.04	.9	<1	40	--	--	--	--
PR-233	<.02	<.04	.7	<1	E15	--	--	--	--
PR-234	<.02	<.04	.6	<1	E4	--	--	32.29	17.72
PR-235	<.02	<.04	.7	<1	E4	--	--	--	--
PR-236	<.02	<.04	.8	<1	<1	--	--	--	--
PR-237	E.01	<.04	1.0	<1	<1	--	--	--	--

STREAM-WATER-QUALITY AND DISCHARGE DATA, AUGUST 2004

[(72000), USGS National Water Information System parameter code; cfs, cubic feet per second; mm, millimeter; mg/L, milligrams per liter]

Elk Creek measurement and sampling site	Site identifier	Date	Altitude of land surface, feet (72000)	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd, field, std units (00400)
Above Mouth	392921084262600	8/16/2004	618	0.72	748	7.7	8.2
Below Dry Run	393137084280400	8/16/2004	705	1.74	748	11.4	8.1
At Middletown-Eaton Rd.	393215084274400	8/16/2004	729	1.51	748	11.6	8.4
At Mill Rd.	393341084315200	8/16/2004	892	0.34	748	7.8	8.6
At Upper Middletown-Eaton Rd.	393414084293900	8/16/2004	790	0.72	748	9.3	8.3
At Wellfield	392926084264200	8/16/2004	625	1.95	748	10.9	8.5

STREAM-WATER-QUALITY AND DISCHARGE DATA, AUGUST 2004—Continued

[(72008), USGS National Water Information System parameter code; LSD, land surface datum; mm, millimeter; mg/L, milligrams per liter; --, no data; E, estimated]

Elk Creek measurement and sampling site	Specif. conduc- tance, water, unf, µS/cm 25 degC (00095)	Temper- ature, air, deg C (00020)	Temper- ature, water, deg C (00010)	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)	Ammonia + org-N, water, fltrd, mg/L as N (00623)
Above Mouth	582	26	17.5	230	277	1	0.14
Below Dry Run	642	23.8	19.1	258	312	1	0.16
At Middletown-Eaton Rd.	610	27	22.7	246	295	2	0.15
At Mill Rd.	581	26	24.3	195	233	2	0.35
At Upper Middletown-Eaton Rd.	623	27	19.6	247	297	2	0.19
At Wellfield	568	24	21.6	227	274	2	0.15

Elk Creek measurement and sampling site	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)	Phos- phorus, water, fltrd, mg/L (00666)	Organic carbon, water, fltrd, mg/L (00681)	N-15 / N-14 in nitrate water, fltrd, per mil (82690)	O-18 / O-16 in nitrate water, fltrd, per mil (63041)
Above Mouth	<.04	0.35	<.008	<.02	<.04	1.7	12.77	12.77
Below Dry Run	<.04	0.74	E.004	<.02	<.04	1.7	12.11	12.11
At Middletown-Eaton Rd.	<.04	0.79	<.008	<.02	<.04	1.8	11.98	11.98
At Mill Rd.	E.02	2.45	E.005	0.02	E.04	3.1	11.08	11.08
At Upper Middletown-Eaton Rd.	<.04	0.44	<.008	<.02	<.04	2	13.78	13.78
At Wellfield	<.04	0.34	<.008	<.02	<.04	1.6	13.23	13.23

Project Data—Low-Flow Magnitude and Frequency of Ohio Streams

The low-flow network is part of a cooperative study with the Ohio Department of Natural Resources to define the low-flow characteristics of 180 sites that have essentially unregulated streamflow and drainage areas less than 150 square miles. The following table lists the sites of the low-flow partial record network including discharge measurements made in the 2005 water year. The second table lists the discontinued streamflow-gaging stations for which a discharge measurement was performed in 2005 that were used for index stations for this project. The discontinued stations are not shown.



Low-Flow Partial-Record Stations

[mi², square miles; wy, water year; ft³/s, cubic foot per second]

Location	Drainage Area (mi ²)	Period of record (wy)	Measurements	
			Date	Discharge (ft ³ /s)
Beaver River Basin				
03092754 EAGLE CREEK AT MAHONING, OHIO				
Latitude 41°16'19", longitude 81°03'00", Portage County, Hydrologic Unit 05030103, at Silica Sand Road bridge, just east of Parkman Road, 1.1 mi upstream from Mahoning Creek, 0.7 mi north of Mahoning, 2.7 mi east, southeast of Garrettsville, Ohio. (Garrettsville 1:24000 quad)	38.4	2002-03 2005	06/21/05	11.6
03098390 MILL CREEK NEAR YOUNGSTOWN, OHIO				
Latitude 41°02'00", longitude 80°41'37", Mahoning County, Hydrologic Unit 05030103, at pedestrian bridge over Mill Creek at end of extra parking lot next to Mill Creek Park Golf Course, 0.8 mi northeast of park entrance at State Route 224, 0.8 mi downstream of Indian Run, 3.1 mi upstream of Newport Lake Dam, 3 mi southwest of South Side Youngstown, Ohio. (Youngstown 1:24000 quad)	51.5	1995-99 2001-03 2005	06/21/05	12.2
Cross Creek Basin				
03110950 CROSS CREEK AT BROADACRE, OHIO				
Latitude 40°21'56", longitude 80°47'05", Jefferson County, Hydrologic Unit 05030101, at State Route 152 bridge, 0.3 mi upstream of Clay Lick Creek, 1.4 mi downstream of Salem Creek, at Broadacre, Ohio. (Smithfield 1:24000 quad)	53.5	1981-82 1986 2002 2005	06/23/05	10.4
Sunfish Creek Basin				
03114241 SUNFISH CREEK AT COATS, OHIO				
Latitude 39°46'14", longitude 81°02'34", Monroe County, Hydrologic Unit 05030201, at riffle beside Sunfish Creek Road, 800 ft downstream from confluence of unnamed tributary, 0.7 mi downstream from confluence of Standingstone Run, 1.0 mi southeast of Coats, 4.0 mi east of Woodsfield, Ohio. (Woodsfield 1:24000 quad)	51.3	1995 1997-99 2001-02 2005	07/05/05	0.44
Little Muskingum River Basin				
03115385 CLEAR FORK NEAR RINARD MILLS, OHIO				
Latitude 39°36'08", longitude 81°09'17", Monroe County, Hydrologic Unit 05030201, at State Route 26 bridge over Clear Fork, 0.3 mi above confluence with Little Muskingum River, 1.2 mi north of Rinard Mills, Ohio. (Rinard Mills 1:24000 quad)	48.8	1997-99 2001-02 2005	07/05/05	2.27
Muskingum River Basin				
03123166 SOUTH FORK SUGAR CREEK NEAR SUGARCREEK, OHIO				
Latitude 40°31'25", longitude 81°36'52", Tuscarawas County, Hydrologic Unit 05040001, at Tuscarawas County Road 75, 0.2 mi downstream from confluence with East Branch, 0.2 mi northeast of Sugarcreek, Ohio. (Strasburg 1:24000 quad)	63.3	1997-00 2002-05	06/13/05	18.1

[mi², square miles; wy, water year; ft³/s, cubic foot per second]

Location	Drainage Area (mi ²)	Period of record (wy)	Measurements	
			Date	Discharge (ft ³ /s)
Muskingum River Basin—Continued				
03123299 WALNUT CREEK AT DUNDEE, OHIO				
Latitude 40°35'12", longitude 81°37'16", Tuscarawas County, Hydrologic Unit 05040001, at private road bridge, 0.5 mi upstream from mouth, 0.7 mi west of Dundee, Ohio. (Strasburg 1:24000 quad)	48.0	1997-00 2002-05	06/13/05	11.4
03122980 MIDDLE FORK SUGAR CREEK NEAR BREWSTER, OHIO				
Latitude 40°35'10", longitude 81°36'40", Stark County, Hydrologic Unit 05040001, at bridge on Welmont Street (Wely Road), 1.5 mi upstream from mouth, 1.5 mi southwest of Brewster, Ohio. (Strasburg 1:24000 quad)	45.5	2005	09/14/05	8.05
03129205 BLACK FORK MOHICAN RIVER NEAR SHELBY, OHIO				
Latitude 40°54'57", longitude 82°38'02", Richland County, Hydrologic Unit 05040002, at bridge on Plymouth-Spring Road, 0.3 mi downstream from Bear Run, 2.8 mi northeast of Shelby, 2000 ft north of London, Ohio. (Shelby 1:24000 quad)	60.4	2000-05	08/24/05 09/22/05	2.94 3.71
03133950 JEROME FORK NEAR ASHLAND, OHIO				
Latitude 40°53'02", longitude 82°17'03", Ashland County, Hydrologic Unit 05040002, at bridge on U.S. Highway 42, 0.7 mi upstream from Lang Creek, 2.0 mi northeast of Ashland, 1000 ft north of Cleveland Ave., concrete block building on downstream, left of bridge (gray-no paint), at entrance to well-field. (Ashland North 1:24000 quad)	38.6	2000-02 2005	09/22/05	0.58
03136142 KOKOSING RIVER AT CHESTERVILLE, OHIO				
Latitude 40°28'28", longitude 82°41'02", Morrow County, Hydrologic Unit 05040003, at State Route 314 bridge, 0.5 mi downstream from confluence with South Branch, 0.4 mi south of Chesterville, Ohio. (Chesterville 1:24000 quad)	38.7	1996 1998-00 2002-05	08/02/05	3.18
03142185 SALT FORK CREEK NEAR OLD WASHINGTON, OHIO				
Latitude 40°03'27", longitude 81°24'53", Guernsey County, Hydrologic Unit 05040005, just upstream from outlet of wetland, 2.8 mi upstream of Coon Run, 4.3 mi upstream from Salt Fork Reservoir, 2.1 mi northeast of Old Washington, Ohio. (Old Washington 1:24000 quad)	44.6	2002 2005	06/21/05	3.45
03144471 LITTLE WAKATOMIKA CREEK NEAR TRINWAY, OHIO				
Latitude 40°09'18", longitude 82°01'55", Muskingum County, Hydrologic Unit 05040004, at new road bridge just upstream of new State Route 16 bridge, 0.8 mi upstream from mouth, 1.4 mi northwest of Trinway, 2.3 mi northwest of Dresden, Ohio. (Trinway 1:24000 quad)	40.6	2002-05	08/02/05	4.16
03145329 RACCOON CREEK AT ALEXANDRIA, OHIO				
Latitude 40°05'05", longitude 82°36'18", Licking County, Hydrologic Unit 05040006, at State Route 37 bridge over Raccoon Creek, 0.8 mi above confluence with Lobdell Creek, 0.9 mi below confluence with Simpson Run, 0.7 mi north of intersection of State Route 37 and 161, 0.2 mi southeast of Alexandria, Ohio. (Granville 1:24000 quad)	40.6	1997-99 2002-05	10/07/04 08/03/05	3.78 2.07

[mi², square miles; wy, water year; ft³/s, cubic foot per second]

Location	Drainage Area (mi ²)	Period of record (wy)	Measurements	
			Date	Discharge (ft ³ /s)
Muskingum River Basin—Continued				
03145533 RACCOON CREEK AT NEWARK, OHIO				
Latitude 40°02'34", longitude 82°24'44", Licking County, Hydrologic Unit 05040006, at West Main Street bridge over Raccoon Creek, 0.7 mi above confluence with South Fork Licking River, in Newark, Ohio. (Newark 1:24000 quad)	101	1997-99	10/07/04	24.0
		2002-05	08/03/05	18.3
03150200 MEIGS CREEK NEAR REINERSVILLE, OHIO				
Latitude 39°37'43", longitude 81°43'12", Morgan County, Hydrologic Unit 05040004, at county road bridge at Unionville, 0.1 mi upstream from Dyes Fork, 5.1 mi southwest of Reinersville, Ohio. (Reinersville 1:24000 quad)	73.0	1981-82	08/01/05	2.32
		1996		
		1998-99		
		2002-03 2005		
Hocking River Basin				
03158165 MONDAY CREEK NEAR GREENDALE, OHIO				
Latitude 39°31'24", longitude 82°16'17", Hocking County, Hydrologic Unit 05030204, at Dawley Road over Monday Creek, 0.7 mi above confluence with Sand Run, 0.9 mi above proposed reservoir site, 1.3 mi southeast of Greendale, 4 mi northeast of Haydenville, Ohio. (Gore 1:24000 quad)	67.2	1995-96	06/28/05	5.17
		1998-99	09/07/05	4.69
		2001-03		
		2005		
Symmes Creek Basin				
03205260 SYMMES CREEK NEAR CENTERPOINT, OHIO				
Latitude 38°52'12", longitude 82°28'44", Jackson County, Hydrologic Unit 05090101, at Jenkins Alban Road bridge over Symmes Creek, 2.5 mi above confluence with Black Fork, 1.9 mi northwest of Centerpoint, Ohio. (Patriot 1:24000 quad)	45.9	1997-99	06/30/05	0.85
		2001-05	09/08/05	0.29
Pine Creek Basin				
03216620 PINE CREEK NEAR SOUTH WEBSTER, OHIO				
Latitude 38°46'12", longitude 82°42'25", Scioto County, Hydrologic Unit 05090103, at Lick Run Lyra Road bridge over Pine Creek, 3.0 mi southeast of South Webster, Ohio. (South Webster 1:24000 quad)	33.2	1998-99	06/29/05	0.21
		2001-05	09/08/05	0.15
Little Scioto River Basin				
03216662 LITTLE SCIOTO RIVER NEAR MABEE CORNER, OHIO				
Latitude 38°54'18", longitude 82°46'46", Scioto County, Hydrologic Unit 05090103, at Sulphur Spring Road bridge, just west of White Gravel Road, 0.6 mi downstream from Buckhorn Creek, 0.9 mi from intersection of State Route 139 and White Gravel Road, 3.1 mi west of Mabee Corner, Ohio. (Stockdale 1:24000 quad)	60.5	2000-05	06/29/05	0.46
			09/08/05	0.31

[mi², square miles; wy, water year; ft³/s, cubic foot per second]

Location	Drainage Area (mi ²)	Period of record (wy)	Measurements	
			Date	Discharge (ft ³ /s)
Little Scioto River Basin—Continued				
03216673 LITTLE SCIOTO RIVER AT WALLACE MILLS, OHIO				
Latitude 38°51'06", longitude 82°47'36", Scioto County, Hydrologic Unit 05090103, 1000 ft upstream of the confluence with Rocky Fork, near Kentucky Trail Road, 0.5 mi north of Wallace Mills, Ohio. Site can be reached 2.1 mi from State Route 139 on Stockham Road and right 0.3 mi on Kentucky Trail Road. (Minford 1:24000 quad)	108	2000-05	06/29/05	1.41
			09/08/05	0.51
03216689 ROCKY FORK AT WALLACE MILLS, OHIO				
Latitude 38°51'27", longitude 82°47'47", Scioto County, Hydrologic Unit 05090103, from State Route 139, heading southeast on Stockham Road about 0.4 mi to Glades Road, head south on Glades Road about 1.3 mi to bridge, at Glades Road bridge, 0.6 mi above mouth in Wallace Mills, Ohio. (Minford 1:24000 quad)	68.8	2000-05	06/29/05	8.39
			09/08/05	1.00
Scioto River Basin				
03219838 MILL CREEK NEAR NEW DOVER, OHIO				
Latitude 40°13'39", longitude 83°17'52", Union County, Hydrologic Unit 05060001, at Hinton Mill Road bridge, 0.4 mi upstream from Tombstone Creek, 1.4 mi south of New Dover, 3.5 mi east of Marysville, Ohio. (Marysville 1:24000 quad)	102	2002-05	10/08/04	4.56
			07/08/05	5.61
			09/06/05	9.58
03230088 BIG DARBY CREEK NEAR MILFORD CENTER, OHIO				
Latitude 40°11'42", longitude 83°28'27", Union County, Hydrologic Unit 05060001, just upstream of unnamed tributary, near intersection of Middleburg Road and Collins Road, 2.3 mi northwest of Milford Center, Ohio. (Milford Center 1:24000 quad)	66.0	2002-05	10/05/04	4.53
			07/05/05	8.82
03232170 WEST BRANCH RATTLESNAKE CREEK AT GLENDON, OHIO				
Latitude 39°30'40", longitude 83°33'54", Fayette County, Hydrologic Unit 05060003, at West Fork Road bridge, 0.2 mi upstream from mouth, 0.8 mi west of Glendon, 4.0 mi east of Sabina, 6.6 mi west of Washington Court House, Ohio. (Milledgeville 1:24000 quad)	59.8	2000	08/16/05	0.70
		2002-05		
03232171 RATTLESNAKE CREEK AT GLENDON, OHIO				
Latitude 39°30'20", longitude 83°33'18", Fayette County, Hydrologic Unit 05060003, at State Route 3 bridge in Glendon, 4.4 mi east of Sabina, 6.2 mi west of Washington Court House, Ohio. (Milledgeville 1:24000 quad)	106	2000	08/16/05	0.52
		2002-05		
03232295 LEES CREEK NEAR LEESBURG, OHIO				
Latitude 39°20'39", longitude 83°30'33", Highland County, Hydrologic Unit 05060003, at bridge on Monroe Road, 1.2 mi upstream from mouth, 2.4 mi east of Leesburg, Ohio. (Leesburg 1:24000 quad)	74.3	1981-82	08/16/05	0.73
		2000		
		2002-05		
03234050 NORTH FORK PAINT CREEK NEAR PLANO, OHIO				
Latitude 39°30'19", longitude 83°16'22", Ross County, Hydrologic Unit 05060003, at Dogtown Road bridge, 0.6 mi above confluence with Compton Creek, 1.2 mi northeast of Plano, Ohio. (New Holland 1:24000 quad)	60.4	2000	08/16/05	0.47
		2002-05		

[mi², square miles; wy, water year; ft³/s, cubic foot per second]

Location	Drainage Area (mi ²)	Period of record (wy)	Measurements	
			Date	Discharge (ft ³ /s)
Scioto River Basin—Continued				
03234066 COMPTON CREEK NEAR PLANO, OHIO				
Latitude 39°30'54", longitude 83°17'47", Fayette County, Hydrologic Unit 05060003, at Good Hope-New Holland Road bridge, 3.4 mi above mouth, 1.7 mi north of Plano, Ohio. (New Holland 1:24000 quad)	49.8	2000-05	08/16/05	0.44
Ohio Brush Creek Basin				
03237288 OHIO BRUSH CREEK AT LOUDEN, OHIO				
Latitude 39°01'48", longitude 83°27'19", Adams County, Hydrologic Unit 05090201, at Ford on Heron Road, 0.3 mi north-northwest of Louden, 4.8 mi southwest of Sinking Springs, Ohio. (Sinking Spring 1:24000 quad)	64.9	2000 2002 2004-05	08/25/05	0.09
03237289 BAKER FORK NEAR LOUDEN, OHIO				
Latitude 39°02'29", longitude 83°25'21", Adams County, Hydrologic Unit 05090201, at Horner Chapel Road bridge, 1.3 mi north of Serpent Mound State Memorial, 2.0 mi northeast of Louden, 3.0 mi southwest of Sinking Springs, Ohio. (Sinking Spring 1:24000 quad)	43.1	2000 2002 2004-05	08/25/05	0.94
03237400 WEST FORK OHIO BRUSH CREEK AT LAWSHE, OHIO				
Latitude 38°56'22", longitude 83°28'28", Adams County, Hydrologic Unit 05090201, at Township Road C-13 bridge in Lawshe, 0.4 mi upstream from mouth, 1.1 mi southwest from Peebles on State Highway 41 to Township Road C-13, turn right, 3.6 mi to bridge and station. (Peebles 1:24000 quad)	134	1959-60 1972-77 2000-02 2004-05	08/25/05	0.01
Little Miami River Basin				
03243150 TODD FORK NEAR CLARKSVILLE, OHIO				
Latitude 39°26'10", longitude 83°56'41", Clinton County, Hydrologic Unit 05090202, at U.S. Highway 22 bridge, 1.0 mi upstream from Lytle Creek, 2.7 mi northeast of Clarksville, Ohio. (Clarksville 1:24000 quad)	56.6	1981-82 1995-96 1998-00 2002 2004-05	08/05/05	0.56
03244950 O'BANNON CREEK AT LOVELAND, OHIO				
Latitude 39°16'08", longitude 84°15'21", Clermont County, Hydrologic Unit 05090202, at State Route 48 bridge in Loveland, Ohio. (Mason 1:24000 quad)	59.0	1956 1980-83 1996 1998-00 2002 2004-05	08/05/05	1.94
03247300 STONELICK CREEK NEAR PERINTOWN, OHIO				
Latitude 39°07'20", longitude 84°11'56", Clermont County, Hydrologic Unit 05090202, at U.S. Highway 50 bridge, 1.9 mi east of Perintown, Ohio. (Batavia 1:24000 quad)	76.0	1981-82 1996 1998-00 2002 2004-05	08/05/05	0.44

[mi², square miles; wy, water year; ft³/s, cubic foot per second]

Location	Drainage Area (mi ²)	Period of record (wy)	Measurements	
			Date	Discharge (ft ³ /s)
Great Miami River Basin				
03263168 STILLWATER RIVER NEAR ANSONIA, OHIO				
Latitude 40°13'01", longitude 84°36'44", Darke County, Hydrologic Unit 05080001, at Beisner Road over Stillwater River, 0.1 mi north of State Route 47, 1.2 mi east of Ansonia, 1.8 mi west of Dawn, Ohio. (Dawn 1:24000 quad)	74.3	1995-99	08/04/05	2.60
		2002-05	09/14/05	2.25
03272429 FOUR MILE CREEK NEAR COLLEGE CORNER, OHIO				
Latitude 39°35'31", longitude 84°46'14", Preble County, Hydrologic Unit 05080002, at bridge over Four Mile Creek, 0.1 mi below confluence with East Fork Four Mile Creek, 0.8 mi above confluence with Little Four Mile Creek, 0.8 mi northwest from Acton Lake, in Hueston Woods State Park, 3 mi northeast of College Corner, Ohio & Indiana. (College Corner 1:24000 quad)	50.1	1996	08/04/05	1.43
		1998-99		
		2001-02		
		2004-05		
03276588 DRY FORK WHITEWATER RIVER AT NEW HAVEN, OHIO				
Latitude 39°15'57", longitude 84°44'54", Hamilton County, Hydrologic Unit 05080003, at Mt. Hope Road bridge, 0.9 mi below confluence with Howard Creek, 1.2 mi above confluence with Lee Creek, next to Miami Whitewater Forest, 0.8 mi southwest of New Haven, Ohio. (Shandon 1:24000 quad)	59.8	1996	08/04/05	0.57
		1998-00		
		2002		
		2004-05		
Maumee River Basin				
04180911 ST. MARYS RIVER ABOVE KOPP CREEK AT ST. MARYS, OHIO				
Latitude 40°32'07", longitude 84°22'38", Auglaize County, Hydrologic Unit 04100004, at Aqueduct Road over St. Mary's River, 150 ft upstream of Miami and Erie Canal aqueduct, 0.3 mi above confluence of Kopp Creek, 2.1 mi east of Grand Lake, 0.5 mi. southeast of St.Mary's, Ohio. (St. Marys 1:24000 quad)	67.0	1994-99	08/04/05	0.80
		2002-05	09/13/05	2.64
04185299 BRUSH CREEK AT EVANSPORT, OHIO				
Latitude 41°26'00", longitude 84°23'24", Williams County, Hydrologic Unit 04100006, at county road over Brush Creek, 1.0 mi above mouth, 0.4 mi north of Williams/Defiance county line, 0.6 mi northeast of Evansport, Ohio. (Evansport 1:24000 quad)	64.8	1994-96	07/01/05	3.64
		1998-99	08/25/05	2.62
		2001-05		
04185410 LICK CREEK NEAR BRUNERSBURG, OHIO				
Latitude 41°22'08", longitude 84°26'17", Defiance County, Hydrologic Unit 04100006, at bridge on Trinity Road, 1.2 mi upstream from mouth, 5.0 mi northwest of Brunersburg, Ohio. (Defiance West 1:24000 quad)	105	1980-82	08/25/05	4.39
		2001-05		
04185498 MUD CREEK NEAR BRUNERSBURG, OHIO				
Latitude 41°20'34", longitude 84°26'51", Defiance County, Hydrologic Unit 04100006, at bridge on State Route 15, 2.4 mi upstream from mouth, 4.0 mi northwest of Brunersburg, Ohio. (Defiance West 1:24000 quad)	58.0	1980-82	08/25/05	1.92
		2001-05		
04187995 SUGAR CREEK NEAR KALIDA, OHIO				
Latitude 40°57'16", longitude 84°10'45", Putnam County, Hydrologic Unit 04100007, at bridge on Putnam County Road 16P, 0.6 mi upstream from mouth, 2.2 mi southeast from Kalida, Ohio. (Kalida 1:24000 quad)	64.2	1981-82	08/24/05	0.18
		2000-05		

[mi², square miles; wy, water year; ft³/s, cubic foot per second]

Location	Drainage Area (mi ²)	Period of record (wy)	Measurements	
			Date	Discharge (ft ³ /s)
Maumee River Basin—Continued				
04188097 PLUM CREEK AT KALIDA, OHIO				
Latitude 40°59'12", longitude 84°12'33", Putnam County, Hydrologic Unit 04100007, at State Route 114, 0.3 mi northwest of Kalida, Ohio. (Kalida 1:24000 quad)	39.8	1999-05	08/24/05	0.42
04189172 RILEY CREEK NEAR BLUFFTON, OHIO				
Latitude 40°54'12", longitude 83°56'19", Allen County, Hydrologic Unit 04100007, at Phillips Road bridge over Riley Creek, 3.7 mi downstream from confluence of Little Riley Creek, 2.5 mi northwest of Bluffton, Ohio. (Bluffton 1:24000 quad)	64.4	1994-96 1999-05	10/04/04 08/23/05	1.84 1.44
04191007 TOWN CREEK NEAR HOAGLIN, OHIO				
Latitude 40°58'36", longitude 84°28'36", Van Wert County, Hydrologic Unit 04100007, at State Route 637 bridge over Town Creek, 2.1 mi above confluence with Maddox Creek, 0.9 mi south of Paulding/Van Wert County line, 2.3 mi northeast of Hoaglin, 3.1 mi north of State Route 224, 10 mi northeast of Van Wert, Ohio. (Wetsel 1:24000 quad)	51.7	1995-96 1998-99 2002-05	08/24/05	2.73
04191100 FLATROCK CREEK NEAR PAYNE, OHIO				
Latitude 41°05'57", longitude 84°40'06", Paulding County, Hydrologic Unit 04100007, at Township Road 71 bridge, 2.0 mi downstream from Wildcat Creek, 3.5 mi northeast of Payne, Ohio. Proceed 3.4 mi northeast from Payne on State Highway 500 to Township Road 71, turn right and go 0.1 mi to bridge and station. (Payne 1:24000 quad)	147	1972-77 1995-96 1998-99 2003-05	08/24/05	0.29
04192600 SOUTH TURKEYFOOT CREEK NEAR MALINTA, OHIO				
Latitude 41°22'15", longitude 84°01'22", Henry County, Hydrologic Unit 04100009, at U.S. Highway 6 bridge, 1.8 mi upstream from Little Turkeyfoot Creek, 3.5 mi north of Malinta. Proceed north from Malinta on State Highway 109 for 3.4 mi to U.S. Highway 6, turn right and go 0.8 mi to bridge and station. (Malinta 1:24000 quad)	121	1955-56 1972-77 2001-05	08/25/05	0.01
04192710 BAD CREEK AT COLTON, OHIO				
Latitude 41°27'29", longitude 83°57'34", Henry County, Hydrologic Unit 04100009, at County Road U bridge, 0.5 mi southwest of Colton, Ohio, 2.0 mi south of Fulton/Henry county line, and 3.9 mi upstream from confluence with Maumee River. (Colton 1:24000 quad)	56.5	1999 2001-05	08/25/05	0.25
04192782 YELLOW CREEK NEAR DESHLER, OHIO				
Latitude 41°12'16", longitude 83°51'39", Wood County, Hydrologic Unit 04100009, at State Route 18 bridge, 1.9 mi east of Deshler, 4.1 mi west of Hoytville. (Hoytville 1:24000 quad)	53.3	2000-05	10/04/04 08/23/05	1.96 0.48
Portage River Basin				
04194362 SOUTH BRANCH PORTAGE RIVER NEAR JERRY CITY, OHIO				
Latitude 41°16'22", longitude 83°30'56", Wood County, Hydrologic Unit 04100010, at Portage View Road over South Branch Portage River, 0.6 mi above confluence with East Branch, 2.1 mi southeast of Six Points, 4.5 mi northeast of Jerry City, Ohio. (Jerry City 1:24000 quad)	54.0	1995-96 1999-05	10/04/04 08/23/05	0.01 0.01

[mi², square miles; wy, water year; ft³/s, cubic foot per second]

Location	Drainage Area (mi ²)	Period of record (wy)	Measurements	
			Date	Discharge (ft ³ /s)
Sandusky River Basin				
04196580 LITTLE TYMOCHTEE CREEK NEAR MARSEILLES, OHIO				
Latitude 40°41'13", longitude 83°24'44", Marion County, Hydrologic Unit	43.7	1978	10/06/04	0.30
04100011, at County Road 22 bridge, 1.3 mi above mouth, 1.4 mi southwest of Marseilles, Ohio. (Marseilles 1:24000 quad)		1980-82 1997-05		
Huron River Basin				
04198017 WEST BRANCH HURON RIVER NEAR NEW HAVEN, OHIO				
Latitude 41°03'08", longitude 82°39'37", Huron County, Hydrologic Unit	69.4	1981-82	10/06/04	8.69
04100012, at Boughtonville Road bridge, 0.5 mi below confluence with Marsh Run, 3.3 mi east of Willard, Ohio. (Willard 1:24000 quad)		1997-05	08/17/05	4.94
Vermilion River Basin				
04199251 VERMILION RIVER NEAR NEW LONDON, OHIO				
Latitude 41°03'51", longitude 82°27'10", Huron County, Hydrologic Unit	68.9	1997-05	10/06/04	0.01
04100012, at U.S. Route 250 bridge, 0.8 mi west of New London Reservoir, 0.2 mi north of Akron Canton Youngstown Penn Central Railroad, 3.0 mi southwest of New London, Ohio. (New London 1:24000 quad)			08/17/05	0.58
Black River Basin				
04199617 WEST FORK EAST BRANCH BLACK RIVER AT LODI, OHIO				
Latitude 41°01'36", longitude 82°02'29", Medina County, Hydrologic Unit	40.6	2000-05	10/05/04	1.92
04110001, at bridge of State Route 421, 0.6 mi east of intersection of State Route 42 and 224, 1.6 mi west of Lodi, Ohio. (Lodi 1:24000 quad)			08/16/05	2.50
04199706 EAST BRANCH BLACK RIVER NEAR PENFIELD, OHIO				
Latitude 41°08'12", longitude 82°07'00", Medina/Lorain County, Hydrologic Unit	105	1995-96	10/05/04	4.68
04110001, at Smith Road bridge over East Branch Black River, on Medina/Lorain county line, 0.3 mi east of State Route 301, 2.2 mi south of Penfield, 3.2 mi north of Spencer, Ohio. (Lagrange 1:24000 quad)		1998-05	08/17/05	5.02
Rocky River Basin				
04201079 WEST BRANCH ROCKY RIVER NEAR MEDINA, OHIO				
Latitude 41°09'09", longitude 81°50'02", Medina County, Hydrologic Unit	61.2	1995-96	07/05/05	4.19
04110001, at Weymouth Road bridge over West Branch Rocky River, 0.3 mi below confluence with North Branch, 1.9 mi northeast of Medina, Ohio. (Medina 1:24000 quad)		1998-99 2001-02 2004-05		

[mi², square miles; wy, water year; ft³/s, cubic foot per second]

Location	Drainage Area (mi ²)	Period of record (wy)	Measurements	
			Date	Discharge (ft ³ /s)
Cuyahoga River Basin				
04205645 LITTLE CUYAHOGA RIVER ABOVE OHIO & ERIE CANAL AT AKRON, OHIO				
Latitude 41°05'27", longitude 81°30'40", Summit County, Hydrologic Unit 04110002, in Akron. Station is reached by driving east on State Route 18 (West Market Street). Turn right (north) onto North Main Street. Travel for 0.4 mi. Turn right (east) onto East North Street. Travel for 0.2 mi to station at Stuber Street bridge on left (north). (Akron West 1:24000 quad)	55.1	1998-99 2001-02 2004-05	07/05/05	14.9
Ashtabula River Basin				
04212453 ASHTABULA RIVER NEAR KELLOGGSVILLE, OHIO				
Latitude 41°50'00", longitude 80°37'13", Ashtabula County, Hydrologic Unit 04110003, at Root Road Covered Bridge over Ashtabula River, 1.7 mi downstream of confluence of East and West Branches of Ashtabula River, 1.6 mi south of Kelloggsville, 2.4 mi east of Sheffield Center, 7.5 mi southeast of Ashtabula, Ohio. (Pierpont 1:24000 quad)	66.5	1995-99 2001-05	06/15/05	3.82

Discontinued Streamflow-Gaging Stations

[mi², square miles; wy, water year; ft³/s, cubic foot per second]

Location	Drainage area (mi ²)	Period of record (wy)	Measurements	
			Date	Discharge (ft ³ /s)
Muskingum River Basin				
03123000 SUGAR CREEK ABOVE BEACH CITY DAM AT BEACH CITY, OHIO				
Latitude 40°39'24", longitude 81°34'37", in NE ¼ sec. 35, T. 11 N., R. 10 W., Stark County, on right bank at downstream side of 3rd Avenue bridge at Beach City, 2.3 mi upstream from Beach City Dam.	160	1945-75	06/13/05	34.9
			09/14/05	27.8
03134000 JEROME FORK AT JEROMESVILLE, OHIO				
Latitude 40°48'07", longitude 82°12'01", Ashland County, Hydrologic Unit 05040002, on right bank downstream from Main Street bridge (County Highway 30A) at the west end of Jeromesville, Ohio	120	1925-49	09/22/05	12.8
Scioto River Basin				
03223000 OLENTANGY RIVER AT CLARIDON, OHIO				
Latitude 40°34'58", longitude 82°59'20", in NW ¼ sec. 26, T.5 S., R.16 E., Marion County, Hydrologic Unit 05060001, on left bank 900 ft downstream from bridge on State Highway 95, 0.5 mi east of Claridon, 0.8 mi downstream from Otter Creek, and 1.4 mi upstream from Beaver Run.	157	1947-98	08/02/05	16.0
Little Miami River Basin				
03242050 LITTLE MIAMI RIVER NEAR SPRING VALLEY, OHIO				
Latitude 39°35'00", longitude 84°01'49", (SE 14 sec Waynesville Quadrangle) in Greene County on right bank at downstream side of bridge on New Burlington Road, ¾ mi west of Roxanna, and 2.2 mi southwest of Spring Valley, Ohio.	366	1968-85	08/05/05	98.5
Great Miami River Basin				
03271800 TWIN CREEK NEAR INGOMAR, OHIO				
Latitude 39°42'28", longitude 84°31'30", in sec. 15, T.5 N., R.3 E., Preble County, Hydrologic Unit 05080002, on left bank at downstream side of bridge on Halderman Road, 0.5 mi downstream from Bantas Fork, 1.4 mi west of Ingomar, and 4.8 mi upstream from Aukerman Creek.	197	1963-98	08/04/05	10.0

Project Data—Crest-Stage Gage Network

The following table contains annual maximum gage heights and associated discharges for 18 crest-stage gaging stations in Ohio for water year 2002 through 2005. A crest-stage gage is a device which will record the peak stage occurring at each site between field inspections of the gages. A stage-discharge relation for each gage is developed from indirect measurements of peak flow or from measurements by current meter. The date of the maximum stage and discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for the water year is given. Information for some lower floods may have been obtained, and discharge measurements may have been made for purposes of establishing the stage-discharge relations, but these are not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.



Crest-Stage Gage Network in Ohio

[mi², square miles; wy, water year; ft³/s, cubic foot per second; --, no data; *, gage overtopped by floodwaters, elevation from nearby high water mark]

Location	Drainage Area (mi ²)	Period of record (wy)	Water-year maximum			Period of record maximum		
			Date of peak	Gage height (ft)	Discharge (ft ³ /s)	Date of peak	Gage height (ft)	Discharge (ft ³ /s)
LITTLE BEAVER CREEK BASIN								
03108608 Middle Fork Little Beaver Creek near Salem, Ohio								
Latitude 40°53'54", Longitude 80°52'50", Columbiana County, Hydrologic Unit 05030101, at culvert on State Route 45, 0.2 mi south of U.S. Highway 62, and 1.3 mi west of Salem, Ohio	1.68	2001-05	01/05/05	55.66	80	08/28/04	61.86	515
DUCK CREEK BASIN								
03115624 East Fork Duck Creek near Road Fork, Ohio								
Latitude 39°38'58", Longitude 81°18'36", Noble County, Hydrologic Unit 05030201, at bridge on State Route 260, 20 mi southeast of Caldwell, and 1 mi south of Road Fork, Ohio	61.33	2001-05	01/12/05	93.83	3,450	09/18/04	103.50	12,450
03115640 Middle Fork Duck Creek near Middleburg, Ohio								
Latitude 39°40'14", Longitude 81°23'21", Noble County, Hydrologic Unit 05030201, at bridge on State Route 564, 0.3 mi south of Middleburg, and 15 mi southeast of Caldwell, Ohio	20.37	2001-05	01/12/05	93.85	1,550	09/18/04	99.38	4,700
MUSKINGUM RIVER BASIN								
03148395 Claypit Creek near Roseville, Ohio								
Latitude 39°50'28", Longitude 82°04'15", Muskingum County, Hydrologic Unit 05040004, at culvert on State Route 93, 2.8 mi south of U.S. Highway 22, and 2.5 mi north of Roseville, Ohio	2.25	1982-86 2001-05	12/23/04	34.65	224	09/09/04	36.08	318
OHIO RIVER TRIBUTARY								
03205995 Sandusky Creek near Burlington, Ohio								
Latitude 38°25'03", Longitude 82°30'36", Lawrence County, Hydrologic Unit 05090101, at culvert on U.S. Highway 52, 1.25 mi east of Burlington, Ohio	0.73	1978-87 2001-05	11/30/04	87.08	101	05/28/04	90.13	249
SCIOTO RIVER BASIN								
03237130 Scioto Brush Creek at Otway, Ohio								
Latitude 38°51'43", Longitude 83°11'24", Scioto County, Hydrologic Unit 05060002, at bridge on State Route 348, 0.2 mi west of State Route 73 in Otway, Ohio	94.36	2001-05	01/05/05	84.87	3,270	05/10/03	91.53	10,690

[mi², square miles; wy, water year; ft³/s, cubic foot per second; --, no data; *, gage overtopped by floodwaters, elevation from nearby high water mark]

Location	Drainage Area (mi ²)	Period of record (wy)	Water-year maximum			Period of record maximum		
			Date of peak	Gage height (ft)	Discharge (ft ³ /S)	Date of peak	Gage height (ft)	Discharge (ft ³ /s)
OHIO BRUSH CREEK BASIN								
	03237315	Elk Fork near Winchester, Ohio						
Latitude 38°56'49", Longitude 83°37'21", Adams County, Hydrologic Unit 05090201, at culvert on Tri-county Road, 2.5 mi east of State Route 136 in Winchester, and 3.1 mi west of State Route 247 in Seaman, Ohio	6.45	1982-86 2001-05	01/05/05	69.13	701	09/01/03	78.31	2,230
GREAT MIAMI RIVER BASIN								
	03263168	Stillwater River near Ansonia, Ohio						
Latitude 40°13'02", Longitude 84°36'29", Darke County, Hydrologic Unit 05080001, at bridge on State Route 47, 1.75 mi west of U.S. Highway 127, and 1.5 mi east of Ansonia, Ohio	74.38	2001-05	01/06/05	97.43	4,150	01/06/05	97.43	4,925
	03271732	Miller's Fork near West Sonora, Ohio						
Latitude 39°54'35", Longitude 84°32'28", Preble County, Hydrologic Unit 05080002, at bridge on State Route 503, 1.4 mi north of West Sonora, and 2.0 mi south of Ithaca, Ohio	15.57	2001-05	01/05/05	92.97	1,600	06/11/04	93.24	1,900
MAUMEE RIVER BASIN								
	04180907	Carter Creek near New Bremen, Ohio						
Latitude 40°26'16", Longitude 84°19'43", Shelby County, Hydrologic Unit 04100004, at culvert on State Route 274, 0.58 mi west of State Route 29, and 2.5 mi east of New Bremen, Ohio	1.16	1982-86 2001-05	09/26/05	96.79	82	06/13/04	98.38	193
	04185771	Auglaize River near Cridersville, Ohio						
Latitude 40°38'24", Longitude 84°05'23", Auglaize County, Hydrologic Unit 04100007, at bridge on State Route 65, 2.6 mi north of Uniopolis, and 4.2 mi east of Cridersville, Ohio	63.75	2001-05	01/13/05	95.60	2,050	01/13/05	95.60	2,050
	04191207	Blue Creek near Latty, Ohio						
Latitude 41°03'44", Longitude 84°34'23", Paulding County, Hydrologic Unit 04100007, at bridge on U.S. Highway 127, 2.0 mi south of State Route 613 in Latty, and 5.5 mi south of Paulding, Ohio	65.19	2001-05	01/12/05	95.73	4,220	05/11/03	98.03*	6,150
	04192575	South Turkeyfoot Creek near Elery, Ohio						
Latitude 41°16'59", Longitude 84°01'49", Henry County, Hydrologic Unit 04100009, at bridge on State Route 281, 0.35 mi east of State Route 109, and 9 mi west of Custar, Ohio	37.77	2001-05	01/13/05	96.65	1,550	01/13/05	96.65	1,550

[mi², square miles; wy, water year; ft³/s, cubic foot per second; --, no data; *, gage overtopped by floodwaters, elevation from nearby high water mark]

Location	Drainage Area (mi ²)	Period of record (wy)	Water-year maximum			Period of record maximum		
			Date of peak	Gage height (ft)	Discharge (ft ³ /S)	Date of peak	Gage height (ft)	Discharge (ft ³ /s)
PORTAGE RIVER BASIN								
04195061 North Branch Portage River at Scotch Ridge, Ohio								
Latitude 41°24'05", Longitude 83°31'19", Wood County, Hydrologic Unit 04100010, at bridge on State Route 199, 0.1 mi south of State Route 105 and Scotch Ridge, and 8 mi east of Bowling Green, Ohio	48.81	2001-05	01/14/05	94.56	1,720	01/14/05	94.56	1,720
SANDUSKY RIVER BASIN								
04196825 Brown's Run near Crawford, Ohio								
Latitude 40°53'13", Longitude 83°20'15", Wyandot County, Hydrologic Unit 04100011, at culvert on US 23, 3.0 miles northwest of SR 199, and 5.5 miles northwest of Upper Sandusky, Ohio	2.00	1982-86 2001-05	01/13/05	95.39	105	07/08/03	98.00	265
LAKE ERIE TRIBUTARY								
0419801460 Little Pickerel Creek near White's Landing, Ohio								
Latitude 41°25'06", Longitude 82°53'14", Sandusky County, Hydrologic Unit 04100011, at bridge on U.S. Highway 6, 10 mi west of Sandusky, and 13 mi east of Fremont, Ohio	5.17	2001-05	01/11/05	97.61	225	01/11/05	97.61	225
VERMILION RIVER BASIN								
04199365 East Branch Vermilion River near Clarksfield, Ohio								
Latitude 41°10'56", Longitude 82°22'12", Huron County, Hydrologic Unit 04100012, at bridge on State Route 18, 2.75 mi east of Clarksfield, and 14 mi east of Norwalk, Ohio	32.33	2001-05	12/31/04	93.60	2,000	12/31/04	93.60	2,000
GRAND RIVER BASIN								
04212029 Bates Creek near Thompson, Ohio								
Latitude 41°39'31", Longitude 81°07'13", Lake County, Hydrologic Unit 04110004, at bridge on State Route 86, 4.5 mi west of Thompson, and 9.5 mi southeast of Painesville, Ohio	11.35	2001-05	04/05/05	81.31	700	06/12/03	82.74	1,925

Project Data—Bacteriological Data of Water and Sediments and Ancillary Water-Quality Data at Two Lake Erie Beaches

The following tables list the results of bacteriological analyses of surface water, shallow ground water, and sediment samples collected at or near two Lake Erie Beaches—one in Cuyahoga County (Edgewater) and one in Ashtabula County (Lakeshore) from May through September 2005. Ancillary physical water-quality measurements were also taken. Samples were collected as part of a study to develop a predictive model for *Escherichia coli* (*E. coli*) at Lakeshore and determine the spatial distribution of *E. coli* and identify possible sources of fecal contamination at Edgewater and Lakeshore.



Water-Quality Records

The following tables list the results of bacteriological and water-quality measurements of surface water collected at or near two Lake Erie beaches—one in Cuyahoga County (Edgewater) and one in Ashtabula County (Lakeshore) from May through August 2005. Samples were collected as part of a study to develop a predictive model for *Escherichia coli* (*E. coli*) at Lakeshore and determine the spatial distribution of *E. coli* and identify possible sources of fecal contamination at Edgewater and Lakeshore.

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

[(63676), USGS National Water Information System parameter code; (E), sample designation; NTRU, Nephelometric Turbidity Ratio Units; $\mu\text{S}/\text{cm}$, microsiemens per centimeter; deg C, degrees Celsius; *E. coli*, *Escherichia coli*; MPN/100 mL, most probable number per 100 milliliters; col/100 mL, colonies per 100 milliliters; --, no data; E, estimated; <, concentration or value is less than indicated; >, concentration or value is greater than indicated]

Date	Time	Turbidity (NTRU) (63676)	Specific conduct- ance, water unfiltered ($\mu\text{S}/\text{cm}$) (00095)	Temper- ature, air (deg C) (00020)	Temper- ature, water (deg C) (00010)	<i>E. coli</i> Defined Substrate Technology (MPN/100 mL) (50468)	<i>E. coli</i> modified mTEC, water (col/100 mL) (90902)
412920081442601—LAKE ERIE AT EDGEWATER, MAIN BEACH WEST, 1 FOOT (E)							
Jun 14	1010	2.4	--	27.1	22.9	--	110
Jun 16	0935	61	--	27.1	19.7	--	390
Jun 20	0911	12	--	20.8	21.4	--	120
Jun 23	0945	13	--	22.3	24.0	--	78
Jun 29	1013	5.8	--	23.9	24.5	--	430
Jul 2	0819	21	--	18.7	22.2	--	90
Jul 6	1019	6.0	--	24.3	24.7	--	240
Jul 13	0933	2.6	--	26.5	25.0	--	63
Jul 19	1009	4.8	--	25.2	25.2	--	72
Jul 27	0945	21	--	20.5	24.4	--	460
Aug 4	1145	3.7	--	35.5	27.4	--	230
Aug 11	1045	8.0	--	26.8	26.5	--	200
Aug 17	0938	1.8	--	24.8	25.3	--	53
Aug 21	1204	31	309	28.1	27.7	--	E1100
Sep 1	0915	--	--	21.8	--	--	1500
412920081442602—LAKE ERIE AT EDGEWATER, MAIN BEACH WEST, 2 FEET (Y)							
Jun 14	1010	4.4	--	27.1	22.6	--	46
Jun 16	0935	38	--	27.1	19.7	--	420
Jun 20	0911	10	--	20.8	21.4	--	44
Jun 23	0945	15	--	22.3	23.9	--	94
Jun 29	1013	4.1	--	23.9	24.5	--	230
Jul 2	0819	24	--	18.7	22.2	--	88
Jul 6	1019	5.5	--	24.3	24.7	--	46
Jul 13	0933	2.5	--	26.5	25.1	--	29
Jul 19	1009	3.8	--	25.2	25.2	--	58
Jul 27	0945	17	--	20.5	24.4	--	360
Aug 4	1145	1.6	--	35.5	27.5	--	25
Aug 11	1045	7.9	--	26.8	26.1	--	480
Aug 17	0938	1.6	--	24.8	25.3	--	25
Aug 21	1202	26	--	--	27.7	--	350
Sep 1	0917	--	--	21.8	--	--	2000

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

[(63676), USGS National Water Information System parameter code; (E), sample designation; NTRU, Nephelometric Turbidity Ratio Units; $\mu\text{S}/\text{cm}$, microsiemens per centimeter; deg C, degrees Celsius; *E. coli*, *Escherichia coli*; MPN/100 mL, most probable number per 100 milliliters; col/100 mL, colonies per 100 milliliters; --, no data; E, estimated; <, concentration or value is less than indicated; >, concentration or value is greater than indicated]

Date	Time	Turbidity (NTRU) (63676)	Specific conduct- ance, water unfiltered ($\mu\text{S}/\text{cm}$) (00095)	Temper- ature, air (deg C) (00020)	Temper- ature, water (deg C) (00010)	E. coli Defined Substrate Technology (MPN/100 mL) (50468)	E. coli modified mTEC, water (col/100 mL) (90902)
412920081442602—LAKE ERIE AT EDGEWATER, MAIN BEACH WEST, 2 FEET (Y)—Continued							
Sep 1	0945	21	--	21.8	23.1	--	1400
412920081442603—LAKE ERIE AT EDGEWATER, MAIN BEACH WEST, 3 FEET (F)							
Jun 14	1010	1.8	--	27.1	21.7	--	40
Jun 16	0935	32	--	27.1	19.7	--	480
Jun 20	1015	5.1	--	20.8	21.6	--	30
Jun 23	0945	23	--	22.3	23.9	--	130
Jun 24	0929	7.8	--	22.2	27.1	--	E16
Jun 29	1001	6.1	--	23.9	24.0	--	31
Jul 2	0819	21	--	18.7	22.2	--	52
Jul 6	1007	4.6	--	24.3	24.7	--	48
Jul 13	0934	1.4	--	26.5	24.1	--	50
Jul 19	1009	4.0	--	25.2	25.0	--	45
Jul 27	0937	14	--	20.5	24.4	--	250
Aug 4	1145	1.4	--	35.5	27.4	--	27
Aug 10	0912	2.7	--	24.5	26.0	--	52
Aug 11	1045	9.0	--	26.8	26.1	--	190
Aug 16	1215	2.8	312	25.4	26.0	96	--
Aug 17	0938	1.9	--	24.8	25.4	--	12
Aug 17	1012	2.6	299	24.8	25.8	15	--
Aug 18	0944	2.6	290	24.3	24.9	53	--
Aug 21	1200	--	308	--	27.7	--	270
Aug 22	1000	6.1	292	24.7	24.4	220	--
Aug 23	1005	36	286	19.3	24.1	68	--
Aug 24	0930	5.3	--	22.6	22.7	--	150
Aug 24	0955	5.7	289	22.6	23.1	190	--
Aug 25	0928	3.8	316	21.0	22.9	24	--
Aug 29	0925	4.0	283	21.4	23.4	20	--
Aug 30	0928	2.0	283	20.9	23.3	140	--
Sep 1	0913	--	322	21.8	22.4	--	1400
Sep 6	0922	10	348	19.6	23.1	57	--
Sep 7	0931	--	--	17.9	22.1	--	140
Sep 7	0942	5.5	330	17.9	21.9	88	--
Sep 8	0931	8.2	336	20.1	22.5	580	--
Sep 12	0926	4.4	330	19.7	22.1	100	--

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

[(63676), USGS National Water Information System parameter code; (E), sample designation; NTRU, Nephelometric Turbidity Ratio Units; $\mu\text{S}/\text{cm}$, microsiemens per centimeter; deg C, degrees Celsius; *E. coli*, *Escherichia coli*; MPN/100 mL, most probable number per 100 milliliters; col/100 mL, colonies per 100 milliliters; --, no data; E, estimated; <, concentration or value is less than indicated; >, concentration or value is greater than indicated]

Date	Time	Turbidity (NTRU) (63676)	Specific conduct- ance, water unfiltered ($\mu\text{S}/\text{cm}$) (00095)	Temper- ature, air (deg C) (00020)	Temper- ature, water (deg C) (00010)	E. coli Defined Substrate Technology (MPN/100 mL) (50468)	E. coli modified mTEC, water (col/100 mL) (90902)
412922081442301—LAKE ERIE AT EDGEWATER, MAIN BEACH EAST, 1 FOOT (U)							
Jun 14	0943	7.8	--	27.1	21.9	--	44
Jun 16	0925	34	--	27.1	19.9	--	430
Jun 23	0930	13	--	22.3	23.7	--	71
Jun 29	0954	12	--	23.9	24.4	--	690
Jul 2	0759	30	--	18.7	22.8	--	130
Jul 6	1000	6.9	--	24.3	24.1	--	85
Jul 13	0919	1.5	--	26.5	25.4	--	180
Jul 19	0942	6.2	--	25.2	25.4	--	150
Jul 27	0922	22	--	20.5	24.4	--	430
Aug 4	1135	17	--	35.5	28.2	--	170
Aug 11	1039	9.7	--	26.8	26.1	--	260
Aug 17	0921	1.9	--	24.8	25.1	--	20
Sep 1	0935	30	--	21.8	21.9	--	2100
412922081442302—LAKE ERIE AT EDGEWATER, MAIN BEACH EAST, 2 FEET (X)							
Jun 14	0943	7.3	--	27.1	21.9	--	25
Jun 23	0930	12	--	22.3	23.6	--	59
Jun 29	0954	5.3	--	23.9	24.4	--	640
Jul 2	0759	29	--	18.7	22.8	--	140
Jul 6	1000	7.2	--	24.3	24.1	--	81
Jul 13	0919	1.2	--	26.5	25.3	--	310
Jul 19	0942	5.9	--	25.2	25.3	--	150
Jul 27	0922	22	--	20.5	24.4	--	440
Aug 4	1135	3.1	--	35.5	28.1	--	52
Aug 11	1039	9.3	--	26.8	26.1	--	270
Aug 17	0921	1.6	--	24.8	25.1	--	13
Sep 1	0935	24	--	21.8	22.1	--	1800
412922081442303—LAKE ERIE AT EDGEWATER, MAIN BEACH EAST, 3 FEET (C)							
Jun 14	0943	7.0	--	27.1	21.9	--	25
Jun 16	0933	30	--	19.9	18.6	--	400
Jun 21	0914	14	--	21.5	22.7	--	44
Jun 23	0930	10	--	22.3	23.7	--	53
Jun 27	0938	7.1	--	24.0	30.0	--	77
Jun 29	0954	12	--	23.9	24.4	--	650
Jul 2	0759	31	--	18.7	22.8	--	140
Jul 5	0927	6.2	--	24.8	24.4	--	E17

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

[(63676), USGS National Water Information System parameter code; (E), sample designation; NTRU, Nephelometric Turbidity Ratio Units; $\mu\text{S}/\text{cm}$, microsiemens per centimeter; deg C, degrees Celsius; *E. coli*, *Escherichia coli*; MPN/100 mL, most probable number per 100 milliliters; col/100 mL, colonies per 100 milliliters; --, no data; E, estimated; <, concentration or value is less than indicated; >, concentration or value is greater than indicated]

Date	Time	Turbidity (NTRU) (63676)	Specific conduct- ance, water unfiltered ($\mu\text{S}/\text{cm}$) (00095)	Temper- ature, air (deg C) (00020)	Temper- ature, water (deg C) (00010)	E. coli Defined Substrate Technology (MPN/100 mL) (50468)	E. coli modified mTEC, water (col/100 mL) (90902)
412922081442303—LAKE ERIE AT EDGEWATER, MAIN BEACH EAST, 3 FEET (C)—Continued							
Jul 6	1000	7.6	--	24.3	24.1	--	85
Jul 11	0914	1.9	--	24.7	26.3	--	46
Jul 13	0919	1.8	--	26.5	25.3	--	45
Jul 18	0918	3.1	--	27.2	25.1	--	45
Jul 19	0942	5.1	--	25.2	25.2	--	110
Jul 25	0922	4.8	--	26.6	25.9	--	100
Jul 27	0922	20	--	20.5	24.4	--	510
Aug 1	0914	2.9	--	24.6	25.6	--	29
Aug 4	1135	1.9	--	35.5	28.0	--	40
Aug 8	0932	4.3	--	25.4	25.8	--	55
Aug 11	1039	7.5	--	26.8	26.1	--	280
Aug 15	0940	2.4	--	21.9	25.2	--	100
Aug 17	0921	1.6	--	--	25.1	--	11
Sep 1	0935	24	--	21.8	22.2	--	1400
415426080465100—LAKE ERIE AT LAKESHORE, BOAT RAMP DOCK (J)							
Jun 2	0950	6.8	--	22.9	17.0	--	E33
Jun 9	1035	6.3	--	27.5	19.5	--	220
Jun 16	1015	14	--	19.9	20.4	--	6700
Jun 23	1100	13	--	22.9	--	--	>2700
Jun 29	1035	8.5	--	27.1	23.6	--	830
Jul 7	1140	16	--	22.9	25.5	--	1900
Jul 14	0945	16	--	25.1	25.9	--	5300
Jul 21	1025	3.2	--	26.5	26.2	--	E530
Jul 27	1020	14	--	21.1	--	--	4200
Aug 3	1025	7.7	--	28.4	27.0	--	270
Aug 11	1030	8.9	--	24.7	25.9	--	2500
Aug 15	1015	38	--	22.9	25.0	--	E420
415427080464800—LAKE ERIE AT LAKESHORE, EAST SIDE OF BREAKWALL (N)							
Jul 27	1025	>1000	--	--	--	14000	--
Aug 15	1020	190	--	--	25.2	--	2100
415429080464200—LAKE ERIE AT LAKESHORE, NEAR POND DRAINAGE (H)							
Jun 2	1010	4.0	--	22.9	16.3	--	83
Jun 9	1055	1.6	--	27.5	19.5	--	83
Jun 16	1035	83	--	19.9	--	--	2600

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

[(63676), USGS National Water Information System parameter code; (E), sample designation; NTRU, Nephelometric Turbidity Ratio Units; $\mu\text{S}/\text{cm}$, microsiemens per centimeter; deg C, degrees Celsius; *E. coli*, *Escherichia coli*; MPN/100 mL, most probable number per 100 milliliters; col/100 mL, colonies per 100 milliliters; --, no data; E, estimated; <, concentration or value is less than indicated; >, concentration or value is greater than indicated]

Date	Time	Turbidity (NTRU) (63676)	Specific conduct- ance, water unfiltered ($\mu\text{S}/\text{cm}$) (00095)	Temper- ature, air (deg C) (00020)	Temper- ature, water (deg C) (00010)	E. coli Defined Substrate Technology (MPN/100 mL) (50468)	E. coli modified mTEC, water (col/100 mL) (90902)
415429080464200—LAKE ERIE AT LAKESHORE, NEAR POND DRAINAGE (H)—Continued							
Jun 23	1045	3.5	--	22.9	--	--	28
Jun 29	1043	2.2	--	27.1	24.1	--	2600
Jul 7	1135	1.7	--	22.9	24.8	--	E120
Jul 14	1015	4.3	--	25.1	23.7	--	870
Jul 21	1040	27	--	26.5	26.2	--	3000
Jul 27	1045	240	--	21.1	--	--	3500
Aug 3	1035	2.1	--	28.4	26.5	--	E30
Aug 11	1040	100	--	24.7	25.8	--	1600
Aug 15	1025	20	--	22.9	25.1	--	E62
415429080465000—LAKE ERIE AT LAKESHORE, WEST SIDE OF BREAKWALL (I)							
Jul 14	1020	2.2	--	25.1	25.3	--	350
Jul 21	1030	18	--	26.5	26.3	--	E480
Aug 3	1030	2.2	--	28.4	26.3	--	190
Aug 8	1020	3.0	--	26.8	25.8	--	E5
Aug 11	1035	53	--	24.7	25.9	--	500
Aug 15	1020	20	--	22.9	24.9	--	E62
415430080462903—LAKE ERIE AT LAKESHORE, CENTRAL BEACH, 3 FEET (B)							
Jun 1	1040	1.4	--	21.4	18.3	--	620
Jun 2	1005	1.7	--	22.9	16.9	--	E9
Jun 6	0905	1.9	--	22.8	15.9	--	130
Jun 7	1035	1.8	--	26.4	18.2	--	E12
Jun 8	1045	1.7	--	25.8	18.8	--	270
Jun 9	1105	1.2	--	27.5	18.7	--	E25
Jun 13	1105	2.4	--	30.3	20.9	--	63
Jun 14	1045	3.5	--	29.5	20.1	--	520
Jun 15	1055	12	--	28.3	20.2	--	4700
Jun 16	1045	43	--	19.9	21.3	--	E1300
Jun 20	1045	1.8	--	23.7	22.3	--	77
Jun 21	1050	1.9	--	23.2	21.7	--	100
Jun 22	1030	14	--	19.9	22.1	--	E1600
Jun 23	1040	4.0	--	22.9	22.5	--	90
Jun 27	1045	3.4	--	31.0	23.7	--	59
Jun 28	1040	3.1	--	28.6	22.2	--	E300
Jun 29	1055	1.6	--	27.1	24.1	--	200
Jun 30	1050	2.1	--	27.4	23.8	--	E58

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

[(63676), USGS National Water Information System parameter code; (E), sample designation; NTRU, Nephelometric Turbidity Ratio Units; μ S/cm, microsiemens per centimeter; deg C, degrees Celsius; *E. coli*, *Escherichia coli*; MPN/100 mL, most probable number per 100 milliliters; col/100 mL, colonies per 100 milliliters; --, no data; E, estimated; <, concentration or value is less than indicated; >, concentration or value is greater than indicated]

Date	Time	Turbidity (NTRU) (63676)	Specific conduct- ance, water unfiltered (μ S/cm) (00095)	Temper- ature, air (deg C) (00020)	Temper- ature, water (deg C) (00010)	E. coli Defined Substrate Technology (MPN/100 mL) (50468)	E. coli modified mTEC, water (col/100 mL) (90902)
415430080462903—LAKE ERIE AT LAKESHORE, CENTRAL BEACH, 3 FEET (B)—Continued							
Jul 5	1030	3.3	--	27.3	24.2	--	200
Jul 6	1035	35	--	22.9	22.3	--	2000
Jul 7	1120	2.6	--	22.9	25.1	--	E33
Jul 11	1055	1.4	--	26.2	23.9	--	120
Jul 12	1105	2.9	--	27.0	24.4	--	58
Jul 13	1035	1.3	--	30.9	25.1	--	42
Jul 14	0955	22	--	25.1	22.3	--	2100
Jul 18	1010	5.2	--	31.4	24.3	--	900
Jul 19	1035	44	--	26.7	25.0	--	2500
Jul 20	1035	7.2	--	27.1	25.3	--	730
Jul 21	1050	9.6	--	26.5	25.9	--	970
Jul 25	1030	14	--	27.6	26.5	--	370
Jul 26	1050	8.4	--	27.9	26.2	--	660
Jul 27	1035	170	--	21.1	25.3	--	3700
Jul 28	1040	22	--	22.3	25.6	--	250
Aug 1	1045	4.3	--	29.1	26.3	--	170
Aug 2	1045	2.2	--	30.0	25.9	--	63
Aug 3	1045	2.6	--	28.4	27.0	--	30
Aug 4	1035	2.9	--	32.1	26.6	--	120
Aug 8	1035	1.5	--	26.8	25.9	--	90
Aug 9	1045	3.9	--	28.1	25.3	--	630
Aug 10	1040	7.6	--	30.4	25.8	--	280
Aug 11	1055	110	--	24.7	26.6	--	2600
Aug 15	1035	24	--	22.9	26.1	--	E110
Aug 16	1045	19	--	25.4	26.0	--	77
Aug 17	1035	10	--	26.8	26.1	--	230
Aug 18	1045	9.0	--	28.3	26.2	--	400
415430080463103—LAKE ERIE AT LAKESHORE, WEST BEACH, 3 FEET (C)							
Jun 1	1050	1.5	--	21.4	18.3	--	E10
Jun 2	1010	2.0	--	22.9	16.9	--	E11
Jun 6	0910	1.9	--	22.8	16.1	--	93
Jun 7	1040	1.6	--	26.4	18.0	--	E14
Jun 8	1035	1.3	--	25.8	18.5	--	40
Jun 9	1110	1.1	--	27.5	19.5	--	E53
Jun 13	1100	1.8	--	30.3	21.2	--	180
Jun 14	1040	3.3	--	29.5	19.8	--	490

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

[(63676), USGS National Water Information System parameter code; (E), sample designation; NTRU, Nephelometric Turbidity Ratio Units; $\mu\text{S}/\text{cm}$, microsiemens per centimeter; deg C, degrees Celsius; *E. coli*, *Escherichia coli*; MPN/100 mL, most probable number per 100 milliliters; col/100 mL, colonies per 100 milliliters; --, no data; E, estimated; <, concentration or value is less than indicated; >, concentration or value is greater than indicated]

Date	Time	Turbidity (NTRU) (63676)	Specific conduct- ance, water unfiltered ($\mu\text{S}/\text{cm}$) (00095)	Temper- ature, air (deg C) (00020)	Temper- ature, water (deg C) (00010)	E. coli Defined Substrate Technology (MPN/100 mL) (50468)	E. coli modified mTEC, water (col/100 mL) (90902)
415430080463103—LAKE ERIE AT LAKESHORE, WEST BEACH, 3 FEET (C)—Continued							
Jun 15	1100	7.6	--	28.3	19.9	--	5300
Jun 16	1030	39	--	19.9	21.5	--	E700
Jun 20	1050	1.8	--	23.7	22.1	--	87
Jun 21	1055	1.7	--	23.2	21.8	--	E18
Jun 22	1035	5.5	--	19.9	22.2	--	E920
Jun 23	1045	2.7	--	22.9	22.3	--	110
Jun 27	1050	3.2	--	31.0	23.9	--	E290
Jun 28	1045	2.2	--	28.6	22.3	--	E400
Jun 29	1100	1.4	--	27.1	23.9	--	290
Jun 30	1100	1.8	--	27.4	23.8	--	200
Jul 5	1035	3.8	--	27.3	24.3	--	210
Jul 6	1040	18	--	22.9	22.3	--	1200
Jul 7	1115	2.2	--	22.9	25.1	--	<8
Jul 11	1100	2.1	--	26.2	24.1	--	190
Jul 12	1055	1.9	--	27.0	24.3	--	100
Jul 13	1040	1.6	--	30.9	24.8	--	73
Jul 14	1000	3.5	--	25.1	26.1	--	340
Jul 18	1015	2.5	--	31.4	24.5	--	400
Jul 19	1040	20	--	26.7	25.0	--	2600
Jul 20	1040	6.8	--	27.1	25.6	--	830
Jul 21	1055	1.2	--	26.5	26.2	--	E100
Jul 25	1035	15	--	27.6	26.4	--	460
Jul 26	1045	6.3	--	27.9	26.6	--	530
Jul 27	1040	75	--	21.1	25.4	--	1200
Jul 28	1045	17	--	22.3	25.6	--	E84
Aug 1	1050	3.6	--	29.1	26.0	--	83
Aug 2	1100	1.9	--	30.0	26.0	--	44
Aug 3	1050	3.5	--	28.4	26.8	--	40
Aug 4	1040	3.1	--	32.1	26.9	--	140
Aug 8	1040	1.7	--	26.8	26.2	--	E680
Aug 9	1040	4.5	--	28.1	25.5	--	530
Aug 10	1045	5.3	--	30.4	25.7	--	300
Aug 11	1100	74	--	24.7	26.4	--	2200
Aug 15	1040	27	--	22.9	26.4	--	E150
Aug 16	1050	26	--	25.4	26.1	--	180

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

[(63676), USGS National Water Information System parameter code; (E), sample designation; NTRU, Nephelometric Turbidity Ratio Units; $\mu\text{S}/\text{cm}$, microsiemens per centimeter; deg C, degrees Celsius; *E. coli*, *Escherichia coli*; MPN/100 mL, most probable number per 100 milliliters; col/100 mL, colonies per 100 milliliters; --, no data; E, estimated; <, concentration or value is less than indicated; >, concentration or value is greater than indicated]

Date	Time	Turbidity (NTRU) (63676)	Specific conduct- ance, water unfiltered ($\mu\text{S}/\text{cm}$) (00095)	Temper- ature, air (deg C) (00020)	Temper- ature, water (deg C) (00010)	E. coli Defined Substrate Technology (MPN/100 mL) (50468)	E. coli modified mTEC, water (col/100 mL) (90902)
415430080463103—LAKE ERIE AT LAKESHORE, WEST BEACH, 3 FEET (C)—Continued							
Aug 17	1040	12	--	26.8	25.9	--	260
Aug 18	1050	4.5	--	28.3	26.5	--	390
415430080463600—LAKE ERIE AT LAKESHORE, IN FRONT OF PAVILION (F)							
Jun 2	1000	2.5	--	22.9	16.7	--	E35
Jun 9	1045	1.1	--	27.5	19.5	--	E5
Jun 16	1055	80	--	19.9	--	--	3100
Jun 23	1050	2.1	--	22.9	--	--	93
Jun 29	1105	1.4	--	27.1	24.0	--	E10
Jul 7	1130	4.9	--	22.9	24.3	--	E35
Jul 14	1010	1.5	--	25.1	25.3	--	E120
Jul 21	1035	1.3	--	26.5	25.8	--	E67
Jul 27	1050	69	--	21.1	--	--	2300
Aug 3	1055	1.6	--	28.4	26.8	--	E25
Aug 11	1045	77	--	24.7	26.2	--	2500
Aug 15	1050	16	--	22.9	24.7	--	E69
415431080462603—LAKE ERIE AT LAKESHORE, EAST BEACH, 3 FEET (A)							
Jun 1	1030	1.3	--	21.4	18.3	--	E6
Jun 2	1000	1.5	--	22.9	16.9	--	E8
Jun 6	0900	3.0	--	22.8	16.2	--	140
Jun 7	1030	1.7	--	26.4	17.6	--	22
Jun 8	1040	1.6	--	25.8	18.5	--	E330
Jun 9	1100	1.2	--	27.5	18.9	--	E8
Jun 13	1110	2.2	--	30.3	21.1	--	21
Jun 14	1035	4.0	--	29.5	19.9	--	800
Jun 15	1050	14	--	28.3	20.0	--	5600
Jun 16	1040	70	--	19.9	21.7	--	2000
Jun 20	1040	2.3	--	23.7	22.0	--	70
Jun 21	1045	2.5	--	23.2	21.9	--	E13
Jun 22	1025	6.0	--	19.9	22.3	--	E1200
Jun 23	1035	3.7	--	22.9	22.7	--	70
Jun 27	1040	2.2	--	31.0	23.8	--	38
Jun 28	1035	1.8	--	28.6	22.2	--	24
Jun 29	1050	1.6	--	27.1	24.1	--	340
Jun 30	1055	1.9	--	27.4	23.7	--	150
Jul 5	1025	3.5	--	27.3	24.3	--	560

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

[(63676), USGS National Water Information System parameter code; (E), sample designation; NTRU, Nephelometric Turbidity Ratio Units; $\mu\text{S}/\text{cm}$, microsiemens per centimeter; deg C, degrees Celsius; *E. coli*, *Escherichia coli*; MPN/100 mL, most probable number per 100 milliliters; col/100 mL, colonies per 100 milliliters; --, no data; E, estimated; <, concentration or value is less than indicated; >, concentration or value is greater than indicated]

Date	Time	Turbidity (NTRU) (63676)	Specific conduct- ance, water unfiltered ($\mu\text{S}/\text{cm}$) (00095)	Temper- ature, air (deg C) (00020)	Temper- ature, water (deg C) (00010)	E. coli Defined Substrate Technology (MPN/100 mL) (50468)	E. coli modified mTEC, water (col/100 mL) (90902)
415431080462603—LAKE ERIE AT LAKESHORE, EAST BEACH, 3 FEET (A)—Continued							
Jul 6	1030	17	--	22.9	22.4	--	550
Jul 7	1125	1.7	--	22.9	25.0	--	<8
Jul 11	1050	1.7	--	26.2	24.2	--	44
Jul 12	1100	2.1	--	27.0	24.3	--	73
Jul 13	1030	1.1	--	30.9	25.3	--	16
Jul 14	0950	28	--	25.1	22.5	--	1600
Jul 18	1000	8.0	--	31.4	23.8	--	800
Jul 19	1030	32	--	26.7	25.4	--	E2800
Jul 20	1030	6.9	--	27.1	25.7	--	930
Jul 21	1045	12	--	26.5	26.1	--	1100
Jul 25	1025	20	--	27.6	26.6	--	430
Jul 26	1055	7.9	--	27.9	26.6	--	540
Jul 27	1030	83	--	21.1	25.3	--	2000
Jul 28	1035	32	--	22.3	25.5	--	490
Aug 1	1040	2.3	--	29.1	26.4	--	73
Aug 2	1040	2.8	--	30.0	26.4	--	69
Aug 3	1040	2.7	--	28.4	26.9	--	22
Aug 4	1030	2.4	--	32.1	26.8	--	E530
Aug 8	1030	3.2	--	26.8	26.1	--	E9
Aug 9	1050	4.2	--	28.1	25.1	--	470
Aug 10	1035	6.3	--	30.4	26.2	--	320
Aug 11	1050	35	--	24.7	26.3	--	670
Aug 15	1030	40	--	22.9	25.8	--	E62
Aug 16	1040	13	--	25.4	26.0	--	E28
Aug 17	1030	9.4	--	26.8	25.9	--	140
Aug 18	1040	2.6	--	28.3	26.3	--	24

Water-Quality Records—Continued

The following tables list the results of bacteriological and water-quality measurements of shallow ground water at one Lake Erie beach in Cuyahoga County (Edgewater) on August and September 2005. Samples were collected as part of a study to determine the spatial distribution of *E. coli* and identify possible sources of fecal contamination at Edgewater.

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

[(63676), USGS National Water Information System parameter code; (RR.1), sample designation; NTRU, Nephelometric Turbidity Ratio Units; $\mu\text{S}/\text{cm}$, microsiemens per centimeter; deg C, degrees Celsius; *E. coli*, *Escherichia coli*; MPN/100mL, most probable number per 100 milliliters; col/100 mL, colonies per 100 milliliters; --, no data; >, concentration or value is greater than indicated]

Date	Time	Turbidity (NTRU) (63676)	Specific conduct- ance, water unfiltered ($\mu\text{S}/\text{cm}$) (00095)	Temper- ature, air (deg C) (00020)	Temper- ature, water (deg C) (00010)	<i>E. coli</i> Defined Substrate Technology (MPN/100 mL) (50468)	<i>E. coli</i> modified mTEC, water (col/100 mL) (90902)
412918081442606—CU-21 PZ-06 (RR.1)							
Aug 16	1152	460	204	25.4	24.3	1100	--
Aug 17	0938	690	372	24.8	24.0	1100	--
Aug 18	0859	350	379	24.3	23.7	1400	--
Aug 21	1145	89	453	28.1	26.4	--	250
Aug 22	0924	130	370	24.7	23.9	>2400	--
Aug 23	0918	220	352	19.3	23.0	6900	--
Aug 24	0930	7.4	389	22.6	22.2	160	240
Aug 25	0922	8.4	408	21.0	22.7	310	--
Aug 29	0920	8.3	984	21.4	22.9	39	--
Aug 30	0925	6.0	1280	20.9	22.6	26	--
Sep 1	0835	--	580	21.8	21.7	--	E8
Sep 6	0927	7.0	987	19.6	22.6	7	--
Sep 7	0944	5.0	1050	17.9	22.2	1	--
Sep 8	0920	4.3	1080	20.1	22.1	9	--
Sep 12	0922	3.5	762	19.7	21.7	5	--
412918081442609—CU-21 PZ-09 (QQ)							
Aug 16	1136	500	219	25.4	24.4	1300	--
Aug 17	1005	450	392	24.8	24.1	440	--
Aug 18	0918	86	406	24.3	23.8	180	--
Aug 21	1115	60	463	28.1	25.0	--	90
Aug 22	0948	26	410	24.7	24.1	>2400	--
Aug 23	1001	76	411	19.3	23.3	440	--
Aug 24	0947	6.4	410	22.6	23.0	370	--
Aug 25	0940	23	410	21.0	22.9	110	--
Aug 29	0951	15	474	21.4	23.2	190	--
Aug 30	0941	5.9	646	20.9	23.1	59	--

Water-Quality Records—Continued

The following tables list the results of bacteriological analysis of sediments collected near one Lake Erie beach in Ashtabula County (Lakeshore) from July to September 2005. Samples were collected as part of a study to determine the spatial distribution of *E. coli* and identify possible sources of fecal contamination at Ashtabula.

SEDIMENT DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

[(00020), USGS National Water Information System parameter code; (DD), sample designation; deg C, degrees Celsius; *E. coli*, *Escherichia coli*; MPN/g_{DW}, most probable number per gram dry weight of sediment; --, no data; >, concentration or value is greater than indicated]

Date	Time	Temperature, air (deg C) (00020)	<i>E. coli</i> Defined Substrate Technology, bed sediment, (MPN/g _{DW}) (50467)
415426080462500—LAKE ERIE AT LAKESHORE, SOUTHWEST CORNER OF PARKING LOT (DD)			
Jul 14	1000	25.1	2000
Aug 15	1125	22.9	440
Sep 1	1140	--	20000
415427080462500—LAKE ERIE AT LAKESHORE, WEST SIDE OF PARKING LOT (BB)			
Jul 14	0940	25.1	3200
Aug 15	1115	22.9	920
Sep 1	1130	--	8200
415427080462600—LAKE ERIE AT LAKESHORE, NORTHWEST CORNER OF PARKING LOT (AA)			
Jul 14	0930	25.1	2500
Aug 15	1110	22.9	2700
Sep 1	1125	--	1900
415428080462200—LAKE ERIE AT LAKESHORE, NORTHEAST CORNER OF PARKING LOT (CC)			
Jul 14	0950	25.1	>3700
Aug 15	1120	22.9	1400
Sep 1	1135	--	11000

Project Data—Implementing a System for “Nowcasting” Bacteria Levels and Beach Advisories

The following tables list the results of bacteriological and physical measurements of water samples collected for a 3-year study (2004–06) from three sites at one Lake Erie beach in Lorain County during May through August 2005. Samples were collected as part of a study to develop a statistical model for estimating *Escherichia coli* concentrations in recreational waters in order to predict the probability that the bacteria levels will exceed the bathing-water standard. The goal of this study is to establish an Internet-based nowcasting system, which is based on the statistical model, to provide the public with daily information concerning water quality and posting beach advisories at the beach.



Water-Quality Records

The following tables list the results of bacteriological and physical measurements of water samples collected May through August 2005 from three sites at one Lake Erie Beach in Lorain County.

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

[(63676), USGS National Water Information System parameter code; NTRU, Nephelometric Turbidity Ratio Units; deg C, degrees Celsius; *E. coli*, *Escherichia coli*; col/100 mL, colonies per 100 milliliters; E, estimated]

Date	Time	Turbidity (NTRU) (63676)	Temperature, air (deg C) (00020)	Temperature, water (deg C) (00010)	<i>E. coli</i> modified mTEC, water (col/100 mL) (90902)
412751082114700—LAKE ERIE AT LAKEVIEW BEACH WEST					
May 24	1151	25	12.5	14.5	240
May 25	0905	6.9	12.7	13.7	250
May 26	0859	3.6	15.4	15.1	E4
May 31	0905	2.0	17.1	15.7	22
Jun 01	0903	1.7	17.4	16.9	73
Jun 02	0905	1.9	19.8	15.8	93
Jun 06	0902	2.8	24.6	17.4	47
Jun 07	0854	2.0	23.3	18.9	E6
Jun 08	0804	1.3	23.9	18.9	E9
Jun 09	0859	1.9	25.5	20.6	78
Jun 13	0850	1.6	26.6	20.0	80
Jun 14	0952	3.6	24.3	21.2	47
Jun 15	0903	20	21.2	20.6	290
Jun 16	0754	22	16.5	20.7	E770
Jun 20	0902	2.4	20.0	19.9	32
Jun 21	0857	1.8	20.6	19.7	27
Jun 22	0858	4.4	20.0	20.6	390
Jun 23	0815	2.4	17.1	19.8	330
Jun 27	0852	1.5	26.9	21.9	55
Jun 28	0902	2.1	25.0	21.7	26
Jun 29	0847	3.8	23.1	23.4	E1100
Jun 30	0846	1.8	24.3	23.6	97
Jul 05	0858	3.2	23.5	23.7	280
Jul 06	0911	6.3	21.9	23.3	610
Jul 07	0819	3.2	21.8	23.0	240
Jul 11	0901	1.1	24.1	23.2	52
Jul 12	0916	1.0	25.1	22.9	140
Jul 13	0939	1.5	25.3	23.5	670
Jul 14	0903	0.8	24.0	23.9	E240
Jul 18	0901	10	25.7	25.2	1300
Jul 19	0852	7.9	23.7	25.2	650
Jul 20	0927	2.2	26.6	26.1	220
Jul 21	0855	8.6	23.3	25.4	E2000
Jul 25	0909	17	26.1	25.7	390

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

[(63676), USGS National Water Information System parameter code; NTRU, Nephelometric Turbidity Ratio Units; deg C, degrees Celsius; *E. coli*, *Escherichia coli*; col/100 mL, colonies per 100 milliliters; E, estimated]

Date	Time	Turbidity (NTRU) (63676)	Temperature, air (deg C) (00020)	Temperature, water (deg C) (00010)	<i>E. coli</i> modified mTEC, water (col/100 mL) (90902)
412751082114700—LAKE ERIE AT LAKEVIEW BEACH WEST—Continued					
Jul 26	0853	4.8	27.3	25.7	180
Jul 27	0853	25	20.2	25.2	1900
Jul 28	0919	5.6	22.1	25.1	770
Aug 01	0903	1.2	24.4	23.8	120
Aug 02	0737	1.6	23.2	23.6	E1000
Aug 03	0909	1.2	26.2	25.6	1700
Aug 04	0911	2.8	23.7	25.3	1700
Aug 08	0858	1.3	24.4	25.6	E32
Aug 09	0854	3.4	25.6	25.0	1500
Aug 10	0847	2.3	25.6	25.0	260
Aug 11	0902	9.5	26.7	26.1	1900
Aug 15	0902	2.5	22.9	25.2	560
Aug 16	0900	1.1	22.5	23.9	370
Aug 17	0846	0.9	22.5	23.9	580
Aug 18	0848	2.2	23.3	23.9	E5000
412752082114400—LAKE ERIE AT LAKEVIEW BEACH CENTRAL					
May 24	1144	33	12.5	14.5	380
May 25	0859	7.6	12.7	13.7	200
May 26	0852	4	15.4	15.1	22
May 31	0858	2.2	17.1	15.7	110
Jun 01	0857	1.8	17.4	16.9	54
Jun 02	0854	1.8	19.8	15.8	E12
Jun 06	0857	4.2	24.6	17.4	210
Jun 07	0849	4.4	23.3	18.9	110
Jun 08	0759	1.7	23.9	18.9	41
Jun 09	0851	4.8	25.5	20.6	610
Jun 13	0854	2.2	26.6	20.0	35
Jun 14	0945	21	24.3	21.2	650
Jun 15	0857	33	21.2	20.6	730
Jun 16	0757	20	16.5	20.7	260
Jun 20	0855	2.0	20.0	19.9	25
Jun 21	0859	2.0	20.6	19.7	90
Jun 22	0853	6.3	20.0	20.6	480
Jun 23	0820	7.5	17.1	19.8	800
Jun 27	0845	1.7	26.9	21.9	E78
Jun 28	0854	2.1	25.0	21.7	120

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

[(63676), USGS National Water Information System parameter code; NTRU, Nephelometric Turbidity Ratio Units; deg C, degrees Celsius; *E. coli*, *Escherichia coli*; col/100 mL, colonies per 100 milliliters; E, estimated]

Date	Time	Turbidity (NTRU) (63676)	Temperature, air (deg C) (00020)	Temperature, water (deg C) (00010)	<i>E. coli</i> modified mTEC, water (col/100 mL) (90902)
412752082114400—LAKE ERIE AT LAKEVIEW BEACH CENTRAL—Continued					
Jun 29	0850	6.6	23.1	23.4	E2300
Jun 30	0839	1.7	24.3	23.6	110
Jul 05	0854	3.9	23.5	23.7	690
Jul 06	0906	8.6	21.9	23.3	590
Jul 07	0822	3.1	21.8	23.0	330
Jul 11	0852	1.0	24.1	23.2	26
Jul 12	0901	1.1	25.1	22.9	E2000
Jul 13	0913	1.5	25.3	23.5	560
Jul 14	0855	0.7	24.0	23.9	E49
Jul 18	0857	4.6	25.7	25.2	330
Jul 19	0849	16	23.7	25.2	2600
Jul 20	0920	1.9	26.6	26.1	160
Jul 21	0852	9.6	23.3	25.4	E2600
Jul 25	0902	12	26.1	25.7	330
Jul 26	0849	4.7	27.3	25.7	550
Jul 27	0848	39	20.2	25.2	1900
Jul 28	0915	3.2	22.1	25.1	380
Aug 01	0857	1.4	24.4	23.8	97
Aug 02	0730	1.7	23.2	23.6	100
Aug 03	0854	1.1	26.2	25.6	170
Aug 04	0900	1.5	23.7	25.3	250
Aug 08	0854	1.7	24.4	25.6	97
Aug 09	0849	3.0	25.6	25.0	1800
Aug 10	0905	2.0	25.6	25.0	190
Aug 11	0853	9.6	26.7	26.1	1800
Aug 15	0858	2.7	22.9	25.2	370
Aug 16	0852	1.2	22.5	23.9	390
Aug 17	0850	1.0	22.5	23.9	510
Aug 18	0858	1.4	23.3	23.9	450
412753082114200—LAKE ERIE AT LAKEVIEW BEACH EAST					
May 24	1140	24	12.5	14.5	260
May 25	0855	7.1	12.7	13.7	180
May 26	0847	3.4	15.4	15.1	E8
May 31	0853	2.6	17.1	15.7	32
Jun 01	0853	1.4	17.4	16.9	58

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

[(63676), USGS National Water Information System parameter code; NTRU, Nephelometric Turbidity Ratio Units; deg C, degrees Celsius; *E. coli*, *Escherichia coli*; col/100 mL, colonies per 100 milliliters; E, estimated]

Date	Time	Turbidity (NTRU) (63676)	Temperature, air (deg C) (00020)	Temperature, water (deg C) (00010)	<i>E. coli</i> modified mTEC, water (col/100 mL) (90902)
412753082114200—LAKE ERIE AT LAKEVIEW BEACH EAST—Continued					
Jun 02	0851	1.4	19.8	15.8	E12
Jun 06	0853	4.4	24.6	17.4	290
Jun 07	0846	2.2	23.3	18.9	20
Jun 08	0754	1.6	23.9	18.9	39
Jun 09	0848	6.9	25.5	20.6	660
Jun 13	0858	1.7	26.6	20.0	50
Jun 14	0940	13	24.3	21.2	320
Jun 15	0851	29	21.2	20.6	650
Jun 16	0803	22	16.5	20.7	440
Jun 20	0851	1.9	20.0	19.9	E12
Jun 21	0845	1.8	20.6	19.7	29
Jun 22	0850	8.2	20.0	20.6	500
Jun 23	0824	2.4	17.1	19.8	110
Jun 27	0843	1.4	26.9	21.9	42
Jun 28	0850	2.3	25.0	21.7	E65
Jun 29	0853	4.3	23.1	23.4	E1700
Jun 30	0850	1.9	24.3	23.6	310
Jul 05	0901	3.0	23.5	23.7	210
Jul 06	0903	5.4	21.9	23.3	710
Jul 07	0829	2.8	21.8	23.0	300
Jul 11	0847	1.3	24.1	23.2	35
Jul 12	0857	1.0	25.1	22.9	43
Jul 13	0918	2.1	25.3	23.5	850
Jul 14	0849	0.8	24.0	23.9	E760
Jul 18	0850	5.4	25.7	25.2	710
Jul 19	0845	14	23.7	25.2	E2800
Jul 20	0913	1.3	26.6	26.1	87
Jul 21	0846	16	23.3	25.4	E5900
Jul 25	0900	9.6	26.1	25.7	570
Jul 26	0858	3.9	27.3	25.7	770
Jul 27	0842	36	20.2	25.2	2600
Jul 28	0913	3.0	22.1	25.1	140
Aug 01	0854	1.0	24.4	23.8	E53
Aug 02	0724	1.4	23.2	23.6	48
Aug 03	0847	1.0	26.2	25.6	110

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

[(63676), USGS National Water Information System parameter code; NTRU, Nephelometric Turbidity Ratio Units; deg C, degrees Celsius; *E. coli*, *Escherichia coli*; col/100 mL, colonies per 100 milliliters; E, estimated]

Date	Time	Turbidity (NTRU) (63676)	Temperature, air (deg C) (00020)	Temperature, water (deg C) (00010)	<i>E. coli</i> modified mTEC, water (col/100 mL) (90902)
412753082114200—LAKE ERIE AT LAKEVIEW BEACH EAST—Continued					
Aug 04	0906	2.8	23.7	25.3	400
Aug 08	0902	1.4	24.4	25.6	110
Aug 09	0844	1.7	25.6	25.0	190
Aug 10	0917	2.0	25.6	25.0	240
Aug 11	0857	12	26.7	26.1	2400
Aug 15	0853	2.1	22.9	25.2	250
Aug 16	0849	1.1	22.5	23.9	150
Aug 17	0856	0.7	22.5	23.9	190
Aug 18	0842	0.9	23.3	23.9	230

Project Data—Stream-Sediment Data for Wright-Patterson Air Force Base

The following tables contain stream-sediment data for Wright-Patterson Air Force Base in southwestern Ohio. The data were collected to characterize the spatial extent of contamination of an unnamed receiving stream that has been attributed to runoff from the coal storage area for a heating plant. Streambed-material samples collected upstream and downstream from the heating plant were analyzed for the presence of coal-related trace-metal contaminants.



STREAM-SEDIMENT-QUALITY DATA, MAY 2005

[00300), USGS National Water Information System parameter code; $\mu\text{S}/\text{cm}$, microsiemens per centimeter; deg C, degrees Celsius; $\mu\text{g}/\text{g}$, micrograms per gram]

Date	Time	Dis- solved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, water, unf, $\mu\text{S}/\text{cm}$ 25 degC (00095)	Temper- ature, air, deg C (00020)	Temper- ature, water, deg C (00010)	Alum- inum, bed sediment, recover- able, $\mu\text{g}/\text{g}$ (01108)	Boron, bed sediment, recover- able, $\mu\text{g}/\text{g}$ (01023)
394740084044500 — WPAFB unnamed tributary 50 ft upstream of outfall								
May 26	1000	10.3	8.0	1210	24.0	14.7	8900	16
394740084044200 — WPAFB unnamed tributary 100 ft downstream of outfall								
May 26	1030	10.7	8.2	1210	24.0	14.7	10000	21
394739084044100 — WPAFB unnamed tributary 200 ft downstream of outfall								
May 26	1050	10.2	8.2	1210	24.0	14.8	5200	23
394738084043300 — WPAFB unnamed tributary 885 ft downstream of outfall								
May 26	1120	11.5	8.2	1240	24.0	14.7	9100	12
394739084043800 — WPAFB unnamed tributary 500 ft downstream of outfall								
May 26	1135	10.9	8.2	1200	24.0	14.6	6100	16
394736084042200 — WPAFB mouth of unnamed tributary								
May 26	1210	11.1	8.2	1220	24.0	14.5	6400	11

Date	Cadmium, bed sediment, recover- able, $\mu\text{g}/\text{g}$ (01028)	Chrom- ium, bed sediment, recover- able, $\mu\text{g}/\text{g}$ (01029)	Cobalt, bed sediment, recover- able, $\mu\text{g}/\text{g}$ (01038)	Copper, bed sediment, recover- able, $\mu\text{g}/\text{g}$ (01043)	Iron, bed sediment, total, $\mu\text{g}/\text{g}$ (01170)	Lead, bed sediment, recover- able, $\mu\text{g}/\text{g}$ (01052)	Mangan- ese, bed sediment, recover- able, $\mu\text{g}/\text{g}$ (01053)	Zinc, bed sediment, recover- able, $\mu\text{g}/\text{g}$ (01093)
394740084044500 — WPAFB unnamed tributary 50 ft upstream of outfall								
May 26	1.1	20	4.6	38	11000	25	310	75
394740084044200 — WPAFB unnamed tributary 100 ft downstream of outfall								
May 26	.840	20	10	38	12000	18	410	86
394739084044100 — WPAFB unnamed tributary 200 ft downstream of outfall								
May 26	.570	10	8.6	24	5500	9.8	250	44
394738084043300 — WPAFB unnamed tributary 885 ft downstream of outfall								
May 26	.580	15	12	29	12000	17	350	89
394739084043800 — WPAFB unnamed tributary 500 ft downstream of outfall								
May 26	.610	15	15	26	12000	15	280	75
394736084042200 — WPAFB mouth of unnamed tributary								
May 26	.380	19	9.4	19	11000	13	470	54

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