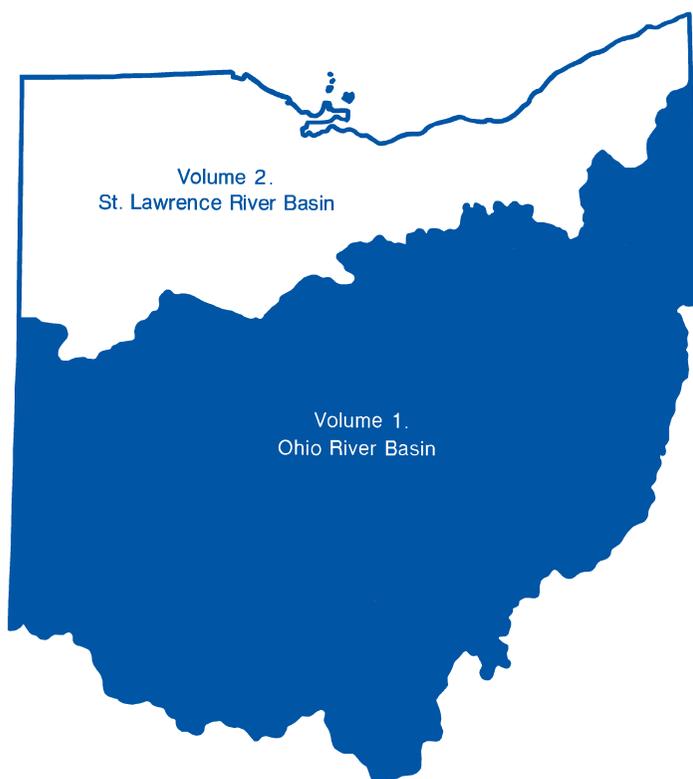


Water Resources Data Ohio Water Year 2001

Volume 1. Ohio River Basin Excluding Project Data

Water-Data Report OH-01-1



CALENDAR FOR YEAR 2001

2000

OCTOBER							NOVEMBER							DECEMBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
1	2	3	4	5	6	7				1	2	3	4						1	2
8	9	10	11	12	13	14	5	6	7	8	9	10	11	3	4	5	6	7	8	9
15	16	17	18	19	20	21	12	13	14	15	16	17	18	10	11	12	13	14	15	16
22	23	24	25	26	27	28	19	20	21	22	23	24	25	17	18	19	20	21	22	23
29	30	31					26	27	28	29	30			24	25	26	27	28	29	30
														31						

2001

JANUARY							FEBRUARY							MARCH						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
	1	2	3	4	5	6					1	2	3					1	2	3
7	8	9	10	11	12	13	4	5	6	7	8	9	10	4	5	6	7	8	9	10
14	15	16	17	18	19	20	11	12	13	14	15	16	17	11	12	13	14	15	16	17
21	22	23	24	25	26	27	18	19	20	21	22	23	24	18	19	20	21	22	23	24
28	29	30	31				25	26	27	28				25	26	27	28	29	30	31

APRIL							MAY							JUNE						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
1	2	3	4	5	6	7			1	2	3	4	5						1	2
8	9	10	11	12	13	14	6	7	8	9	10	11	12	3	4	5	6	7	8	9
15	16	17	18	19	20	21	13	14	15	16	17	18	19	10	11	12	13	14	15	16
22	23	24	25	26	27	28	20	21	22	23	24	25	26	17	18	19	20	21	22	23
29	30						27	28	29	30	31			24	25	26	27	28	29	30

JULY							AUGUST							SEPTEMBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
1	2	3	4	5	6	7				1	2	3	4							1
8	9	10	11	12	13	14	5	6	7	8	9	10	11	2	3	4	5	6	7	8
15	16	17	18	19	20	21	12	13	14	15	16	17	18	9	10	11	12	13	14	15
22	23	24	25	26	27	28	19	20	21	22	23	24	25	16	17	18	19	20	21	22
29	30	31					26	27	28	29	30	31		23	24	25	26	27	28	29
														30						

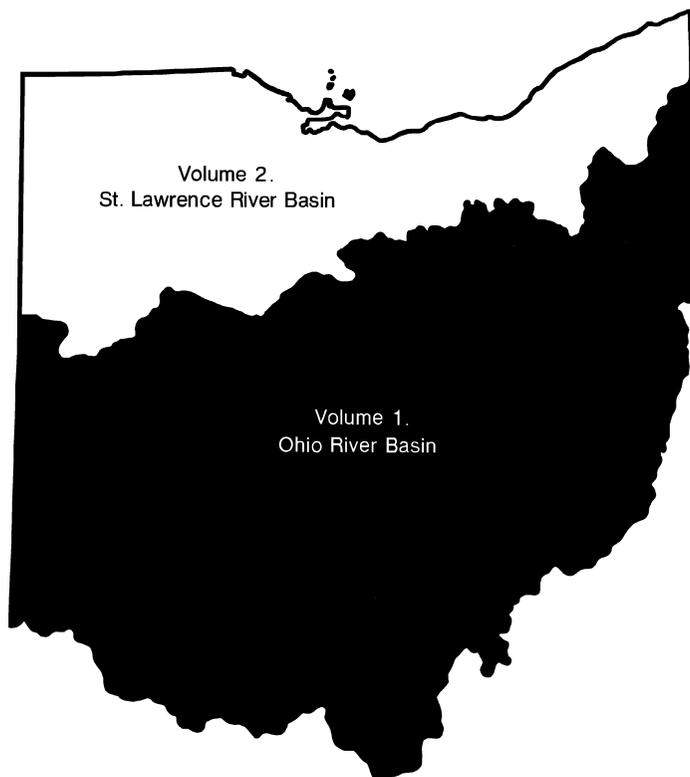
U.S. Department of the Interior
U.S. Geological Survey

Water Resources Data Ohio Water Year 2001

Volume 1. Ohio River Basin Excluding Project Data

By H.L. Shindel, J.P. Mangus, and L.E. Trimble

Water-Data Report OH-01-1



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



U.S. Department of the Interior
Gale A. Norton, Secretary

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:

This report was prepared in cooperation with the State of Ohio and with other agencies under the general supervision of S.M. Hindall, District Chief, Ohio.

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13. ABSTRACT (Maximum 200 words) Water-resources data for the 2001 water year for Ohio consist of records of stage, discharge, and water quality of streams; stage and contents of lakes and reservoirs; and water levels and water quality of ground-water wells. This report, in two volumes, contains records for water discharge at 130 gaging stations and 65 partial-record sites; water levels at 160 observation wells and 25 crest-stage gages; and water quality at 25 gaging stations, 31 observation wells, and 9 partial-record sites. Also included are data from miscellaneous and synoptic sites. Additional water data were collected at various sites not involved in the systematic data-collection program and are published as miscellaneous measurements and analyses. These data represent that part of the National Water Information System collected by the U.S. Geological Survey and cooperating Federal, State, and local agencies in Ohio.				
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SURFACE-WATER STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED

[Letters after station names designate type of data: (c) chemical, (d) discharge, (e) contents and (or) elevation, (M) water-quality monitor, (HBM) hydrologic bench mark, (S) daily suspended-sediment data]

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Kokosing River near Lucerne (d).....	03136175	78
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Killbuck Creek at Killbuck (d).....	03139000	80
Mill Creek near Coshocton (d).....	03140000	81
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South Fork Licking River near Hebron (d)	03145000	86
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GROUND-WATER STATIONS FOR WHICH RECORDS ARE PUBLISHED

[Letters after station names designate type of data: (c) chemical, (l) water level]

	Well Number	Local Number	Page
ASHLAND COUNTY			
Northeast of Ashland (l)	405303082170700	AS-2	222
Ashland (l)	405425082173000	AS-3	223
ATHENS COUNTY			
Athens (l)	392004082071600	AT-2A	224
Athens (l)	392009082072200	AT-5	225
AUGLAIZE COUNTY			
Southwest of New Hampshire (l)	403233083574500	AU-3	226
BELMONT COUNTY			
Mount Olivett (l)	400118081082200	B-3	227
BROWN COUNTY			
Fincastle (l)	385932083412400	BR-20	228
BUTLER COUNTY			
Northwest of Sharonville (l)	391805084261800	BU-9	229
Fairfield (l)	391942084345700	BU-18	230
Fairfield (l)	392017084345200	BU-7	231
East of Hamilton (l)	392048084311400	BU-8	232
Southwest of Trenton (l)	392737084291300	BU-16	233
Southwest of Trenton (l)	392743084295500	BU-17	234
Middletown (l)	392939084231700	BU-3	235
Middletown (l)	393103084240900	BU-2	236
Middletown (l)	393202084241500	BU-15	237
CARROLL COUNTY			
North of Carrollton (l)	403709081052800	C-1	238
CHAMPAIGN COUNTY			
Urbana (l)	400638083453900	CH-3	239
CLARK COUNTY			
New Carlisle (l)	395639084012200	CL-9	240
Northwest of Springfield (l)	395840083495200	CL-7	241
COSHOCTON COUNTY			
North of Conesville (l)	401256081525100	CS-3	242
Coshocton (l)	401735081523800	CS-2	243
DARKE COUNTY			
East of Greenville (l)	400514084345700	D-2	244
DELAWARE COUNTY			
Delaware (l)	402126083040400	DL-3	245
FAIRFIELD COUNTY			
Southeast of Amanda (l)	393450082403600	F-7	246
Lancaster (l)	394257082362900	F-6	247
West Rushville (l)	394544082271000	F-1	248
Baltimore (l)	395053082361900	F-5	249
FAYETTE COUNTY			
West of Washington Court House (l)	393153083322000	FA-1	250

	Well Number	Local Number	Page
FRANKLIN COUNTY			
Shadeville (1)	394956083002700	FR-18	251
Shadeville (1)	395055083000600	FR-19	252
Columbus (1)	400101083021800	FR-10	253
GALLIA COUNTY			
East of Crown City (1)	383638082103300	G-2	254
GREENE COUNTY			
North of Xenia (1)	394411083561300	GR-1	255
North of Xenia (1)	394425083551100	GR-10	256
HAMILTON COUNTY			
Cincinnati (1)	391039084291500	H-11	257
Southeast of Miami (1)	391101084172100	H-3	258
Cincinnati (1)	391201084281600	H-10	259
Southeast of Harrison (1)	391214084470100	H-1	260
Wyoming (1)	391341084275300	H-8	261
Evendale (1)	391442084262900	H-7	262
Glendale (1)	391608084254400	H-6	263
South of Ross (1)	391733084392400	H-2	264
Southwest of Ross (1)	391817084393300	H-4	265
HARDIN COUNTY			
Alger (1)	404218083503700	HN-1	266
HOCKING COUNTY			
Logan (1)	393200082235300	HK-1	267
KNOX COUNTY			
Mt. Vernon (1)	402344082300700	K-1	268
Fredericktown (1)	402747082374300	K-4	269
LICKING COUNTY			
St. Louisville (1)	400848082251100	LI-4	270
LOGAN COUNTY			
West Liberty (1)	401510083444400	LO-3	271
MADISON COUNTY			
London (1)	395301083272200	M-2	272
Northwest of London (1)	395352083292100	M-5	273
Northwest of London (1)	395357083304400	M-4	274
North of London (1)	395740083255700	M-3	275
MAHONING COUNTY			
Canfield (1)	410042080453800	MA-1	276
MARION COUNTY			
Southeast of New Bloomington (1)	403413083170500	MN-4	277
LaRue (1)	403443083230400	MN-1	278
West of Marion (1)	403601083110400	MN-2	279
MEDINA COUNTY			
Wadsworth (1)	410120081431800	MD-3	280
MERCER COUNTY			
Coldwater (1)	402833084375200	MR-2	281
MIAMI COUNTY			
Northeast of Tipp City (1)	395848084085500	MI-3	282

	Well Number	Local Number	Page
MONTGOMERY COUNTY			
West Carrollton (1)	394012084151700	MT-55	283
West Carrollton (1)	394025084162800	MT-49	284
Dayton (1)	394425084113200	MT-3	285
Dayton (1)	394533084113800	MT-6	286
Dayton (1)	394811084095000	MT-74	287
MUSKINGUM COUNTY			
Zanesville (1)	395804081593200	MU-1A	288
PICKAWAY COUNTY			
South of Circleville (1)	393327082571600	PK-7	289
South of Circleville (1)	393402082572500	PK-4	290
Northwest of Circleville (1)	393638082572300	PK-6	291
Orient (1)	394742083094800	PK-9	292
PIKE COUNTY			
West of Piketon (1)	390359083015100	PI-2	293
PORTAGE COUNTY			
Windham (1)	411401081025000	PO-1	294
PREBLE COUNTY			
East of Eaton (1)	394438084335900	PR-2	295
RICHLAND COUNTY			
Mansfield (1)	404625082305100	R-4	296
Shiloh (1)	405753082360800	R-3	297
ROSS COUNTY			
West of Bainbridge (1)	391341083172200	RO-7	298
SHELBY COUNTY			
Sidney (1)	401707084103100	SH-5	299
STARK COUNTY			
Canton (1)	404939081203800	ST-5A	300
North Canton (1)	405211081253500	ST-27	301
TUSCARAWAS COUNTY			
Dover (1)	403207081293800	TU-3	302
Strasburg (1)	403557081313600	TU-4	303
North of Strasburg (1)	403653081321800	TU-1	304
Strasburg (1)	403823081324200	TU-5	305
UNION COUNTY			
Southeast of Raymond (1)	401826083255200	U-4	306
East of East Liberty (1)	402010083321900	U-5	307
VINTON COUNTY			
McArthur (1)	391452082282900	V-1	308
WARREN COUNTY			
Kings Mill (1)	392119084142000	W-6	309
East of Monroe (1)	392712084191700	W-5	310
WASHINGTON COUNTY			
North of Marietta (1)	392553081281600	WA-2	311
WAYNE COUNTY			
Wooster (1)	404655081553200	WN-3	312
Wooster (1)	404802081583100	WN-2A	313
Sterling (1)	405745081510200	WN-7	314
Rittman (1)	405805081462300	WN-6	315

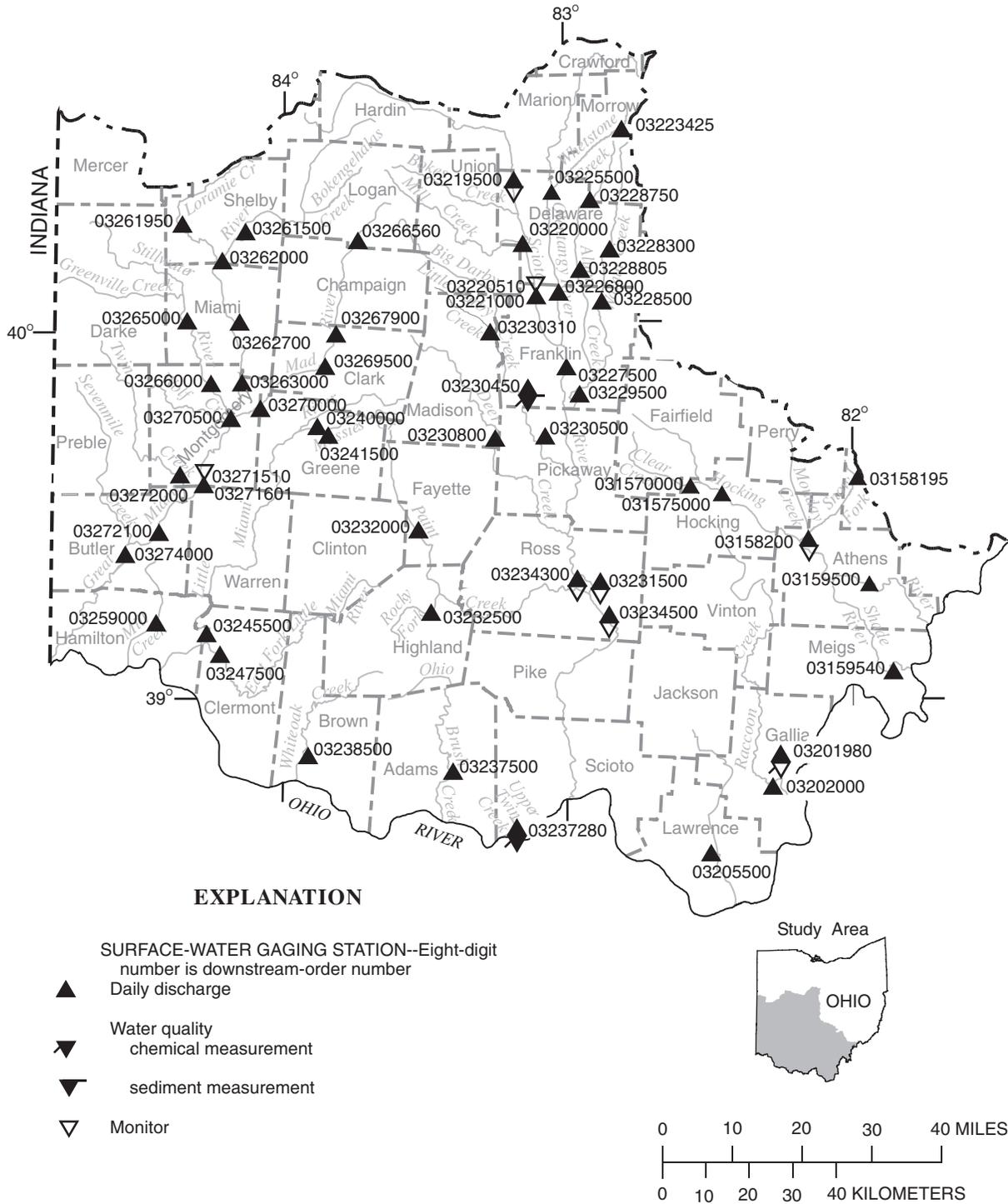


Figure 1a. Location of data-collection stations.

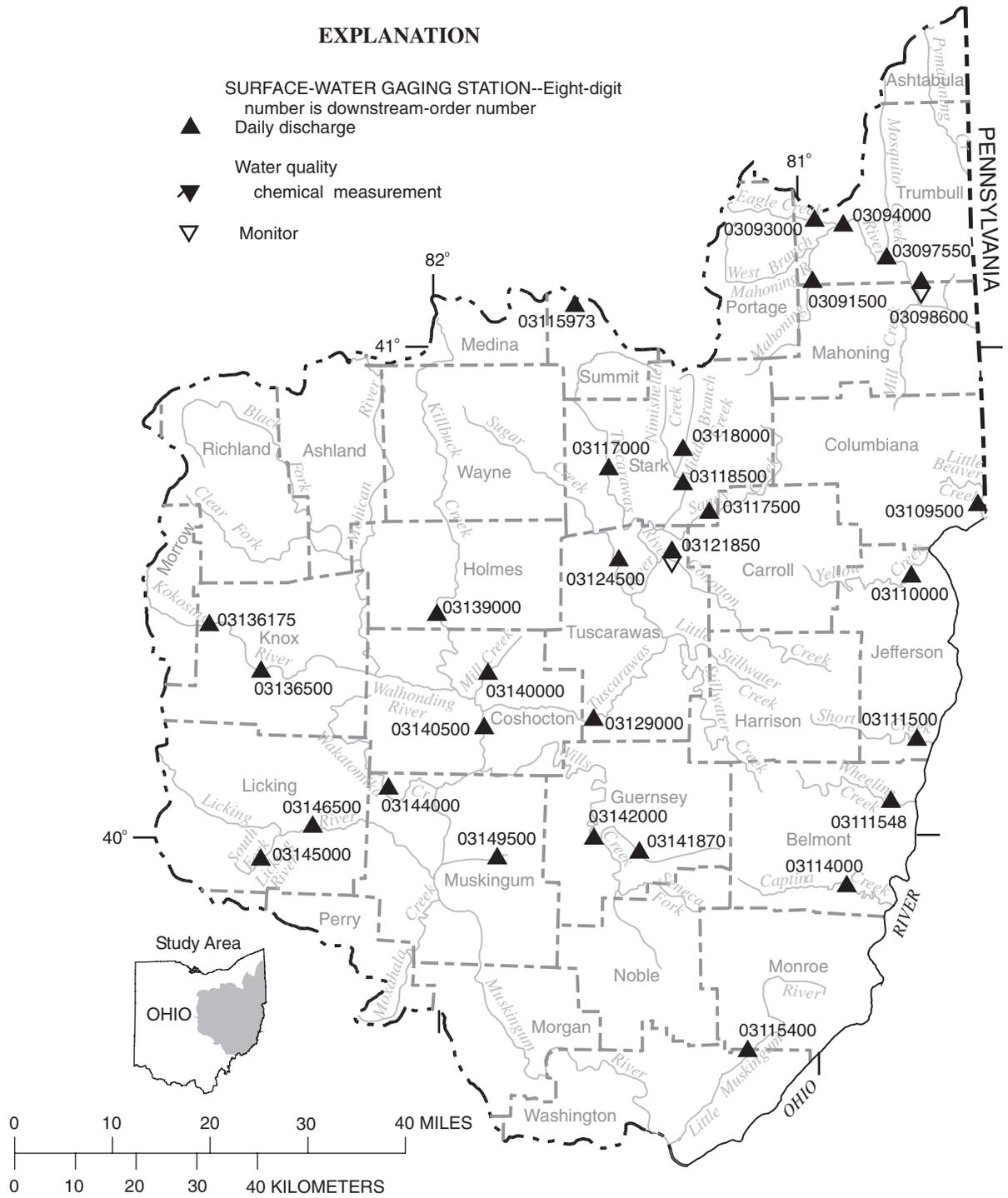


Figure 1b. Location of data-collection stations.

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 District Office at the address given on the back side of the title page of this report.

[mi², square miles]

Station name	Station number	Drainage area (mi ²)	Period of record
Mahoning River at Alliance	03086500*	89.2	1941-93
Beech Creek near Bolton	03087000	17.4	1944-51
Deer Creek at Limaville	03088000	33.2	1942-51
Mahoning River near Deerfield	03088500	175	1924-31
Willow Creek near Deerfield	03089000	11.6	1941-43
Mill Creek near Berlin Center	03089500	19.1	1942-72
Mahoning River below Berlin Dam near Berlin Center	03090500	48	1931-92
Kale Creek near Pricetown	03092000	21.9	1941-93
West Branch Mahoning River near Ravenna	03092090*	21.8	1966-93
West Branch Mahoning River below MJ Kerwin Dam at Wayland	03092460	81.7	1969-92
West Branch Mahoning River near Newton Falls	03092500	96.3	1927-82
Duck Creek at Leavittsburg	03093500	32.3	1941-48
Mahoning River at Warren	03094500	594	1925-35
Mosquito Creek below Mosquito Creek Dam near Cortland	03095500	97.5	1926-29 1943-92
Mosquito Creek at Niles	03096000	138	1929-51
Meander Creek at Ohlestown	03096500	78.4	1926-29
Meander Creek at Mineral Ridge	03097500	84.3	1929-51
Pymatuning Creek at Kinsman	03102950*	96.7	1966-94
Lisbon Creek at Lisbon	03109000	6.19	1947-62
Stateline Creek near Negley	03109320	3.09	1977-79
Yellow Creek at Hammondsville	03110500	164	1915-35
Consol Run near Bloomingdale	03110983	.98	1979-81
Little Muskingum River at Fay	03115500	258	1915-18 1926-35
Montrose Run at Montrose	03115969	0.263	1993-98
Schocalog Run at Montrose	03115970	1.59	1994-98
Schocalog Run at Fairlawn	03115971	2.13	1992-98
Tuscarawas River at Clinton	03116000	174	1926-79
Chippewa Creek at Easton	03116200	146	1961-82
Tuscarawas River at Crystal Springs	03116500	435	1922-29
Sandy Creek at Sandyville	03119000	481	1924-47
McGuire Creek below Leesville Dam near Leesville	03120500*	48.3	1939-90 1992
Indian Fork below Atwood Dam near New Cumberland	03121500	70	1961-75
Tuscarawas River below Dover Dam near Dover	03122500*	1,045	1924-92
Sugar Creek above Beach City Dam at Beach City	03123000	160	1945-75
Sugar Creek below Beach City Dam near Beach City	03124000*	300	1939-91

Discontinued Surface-Water-Discharge Stations—Continued

[mi², square miles]

Station name	Station number	Drainage area (mi ²)	Period of record
Home Creek near New Philadelphia	03125000	1.64	1937-80
Stillwater Creek at Piedmont	03126000*	122	1939-93
Stillwater Creek at Tippecanoe	03127000*	282	1939-93
Stillwater Creek at Urichsville	03127500*	367	1922-93
Clear Fork Tributary near Hanover	03127970	.68	1978-81
Little Stillwater Creek below Tappan Dam at Tappan	03128500*	71.1	1939-93
Black Fork below Charles Mills Dam near Mifflin	03130000*	217	1939-93
Touby Run at Mansfield	03130500	5.44	1947-78
Rocky Fork near Mansfield	03131000	39	1925-32
Black Fork at Loudonville	03131500*	349	1931-93
Clear Fork at Butler	03132000	136	1945-75
Clear Fork at Newville	03132500	174	1935-39
Clear Fork below Pleasant Hill Dam near Perrysville	03133500*	198	1939-86 1988-93
Jerome Fork at Jeromeville	03134000	120	1926-49
Lake Fork below Mohicanville Dam	03135000*	271	1939-93
Lake Fork near Loudonville	03135500	344	1931-32 1935-39
Mohican River at Greer	03136000	948	1922-82
North Branch Kokosing River near Federicktown	03136400	45.5	1973-78
Kokosing River at Millwood	03137000	455	1922-74
Walhonding River below Mohawk Dam at Nellie	03138500*	1,505	1922-92
Killbuck Creek at Layland	03139500	503	1924-30
Seneca Fork below Senecaville Dam near Senecaville	03141500*	118	1938-93
Salt Fork near Cambridge	03142200	55.6	1956-68
Salt Fork below Salt Fork Dam near Cambridge	03142295	159	1971-82
Wills Creek at Birds Run	03142500	730	1928-39
Wills Creek below Wills Creek Dam at Wills Creek	03143500*	842	1939-92
Sand Fork near Wakatomika	03144400	1.34	1978-83
Opossum Run Tributary near Wakatomika	03144450	1.27	1978-83
Muskingum River at Dresden	03144500	5,993	1922-85
Raccoon Creek at Granville	03145500	82.7	1940-48
North Fork Licking River at Utica	03146000	116	1940-48 1970-83
Licking River at Toboso	03147000	672	1903-06 1922-61
Licking River below Dillon Dam near Dillon Falls	03147500*	742	1940-92
Muskingum River at McConnelsville	03150000	7,422	1922-93
Meigs Creek near Beverly	03150250	136	1972-75
Hunters Run at Lancaster	03156000	10.0	1956-80
Muskingum River at Beverly	03150300	7,627	1993-99
Hocking River at Lancaster	03156400	48.2	1956-75
Hocking River near Lancaster	03156500	90.3	1924-32
Clear Fork near Logan	03158000	14.8	1942-47
Sunday Creek at Gloucester	03159000	104	1952-81

Discontinued Surface-Water-Discharge Stations—Continued

[mi², square miles]

Station name	Station number	Drainage area (mi ²)	Period of record
Hocking River below Athens	03159510	957	1977-93
East Branch Shade River near Toppers Plains	03159555	37.5	1980-82 1983-85
Sandy Run above Big Four Hollow Creek near Lake Hope	03201600	.98	1971-82
Big Four Hollow Creek below East Fork near Lake Hope	03201660	.73	1979-81
Big Four Hollow Creek near Lake Hope	03201700	1.01	1971-83
Hull Hollow Creek near Lake Hope	03201720	.22	1979-81
Sandy Run near Lake Hope	03201800	4.99	1958-79
Zinns Run near Radcliff	03201929	3.41	1988-91
Strongs Run near Ewington	03201947	15.8	1988-91
Symmes Creek at Getaway	03205500	335	1938-47
Scioto River at LaRue	03217500	257	1927-35 1939-51
Little Scioto River above Marion	03218000	72.4	1939-72
Little Scioto River at Sewage Treatment Plant near Marion	03218500	85.8	1925-36 1938-39
Little Scioto River near Marion	03219000	93.3	1924-25 1939
Bokes Creek near Warrenburg	03219590	83.2	1982-97
Eagon Run near Warrenburg	03219600	.123	1950-62
Olentangy River near New Winchester	03222500	49.4	1947-49
Olentangy River at Clairdon	03223000	157	1947-98
Whetstone Creek near Shawtown	03223500	61.8	1947-55
Shaw Creek at Shawtown	03224000	25.4	1947-55
Whetstone Creek near Ashley	03224500	98.7	1955-74
Olentangy River at Delaware	03226000	421	1922-24
Olentangy River at Stratford	03226500	445	1934-36 1938-58
Rush Run at Worthington	03226865	1.65	1979-82
Linworth Road Creek at Columbus	03226870	2.03	1979-82
Bethel Road Creek at Columbus	03226875	.22	1979-82
Olentangy River at Henderson Road at Columbus	03226885	518	1978-82
Scioto Big Run at Briggsdale	03228000	11.0	1947-58
Alum Creek at Columbus	03229000*	189	1923-35 1938-98
Scioto River near Circleville	03230000	2,638	1939-56
Scioto River at Circleville	03230700*	3,217	1974-79 1990
Deer Creek at Pancoastburg	03230900*	277	1964-98
Deer Creek at Williamsport	03231000	333	1927-35 1939-56 1962-92
Rattlesnake Creek at Centerfield	03232300	209	1971-82
Paint Creek below Paint Creek Dam near Bainbridge	03232470	570	1968-92

Discontinued Surface-Water-Discharge Stations—Continued

[mi², square miles]

Station name	Station number	Drainage area (mi ²)	Period of record
Paint Creek at Bourneville	03234000*	807	1921-37 1938-98
Salt Creek at Tarlton	03235000	11.5	1947-61
Tar Hollow Creek at Tar Hollow State Park	03235500	1.35	1947-79
Salt Creek near Londonderry	03236000	286	1939-50
Little Salt Creek near Jackson	03236500	76.1	1925-32
Little Miami River near Selma	03239000	48.9	1952-58
North Fork Little Miami River near Pitchin	03239500	28.9	1951-58
North Fork Massies Creek at Cedarville	03240500	28.9	1954-68
South Fork Massies Creek at Cedarville	03241000	17.1	1954-68
Little Miami River at Spring Valley	03242000	360	1926-35 1940-51
Little Miami River near Spring Valley	03242050	366	1968-85
Caesar Creek near Xenia	03242150	71.4	1900 1968-84
Anderson Fork near New Burlington	03242200	77.8	1968-84
Caesar Creek at Harveysburg	03242300	209	1961-75
Caesar Creek near Wellman	03242350	239	1965-74
Little Miami River near Fort Ancient	03242500	680	1940-51
Todd Fork near Wilmington	03243000	22.2	1923 1943-44
Cowan Creek near Wilmington	03243500	32.0	1943-50
Todd Fork near Roachester	03244000	219	1952-75
East Fork Little Miami River near Dodsonville	03246000	91.4	1947-48
East Fork Little Miami River near Marathon	03246200	195	1968-84
East Fork Little Miami River near Williamsburg	03246500	237	1949-53 1961-74 1999-2000
East Fork Little Miami River near Bantam	03247000	330	1949-53
East Fork Little Miami River near Batavia	03247050	352	1965-94
Shayler Run near Perintown	03247400	11.8	1968-73
Little Miami River at Plainville	03248000	1,713	1965-71
Mill Creek at Reading	03255500	73.0	1939-91
West Fork Mill Creek at Mount Healthy	03256000	7.90	1949-53
West Fork Mill Creek near Greenhills	03257000	29.9	1945-53
West Fork Mill Creek at Woodlaw	03257500	32.2	1953-86
West Fork Mill Creek at Lockland	03258000	35.6	1939-57
Mill Creek at Mitchell Avenue at Cincinnati	03259500	135	1941-48 1990
Stony Creek near DeGraff	03260800	59.1	1958-76
Bokengehalas Creek near DeGraff	03260700	36.3	1957-92
Bokengehalas Creek at DeGraff	03260706*	40.4	1992-96
Great Miami River at Quincy	03261000	405	1947-49
Great Miami River at Piqua	03262500	866	1915-17
Greenville Creek near Greenville	03263500	142	1930-31

Discontinued Surface-Water-Discharge Stations—Continued

[mi², square miles]

Station name	Station number	Drainage area (mi ²)	Period of record
Greenville Creek near Bradford	03264000*	193	1931-2000
Mad River at Zanesfield	03266500	7.31	1947-78
Mad River near Urbana	03267000*	162	1926-31 1939-98
Mad River at Tremont City	03267500	264	1931-33 1966-75
Chapman Creek at Tremont City	03267600	24.0	1968-69
Moore Run near Eagle City	03267700	18.2	1966-72
Buck Creek near New Moorefield	03267950	30.5	1967-77
East Fork Buck Creek near New Moorefield	03267960	28.7	1967-77
Buck Creek at New Moorefield	03268000	65.3	1943-58
Beaver Creek near Springfield	03268500	39.2	1943-58 1973-76
Buck Creek at Springfield	03269000	139	1915-21 1925-49 1973-74
Wolf Creek at Trotwood	03270800	22.7	1963-86
Wolf Creek at Dayton	03271000*	68.7	1939-50 1987-97
Great Miami River at Miamisburg	03271500*	2,711	1916-20 1924-35 1952-95
Twin Creek near Ingomar	03271800	197	1962-99
Sevenmile Creek at Camden	03272700*	69.0	1971-2000
Sevenmile Creek at Collinsville	03272800	120	1960-72
Sevenmile Creek at Sevenmile	03273000	135	1915-20
Fourmile Creek near Hamilton	03273500	307	1938-60
Great Miami River at Venice	03274500	3,789	1915-27 1932-33

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 District Office at the address given on the back side of the title page of this report.

[mi², square miles; letters designate type of record: do, dissolved oxygen; pH, pH; s, sediment; sc, specific conductance; t, temperature]

Station name	Station number	Drainage area (mi ²)	Type of record	Period of record
Beech Creek near Bolton	03087000	17.4	t	1943-51
Mahoning River above Duck Creek at Leavittsburg	03093800	542	do, pH, sc, t	1968-81
Mahoning River at Warren	03094500	594	t	1924-35
Mahoning River at Lowellville	03099500	1,073	t	1953-61
			do, pH, sc, t	1963-67
Mahoning River at Ohio-Pennsylvania State Line	03099510	1,075	do, pH, sc, t	1967-91
Ohio River at Stratton	03110700	23,500	t	1961
			sc	1964-70
Consol Run near Bloomingdale	03110983	.98	s	1979-81
Tuscarawas River at Navarre	03117100	534	do, pH, sc, t	1968-84
			do, pH, sc, t	1987-91
Black Fork at Londonville	03131500	349	do, pH, sc, t	1968-76
Sand Fork near Wakatomika	03144400	1.34	s	1978-81
North Fork Licking River at Utica	03146000	116	t	1970-73
Licking River near Newark	03146500	537	t	1962-68
			do, pH, sc, t	1968-80
Muskingum River at Philo	03149200	7,196	do, pH, sc, t	1965-74
Muskingum River near Beverly	03150300	7,626	t	1963-70
			sc	1964-70
North Branch Hunters Run near Hooker	03155900	104	s	1956-62
Hocking River at Athens	03159500	943	t	1954-64
			s	1956-65
			sc	1964-65
Hocking River below Athens	03159510		do, sc, t	1966-80
			pH	1972-80
Sandy Run above Big Four Hollow Creek near Lake Hope	03201600	98	pH, sc, t	1971-78
Big Four Hollow Creek near Lake Hope	03201700	1.01	pH, sc, t	1971-83
			s	1978-83
Sandy Run near Lake Hope	03201800	4.99	do, sc, t.	1970-78
Raccoon Creek at Adamsville	03202000	585	do, pH, sc, t	1967-84
			s	1969-74
			s	1985
Whetstone Creek near Ashley	03224500	98.7	sc	1964-68
Olentangy River near Worthington	03226800	497	t	1955-68
			s	1978-81
Rush Run at Worthington	03226865	1.65	s	1978-81
Linworth Road Creek at Columbus	03226870	2.03	s	1978-81
Bethel Road Creek at Columbus	03226875	.22	s	1978-81

Discontinued Surface-Water-Quality Stations—Continued

[mi², square miles; letters designate type of record: do, dissolved oxygen; pH, pH; s, sediment; sc, specific conductance; t, temperature]

Station name	Station number	Drainage area (mi ²)	Type of record	Period of record
Olentangy River at Henderson Road at Columbus	03226885	518	s	1978-81
Alum Creek at Africa	03228805	122	sc, t	1965-70
Scioto River below Shadeville	03229600	2,266	do, sc, t, pH	1965-80 1971-80
Little Darby Creek at West Jefferson	03230310	162	s	1992-98
Big Darby Creek at Darbyville	03230500	534	s	1965-77 1992-98
Paint Creek near Greenfield	03232000	249	t	1974-78
Rattlesnake Creek at Centerfield	03232300	209	t	1974-78
Salt Creek near Londonderry	03235995	268	t	1973-74
Scioto River at Lucasville	03237100	6,178	t sc	1956-74 1965-74
Little Miami River near Selma	03239000	48.9	s, t	1952-58
North Fork Little Miami River near Pitchin	03239500	28.9	s, t	1952-58
North Fork Massies Creek at Cedarville	03240500	28.9	s, t	1954-68
South Fork Massies Creek near Cedarville	03241000	17.1	s, t	1954-68
Little Miami River near Spring Valley	03242050	366	do, pH, sc, t	1968-80
Caesar Creek at Harveysburg	03242300	209	sc, t	1970-75
Todd Fork near Roachester	03244000	219	s, t	1952-58
Little Miami River at Miamiville	03245300	1,189	do, pH, sc, t	1970-75
Little Miami River at Milford	03245500	1,203	do, pH, sc, t s	1975-84 1978-84
East Fork Little Miami River at Williamsburg	03246500	237	sc, t	1970-75
Great Miami River at Tipp City	03262745	970	do, pH, sc, t	1978-80
Mad River at Eagle City	03267800	307	s, t	1965-69
Buck Creek at New Moorefield	03268000	65.3	sc, t	1970-76
Mad River near Dayton	03270000	635	do, pH, sc, t	1968-80
Great Miami River near Stewart Street at Dayton	03271075	2,587	do, pH, sc, t	1978-80
Great Miami River near Miamisburg	03271600	2,715	do, pH, sc, t	1964-78
Great Miami River at Rockdale	03272410	3,275	do, pH, sc, t	1978-80
Great Miami River at New Baltimore	03274600	3,814	sc, t do, sc, t pH	1966 1968-82 1975-82
Great Miami River at Elizabethtown	03276600	5,356	t sc	1956-74 1964-74

INTRODUCTION

The Water Resources Division 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 through 1d (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-01-1." 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 District's Web site can be accessed at <http://oh.water.usgs.gov>.)

Additional information for specific reports may be obtained by writing the District Chief at 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, Aurora, Canton, Cincinnati, Columbus (Water Division and Sewerage and Drainage

WATER RESOURCES DATA—OHIO, 2001
Volume 1: Ohio River Basin Excluding Project Data

Division), Cuyahoga Falls, Elyria, Fremont, Warren, Westerville, Willoughby, and Youngstown Counties of Clermont, Cuyahoga (Board of Health and Sanitary Engineering Division), Geauga, Knox, Lorain, Madison, Portage, Ross, and Summit
 Cuyahoga River Community Planning Organization
 Eastgate Development and Transportation Agency
 Federal Emergency Management Agency, Region V
 Miami Conservancy District
 Northeast Ohio Regional Sewer District
 Ohio Departments of Environmental Protection (Drinking & Ground-water Division), Natural Resources (Mineral Resources Management and Water Divisions), and Transportation
 Ottawa River Coalition
 Ottawa Soil and Water District
 State of Ohio Adjutant General's Department
 Villages of Chagrin Falls, North Olmstead, and South Russell
 U.S. Air Force, Air Force Materiel Command, Aeronautical Systems Center, Environmental Management Directorate, Restoration Branch
 U.S. Army Corps of Engineers (Buffalo, Huntington, Louisville, and Pittsburgh Districts, and Industrial Operations)
 U.S. Environmental Protection Agency
 West Virginia Division of Environmental Protection
 West Virginia University

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.

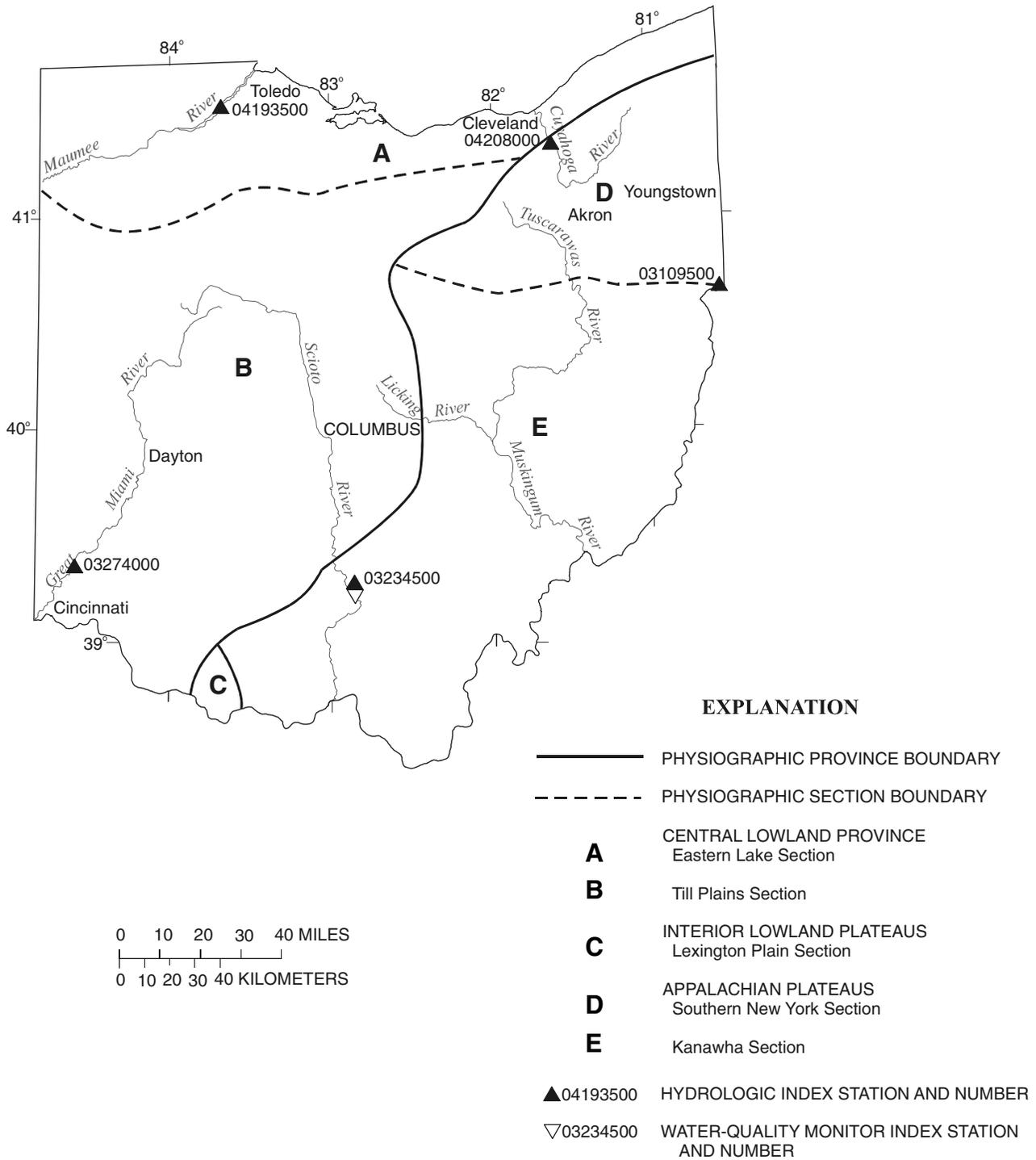


Figure 2. Physiographic divisions and location of hydrologic index stations.

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 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 4 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 2001. Streamflow conditions during water year 2001 were as follows:

October. At the beginning of water year 2001, streamflow was in the normal* range statewide except for northwestern Ohio, where flows were excessive. Above-normal precipitation in October caused flows to rise into the excessive range throughout the State except for northeastern Ohio, where they remained normal.

November. Streamflows fell into the deficient range in northeast Ohio and into the normal range elsewhere in response to below-normal precipitation.

December. Streamflows were generally normal to above normal statewide, owing to above-normal precipitation.

January–February. Flows were in the normal range for most of the State through the period.

March–April. Flows became deficient throughout the State in response to below-normal precipitation at the beginning of the period but returned to the normal range at the end of the period.

May–June. Streamflows were generally above normal in the southwestern two-thirds of Ohio and normal to below normal elsewhere.

July–August. Streamflows were in the normal range statewide except for northeastern Ohio, where they remained deficient because of below-normal precipitation.

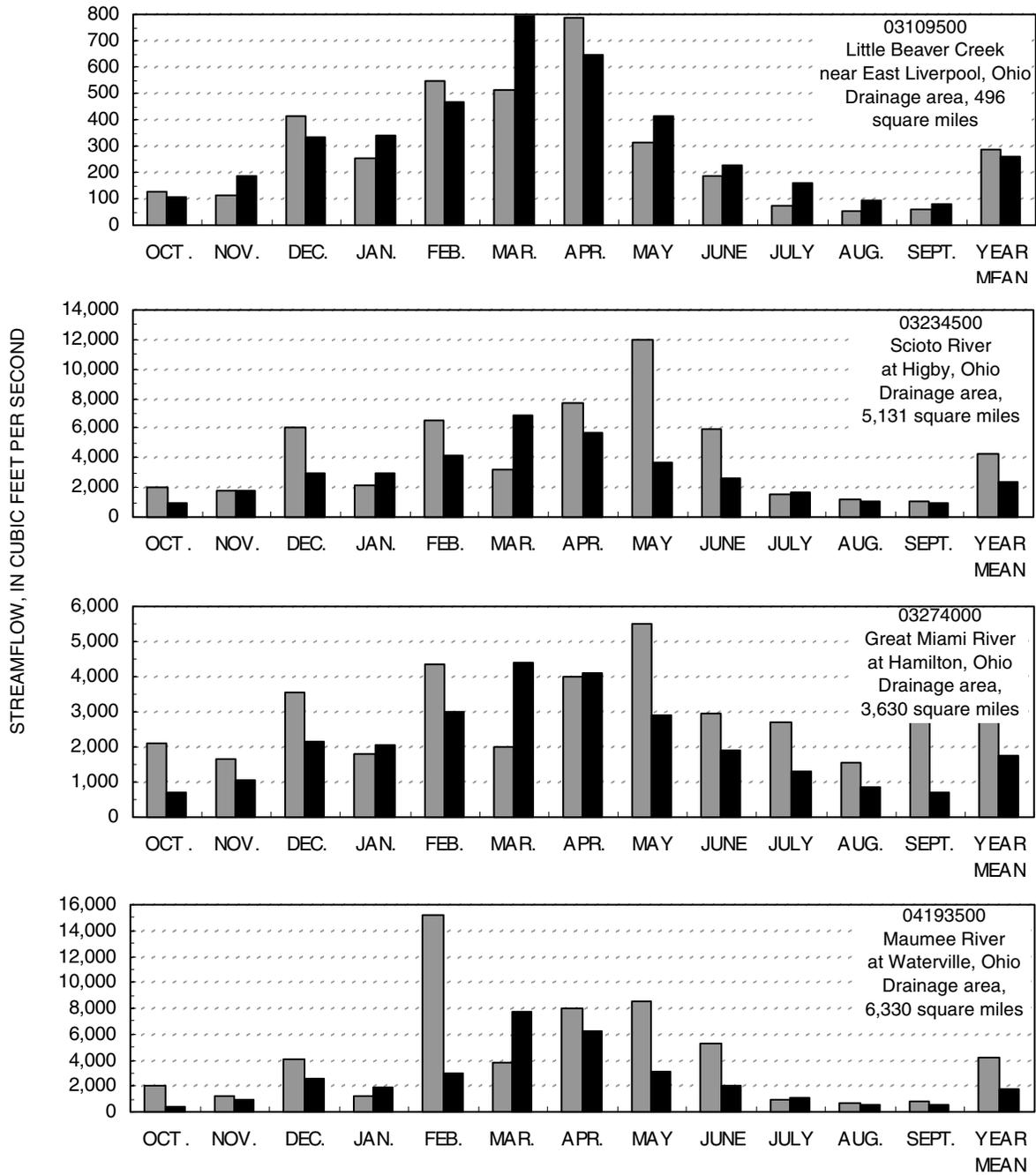
September. Above-normal precipitation kept streamflows in the normal range for the remainder of the water year except for southwestern Ohio, where flows became excessive.

A comparison of streamflows for 2001 with long-term median flows at four representative stations is shown in figure 3.

Water Quality

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. The National Stream Quality Accounting Network (NASQAN) and the Hydrologic Benchmark Network (BENCHMARK) are other long-term national water-quality programs; however, work in Ohio on NASQAN was discontinued in 1996, and work on BENCHMARK was discontinued in 1998 but resumed in 2001. 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

* For streamflow, “normal” is defined as being between the 25th and 75th percentiles as measured during the base period, water years 1961-90.



EXPLANATION

- MONTHLY AND YEARLY MEAN STREAMFLOW FOR WATER YEAR 2001
- MEDIAN OF MONTHLY AND YEARLY MEAN STREAMFLOW FOR PERIOD OF 1961-90

Figure 3. Streamflow during water year 2001 compared with median streamflow for period 1961-90 for four representative gaging stations.

sites as part of the Great Miami and Little Miami River Basins (MIAM) NAWQA study unit. During 2001, the LERI NAWQA was in its low-intensity data-collection phase; therefore, water-quality data were collected at only two fixed stations, one of which was the Maumee River at Waterville. During 2001, the MIAM NAWQA was also in its low-intensity data-collection phase and collected water-quality data at four fixed sites, one of which was the Mad River at St. Paris Pike near Eagle City, Ohio. Whereas water-quality sampling in the NASQAN program was done quarterly, sampling in the NAWQA program is done more frequently. For example, during 2001, monthly samples were collected at the Maumee River at Waterville and at the Mad River at St. Paris Pike. Samples at these sites were collected over a range of streamflows and were analyzed for major anions and cations, nutrients, pesticides, suspended sediment, selected physical properties, and *Escherichia coli*.

One of the samples collected during 2001 for nitrate plus nitrite concentrations at the Maumee River at Waterville and none of the samples collected at the Mad River at St. Paris Pike exceeded the U.S. Environmental Protection Agency maximum contaminant level (MCL) for finished drinking water (10 milligrams per liter, as N). The one sample that exceeded the MCL had a nitrate plus nitrite concentration of 11.7 milligrams per liter (mg/L) and was collected at high flow during the spring flush in May 2001. In Ohio, fertilizers are a major source of nitrate. Land use in the Maumee River Basin is mixed and consists of row-crop agriculture upstream and urban and industrial areas downstream. Nitrate plus nitrite concentrations in the Maumee River in 2001 ranged from 0.02 to 11.7 mg/L with a median concentration of 4.7 mg/L. At the Mad River site, located in a predominantly agricultural area, concentrations of nitrate plus nitrite were in a narrow range from 3.3 to 4.9 mg/L with a median concentration of 3.7 mg/L.

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 production of plant materials in water and eutrophication of the receiving water. During 2001, median concentrations of total phosphorus were 0.13 mg/L for the Maumee River and 0.06 mg/L for the Mad River. All of the samples collected had concentrations below 1 mg/L; the highest concentrations detected were 0.58 and 0.32 mg/L in the Maumee and Mad Rivers, respectively.

The Maumee and Mad Rivers drain areas of heavy herbicide use. Not surprisingly, herbicides were often detected in water samples collected during 2001. For example, atrazine and metolachlor were detected in 100 percent of the water samples collected from the Maumee and Mad Rivers. In the Mad River, atrazine concentrations were low and ranged from 0.008 to 0.22 microgram per liter ($\mu\text{g/L}$) with a median of 0.019 $\mu\text{g/L}$. In contrast, in the Maumee River, atrazine concentrations ranged from 0.069 to 20.2 $\mu\text{g/L}$ with a median of 0.221 $\mu\text{g/L}$. Simazine was detected in 100 percent and 50 percent of samples from the Maumee and Mad Rivers, respectively. Acetochlor was detected in 100 percent of the samples from the Maumee River and only 25 percent of the samples from the Mad River; however, only one sample collected from the Maumee River and no samples from the Mad River had concentrations that exceeded the U.S. Environmental Protection Agency's MCLs for atrazine (0.003 mg/L) and simazine (0.004 mg/L); MCLs are not developed for acetochlor. This sample was collected during the spring flush at high flow in May 2001.

Escherichia coli (*E. coli*) is a bacterial indicator for fecal contamination of water, and is the preferred and most useful indicator of the quality of freshwater recreational water for body contact. *Escherichia coli* concentrations in the Maumee River ranged from <3 to 970 colonies per 100 milliliters (col/100 mL) and for the Mad River ranged from 22 to 6,400 col/100 mL. The single-sample standard for primary-contact recreation (suitable for full-body contact such as swimming and canoeing) in Ohio is 298 col/100 mL. Sixty-four percent of the samples collected from the Maumee River and 80 percent from the Mad River met the primary-contact standard. Fecal contamination of waters can come from a variety of point and nonpoint sources include sewage-treatment plants; septic tanks; overflows from sanitary, combined, and storm sewers; feedlots; animal-production facilities; agricultural lands receiving manure applications; and pasture lands.

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. 4) 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. 4) that yields only small amounts of water to wells. Silurian-age limestone and dolomite and Devonian limestone comprise the carbonate aquifer system (fig. 4) 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.

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 5. 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 6. 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 2001 were as follows:

October–November. At the beginning of water year 2001, ground-water levels were below normal* statewide with the exception of some carbonate aquifers in western Ohio, where levels were near to above normal. Ground-water levels generally rose throughout the period in western Ohio and fell in

* For ground-water "normal" is defined as being between the 25th and 75th percentiles of the range values recorded during the reference period.

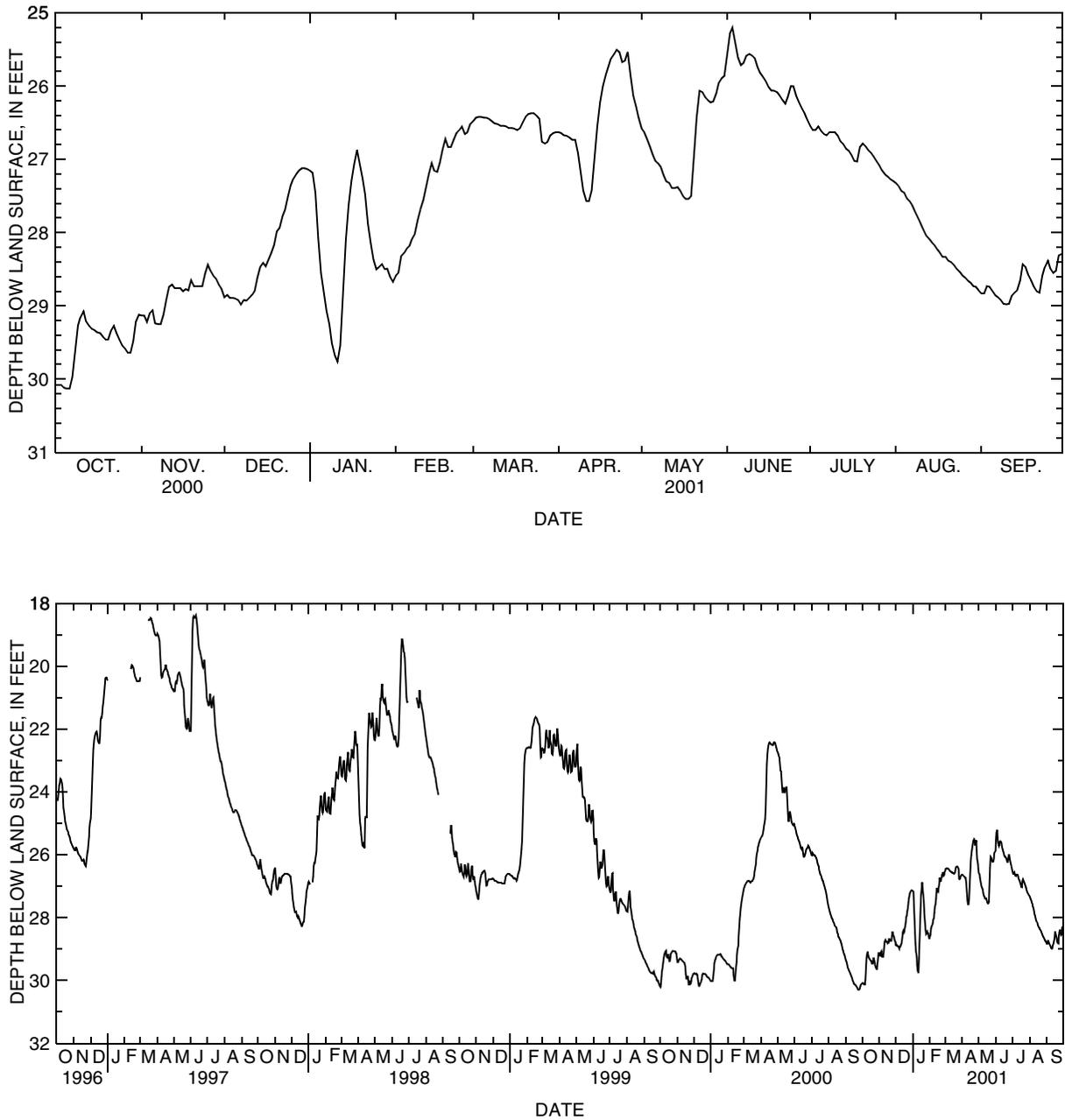


Figure 5. Sample of 1-year and 5-year hydrographs of well H-1 (391717084393300), completed in a unconfined unconsolidated aquifer.

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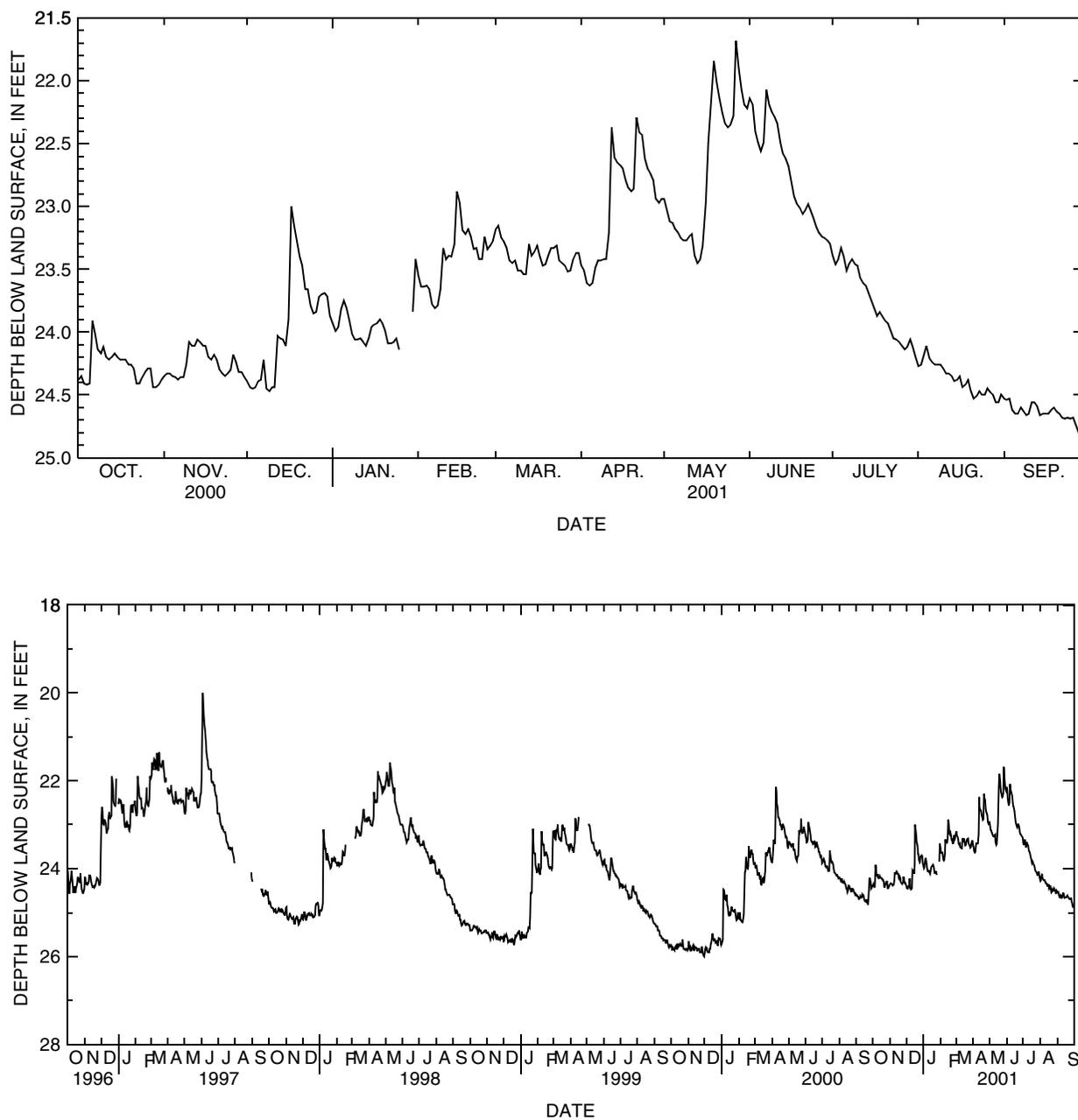


Figure 6. Sample of 1-year and 5-year hydrographs of well U-4 (401826083255200), completed in a confined carbonate-rock aquifer.

SPECIAL NETWORKS AND PROGRAM

Hydrologic Benchmark Network is a network of 50 sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by human activities.

National Stream-Quality Accounting Network (NASQAN) monitors the water quality of large rivers within four of the Nation's largest river basins—the Mississippi, Columbia, Colorado, and Rio Grande. 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 Program (NAWQA), (3) to characterize processes unique to large-river systems, such as storage and remobilization 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.

The National Atmospheric Deposition Program/National Trends Network (NADP/NTN) provides continuous measurement and assessment of the chemical climate of precipitation throughout the United States. As the lead Federal agency, the USGS works together with over 100 organizations to provide scientific investigators world-wide with a long-term, high-quality database of atmospheric deposition for research support in the areas of air quality, water quality, agricultural effects, forest productivity, materials effects, ecosystem studies, watershed studies and human health.

Data from the network, as well as information about individual sites, are available through the World Wide Web at <http://nadp.sws.uiuc.edu>.

The National Water-Quality Assessment (NAWQA) Program of the U.S. Geological Survey 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; provide an improved understanding of the primary natural and human factors affecting these observed conditions and trends; and provide information that supports development and evaluation of management, regulatory, and monitoring decisions by other agencies.

Assessment activities are being conducted in selected 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 are being 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 decision making by water-resources managers 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 to collaborate efforts among the agencies.

Additional information about the NAWQA Program is available through the World Wide Web at http://water.usgs.gov/nawqa/nawqa_home.html.

EXPLANATION OF THE RECORDS

The records in this report are for the 2001 water year that began October 1, 2000, and ended September 30, 2001. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data, stage and content data for lakes and reservoirs, water-quality data for surface and ground water, and ground-water-level data. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

Station Identification Numbers

Each data station, whether onstream or at a well, is assigned a unique identification number. The number is generally assigned when a station is first established and is retained for that station indefinitely. The systems used by the USGS to assign identification numbers for surface-water stations and for ground-water well sites differ, but both are based on geographic locations. The “downstream order” system is used for regular surface-water stations and the “latitude-longitude” system is used for wells and, in Ohio, for surface-water stations where only infrequent measurements are made.

Downstream Order System

Since October 1, 1950, the order of listing hydrologic-station records in USGS reports is in a 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 that enters between two main-stream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary with respect to the stream to which it is immediately tributary is indicated by an indentation in a “List of Stations” in the front of the report. Each indentation represents one rank. This downstream order and system of indentation show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

The station-identification number is assigned according to the above-mentioned downstream order. In assigning station numbers, 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 made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete eight-digit number for each station such as 04041000, which appears just to the left of the station name, includes the two-digit part number “04” plus the six-digit downstream order number “041000.” The part number designates the major river basin; for example, part “03” is the Ohio River Basin, and part “04” is the St. Lawrence River Basin.

Latitude-Longitude System

The identification numbers for wells and miscellaneous surface-water sites are assigned according to the grid system of latitude and longitude. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of latitude, the next seven digits denote degrees, minutes, and seconds of longitude, and the last two digits (assigned sequentially) identify the wells or other sites within a 1-second grid. In the rare instance where the initial determination of latitude and longitude are found to be in error, the station will retain its initial identification number; however, its true latitude and longitude will be listed in the LOCATION paragraph of the station description. (See figure 7.)

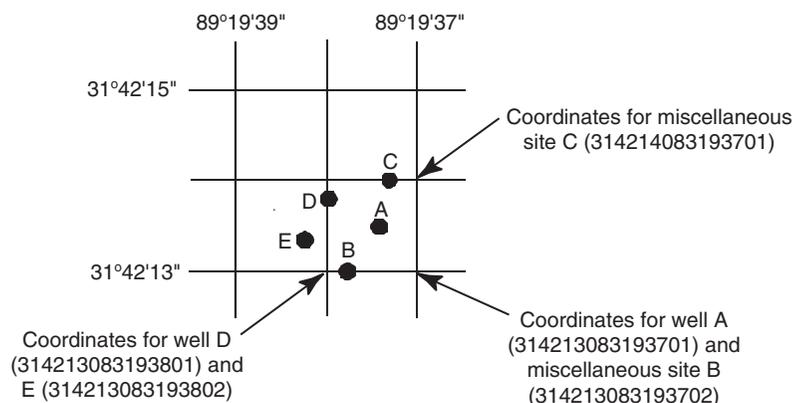


Figure 7. System for numbering wells and miscellaneous sites (latitude and longitude).

Records of Stage and Water Discharge

Records of stage and water discharge may be complete or partial. Complete records of discharge are those obtained using a continuous stage-recording device through which either instantaneous or mean discharge may be computed for any time, or any period of time, during the period of record. Complete records of lake or reservoir contents, similarly, are those for which stage or content may be computed or estimated with reasonable accuracy for any time or period of time. They may be obtained using a continuous stage-recording device but need not be. Because daily mean discharges and end-of-day contents commonly are published for such stations, they are referred to as "daily stations."

By contrast, partial records are obtained through discrete measurements often without using a continuous stage-recording device and pertain only to a few flow characteristics, or perhaps only one. The nature of a partial record is indicated by table titles such as CREST-STAGE PARTIAL RECORDS or LOW-FLOW PARTIAL RECORDS. Records of miscellaneous discharge measurements or of measurements from special studies, such as low-flow seepage studies, may be considered as partial records, but they are presented separately in this report. Location of all complete-record and crest-stage stations for which data are given in this volume are shown in figures 1a through 1d (located after "contents").

Data Collection and Computation

The data obtained at a complete-record gaging station on a stream or canal consist of a continuous record of stage, individual measurements of discharge throughout a range of stages, and notations regarding factors that may affect the relations between stage and discharge. These data, together with supplemental information such as weather records, are used to compute daily discharges. The data obtained at a complete-record gaging station on a lake or reservoir consist of a record of stage and of notations regarding factors that may affect the relations between stage and lake content. These data are used with stage-area and stage-capacity curves or tables to compute water-surface areas and lake storage.

Continuous records of stage are obtained with digital recorders that store stage data on solid-state storage media at selected time intervals. Measurements of discharge are made with current meters using methods adapted by the USGS as a result of experience accumulated since 1880. These methods are described in standard textbooks, in Water-Supply Paper 2175, and in USGS Techniques of Water-Resources Investigations, Book 3, Chapter A6.

In computing discharge records, results of individual measurements are plotted against the corresponding

stages, and stage-discharge relation curves are then constructed. From these curves, rating tables indicating the approximate discharge for any stage within the range of the measurements are prepared. If it is necessary to define extremes of discharge outside the range of the current-meter measurements, the curves are extended using (1) logarithmic plotting, (2) velocity-area studies, (3) results of indirect measurements of peak discharge, such as slope-area or contracted-opening measurements, and computations of flow-over-dams or weirs, or (4) step-backwater techniques.

Daily mean discharges are computed by applying stages (gage heights) to the stage discharge curves or tables. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the shifting-control method, in which correction factors based on the individual discharge measurements and notes of the personnel making the measurements are applied to the gage heights before the discharges are determined from the curve or tables. This shifting-control method also is used if the stage-discharge relation is changed temporarily because of aquatic growth or debris on the control. For some stations, formation of ice in the winter may so obscure the stage-discharge relation that daily mean discharges must be estimated from other information such as temperature and precipitation records, notes of observations, and records for other stations in the same or nearby basins for comparable periods.

At some stream-gaging stations the stage-discharge relation is affected by the backwater from reservoirs, tributary streams, or other sources. This 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 set at some distance from the base gage. 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.

In computing records of lake or reservoir contents, it is necessary to have available from surveys or curves, tables defining the relation of stage and contents. The application of stage to the stage-contents curves or tables give the contents from which daily, monthly, or yearly changes are then determined. If the stage-contents relation changes because of deposition of sediment in a lake or reservoir, periodic resurveys may be necessary to redefine the relation. Even when this is done, the contents computed may become increasingly in error as time since the last survey increases. Discharges over lake or reservoir spillways are computed from stage-discharge relation much as other stream discharges are computed.

For some gaging stations there are periods when no gage-height record is obtained or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods, the daily discharges are estimated from the recorded range in stage, previous or following record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise, daily contents may be estimated from operator's logs, previous or following record, inflow-outflow studies, and other information.

At some gaging stations, acoustic velocity meter (AVM) systems are used to compute discharge. The AVM system measures the stream's velocity at one or more paths in the cross section. Coefficients are developed to relate this path velocity to the mean velocity in the cross section. Because the AVM sensors are fixed in position, the adjustment coefficients generally vary with stage. Cross-sectional area curves are developed to relate stage, recorded as noted above, to cross-section area. Discharge is computed by multiplying path velocity by the appropriate stage-related coefficient and area.

Data Presentation

The records published for each gaging station consist of two parts—the manuscript or station description and the data table for the current water year.

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 to follow clarify information presented under the various headings of the station description.

- LOCATION.**—Information on locations is obtained from the most accurate maps available. The location of the gage 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 mileage, given for only a few stations, was 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 types of maps available vary from one drainage basin to another, the accuracy of the drainage areas likewise varies. Drainage areas are updated as better maps become available.
- PERIOD OF RECORD.**—This indicates the period for which there are published records 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 records from it can reasonably be considered equivalent with records from the present station.
- REVISED RECORDS.**—Published records, because of new information, occasionally are found to be incorrect, and revisions are printed in later reports. Listed under this heading are all the reports in which revisions have been published for the station and the water years to which the revisions apply. If a revision did not include daily, monthly, or annual figures of discharge, that fact is noted after the year dates as follows: (M) means that only the instantaneous maximum discharge was revised, (m) that only the instantaneous minimum was revised, and (P) that only the peak discharges were revised. If the drainage area has been revised, the report in which the most recently revised figure was first published is given.
- GAGE.**—The type of gage in current use, the datum of the current gage referred to sea level (National Geodetic Vertical Datum of 1929) unless otherwise noted, 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 record will either be identified by date in this paragraph of the station description for water-discharge stations or be flagged in the daily discharge table. (See the section, “Identifying Estimated Daily Discharge.”) If a “remarks” statement is used to identify estimated record, the paragraph will begin with this information presented as the first entry. The paragraph is also used to present information relative to the accuracy of the records, to special methods of computation, and to conditions that affect natural flow at the station, in addition, possibly, to other pertinent items. For reservoir stations, information is given on the dam forming the reservoir, the capacity, outlet works and spillway, and 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 FOR PERIOD OF RECORD.**—In some headings “Extremes for Period of Record” is presented as a paragraph separate from summary statistics. Extremes may include maximum and minimum stages and maximum and minimum discharges or contents. Unless otherwise qualified, the maximum discharge or content is the instantaneous maximum corresponding to the highest stage that occurred. The highest stage may have been obtained from a graphic or digital recorder, from a crest-stage gage, or by direct observation of a nonrecording gage. If the maximum stage did not occur on the same day as the maximum discharge or content, it is given separately. Similarly, the minimum is the instantaneous minimum discharge, unless otherwise qualified, and was determined and is reported in the same manner as the maximum.
- EXTREMES OUTSIDE PERIOD OF RECORD.**—Included here is information concerning major floods or unusually low flows that occurred outside the stated period of record. The information may or may not have been obtained by USGS.

PEAK DISCHARGES ABOVE BASE FOR CURRENT YEAR.—Presented as a separate table. For stations meeting certain criteria, all peak discharges and stages occurring during the water year and greater than a selected base discharge are presented under this heading. All peaks greater than the base discharge are listed with the maximum for the year footnoted by an asterisk (*). Peak discharges are not published for canals, ditches, drains, or streams for which the peaks are subject to substantial regulation or at locations where the instantaneous peak discharge does not exceed the mean daily discharge by 10 percent. 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.

REVISIONS.—If errors in published water-quality records are discovered after publication, appropriate updates are made in the U.S. Geological Survey's distributed data system, NWIS, and subsequently to its web-based National data system, NWISWeb [<http://water.usgs.gov/nwis/nwis>]. Because the usual volume of updates makes it impractical to document individual changes in the State data-report series or elsewhere, potential users of U.S. Geological Survey water-quality data are encouraged to obtain all required data from NWIS or NWISWeb to ensure the most recent updates. Updates to NWISWeb are currently made on an annual basis.

Although rare, occasionally the records of a discontinued gaging station may need revision. Because, for these stations, there would be no current or, possibly, future station manuscript published to document the revision in a REVISED RECORDS entry, users of data for these stations who obtained the data from previously published data reports may wish to contact the District office to determine if the published records were ever revised after the station was discontinued. Of course, if the data were obtained by computer retrieval, the data would be current and there would be no need to check because any published retrieval of data is always accompanied by revisions of the corresponding data in computer storage.

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

Data Table of Daily Mean Values. The daily table for stream-gaging stations gives mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed TOTAL gives the sum of the daily figures. The line headed MEAN gives the average flow in cubic feet per second during the month. The lines headed MAX and MIN give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month is often expressed in cubic feet per square mile (line headed CFSM), or in inches (line headed IN.), or in acre-feet (line headed AC-FT). Figures for cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion or if the drainage area includes large noncontributing areas. In the yearly summary below the monthly summary, the figures shown are the appropriate discharges for the calendar and water years. At some stations monthly and (or) yearly observed discharges are adjusted for reservoir storage or diversion, or diversions or reservoir contents are given. These figures are identified by symbol and corresponding footnote.

Statistics of Monthly Mean Data. A tabular summary of the mean (line headed MEAN), maximum (line headed MAX), and minimum (line headed 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 figures. 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. It will consist of all of the station record within the specified water years, inclusive, including complete months of record for partial water years, if any, and may coincide with the period of record for the station. The water years for which the statistics are computed will be 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 record within the specified water years, inclusive, including complete months of record for partial water years, if any, and may coincide with the period of record for the station. The water years for which the statistics are computed will be 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 SEVEN-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 the footnotes. When the maximum or minimum statistic occurred outside the designated period, that statistic is listed in the EXTREMES FOR PERIOD OF RECORD paragraph in the manuscript. Selected streamflow-duration-curve statistics and runoff data are also given. Runoff data may be omitted if there is extensive regulation or diversion of flow in the drainage basin.

The following summary statistics data, as appropriate, are provided with each continuous record of discharge. Comments to 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. At some stations the annual total discharge is adjusted for reservoir storage or diversion. The adjusted figures are identified by a symbol and corresponding footnotes.

ANNUAL MEAN.—The arithmetic mean of the individual daily mean discharges for the year noted or for the designated period. At some stations the yearly mean discharge is adjusted for reservoir storage or diversion. The adjusted figures are identified by a symbol and corresponding footnotes.

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 SEVEN-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.)

INSTANTANEOUS PEAK FLOW.—The maximum instantaneous stage occurring for the water year or for the designated period. Note that secondary instantaneous peak discharges above a selected base discharge are given in the table “Peak Discharges and Stages at Continuous-Record Surface Discharge Stations.”

INSTANTANEOUS PEAK STAGE.—The maximum instantaneous stage occurring for the water year or for the designated period. If the dates of occurrence for the instantaneous peak flow and instantaneous peak stage differ, 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 second per square mile (CFSM) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area for the area. Inches (INCHES) indicates the depth to which the drainage area would be covered if all 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 usually presented in two tables. The first is a table of annual maximum stage and discharge at crest-stage stations, and the second, when collected, is a table of 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 generally made in time 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.

Identifying Estimated Daily Discharge

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

Accuracy of the Records

The accuracy of streamflow records 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 measurements of stage, measurements of discharge, and interpretation of records.

The accuracy attributed to the records is indicated under REMARKS. “Excellent” means that about 95 percent of the daily discharges are within 5 percent of the true; “good,” within 10 percent; and “fair,” within 15 percent. Records that do not meet the criteria mentioned are rated “poor.” Different accuracies may be attributed to different parts of a given record.

Daily mean discharges in this report are given to the nearest hundredths of a cubic foot per second for values less than 1 ft³/s; to the nearest tenth between 1.0 and 10 ft³/s; to whole numbers between 10 and 1,000 ft³/s; and to three significant figures for more than 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 discharges listed for partial-record stations and miscellaneous sites.

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 other factors. For such stations, figures 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 Records Available

Information used in preparing the records in this publication, such as discharge-measurement notes, gage-height records, temperature measurements, and rating tables are on file in the Ohio District office. Also, most of the daily mean discharges are in computer-readable form and have been analyzed statistically. Information on availability of the unpublished information or on results of statistical analyses of the published records may be obtained from the District office.

Records of Surface-Water Quality

Records of surface-water quality ordinarily are obtained at or near stream-gaging stations because interpretation of records of surface-water quality nearly always requires corresponding discharge data. Records of surface-water quality in this report may involve a variety of types of data and measurement frequency.

Classification of Records

Water-quality data for surface-water sites are grouped into one of three classifications. A continuing-record station is a site where data are collected on a regularly scheduled basis. Frequency may be once 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 continuing or partial-record station, where random 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 “continuing records” as used in this report and “continuous recordings,” which refers to a continuous series of discrete values collected at short intervals and stored electronically in a data logger or obtained via data collection platform. Some records of water quality, such as temperature and specific conductance, may be obtained through continuous recording; however, because of cost, most data are obtained only monthly or less frequently. Locations of stations for which records on the quality of surface water appear in this volume are shown in figures 1a and 1b.

Accuracy of the Records

For each record, one of four accuracy rating classifications is applied for measured physical properties at continuous-record stations on a scale ranging from poor to excellent. The accuracy rating is based on data values recorded before any shifts or corrections are made, as described by Wagner and others (2000). Additional consideration also is given to the amount of publishable record and to the amount of data that have been corrected or shifted.

Rating classifications for 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 physical property	Rating			
	Excellent	Good	Fair	Poor
Water temperature	≤± 0.2 °C	>± 0.2 to 0.5 °C	>±0.5 to 0.8° C	>± 0.8 °C
Specific conductance	≤± 3%	>± 3 to 10%	>± 10 to 15%	>± 15%
Dissolved oxygen	≤± 0.3 mg/L	>± 0.3 to 0.5 mg/L	>±0.5 to 0.8 mg/L	>± 0.8 mg/L
pH	≤± 0.2 unit	>± 0.2 to 0.5 unit	>± 0.5 to 0.8 unit	>± 0.8 unit
Turbidity	≤± 5%	>± 5 to 10%	>±10 to 15%	>± 15%

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 a 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."

Onsite Measurement and Sample Collection

In obtaining water-quality data, a major concern is that the data obtained represent the in situ quality of the water. To ensure this, certain measurements, such as water temperature, pH, and dissolved oxygen, need to be made on site when the samples are taken. To ensure that measurements made in the laboratory also represent the in situ water, carefully prescribed procedures need to be followed in collecting the samples, in treating the sample 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 publications on "Techniques of Water-Resources Investigations," Book 1, Chap. D2; book 3, Chap. A1, A3, and A4; Book 9, Chap. A1-A9." Additional information on collecting, treating, and shipping samples can be found in USGS Water-Resources Investigations Report 98-4057 "Quality-Assurance/Quality-Control Manual for Collection and Analysis of Water-Quality Data in the Ohio District, U.S. Geological Survey."

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 through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load. All samples obtained for the National Stream-Quality Accounting Network (see definitions) are obtained from at least several verticals. Whether samples are obtained from the centroid of flow or from several verticals depends on flow conditions and other factors that must be evaluated by the collector.

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, minimum, and mean values for each constituent measured and are based upon hourly readings beginning at 0100 hours and ending at 2400 hours for each day of record. More detailed records (hourly values) may be obtained from the USGS District Office, whose address is given on the back of the title page of this report.

Water Temperatures

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are frequently 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 daily 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.

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 have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharge for days of rapidly changing flow or concentration was computed by the subdivided-day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge values differ 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 loads 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 were 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 the quantities of suspended sediment, records of periodic measurements of the particle-size distribution of the suspended sediment and bed material are included for some stations.

Laboratory Measurements

Sediment samples, samples for microbiological analyses, and samples for specific conductance, pH, and dissolved oxygen are analyzed locally. All other samples are analyzed in the USGS laboratories in Arvada, Colo., or by a USGS-approved outside laboratory. Methods used in analyzing sediment samples and computing sediment records are given in the series "Techniques of Water-Resources Investigations" (TWRI), which are listed in this report, and in other documents listed on the World Wide Web page for USGS, Water Resources Division, Office of Water Quality (<http://water.usgs.gov/owq>).

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, as appropriate, 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 under "Records of Stage and Water Discharge"; same comments apply.

- DRAINAGE AREA.**—See Data Presentation under “Records of Stage and Water Discharge”; same comments apply.
- PERIOD OF RECORD.**—This indicates the periods for which there are published water-quality records for the station. 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 record.
- 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. None are given for parameters measured weekly or less frequently because the true maximums and minimums may not have been sampled. Extremes, when given, are for both the period of record and for the current water year.
- REVISIONS.**—If errors in published water-quality records are discovered after publication, appropriate updates are made in the USGS computerized data system, the National Water Information System (NWIS). Because the usual volume of updates makes it impractical to document individual changes in the State data-report series or elsewhere, potential users of USGS water-quality data are encouraged to obtain all required data from the appropriate computer file to ensure the most recent updates.

Remark Codes

The following remarks codes may appear with the water-quality data in this report.

- E, 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.
- K Results based on colony count outside the acceptable range (non-ideal colony count).
- L Biological organism count less than 0.5 percent (organism may be observed rather than counted).
- D Biological organism count equal to or greater than 15 percent (dominant).
- & Biological organism estimated as dominant.
- V Analyte was detected in both the environmental sample and the associated blanks.
- M Presence verified but not quantified.

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. The chance of 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 non-detection 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 <LRL for samples in which the analyte was either not detected or did not pass identification. Analytes that are detected at concentrations between the LT-MDL and 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.

Dissolved Trace-Element Concentrations

NOTE.—To confidently produce dissolved trace-element data with insignificant contamination, the USGS began using a new trace-element protocol at some stations in water year 1994 to collect trace-element data at the microgram per liter ($\mu\text{g/L}$) level (refer to USGS Open-File Report 94-539 “U.S. Geological Survey Protocol for the Collection and Processing of Surface-Water Samples for the Subsequent Determination of Inorganic Constituents in Filtered Water”). This protocol was used in the current water year at all stations. Therefore, the trace-element data for samples collected before and after implementation of new protocols are not directly comparable.

Change in National Trends Network Procedures

NOTE.—Sample handling procedures at all National Trends Network stations were changed substantially on January 11, 1994, in order to reduce contamination from the sample shipping container. The data for samples before and after that date are different and not directly comparable. A tabular summary of the differences based on a special intercomparison study, is available from the NADP/NTN Program Office, Illinois State Water Survey, 2204 Griffith Drive, Champaign, IL 61820-7495 (Telephone: 217-333-7873).

Records of Ground-Water Levels

Water-level data from a network of observation wells (in addition to project wells) are given in this report. The network well data are intended to provide a sampling and historical record of water-level changes in the Nation's most important aquifers. Locations of the observation wells in this network in Ohio are shown in figures 1c and 1d (located after “contents”). Water-level data for specific projects are reported under those projects.

Data Collection and Computation

Measurements of water levels are made in many types of wells under varying conditions, but the methods of measurement are standardized to the extent possible. The equipment and measuring techniques used at each observation well ensure that measurements at each well are of consistent accuracy and reliability.

Tables of water-level data are presented by counties arranged in alphabetical order. The prime identification number for a given well is a 15-digit number that is based on latitude and longitude. The secondary identification number is the local well number, which is provided for local needs. Water-level measurements in this report are given in feet with reference to land-surface datum. Land-surface datum is a datum plane that is approximately at land surface at each well. If known, the altitude of the land-surface datum above sea level is given in each well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description.

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 to water of several hundred feet, the error of 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 to a tenth of a foot or larger units.

Data Presentation

Each well record consists of two parts, the station description and the data table of water levels observed during the water year. The description of the well is presented first through use of descriptive headings preceding the tabular data. The comments to follow clarify information presented under the various headings.

LOCATION.—This paragraph follows the well-identification number and reports the latitude and longitude (given in degrees, minutes, and seconds), a landline location designation, the hydrologic-unit number, the distance and direction from a geographic point of reference, and the owner's name.

AQUIFER.—This entry describes the aquifer by age and composition.

WELL CHARACTERISTICS.—This entry describes the well in terms of depth, diameter, casing depth and (or) screened interval, method of construction, use, and additional information such as casing breaks, collapsed screen, and other changes since construction.

DATUM.—This entry describes both the measuring point and the land-surface altitude at the well. The measuring point is described physically (such as top of collar, notch in top of casing, plug in pump base, and so on) and in relation to land surface (such as 1.3 ft above land-surface datum). The altitude of the land-surface datum is described in feet above (or below) sea level; it is reported with a precision depending on the method of determination.

REMARKS.—This entry describes factors that may influence the water level in a well or the measurement of the water level. It should identify wells that are also water-quality observation wells, and may be used to acknowledge the assistance of local (non-USGS) observers.

PERIOD OF PUBLISHED RECORD.—This entry indicates the period for which there are published records for the well. It reports the month and year of the start of publication of water level records by the USGS or cooperating agency, and the words “to current year” if the records are to be continued to the following year. Periods for which water-level records are available, but not published by the USGS, may be noted.

EXTREMES FOR PERIOD OF PUBLISHED RECORD.—This entry contains the highest and lowest water levels of the period of published record, with respect to land-surface datum, and the dates of their occurrence.

A table of water levels follows the station description for each well. Water levels are reported in feet below (or above) land-surface datum. All periodic measurements of water levels for wells are listed. For wells equipped with recorders, daily water-level lows are published. The highest and lowest daily lows of the water year are shown on a line below the table. Because only daily lows are published for wells with recorders, the extreme instantaneous high may be a value that is not listed in the table. Missing records are indicated by dashes in place of the water level.

Records of Ground-Water Quality

Records of ground-water quality in this report differ from other types of records in that, for most sampling sites, they consist of only one set of measurements. The quality of ground water ordinarily changes slowly, so that frequent measuring of the same parameter is not necessary unless one is concerned with a particular problem such as monitoring for trends of a particular constituent.

Data Collection and Computation

The records of ground-water quality in this report were obtained mostly as part of special studies in specific areas. Consequently, a number of chemical analyses are presented for some counties, but none are presented for others. As a result, the records for this year, by themselves, do not provide a balanced view of ground-water quality statewide. Such a view can be attained only by considering records for this year in context with similar records obtained for these and other counties in earlier years.

Most methods for collecting and analyzing water samples are described in the TWRI manuals listed in this report and on the World Wide Web page for the Office of Water Quality (<http://water.usgs.gov/owq>). The data presented in this report represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. All samples were obtained by trained personnel. 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 the material comprising the casings.

Data Presentation

The records of ground-water quality are published intermixed with the ground-water-level data for network wells and with the specific project for project wells.

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. These data may be accessed at <http://water.usgs.gov>.

DEFINITION OF TERMS

Specialized technical terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. Terms such as algae, water level, precipitation are used in their common everyday meanings, definitions of which 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 on the inside of the back cover.

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.

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 to 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 polychlorinated 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 weight percent of the hydrogen substituted chlorine.

Aquifer is geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield reasonable quantities of water to wells and springs.

Artificial substrate is a device that is purposely 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 taken. 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 the 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")

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, while 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.

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 peaks per year will be published.

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.

Bedload is material in transport that is supported primarily by the streambed. In this report, bedload is considered to consist of particles in transit from the bed to an elevation equal to the top of the bedload sampler nozzle (ranging from 0.25 to 0.5 ft) that are retained in the bedload sampler. A sample collected

with a pressure-differential bedload sampler may also contain a component of the suspended load.

Bedload discharge (tons per day) is 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" and "Sediment")

Bed material is the sediment mixture of which a streambed, lake, pond, reservoir, or estuary bottom is composed. (See also "Bedload" and "Sediment")

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 which are autotrophic (plants). This is also called the Autotrophic Index.

Blue-green algae (*Cyanophyta*) are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water. Concentrations are expressed as a number of cells per milliliter (cells/mL) of sample. (See also "Phytoplankton")

Bottom material (See "Bed material")

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 are generally reported as cells or units per milliliter (mL) or liter (L).

Cells volume (biovolume) determination is one of

several common methods used to estimate biomass of algae in aquatic systems. Cell members of algae are frequently used 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 on 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:

sphere $\frac{4}{3} \pi r^3$ cone $\frac{1}{3} \pi r^2 h$ cylinder $\pi r^2 h$.

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 over all species.

Cfs-day (See “Cubic foot per second-day”)

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 warm-blooded animals. Clostridial spores are being used experimentally as an indicator of past fecal contamination and 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 waters 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. (See also “Aquifer”)

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 downstream from a gaging station that physically influences 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, ft^3/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-feet” sometimes is used synonymously with “cubic feet per second” but is now obsolete.

Cubic foot per second-day (CFS-DAY, Cfs-day, $[(\text{ft}^3/\text{s})/\text{d}]$) 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 are numerically 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, $(\text{ft}^3/\text{s})/\text{mi}^2$] 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 concentration of suspended sediment passing a stream cross section during a 24-hour day. (See also “Daily mean suspended-sediment concentration,” “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 periodic sample or 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 are usually 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 UTM coordinates. (See also “Gage datum,” “Land-surface datum,” “National Geodetic Vertical Datum of 1929,” and “North American Vertical Datum of 1988”)

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample. (See also “Phytoplankton”)

Diel means 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 sediments or other constituents suspended or dissolved in the water) that passes a cross section in a stream channel, canal, pipeline, etc.,

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 chemical constituents, 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 0.4926 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")

Enterococcus bacteria are commonly found in the feces of humans and other warm-blooded 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 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 are generally considered pollution sensitive; the index usually decreases with pollution.

Escherichia coli (*E. coli*) are bacteria present in the intestine and feces of warm-blooded 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. 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 qualitatively identified 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 (<).

Euglenoids (*Euglenophyta*) are a group of algae that are usually 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 semi-volatile and extractable by ethyl acetate from air-dried streambed sediments. 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 sediments.

Fecal coliform bacteria are present in the intestine or feces of warm-blooded animals. They are often 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 intestine of warm-blooded 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”)

Fire algae (*Pyrrhophyta*) 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 not 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 larger than the maximum depth of water. Because the gage datum itself is not an actual physical object, the datum usually is 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 is often used interchangeably with the more general term “stage,” although gage height is more appropriate when used 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. When used in connection with a discharge record, the

term is applied only to those gaging stations where a continuous record of discharge is computed.

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.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algae mats or floating “moss” in lakes. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample. (See also “Phytoplankton”)

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 is commonly 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.co-ops.nos.noaa.gov/tideglos.html>*

Hilsenhoff’s Biotic Index (HBI) is an indicator of organic pollution which 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 benchmark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a benchmark station may be used to separate effects of natural from human-induced changes in other basins that have

been developed and in which the physiography, climate, and geology are similar to those in the undeveloped benchmark basin.

Hydrologic index stations referred to in this report are four 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.), 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 uniformly distributed on it. (See also “Annual runoff”)

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

Laboratory Reporting Level (LRL) is generally 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 non-detection 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 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 based on the most current quality-control data and may, therefore, change. [Note: In several previous NWQL documents (Connor and others, 1998; NWQL Technical Memorandum 98.07, 1998), the LRL was called the non-detection value or NDV—a term that is no longer used.]

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

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

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

where I_o 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

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

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.co-ops.nos.noaa.gov/tideglos.html>

Macrophytes are the macroscopic plants in the aquatic environment. The most common macrophytes are the rooted vascular plants that are usually 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.

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 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.

Methylene blue active substances (MBAS) are apparent detergents. 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 mg/L 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 (Timme, 1995).

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 of 1929) is a fixed reference adopted as a standard geodetic datum for elevations determined by leveling. It was formerly 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.

Nephelometric turbidity unit (NTU) is the measurement for reporting turbidity that is based on use of a standard suspension of Formazin. Turbidity measured in NTU uses nephelometric methods that depend on passing specific light of a specific wavelength through the sample.

North American Vertical Datum of 1988 (NAVD 1988) is a fixed reference adopted as the official civilian vertical datum for elevations determined by Federal surveying and mapping activities in the U.S. This datum was established in 1991 by minimum-constraint adjustment of the Canadian, Mexican, and U.S. 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 sediments. May be reported as dissolved organic carbon (DOC), particulate organic carbon (POC), or total organic carbon (TOC).

Organic mass or volatile mass of the 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 utilizes 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

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. 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 to 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 determined by using a clinometer to estimate left and right bank shading. The values are added together and divided by 180 to determine percent shading relative to a horizontal surface.

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. While 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 are termed

“acidic,” and solutions with a pH greater than 7 are termed “basic.” Solutions with a pH of 7 are neutral. The presence and concentration of many dissolved chemical constituents found in water are, in part, influenced by the hydrogen-ion activity of water. Biological processes including growth, distribution of organisms, and toxicity of the water to organisms are also influenced, in part, by the hydrogen-ion activity of water.

Phytoplankton is the plant part of the plankton. They are usually 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 are commonly 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.

Primary productivity is a measure of the rate at which new organic matter is formed and accumulated through photosynthetic 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. 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 in unenriched waters. 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. 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 an element 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.

Recoverable from bed (bottom) material is the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of

the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion 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 non-exceedance 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 non-exceedances of the $7Q_{10}$ occur less than 10 years after the previous non-exceedance, half occur less than 7 years after, and about one-eighth occur more than 20 years after the previous non-exceedance. 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”)

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 used to denote

location along a river.

Runoff is the quantity of water that is discharged (“runs off”) from a drainage basin in 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”)

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. See conversion of units page (inside back cover) for identification of the datum used in this report.

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 influenced by environmental and land-use factors. Some major factors are topography, soil characteristics, land cover, and depth and intensity of precipitation.

Seven-day 10-year low flow (7Q10) is the discharge below which the annual 7-day minimum flow falls in 1 year out of 10 on the long-run average. The recurrence interval of the 7Q10 is 10 years; the chance that the annual 7-day minimum flow will be less than the 7Q10 is 10 percent in any given year. (See also “Recurrence interval” and “Annual 7-day minimum”)

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.

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/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 waters, to evaluate mixing of different waters, 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 (<2mm, sand or finer). Below are the class categories expressed as percent covered by fine sediment:

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

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 ft) of the bed material such as that material which is

sampled using U.S. Series Bed-Material Samplers.

Suspended (as used in tables of chemical analyses) refers to the amount (concentration) of undissolved material in a water-sediment mixture. It is operationally defined as the 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 suspended water-sediment sample that is retained on a 0.45-micrometer membrane filter 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 the 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 sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results. Determinations of “suspended, recoverable” constituents are made either by directly analyzing the suspended material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent. (See also “Suspended”)

Suspended sediment is the sediment maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid. (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 ft 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/day) 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, 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, based on determinations of (1) dissolved and (2) total concentrations of the constituent. (See also “Suspended”)

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.

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 richness is the total number of distinct species or groups and usually decreases with pollution. (See also “Percent Shading”)

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

Temperature preferences:

Cold—preferred water temperature for the species is less than 20 °C or spawning temperature preference less than 16 °C and native distribution is considered to be predominantly north of 45° N. latitude.

Warm—preferred water temperatures for the species is greater than 20 °C or spawning temperature preference greater than 16 °C and native distribution is considered to be predominantly south of 45° N. latitude.

Cool—intermediate between cold and warm water temperature preferences.

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 tons 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 warm-blooded 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 mL 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 “Sediment,” “Suspended sediment,” “Suspended-Sediment Concentration,” “Bedload,” and “Bedload discharge”)

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”)

Trophic group:

Filter feeder—diet composed of suspended plant and/or animal material.

Herbivore—diet composed predominantly of plant material.

Invertivore—diet composed predominantly of invertebrates.

Omnivore—diet composed of at least 25-percent plant and 25-percent animal material

Piscivore—diet composed predominantly of fish.

Turbidity is the reduction in the transparency of a solution due to the presence of suspended and some dissolved substances. The measurement technique records the collective optical properties of the solution that cause light to be scattered and attenuated rather than transmitted in straight lines; the higher the intensity of scattered or attenuated light, the higher the value of the turbidity. Turbidity is expressed in nephelometric turbidity units (NTU). Depending on the method used, the turbidity units as NTU can be defined as the intensity of light of a specified wavelength scattered or attenuated by suspended particles or absorbed at a method specified angle, usually 90 degrees, from the path of the incident light. Currently approved methods for the measurement of turbidity in the USGS include those that conform to EPA Method 180.1, ASTM D1889-00, and ISO 7027. Measurements of turbidity by these different methods and different instruments are unlikely to yield equivalent values. Consequently, the method of measurement and type of instrument used to derive turbidity records should be included in the “REMARKS” column of the Annual Data Report.

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 pathlength of UV light through a sample.

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 are often 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 (U.S. Environmental Protection Agency, 1996).

Water table is the level in the saturated zone at which

the pressure is equal to the atmospheric pressure.

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

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, 2001, is called the “2001 water year.”

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 are often 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”)

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

The U.S.G.S. publishes a series of manuals describing procedures for planning and conducting specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, section A of book 3 (Applications of Hydraulics) pertains to surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises.

The reports listed below are for sale by the U.S.G.S., Information Services, Box 25286, Federal Center, Denver, Colorado 80225 (authorized agent of the Superintendent of Documents, Government Printing Office). Prepayment is required. Remittance should be made in the form of a check or money order payable to the “U.S. Geological Survey.” Prices are not included because they are subject to change. Current prices can be obtained by writing to the above address. When ordering or inquiring about prices for any of these publications, please give the title, book number, chapter number, and mention the “U.S. Geological Survey Techniques of Water-Resources Investigations.”

Book 1. Collection of Water Data by Direct Measurement

Section D. Water Quality

- 1-D1. *Water temperature—influential factors, field measurement, and data presentation*, by H. H. Stevens, Jr., J.F. Ficke, and G. F. Smoot: USGS–TWRI book 1, chap. D1. 1975. 65 p.
- 1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W.W. Wood: USGS–TWRI book 1, chap. D2. 1976. 24 p.

Book 2. Collection of Environmental Data

Section D. Surface Geophysical Methods

- 2-D1. *Application of surface geophysics to ground-water investigations*, by A.A. R. Zohdy, G.P. Eaton, and D.R. Mabey: USGS–TWRI book 2, chap. D1. 1974. 116 p.
- 2-D2. *Application of seismic-refraction techniques to hydrologic studies*, by F.P. Haeni: USGS–TWRI book 2, chap. D2. 1988. 86 p.

Section E. Subsurface Geophysical Methods

- 2-E1. *Application of borehole geophysics to water-resources investigations*, by W.S. Keys and L.M. MacCary: USGS–TWRI book 2, chap. E1. 1971. 126 p.
- 2-E2. *Borehole geophysics applied to ground-water investigations*, by W.S. Keys: USGS–TWRI book 2, chap. E2. 1990. 150 p.

Section F. Drilling and Sampling Methods

- 2-F1. *Application of drilling, coring, and sampling techniques to test holes and wells*, by Eugene Shuter and W.E. Teasdale: USGS–TWRI book 2, chap. F1. 1989. 97 p.

Book 3. Applications of Hydraulics

Section A. Surface-Water Techniques

- 3-A1. *General field and office procedures for indirect discharge measurements*, by M.A. Benson and Tate Dalrymple: USGS–TWRI book 3, chap. A1. 1967. 30 p.
- 3-A2. *Measurement of peak discharge by the slope-area method*, by Tate Dalrymple and M.A. Benson: USGS–TWRI book 3, chap. A2. 1967. 12 p.
- 3-A3. *Measurement of peak discharge at culverts by indirect methods*, by G.L. Bodhaine: USGS–TWRI book 3, chap. A3. 1968. 60 p.
- 3-A4. *Measurement of peak discharge at width contractions by indirect methods*, by H.F. Matthai: USGS–TWRI book 3, chap. A4. 1967. 44 p.
- 3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS–TWRI book 3, chap. A5. 1967. 29 p.
- 3-A6. *General procedure for gaging streams*, by R.W. Carter and Jacob Davidian: USGS–TWRI book 3, chap. A6. 1968. 13 p.
- 3-A7. *Stage measurement at gaging stations*, by T.J. Buchanan and W.P. Somers: USGS–TWRI book 3, chap. A7. 1968. 28 p.
- 3-A8. *Discharge measurements at gaging stations*, by T.J. Buchanan and W.P. Somers: USGS–TWRI book 3, chap. A8. 1969. 65 p.
- 3-A9. *Measurement of time of travel in streams by dye tracing*, by F.A. Kilpatrick and J.F. Wilson, Jr.: USGS–TWRI book 3, chap. A9. 1989. 27 p.
- 3-A10. *Discharge ratings at gaging stations*, by E.J. Kennedy: USGS–TWRI book 3, chap. A10. 1984. 59 p.
- 3-A11. *Measurement of discharge by the moving-boat method*, by G.F. Smoot and C.E. Novak: USGS–TWRI book 3, chap. A11. 1969. 22 p.
- 3-A12. *Fluorometric procedures for dye tracing*, Revised, by J.F. Wilson, Jr., E.D. Cobb, and F.A. Kilpatrick: USGS–TWRI book 3, chap. A12. 1986. 34 p.
- 3-A13. *Computation of continuous records of streamflow*, by E.J. Kennedy: USGS–TWRI book 3, chap. A13. 1983. 53 p.
- 3-A14. *Use of flumes in measuring discharge*, by F.A. Kilpatrick and V.R. Schneider: USGS–TWRI book 3, chap. A14. 1983. 46 p.
- 3-A15. *Computation of water-surface profiles in open channels*, by Jacob Davidian: USGS–TWRI book 3, chap. A15. 1984. 48 p.

- 3-A16. *Measurement of discharge using tracers*, by F.A. Kilpatrick and E.D. Cobb: USGS–TWRI book 3, chap. A16. 1985. 52 p.
- 3-A17. *Acoustic velocity meter systems*, by Antonius Laenen: USGS–TWRI book 3, chap. A17. 1985. 38 p.
- 3-A18. *Determination of stream reaeration coefficients by use of tracers*, by F.A. Kilpatrick, R.E. Rathbun, Nobuhiro Yotsukura, G.W. Parker, and L.L. DeLong: USGS–TWRI book 3, chap. A18. 1989. 52 p.
- 3-A19. *Levels at streamflow gaging stations*, by E.J. Kennedy: USGS–TWRI book 3, chap. A19. 1990. 31 p.
- 3-A20. *Simulation of soluble waste transport and buildup in surface waters using tracers*, by F.A. Kilpatrick: USGS–TWRI book 3, chap. A20. 1993. 38 p.
- 3-A21. *Stream-gaging cableways*, by C. Russell Wagner: USGS–TWRI book 3, chap. A21. 1995. 56 p.

Section B. Ground-Water Techniques

- 3-B1. *Aquifer-test design, observation, and data analysis*, by R.W. Stallman: USGS–TWRI book 3, chap. B1. 1971. 26 p.
- 3-B2. *Introduction to ground-water hydraulics, a programmed text for self-instruction*, by G.D. Bennett: USGS–TWRI book 3, chap. B2. 1976. 172 p.
- 3-B3. *Type curves for selected problems of flow to wells in confined aquifers*, by J.E. Reed: USGS–TWRI book 3, chap. B3. 1980. 106 p.
- 3-B4. *Regression modeling of ground-water flow*, by R.L. Cooley and R.L. Naff: USGS–TWRI book 3, chap. B4. 1990. 232 p.
- 3-B4. *Supplement 1. Regression modeling of ground-water flow --Modifications to the computer code for nonlinear regression solution of steady-state ground-water flow problems*, by R.L. Cooley: USGS–TWRI book 3, chap. B4. 1993. 8 p.
- 3-B5. *Definition of boundary and initial conditions in the analysis of saturated ground-water flow systems—An introduction*, by O.L. Franke, T.E. Reilly, and G.D. Bennett: USGS–TWRI book 3, chap. B5. 1987. 15 p.
- 3-B6. *The principle of superposition and its application in ground-water hydraulics*, by T.E. Reilly, O.L. Franke, and G.D. Bennett: USGS–TWRI book 3, chap. B6. 1987. 28 p.
- 3-B7. *Analytical solutions for one-, two-, and three-dimensional solute transport in ground-water systems with uniform flow*, by E.J. Wexler: USGS–TWRI book 3, chap. B7. 1992. 190 p.
- 3-B8. *System and boundary conceptualization in ground-water flow simulation*, by T.E. Reilly: USGS–TWRI book 3, chap. B8. 2001. 29 p.

Section C. Sedimentation and Erosion Techniques

- 3-C1. *Fluvial sediment concepts*, by H.P. Guy: USGS–TWRI book 3, chap. C1. 1970. 55 p.
- 3-C2. *Field methods for measurement of fluvial sediment*, by T.K. Edwards and G.D. Glysson: USGS–TWRI book 3, chap. C2. 1999. 89 p.
- 3-C3. *Computation of fluvial-sediment discharge*, by George Porterfield: USGS–TWRI book 3, chap. C3. 1972. 66 p.

Book 4. Hydrologic Analysis and Interpretation

Section A. Statistical Analysis

- 4-A1. *Some statistical tools in hydrology*, by H.C. Riggs: USGS–TWRI book 4, chap. A1. 1968. 39 p.
- 4-A2. *Frequency curves*, by H.C. Riggs: USGS–TWRI book 4, chap. A2. 1968. 15 p.

Section B. Surface Water

- 4-B1. *Low-flow investigations*, by H.C. Riggs: USGS–TWRI book 4, chap. B1. 1972. 18 p.
- 4-B2. *Storage analyses for water supply*, by H.C. Riggs and C.H. Hardison: USGS–TWRI book 4, chap. B2. 1973. 20 p.

- 4-B3. *Regional analyses of streamflow characteristics*, by H.C. Riggs: USGS–TWRI book 4, chap. B3.1973. 15 p.

Section D. Interrelated Phases of the Hydrologic Cycle

- 4-D1. *Computation of rate and volume of stream depletion by wells*, by C.T. Jenkins: USGS–TWRI book 4, chap. D1. 1970. 17 p.

Book 5. Laboratory Analysis

Section A. Water Analysis

- 5-A1. *Methods for determination of inorganic substances in water and fluvial sediments*, by M.J. Fishman and L.C. Friedman, editors: USGS–TWRI book 5, chap. A1. 1989. 545 p.
- 5-A2. *Determination of minor elements in water by emission spectroscopy*, by P.R. Barnett and E.C. Mallory, Jr.: USGS–TWRI book 5, chap. A2. 1971. 31 p.
- 5-A3. *Methods for the determination of organic substances in water and fluvial sediments*, edited by R.L. Wershaw, M.J. Fishman, R.R. Grabbe, and L.E. Lowe: USGS–TWRI book 5, chap. A3. 1987. 80 p.
- 5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples*, by L.J. Britton and P.E. Greeson, editors: USGS–TWRI book 5, chap. A4. 1989. 363 p.
- 5-A5. *Methods for determination of radioactive substances in water and fluvial sediments*, by L.L. Thatcher, V.J. Janzer, and K.W. Edwards: USGS–TWRI book 5, chap. A5. 1977. 95 p.
- 5-A6. *Quality assurance practices for the chemical and biological analyses of water and fluvial sediments*, by L.C. Friedman and D.E. Erdmann: USGS–TWRI book 5, chap. A6. 1982. 181 p.

Section C. Sediment Analysis

- 5-C1. *Laboratory theory and methods for sediment analysis*, by H.P. Guy: USGS–TWRI book 5, chap. C1. 1969. 58 p.

Book 6. Modeling Techniques

Section A. Ground Water

- 6-A1. *A modular three-dimensional finite-difference ground-water flow model*, by M.G. McDonald and A.W. Harbaugh: USGS–TWRI book 6, chap. A1. 1988. 586 p.
- 6-A2. *Documentation of a computer program to simulate aquifer-system compaction using the modular finite-difference ground-water flow model*, by S.A. Leake and D.E. Prudic: USGS–TWRI book 6, chap. A2. 1991. 68 p.
- 6-A3. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 1: Model Description and User's Manual*, by L.J. Torak: USGS–TWRI book 6, chap. A3. 1993. 136 p.
- 6-A4. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 2: Derivation of finite-element equations and comparisons with analytical solutions*, by R.L. Cooley: USGS–TWRI book 6, chap. A4. 1992. 108 p.
- 6-A5. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 3: Design philosophy and programming details*, by L.J. Torak: USGS–TWRI book 6, chap. A5. 1993. 243 p.
- 6-A6. *A coupled surface-water and ground-water flow model (MODBRANCH) for simulation of stream-aquifer interaction*, by Eric D. Swain and Eliezer J. Wexler: USGS–TWRI book 6, chap. A5. 1996. 125 p.

Book 7. Automated Data Processing and Computations**Section C. Computer Programs**

- 7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments*, by P.C. Trescott, G.F. Pinder, and S.P. Larson: USGS–TWRI book 7, chap. C1. 1976. 116 p.
- 7-C2. *Computer model of two-dimensional solute transport and dispersion in ground water*, by L.F. Konikow and J.D. Bredehoeft: USGS–TWRI book 7, chap. C2. 1978. 90 p.
- 7-C3. *A model for simulation of flow in singular and interconnected channels*, by R.W. Schaffranek, R.A. Baltzer, and D.E. Goldberg: USGS–TWRI book 7, chap. C3. 1981. 110 p.

Book 8. Instrumentation**Section A. Instruments for Measurement of Water Level**

- 8-A1. *Methods of measuring water levels in deep wells*, by M.S. Garber and F.C. Koopman: USGS–TWRI book 8, chap. A1. 1968. 23 p.
- 8-A2. *Installation and service manual for U.S. Geological Survey manometers*, by J.D. Craig: USGS–TWRI book 8, chap. A2. 1983. 57 p.

Section B. Instruments for Measurement of Discharge

- 8-B2. *Calibration and maintenance of vertical-axis type current meters*, by G.F. Smoot and C.E. Novak: USGS–TWRI book 8, chap. B2. 1968. 15 p.

Book 9. Handbooks for Water-Resources Investigations**Section A. National Field Manual for the Collection of Water-Quality Data**

- 9-A1. *National Field Manual for the Collection of Water-Quality Data: Preparations for Water Sampling*, by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A1. 1998. 47 p.
- 9-A2. *National Field Manual for the Collection of Water-Quality Data: Selection of Equipment for Water Sampling*, edited by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A2. 1998. 94 p.
- 9-A3. *National Field Manual for the Collection of Water-Quality Data: Cleaning of Equipment for Water Sampling*, edited by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A3. 1998. 75 p.
- 9-A4. *National Field Manual for the Collection of Water-Quality Data: Collection of Water Samples*, edited by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A4. 1999. 156 p.
- 9-A5. *National Field Manual for the Collection of Water-Quality Data: Processing of Water Samples*, edited by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A5. 1999, 149 p.
- 9-A6. *National Field Manual for the Collection of Water-Quality Data: Field Measurements*, edited by F.D. Wilde and D.B. Radtke: USGS–TWRI book 9, chap. A6. 1998. Variously paginated.
- 9-A7. *National Field Manual for the Collection of Water-Quality Data: Biological Indicators*, edited by D.N. Myers and F.D. Wilde: USGS–TWRI book 9, chap. A7. 1997 and 1999. Variously paginated.
- 9-A8. *National Field Manual for the Collection of Water-Quality Data: Bottom-material samples*, by D.B. Radtke: USGS–TWRI book 9, chap. A8. 1998. 48 p.
- 9-A9. *National Field Manual for the Collection of Water-Quality Data: Safety in Field Activities*, by S.L. Lane and R.G. Fay: USGS–TWRI book 9, chap. A9. 1998. 60 p.

SURFACE-WATER RECORDS
Beaver River Basin

03093000 EAGLE CREEK AT PHALANX STATION, OHIO

LOCATION.—Latitude 41°15'40", longitude 80°57'16", Trumbull County, Hydrologic Unit 05030103, on right bank 75 ft downstream from county road bridge, 1 mi north of Phalanx Station, Ohio, 2 mi downstream from Tinkers Creek, and 4 mi upstream from mouth.

DRAINAGE AREA.—97.6 mi².

PERIOD OF RECORD.—June 1926 to September 1934, October 1937 to current year. Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.—WSP 953: 1938-41. WSP 1385: 1927-30, 1931-32(M), 1934, 1938-41(P). WSP 1555: 1928(M), 1929. WSP 1907: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is 887.14 ft above sea level (levels by Mahoning Valley Sanitary District). Prior to Sept. 14, 1929, nonrecording gage at same site and datum. Sept. 14, 1929, to Sept. 30, 1977, at same site and datum 0.28 ft higher.

REMARKS.—Records fair except for periods of estimated record, which are poor. Water-quality data formerly collected at this site. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	35	153	e54	686	52	62	50	34	15	11	31
2	21	35	111	e52	251	49	59	48	68	20	11	22
3	21	35	73	e50	157	50	58	45	75	17	28	12
4	20	36	61	e49	127	49	53	43	60	15	142	9.9
5	27	35	48	e54	108	51	49	41	44	15	34	9.3
6	128	34	38	e58	125	53	161	38	37	15	19	8.9
7	92	34	38	e62	125	53	1210	35	40	14	14	9.0
8	75	34	37	e64	126	51	e2000	39	38	15	13	8.6
9	179	37	37	e60	364	51	e1500	46	31	20	11	8.4
10	162	49	34	e56	624	50	e500	41	28	15	11	8.2
11	85	68	41	e52	385	61	e235	36	29	14	10	8.2
12	55	54	210	e58	137	105	174	46	35	13	10	8.1
13	42	44	218	e66	119	406	127	65	28	13	11	8.1
14	36	41	148	e70	149	759	97	44	25	13	17	13
15	32	39	e70	e90	501	253	90	38	23	13	11	16
16	31	36	e62	e130	350	161	407	38	25	12	9.8	10
17	32	35	e560	e120	185	291	373	39	29	12	9.9	9.2
18	35	33	e500	e110	117	185	202	37	22	12	10	8.8
19	35	33	e350	e94	87	128	136	36	20	12	10	8.9
20	34	32	e260	e74	90	99	121	34	19	13	14	9.1
21	33	31	e200	e64	91	92	236	33	20	13	14	11
22	33	31	e150	e56	66	144	162	72	24	12	12	23
23	33	29	e110	e48	61	118	132	144	25	12	12	20
24	35	31	e90	e45	62	88	107	79	21	12	14	13
25	45	30	e78	e43	61	75	87	63	19	12	12	16
26	47	80	e76	e40	83	70	73	97	18	25	10	e27
27	42	126	e72	e38	71	69	67	78	16	18	13	e31
28	46	103	e66	e37	60	71	62	72	16	12	16	e24
29	41	75	e62	e36	---	74	56	54	16	11	12	22
30	40	85	e58	e60	---	72	52	43	15	11	10	15
31	37	---	e56	e721	---	66	---	36	---	11	10	---
TOTAL	1596	1400	4067	2611	5368	3896	8648	1610	900	437	541.7	428.7
MEAN	51.5	46.7	131	84.2	192	126	288	51.9	30.0	14.1	17.5	14.3
MAX	179	126	560	721	686	759	2000	144	75	25	142	31
MIN	20	29	34	36	60	49	49	33	15	11	9.8	8.1
CFSM	.53	.48	1.34	.86	1.96	1.29	2.95	.53	.31	.14	.18	.15
IN.	.61	.53	1.55	1.00	2.05	1.48	3.30	.61	.34	.17	.21	.16

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1926 - 2001, BY WATER YEAR (WY)

	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	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
MEAN	45.7	85.0	137	163	199	234	198	119	70.6	48.1	30.8	39.4																																																																
MAX	338	458	511	547	469	436	550	359	330	232	172	409																																																																
(WY)	1927	1986	1991	1952	1981	1963	1957	1984	1989	1958	1956	1926																																																																
MIN	8.31	12.3	18.5	26.3	10.3	68.6	37.1	10.6	10.5	8.09	7.16	7.14																																																																
(WY)	1964	1954	1964	1961	1934	1931	1946	1934	1933	1934	1962	1964																																																																

SUMMARY STATISTICS

	FOR 2000 CALENDAR YEAR				FOR 2001 WATER YEAR				WATER YEARS 1926 - 2001			
ANNUAL TOTAL	36424				31503.4							
ANNUAL MEAN	99.5				86.3				113			
HIGHEST ANNUAL MEAN									170			
LOWEST ANNUAL MEAN									34.3			
HIGHEST DAILY MEAN	1480				2000				5500			
LOWEST DAILY MEAN	17				8.1				.90			
ANNUAL SEVEN-DAY MINIMUM	18				8.4				4.1			
MAXIMUM PEAK FLOW					3130				8150			
MAXIMUM PEAK STAGE					12.26				13.71			
INSTANTANEOUS LOW FLOW					7.9				.90			
ANNUAL RUNOFF (CFSM)	1.02				.88				1.16			
ANNUAL RUNOFF (INCHES)	13.88				12.01				15.78			
10 PERCENT EXCEEDS	212				159				258			
50 PERCENT EXCEEDS	50				42				44			
90 PERCENT EXCEEDS	21				12				13			

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

SURFACE-WATER RECORDS

Beaver River Basin

03097550 MAHONING RIVER AT OHIO EDISON POWER PLANT AT NILES, OHIO

LOCATION.—Latitude 41°10'21", longitude 80°45'26", Trumbull County, Hydrologic Unit 05030103, on right bank 20 ft downstream from Conrail Spur Line, 100 ft downstream from Meander Creek, 0.2 mi upstream from Belmont Road, 0.4 mi. downstream from Mosquito Creek in Niles, Ohio.
DRAINAGE AREA.—854 mi².

PERIOD OF RECORD.—October 1987 to current year.

GAGE.—Water-stage recorder. Datum of gage is 843.08 ft above sea level.

REMARKS.—Records good except for periods of estimated record, which are poor. Water diverted upstream from station for municipal supply for cities of Niles, Warren, and Youngstown. Some sewage returned to river upstream from station. Water also diverted upstream and downstream from station for industrial use, some of which is returned to river upstream from station. Flow regulated by Berlin Lake, 37 mi upstream, beginning in 1942, by Milton Reservoir, 29 mi upstream, by Michael J. Kirwan Reservoir, 32 mi upstream on West Branch, beginning in 1966 by Mosquito Creek Lake, 11 mi upstream, beginning in 1943, by Meander Creek Reservoir. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	444	242	408	385	2060	296	240	316	372	531	e410	e740
2	436	235	422	376	1930	283	228	308	522	465	e410	e500
3	353	257	337	336	2230	282	240	306	549	e390	e420	e430
4	298	252	283	309	2380	285	247	302	465	e370	e540	e360
5	376	244	257	279	2350	298	236	306	390	e360	e500	e330
6	581	244	254	290	1900	310	475	303	354	e400	e440	e320
7	558	241	246	293	1560	311	2550	303	375	e430	e410	e310
8	452	240	237	299	1220	290	3960	310	374	e480	e390	e300
9	498	248	232	295	1350	275	2040	315	364	e440	e370	e310
10	571	303	219	287	1890	267	1400	311	339	e410	e360	e300
11	512	307	234	293	1910	295	1160	307	398	e430	e350	e290
12	446	304	434	273	1490	381	843	420	391	e430	e340	e280
13	416	284	576	273	1460	1050	511	433	379	e430	e340	e310
14	392	267	555	282	1600	1720	368	380	356	e430	e340	e380
15	370	244	598	327	2270	1270	347	311	347	e430	e330	e310
16	363	244	951	495	2490	716	1330	301	364	e450	e330	e280
17	366	233	3150	620	2060	838	1770	312	346	e460	e340	e270
18	363	232	3610	561	1720	835	1150	321	349	e465	e350	e270
19	363	232	2760	556	1510	557	693	331	352	e470	e365	e270
20	364	229	2380	541	1380	409	580	325	362	e660	e380	e310
21	338	227	2810	480	1250	383	882	356	417	e480	e400	e280
22	292	228	2390	438	836	567	893	624	e430	444	e390	e330
23	290	227	1860	429	600	562	630	780	e360	441	e380	e290
24	308	219	1870	442	535	413	484	647	e370	435	e370	e320
25	302	226	1640	431	477	332	387	604	e350	497	e365	e310
26	275	289	1390	366	476	293	321	603	e360	612	414	e280
27	259	359	1350	337	490	281	287	558	e370	447	490	e290
28	277	378	975	326	377	275	262	471	e375	429	e450	e280
29	266	338	520	330	---	272	297	390	e380	e420	e420	e270
30	255	361	410	636	---	264	334	323	e420	e410	e380	e260
31	247	---	395	1860	---	257	---	319	---	e410	e370	---
TOTAL	11631	7934	33753	13445	41801	14867	25145	12196	11580	13956	12144	9780
MEAN	375	264	1089	434	1493	480	838	393	386	450	392	326
MAX	581	378	3610	1860	2490	1720	3960	780	549	660	540	740
MIN	247	219	219	273	377	257	228	301	339	360	330	260
MED	363	244	555	337	1540	310	498	321	371	435	380	305
CFSM	.44	.31	1.27	.51	1.75	.56	.98	.46	.45	.53	.46	.38
IN.	.51	.35	1.47	.59	1.82	.65	1.10	.53	.50	.61	.53	.43

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2001, BY WATER YEAR (WY)

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
MEAN	575	720	926	1211	1226	1141	1142	895	933	633	540	561		
MAX	2074	1935	2736	3088	2853	2881	2946	3113	3117	1403	1147	1652		
(WY)	1991	1993	1997	1993	1990	1993	1994	1996	1989	1990	1992	1990		
MIN	247	212	272	268	333	421	540	293	293	370	392	326		
(WY)	1989	1992	1992	1992	1992	2000	1988	1992	1992	1988	2001	2001		

SUMMARY STATISTICS

	FOR 2000 CALENDAR YEAR	FOR 2001 WATER YEAR	WATER YEARS 1988 - 2001
ANNUAL TOTAL	280506	208232	
ANNUAL MEAN	766	570	873
HIGHEST ANNUAL MEAN			1262
LOWEST ANNUAL MEAN			546
HIGHEST DAILY MEAN	6200	3960	9120
LOWEST DAILY MEAN	219	219	183
ANNUAL SEVEN-DAY MINIMUM	227	227	196
MAXIMUM PEAK FLOW		4240	9760
MAXIMUM PEAK STAGE		6.80	13.35
INSTANTANEOUS LOW FLOW		189	183
ANNUAL RUNOFF (CFSM)	.90	.67	1.02
ANNUAL RUNOFF (INCHES)	12.22	9.07	13.89
10 PERCENT EXCEEDS	1830	1350	2100
50 PERCENT EXCEEDS	448	374	477
90 PERCENT EXCEEDS	256	260	281

e Estimated.

SURFACE-WATER RECORDS
Beaver River Basin

03098600 MAHONING RIVER BELOW WEST AVENUE AT YOUNGSTOWN, OHIO

LOCATION.—Latitude 41°06'18", longitude 80°39'46", Mahoning County, Hydrologic Unit 05030103, on left bank 200 ft below West Avenue Bridge, 0.4 mi upstream from Spring Common Bridge, 0.6 mi downstream from Mill Creek, in Youngstown, Ohio.
DRAINAGE AREA.—978 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—October 1987 to current year.

GAGE.—Water-stage recorder. Datum of gage is 824.10 ft above sea level.

REMARKS.—Records excellent. Water diverted upstream from station for municipal supply for city of Youngstown. Some sewage returned to river upstream from station. Water also diverted upstream and downstream from station by a private company for industrial use, some of which is returned to river upstream from station. Flow regulated by Berlin Lake, 49 mi upstream, beginning in 1942; by Milton Reservoir, 41 mi upstream; by Michael J. Kirwan Reservoir, 44 mi upstream on West Branch, beginning in 1966; by Mosquito Creek Lake, 23 mi upstream, beginning in 1943; by Meander Creek Reservoir, 12 mi upstream, beginning in 1929; and by reservoir on Squaw Creek, 6 mi upstream, and 2 small reservoirs on Mill Creek, 0.6 mi upstream. U.S. Army Corps of Engineers satellite telemeter at station. Water-quality data collected at this site.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	488	282	486	453	2310	367	335	378	472	744	482	851
2	485	272	490	446	2030	352	328	369	613	561	486	527
3	423	297	405	409	2230	346	334	373	645	446	606	441
4	354	296	342	390	2370	350	348	366	558	429	604	416
5	496	283	314	353	2330	392	337	368	468	457	589	397
6	772	276	306	373	1920	402	682	355	428	479	488	383
7	662	276	299	370	1590	392	3940	349	466	500	469	378
8	531	276	293	377	1250	367	4420	360	445	614	466	373
9	565	287	287	365	1410	348	2310	372	423	521	464	368
10	627	393	271	356	1950	338	1640	365	402	487	470	370
11	582	387	297	365	1930	365	1350	362	495	503	472	366
12	508	357	602	346	1510	460	973	586	471	500	462	362
13	472	331	676	348	1450	1420	663	496	437	499	460	371
14	450	314	689	358	1610	1970	500	436	411	497	451	501
15	435	287	704	428	2430	1450	557	367	394	495	449	388
16	430	281	1470	600	2660	883	1830	351	420	497	456	357
17	432	274	4210	687	2180	967	2060	364	394	506	475	347
18	430	268	3970	630	1760	955	1320	367	390	512	461	348
19	426	267	2890	615	1520	686	782	379	388	508	483	344
20	424	267	2370	602	1400	534	688	368	390	784	487	409
21	403	265	2750	545	1260	509	967	419	578	532	480	355
22	348	263	2390	507	865	723	981	992	469	500	454	426
23	342	262	1820	493	648	703	717	1080	478	500	468	365
24	390	256	1830	506	576	547	566	856	465	499	443	395
25	386	266	1610	495	549	445	460	849	453	534	426	401
26	340	349	1380	439	549	403	390	773	467	673	441	346
27	319	433	1340	411	553	374	366	682	472	516	517	364
28	339	454	987	397	462	362	336	599	476	487	468	351
29	312	405	587	397	---	357	353	495	474	489	435	342
30	294	448	475	824	---	364	396	413	564	487	400	328
31	285	---	465	2210	---	352	---	393	---	487	919	---
TOTAL	13750	9372	37005	16095	43302	18483	30929	15282	14006	16243	15231	11970
MEAN	444	312	1194	519	1546	596	1031	493	467	524	491	399
MAX	772	454	4210	2210	2660	1970	4420	1080	645	784	919	851
MIN	285	256	271	346	462	338	328	349	388	429	400	328

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2001, BY WATER YEAR (WY)

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
MEAN	647	803	1091	1431	1397	1354	1400	1052	1091	751	604	645		
MAX	2303	2117	3184	3608	3323	3456	3502	3639	3693	1932	1316	1881		
(WY)	1991	1993	1997	1993	1990	1993	1994	1996	1989	1990	1992	1990		
MIN	264	222	312	302	432	517	684	437	377	430	419	346		
(WY)	1992	1992	1992	1992	1992	2000	1995	1992	1988	1988	1991	1991		

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR	FOR 2001 WATER YEAR	FOR 2000 CALENDAR YEAR	FOR 2001 WATER YEAR	FOR 2000 CALENDAR YEAR	FOR 2001 WATER YEAR	WATER YEARS 1988 - 2001
ANNUAL TOTAL	328712	241668					
ANNUAL MEAN	898	662					1020
HIGHEST ANNUAL MEAN							1445
LOWEST ANNUAL MEAN							643
HIGHEST DAILY MEAN	8090	Apr 9	4420	Apr 8	11400	Apr 13	1994
LOWEST DAILY MEAN	256	Nov 24	256	Nov 24	181	Oct 17	1988
ANNUAL SEVEN-DAY MINIMUM	264	Nov 19	264	Nov 19	202	Nov 24	1991
MAXIMUM PEAK FLOW			6220	Apr 7	11900	Apr 13	1994
MAXIMUM PEAK STAGE			8.55	Apr 7	15.44	Apr 13	1994
INSTANTANEOUS LOW FLOW			251	Nov 24	181	Oct 17	1988
10 PERCENT EXCEEDS	1960		1430		2390		
50 PERCENT EXCEEDS	531		461		540		
90 PERCENT EXCEEDS	311		335		334		

SURFACE-WATER RECORDS
Beaver River Basin

03098600 MAHONING RIVER BELOW WEST AVENUE AT YOUNGSTOWN, OHIO—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—June 1992 to current year.

PERIOD OF DAILY RECORD—

SPECIFIC CONDUCTANCE: July 1992 to current year.

pH: July 1992 to current year.

WATER TEMPERATURES: June 1992 to current year.

DISSOLVED OXYGEN: July 1992 to current year.

INSTRUMENTATION.—Data Collection Platform. Set for 1-hour interval.

REMARKS.—Interruptions in the water-quality were due to malfunction of the instrument. All records good except for dissolved oxygen, June 7-19, which is fair.

EXTREMES FOR PERIOD OF RECORD.—

SPECIFIC CONDUCTANCE: Maximum, 1,070 microsiemens, Feb. 11, 2000; minimum, 189 microsiemens, Aug. 1, 1992.

pH: Maximum, 8.8 units, May 14, 23, 31, 1994; minimum, 6.4 units, Dec. 19, 2000.

WATER TEMPERATURES: Maximum, 32.5°C, July 10, 1993, July 15, 1995, and July 27, 1999; minimum, 1.0°C, Dec. 18, 19, and 22-26, 2000.

DISSOLVED OXYGEN: Maximum, 14.5 mg/L Apr. 18, 1996; minimum, 3.7 mg/L July 21 and 22, 1999.

EXTREMES FOR CURRENT YEAR.—

SPECIFIC CONDUCTANCE: Maximum, 1,020 microsiemens, Jan. 15 and 16; minimum, 269 microsiemens, Apr. 18.

pH: Maximum, 8.4 units, May 2; minimum, 6.4 units, Dec. 19.

WATER TEMPERATURES: Maximum, 32.0°C, July 24, 25, Aug. 9, and 10; minimum, 1.0°C, Dec. 18, 19, and 22-26.

DISSOLVED OXYGEN: Maximum, 13.5 mg/L, Dec. 26; minimum, 3.9 mg/L, June 16.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	523	504	511	582	547	563	650	617	639	636	616	624
2	514	504	507	582	556	566	628	616	621	628	616	622
3	510	505	508	573	560	569	616	595	604	646	623	637
4	529	506	518	594	568	586	622	595	609	646	631	638
5	545	520	532	584	572	577	628	615	621	724	635	674
6	545	510	532	602	584	592	647	625	632	770	718	734
7	513	486	500	597	581	585	653	637	644	836	770	793
8	529	500	512	586	575	582	711	651	687	894	836	859
9	535	526	529	601	577	592	713	672	697	907	862	884
10	532	518	525	611	577	594	695	668	684	889	845	863
11	518	498	504	615	596	605	745	691	725	889	836	859
12	507	486	496	596	555	574	806	682	764	848	838	843
13	526	504	512	560	554	555	710	664	689	844	830	834
14	519	515	518	572	560	565	801	708	756	868	838	857
15	539	518	525	595	563	579	842	722	774	1020	868	921
16	540	529	534	593	570	581	842	646	757	1020	855	939
17	532	524	528	591	573	583	684	431	568	900	860	888
18	552	532	540	611	585	600	431	326	383	890	840	867
19	557	535	545	621	598	612	371	309	327	840	810	827
20	551	535	543	620	590	610	433	371	409	814	732	774
21	540	535	538	604	586	594	448	433	441	763	737	753
22	546	536	541	612	579	601	452	444	448	754	703	732
23	548	535	541	582	575	578	460	450	456	716	669	695
24	556	527	543	615	582	603	451	443	448	686	666	677
25	579	544	557	607	594	599	455	443	450	674	654	662
26	573	538	562	632	599	616	476	453	464	685	657	669
27	597	533	562	635	595	608	481	472	476	737	666	708
28	594	583	589	635	596	609	509	480	495	748	733	738
29	591	572	580	596	583	588	561	503	531	805	735	764
30	592	553	577	628	585	615	604	561	578	961	801	883
31	553	545	547	---	---	---	621	604	612	935	695	840
MONTH	597	486	534	635	547	589	842	309	580	1020	616	776

SURFACE-WATER RECORDS
Beaver River Basin

03098600 MAHONING RIVER BELOW WEST AVENUE AT YOUNGSTOWN, OHIO—Continued

WATER-QUALITY RECORDS—Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	MAX	MIN	MEAN									
1	7.7	7.7	7.7	7.4	7.3	7.4	7.3	7.2	7.2	7.3	7.2	7.2
2	7.7	7.7	7.7	7.5	7.4	7.5	7.3	7.2	7.2	7.2	7.2	7.2
3	7.8	7.7	7.7	7.5	7.5	7.5	7.2	7.2	7.2	7.3	7.0	7.2
4	7.8	7.7	7.7	7.6	7.5	7.5	7.2	7.1	7.2	7.3	7.2	7.3
5	7.7	7.6	7.7	7.5	7.4	7.5	7.3	7.1	7.2	7.4	7.2	7.3
6	7.8	7.6	7.7	7.5	7.4	7.4	7.4	7.3	7.3	7.4	7.3	7.3
7	7.6	7.6	7.6	7.5	7.4	7.5	7.4	7.3	7.3	7.4	7.4	7.4
8	7.6	7.5	7.6	7.6	7.5	7.5	7.3	7.2	7.3	7.4	7.3	7.4
9	7.6	7.5	7.6	7.5	7.5	7.5	7.4	7.3	7.3	7.4	7.3	7.4
10	7.6	7.6	7.6	7.5	7.5	7.5	7.4	7.2	7.3	7.4	7.3	7.4
11	7.6	7.5	7.6	7.5	7.4	7.4	7.3	7.2	7.3	7.4	7.4	7.4
12	7.6	7.5	7.6	7.4	7.4	7.4	7.4	7.3	7.3	7.5	7.4	7.4
13	7.6	7.5	7.6	7.4	7.3	7.4	7.4	7.1	7.3	7.5	7.4	7.4
14	7.6	7.5	7.6	7.4	7.4	7.4	7.2	7.1	7.1	7.5	7.4	7.5
15	7.6	7.5	7.6	7.4	7.3	7.3	7.1	7.1	7.1	7.5	7.4	7.5
16	7.7	7.6	7.6	7.3	7.3	7.3	7.1	7.0	7.1	7.5	7.4	7.4
17	7.6	7.6	7.6	7.3	7.3	7.3	7.0	6.8	6.9	7.4	7.3	7.4
18	7.6	7.6	7.6	7.3	7.3	7.3	6.8	6.5	6.6	7.4	7.3	7.4
19	7.6	7.5	7.6	7.4	7.3	7.3	6.6	6.4	6.5	7.4	7.3	7.3
20	7.6	7.5	7.6	7.4	7.3	7.3	6.8	6.6	6.7	7.4	7.3	7.3
21	7.6	7.5	7.6	7.3	7.3	7.3	6.8	6.8	6.8	7.3	7.3	7.3
22	7.6	7.5	7.6	7.3	7.2	7.3	6.9	6.8	6.9	7.3	7.3	7.3
23	7.6	7.5	7.6	7.3	7.2	7.2	6.9	6.8	6.9	7.4	7.3	7.4
24	7.6	7.5	7.5	7.3	7.2	7.3	7.2	6.8	7.1	7.4	7.3	7.4
25	7.6	7.5	7.5	7.2	7.1	7.2	7.7	7.1	7.1	7.4	7.3	7.4
26	7.5	7.5	7.5	7.2	7.1	7.2	7.9	6.8	7.4	7.4	7.3	7.4
27	7.6	7.5	7.5	7.2	7.2	7.2	7.2	6.9	7.1	7.4	7.3	7.3
28	7.6	7.5	7.6	7.2	7.2	7.2	7.1	7.1	7.1	7.5	7.4	7.4
29	7.6	7.5	7.5	7.2	7.2	7.2	7.3	7.0	7.1	7.5	7.4	7.4
30	7.5	7.4	7.4	7.3	7.2	7.2	7.4	7.0	7.2	7.6	7.4	7.5
31	7.4	7.3	7.4	---	---	---	7.2	7.2	7.2	7.5	7.2	7.3
MONTH	7.8	7.3	7.6	7.6	7.1	7.3	7.9	6.4	7.1	7.6	7.0	7.4

DAY	MAX	MIN	MEAN									
1	7.2	7.0	7.1	7.5	7.2	7.4	7.7	7.5	7.6	8.3	7.7	7.9
2	7.0	6.9	7.0	7.4	7.3	7.3	7.9	7.5	7.6	8.4	7.7	7.9
3	7.1	7.0	7.1	7.5	7.3	7.3	7.7	7.5	7.6	8.3	7.6	7.9
4	7.1	7.0	7.1	7.4	7.3	7.3	8.1	7.5	7.8	7.8	7.5	7.7
5	7.1	7.1	7.1	7.4	7.3	7.3	8.1	7.7	7.8	7.7	7.5	7.6
6	7.1	7.1	7.1	7.4	7.3	7.3	7.9	7.6	7.7	7.8	7.5	7.6
7	7.2	7.1	7.2	7.4	7.3	7.3	7.8	7.4	7.5	7.8	7.5	7.6
8	7.2	7.2	7.2	7.4	7.3	7.3	7.4	7.2	7.3	7.6	7.5	7.5
9	7.3	7.2	7.2	7.4	7.2	7.3	7.4	7.2	7.3	7.6	7.4	7.5
10	7.3	7.2	7.3	7.5	7.3	7.4	7.5	7.4	7.5	7.6	7.4	7.5
11	7.2	7.1	7.1	7.4	7.2	7.3	7.5	7.5	7.5	7.7	7.4	7.5
12	7.1	7.0	7.1	7.5	7.2	7.3	7.6	7.5	7.6	7.6	7.5	7.6
13	7.2	7.0	7.1	7.3	7.2	7.3	7.7	7.6	7.6	7.6	7.5	7.5
14	7.1	7.0	7.0	7.2	7.1	7.1	7.7	7.6	7.6	7.8	7.4	7.5
15	7.1	7.0	7.0	7.1	7.1	7.1	7.7	7.5	7.6	7.6	7.5	7.5
16	7.0	6.9	7.0	7.1	7.0	7.1	7.6	7.5	7.6	7.6	7.4	7.5
17	7.0	6.9	6.9	7.1	7.1	7.1	7.6	7.4	7.5	7.6	7.5	7.6
18	7.0	6.9	7.0	7.2	7.1	7.1	7.5	7.5	7.5	7.6	7.5	7.6
19	7.0	7.0	7.0	7.3	7.1	7.2	7.6	7.4	7.5	7.7	7.5	7.6
20	7.1	7.0	7.0	7.4	7.2	7.3	7.5	7.4	7.4	7.7	7.6	7.6
21	7.1	7.1	7.1	7.4	7.3	7.3	7.5	7.4	7.5	7.8	7.6	7.7
22	7.1	7.1	7.1	7.5	7.3	7.4	7.5	7.4	7.5	7.8	7.7	7.8
23	7.2	7.1	7.1	7.5	7.3	7.4	7.6	7.5	7.5	7.7	7.6	7.7
24	7.2	7.1	7.1	7.5	7.4	7.4	7.6	7.5	7.5	7.7	7.7	7.7
25	7.3	7.1	7.2	7.5	7.4	7.4	7.6	7.5	7.6	7.7	7.6	7.7
26	7.3	7.2	7.2	7.7	7.3	7.4	7.7	7.5	7.6	7.7	7.6	7.7
27	7.4	7.2	7.3	7.5	7.4	7.4	7.8	7.5	7.7	7.8	7.7	7.7
28	7.5	7.3	7.3	7.9	7.4	7.5	7.6	7.5	7.6	7.7	7.7	7.7
29	---	---	---	7.6	7.5	7.5	7.7	7.5	7.6	7.9	7.7	7.7
30	---	---	---	7.6	7.4	7.5	8.1	7.6	7.4	7.8	7.7	7.8
31	---	---	---	7.7	7.5	7.6	---	---	---	7.9	7.8	7.8
MONTH	7.5	6.9	7.1	7.9	7.0	7.3	8.1	7.2	7.6	8.4	7.4	7.7

SURFACE-WATER RECORDS
Beaver River Basin

03098600 MAHONING RIVER BELOW WEST AVENUE AT YOUNGSTOWN, OHIO—Continued

WATER-QUALITY RECORDS—Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001—Continued

DAY	MAX	MIN	MEAN									
1	7.9	7.8	7.8	7.9	7.7	7.8	7.7	7.5	7.5	7.0	6.8	6.9
2	7.9	7.8	7.8	7.8	7.7	7.7	7.6	7.5	7.5	6.9	6.8	6.8
3	7.8	7.8	7.8	7.7	7.6	7.7	7.5	7.5	7.5	6.9	6.8	6.8
4	7.9	7.8	7.8	7.7	7.7	7.7	7.5	7.4	7.4	6.9	6.8	6.9
5	7.9	7.8	7.9	7.8	7.7	7.7	7.5	7.4	7.4	7.0	6.9	6.9
6	7.9	7.8	7.9	7.8	7.7	7.7	7.6	7.5	7.5	7.0	6.9	6.9
7	8.1	7.8	7.9	7.8	7.7	7.7	7.5	7.5	7.5	7.0	6.9	6.9
8	8.1	7.9	7.9	7.8	7.7	7.8	7.6	7.4	7.5	7.1	6.9	7.0
9	8.0	7.8	7.9	7.8	7.7	7.7	7.6	7.4	7.5	7.1	7.0	7.0
10	7.9	7.8	7.8	7.8	7.7	7.7	7.5	7.4	7.5	7.1	7.0	7.0
11	8.0	7.7	7.8	7.8	7.7	7.8	7.6	7.4	7.5	7.1	7.0	7.0
12	7.9	7.8	7.8	7.8	7.7	7.8	7.5	7.4	7.5	7.1	7.0	7.1
13	7.9	7.7	7.8	7.8	7.7	7.8	7.5	7.4	7.5	7.1	7.0	7.0
14	7.8	7.7	7.7	7.8	7.7	7.7	7.6	7.5	7.5	7.3	7.0	7.1
15	7.8	7.6	7.7	7.8	7.7	7.7	7.7	7.5	7.6	7.3	7.0	7.1
16	7.7	7.6	7.7	7.8	7.7	7.7	7.6	7.5	7.5	7.1	7.0	7.0
17	7.8	7.7	7.7	7.8	7.7	7.7	7.5	7.5	7.5	7.1	7.0	7.0
18	7.7	7.6	7.7	7.8	7.6	7.7	7.6	7.4	7.5	7.1	7.0	7.0
19	7.7	7.6	7.6	7.8	7.5	7.6	7.5	7.4	7.4	7.0	7.0	7.0
20	7.7	7.6	7.6	7.6	7.4	7.5	7.5	7.4	7.5	7.0	6.9	6.9
21	7.8	7.6	7.7	7.5	7.3	7.4	7.4	7.3	7.4	6.9	6.8	6.9
22	7.7	7.6	7.7	7.6	7.4	7.5	7.4	7.4	7.4	6.9	6.9	6.9
23	7.7	7.6	7.6	7.6	7.5	7.5	7.5	7.4	7.4	7.1	6.9	7.0
24	7.7	7.6	7.6	7.7	7.5	7.6	7.5	7.4	7.4	7.0	7.0	7.0
25	7.7	7.6	7.7	7.6	7.5	7.5	7.5	7.4	7.4	7.0	7.0	7.0
26	7.8	7.6	7.7	7.6	7.5	7.5	7.5	7.4	7.4	7.0	6.9	7.0
27	7.7	7.6	7.7	7.6	7.4	7.5	7.6	7.4	7.5	7.0	6.9	7.0
28	7.8	7.7	7.7	7.6	7.5	7.5	7.4	6.8	7.1	7.0	6.9	6.9
29	7.7	7.7	7.7	7.7	7.5	7.6	7.0	6.8	6.9	6.9	6.8	6.8
30	7.9	7.6	7.7	7.7	7.5	7.5	7.0	6.8	6.9	6.9	6.8	6.9
31	---	---	---	7.6	7.5	7.5	7.1	6.8	6.9	---	---	---
MONTH	8.1	7.6	7.7	7.9	7.3	7.6	7.7	6.8	7.4	7.3	6.8	7.0
YEAR	8.4	6.4	7.4									

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	20.0	18.5	19.0	13.0	12.0	12.5	8.5	7.5	8.0	3.5	3.0	3.0
2	20.5	19.0	19.5	15.5	12.0	14.0	8.0	7.0	7.5	4.0	3.0	3.5
3	21.5	20.0	20.5	16.5	15.0	16.0	7.0	5.5	6.0	6.0	3.5	5.0
4	21.5	20.5	21.0	16.0	15.0	15.5	5.5	5.0	5.5	7.0	5.5	6.0
5	21.5	20.5	21.0	16.0	14.5	15.5	8.0	5.5	7.5	7.0	5.5	6.0
6	22.0	20.5	21.0	15.5	14.5	15.0	8.5	7.5	8.0	8.5	7.0	7.5
7	20.5	18.0	19.0	15.0	14.5	15.0	8.5	7.5	8.0	8.5	7.5	8.0
8	18.0	17.0	17.5	16.5	14.5	15.5	9.0	8.0	8.5	9.0	5.0	7.0
9	17.0	16.5	17.0	17.0	16.5	16.5	9.0	8.0	8.5	7.0	5.5	6.5
10	17.0	15.5	16.5	16.5	14.5	15.5	9.5	8.0	8.5	7.5	6.5	6.5
11	16.0	15.0	15.5	15.0	14.5	14.5	9.5	8.5	9.0	7.5	6.0	7.0
12	17.0	15.5	16.0	15.0	14.0	14.5	10.0	8.0	8.5	9.0	7.5	8.5
13	17.0	15.5	16.0	14.0	13.0	13.5	10.0	5.0	7.5	9.5	8.5	9.0
14	17.0	15.0	16.0	13.0	12.5	12.5	5.5	4.5	5.5	9.5	9.0	9.5
15	20.0	16.5	17.5	12.5	11.0	12.0	6.0	4.5	5.5	10.0	8.5	9.5
16	21.0	20.0	20.5	11.5	10.5	11.0	6.0	4.0	5.5	9.0	7.0	8.0
17	21.0	20.5	21.0	11.0	10.0	10.5	4.0	2.0	3.0	7.5	5.5	6.5
18	21.0	20.0	20.5	10.0	9.0	10.0	2.0	1.0	1.5	6.5	5.5	6.0
19	21.5	19.0	20.5	10.0	9.0	9.5	1.5	1.0	1.5	6.5	5.0	6.0
20	21.5	19.5	20.5	10.0	9.0	9.5	2.0	1.5	1.5	6.5	5.0	6.0
21	21.0	19.0	20.0	9.0	8.0	9.0	2.0	1.5	1.5	5.0	4.5	4.5
22	21.5	20.0	21.0	8.0	6.5	7.5	2.0	1.0	1.5	6.0	4.5	5.0
23	21.5	20.5	21.0	8.0	6.5	7.0	1.5	1.0	1.5	6.5	5.0	6.0
24	21.5	20.5	21.0	8.0	6.5	7.0	1.5	1.0	1.5	7.0	6.0	6.5
25	22.5	20.5	21.5	7.0	6.0	6.5	1.5	1.0	1.0	6.5	5.5	6.0
26	22.0	21.0	21.5	7.5	6.5	7.5	2.0	1.0	1.5	6.5	5.0	6.0
27	22.0	21.5	22.0	8.5	7.5	8.0	2.5	1.5	2.0	7.0	6.0	6.5
28	22.5	20.5	21.5	8.5	8.0	8.5	3.0	2.0	2.0	7.0	6.0	6.5
29	20.5	17.0	19.0	8.0	7.5	8.0	3.5	3.0	3.0	8.0	7.0	7.5
30	17.0	13.5	15.0	8.0	7.5	8.0	5.5	3.0	4.5	9.0	6.5	7.5
31	13.5	12.5	13.0	---	---	---	4.5	3.0	3.0	6.5	3.0	4.5
MONTH	22.5	12.5	19.0	17.0	6.0	11.5	10.0	1.0	5.0	10.0	3.0	6.5

SURFACE-WATER RECORDS
Beaver River Basin

03098600 MAHONING RIVER BELOW WEST AVENUE AT YOUNGSTOWN, OHIO—Continued

WATER-QUALITY RECORDS—Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7.8	7.5	7.6	8.7	8.0	8.3	10.3	9.9	10.1	11.3	11.0	11.1
2	7.5	7.2	7.4	8.2	7.1	7.8	10.7	9.9	10.3	11.4	11.0	11.2
3	7.5	6.8	7.2	7.6	7.0	7.2	11.4	10.3	10.8	11.4	10.3	10.7
4	7.2	6.5	6.9	7.9	7.0	7.3	11.7	10.7	11.1	10.8	9.9	10.2
5	6.7	6.4	6.6	7.4	6.5	7.1	10.9	9.4	10.2	10.4	9.8	10.0
6	6.9	6.5	6.7	7.3	6.4	6.8	10.1	9.0	9.5	10.4	9.6	9.9
7	7.5	6.6	7.1	7.7	6.9	7.3	9.7	8.8	9.2	10.3	9.5	9.9
8	7.8	7.3	7.6	8.0	7.0	7.5	9.7	8.9	9.2	10.8	9.5	10.1
9	8.0	7.6	7.8	7.4	6.8	7.1	9.9	8.9	9.3	10.7	10.0	10.3
10	8.3	7.9	8.1	7.8	6.8	7.3	9.7	8.8	9.2	10.7	9.9	10.2
11	8.8	8.2	8.5	8.0	7.2	7.6	9.4	8.9	9.2	10.9	10.0	10.3
12	8.5	8.1	8.3	8.3	7.1	7.6	10.1	8.7	9.5	10.5	9.7	10.0
13	8.5	7.9	8.2	8.4	7.8	8.1	11.3	9.3	10.2	10.6	9.7	10.0
14	8.3	7.9	8.1	8.7	8.0	8.3	11.7	11.2	11.4	10.5	9.7	10.0
15	7.9	6.8	7.5	8.9	8.2	8.5	11.7	11.2	11.4	10.5	9.9	10.1
16	7.2	6.5	6.8	9.0	8.4	8.7	11.9	11.1	11.4	10.8	10.4	10.5
17	6.7	6.3	6.5	9.2	8.5	8.8	12.2	11.5	11.8	11.6	10.6	11.0
18	6.4	6.1	6.3	9.6	8.9	9.1	12.7	12.2	12.5	11.5	10.4	11.1
19	6.5	6.0	6.2	9.7	8.8	9.2	12.8	12.6	12.6	11.4	10.6	11.1
20	6.5	6.0	6.3	9.8	8.8	9.2	13.0	12.7	12.8	11.0	10.4	10.7
21	6.5	5.9	6.1	10.4	9.2	9.7	13.0	12.7	12.9	11.2	10.3	10.8
22	6.4	5.7	6.0	10.7	9.6	10.1	12.9	12.7	12.9	11.2	10.6	10.8
23	6.2	5.6	5.8	11.0	10.2	10.6	12.9	12.8	12.9	10.9	9.9	10.5
24	5.9	5.3	5.6	11.1	10.4	10.6	13.1	12.2	12.5	10.3	9.4	10.0
25	5.9	5.0	5.5	11.6	10.5	11.1	12.7	12.2	12.3	10.4	9.9	10.1
26	5.5	4.8	5.2	10.9	10.5	10.7	13.5	12.3	12.9	10.4	9.5	9.8
27	5.6	4.8	5.1	10.6	10.1	10.4	12.8	12.1	12.3	10.1	9.4	9.9
28	5.9	4.7	5.2	10.3	9.9	10.1	12.1	11.5	11.9	10.2	8.9	9.4
29	6.3	5.2	5.7	10.8	10.0	10.3	12.0	11.3	11.6	9.5	8.5	8.9
30	7.4	5.9	6.9	10.7	10.1	10.3	11.7	10.6	11.0	9.8	7.9	8.6
31	8.2	7.3	7.8	---	---	---	11.2	10.9	11.1	---	---	---
MONTH	8.8	4.7	6.8	11.6	6.4	8.8	13.5	8.7	11.2	11.6	7.9	10.2

DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	12.0	9.7	10.7	10.7	8.3	9.2	12.7	8.6	10.0
2	---	---	---	10.5	9.0	9.6	12.2	9.2	10.3	12.8	8.1	10.0
3	---	---	---	10.8	8.5	9.4	11.0	8.9	9.8	11.7	7.4	9.2
4	---	---	---	9.6	8.6	9.0	12.0	8.1	9.6	9.2	6.7	7.7
5	---	---	---	11.0	8.3	9.4	11.8	7.6	9.1	8.9	5.9	7.2
6	---	---	---	11.2	9.0	9.9	8.7	7.0	7.9	9.3	6.1	7.4
7	---	---	---	11.4	9.5	10.3	9.2	8.1	8.8	9.7	6.2	7.8
8	---	---	---	12.4	10.2	11.0	8.7	7.3	7.8	7.7	5.6	6.4
9	---	---	---	12.6	10.1	11.1	7.9	7.5	7.7	7.3	5.4	6.2
10	---	---	---	13.3	10.1	11.4	8.8	7.6	8.0	7.5	5.6	6.5
11	---	---	---	12.6	10.6	11.3	8.9	8.3	8.4	8.2	5.6	6.8
12	---	---	---	13.1	10.6	11.5	9.1	8.2	8.6	7.3	5.5	6.6
13	---	---	---	11.8	10.6	11.1	9.7	8.7	9.2	8.3	6.6	7.3
14	---	---	---	11.9	11.2	11.6	9.5	8.0	8.8	7.7	6.4	7.1
15	11.4	11.0	11.3	11.7	11.1	11.5	8.7	7.6	8.3	6.7	5.8	6.2
16	11.5	11.2	11.4	11.2	10.7	11.0	10.0	8.6	9.2	6.0	5.4	5.7
17	12.1	11.3	11.7	11.1	10.6	10.8	10.6	10.0	10.3	6.1	5.2	5.5
18	12.3	12.0	12.2	12.3	11.1	11.7	11.0	10.6	10.8	5.6	5.1	5.3
19	12.3	11.8	12.1	12.4	11.2	11.7	10.9	10.1	10.6	6.4	5.1	5.8
20	11.9	11.1	11.5	11.9	10.4	11.1	10.5	9.9	10.0	6.9	5.7	6.2
21	11.7	11.2	11.4	10.7	9.7	10.2	10.3	9.4	9.9	6.5	5.1	6.0
22	11.8	11.1	11.6	10.9	9.6	10.1	10.8	9.6	10.2	6.6	5.1	6.3
23	11.5	10.8	11.1	11.4	9.6	10.4	10.1	9.4	9.8	7.0	6.4	6.7
24	11.3	10.6	10.9	11.4	9.8	10.5	9.4	8.2	9.0	7.0	6.5	6.7
25	11.1	10.1	10.6	11.5	10.0	10.6	9.0	7.8	8.6	7.0	6.5	6.8
26	10.9	10.1	10.4	13.4	10.0	11.1	9.0	7.4	8.1	7.1	6.5	6.8
27	11.0	9.5	10.2	12.3	10.2	11.1	9.1	7.1	7.9	7.1	6.6	6.9
28	11.9	9.8	10.6	12.7	9.7	10.9	9.7	7.0	8.2	7.2	6.8	7.0
29	---	---	---	11.1	9.1	9.8	9.8	7.3	8.2	7.1	6.8	6.9
30	---	---	---	10.5	8.5	9.3	11.7	7.0	8.8	7.5	6.9	7.1
31	---	---	---	10.8	8.4	9.3	---	---	---	7.0	6.0	6.7
MONTH	12.3	9.5	11.2	13.4	8.3	10.6	12.2	7.0	9.0	12.8	5.1	6.9

SURFACE-WATER RECORDS
Yellow Creek Basin

03110000 YELLOW CREEK NEAR HAMMONDSVILLE, OHIO

LOCATION.—Latitude 40°32'16", longitude 80°43'31", in sec. 29, T.8 N., R.2 W., Jefferson County, Hydrologic Unit 05030101, on right bank 1,000 ft upstream from Lowery Run, 0.9 mi upstream from Brush Creek and 1.6 mi southwest of Hammondsville, Ohio.

DRAINAGE AREA.—147 mi².

PERIOD OF RECORD.—October 1940 to current year.

REVISED RECORDS.—WSP 1907: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is 692.10 ft above sea level (Ohio State Highway Department benchmark).

REMARKS.—Records good except for periods of estimated record, which are poor. Water-quality and sediment data formerly collected at this site. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	26	44	e62	769	134	151	122	93	47	10	32
2	38	25	40	e58	483	126	147	119	98	128	9.9	25
3	34	25	42	e55	342	126	130	111	114	55	9.6	14
4	30	24	54	e52	282	124	121	98	94	41	14	11
5	34	26	41	e50	260	145	108	93	79	43	11	8.3
6	212	68	42	e48	247	147	232	85	114	73	9.8	7.4
7	149	65	39	e46	234	142	410	79	165	45	8.2	6.3
8	101	56	34	e45	220	136	298	76	129	59	8.0	5.5
9	84	47	31	e43	278	132	259	76	102	58	7.7	5.0
10	72	47	37	e42	338	130	314	74	85	40	8.3	4.8
11	60	68	38	e40	260	128	434	66	80	42	10	4.6
12	51	48	109	e40	222	131	502	68	86	39	11	4.5
13	46	41	125	e39	206	310	376	67	67	29	11	4.5
14	42	38	167	e38	199	499	296	58	54	25	9.8	5.7
15	40	37	183	e38	355	417	254	55	49	22	8.8	5.5
16	39	32	239	e37	340	361	320	58	49	19	7.4	8.6
17	40	32	1740	e36	336	404	260	59	56	17	6.4	6.2
18	40	29	708	e36	283	326	225	57	42	17	5.7	5.2
19	38	28	391	e60	249	276	196	55	36	17	5.3	5.1
20	37	28	268	e100	246	251	231	49	36	16	5.4	5.1
21	33	26	215	e90	222	248	447	58	44	15	5.4	5.1
22	31	29	165	e82	174	396	364	514	81	14	5.3	5.1
23	29	34	133	e76	173	352	328	436	63	13	6.9	5.1
24	30	20	e120	e72	158	310	288	222	57	13	7.0	5.2
25	41	20	e110	e69	151	271	241	263	46	13	6.6	5.2
26	42	31	e98	e67	151	242	201	233	38	14	6.6	7.7
27	36	48	e88	e64	146	212	185	191	32	14	6.4	6.4
28	33	49	e82	e62	142	183	166	182	29	13	5.8	5.4
29	31	45	e76	e60	---	168	141	147	26	12	5.2	5.3
30	29	44	e72	e350	---	167	130	125	25	11	5.0	5.3
31	27	---	e66	1650	---	160	---	102	---	11	7.8	---
TOTAL	1590	1136	5597	3607	7466	7154	7755	3998	2069	975	245.3	230.1
MEAN	51.3	37.9	181	116	267	231	258	129	69.0	31.5	7.91	7.67
MAX	212	68	1740	1650	769	499	502	514	165	128	14	32
MIN	27	20	31	36	142	124	108	49	25	11	5.0	4.5
CFSM	.35	.26	1.23	.79	1.81	1.57	1.76	.88	.47	.21	.05	.05
IN.	.40	.29	1.42	.91	1.89	1.81	1.96	1.01	.52	.25	.06	.06

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 2001, BY WATER YEAR (WY)

	46.5	92.9	169	221	274	344	298	210	117	65.4	48.6	36.2
MEAN	46.5	92.9	169	221	274	344	298	210	117	65.4	48.6	36.2
MAX	242	611	879	745	649	848	627	538	588	266	492	232
(WY)	1991	1986	1991	1952	1956	1945	1948	1956	1989	1958	1980	1975
MIN	4.92	5.08	10.8	20.8	23.6	55.1	75.9	40.0	10.1	6.12	3.95	2.26
(WY)	1954	1992	1964	1977	1954	1969	1941	1988	1988	1965	1962	1999

SUMMARY STATISTICS

FOR 2000 CALENDAR YEAR

FOR 2001 WATER YEAR

WATER YEARS 1941 - 2001

ANNUAL TOTAL	50490	41822.4	
ANNUAL MEAN	138	115	160
HIGHEST ANNUAL MEAN			266
LOWEST ANNUAL MEAN			73.9
HIGHEST DAILY MEAN	1740	Dec 17	1740
LOWEST DAILY MEAN	16	Sep 8	4.5
ANNUAL SEVEN-DAY MINIMUM	19	Sep 4	4.9
MAXIMUM PEAK FLOW			2100
MAXIMUM PEAK STAGE			6.13
INSTANTANEOUS LOW FLOW			4.5
ANNUAL RUNOFF (CFSM)	.94	.78	.80
ANNUAL RUNOFF (INCHES)	12.78	10.58	14.81
10 PERCENT EXCEEDS	293	282	382
50 PERCENT EXCEEDS	74	56	75
90 PERCENT EXCEEDS	29	7.2	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
Short Creek Basin

03111500 SHORT CREEK NEAR DILLONVALE, OHIO

LOCATION.—Latitude 40°11'36", longitude 80°44'04", in sec. 30, T.4 N., R.2 W., Jefferson County, Hydrologic Unit 05030106, on right bank 350 ft downstream from bridge on State Highway 150, 2.1 mi east of Dillonvale, Ohio, 2.2 mi downstream from Jug Run, and 2.9 mi upstream from Little Short Creek.

DRAINAGE AREA.—123 mi².

PERIOD OF RECORD.—October 1941 to current year.

REVISED RECORDS.—WSP 1003: 1942-43. WSP 1907: Drainage area. WDR-OH-82-1: 1981.

GAGE.—Water-stage recorder. Datum of gage is 675.1 ft above sea level (State of Ohio benchmark). Prior to Oct. 21, 1982, at datum 1.00 ft higher; prior to Oct. 21, 1941, nonrecording gage at same site at 676.1 ft datum.

REMARKS.—Record good except for periods of estimated record, which are poor. Water-quality and sediment data formerly collected at this site. U.S. Army Corps of Engineers satellite telemeter at station. Water year 1986 streamflow records published in water year 1987 report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	23	39	e43	310	66	101	107	80	60	24	35
2	20	23	34	e42	210	65	95	99	128	91	22	22
3	20	23	22	e41	199	64	88	98	143	50	23	18
4	19	23	32	e40	190	73	83	91	110	43	24	17
5	52	23	34	e40	155	111	80	86	90	45	22	16
6	195	23	28	e39	112	100	164	82	160	47	20	15
7	77	23	36	e38	117	88	181	79	145	38	19	15
8	47	24	29	e38	108	83	134	81	110	70	18	14
9	39	26	24	e37	126	91	128	82	93	53	17	13
10	34	37	27	e37	153	84	208	75	80	40	20	13
11	30	43	35	e37	124	83	333	75	75	39	21	13
12	27	33	73	e36	97	81	279	108	69	35	20	12
13	26	29	37	e36	92	130	199	86	64	32	24	12
14	25	27	118	e35	99	190	166	73	59	30	21	15
15	24	26	100	e35	192	148	171	71	55	29	17	16
16	24	27	241	e50	194	141	216	75	58	27	16	15
17	27	26	932	e76	220	151	170	72	55	27	16	13
18	28	25	254	e68	154	129	150	71	47	29	16	13
19	26	23	152	e60	128	114	138	72	45	28	16	13
20	25	23	104	e56	123	107	216	64	45	26	16	17
21	24	23	e70	e53	112	219	340	66	53	25	16	16
22	23	19	e59	e50	95	367	231	113	69	24	16	16
23	23	24	e56	e48	91	223	196	127	57	23	18	15
24	26	26	e53	e45	85	181	170	87	57	34	18	18
25	35	26	e50	e43	85	154	151	127	49	48	16	27
26	31	43	e49	e42	80	140	138	106	46	62	16	21
27	27	45	e48	e40	73	127	133	90	42	44	18	18
28	25	41	e46	e39	69	119	122	82	40	33	17	17
29	24	36	e45	e38	---	113	113	76	38	29	18	17
30	23	44	e44	e300	---	112	107	88	39	28	16	15
31	23	---	e43	922	---	106	---	70	---	26	22	---
TOTAL	1071	857	2914	2504	3793	3960	5001	2679	2201	1215	583	497
MEAN	34.5	28.6	94.0	80.8	135	128	167	86.4	73.4	39.2	18.8	16.6
MAX	195	45	932	922	310	367	340	127	160	91	24	35
MIN	19	19	22	35	69	64	80	64	38	23	16	12
CFSM	.28	.23	.76	.66	1.10	1.04	1.36	.70	.60	.32	.15	.13
IN.	.32	.26	.88	.76	1.15	1.20	1.51	.81	.67	.37	.18	.15

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 2001, BY WATER YEAR (WY)

	MEAN	MAX	(WY)	MIN	(WY)
MEAN	52.2	74.7	115	158	202
MAX	195	515	414	469	459
(WY)	1955	1986	1991	1950	1975
MIN	13.8	13.8	12.1	20.9	24.8
(WY)	1954	1954	1944	1967	1954

SUMMARY STATISTICS FOR 2000 CALENDAR YEAR FOR 2001 WATER YEAR WATER YEARS 1942 - 2001

ANNUAL TOTAL	34347	27275	
ANNUAL MEAN	93.8	74.7	128
HIGHEST ANNUAL MEAN			225
LOWEST ANNUAL MEAN			46.1
HIGHEST DAILY MEAN	1050	Feb 14	3620
LOWEST DAILY MEAN	17	Sep 7	2.8
ANNUAL SEVEN-DAY MINIMUM	19	Sep 14	4.9
MAXIMUM PEAK FLOW			8200
MAXIMUM PEAK STAGE		5.87	12.27
INSTANTANEOUS LOW FLOW		11	2.8
ANNUAL RUNOFF (CFSM)	.76	.61	1.04
ANNUAL RUNOFF (INCHES)	10.39	8.25	14.14
10 PERCENT EXCEEDS	210	154	266
50 PERCENT EXCEEDS	50	45	78
90 PERCENT EXCEEDS	23	18	22

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

SURFACE-WATER RECORDS
Wheeling Creek Basin

03111548 WHEELING CREEK BELOW BLAINE, OHIO

LOCATION.—Latitude 40°04'01", longitude 80°48'31", Belmont County, Hydrologic Unit 05030106, on left bank at bridge on Pease Township Road 320 near U.S. Route 40, 0.5 mi east of Blaine, Ohio, and 4.8 mi upstream from mouth.

DRAINAGE AREA.—97.7 mi².

PERIOD OF RECORD.—December 1982 to September 1987, October 1988 to current year.

GAGE.—Water-stage recorder. Datum of gage is 699.11 ft above sea level. Prior to Oct. 1, 1988, at datum 1.00 ft higher.

REMARKS.—Records good except for periods of estimated record, which are poor. U.S. Army Corps of Engineers satellite telemeter at station. Sediment data formerly collected at this site.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	27	35	e35	220	58	89	111	155	62	29	51
2	14	27	31	e34	142	58	87	112	210	75	27	26
3	14	27	28	e33	109	61	78	113	260	52	e26	22
4	13	27	36	e33	94	68	73	106	116	49	e28	21
5	25	27	41	e32	90	99	69	104	90	52	e26	20
6	66	27	34	e31	85	85	174	96	1440	46	e24	19
7	48	32	43	e31	84	74	169	91	462	42	e22	19
8	33	31	36	e30	80	70	116	103	235	117	e20	19
9	32	34	31	e30	91	73	117	95	167	64	e20	19
10	30	43	32	e29	122	69	187	86	138	52	e32	17
11	29	37	40	e29	91	67	482	83	121	50	30	17
12	25	31	63	e29	79	66	295	116	111	44	27	17
13	24	28	51	e28	75	105	200	84	100	42	31	16
14	23	28	106	e28	81	183	165	72	91	41	26	21
15	23	26	68	e28	134	118	169	72	84	38	22	19
16	23	25	237	e28	167	116	188	80	84	37	20	17
17	26	25	812	e43	191	163	149	81	77	37	20	17
18	31	25	168	e60	123	132	134	76	68	109	19	17
19	26	24	100	e50	105	110	123	85	65	49	19	17
20	28	24	76	e45	99	105	247	68	66	37	19	22
21	25	24	e60	e41	91	509	322	70	75	33	19	20
22	24	26	e50	e38	79	474	203	133	97	31	18	18
23	24	32	e45	e36	77	229	171	123	74	30	18	20
24	29	30	e43	e34	72	178	156	82	66	28	18	24
25	34	29	e41	e33	72	150	138	127	61	101	18	27
26	31	39	e40	e32	67	132	132	93	57	63	18	23
27	30	39	e39	e31	62	118	128	78	54	47	19	20
28	29	35	e38	e30	60	109	121	70	52	36	29	21
29	28	33	e37	e30	---	103	112	68	49	36	32	20
30	28	38	e36	e400	---	101	112	64	50	34	21	19
31	28	---	e35	775	---	93	---	54	---	31	32	---
TOTAL	857	900	2532	2166	2842	4076	4906	2796	4775	1565	729	625
MEAN	27.6	30.0	81.7	69.9	102	131	164	90.2	159	50.5	23.5	20.8
MAX	66	43	812	775	220	509	482	133	1440	117	32	51
MIN	13	24	28	28	60	58	69	54	49	28	18	16
CFSM	.28	.31	.84	.72	1.04	1.35	1.67	.92	1.63	.52	.24	.21
IN.	.33	.34	.96	.82	1.08	1.55	1.87	1.06	1.82	.60	.28	.24

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 2001, BY WATER YEAR (WY)

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
MEAN	43.8	87.7	107	142	156	179	167	143	115	72.8	46.0	39.9						
MAX	138	402	395	294	262	330	279	344	345	230	127	95.2						
(WY)	1991	1986	1991	1991	1986	1993	1994	1996	1990	1990	1997	1990						
MIN	17.9	23.7	44.4	51.5	67.9	72.7	73.9	52.8	34.7	31.3	16.6	9.53						
(WY)	1989	1992	1989	1992	1992	1987	1986	1986	1992	1999	1986	1985						

SUMMARY STATISTICS

	FOR 2000 CALENDAR YEAR	FOR 2001 WATER YEAR	WATER YEARS 1984 - 2001
ANNUAL TOTAL	32772	28769	
ANNUAL MEAN	89.5	78.8	108
HIGHEST ANNUAL MEAN			148
LOWEST ANNUAL MEAN			70.6
HIGHEST DAILY MEAN	1090	Feb 14	3900
LOWEST DAILY MEAN	13	Sep 7	7.0
ANNUAL SEVEN-DAY MINIMUM	14	Sep 14	7.4
MAXIMUM PEAK FLOW			5470
MAXIMUM PEAK STAGE		6.34	8.21
INSTANTANEOUS LOW FLOW		11	7.0
ANNUAL RUNOFF (CFSM)	.92	.81	1.11
ANNUAL RUNOFF (INCHES)	12.48	10.95	15.02
10 PERCENT EXCEEDS	200	149	211
50 PERCENT EXCEEDS	44	46	69
90 PERCENT EXCEEDS	21	20	24

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

SURFACE-WATER RECORDS
Captina Creek Basin

03114000 CAPTINA CREEK AT ARMSTRONGS MILLS, OHIO

LOCATION.—Latitude 39°54'31", longitude 80°55'27", in NE 1/4 sec. 10, T.5 N., R.4 W., Belmont County, Hydrologic Unit 05030106, on left bank at downstream side of bridge on State Highway 148, 0.5 mi east of Armstrongs Mills, Ohio, and 0.7 mi downstream from Anderson Run.

DRAINAGE AREA.—134 mi².

PERIOD OF RECORD.—August 1926 to September 1935, October 1958 to current year.

REVISED RECORDS.—WSP 1907: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is 739.53 ft above sea level. Aug. 20, 1926, to Sept. 30, 1935, nonrecording gage at same site, at datum 1.0 ft higher.

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 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	12	42	e36	749	84	126	100	929	209	6.8	125
2	13	11	35	e34	408	80	122	96	1100	284	4.5	40
3	11	11	25	e32	266	77	101	90	1330	91	3.8	22
4	8.8	15	21	e30	216	76	90	84	537	59	4.3	16
5	7.8	15	24	e29	188	228	83	80	346	81	5.3	11
6	16	14	19	e28	166	208	834	74	517	63	4.3	9.0
7	31	13	19	e27	164	166	656	68	697	41	2.8	8.1
8	21	14	16	e26	149	142	351	64	419	200	1.7	6.3
9	18	17	18	e25	173	143	253	69	288	110	1.4	6.8
10	16	44	14	e24	241	130	265	60	215	56	31	4.7
11	14	67	18	e23	192	116	1320	56	175	43	31	3.4
12	11	36	68	e23	151	112	735	127	155	33	521	2.3
13	9.5	23	82	e22	135	191	406	85	150	25	184	3.0
14	11	20	197	e21	129	425	287	57	117	16	55	3.5
15	10	18	202	e21	527	287	261	52	99	13	28	5.9
16	12	16	300	e20	464	249	382	95	97	13	21	8.1
17	10	15	2550	e34	674	485	255	104	85	12	19	8.0
18	20	14	628	e70	373	403	205	97	65	26	16	5.2
19	29	14	310	e60	262	291	174	252	56	27	12	4.5
20	20	13	197	e54	225	234	410	142	57	19	12	10
21	14	12	e120	e47	186	713	683	130	80	15	9.6	11
22	12	11	e86	e42	141	1340	441	609	195	13	8.3	7.1
23	14	9.4	e70	e39	142	525	325	691	103	12	7.0	3.5
24	13	9.7	e62	e37	127	422	256	332	85	11	11	4.3
25	22	11	e56	e34	121	334	202	592	62	9.6	10	20
26	25	18	e52	e33	107	256	171	346	49	8.0	12	15
27	21	27	e48	e31	92	206	152	257	41	12	27	10
28	19	27	e45	e29	85	181	132	216	35	9.0	22	8.0
29	17	27	e43	e28	---	164	112	168	28	11	16	7.2
30	13	36	e40	e800	---	154	107	151	44	18	13	6.9
31	12	---	e38	2190	---	137	---	118	---	12	25	---
TOTAL	486.1	590.1	5445	3949	6853	8559	9897	5462	8156	1551.6	1125.8	395.8
MEAN	15.7	19.7	176	127	245	276	330	176	272	50.1	36.3	13.2
MAX	31	67	2550	2190	749	1340	1320	691	1330	284	521	125
MIN	7.8	9.4	14	20	85	76	83	52	28	8.0	1.4	2.3
CFSM	.12	.15	1.31	.95	1.83	2.06	2.46	1.31	2.03	.37	.27	.10
IN.	.13	.16	1.51	1.10	1.90	2.38	2.75	1.52	2.26	.43	.31	.11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1927 - 2001, BY WATER YEAR (WY)

	45.8	105	198	236	289	336	272	192	114	71.5	62.5	48.5
MEAN	45.8	105	198	236	289	336	272	192	114	71.5	62.5	48.5
MAX	294	885	681	579	594	805	679	568	676	409	675	628
(WY)	1976	1986	1991	1979	1975	1963	1961	1967	1981	1969	1980	1975
MIN	.090	1.55	6.64	14.6	20.8	59.1	55.5	19.5	4.89	.22	.32	.25
(WY)	1931	1964	1964	1931	1934	1969	1971	1934	1934	1930	1930	1966

SUMMARY STATISTICS FOR 2000 CALENDAR YEAR FOR 2001 WATER YEAR WATER YEARS 1927 - 2001

ANNUAL TOTAL	52994.4	52470.4	
ANNUAL MEAN	145	144	164
HIGHEST ANNUAL MEAN			275
LOWEST ANNUAL MEAN			75.2
HIGHEST DAILY MEAN	3190	Feb 14	2550
LOWEST DAILY MEAN	4.9	Sep 20	1.4
ANNUAL SEVEN-DAY MINIMUM	5.7	Sep 6	3.4
MAXIMUM PEAK FLOW			4020
MAXIMUM PEAK STAGE			8.19
INSTANTANEOUS LOW FLOW			1.2
ANNUAL RUNOFF (CFSM)	1.08	1.07	.00
ANNUAL RUNOFF (INCHES)	14.71	14.57	16.58
10 PERCENT EXCEEDS	331	377	378
50 PERCENT EXCEEDS	47	45	66
90 PERCENT EXCEEDS	11	9.5	4.9

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

SURFACE-WATER RECORDS
Little Muskingum River Basin

03115400 LITTLE MUSKINGUM RIVER AT BLOOMFIELD, OHIO

LOCATION.—Latitude 39°33'47", longitude 81°12'14", in sec. 22, T.3 N., R.6 W., Washington County, Hydrologic Unit 05030201, on left bank 400 ft upstream from bridge on State Highway 260 at Bloomfield, Ohio, 2.2 mi downstream from Wilson Run.

DRAINAGE AREA.—210 mi².

PERIOD OF RECORD.—October 1958 to September 1981, October 1995 to current year.

REVISED RECORDS.—WSP 1705: 1959.

GAGE.—Water-stage recorder. Datum of gage is 645.99 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. Satellite telemeter at gage.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	19	48	e30	1020	107	145	108	395	16	73	24
2	20	17	51	e28	524	102	150	118	1390	47	59	36
3	15	16	46	e26	321	96	139	96	1200	48	34	22
4	12	15	37	e25	260	97	124	82	640	33	25	13
5	10	14	35	e24	234	491	110	74	366	26	22	10
6	12	14	32	e23	208	462	506	68	272	22	19	8.7
7	24	13	30	e22	188	321	1610	62	390	17	12	7.2
8	33	13	28	e21	167	267	607	57	342	421	8.6	6.3
9	27	17	26	e21	167	258	382	56	225	228	7.1	5.7
10	21	186	23	e20	219	232	543	56	158	84	27	5.1
11	17	172	22	e19	213	203	4760	52	118	49	185	4.9
12	15	103	23	e19	175	180	2980	47	95	34	112	4.7
13	13	65	26	e19	160	381	749	44	100	25	499	4.1
14	11	49	280	e18	155	876	444	44	77	19	170	3.5
15	10	39	350	e18	829	525	348	40	62	15	100	3.0
16	9.3	33	235	e18	977	386	466	40	52	12	43	2.6
17	8.8	29	2040	e18	1210	839	360	50	45	11	31	2.1
18	47	26	715	e40	614	815	288	55	38	13	26	1.8
19	100	23	330	e90	380	479	240	103	32	29	22	1.5
20	64	21	208	e130	299	353	269	168	28	29	22	2.7
21	45	19	174	e110	245	1100	1230	113	30	24	21	3.6
22	35	18	143	e90	198	1650	1130	993	114	23	19	4.8
23	29	16	109	e80	177	767	595	1590	112	18	19	5.4
24	25	14	82	e72	161	492	394	537	65	14	19	8.6
25	27	14	63	e68	157	379	293	929	46	8.0	19	12
26	30	16	47	e66	146	297	236	525	35	7.7	20	15
27	32	29	44	e64	126	243	198	316	29	37	110	13
28	33	33	e41	e62	117	208	167	283	24	51	65	12
29	29	33	e38	e74	---	188	138	235	20	227	36	9.7
30	24	39	e34	2130	---	176	118	214	17	171	22	8.4
31	21	---	e32	2450	---	160	---	193	---	73	16	---
TOTAL	826.1	1115	5392	5895	9647	13130	19719	7348	6517	1831.7	1862.7	261.4
MEAN	26.6	37.2	174	190	345	424	657	237	217	59.1	60.1	8.71
MAX	100	186	2040	2450	1210	1650	4760	1590	1390	421	499	36
MIN	8.8	13	22	18	117	96	110	40	17	7.7	7.1	1.5
CFSM	.13	.18	.83	.91	1.64	2.02	3.13	1.13	1.03	.28	.29	.04
IN.	.15	.20	.96	1.04	1.71	2.33	3.49	1.30	1.15	.32	.33	.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 2001, BY WATER YEAR (WY)

	68.1	145	302	390	499	564	469	311	231	88.4	81.2	77.0
MEAN	68.1	145	302	390	499	564	469	311	231	88.4	81.2	77.0
MAX	476	518	918	1008	1121	1387	1004	899	1479	421	401	719
(WY)	1980	1971	1979	1979	2000	1963	1964	1968	1998	1996	1979	1975
MIN	.43	2.28	16.3	28.0	59.0	119	78.8	48.4	10.6	.98	.90	.34
(WY)	1967	1964	1964	1977	1964	1969	1971	1976	1999	1966	1962	1999

SUMMARY STATISTICS

FOR 2000 CALENDAR YEAR

FOR 2001 WATER YEAR

WATER YEARS 1958 - 2001

ANNUAL TOTAL	88027.2	73544.9	
ANNUAL MEAN	241	201	267
HIGHEST ANNUAL MEAN			461
LOWEST ANNUAL MEAN			151
HIGHEST DAILY MEAN	9820	Feb 19	21600
LOWEST DAILY MEAN	2.7	Sep 12	.00
ANNUAL SEVEN-DAY MINIMUM	5.4	Sep 7	.05
MAXIMUM PEAK FLOW			7820
MAXIMUM PEAK STAGE			21.92
INSTANTANEOUS LOW FLOW			1.4
ANNUAL RUNOFF (CFSM)	1.15	.96	1.27
ANNUAL RUNOFF (INCHES)	15.59	13.03	17.30
10 PERCENT EXCEEDS	474	495	627
50 PERCENT EXCEEDS	39	49	90
90 PERCENT EXCEEDS	8.2	12	4.7

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

SURFACE-WATER RECORDS
Muskingum River Basin

03115973 SCHOCALOG RUN AT COPLEY JUNCTION, OHIO

LOCATION.—Latitude 41°06'11", longitude 81°36'12", Summit County, Hydrologic Unit 05040001, on right upstream side of six barrel culvert under the Akron Canton and Youngstown Railroad, 150 ft east of Schocalog Road, 0.25 mi west of Copley Junction, Ohio, 0.3 mi downstream of Schocalog Lake, and 0.8 mi southeast of intersection of I-77 and Ridgewood Road.

DRAINAGE AREA.—3.65 mi².

PERIOD OF RECORD.—October 1, 1991 to current year.

GAGE.—Water-stage recorder. Datum of gage is 963.39 ft above sea level (North American Vertical Datum of 1988).

REMARKS.—Records fair except for periods of estimated record, and discharges less than 0.5 ft³/s, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.49	.52	3.2	1.6	5.2	e1.6	e1.9	1.1	3.0	4.4	.49	3.6
2	.43	.70	1.8	1.6	3.4	e1.6	e1.8	.79	5.1	2.0	.51	1.9
3	.51	.66	1.2	1.6	2.5	e1.6	e1.6	.95	6.2	1.4	6.9	1.4
4	1.4	.79	1.0	1.6	2.1	e1.5	e1.5	.78	2.9	1.2	4.1	1.0
5	9.3	.63	.94	1.7	2.6	e1.6	e1.4	.83	1.8	1.1	1.6	.89
6	15	.62	.84	1.9	3.1	e1.8	e27	.99	2.2	1.1	1.2	.71
7	3.6	.99	.85	2.2	3.1	e1.8	e16	.74	4.7	.80	.90	.50
8	1.7	.92	.92	1.9	3.4	e1.7	e4.5	3.7	2.3	9.8	.70	.57
9	5.2	1.0	.84	1.7	11	e1.6	e2.8	3.9	1.3	3.6	6.6	.69
10	2.8	4.0	.73	1.6	20	e1.7	e2.6	1.1	1.2	1.2	17	.70
11	1.4	2.3	1.4	1.6	5.6	e2.6	e2.8	.78	4.9	.48	2.9	.79
12	.95	.77	12	1.6	4.1	e4.5	e2.7	10	3.0	.36	2.9	1.6
13	.87	.37	3.3	1.7	4.8	e32	e2.1	3.5	1.5	.51	2.6	1.4
14	.97	.35	2.1	1.8	8.0	e10	e1.9	.66	1.1	.65	1.2	4.7
15	.79	.52	1.4	4.3	13	e3.7	e6.2	1.1	1.0	.64	1.1	2.0
16	.95	.45	20	6.0	7.5	e10	e11	1.9	3.4	.57	.94	1.2
17	1.5	.38	64	3.4	5.4	e11	e5.6	1.6	2.0	.43	1.1	1.2
18	2.3	.39	9.3	2.1	3.8	e4.9	e2.8	1.3	.98	.66	.97	1.0
19	2.4	.45	4.6	2.2	3.1	e3.3	e2.4	1.6	.83	1.4	1.7	1.0
20	2.3	.63	3.3	1.9	3.3	e2.6	e4.2	1.2	.81	3.9	2.0	1.9
21	1.4	.81	2.6	1.6	3.0	e2.8	e3.9	2.0	1.8	1.4	1.6	1.7
22	.94	.63	2.3	1.5	2.4	e2.7	e2.7	13	1.7	1.0	1.1	7.3
23	.95	.54	1.9	1.5	2.3	e2.3	e2.5	4.8	1.5	.93	3.8	2.3
24	3.7	.52	1.7	1.4	2.1	e2.1	e2.4	2.0	1.1	.84	2.0	2.6
25	6.8	1.4	1.7	1.4	2.3	e2.5	e2.2	2.4	.96	5.3	1.3	4.5
26	2.0	7.8	1.6	1.5	1.8	e2.1	e1.8	3.2	.71	16	1.1	2.4
27	1.1	5.0	1.6	1.6	2.0	e2.0	1.3	8.7	.82	2.5	2.8	3.8
28	.63	3.0	1.6	1.6	e1.8	e1.9	.97	4.4	6.4	1.3	1.7	7.1
29	.65	1.8	1.6	1.5	---	e1.9	1.0	2.2	3.4	1.0	1.2	4.8
30	.68	4.3	1.5	14	---	e1.8	1.2	1.5	8.0	.88	1.0	2.3
31	.60	---	1.6	13	---	e1.8	---	1.4	---	.69	1.7	---
TOTAL	74.31	43.24	153.42	84.6	132.7	125.0	122.77	84.12	76.61	68.04	76.71	67.55
MEAN	2.40	1.44	4.95	2.73	4.74	4.03	4.09	2.71	2.55	2.19	2.47	2.25
MAX	15	7.8	64	14	20	32	27	13	8.0	16	17	7.3
MIN	.43	.35	.73	1.4	1.8	1.5	.97	.66	.71	.36	.49	.50
CFSM	.66	.39	1.36	.75	1.30	1.10	1.12	.74	.70	.60	.68	.62
IN.	.76	.44	1.56	.86	1.35	1.27	1.25	.86	.78	.69	.78	.69

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2001, BY WATER YEAR (WY)

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001		
MEAN	2.46	4.31	4.27	6.39	4.58	5.92	7.69	4.95	4.80	3.96	3.46	3.61
MAX	5.32	9.51	9.83	10.9	6.80	11.0	12.2	10.0	9.73	13.6	6.96	9.96
(WY)	1997	1993	1997	1993	1997	1993	1994	1996	1997	1992	1992	1992
MIN	.28	1.44	1.81	2.73	1.99	3.18	4.09	2.52	1.86	.95	.28	.61
(WY)	1995	2001	1996	2001	1995	2000	2001	1992	1999	1993	1993	1994

SUMMARY STATISTICS

FOR 2000 CALENDAR YEAR

FOR 2001 WATER YEAR

WATER YEARS 1992 - 2001

ANNUAL TOTAL	1575.94	1109.07	
ANNUAL MEAN	4.31	3.04	4.70
HIGHEST ANNUAL MEAN			6.10
LOWEST ANNUAL MEAN			3.04
HIGHEST DAILY MEAN	64	Dec 17	121
LOWEST DAILY MEAN	.35	Nov 14	.01
ANNUAL SEVEN-DAY MINIMUM	.42	Nov 13	.03
MAXIMUM PEAK FLOW			96
MAXIMUM PEAK STAGE			12.33
INSTANTANEOUS LOW FLOW			.20
ANNUAL RUNOFF (CFSM)	1.18	.83	1.29
ANNUAL RUNOFF (INCHES)	16.06	11.30	17.48
10 PERCENT EXCEEDS	8.7	6.1	9.8
50 PERCENT EXCEEDS	2.3	1.7	2.3
90 PERCENT EXCEEDS	.85	.69	.70

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

SURFACE-WATER RECORDS
Muskingum River Basin

03117000 TUSCARAWAS RIVER AT MASSILLON, OHIO

LOCATION.—Latitude 40°46'13", longitude 81°31'27", in sec. 20 T.10 N., R.9 W., Stark County, Hydrologic Unit 05040001, on left bank at sewage-treatment works, 0.7 mi south of Massillon, Ohio, and 3 mi downstream from Newman Creek.

DRAINAGE AREA.—518 mi².

PERIOD OF RECORD.—October 1937 to current year. Prior to April 1938 monthly discharge only, published in WSP 1305.

REVISED RECORDS.—WSP 1907: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is 916.00 ft above sea level. Prior to Aug. 19, 1944, nonrecording gage at same site and datum.

REMARKS.—Records excellent except for periods of estimated record, which are fair. Some water diverted through the Portage Lakes into the Ohio Canal at Long Lake, 28 mi and 3 mi south of Akron. Part of the diverted water flows through the Ohio Canal into the Cuyahoga River basin. Flow affected by industrial plants upstream from station and supplemented at times by diversion from Nimisila Reservoir, capacity, 6,500 acre-ft, since 1939. Water-quality data formerly collected at this site. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	142	141	286	e200	1300	275	243	267	244	127	68	303
2	139	131	270	e190	844	264	245	285	360	203	68	230
3	137	134	230	e180	548	257	239	231	478	189	126	130
4	135	145	198	e170	429	248	228	219	453	143	246	99
5	182	149	186	e170	398	253	214	207	359	116	132	91
6	485	147	173	e160	413	256	520	194	323	115	90	83
7	429	159	164	e160	429	255	2870	161	356	106	77	72
8	286	171	162	e150	413	251	2290	167	340	103	72	68
9	262	173	153	e145	658	254	1640	266	268	150	81	79
10	253	212	161	e140	1480	248	1140	230	225	156	587	69
11	188	274	168	e135	1460	257	902	192	212	142	393	61
12	162	246	362	e135	837	310	862	337	252	114	292	57
13	156	221	499	e130	564	754	658	450	222	93	244	54
14	154	209	378	e130	510	1430	483	332	180	84	149	90
15	148	198	331	e140	1130	952	444	256	161	77	112	106
16	149	180	581	e220	1180	659	1070	254	158	75	99	83
17	290	164	3510	e370	984	924	1050	261	178	77	91	68
18	374	145	3870	e340	678	804	739	250	149	89	90	62
19	355	137	2830	e270	534	600	555	233	135	110	98	61
20	347	140	1510	e230	437	490	527	221	121	141	127	69
21	300	140	807	e210	437	429	801	256	116	144	128	99
22	229	140	566	e190	397	444	732	529	166	107	109	125
23	178	135	442	e180	347	418	721	757	194	93	104	158
24	155	137	410	e165	317	369	587	535	176	93	109	121
25	369	138	330	e155	313	336	476	423	153	89	103	124
26	389	206	281	e145	324	309	377	389	140	88	91	130
27	263	279	e270	e140	292	294	339	447	131	100	126	119
28	222	284	e250	e135	284	282	317	644	114	91	125	117
29	198	243	e230	e130	---	268	277	454	109	73	101	128
30	181	245	e220	e300	---	263	257	345	112	70	87	125
31	160	---	e210	1490	---	255	---	280	---	68	158	---
TOTAL	7417	5423	20038	7005	17937	13408	21803	10072	6585	3426	4483	3181
MEAN	239	181	646	226	641	433	727	325	220	111	145	106
MAX	485	284	3870	1490	1480	1430	2870	757	478	203	587	303
MIN	135	131	153	130	284	248	214	161	109	68	68	54

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 2001, BY WATER YEAR (WY)

MEAN	207	303	443	550	714	872	737	511	394	305	232	209
MAX	1206	1628	1621	1989	1659	1827	1591	1641	1852	1812	1273	1465
(WY)	1991	1986	1991	1952	1959	1978	1994	1996	1947	1969	1958	1979
MIN	70.0	81.4	81.5	94.6	98.0	283	172	121	81.2	79.1	82.9	69.9
(WY)	1964	1945	1964	1945	1964	1969	1946	1941	1988	1954	1962	1954

SUMMARY STATISTICS

FOR 2000 CALENDAR YEAR

FOR 2001 WATER YEAR

WATER YEARS 1938 - 2001

ANNUAL TOTAL	181320	120778										
ANNUAL MEAN	495	331								455		
HIGHEST ANNUAL MEAN										661		1975
LOWEST ANNUAL MEAN										245		1954
HIGHEST DAILY MEAN	3870	Dec 18	3870	Dec 18	9360	Jul 6	1969					
LOWEST DAILY MEAN	108	Sep 9	54	Sep 13	49	Jul 17	1988					
ANNUAL SEVEN-DAY MINIMUM	119	Sep 4	66	Sep 7	53	Jul 12	1988					
MAXIMUM PEAK FLOW			3970	Dec 18	10700	Jul 5	1969					
MAXIMUM PEAK STAGE			9.58	Dec 18	16.43	Jul 5	1969					
INSTANTANEOUS LOW FLOW			51	Sep 13	45	Sep 20	1999					
10 PERCENT EXCEEDS	1020		650		1060							
50 PERCENT EXCEEDS	286		220		232							
90 PERCENT EXCEEDS	145		92		102							

e Estimated.

SURFACE-WATER RECORDS
Muskingum River Basin

03117500 SANDY CREEK AT WAYNESBURG, OHIO

LOCATION.—Latitude 40°40'21", longitude 81°15'36", in sec. 21, T.17 N., R.7 W., Stark County, Hydrologic Unit 05040001, on upstream side of left pier of bridge on State Highway 183 in Waynesburg, Ohio, 300 ft downstream from Little Sandy Creek, and 0.6 mi upstream from Indian Run.
DRAINAGE AREA.—253 mi².

PERIOD OF RECORD.—October 1938 to current year. Prior to December 1938 monthly discharge only, published in WSP 1305.

REVISED RECORDS.—WSP 923: 1939-40. WSP 1555: 1940(M), 1943(M), 1947(M), 1952, 1956(M). WSP 1907: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is 955.00 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. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	92	81	123	e140	1240	159	169	200	161	89	33	147
2	87	81	119	e135	931	156	169	190	249	83	33	81
3	85	80	110	e125	771	152	159	178	305	78	33	57
4	76	79	106	e120	587	147	145	167	246	76	38	45
5	87	76	105	e110	361	162	135	156	187	73	35	39
6	293	79	99	e105	339	166	377	144	243	69	32	36
7	220	75	97	e100	317	154	1150	135	369	66	30	33
8	149	75	98	e98	300	146	869	133	294	73	29	31
9	131	76	97	e95	352	149	998	135	218	81	29	30
10	120	84	95	e92	426	146	1100	129	184	70	49	30
11	104	95	98	e88	355	153	1500	122	173	66	43	29
12	90	90	212	e86	278	160	1310	143	172	60	41	27
13	83	82	274	e84	256	515	921	134	152	57	40	26
14	78	79	213	e96	265	648	679	119	133	55	33	30
15	79	77	199	125	513	529	529	115	121	52	31	29
16	86	75	329	215	468	475	788	119	120	51	31	27
17	91	74	1770	194	423	575	648	117	122	49	31	25
18	90	73	e1300	169	334	498	500	114	106	49	31	25
19	83	71	e800	e150	283	396	425	115	99	47	31	26
20	82	76	e600	e140	274	341	445	108	93	46	31	32
21	79	86	e400	e130	268	315	658	122	92	45	30	31
22	77	85	e350	e120	233	346	577	638	94	42	30	29
23	76	86	e310	e110	203	324	519	592	93	42	32	26
24	81	87	e280	e105	193	268	425	333	90	41	34	28
25	93	87	e260	e100	199	235	364	296	86	40	32	30
26	94	108	e230	e98	207	214	320	307	82	40	28	e40
27	90	131	e210	e94	182	199	291	251	79	38	29	e32
28	84	145	e200	e90	168	186	261	231	76	37	29	31
29	81	129	e180	e98	---	180	231	201	73	37	27	31
30	81	122	e170	370	---	179	212	174	71	35	26	29
31	82	---	e155	1370	---	176	---	155	---	38	65	---
TOTAL	3124	2644	9589	5152	10726	8449	16874	6073	4583	1725	1046	1112
MEAN	101	88.1	309	166	383	273	562	196	153	55.6	33.7	37.1
MAX	293	145	1770	1370	1240	648	1500	638	369	89	65	147
MIN	76	71	95	84	168	146	135	108	71	35	26	25
CFSM	.40	.35	1.22	.66	1.51	1.08	2.22	.77	.60	.22	.13	.15
IN.	.46	.39	1.41	.76	1.58	1.24	2.48	.89	.67	.25	.15	.16

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2001, BY WATER YEAR (WY)

	96.6	167	281	352	464	554	475	334	218	138	93.9	79.8
MEAN	96.6	167	281	352	464	554	475	334	218	138	93.9	79.8
MAX	476	1008	1104	1111	987	1179	867	961	750	651	871	513
(WY)	1991	1986	1991	1952	1956	1945	1957	1996	1989	1990	1980	1975
MIN	15.5	18.4	22.1	55.1	53.5	114	118	80.4	45.1	33.2	22.3	16.1
(WY)	1964	1964	1964	1954	1964	1969	1946	1941	1988	1965	1962	1963

SUMMARY STATISTICS FOR 2000 CALENDAR YEAR FOR 2001 WATER YEAR WATER YEARS 1939 - 2001

ANNUAL TOTAL	107867	71097	
ANNUAL MEAN	295	195	270
HIGHEST ANNUAL MEAN			429
LOWEST ANNUAL MEAN			140
HIGHEST DAILY MEAN	3100	Apr 9	1770
LOWEST DAILY MEAN	71	Sep 9	25
ANNUAL SEVEN-DAY MINIMUM	73	Sep 4	27
MAXIMUM PEAK FLOW			2080
MAXIMUM PEAK STAGE			5.19
INSTANTANEOUS LOW FLOW			24
ANNUAL RUNOFF (CFSM)	1.16	.77	1.07
ANNUAL RUNOFF (INCHES)	15.86	10.45	14.51
10 PERCENT EXCEEDS	602	425	632
50 PERCENT EXCEEDS	174	110	138
90 PERCENT EXCEEDS	80	32	35

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

SURFACE-WATER RECORDS
Muskingum River Basin

03121850 HUFF RUN AT MINERAL CITY, OHIO

LOCATION.—Latitude 40°35'50", longitude 81°21'33", Tuscarawas County, Hydrologic Unit 05040001, on left abutment of bridge on County Road 90, adjacent to intersection of Sandy Township Road 46, 500 ft southeast of State Route 800 at southeast edge of Mineral City, Ohio, and 1.4 mi upstream from Conotton Creek.

DRAINAGE AREA.—12.3 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—October 1997 to current year.

GAGE.—Water-stage recorder. Datum of gage is 886.98 ft above sea level.

REMARKS.—Records fair except for periods of estimated record, which are poor. Data Collection Platform at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.8	3.6	5.9	e5.4	46	7.3	8.9	11	13	e5.2	1.7	5.4
2	5.4	3.6	5.6	e5.2	31	7.5	9.0	10	14	e4.8	1.7	2.4
3	5.2	3.5	5.0	e5.0	22	7.3	8.0	9.3	18	e4.5	1.8	2.3
4	4.7	3.5	4.7	e4.9	19	7.3	7.3	8.8	12	e4.3	1.8	2.2
5	9.4	3.3	e4.4	e4.8	19	8.5	6.9	8.2	10	e4.1	1.6	2.1
6	18	3.2	e4.0	e4.7	17	7.5	22	7.6	20	4.0	1.5	2.0
7	9.3	3.5	e3.9	e4.6	15	7.0	29	7.1	20	3.7	1.4	1.9
8	7.8	3.5	e3.7	e4.5	15	6.8	23	7.7	16	3.7	1.4	2.0
9	7.4	3.8	e3.6	e4.4	19	7.1	20	7.7	13	3.5	1.6	2.0
10	6.7	5.4	4.5	e4.3	21	6.4	22	6.8	11	3.7	2.0	2.2
11	6.1	4.7	5.9	e4.2	15	6.8	56	6.7	12	3.9	1.6	2.1
12	5.8	3.9	18	e4.2	13	7.0	42	7.1	10	3.4	1.8	1.9
13	5.3	e3.7	9.3	e4.4	13	41	29	6.4	8.8	3.2	2.0	1.9
14	5.1	e4.6	14	e5.0	15	32	23	5.9	7.8	3.0	1.7	1.9
15	5.6	e5.6	12	e6.6	26	24	25	6.3	7.2	2.9	1.4	1.6
16	5.9	5.3	45	9.7	21	24	31	6.5	9.0	2.7	1.3	1.5
17	5.3	5.3	116	8.0	19	28	22	6.3	7.1	2.7	1.3	1.4
18	5.0	5.1	47	e7.0	16	22	19	6.3	6.2	2.8	1.3	1.4
19	4.8	4.9	29	e6.6	14	19	17	6.4	5.7	2.7	1.4	1.6
20	4.4	5.0	21	e6.2	15	17	24	5.4	e5.5	2.6	1.3	2.3
21	4.3	4.9	16	e5.8	13	17	25	16	e5.2	2.4	1.5	2.0
22	4.2	4.7	e12	e5.6	10	16	25	54	e5.8	2.2	1.3	1.8
23	4.1	4.5	e9.6	e5.4	10	14	24	30	e5.3	2.3	1.3	1.7
24	4.6	4.6	e8.2	e5.2	9.4	13	21	18	e5.3	2.2	1.4	2.0
25	5.0	5.6	e7.6	e5.0	11	12	18	16	e4.8	2.3	1.3	2.3
26	4.5	8.1	e7.2	e4.9	9.4	11	16	14	e4.5	2.6	1.2	2.0
27	4.1	8.2	e6.8	e4.8	8.1	10	15	13	e4.3	2.2	1.2	1.9
28	4.2	7.2	e6.4	e4.7	7.7	9.5	13	11	e4.1	1.9	1.1	2.0
29	3.8	6.3	e6.2	e4.6	---	9.4	12	9.6	e4.5	2.0	1.0	2.2
30	3.7	6.3	e5.9	e24	---	9.2	11	8.5	e7.0	2.0	.96	1.9
31	3.6	---	e5.6	92	---	8.9	---	7.7	---	1.8	e4.0	---
TOTAL	179.1	145.4	454.0	271.7	469.6	423.5	624.1	345.3	277.1	95.3	47.86	61.9
MEAN	5.78	4.85	14.6	8.76	16.8	13.7	20.8	11.1	9.24	3.07	1.54	2.06
MAX	18	8.2	116	92	46	41	56	54	20	5.2	4.0	5.4
MIN	3.6	3.2	3.6	4.2	7.7	6.4	6.9	5.4	4.1	1.8	.96	1.4
CFSM	.47	.39	1.19	.71	1.36	1.11	1.69	.91	.75	.25	.13	.17
IN.	.54	.44	1.37	.82	1.42	1.28	1.89	1.04	.84	.29	.14	.19

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2001, BY WATER YEAR (WY)

	2000	2001	2001	1999	2000	1999	1999	1999	2001	2001	2001	
MEAN	3.95	4.11	8.18	22.0	17.4	16.6	28.5	14.7	8.67	8.89	6.03	3.70
MAX	5.78	4.85	14.6	40.6	20.2	23.4	41.0	23.5	11.6	21.1	10.4	7.07
(WY)	2001	2001	2001	1999	1999	1999	2000	1998	2000	2000	2000	2000
MIN	2.62	3.47	4.49	8.76	13.4	10.2	19.9	11.1	4.53	3.07	1.54	2.06
(WY)	1998	1999	2000	2001	1998	2000	1999	1999	1999	2001	2001	2001

SUMMARY STATISTICS

FOR 2000 CALENDAR YEAR

FOR 2001 WATER YEAR

WATER YEARS 1998 - 2001

ANNUAL TOTAL	5212.9	3394.86										
ANNUAL MEAN	14.2	9.30								11.9		
HIGHEST ANNUAL MEAN										13.1		2000
LOWEST ANNUAL MEAN										9.30		2001
HIGHEST DAILY MEAN	273	Jul 15					116	Dec 17		273	Jul 15	2000
LOWEST DAILY MEAN	2.3	Jan 1					.96	Aug 30		.96	Aug 30	2001
ANNUAL SEVEN-DAY MINIMUM	2.9	Feb 3					1.2	Aug 24		1.2	Aug 24	2001
MAXIMUM PEAK FLOW							149	Dec 17a		1090	Jul 15	2000
MAXIMUM PEAK STAGE							3.11	Dec 17		5.16	Jul 15	2000
INSTANTANEOUS LOW FLOW							.92	Aug 29		.92	Aug 29	2001
ANNUAL RUNOFF (CFSM)	1.16						.76			.96		
ANNUAL RUNOFF (INCHES)	15.77						10.27			13.10		
10 PERCENT EXCEEDS	27						21			25		
50 PERCENT EXCEEDS	7.2						5.8			6.1		
90 PERCENT EXCEEDS	3.7						1.9			2.5		

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

**SURFACE-WATER RECORDS
Muskingum River Basin**

03121850 HUFF RUN AT MINERAL CITY, OHIO—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—October 1997 to current year.

PERIOD OF DAILY RECORD.—

SPECIFIC CONDUCTANCE: October 1997 to current year.

pH: October 1997 to current year.

WATER TEMPERATURES: October 1997 to current year.

DISSOLVED OXYGEN: October 1997 to current year.

INSTRUMENTATION.— Data Collection Platform. Set for 1-hour interval.

REMARKS.—Specific conductance, pH, and temperature records good except for pH, Mar. 12-27, which is fair. Dissolved oxygen record fair except Oct. 31-Nov. 13 and Dec. 7-20, which is poor.

EXTREMES FOR PERIOD OF RECORD.—

SPECIFIC CONDUCTANCE: Maximum, 1,950 microsiemens, Sept. 22, 1999; minimum, 197 microsiemens, Jan. 23, 1999.

pH: Maximum, 7.8 units, Jan. 30, 2000; minimum, 3.9 units, Aug. 24, 1998.

WATER TEMPERATURES: Maximum, 28.5°C, July 23, 1998; minimum, 0.0°C, on many days during winter.

DISSOLVED OXYGEN: Maximum, 15.4 mg/L, Mar. 31, 2001; minimum, 3.4 mg/L, Sept. 11 and 12, 2000.

EXTREMES FOR CURRENT YEAR.—

SPECIFIC CONDUCTANCE: Maximum, 1,910 microsiemens, Sept. 17; minimum, 342 microsiemens, Jan. 31.

pH: Maximum, 7.8 units, Jan. 30; minimum, 4.5 units, Sept. 13.

WATER TEMPERATURES: Maximum, 24°C, July 23, 24, Aug. 8, and 9; minimum, 0.0°C, on many days during winter.

DISSOLVED OXYGEN: Maximum, 15.4 mg/L, Mar. 31; minimum, 3.5 mg/L, July 26.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	907	837	869	1000	956	976	1160	1150	1160	954	916	935
2	976	907	936	1030	972	999	1150	1130	1140	996	954	974
3	1040	976	1010	1110	1030	1070	1160	1130	1140	1040	996	1020
4	1090	1040	1060	1100	1080	1090	1190	1150	1170	1070	1040	1060
5	1090	1040	1070	1110	1070	1090	1200	1190	1190	1080	896	1000
6	1040	815	898	1110	1060	1090	1210	1180	1200	896	874	884
7	942	885	911	1170	1100	1130	1300	1200	1230	899	873	885
8	995	942	963	1230	1170	1200	1210	1160	1190	900	887	892
9	1050	995	1020	1270	1230	1250	1160	1110	1140	899	881	887
10	1110	1050	1070	1280	1240	1260	1120	1100	1110	911	899	906
11	1160	1100	1120	1260	1200	1230	1110	1090	1100	930	911	920
12	1220	1160	1180	1200	1160	1170	1090	833	962	945	921	932
13	1240	1190	1220	1180	1100	1140	882	836	868	959	931	942
14	1220	1180	1200	1110	1090	1100	891	857	878	959	935	946
15	1220	1190	1210	1090	1070	1080	857	813	826	955	939	945
16	1250	1220	1250	1090	1060	1070	836	739	816	940	629	788
17	1240	1210	1220	1100	1080	1090	808	538	681	629	603	611
18	1260	1220	1240	1100	1090	1090	947	579	664	616	595	603
19	1250	1210	1230	1110	1080	1100	604	584	595	599	574	586
20	1260	1220	1240	1120	1100	1110	617	466	528	574	550	559
21	1260	1230	1250	1110	1090	1100	525	471	497	564	548	554
22	1280	1240	1260	1120	1090	1100	572	525	544	569	550	558
23	1280	1240	1270	1130	1100	1110	610	572	597	568	551	559
24	1310	1280	1300	1150	1110	1130	650	610	630	567	556	561
25	1360	1310	1340	1170	1130	1140	705	650	678	562	545	553
26	1340	1300	1320	1180	1130	1160	740	705	721	563	547	553
27	1320	1280	1300	1190	1140	1160	768	740	754	563	550	558
28	1320	1290	1320	1150	1110	1130	804	768	783	554	544	548
29	1290	1230	1250	1120	1100	1110	848	804	831	578	554	563
30	1240	1200	1220	1160	1120	1140	881	848	863	586	383	505
31	1220	972	1090	---	---	---	916	881	897	404	342	363
MONTH	1360	815	1160	1280	956	1120	1300	466	883	1080	342	747

SURFACE-WATER RECORDS
Muskingum River Basin

03121850 HUFF RUN AT MINERAL CITY, OHIO—Continued

WATER-QUALITY RECORDS—Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001												
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	6.7	6.7	6.7	6.8	6.7	6.7	6.3	6.2	6.3	6.0	5.9	6.0
2	6.8	6.7	6.8	6.8	6.7	6.7	6.3	6.1	6.2	6.0	5.9	5.9
3	6.9	6.8	6.8	6.8	6.7	6.8	6.2	6.1	6.1	6.0	5.9	6.0
4	6.9	6.8	6.9	6.7	6.7	6.7	6.1	6.1	6.1	6.0	6.0	6.0
5	7.4	6.9	7.1	6.7	6.5	6.7	6.2	6.1	6.1	---	---	---
6	7.3	7.0	7.2	6.6	6.5	6.5	6.1	6.1	6.1	6.3	6.1	6.2
7	7.2	7.0	7.1	7.2	6.5	6.7	6.2	6.1	6.1	6.8	6.2	6.3
8	7.1	7.0	7.0	7.0	6.5	6.6	6.2	6.1	6.2	7.0	6.2	6.4
9	7.1	7.0	7.0	7.1	6.6	6.9	6.2	6.1	6.2	6.3	6.1	6.2
10	7.1	7.0	7.1	7.1	6.5	6.6	7.0	6.1	6.3	6.4	6.2	6.2
11	7.1	7.1	7.1	6.5	6.5	6.5	7.1	6.4	7.0	6.4	6.2	6.3
12	7.2	7.1	7.1	6.5	6.3	6.4	7.1	6.2	6.3	6.6	6.4	6.4
13	7.2	6.9	7.1	6.3	6.2	6.3	6.2	6.2	6.2	7.4	6.4	6.7
14	7.2	7.1	7.1	6.3	6.2	6.3	7.2	6.2	6.5	7.5	6.4	7.2
15	7.6	7.2	7.2	6.3	6.2	6.2	6.3	6.2	6.2	7.5	6.5	7.1
16	7.3	7.2	7.3	6.2	6.1	6.2	7.3	6.2	7.0	6.6	6.5	6.6
17	7.4	7.3	7.3	6.2	6.1	6.2	7.0	6.2	6.5	6.6	6.6	6.6
18	7.3	7.3	7.3	6.2	6.1	6.1	6.8	6.1	6.4	6.7	6.6	6.6
19	7.3	7.3	7.3	6.2	6.1	6.1	6.2	6.2	6.2	6.8	6.6	6.7
20	7.3	7.2	7.3	6.2	6.1	6.1	6.2	6.1	6.1	6.6	6.5	6.5
21	7.3	7.2	7.2	6.1	6.1	6.1	6.1	6.0	6.1	6.5	6.4	6.5
22	7.3	7.2	7.2	6.1	6.0	6.1	6.1	6.0	6.0	6.6	6.5	6.5
23	7.2	7.2	7.2	6.1	6.0	6.1	6.0	6.0	6.0	6.7	6.4	6.5
24	7.5	7.2	7.3	6.1	6.0	6.1	6.0	6.0	6.0	6.6	6.5	6.6
25	7.3	7.3	7.3	6.2	6.1	6.1	6.0	6.0	6.0	6.6	6.6	6.6
26	7.3	7.1	7.3	6.9	6.1	6.3	6.0	6.0	6.0	7.6	6.5	6.7
27	7.2	7.0	7.1	6.5	6.3	6.4	6.0	6.0	6.0	7.6	6.6	6.9
28	7.1	6.9	7.0	6.3	6.3	6.3	6.0	5.9	6.0	6.7	6.5	6.6
29	6.9	6.7	6.8	6.3	6.2	6.3	6.0	5.9	5.9	7.6	6.5	6.9
30	6.7	6.6	6.6	6.3	6.3	6.3	6.0	5.9	6.0	7.8	6.6	7.5
31	6.8	6.6	6.7	---	---	---	6.0	5.9	6.0	7.7	6.8	7.1
MONTH	7.6	6.6	7.1	7.2	6.0	6.4	7.3	5.9	6.2	7.8	5.9	6.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	7.1	6.7	6.8	6.7	6.5	6.6	6.8	6.7	6.7	6.7	6.6	6.7
2	6.8	6.5	6.6	6.6	6.5	6.6	6.8	6.7	6.7	6.7	6.6	6.7
3	6.5	6.4	6.4	6.7	6.6	6.7	6.8	6.7	6.8	6.7	6.6	6.7
4	6.8	6.4	6.6	6.7	6.6	6.7	6.8	6.7	6.8	6.7	6.7	6.7
5	6.9	6.5	6.8	6.7	6.6	6.6	6.9	6.7	6.8	6.8	6.7	6.7
6	6.7	6.5	6.5	6.6	6.5	6.6	---	---	---	6.7	6.6	6.7
7	6.5	6.4	6.5	6.6	6.5	6.6	---	---	---	6.7	6.6	6.6
8	6.6	6.4	6.5	6.7	6.5	6.6	---	---	---	6.8	6.6	6.6
9	6.7	6.6	6.6	6.7	6.6	6.7	---	---	---	6.7	6.6	6.6
10	6.7	6.3	6.4	6.8	6.6	6.7	6.9	6.4	6.7	6.7	6.6	6.6
11	6.3	6.1	6.2	6.8	6.7	6.7	6.8	6.4	6.6	6.8	6.6	6.7
12	6.2	6.0	6.1	6.8	6.6	6.7	6.7	6.4	6.6	6.8	6.6	6.7
13	6.4	6.0	6.2	7.0	6.8	6.8	6.6	6.5	6.6	6.7	6.6	6.6
14	7.4	6.3	7.1	7.0	6.7	6.8	6.6	6.5	6.6	6.6	6.6	6.6
15	7.4	6.5	6.6	6.8	6.8	6.8	6.8	6.4	6.6	6.8	6.6	6.6
16	7.2	6.4	6.6	6.8	6.7	6.8	6.5	6.4	6.5	6.8	6.6	6.7
17	6.6	6.4	6.5	7.1	6.7	6.8	6.6	6.5	6.5	6.6	6.6	6.6
18	6.5	6.3	6.4	6.8	6.6	6.7	6.5	6.5	6.5	6.8	6.6	6.6
19	6.6	6.4	6.5	6.8	6.6	6.7	6.6	6.5	6.5	6.8	6.7	6.7
20	6.7	6.4	6.6	6.8	6.7	6.7	6.8	6.4	6.5	6.7	6.6	6.6
21	6.6	6.4	6.5	6.8	6.8	6.8	6.6	6.5	6.6	6.7	6.6	6.6
22	6.4	6.3	6.4	6.9	6.8	6.8	6.9	6.6	6.6	6.9	6.6	6.8
23	6.5	6.3	6.4	6.9	6.7	6.8	7.0	6.5	6.7	6.9	6.7	6.8
24	6.5	6.4	6.4	6.8	6.7	6.7	6.7	6.6	6.7	6.8	6.7	6.8
25	7.1	6.5	6.7	6.7	6.6	6.6	6.6	6.6	6.6	6.9	6.7	6.7
26	6.7	6.6	6.6	6.6	6.4	6.5	6.7	6.6	6.6	6.9	6.7	6.7
27	6.6	6.5	6.5	6.6	6.5	6.5	6.7	6.6	6.6	6.9	6.7	6.8
28	6.7	6.4	6.6	6.7	6.5	6.6	6.7	6.6	6.6	6.8	6.7	6.7
29	---	---	---	6.8	6.6	6.7	6.6	6.4	6.6	6.7	6.7	6.7
30	---	---	---	6.8	6.6	6.7	6.7	6.6	6.7	6.9	6.6	6.7
31	---	---	---	6.7	6.7	6.7	---	---	---	6.7	6.7	6.7
MONTH	7.4	6.0	6.5	7.1	6.4	6.7	7.0	6.4	6.6	6.9	6.6	6.7

SURFACE-WATER RECORDS
Muskingum River Basin

03121850 HUFF RUN AT MINERAL CITY, OHIO—Continued

WATER-QUALITY RECORDS—Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001—Continued

DAY	MAX	MIN	MEAN									
1	6.9	6.5	6.7	---	---	---	6.1	6.0	6.1	6.3	5.6	6.1
2	6.8	6.5	6.7	---	---	---	6.1	5.9	6.0	6.2	5.9	6.0
3	6.9	6.7	6.8	---	---	---	6.0	5.5	5.9	5.9	5.7	5.8
4	6.8	6.7	6.8	---	---	---	6.4	6.0	6.2	5.7	5.5	5.6
5	6.8	6.7	6.7	6.7	6.6	6.6	6.4	6.0	6.2	5.6	5.5	5.5
6	6.9	6.7	6.8	6.7	6.6	6.6	6.0	5.8	5.9	5.6	5.4	5.5
7	7.0	6.9	6.9	6.7	6.5	6.6	5.9	5.7	5.8	5.6	5.4	5.5
8	6.9	6.8	6.8	6.6	6.5	6.5	5.9	5.7	5.8	5.4	5.2	5.3
9	6.8	6.8	6.8	6.7	6.2	6.5	5.9	5.6	5.8	5.3	5.2	5.3
10	6.8	6.7	6.8	6.6	6.3	6.6	5.9	5.8	5.9	5.2	5.0	5.1
11	6.9	6.8	6.8	6.7	6.4	6.5	6.1	5.9	6.0	5.5	5.0	5.2
12	6.9	6.8	6.8	6.6	6.4	6.4	6.0	5.6	5.8	5.3	4.7	5.1
13	6.9	6.6	6.7	6.5	6.0	6.4	5.9	5.6	5.7	5.2	4.5	5.1
14	6.6	6.6	6.6	6.3	5.9	6.1	6.0	5.9	6.0	5.4	5.0	5.3
15	6.6	6.6	6.6	6.3	6.1	6.2	6.1	5.9	6.0	5.5	5.3	5.4
16	6.7	6.0	6.5	6.3	6.1	6.2	6.0	5.8	5.9	5.6	5.5	5.6
17	6.6	6.5	6.6	6.3	6.1	6.2	5.9	5.6	5.8	5.6	5.0	5.3
18	6.7	6.6	6.6	6.3	6.2	6.2	5.7	5.4	5.6	5.1	4.8	5.0
19	6.6	6.5	6.5	6.3	6.1	6.2	5.4	5.3	5.3	5.2	4.7	5.0
20	---	---	---	6.1	6.0	6.1	5.4	5.2	5.3	5.3	4.9	5.1
21	---	---	---	6.2	6.0	6.1	5.4	5.2	5.3	5.2	5.0	5.1
22	---	---	---	6.2	6.0	6.1	5.4	5.2	5.3	5.2	5.1	5.2
23	---	---	---	6.1	6.0	6.1	5.4	5.2	5.3	5.1	4.9	5.1
24	---	---	---	6.2	6.0	6.1	5.3	5.2	5.3	5.4	5.1	5.2
25	---	---	---	6.2	5.9	6.2	5.3	5.3	5.3	5.2	5.1	5.2
26	---	---	---	6.2	5.7	6.1	5.3	5.2	5.3	5.3	5.2	5.2
27	---	---	---	6.2	6.0	6.1	5.2	5.0	5.1	5.3	5.1	5.2
28	---	---	---	6.1	5.5	5.9	5.1	5.0	5.0	5.3	5.2	5.2
29	---	---	---	6.1	5.9	6.0	5.1	5.0	5.0	5.3	5.2	5.2
30	---	---	---	6.0	5.8	5.9	5.0	4.9	5.0	5.3	5.2	5.3
31	---	---	---	6.0	5.9	6.0	6.1	4.8	5.2	---	---	---
MONTH	7.0	6.0	6.7	6.7	5.5	6.2	6.4	4.8	5.6	6.3	4.5	5.3
YEAR	7.8	4.5	6.4									

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	14.0	11.5	12.5	8.0	6.0	7.0	4.0	3.5	4.0	1.0	.5	.5
2	15.0	12.0	13.5	8.5	6.0	7.5	3.5	1.5	2.5	.5	.0	.5
3	16.5	15.0	15.5	11.0	8.0	9.5	1.5	.5	1.0	.5	.0	.5
4	16.5	15.0	15.5	10.0	9.0	9.5	1.5	.0	.5	.5	.5	.5
5	16.0	15.0	15.5	9.0	7.5	8.0	1.5	.5	1.0	.5	.5	.5
6	15.5	14.0	15.0	7.5	5.5	6.5	1.0	.0	.5	1.0	.5	1.0
7	14.0	10.0	11.5	9.0	7.0	8.0	1.0	.5	.5	1.5	.5	1.0
8	10.0	8.5	9.0	11.0	9.0	10.0	1.5	1.0	1.0	1.0	.5	1.0
9	9.0	8.0	8.5	12.5	11.0	11.5	1.5	.0	1.0	.5	.0	.5
10	10.0	8.0	9.0	12.5	9.5	11.0	1.5	.0	1.0	.5	.0	.5
11	9.5	7.5	9.0	9.5	9.0	9.0	2.0	1.0	1.5	1.0	.5	.5
12	10.0	7.5	9.0	9.0	7.5	8.0	2.0	.0	1.0	1.0	.5	.5
13	10.5	8.0	9.0	7.5	6.5	7.0	.5	.0	.5	1.5	.5	1.0
14	11.5	8.5	10.0	7.5	6.0	6.5	.5	.5	.5	1.5	.5	1.0
15	12.5	11.0	11.5	6.0	4.5	5.0	1.0	.5	1.0	1.5	1.0	1.0
16	14.0	12.5	13.0	4.5	3.5	4.0	---	---	---	1.0	.5	1.0
17	13.5	13.0	13.5	4.5	4.0	4.5	---	---	---	1.5	1.0	1.0
18	13.5	13.0	13.5	4.0	3.5	3.5	---	---	---	2.5	1.0	1.5
19	13.0	10.5	11.5	4.0	3.0	3.5	2.0	1.0	1.5	2.0	1.0	1.5
20	12.0	10.5	11.5	4.0	2.5	3.5	1.0	.0	.5	1.5	.5	1.0
21	12.0	10.5	11.5	2.5	1.5	2.0	1.0	.0	.5	.5	.0	.5
22	12.5	10.5	11.5	1.5	.5	1.0	1.0	.0	.0	1.5	.5	.5
23	12.0	10.0	11.5	1.5	.5	1.0	.5	.0	.5	1.0	.0	.5
24	13.5	12.0	12.5	2.0	.5	1.0	.5	.0	.5	1.0	.0	.5
25	15.0	13.5	14.0	2.5	1.0	1.5	.5	.0	.0	1.0	.0	.5
26	15.0	13.0	14.0	4.0	2.0	3.0	.5	.0	.5	.5	.0	.5
27	14.5	13.0	14.0	5.0	4.0	4.5	.5	.5	.5	.5	.5	.5
28	14.5	12.0	13.5	5.0	4.5	4.5	.5	.0	.5	.5	.0	.5
29	12.0	8.5	9.5	4.5	3.5	4.0	.5	.5	.5	1.5	.0	.5
30	8.5	6.5	7.5	4.5	4.0	4.0	.5	.5	.5	---	---	---
31	8.0	6.0	7.0	---	---	---	.5	.5	.5	---	---	---
MONTH	16.5	6.0	11.5	12.5	.5	5.5	4.0	.0	1.0	2.5	.0	1.0

SURFACE-WATER RECORDS
Muskingum River Basin

03121850 HUFF RUN AT MINERAL CITY, OHIO—Continued

WATER-QUALITY RECORDS—Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	8.9	8.1	8.7	---	---	---	11.9	11.4	11.6	11.3	11.1	11.2
2	8.6	8.0	8.4	---	---	---	12.2	11.6	11.9	11.3	11.1	11.2
3	8.1	7.7	7.9	---	---	---	12.5	12.0	12.2	11.3	10.6	11.0
4	8.1	7.6	7.9	---	---	---	12.5	11.9	12.2	10.8	10.3	10.6
5	9.9	7.8	8.9	---	---	---	12.0	11.7	11.8	12.7	10.3	11.7
6	9.9	7.8	8.4	---	---	---	12.1	11.7	11.9	12.7	8.3	8.9
7	9.2	8.2	8.8	---	---	---	13.4	10.5	11.4	11.1	8.4	8.9
8	9.6	9.0	9.3	---	---	---	13.6	11.0	11.2	11.9	8.7	9.4
9	9.7	9.2	9.4	---	---	---	11.5	10.9	11.2	9.5	9.0	9.3
10	9.7	9.2	9.5	---	---	---	14.9	10.8	11.5	9.8	9.4	9.6
11	9.9	9.1	9.6	---	---	---	---	---	---	9.9	9.6	9.7
12	10.0	9.2	9.6	---	---	---	---	---	---	10.6	9.6	9.9
13	9.7	8.4	8.7	---	---	---	---	---	---	12.8	9.6	10.5
14	9.1	8.3	8.8	10.8	10.2	10.5	---	---	---	13.6	9.5	12.3
15	10.1	8.6	9.0	11.5	10.6	11.0	---	---	---	13.9	10.2	13.0
16	9.5	9.0	9.3	11.6	10.8	11.3	---	---	---	12.9	12.3	12.5
17	9.6	9.2	9.4	11.7	11.3	11.5	---	---	---	12.6	12.4	12.5
18	9.5	8.0	9.0	12.0	11.7	11.8	---	---	---	12.4	12.0	12.2
19	8.0	7.0	7.5	12.4	11.9	12.0	---	---	---	14.9	11.9	12.8
20	7.0	6.0	6.6	12.2	11.8	12.0	---	---	---	12.2	11.8	12.1
21	---	---	---	12.4	11.8	12.1	---	---	---	12.4	12.2	12.3
22	---	---	---	12.6	11.8	12.2	11.2	10.8	11.0	12.3	11.9	12.2
23	---	---	---	12.6	12.2	12.3	11.3	11.1	11.2	12.6	11.8	12.0
24	---	---	---	12.6	12.1	12.4	11.2	11.1	11.2	11.9	11.5	11.7
25	---	---	---	13.2	11.4	11.0	11.5	11.2	11.4	11.7	11.5	11.6
26	---	---	---	13.2	9.7	11.8	11.5	11.1	11.3	13.9	11.3	12.0
27	---	---	---	12.2	10.6	11.3	11.5	11.3	11.4	14.4	11.0	12.1
28	---	---	---	11.5	11.1	11.3	11.5	11.3	11.4	11.1	10.9	11.0
29	---	---	---	11.8	10.5	12.6	11.5	11.2	11.3	13.3	10.7	11.5
30	---	---	---	11.6	10.5	11.2	11.3	11.1	11.2	13.8	10.4	12.5
31	---	---	---	---	---	---	11.2	11.1	11.2	---	---	---
MONTH	10.1	6.0	8.7	13.2	9.7	11.7	14.9	10.5	11.5	14.9	8.3	11.3

DAY	MAX	MIN	MEAN									
1	---	---	---	12.0	10.8	11.4	---	---	---	11.8	9.6	10.6
2	---	---	---	11.3	10.6	11.0	---	---	---	11.5	8.9	10.2
3	---	---	---	10.8	10.1	10.5	---	---	---	11.2	8.4	9.7
4	---	---	---	12.3	10.3	11.3	---	---	---	10.8	8.2	9.3
5	---	---	---	10.5	9.6	10.0	---	---	---	11.1	8.2	9.5
6	---	---	---	11.5	10.4	11.1	---	---	---	11.5	8.7	10.0
7	---	---	---	11.8	11.2	11.6	---	---	---	11.8	9.1	10.0
8	---	---	---	---	---	---	---	---	---	10.8	8.9	9.8
9	---	---	---	---	---	---	---	---	---	12.2	9.4	10.4
10	---	---	---	---	---	---	---	---	---	12.1	9.0	10.4
11	---	---	---	---	---	---	---	---	---	11.6	8.8	10.0
12	---	---	---	---	---	---	---	---	---	10.8	9.0	10.1
13	---	---	---	---	---	---	---	---	---	12.6	9.6	11.0
14	---	---	---	12.9	9.7	11.3	---	---	---	12.8	10.3	11.3
15	---	---	---	11.9	10.4	11.7	---	---	---	11.5	10.4	10.9
16	---	---	---	14.1	10.3	11.9	---	---	---	11.9	10.8	11.4
17	---	---	---	11.9	10.3	11.2	---	---	---	11.7	10.5	11.0
18	---	---	---	12.2	10.9	11.7	---	---	---	11.8	10.5	11.0
19	---	---	---	12.0	10.7	11.3	---	---	---	11.8	9.9	11.1
20	---	---	---	11.4	9.5	10.7	---	---	---	11.8	9.5	10.7
21	---	---	---	12.5	10.2	10.7	---	---	---	10.7	8.5	9.8
22	11.8	11.0	11.4	10.7	9.5	10.2	11.9	8.7	9.5	---	---	---
23	12.0	11.5	11.7	11.1	9.9	10.5	11.9	8.2	9.1	---	---	---
24	12.2	11.2	11.8	11.1	10.2	10.8	9.7	8.3	9.0	13.6	12.7	13.1
25	13.0	8.9	10.3	12.1	10.9	11.7	10.2	8.5	9.3	13.5	10.0	12.8
26	10.9	9.2	10.4	12.8	11.9	12.3	10.6	9.2	9.8	13.3	10.0	12.4
27	11.6	10.6	11.2	---	---	---	10.8	9.3	10.0	12.6	9.5	11.7
28	11.7	10.9	11.3	14.9	12.6	13.8	11.3	9.5	10.4	12.1	9.0	11.5
29	---	---	---	14.6	13.1	14.0	12.0	10.0	10.8	11.6	8.7	10.7
30	---	---	---	14.6	13.1	14.1	12.1	9.9	10.9	11.2	7.6	9.3
31	---	---	---	15.4	14.2	14.9	---	---	---	8.3	7.2	7.8
MONTH	13.0	8.9	11.2	15.4	9.5	11.7	12.1	8.2	9.9	13.6	7.2	10.6

SURFACE-WATER RECORDS
Muskingum River Basin

03129000 TUSCARAWAS RIVER AT NEWCOMERSTOWN, OHIO

LOCATION.—Latitude 40°15'41", longitude 81°36'33", in T.5 N., R.3 W., Tuscarawas County, Hydrologic Unit 05040001, on right bank 150 ft upstream from highway bridge, 0.2 mi south of Newcomerstown, Ohio, 2 mi upstream from Buckhorn Creek, and 4 mi downstream from Dunlap Creek.

DRAINAGE AREA.—2,443 mi².

PERIOD OF RECORD.—September 1921 to current year.

REVISED RECORDS.—WSP 728: 1929(M). WSP 873: 1935. WSP 1907: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is 780.00 ft above sea level. Gage located 1.5 mi upstream from 1921 to Oct. 1, 1934. From 1921 to Sept. 28, 1925, non-recording gage at 785.03 ft above sea level. From Sept. 28, 1925 to Oct. 1, 1934, recording gage at 785.03 ft above sea level. Gage moved to current location Oct. 1, 1934. From Oct. 1, 1934 to July 17, 1935, recording gage at 780.03 ft above sea level. From July 18, 1935 to Feb. 13, 1939, non-recording gage at 780.03 ft above sea level. From Feb. 13, 1939 to present, recording gage at 780.00 ft above sea level.

REMARKS.—Records excellent except for periods of estimated record, which are fair. Diversion from basin at Portage Lakes (see REMARKS for station 03117000). Flow regulated by eight flood-control reservoirs at points 40 mi to 64 mi upstream. Water-quality data formerly collected at this site. U.S. Army of Corps of Engineers satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood in March 1913 reached a stage of about 21.5 ft, at site and datum used prior to Oct. 1, 1934, discharge, 83,000 ft³/s computed by U.S. Army Corps of Engineers.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	839	688	1550	e1400	8010	1370	1620	1930	1800	744	522	918
2	769	740	1560	e1300	7430	1300	1600	1880	2060	978	497	1120
3	721	752	1500	e1150	5790	1240	1550	1870	2640	1020	490	795
4	689	745	1410	e1100	4090	1220	1460	1680	2850	947	482	582
5	766	750	1340	e1050	2970	1330	1340	1550	2420	831	601	492
6	1780	748	1140	e1050	2760	1460	1470	1450	2540	754	547	443
7	2760	761	1030	e1000	2610	1470	3400	1350	3570	709	460	415
8	2060	819	1010	e970	2290	1390	5950	1250	3930	701	420	400
9	1490	946	1000	e940	2280	1330	5490	1240	3390	666	410	383
10	1250	1120	976	e920	3030	1330	5360	1310	2670	732	520	377
11	1130	1240	995	e900	4200	1300	6220	1230	2220	748	1250	377
12	984	1280	1330	e880	3530	1300	7430	1190	2000	688	1180	362
13	878	1210	2020	e860	2650	2190	7330	1550	2090	641	963	349
14	818	1150	2170	e880	2330	4510	6030	1570	1880	583	946	368
15	783	1140	2250	e920	3200	5090	4820	1320	1580	543	738	390
16	773	1130	2460	1190	4730	3940	4690	1280	1320	516	576	401
17	773	1340	7930	1650	4450	3690	5430	1330	1250	497	512	383
18	841	1370	8800	1660	3800	3850	4850	1340	1190	498	462	358
19	937	1160	8530	1510	2960	3260	3810	1300	1070	492	446	355
20	904	1110	8890	e1400	2490	2680	3410	1260	987	505	433	373
21	880	1110	8720	e1300	2420	2400	4890	1250	953	530	464	379
22	839	1120	6860	e1200	2190	2500	5720	3950	976	535	474	380
23	761	1120	4450	e1100	1960	2840	5260	5860	1080	520	443	406
24	734	1180	3650	e1050	1750	2660	4830	5440	1090	475	430	458
25	757	1200	3500	e1000	1660	2340	4380	3970	1010	1090	447	445
26	929	1310	3040	e960	1630	2120	3620	3360	929	1120	430	442
27	1010	1520	3160	e920	1580	2000	2990	2960	868	1300	407	444
28	855	1670	3260	e900	1450	1880	2610	3000	807	955	431	431
29	779	1660	2800	e860	---	1760	2270	2950	752	708	468	423
30	741	1580	2000	e1100	---	1690	2070	2450	715	596	424	416
31	731	---	1530	5550	---	1650	---	2060	---	551	401	---
TOTAL	30961	33669	100861	38670	90240	69090	121900	66130	52637	22173	17274	13865
MEAN	999	1122	3254	1247	3223	2229	4063	2133	1755	715	557	462
MAX	2760	1670	8890	5550	8010	5090	7430	5860	3930	1300	1250	1120
MIN	689	688	976	860	1450	1220	1340	1190	715	475	401	349

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 2001, BY WATER YEAR (WY)

	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	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
MEAN	947	1686	2591	3363	3904	4873	4346	3084	2139	1508	1141	945																																																																				
MAX	4257	7201	8471	16130	9762	11090	7909	9194	8339	7663	8648	4882																																																																				
(WY)	1991	1986	1928	1937	1959	1945	1948	1996	1981	1969	1935	1926																																																																				
MIN	227	253	255	354	422	969	1155	541	430	291	233	245																																																																				
(WY)	1931	1931	1931	1931	1934	1931	1925	1934	1988	1930	1930	1930																																																																				

SUMMARY STATISTICS FOR 2000 CALENDAR YEAR FOR 2001 WATER YEAR WATER YEARS 1922 - 2001

ANNUAL TOTAL	877457	657470	
ANNUAL MEAN	2397	1801	
HIGHEST ANNUAL MEAN			2537
LOWEST ANNUAL MEAN			4227
HIGHEST DAILY MEAN	11400	Apr 9	8890
LOWEST DAILY MEAN	520	Feb 9	349
ANNUAL SEVEN-DAY MINIMUM	544	Feb 3	372
MAXIMUM PEAK FLOW			9340
MAXIMUM PEAK STAGE			7.25
INSTANTANEOUS LOW FLOW			349
10 PERCENT EXCEEDS	5540		3960
50 PERCENT EXCEEDS	1520		1240
90 PERCENT EXCEEDS	729		454

e Estimated.

SURFACE-WATER RECORDS
Muskingum River Basin

03136175 KOKOSING RIVER NEAR LUCERNE, OHIO

LOCATION.—Latitude 40°27'51", longitude 82°36'36", Knox County, Hydrologic Unit 05040003, on left bank 100 ft upstream from Vail Road bridge, 700 ft south of State Route 95, 2 mi east of Lucerne, Ohio, 3.7 mi west of Fredricktown, Ohio, and 4.2 mi east of Chesterville, Ohio.

DRAINAGE AREA.—59.5 mi².

PERIOD OF RECORD.—January 2000 to current year.

GAGE.—Water-stage recorder. Datum of gage is 1065 ft above sea level.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	e21	e62	e21	146	27	25	24	116	11	6.1	15
2	2.7	e29	e54	e20	88	27	42	23	262	10	5.8	8.5
3	2.2	e31	e47	e19	66	26	33	21	186	9.9	6.2	5.8
4	2.5	e30	e42	e18	50	28	27	19	84	10	8.3	5.1
5	10	e30	e38	e18	46	25	24	18	62	10	7.3	4.4
6	41	e29	e35	e17	45	22	322	17	80	9.4	5.8	3.6
7	24	e31	e33	e17	42	21	320	16	149	8.9	5.1	5.0
8	15	e33	e31	e17	59	20	104	18	73	9.0	4.6	7.9
9	11	e34	e30	e16	140	21	66	18	49	8.8	4.3	6.4
10	9.1	e40	e29	e16	397	20	68	16	37	10	4.4	5.1
11	7.9	e54	e28	e16	127	21	310	15	31	9.3	4.2	4.5
12	7.0	e64	e92	e16	76	22	256	16	32	8.7	4.6	4.6
13	6.5	e54	e98	e16	63	56	95	16	50	8.0	4.5	3.8
14	5.7	e49	e82	e26	129	100	62	14	29	7.4	3.8	4.2
15	5.9	e44	e68	e40	373	63	62	20	24	6.9	3.6	3.5
16	5.9	e40	e340	e98	145	62	102	62	26	6.5	3.5	3.1
17	6.8	e36	e900	e78	94	94	69	163	20	6.6	3.7	3.1
18	7.1	e34	e500	e64	62	70	54	99	18	6.9	3.7	4.0
19	6.2	e32	e220	e45	50	52	45	179	16	8.0	5.2	5.3
20	5.5	e31	e150	e34	48	45	333	75	15	11	4.9	5.3
21	5.4	e29	e110	e26	42	40	458	79	15	8.8	4.3	4.6
22	5.1	e28	e86	e24	35	36	137	297	22	7.8	3.7	4.0
23	4.9	e27	e76	e20	35	32	87	155	20	8.3	3.8	3.8
24	5.5	e26	e66	e18	32	29	65	101	17	6.5	3.9	4.7
25	5.3	e28	e52	e17	35	25	50	198	14	9.7	3.8	4.7
26	e5.2	e36	e43	e16	35	23	41	136	13	16	3.8	4.0
27	e5.6	e50	e35	e15	31	21	36	173	13	9.4	7.5	3.9
28	e6.0	e60	e30	e14	29	21	31	111	12	7.6	6.0	3.9
29	e7.0	e54	e27	e14	---	21	28	71	11	7.1	4.4	3.7
30	e9.2	e58	e24	130	---	21	26	77	11	6.8	3.3	3.4
31	e14	---	e22	363	---	20	---	53	---	6.5	16	---
TOTAL	258.3	1142	3450	1269	2520	1111	3378	2300	1507	270.8	160.1	148.9
MEAN	8.33	38.1	111	40.9	90.0	35.8	113	74.2	50.2	8.74	5.16	4.96
MAX	41	64	900	363	397	100	458	297	262	16	16	15
MIN	2.2	21	22	14	29	20	24	14	11	6.5	3.3	3.1

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2001, BY WATER YEAR (WY)

	2001	2000	2001	2000	2000	2001	2000	2001	2000	2001	2000	2001
MEAN	8.33	38.1	111	57.1	96.8	50.0	151	69.1	52.1	12.2	5.99	4.91
MAX	8.33	38.1	111	73.2	103	64.1	189	74.2	54.0	15.8	6.81	4.96
(WY)	2001	2001	2001	2000	2000	2000	2000	2001	2000	2000	2000	2001
MIN	8.33	38.1	111	40.9	90.0	35.8	113	64.0	50.2	8.74	5.16	4.86
(WY)	2001	2001	2001	2001	2001	2001	2001	2000	2001	2001	2001	2000

SUMMARY STATISTICS FOR 2000 CALENDAR YEAR FOR 2001 WATER YEAR WATER YEARS 1999 - 2001

ANNUAL TOTAL	22220.0	17515.1	
ANNUAL MEAN	60.7	48.0	48.0
HIGHEST ANNUAL MEAN			48.0
LOWEST ANNUAL MEAN			48.0
HIGHEST DAILY MEAN	1250	Apr 8	1250
LOWEST DAILY MEAN	2.0	Sep 19	2.0
ANNUAL SEVEN-DAY MINIMUM	2.5	Sep 14	2.5
MAXIMUM PEAK FLOW		1300	1340
MAXIMUM PEAK STAGE		8.00	8.08
INSTANTANEOUS LOW FLOW		1.8	1.8
10 PERCENT EXCEEDS	110	101	110
50 PERCENT EXCEEDS	28	23	24
90 PERCENT EXCEEDS	5.2	4.5	4.6

e Estimated.

SURFACE-WATER RECORDS
Muskingum River Basin

03139000 KILLBUCK CREEK AT KILLBUCK, OHIO

LOCATION.—Latitude 40°28'53", longitude 81°59'10", Holmes County, Hydrologic Unit 05040003, on right bank at downstream side of U.S. Highway 62 bridge south of Killbuck, Ohio, and 1.2 mi downstream from Black Creek. Prior to Oct. 5, 1976, at site 0.9 mi upstream.

DRAINAGE AREA.—464 mi².

PERIOD OF RECORD.—October 1930 to current year.

REVISED RECORDS.—WSP 873: 1935. WSP 1555: 1935. WSP 1907: Drainage area. WRD-OH-70-1: 1969. WDR-OH-77-1: Drainage area. WDR-OH-87-1: 1984-86.

GAGE.—Water-stage recorder. Datum of gage is 788.05 ft above sea level. Prior to Oct. 1, 1949, nonrecording gage and Oct. 1, 1949 to Oct. 5, 1976, water-stage recorder and nonrecording gage, at site 0.9 mi upstream at same datum.

REMARKS.—Records good except for periods of estimated record, which are poor. Water-quality and sediment data formerly collected at this site. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	115	97	125	e190	877	255	215	288	297	103	46	220
2	106	94	128	e170	708	256	210	346	376	149	43	115
3	101	91	120	e160	526	251	200	292	540	119	44	74
4	96	91	107	e150	423	241	188	260	445	106	76	61
5	151	89	103	e145	399	237	180	232	369	110	57	57
6	474	85	94	e140	374	229	320	205	782	102	47	51
7	269	88	92	e135	354	226	565	188	928	94	46	49
8	200	91	88	e130	353	217	587	199	649	86	44	55
9	171	98	86	e125	470	213	677	237	483	82	60	56
10	153	134	102	e120	969	209	702	208	379	79	381	49
11	137	171	102	e120	834	217	1120	183	323	76	165	48
12	125	140	237	e115	758	225	1230	266	290	74	97	46
13	118	124	231	e110	661	431	1050	309	294	70	133	44
14	113	112	230	e110	613	625	825	242	237	69	87	50
15	111	105	214	e140	862	581	696	215	210	63	68	59
16	129	101	623	245	830	556	847	238	191	60	60	47
17	126	100	2360	250	805	607	779	319	173	59	57	43
18	125	97	2280	239	686	593	725	305	154	60	56	42
19	116	88	1780	e210	576	540	647	313	147	66	61	46
20	111	89	1510	e190	508	481	703	283	139	65	76	52
21	107	85	1260	e170	450	431	956	253	138	62	66	52
22	100	79	929	e150	378	413	857	372	141	54	58	60
23	95	75	791	e140	347	369	816	483	145	51	55	74
24	103	74	683	e135	322	335	714	433	132	52	57	57
25	131	77	549	e130	313	300	615	378	121	54	56	67
26	142	95	e400	e125	300	273	530	358	115	55	51	e76
27	128	103	e320	e120	282	258	461	456	110	56	89	e70
28	120	102	e270	e115	268	246	393	492	109	50	79	e62
29	110	102	e240	e110	---	246	337	433	101	47	54	60
30	101	120	e225	e240	---	243	303	392	98	47	47	55
31	99	---	e210	1070	---	231	---	320	---	47	110	---
TOTAL	4283	2997	16489	5699	15246	10535	18448	9498	8616	2267	2426	1897
MEAN	138	99.9	532	184	544	340	615	306	287	73.1	78.3	63.2
MAX	474	171	2360	1070	969	625	1230	492	928	149	381	220
MIN	95	74	86	110	268	209	180	183	98	47	43	42
CFSM	.30	.22	1.15	.40	1.17	.73	1.33	.66	.62	.16	.17	.14
IN.	.34	.24	1.32	.46	1.22	.84	1.48	.76	.69	.18	.19	.15

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 2001, BY WATER YEAR (WY)

	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	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
MEAN	135	223	380	549	666	855	746	512	398	281	196	142	1015	1286	1509	2416	1648	1685	1400	1523	2281	3960	2147	1473	1991	1986	1991	1937	1975	1978	1957	1996	1947	1969	1935	1979	26.8	37.1	38.1	42.3	71.6	124	170	71.8	69.9	39.6	34.7	25.6	1964	1954	1964	1945	1934	1931	1935	1934	1988	1954	1932	1954											

SUMMARY STATISTICS

	FOR 2000 CALENDAR YEAR	FOR 2001 WATER YEAR	WATER YEARS 1931 - 2001
ANNUAL TOTAL	137567	98401	
ANNUAL MEAN	376	270	422
HIGHEST ANNUAL MEAN			695
LOWEST ANNUAL MEAN			128
HIGHEST DAILY MEAN	2450	Apr 9	37200
LOWEST DAILY MEAN	61	Sep 19	23
ANNUAL SEVEN-DAY MINIMUM	73	Sep 14	23
MAXIMUM PEAK FLOW		2630	Dec 17a
MAXIMUM PEAK STAGE		16.27	Dec 17
INSTANTANEOUS LOW FLOW		42	Sep 18
ANNUAL RUNOFF (CFSM)	.81	.58	.91
ANNUAL RUNOFF (INCHES)	11.03	7.89	12.37
10 PERCENT EXCEEDS	902	654	1080
50 PERCENT EXCEEDS	208	147	205
90 PERCENT EXCEEDS	86	56	57

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

SURFACE-WATER RECORDS
Muskingum River Basin

03140000 MILL CREEK NEAR COSHOCTON, OHIO

LOCATION.—Latitude 40°21'46", longitude 81°51'45", Coshocton County, Hydrologic Unit 05040003, on left bank 0.5 mi downstream from Little Mill Creek and 6 mi north of Coshocton, Ohio.

DRAINAGE AREA.—27.2 mi².

PERIOD OF RECORD.—October 1936 to current year. Monthly discharge only for October 1936, published in WSP 1305.

REVISED RECORDS.—WSP 1143: 1946, 1947-48(P). WSP 1907: Drainage area.

GAGE.—Water-stage recorder and concrete control. Datum of gage is 782.00 ft above sea level.

REMARKS.—Records excellent 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 12000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.8	3.9	5.0	e4.1	69	14	14	e13	e4.5	6.0	1.4	4.4
2	5.1	3.7	4.6	e3.9	47	14	13	e13	e14	6.4	1.2	1.3
3	4.6	3.9	3.5	e3.7	36	14	12	e14	e30	3.0	1.2	.68
4	4.2	3.9	3.3	e3.5	30	13	11	e13	e27	3.3	1.4	.50
5	34	3.6	3.7	e3.4	30	17	10	e12	22	3.8	1.1	.52
6	60	3.4	3.3	e3.2	27	14	31	e12	32	2.5	.82	.42
7	23	3.9	3.3	e3.1	25	13	26	e11	29	2.1	.64	.37
8	18	4.2	3.7	e3.0	25	12	20	e13	23	3.2	.53	.35
9	15	4.4	3.4	e2.8	30	12	e16	e11	18	2.5	1.1	.41
10	13	12	3.3	e2.7	52	11	e11	e10	16	2.1	11	.45
11	11	8.6	4.7	e2.7	32	11	e8.0	e9.4	14	1.8	2.0	.47
12	9.4	6.1	32	e2.6	28	11	e70	e14	13	1.5	1.6	.50
13	8.3	5.6	17	e2.5	26	71	e30	e11	16	1.3	2.7	.51
14	7.5	5.5	24	e2.4	42	59	e18	e9.0	11	1.2	1.4	.70
15	7.2	5.0	19	e2.4	87	39	e12	e8.2	9.6	.99	.86	.99
16	7.4	4.6	e250	e4.0	61	47	e16	e8.0	11	.90	.66	.79
17	7.7	4.5	e450	e8.0	50	53	e12	e8.6	8.1	.86	.58	.68
18	8.5	3.9	90	e6.2	37	40	e10	e8.6	6.5	2.5	.58	.68
19	6.5	3.8	55	e5.2	33	33	e9.0	e8.0	5.9	1.3	.76	.70
20	5.9	3.8	36	e4.4	31	30	e30	e8.8	5.4	1.2	1.2	.87
21	5.5	3.6	e20	e4.0	27	31	e40	e7.8	5.6	1.1	.88	.60
22	5.2	3.1	e15	e3.7	22	31	e23	e6.4	5.3	.83	.62	.43
23	4.7	3.0	e11	e3.3	21	26	e20	e14	5.1	.70	.61	.35
24	5.4	3.1	e9.0	e3.1	19	23	e18	e12	4.4	1.0	.89	.53
25	7.2	3.6	e7.8	e2.9	21	21	e17	e8.0	3.7	52	.74	.53
26	5.4	7.8	e7.0	e2.7	18	19	e16	e12	3.3	7.8	.59	.61
27	5.0	6.2	e6.4	e2.6	16	17	e15	e9.2	3.2	3.2	.53	.58
28	4.7	5.4	e5.8	e2.5	15	16	e14	e7.4	2.9	2.2	.53	.55
29	4.1	5.0	e5.2	e2.4	---	16	e14	e6.4	2.6	2.0	.48	.56
30	4.0	5.5	e4.8	e14	---	16	e13	e5.6	2.6	1.9	.40	.57
31	4.0	---	e4.5	96	---	14	---	e5.0	---	1.6	1.4	---
TOTAL	317.3	144.6	1111.3	211.0	957	758	569.0	309.4	354.7	122.78	40.40	21.60
MEAN	10.2	4.82	35.8	6.81	34.2	24.5	19.0	9.98	11.8	3.96	1.30	.72
MAX	60	12	450	96	87	71	70	14	32	52	11	4.4
MIN	4.0	3.0	3.3	2.4	15	11	8.0	5.0	2.6	.70	.40	.35
CFSM	.38	.18	1.32	.25	1.26	.90	.70	.37	.43	.15	.05	.03
IN.	.43	.20	1.52	.29	1.31	1.04	.78	.42	.49	.17	.06	.03

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1937 - 2001, BY WATER YEAR (WY)

	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	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
MEAN	6.69	14.6	28.9	41.5	48.9	57.2	52.9	32.0	22.9	14.6	7.36	6.23																																																					
MAX	56.4	92.1	138	206	106	174	134	79.5	102	161	73.9	96.1																																																					
(WY)	1978	1986	1991	1937	1951	1963	1979	1996	1957	1969	1980	1979																																																					
MIN	.10	.42	.60	1.49	2.69	15.2	7.87	5.59	1.28	.57	.28	.14																																																					
(WY)	1964	1954	1964	1977	1954	1969	1971	1986	1988	1944	1962	1963																																																					

SUMMARY STATISTICS FOR 2000 CALENDAR YEAR FOR 2001 WATER YEAR WATER YEARS 1937 - 2001

ANNUAL TOTAL	8916.3	4917.08	
ANNUAL MEAN	24.4	13.5	
HIGHEST ANNUAL MEAN			27.4
LOWEST ANNUAL MEAN			54.5
HIGHEST DAILY MEAN	450	Dec 17	7.66
LOWEST DAILY MEAN	1.7	Aug 16	2360
ANNUAL SEVEN-DAY MINIMUM	1.9	Aug 11	.00
MAXIMUM PEAK FLOW			.06
MAXIMUM PEAK STAGE			8720
INSTANTANEOUS LOW FLOW			15.38
ANNUAL RUNOFF (CFSM)	.90		.00
ANNUAL RUNOFF (INCHES)	12.19	6.72	1.01
10 PERCENT EXCEEDS	54	30	13.69
50 PERCENT EXCEEDS	10	5.9	10
90 PERCENT EXCEEDS	3.0	.70	1.0

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

**SURFACE-WATER RECORDS
Muskingum River Basin**

03141870 LEATHERWOOD CREEK NEAR KIPLING, OHIO

LOCATION.—Latitude 39°59'24", longitude 81°29'45", Guernsey County, Hydrologic Unit 05040005, on left bank at Deerfield Road bridge, 0.5 mi southeast of village of Kipling, Ohio, and 0.75 mi downstream from Hawkins Run.

DRAINAGE AREA.—69.5 mi².

PERIOD OF RECORD.—February 2000 to current year.

REVISED RECORDS.—WSP 853: 1929(M). WSP 893: 1928. WSP 973: 1942.

GAGE.—Water-stage recorder. Datum of gage is 790 ft above sea level (from topographic map).

REMARKS.—Records fair except for periods of estimated record, which are poor. Satellite telemeter at gage.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.6	5.7	17	e12	360	30	52	41	38	7.6	2.9	12
2	6.1	5.3	15	e11	147	31	81	38	112	54	3.7	8.7
3	4.9	5.4	11	e11	94	29	57	35	318	18	2.3	4.9
4	4.3	6.0	11	e11	79	41	47	31	116	13	12	3.6
5	6.5	7.5	9.0	e10	76	173	41	29	77	12	5.2	2.4
6	36	6.8	10	e10	67	109	348	26	144	11	2.2	2.0
7	21	6.0	7.9	e9.6	70	78	458	23	296	7.9	.99	1.5
8	9.8	7.5	7.9	e9.4	62	71	161	23	141	27	.47	.95
9	7.9	8.1	8.3	e9.2	67	73	111	27	82	22	.57	.46
10	7.5	20	8.7	e9.0	121	61	142	22	59	17	33	.32
11	5.9	26	8.4	e8.8	79	54	541	20	46	8.3	24	.20
12	5.1	14	45	e8.6	62	49	420	48	40	6.2	106	.18
13	4.3	11	41	e8.4	58	269	161	33	30	5.0	87	.19
14	3.8	10	148	e8.3	86	324	111	22	24	4.2	25	.22
15	2.8	8.9	93	e8.2	282	144	102	21	21	3.8	15	.17
16	2.7	8.3	220	e8.0	230	135	170	43	20	3.4	11	.13
17	3.2	7.8	995	e14	271	277	109	43	19	3.2	9.5	.15
18	4.5	7.5	423	e22	123	172	90	47	15	3.9	7.8	.16
19	6.5	7.1	122	e19	88	114	77	120	13	4.9	6.8	.16
20	5.5	6.7	79	e16	82	93	230	59	12	4.0	5.9	.21
21	4.6	6.7	e62	e15	69	177	501	47	11	3.8	5.2	.24
22	4.1	6.7	e42	e14	54	403	207	260	29	2.9	4.9	.78
23	3.6	6.0	e28	e13	52	178	130	316	22	2.0	4.7	1.1
24	4.9	5.7	e22	e12	50	131	101	111	21	1.9	5.2	1.4
25	20	6.3	e18	e11	48	105	85	152	15	5.4	5.2	1.1
26	12	12	e16	e10	42	86	73	92	11	11	4.6	e.97
27	9.2	16	e15	e10	36	72	65	70	9.9	11	5.5	e2.0
28	7.8	15	e14	e9.6	34	65	57	58	9.0	5.7	6.3	1.6
29	6.8	12	e13	e9.4	---	61	49	46	8.3	4.4	5.0	1.4
30	6.3	18	e13	e350	---	59	44	43	6.8	5.4	5.5	1.6
31	5.9	---	e12	1060	---	55	---	34	---	4.7	5.1	---
TOTAL	240.1	290.0	2535.2	1737.5	2889	3719	4821	1980	1766.0	294.6	418.53	50.79
MEAN	7.75	9.67	81.8	56.0	103	120	161	63.9	58.9	9.50	13.5	1.69
MAX	36	26	995	1060	360	403	541	316	318	54	106	12
MIN	2.7	5.3	7.9	8.0	34	29	41	20	6.8	1.9	.47	.13
CFSM	.11	.14	1.18	.81	1.48	1.73	2.31	.92	.85	.14	.19	.02
IN.	.13	.16	1.36	.93	1.55	1.99	2.58	1.06	.95	.16	.22	.03

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2001, BY WATER YEAR (WY)

	2000	2001	2001	2001	2000	2001	2000	2000	2001	2000	2001	2001
MEAN	7.75	9.67	81.8	56.0	140	118	177	65.1	51.6	9.91	12.7	5.34
MAX	7.75	9.67	81.8	56.0	175	120	194	66.3	58.9	10.3	13.5	8.98
(WY)	2001	2001	2001	2001	2000	2001	2000	2000	2001	2000	2001	2000
MIN	7.75	9.67	81.8	56.0	103	116	161	63.9	44.3	9.50	11.9	1.69
(WY)	2001	2001	2001	2001	2001	2000	2001	2001	2000	2001	2000	2001

SUMMARY STATISTICS

FOR 2001 WATER YEAR

WATER YEARS 2000 - 2001

ANNUAL TOTAL	20741.72	
ANNUAL MEAN	56.8	56.8
HIGHEST ANNUAL MEAN		56.8
LOWEST ANNUAL MEAN		56.8
HIGHEST DAILY MEAN	1060	1060
LOWEST DAILY MEAN	.13	.13
ANNUAL SEVEN-DAY MINIMUM	.17	.17
MAXIMUM PEAK FLOW	1180	1190
MAXIMUM PEAK STAGE	11.85	11.89
INSTANTANEOUS LOW FLOW	.11	.11
ANNUAL RUNOFF (CFSM)	.82	.82
ANNUAL RUNOFF (INCHES)	11.10	11.11
10 PERCENT EXCEEDS	143	161
50 PERCENT EXCEEDS	15	18
90 PERCENT EXCEEDS	2.9	3.6

e Estimated.

SURFACE-WATER RECORDS
Muskingum River Basin

03144000 WAKATOMIKA CREEK NEAR FRAZEYSBURG, OHIO

LOCATION.—Latitude 40°07'57", longitude 82°08'53", in NW 1/4 sec. 13, T.3 N., R.9 W., Muskingum County, Hydrologic Unit 05040004, on right bank 2.0 mi northwest of Frazeytsburg, Ohio, 2.0 mi downstream from Fivemile Run, and 2.5 mi upstream from Black Run.

DRAINAGE AREA.—140 mi².

PERIOD OF RECORD.—September 1936 to current year.

REVISED RECORDS.—WSP 1113: 1937(M), WSP 1555: 1952(M).

GAGE.—Water-stage recorder. Datum of gage is 748.12 ft above sea level. Prior to Oct. 31, 1936, nonrecording gage at same site and datum.

REMARKS.—Records fair except for periods of estimated record and discharge in the 300-600 ft³/s range which are poor. Water-quality and sediment data formerly collected at this site. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	25	39	e54	487	80	74	128	178	19	9.9	155
2	17	25	40	e50	298	79	74	119	178	54	8.8	30
3	16	25	37	e46	230	78	66	110	280	42	8.2	15
4	15	27	e33	e42	e150	77	61	101	215	28	8.0	11
5	73	27	e31	e38	e120	111	58	90	195	34	8.0	9.3
6	646	24	e29	e35	e110	90	495	83	195	28	7.6	8.0
7	226	24	e28	e33	e100	82	654	76	309	22	6.6	7.4
8	119	27	e27	e31	e110	77	337	75	232	19	6.1	6.9
9	80	29	e26	e29	e130	76	262	93	204	18	5.9	6.4
10	62	38	e25	e27	374	72	340	76	176	18	9.1	6.2
11	51	48	e25	e25	237	69	1010	65	142	18	9.3	6.2
12	43	47	e40	e23	187	66	862	74	117	16	14	6.1
13	39	41	124	e22	168	157	456	69	97	13	39	6.0
14	36	38	97	e21	191	315	316	58	81	12	18	6.7
15	33	36	110	e20	413	235	292	56	69	11	11	6.9
16	31	34	816	e50	335	220	368	104	60	10	8.4	6.5
17	33	31	5220	e45	318	239	272	222	56	10	7.8	6.2
18	48	30	812	e39	230	193	226	203	47	11	7.5	6.1
19	41	28	387	e35	196	168	196	289	42	12	9.3	7.7
20	35	27	e300	e30	183	155	510	210	39	12	11	9.2
21	30	26	e250	e27	160	151	1000	184	38	11	9.9	8.6
22	28	24	e200	e24	134	155	511	696	37	9.7	8.2	7.8
23	26	23	e170	e22	126	138	361	567	36	9.2	7.5	7.1
24	27	23	e145	e21	113	128	289	333	33	8.5	7.4	7.6
25	36	23	e130	e18	117	110	226	261	28	14	7.5	7.7
26	42	37	e110	e17	109	100	196	222	25	37	7.0	7.4
27	38	48	e96	e16	91	94	171	306	23	39	6.8	7.0
28	35	47	e84	e16	86	88	156	320	24	21	6.2	6.8
29	31	43	e74	e15	---	83	145	254	21	14	6.1	6.6
30	28	40	e66	e100	---	79	136	222	19	13	5.5	6.3
31	26	---	e60	1010	---	77	---	202	---	11	7.7	---
TOTAL	2010	965	9631	1981	5503	3842	10120	5868	3196	594.4	293.3	395.7
MEAN	64.8	32.2	311	63.9	197	124	337	189	107	19.2	9.46	13.2
MAX	646	48	5220	1010	487	315	1010	696	309	54	39	155
MIN	15	23	25	15	86	66	58	56	19	8.5	5.5	6.0
MED	35	28	84	29	164	94	280	128	64	14	8.0	7.1
CFSM	.46	.23	2.22	.46	1.40	.89	2.41	1.35	.76	.14	.07	.09
IN.	.53	.26	2.56	.53	1.46	1.02	2.69	1.56	.85	.16	.08	.11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1937 - 2001, BY WATER YEAR (WY)

	MEAN	83.3	156	218	254	305	299	194	124	78.9	56.5	36.5
MAX	155	396	786	1219	560	883	654	601	745	432	720	617
(WY)	1987	1986	1991	1937	1990	1963	1940	1968	1998	1990	1980	1979
MIN	4.78	7.39	10.1	14.3	15.0	73.8	47.9	21.7	12.6	9.48	5.05	3.45
(WY)	1964	1954	1964	1964	1964	1983	1941	1941	1988	1944	1962	1953

SUMMARY STATISTICS FOR 2000 CALENDAR YEAR FOR 2001 WATER YEAR WATER YEARS 1937 - 2001

ANNUAL TOTAL	46965.6	44399.4	
ANNUAL MEAN	128	122	153
HIGHEST ANNUAL MEAN			270
LOWEST ANNUAL MEAN			51.9
HIGHEST DAILY MEAN	5220	5220	9200
LOWEST DAILY MEAN	6.5	5.5	2.6
ANNUAL SEVEN-DAY MINIMUM	8.7	6.4	2.7
MAXIMUM PEAK FLOW		7340	16800
MAXIMUM PEAK STAGE		10.20	14.07
INSTANTANEOUS LOW FLOW		5.4	2.0
ANNUAL RUNOFF (CFSM)	.92	.87	1.09
ANNUAL RUNOFF (INCHES)	12.48	11.80	14.84
10 PERCENT EXCEEDS	225	284	342
50 PERCENT EXCEEDS	42	42	63
90 PERCENT EXCEEDS	13	7.8	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
Muskingum River Basin

03145000 SOUTH FORK LICKING RIVER NEAR HEBRON, OHIO

LOCATION.—Latitude 39°59'19", longitude 82°28'30", in NW 1/4 sec. 3, T.1 N., R.12 W., Licking County, Hydrologic Unit 05040006, on right bank at upstream side of bridge on county road, 800 ft downstream from Beaver Run, 2.3 mi north of Hebron, Ohio, and 2.5 mi upstream from Ramp Creek.

DRAINAGE AREA.—133 mi².

PERIOD OF RECORD.—October 1939 to September 1948, July 1968 to current year.

REVISED RECORDS.—WSP 923: 1940. WSP 1033: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is 856.08 ft above sea level. Prior to Sept. 13, 1974, nonrecording gage at same site and datum.

REMARKS.—Records fair except for periods of estimated record, which are poor. Occasional regulation by Buckeye Lake, capacity, 27,300 acre-ft, on unnamed tributary 5.6 mi upstream from station. Occasional diversion from Buckeye Lake into Jonathan Creek, which bypasses station. Water-quality data formerly collected at this site. U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood of Jan. 21, 1959, reached a stage of 12.4 ft present datum, from flood marks; discharge 5,880 ft³/s, by slope-area measurement.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	17	207	e120	569	51	39	41	90	30	19	96
2	16	17	204	e115	314	50	42	40	146	22	16	23
3	12	19	196	e110	222	47	40	33	174	16	14	8.5
4	11	18	187	e105	196	58	35	31	118	30	22	6.0
5	34	19	183	e100	190	122	32	29	87	27	15	5.0
6	640	18	175	e94	188	87	49	27	148	17	11	4.4
7	243	20	171	e88	180	71	107	26	294	13	10	4.5
8	140	20	125	e82	224	63	73	45	159	13	10	4.7
9	110	24	e36	e78	301	60	59	53	119	12	8.8	4.5
10	95	75	e33	e74	559	54	591	37	90	11	9.9	5.9
11	87	113	e33	e70	269	51	1300	46	79	9.8	8.6	4.9
12	73	59	e130	e67	194	48	1070	126	77	9.6	9.7	4.7
13	22	46	116	e64	167	115	285	102	74	9.1	10	5.8
14	18	39	117	e61	209	210	155	78	59	9.0	8.1	5.8
15	18	55	118	e58	734	126	128	111	34	9.7	8.1	4.5
16	17	98	697	160	395	113	181	192	30	11	8.0	4.3
17	24	93	2200	118	378	160	124	366	26	12	9.2	4.6
18	65	90	1980	99	227	121	97	423	22	19	8.0	8.5
19	43	87	843	e84	190	91	80	1760	21	14	22	10
20	31	86	395	e77	156	76	290	1090	21	61	15	7.9
21	26	84	e260	e71	90	79	773	469	19	29	13	5.7
22	22	83	e220	e66	76	77	314	956	19	16	12	5.2
23	20	82	e200	e61	70	68	226	814	17	12	10	4.6
24	22	79	e190	e57	66	68	184	406	17	10	11	6.5
25	26	86	e180	e54	70	54	155	261	16	25	11	7.6
26	25	115	e170	e52	67	48	70	240	16	345	12	7.4
27	23	197	e160	e50	57	44	63	332	19	84	14	6.0
28	22	254	e150	e48	53	41	53	310	15	35	12	5.6
29	20	221	e140	e46	---	41	46	181	13	36	11	5.2
30	19	213	e130	625	---	40	43	127	12	46	11	6.1
31	18	---	e125	1440	---	38	---	94	---	29	25	---
TOTAL	1958	2427	10071	4394	6411	2372	6704	8846	2031	1022.2	384.4	283.4
MEAN	63.2	80.9	325	142	229	76.5	223	285	67.7	33.0	12.4	9.45
MAX	640	254	2200	1440	734	210	1300	1760	294	345	25	96
MIN	11	17	33	46	53	38	32	26	12	9.0	8.0	4.3

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2001, BY WATER YEAR (WY)

	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	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
MEAN	41.2	176	205	194	252	251	240	174	135	96.9	67.8	45.7																																																		
MAX	177	858	666	460	536	860	616	768	554	572	503	607																																																		
(WY)	1976	1986	1991	1991	1990	1945	1970	1996	1997	1992	1979	1979																																																		
MIN	4.70	3.50	7.77	12.7	32.7	27.2	25.6	4.07	8.43	4.92	3.48	4.70																																																		
(WY)	2000	1945	1944	1944	1944	1941	1941	1941	1988	1944	1942	1991																																																		

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1940 - 2001	
ANNUAL TOTAL	45111.6		46904.0			
ANNUAL MEAN	123		129		156	
HIGHEST ANNUAL MEAN					273	
LOWEST ANNUAL MEAN					56.9	
HIGHEST DAILY MEAN	2200		2200		4560	
LOWEST DAILY MEAN	6.4		4.3		.00	
ANNUAL SEVEN-DAY MINIMUM	7.1		4.8		.87	
MAXIMUM PEAK FLOW			2450		5200	
MAXIMUM PEAK STAGE			10.59		12.27	
INSTANTANEOUS LOW FLOW			4.3		.00	
10 PERCENT EXCEEDS	256		260		413	
50 PERCENT EXCEEDS	40		57		47	
90 PERCENT EXCEEDS	8.7		9.4		7.8	

e Estimated.

SURFACE-WATER RECORDS
Muskingum River Basin

03146500 LICKING RIVER NEAR NEWARK, OHIO

LOCATION.—Latitude 40°03'33", longitude 82°20'23", in T.2 N., R.11 W., Licking County, Hydrologic Unit 05040006, on right bank at downstream side of Stadden Bridge, 1.0 mi downstream from Shawnee Run, 1.5 mi upstream from Equality Run, and 3.5 mi east of Newark, Ohio.

DRAINAGE AREA.—537 mi².

PERIOD OF RECORD.—October 1939 to current year.

REVISED RECORDS.—WSP 973: 1940(M). WSP 1907: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is 779.02 ft above sea level. Prior to May 9, 1940, nonrecording gage at same site and datum.

REMARKS.—Records good except for periods of estimated record, which are poor. Occasional regulation by Buckeye Lake, capacity, 27,300 acre-ft, on South Fork 15.2 mi upstream. Water-quality data formerly collected at this site. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e155	106	445	e340	2060	283	198	283	613	134	114	235
2	e135	104	425	e320	1240	274	213	273	839	165	104	138
3	e109	111	393	e295	833	266	214	247	1490	150	116	99
4	109	105	355	e275	719	290	190	229	853	177	122	86
5	395	123	346	e255	672	401	176	214	647	155	108	80
6	2920	113	317	e240	662	328	352	199	1210	132	95	75
7	964	114	312	e230	613	286	1050	187	2170	122	91	72
8	553	106	283	e220	767	265	549	276	1110	118	86	71
9	406	113	e140	e210	1230	257	388	260	758	111	95	69
10	327	175	e120	e200	2700	242	1250	217	574	108	87	76
11	282	385	e120	e190	1300	230	4310	e260	477	103	82	67
12	249	262	582	e185	842	230	3030	e500	440	99	135	67
13	173	205	521	e180	692	419	1320	e420	402	96	123	67
14	148	179	469	e175	903	800	857	e350	344	91	84	73
15	137	163	430	e170	2620	571	754	e540	277	88	79	65
16	129	212	5230	e355	1590	527	1020	e900	249	87	79	64
17	176	202	15000	e335	1430	641	755	1370	227	93	84	64
18	188	190	4970	e300	880	523	609	2270	206	107	75	69
19	171	184	2300	e260	706	422	519	5040	191	93	119	76
20	146	179	1380	e220	632	370	1590	2120	180	140	90	74
21	133	176	1150	e200	508	364	2960	1400	173	126	82	68
22	124	170	e900	e190	434	354	1450	3030	171	101	79	65
23	117	165	e760	e180	395	310	1020	2040	175	91	78	64
24	135	163	e700	e175	365	297	814	1290	166	96	77	67
25	133	192	e620	e170	373	259	664	1190	152	282	75	67
26	130	256	e560	e165	353	237	501	1080	144	1040	75	66
27	125	464	e500	e155	316	220	436	1520	145	346	77	67
28	119	544	e460	e150	297	210	378	1360	137	176	74	65
29	114	457	e420	e140	---	205	327	900	128	180	73	63
30	110	428	e390	2320	---	205	301	698	123	163	71	61
31	109	---	e360	4950	---	197	---	561	---	132	183	---
TOTAL	9221	6346	40958	13750	26132	10483	28195	31224	14771	5102	2912	2340
MEAN	297	212	1321	444	933	338	940	1007	492	165	93.9	78.0
MAX	2920	544	15000	4950	2700	800	4310	5040	2170	1040	183	235
MIN	109	104	120	140	297	197	176	187	123	87	71	61

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2001, BY WATER YEAR (WY)

MEAN	167	419	682	850	1029	1149	1049	711	552	371	255	169
MAX	914	2402	2867	2926	2577	3454	2404	2610	2151	2115	2017	2207
(WY)	1987	1986	1991	1950	1990	1963	1940	1996	1989	1990	1979	1979
MIN	39.5	41.1	43.1	65.0	59.5	207	166	91.5	76.3	58.5	58.3	36.7
(WY)	1954	1954	1954	1977	1964	1941	1941	1941	1988	1954	1963	1954

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1940 - 2001	
ANNUAL TOTAL	202721		191434			
ANNUAL MEAN	554		524		615	
HIGHEST ANNUAL MEAN					1138	
LOWEST ANNUAL MEAN					156	
HIGHEST DAILY MEAN	15000		15000		25600	
LOWEST DAILY MEAN	62		61		28	
ANNUAL SEVEN-DAY MINIMUM	67		65		31	
MAXIMUM PEAK FLOW			17700		45000	
MAXIMUM PEAK STAGE			14.24		20.30	
INSTANTANEOUS LOW FLOW			59		28	
10 PERCENT EXCEEDS	964		1200		1430	
50 PERCENT EXCEEDS	219		227		255	
90 PERCENT EXCEEDS	78		79		68	

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

SURFACE-WATER RECORDS
Hocking River Basin

03157000 CLEAR CREEK NEAR ROCKBRIDGE, OHIO

LOCATION.—Latitude 39°35'18", longitude 82°34'43", in NE 1/4 sec. 20, T.13 N., R.18 W., Hocking County, Hydrologic Unit 05030204, on left bank at upstream side of county road bridge, 400 ft downstream from unnamed right bank tributary, 2.0 mi upstream from mouth, and 3 mi west of Rockbridge, Ohio.

DRAINAGE AREA.—89.0 mi².

PERIOD OF RECORD.—October 1939 to current year.

REVISED RECORDS.—WSP 1305: 1940(M), 1943(M), 1945(M). WSP 1907: Drainage area.

GAGE.—Water-stage recorder and crest gage. Datum of gage is 760.13 ft above sea level. Prior to May 2, 1940, nonrecording gage at same site and datum.

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 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	31	e26	e32	197	42	52	62	98	24	35	21
2	15	26	e28	e31	127	43	49	59	100	25	27	18
3	22	22	e27	e30	91	41	46	55	135	22	23	17
4	37	21	e23	e28	79	56	43	53	92	28	25	17
5	36	20	e27	e27	73	164	41	50	84	30	21	17
6	51	19	e23	e26	66	91	43	47	160	22	19	17
7	43	21	e25	e25	61	72	44	44	335	21	18	18
8	36	22	e23	e24	60	63	42	50	156	22	18	16
9	34	26	e21	e23	65	59	43	47	111	21	17	16
10	31	45	e21	e23	92	54	1170	42	89	20	24	16
11	26	49	e26	e22	67	52	2720	40	76	19	30	16
12	23	40	e32	e22	61	49	816	41	78	17	19	16
13	19	35	e41	e21	58	92	350	37	66	17	17	15
14	18	32	e48	e21	58	103	212	34	58	17	17	17
15	16	26	e50	e21	82	77	176	43	54	16	16	16
16	15	23	542	e20	106	81	149	123	51	16	15	16
17	51	22	1500	e20	140	161	124	1370	45	21	16	15
18	78	21	315	e20	79	111	105	746	41	25	16	16
19	51	20	174	e20	70	86	93	835	39	20	39	18
20	51	21	114	e20	64	76	189	292	40	18	24	25
21	41	19	e72	e25	58	106	241	187	47	17	18	18
22	28	21	e62	e23	52	124	163	395	56	16	17	17
23	26	22	e58	e21	51	94	131	272	42	16	18	17
24	26	24	e54	e20	48	85	109	179	36	16	20	18
25	30	28	e50	e19	51	74	92	144	33	25	18	18
26	26	31	e48	e19	47	65	81	117	30	50	25	18
27	26	31	e44	e18	44	60	76	110	28	25	44	17
28	26	e26	e42	e17	43	56	69	106	27	19	23	16
29	23	e25	e41	e16	---	56	63	88	26	264	20	16
30	23	e25	e38	334	---	54	63	80	25	103	18	16
31	23	---	e36	541	---	51	---	68	---	52	19	---
TOTAL	968	794	3631	1529	2090	2398	7595	5816	2258	1024	676	514
MEAN	31.2	26.5	117	49.3	74.6	77.4	253	188	75.3	33.0	21.8	17.1
MAX	78	49	1500	541	197	164	2720	1370	335	264	44	25
MIN	15	19	21	16	43	41	41	34	25	16	15	15
CFSM	.35	.30	1.32	.55	.84	.87	2.84	2.11	.85	.37	.25	.19
IN.	.40	.33	1.52	.64	.87	1.00	3.17	2.43	.94	.43	.28	.21

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2001, BY WATER YEAR (WY)

	MEAN	MAX	(WY)	MIN	(WY)
2000	28.8	126	1976	11.5	1964
2001	52.1	327	1986	13.1	1965
1940	87.1	351	1991	12.8	1964
1941	117	324	1949	20.5	1977
1942	145	321	1979	18.8	1954
1943	170	585	1945	39.1	1941
1944	157	365	1940	41.3	1941
1945	123	554	1968	31.1	1988
1946	73.5	287	1941	14.9	1988
1947	53.1	280	1948	13.3	1999
1948	43.4	292	1979	11.5	1999
1949	29.0	213	1979	9.37	1999

SUMMARY STATISTICS FOR 2000 CALENDAR YEAR FOR 2001 WATER YEAR WATER YEARS 1940 - 2001

ANNUAL TOTAL	29044	29293	
ANNUAL MEAN	79.4	80.3	89.6
HIGHEST ANNUAL MEAN			164
LOWEST ANNUAL MEAN			28.8
HIGHEST DAILY MEAN	1500	2720	4690
LOWEST DAILY MEAN	15	15	3.5
ANNUAL SEVEN-DAY MINIMUM	17	16	6.3
MAXIMUM PEAK FLOW		4720	16000
MAXIMUM PEAK STAGE		12.18	17.68
INSTANTANEOUS LOW FLOW		12	3.0
ANNUAL RUNOFF (CFSM)	.89	.90	1.01
ANNUAL RUNOFF (INCHES)	12.14	12.24	13.67
10 PERCENT EXCEEDS	144	125	182
50 PERCENT EXCEEDS	34	36	44
90 PERCENT EXCEEDS	20	17	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
Hocking River Basin

03157500 HOCKING RIVER AT ENTERPRISE, OHIO

LOCATION.—Latitude 39°33'54", longitude 82°28'29", in NW 1/4 sec. 5, T.14 N., R.17 W., Hocking County, Hydrologic Unit 05030204, on right bank at upstream side of bridge at Enterprise, Ohio, 4.0 mi downstream from Buck Run, and 4.3 mi upstream from Scott Creek.

DRAINAGE AREA.—459 mi².

PERIOD OF RECORD.—October 1930 to current year. Prior to May 1931 monthly discharge only, published in WSP 1305.

REVISED RECORDS.—WSP 873: 1938. WRD-OH-70-1: 1969. WSP 1907: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is 723.58 ft above sea level. Prior to Oct. 24, 1933, nonrecording gage at same site and datum.

REMARKS.—Records good except for periods of estimated record, which are poor. Flood flow affected by temporary retention in eight retarding basins, combined capacity, 8,710 acre-ft, constructed between 1955 and 1961 upstream from station. Water-quality data formerly collected at this site. U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood in March 1907 reached a stage of 22.0 ft from flood mark; discharge, 36,000 ft³/s from reports of U.S. Army Corps of Engineers.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	98	80	93	e130	1510	240	297	299	447	125	148	99
2	89	80	98	e120	897	236	292	282	523	136	120	88
3	84	77	94	e120	594	227	271	262	706	129	105	80
4	100	76	82	e110	487	271	252	246	570	129	121	74
5	111	74	96	e100	425	893	233	228	505	147	98	70
6	176	72	77	e98	385	635	230	210	520	118	88	66
7	160	79	86	e96	367	493	241	194	1290	102	82	66
8	126	94	86	e92	351	423	226	211	781	99	78	63
9	109	114	76	e90	366	382	214	226	589	97	75	61
10	100	151	74	e86	606	342	2550	196	484	97	95	62
11	92	170	86	e84	506	318	6440	179	419	113	316	61
12	87	140	161	e82	408	297	6490	226	425	93	120	58
13	79	125	181	e80	367	529	2380	221	411	85	103	58
14	74	124	267	e78	350	853	1410	173	340	78	89	69
15	72	114	308	e76	810	634	1080	184	294	75	78	62
16	70	108	598	e76	953	584	899	372	273	73	73	58
17	163	104	5790	e74	1120	949	695	1850	248	92	76	57
18	380	88	2930	e72	693	768	581	1720	213	155	69	57
19	251	79	1230	e72	534	591	501	3650	200	119	136	64
20	204	76	754	e74	466	505	838	1750	208	99	103	101
21	163	73	561	e110	406	609	1840	1070	213	90	83	76
22	123	64	e350	e98	357	875	1290	1610	317	83	74	67
23	104	70	e280	e86	333	672	926	1920	249	79	78	61
24	98	66	e250	e74	309	584	724	1170	216	81	80	62
25	101	76	e220	e72	306	528	588	874	188	368	75	65
26	105	110	e200	e72	289	449	504	703	166	502	97	61
27	99	114	e180	e70	263	400	445	639	155	205	165	60
28	92	107	e170	e68	252	364	394	598	159	127	109	58
29	85	98	e160	e68	---	348	345	521	141	638	178	57
30	81	96	e150	e800	---	330	316	505	129	376	105	55
31	79	---	e140	2730	---	310	---	424	---	210	92	---
TOTAL	3755	2899	15828	6058	14710	15639	33492	22713	11379	4920	3309	1996
MEAN	121	96.6	511	195	525	504	1116	733	379	159	107	66.5
MAX	380	170	5790	2730	1510	949	6490	3650	1290	638	316	101
MIN	70	64	74	68	252	227	214	173	129	73	69	55
CFSM	.26	.21	1.11	.43	1.14	1.10	2.43	1.60	.83	.35	.23	.14
IN.	.30	.23	1.28	.49	1.19	1.27	2.71	1.84	.92	.40	.27	.16

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 2001, BY WATER YEAR (WY)

	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	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
MEAN	124	245	420	642	783	940	857	616	368	272	223	151																																																										
MAX	670	1864	1844	3605	1899	2875	2228	2499	1446	1437	1686	1087																																																										
(WY)	1976	1986	1991	1937	1979	1945	1940	1968	1981	1958	1980	1979																																																										
MIN	33.4	41.1	40.5	100	58.0	181	184	95.3	68.1	60.4	39.9	30.4																																																										
(WY)	1954	1954	1964	1977	1954	1941	1941	1934	1936	1999	1932	1953																																																										

SUMMARY STATISTICS

	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1932 - 2001	
ANNUAL TOTAL	151174		136698			
ANNUAL MEAN	413		375		468	
HIGHEST ANNUAL MEAN					860	
LOWEST ANNUAL MEAN					110	
HIGHEST DAILY MEAN	7090	Feb 19	6490	Apr 12	21600	Apr 20 1940
LOWEST DAILY MEAN	49	Sep 18	55	Sep 30	23	Aug 12 1944
ANNUAL SEVEN-DAY MINIMUM	54	Sep 14	60	Sep 24	27	Aug 7 1944
MAXIMUM PEAK FLOW			9140		26000	
MAXIMUM PEAK STAGE			15.24		21.31	
INSTANTANEOUS LOW FLOW			55		23	
ANNUAL RUNOFF (CFSM)	.90		.82		1.02	
ANNUAL RUNOFF (INCHES)	12.25		11.08		13.87	
10 PERCENT EXCEEDS	822		773		1060	
50 PERCENT EXCEEDS	158		160		210	
90 PERCENT EXCEEDS	70		72		58	

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

SURFACE-WATER RECORDS
Hocking River Basin

03158195 SNOW FORK MONDAY CREEK AT BUCHTEL, OHIO

LOCATION.—Latitude 39°27'51", longitude 82°10'16", Athens County, Hydrologic Unit 05030204, on left bank at the upstream abutment of bridge on State Route 685, at the Corporation limits of the Village of Buchtel, Ohio, and 0.3 mi east of State Route 78.

DRAINAGE AREA.—24.4 mi².

PERIOD OF RECORD.—April 1981 to September 1981. May 1997 to current year.

GAGE.—Water-stage recorder and crest gage. Elevation of gage is 670 ft (from topographic map).

REMARKS.—Record fair except for period of estimated record which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	3.1	3.8	e6.8	48	11	17	19	21	8.7	6.2	4.6
2	3.2	3.2	4.4	e6.6	26	11	17	19	35	8.6	5.7	3.8
3	3.2	3.2	4.0	e6.2	22	10	16	18	42	8.3	5.7	3.5
4	3.1	3.1	3.9	e6.0	16	16	15	17	25	8.5	5.4	3.5
5	3.4	3.1	3.9	e5.8	16	63	15	16	22	8.3	5.1	3.3
6	5.3	3.0	3.7	e5.6	14	31	15	15	78	7.8	4.9	3.1
7	3.4	3.5	3.6	e5.4	14	23	14	14	110	7.4	4.8	3.1
8	3.1	3.5	3.6	e5.2	13	19	14	15	44	7.6	4.7	3.0
9	3.3	4.8	3.4	e5.0	14	17	14	14	28	7.5	4.6	2.8
10	3.3	6.9	3.3	e4.8	28	16	62	14	22	6.9	5.2	2.9
11	3.1	4.9	3.6	e4.7	19	15	573	13	20	6.7	6.2	2.7
12	3.1	4.8	5.5	e4.5	16	15	141	14	21	6.6	5.1	2.6
13	3.1	4.0	4.8	e4.4	15	108	70	12	24	6.4	4.9	2.6
14	3.0	3.9	13	e4.3	15	73	49	12	17	6.2	4.4	3.0
15	3.0	3.6	9.7	e4.3	16	43	45	14	15	6.2	4.2	2.6
16	3.0	3.4	62	e4.2	23	36	43	15	15	6.1	4.1	2.4
17	5.3	3.4	300	e4.1	41	63	35	41	14	7.3	4.1	2.3
18	5.5	3.9	39	e4.1	23	42	31	121	13	6.8	4.1	2.4
19	3.9	3.1	23	e5.4	19	31	28	198	12	6.3	4.8	2.5
20	3.5	4.0	e16	e7.4	18	26	75	60	12	5.8	4.3	2.7
21	3.8	3.4	e12	e7.0	16	62	88	65	13	5.5	4.1	2.5
22	3.8	3.1	e10	e6.4	14	73	55	231	16	5.6	4.0	2.4
23	3.2	3.0	e9.4	e6.2	14	46	42	110	13	5.2	4.4	2.4
24	4.6	3.3	e9.0	e6.0	13	35	34	64	11	5.1	4.4	2.5
25	5.3	4.9	e8.6	e5.8	13	28	29	47	11	5.3	4.0	2.5
26	3.9	5.3	e8.2	e5.6	12	24	25	33	10	12	4.8	2.4
27	3.7	4.4	e8.0	e5.6	12	22	23	37	9.6	6.5	5.3	2.5
28	3.5	3.8	e7.6	e5.4	11	20	21	36	9.2	5.7	4.4	2.3
29	3.4	3.7	e7.4	e5.4	---	19	20	27	8.9	24	4.4	2.3
30	3.3	4.0	e7.0	107	---	19	19	23	8.7	9.3	4.1	2.3
31	3.3	---	e7.0	128	---	18	---	20	---	6.9	4.5	---
TOTAL	112.9	115.3	608.4	393.2	521	1035	1645	1354	700.4	235.1	146.9	83.5
MEAN	3.64	3.84	19.6	12.7	18.6	33.4	54.8	43.7	23.3	7.58	4.74	2.78
MAX	5.5	6.9	300	128	48	108	573	231	110	24	6.2	4.6
MIN	3.0	3.0	3.3	4.1	11	10	14	12	8.7	5.1	4.0	2.3
MED	3.3	3.5	7.4	5.6	16	24	28	19	16	6.8	4.6	2.6
AC-FT	224	229	1210	780	1030	2050	3260	2690	1390	466	291	166
CFSM	.15	.16	.80	.52	.76	1.37	2.25	1.79	.96	.31	.19	.11
IN.	.17	.18	.93	.60	.79	1.58	2.51	2.06	1.07	.36	.22	.13

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 2001, BY WATER YEAR (WY)

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	
MEAN	4.36	6.58	13.1	35.9	48.1	48.1	58.5	43.6	32.9	9.90	12.7	4.92										
MAX	5.16	10.1	19.6	64.5	91.2	68.4	82.2	71.4	87.6	14.1	48.4	10.2										
(WY)	1999	2000	2001	1999	2000	2000	1998	1981	1981	1998	1997	1997										
MIN	3.64	3.84	6.07	12.7	18.6	33.4	37.7	17.4	6.92	4.31	4.60	2.78										
(WY)	2001	2001	1999	2001	2001	2001	1999	1999	1999	1999	2000	2001										

SUMMARY STATISTICS

FOR 2000 CALENDAR YEAR

FOR 2001 WATER YEAR

WATER YEARS 1981 - 2001

ANNUAL TOTAL	9240.8	6950.7	
ANNUAL MEAN	25.2	19.0	23.8
HIGHEST ANNUAL MEAN			29.9
LOWEST ANNUAL MEAN			19.0
HIGHEST DAILY MEAN	540	Feb 14	573
LOWEST DAILY MEAN	2.7	Sep 19	2.3
ANNUAL SEVEN-DAY MINIMUM	2.9	Sep 14	2.4
MAXIMUM PEAK FLOW			1030
MAXIMUM PEAK STAGE			10.42
INSTANTANEOUS LOW FLOW			2.3
ANNUAL RUNOFF (AC-FT)	18330	13790	17240
ANNUAL RUNOFF (CFSM)	1.03	.78	.98
ANNUAL RUNOFF (INCHES)	14.09	10.60	13.25
10 PERCENT EXCEEDS	51	42	55
50 PERCENT EXCEEDS	7.6	7.0	9.4
90 PERCENT EXCEEDS	3.3	3.1	3.5

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

SURFACE-WATER RECORDS
Hocking River Basin

03158200 MONDAY CREEK AT DOANVILLE, OHIO

LOCATION.—Latitude 39°26'07", longitude 82°11'30". Athens County, Hydrologic Unit 05030204, on right bank 75 ft upstream from Lang Street Bridge in Doanville, Ohio, 1.75 mi above mouth, and 2.5 mi south of Nelsonville, Ohio.
DRAINAGE AREA.—114 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—May 1997 to current year. Low-flow site 1961-71.

REVISED RECORDS.—WDR OH-00-1: 1999(P).

GAGE.—Water stage recorder. Elevation of gage is 650 ft above sea level (from topographic map).

REMARKS.—Records fair except for period of estimated record which are poor. Four parameter monitor at site. Satellite transmitter at site.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	13	15	e29	462	53	82	84	95	29	26	14
2	13	12	16	e28	210	52	79	96	121	28	21	13
3	12	12	15	e28	125	52	73	82	322	27	19	12
4	11	11	17	e27	115	59	67	74	179	27	18	11
5	10	11	14	e27	100	347	64	69	142	28	16	9.6
6	24	11	18	e27	94	230	65	65	168	26	15	8.6
7	19	12	13	e26	89	151	69	61	533	23	14	8.2
8	16	12	12	e25	82	120	64	63	266	25	13	7.7
9	13	15	14	e25	85	104	62	70	158	21	13	7.2
10	12	31	17	e24	189	90	321	61	117	19	13	6.8
11	11	40	12	e24	153	81	e1300	56	98	25	216	6.6
12	11	25	13	e23	110	76	e800	55	101	20	42	6.4
13	11	20	19	e23	96	332	e450	52	135	17	27	5.9
14	11	18	67	e23	89	423	e270	49	91	15	20	6.2
15	10	16	162	e22	99	247	222	51	74	14	16	6.0
16	9.6	15	171	e22	130	191	225	68	65	14	14	5.6
17	12	14	e900	e22	291	363	174	173	58	16	13	5.6
18	37	14	e350	e21	173	300	154	299	52	23	12	5.6
19	33	13	e170	e21	123	191	133	952	48	24	13	5.8
20	21	12	143	e25	111	150	190	423	47	20	14	5.9
21	17	12	e90	e45	96	227	554	207	49	17	16	5.3
22	15	12	e74	e35	81	453	331	723	83	15	12	5.7
23	14	15	e58	e23	76	290	232	841	65	14	12	5.8
24	15	15	e48	e21	71	202	181	360	50	13	12	6.2
25	18	12	e42	e20	67	163	147	246	45	13	13	6.1
26	24	14	e37	e20	63	133	126	181	40	28	13	5.4
27	20	21	e33	e19	59	113	114	170	37	40	15	5.4
28	17	19	e32	e19	56	103	103	172	35	22	15	5.0
29	15	16	e31	e19	---	97	93	137	33	77	14	4.9
30	14	16	e30	330	---	92	87	114	31	100	13	4.9
31	13	---	e29	828	---	86	---	97	---	33	15	---
TOTAL	494.6	479	2662	1871	3495	5571	6832	6151	3338	813	705	212.4
MEAN	16.0	16.0	85.9	60.4	125	180	228	198	111	26.2	22.7	7.08
MAX	37	40	900	828	462	453	1300	952	533	100	216	14
MIN	9.6	11	12	19	56	52	62	49	31	13	12	4.9
MED	14	14	31	24	98	150	140	96	78	23	14	6.1
CFSM	.14	.14	.75	.53	1.09	1.58	2.00	1.74	.98	.23	.20	.06
IN.	.16	.16	.87	.61	1.14	1.82	2.23	2.01	1.09	.27	.23	.07

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2001, BY WATER YEAR (WY)

	1997	1998	1999	2000	2001	1997	1998	1999	2000	2001		
MEAN	14.2	25.8	58.0	195	188	187	252	151	89.6	28.1	83.7	15.9
MAX	16.3	42.2	85.9	342	224	198	335	279	126	47.3	347	37.6
(WY)	1998	1998	2001	1998	2000	1999	2000	1998	1997	1997	1997	1997
MIN	8.15	14.1	29.4	60.4	125	178	145	52.3	15.8	9.03	13.0	5.43
(WY)	2000	1999	1999	2001	2001	2000	1999	1999	1999	1999	1998	1998

SUMMARY STATISTICS

	FOR 2000 CALENDAR YEAR	FOR 2001 WATER YEAR	WATER YEARS 1997 - 2001
ANNUAL TOTAL	34214.0	32624.0	
ANNUAL MEAN	93.5	89.4	99.6
HIGHEST ANNUAL MEAN			136 1998
LOWEST ANNUAL MEAN			81.8 1999
HIGHEST DAILY MEAN	1400	Apr 5	1300 Apr 11 4200 Aug 18 1997
LOWEST DAILY MEAN	7.7	Sep 20	3.4 Aug 23 1999
ANNUAL SEVEN-DAY MINIMUM	9.3	Sep 14	5.4 Sep 24 3.7 Aug 17 1999
MAXIMUM PEAK FLOW			2000 Apr 12ae 5300 Aug 18 1997
MAXIMUM PEAK STAGE			16.09 Apr 12c 19.60 Aug 18 1997
INSTANTANEOUS LOW FLOW			4.9 Sep 29 3.3 Aug 22 1999
ANNUAL RUNOFF (CFSM)	.82	.78	.87
ANNUAL RUNOFF (INCHES)	11.16	10.65	11.87
10 PERCENT EXCEEDS	247	218	234
50 PERCENT EXCEEDS	27	29	35
90 PERCENT EXCEEDS	12	11	8.5

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

c Backwater from Hocking River.

e Estimated.

**SURFACE-WATER RECORDS
Hocking River Basin**

03158200 MONDAY CREEK AT DOANVILLE, OHIO—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—June 1997 to current year.

PERIOD OF DAILY RECORD.—

SPECIFIC CONDUCTANCE: June 1997 to current year.

pH: June 1997 to current year.

WATER TEMPERATURES: June 1997 to current year.

DISSOLVED OXYGEN: June 1997 to current year.

INSTRUMENTATION.—Water-quality monitor. Electronic data logger. Set for 1-hour interval.

REMARKS.—Interruptions in the water-quality record were due to malfunction of the instrument. Records good except specific conductance, Mar. 22-May 25 and dissolved oxygen, Nov. 8-Dec. 27, which is fair

EXTREMES FOR PERIOD OF DAILY RECORD.—

SPECIFIC CONDUCTANCE: Maximum, 1,110 microsiemens, Sept. 20, 1998; minimum, 172 microsiemens, June 8, 1998.

pH: Maximum, 7.5 units Mar. 23, 2001; minimum, 3.0 units May 30, 1998.

WATER TEMPERATURES: Maximum, 28.0°C, July 5, 6, 23, 24, and 31, 1999; minimum, 0.0°C, on several days during winter.

DISSOLVED OXYGEN: Maximum, 15.3 mg/L, Dec. 25, 1999; minimum, 4.7 mg/L, June 18, 2000.

EXTREMES FOR CURRENT YEAR.—

SPECIFIC CONDUCTANCE: Maximum, 918 microsiemens, Sept. 30 and 31; minimum, 224 microsiemens, Apr. 11.

pH: Maximum, 7.5 units, Mar. 23; minimum, 4.2 units, July 15 and 16.

WATER TEMPERATURES: Maximum, 25.5°C, July 25 and Aug. 8-10; minimum, 0.5°C, on several days.

DISSOLVED OXYGEN: Maximum, 13.8 mg/L, Mar. 28; minimum, 5.0 mg/L, Aug. 11.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	702	679	690	808	805	807	814	808	812	---	---	---
2	712	701	707	811	808	809	815	802	808	---	---	---
3	724	712	717	811	803	808	802	794	797	---	---	---
4	733	724	729	803	800	802	804	793	797	---	---	---
5	744	733	738	803	800	801	807	796	801	---	---	---
6	744	691	716	804	800	803	818	799	811	---	---	---
7	718	710	717	803	794	798	827	797	819	---	---	---
8	726	715	720	803	795	799	818	813	816	---	---	---
9	751	726	737	801	779	795	826	809	819	---	---	---
10	776	751	767	779	754	772	829	812	824	---	---	---
11	785	776	782	781	765	774	828	809	821	---	---	---
12	803	785	793	783	774	777	812	801	808	---	---	---
13	803	801	802	796	783	792	820	796	812	---	---	---
14	811	802	806	800	796	798	796	749	769	---	---	---
15	816	811	814	796	773	785	778	687	736	---	---	---
16	816	814	815	773	767	769	687	590	644	---	---	---
17	814	789	801	770	768	769	662	394	502	---	---	---
18	792	733	765	776	767	770	423	331	389	---	---	---
19	751	735	742	777	773	775	503	421	465	---	---	---
20	777	751	765	787	776	780	548	503	527	---	---	---
21	---	---	---	797	787	791	572	548	561	---	---	---
22	---	---	---	802	792	797	589	572	581	---	---	---
23	---	---	---	816	797	809	614	586	601	---	---	---
24	---	---	---	834	807	822	630	614	624	---	---	---
25	---	---	---	835	820	827	661	630	646	---	---	---
26	---	---	---	820	798	803	690	661	679	---	---	---
27	---	---	---	802	797	800	703	684	696	---	---	---
28	---	---	---	802	796	799	704	697	700	---	---	---
29	---	---	---	799	787	793	706	703	704	---	---	---
30	---	---	---	808	788	798	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	816	679	756	835	754	794	829	331	702	---	---	---

SURFACE-WATER RECORDS
Hocking River Basin

03158200 MONDAY CREEK AT DOANVILLE, OHIO—Continued

WATER-QUALITY RECORDS—Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001												
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	6.5	6.4	6.5	---	---	---	6.3	6.1	6.2	---	---	---
2	6.6	6.3	6.4	6.3	5.9	6.2	6.4	6.1	6.2	---	---	---
3	6.4	6.2	6.3	6.3	5.7	6.0	6.2	6.0	6.1	---	---	---
4	6.2	6.2	6.2	6.2	6.0	6.1	6.3	6.0	6.2	---	---	---
5	6.2	6.1	6.1	6.2	5.9	6.1	6.3	6.0	6.1	---	---	---
6	6.2	6.0	6.1	6.2	5.9	6.1	6.4	6.1	6.2	---	---	---
7	6.2	6.2	6.2	6.2	5.7	5.9	6.7	6.2	6.4	---	---	---
8	6.4	6.1	6.3	6.0	5.7	5.9	7.0	6.6	6.8	---	---	---
9	6.4	6.1	6.2	5.9	5.8	5.8	7.0	6.3	6.6	---	---	---
10	6.2	5.9	6.1	6.1	5.8	6.0	6.4	6.0	6.2	---	---	---
11	6.1	5.8	6.0	6.3	6.1	6.2	6.4	5.9	6.2	---	---	---
12	6.0	5.5	5.9	6.7	6.2	6.5	6.1	5.9	6.0	---	---	---
13	6.0	5.8	5.9	6.6	6.3	6.4	6.2	5.8	6.0	---	---	---
14	6.0	5.8	5.9	6.6	6.4	6.5	6.3	5.8	6.1	---	---	---
15	5.8	5.7	5.8	6.6	6.4	6.5	6.7	6.3	6.5	---	---	---
16	5.8	5.6	5.6	6.7	6.0	6.4	7.2	6.5	6.8	---	---	---
17	5.6	5.5	5.6	6.6	6.3	6.5	7.1	6.3	6.9	---	---	---
18	6.1	5.4	5.5	6.6	6.5	6.6	7.1	7.0	7.1	---	---	---
19	6.4	6.1	6.2	6.5	6.4	6.5	7.1	7.0	7.1	---	---	---
20	6.5	6.2	6.4	6.5	6.4	6.4	7.0	6.9	7.0	---	---	---
21	---	---	---	6.4	6.3	6.4	7.0	6.8	6.9	---	---	---
22	---	---	---	6.4	6.3	6.4	6.9	6.8	6.8	---	---	---
23	---	---	---	6.4	6.3	6.4	6.9	6.7	6.8	---	---	---
24	---	---	---	6.4	5.6	6.1	6.7	6.6	6.7	---	---	---
25	---	---	---	5.9	5.5	5.7	6.7	6.6	6.6	---	---	---
26	---	---	---	5.8	5.4	5.6	6.6	6.4	6.5	---	---	---
27	---	---	---	6.2	5.6	6.0	6.4	5.6	6.1	---	---	---
28	---	---	---	6.2	6.1	6.1	6.3	5.8	6.2	---	---	---
29	---	---	---	6.2	5.9	6.1	6.4	6.3	6.3	---	---	---
30	---	---	---	6.3	6.0	6.2	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	6.6	5.4	6.1	6.7	5.4	6.2	7.2	5.6	6.5	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	6.7	6.3	6.6	6.2	5.9	6.1	5.2	5.1	5.2
2	---	---	---	6.6	6.3	6.5	6.2	5.8	5.9	5.3	5.1	5.2
3	---	---	---	6.6	6.1	6.4	6.1	5.7	5.8	5.4	5.2	5.3
4	---	---	---	6.5	6.1	6.3	5.9	5.7	5.8	5.2	5.1	5.2
5	---	---	---	7.0	6.5	6.8	5.8	5.6	5.7	5.2	5.1	5.1
6	---	---	---	7.1	7.0	7.1	5.8	5.6	5.6	5.1	5.1	5.1
7	---	---	---	7.2	6.3	6.8	5.8	5.6	5.7	5.1	5.1	5.1
8	---	---	---	7.0	6.7	6.8	5.7	5.7	5.7	5.1	5.0	5.1
9	6.6	6.2	6.3	6.8	6.6	6.7	5.9	5.7	5.8	5.2	5.0	5.1
10	7.0	6.2	6.7	6.6	6.4	6.5	6.4	5.8	5.9	5.2	5.1	5.2
11	7.2	6.9	7.1	6.6	6.4	6.5	6.6	6.2	6.4	5.1	5.1	5.1
12	7.1	6.7	6.9	6.8	6.6	6.6	6.4	6.2	6.3	5.1	5.0	5.1
13	6.9	6.3	6.7	6.9	6.6	6.7	6.3	6.2	6.2	5.1	5.0	5.1
14	6.8	6.3	6.5	6.9	6.8	6.8	6.4	6.0	6.2	5.1	5.0	5.1
15	6.8	6.4	6.6	6.9	6.7	6.8	6.1	5.8	6.0	5.0	4.9	5.0
16	7.1	6.8	6.9	7.0	6.7	6.8	6.1	5.9	6.0	5.3	4.9	5.1
17	7.2	7.0	7.1	7.1	6.9	7.0	6.1	5.8	6.0	6.0	5.3	5.5
18	7.2	7.0	7.1	7.2	6.8	6.9	5.9	5.6	5.7	6.7	6.0	6.4
19	7.1	6.6	7.0	7.0	6.8	6.9	5.8	5.4	5.6	6.7	6.5	6.6
20	7.0	6.3	6.7	6.9	6.7	6.8	5.6	5.4	5.5	6.7	6.4	6.5
21	6.9	6.4	6.8	6.9	6.7	6.8	6.3	5.6	6.1	6.6	6.4	6.5
22	6.9	6.8	6.9	7.1	6.8	6.9	6.2	6.1	6.2	6.8	6.5	6.6
23	6.8	6.4	6.7	7.5	6.7	7.0	6.4	6.1	6.2	6.8	6.3	6.5
24	6.8	6.2	6.6	6.9	6.7	6.8	6.1	6.0	6.1	6.6	6.3	6.4
25	6.6	6.1	6.3	6.7	6.4	6.5	6.1	5.8	5.9	6.6	6.2	6.4
26	6.6	6.2	6.4	6.6	6.3	6.4	5.8	5.5	5.7	6.5	6.0	6.2
27	6.7	6.2	6.5	6.5	5.9	6.3	5.6	5.4	5.5	6.3	6.0	6.1
28	6.6	6.3	6.5	6.4	5.7	5.9	5.4	5.3	5.4	6.3	6.0	6.1
29	---	---	---	6.4	6.1	6.2	5.3	5.2	5.3	6.3	5.9	6.1
30	---	---	---	6.3	6.1	6.2	5.2	5.1	5.2	5.9	5.5	5.7
31	---	---	---	6.2	6.1	6.1	---	---	---	5.5	5.2	5.4
MONTH	7.2	6.1	6.7	7.5	5.7	6.6	6.6	5.1	5.8	6.8	4.9	5.6

SURFACE-WATER RECORDS
Hocking River Basin

03158200 MONDAY CREEK AT DOANVILLE, OHIO—Continued

WATER-QUALITY RECORDS—Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001—Continued

DAY	MAX	MIN	MEAN									
1	5.3	5.2	5.2	4.6	4.5	4.6	6.5	6.2	6.3	6.3	5.2	5.7
2	5.5	5.2	5.3	4.6	4.5	4.6	6.2	5.7	5.9	6.1	5.3	5.5
3	6.6	5.4	6.1	4.7	4.6	4.7	5.8	5.2	5.5	6.3	6.0	6.2
4	6.7	6.2	6.5	4.7	4.6	4.6	5.2	5.0	5.1	6.0	5.3	5.7
5	6.3	6.2	6.2	4.6	4.5	4.5	5.0	5.0	5.0	5.3	5.1	5.1
6	6.3	6.0	6.2	4.7	4.6	4.7	5.0	4.9	5.0	5.2	5.1	5.1
7	6.9	6.1	6.7	4.7	4.5	4.6	4.9	4.9	4.9	5.1	5.0	5.1
8	6.9	6.4	6.7	4.6	4.4	4.5	4.9	4.8	4.8	5.1	5.0	5.0
9	6.5	6.1	6.3	4.6	4.4	4.5	4.8	4.8	4.8	5.0	4.9	4.9
10	6.1	5.8	6.0	4.5	4.4	4.4	4.8	4.7	4.8	4.9	4.9	4.9
11	5.8	5.5	5.7	4.8	4.4	4.6	7.4	4.7	6.4	5.0	4.9	4.9
12	5.6	5.4	5.5	4.8	4.7	4.8	6.9	6.8	6.8	5.0	4.9	4.9
13	6.2	5.6	6.0	4.7	4.6	4.7	6.8	6.6	6.7	4.9	4.9	4.9
14	6.3	5.4	5.9	4.6	4.5	4.6	6.7	6.6	6.6	4.9	4.9	4.9
15	5.4	4.9	5.1	4.5	4.2	4.3	6.6	6.5	6.5	4.9	4.9	4.9
16	4.9	4.7	4.8	4.3	4.2	4.2	6.5	6.2	6.4	4.9	4.9	4.9
17	4.7	4.6	4.7	4.5	4.3	4.3	6.3	6.1	6.2	4.9	4.9	4.9
18	4.7	4.6	4.6	5.4	4.3	4.8	6.1	5.9	6.0	4.9	4.9	4.9
19	4.6	4.5	4.6	5.0	4.6	4.9	5.9	5.3	5.7	4.9	4.9	4.9
20	4.6	4.5	4.5	4.8	4.7	4.7	6.1	5.2	5.4	4.9	4.8	4.9
21	4.8	4.5	4.6	4.7	4.7	4.7	6.6	6.1	6.4	4.9	4.8	4.8
22	5.6	4.6	5.0	4.7	4.5	4.6	6.3	5.6	5.9	4.8	4.8	4.8
23	5.8	5.2	5.5	4.6	4.6	4.6	5.6	4.8	5.0	4.9	4.8	4.9
24	5.3	5.0	5.1	4.7	4.6	4.6	5.0	4.9	5.0	4.9	4.9	4.9
25	5.0	4.8	4.9	4.6	4.5	4.6	5.4	5.0	5.1	5.0	4.9	4.9
26	4.8	4.8	4.8	4.7	4.4	4.5	5.4	5.1	5.3	5.0	4.9	5.0
27	4.8	4.7	4.7	6.4	4.6	5.9	5.7	4.9	5.2	4.9	4.9	4.9
28	4.7	4.7	4.7	6.4	5.8	6.1	6.1	4.9	5.5	4.9	4.9	4.9
29	4.7	4.6	4.7	6.4	4.9	5.6	6.1	5.4	5.7	4.9	4.9	4.9
30	4.7	4.6	4.6	6.9	6.3	6.7	5.9	5.3	5.4	4.9	4.9	4.9
31	---	---	---	6.6	6.4	6.5	6.2	5.6	6.0	---	---	---
MONTH	6.9	4.5	5.4	6.9	4.2	4.8	7.4	4.7	5.7	6.3	4.8	5.0
YEAR	7.5	4.2	5.8									

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	14.5	13.0	13.5	10.0	8.5	9.5	3.5	3.0	3.5	---	---	---
2	15.5	13.5	14.5	10.5	8.0	9.5	3.5	2.5	3.0	---	---	---
3	16.5	15.0	15.5	12.0	10.0	11.0	2.5	1.0	2.0	---	---	---
4	18.0	16.0	17.0	11.5	10.5	11.0	2.0	.5	1.0	---	---	---
5	18.5	17.0	17.5	10.5	8.5	9.5	1.5	1.0	1.0	---	---	---
6	18.0	16.5	17.5	9.0	7.5	8.5	2.0	.5	.5	---	---	---
7	16.5	13.5	14.5	11.5	9.0	10.0	.5	.5	.5	---	---	---
8	13.5	11.0	12.0	12.5	11.0	11.5	1.0	.5	.5	---	---	---
9	11.0	9.5	10.5	13.5	12.5	13.0	2.0	.5	1.0	---	---	---
10	11.5	9.5	10.5	13.0	10.5	11.5	1.5	.5	.5	---	---	---
11	11.5	9.0	10.5	10.5	10.0	10.5	2.5	.5	1.5	---	---	---
12	11.0	9.0	10.0	10.0	9.0	9.5	2.5	1.5	2.0	---	---	---
13	11.5	9.0	10.0	9.0	8.5	8.5	2.5	.5	1.0	---	---	---
14	12.0	9.5	10.5	8.5	7.0	8.0	2.0	.5	1.0	---	---	---
15	13.5	11.5	12.5	7.5	6.5	7.0	2.5	1.0	2.0	---	---	---
16	15.0	13.0	13.5	6.5	5.5	6.0	5.0	2.0	2.5	---	---	---
17	14.5	14.0	14.0	6.0	5.0	5.5	5.5	5.0	5.0	---	---	---
18	14.5	13.5	14.0	5.0	4.0	4.5	5.0	2.5	3.5	---	---	---
19	14.0	12.5	13.5	4.5	3.5	4.0	3.0	2.5	3.0	---	---	---
20	14.0	12.5	13.5	4.5	3.5	4.0	2.5	1.5	2.5	---	---	---
21	---	---	---	3.5	2.0	3.0	3.0	1.5	2.5	---	---	---
22	---	---	---	2.0	1.0	1.5	3.0	1.0	2.0	---	---	---
23	---	---	---	2.0	1.0	1.5	1.5	1.0	1.5	---	---	---
24	---	---	---	1.5	.5	1.0	2.0	1.0	1.5	---	---	---
25	---	---	---	2.0	1.0	1.5	1.5	1.0	1.5	---	---	---
26	---	---	---	3.0	2.0	2.5	1.5	1.0	1.5	---	---	---
27	---	---	---	4.5	3.0	3.5	1.5	1.0	1.0	---	---	---
28	---	---	---	4.0	3.0	3.5	1.0	1.0	1.0	---	---	---
29	---	---	---	3.0	2.0	2.5	1.5	1.0	1.0	---	---	---
30	---	---	---	3.5	3.0	3.0	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	18.5	9.0	13.0	13.5	.5	6.5	5.5	.5	2.0	---	---	---

SURFACE-WATER RECORDS
Hocking River Basin

03158200 MONDAY CREEK AT DOANVILLE, OHIO—Continued

WATER-QUALITY RECORDS—Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	8.8	8.5	8.7	9.5	8.7	9.1	12.1	11.9	12.0	---	---	---
2	8.6	7.9	8.4	9.8	9.5	9.6	12.3	11.9	12.1	---	---	---
3	8.0	7.4	7.8	9.5	9.0	9.3	12.8	12.3	12.6	---	---	---
4	7.9	7.2	7.6	9.3	9.0	9.1	13.3	10.6	12.9	---	---	---
5	7.4	6.7	7.0	9.7	9.2	9.5	13.2	12.9	13.0	---	---	---
6	6.7	6.3	6.5	10.1	9.7	9.9	13.3	10.6	12.9	---	---	---
7	7.8	6.6	7.2	9.8	9.3	9.6	13.1	12.8	13.0	---	---	---
8	8.5	7.7	8.2	9.4	9.0	9.2	13.0	12.9	12.9	---	---	---
9	9.1	8.3	8.7	9.0	8.4	8.7	13.2	10.3	12.8	---	---	---
10	9.1	8.7	8.9	8.9	8.4	8.6	13.4	11.1	12.9	---	---	---
11	9.1	8.7	8.9	9.3	8.9	9.1	13.0	12.3	12.8	---	---	---
12	10.1	8.7	9.2	9.6	9.2	9.5	12.8	12.2	12.4	---	---	---
13	10.1	9.7	9.9	9.7	9.6	9.6	13.3	9.2	12.9	---	---	---
14	10.0	9.5	9.8	10.1	9.6	9.8	13.2	11.2	12.7	---	---	---
15	9.5	8.9	9.3	10.3	10.1	10.2	12.6	9.8	11.2	---	---	---
16	9.0	8.4	8.8	10.5	10.3	10.4	12.1	6.2	11.0	---	---	---
17	8.4	7.5	7.9	10.8	10.4	10.5	7.6	5.6	6.5	---	---	---
18	7.5	7.1	7.3	11.1	10.8	10.9	10.0	6.7	8.2	---	---	---
19	7.7	7.3	7.5	11.3	11.1	11.2	10.4	8.7	9.2	---	---	---
20	7.5	7.1	7.3	11.3	11.1	11.2	10.7	8.5	9.0	---	---	---
21	---	---	---	11.7	11.3	11.5	11.0	8.2	8.9	---	---	---
22	---	---	---	12.0	11.0	11.9	11.5	7.9	9.4	---	---	---
23	---	---	---	12.3	10.8	12.0	11.3	9.6	10.0	---	---	---
24	---	---	---	12.6	11.1	12.3	11.6	9.1	10.0	---	---	---
25	---	---	---	12.8	12.4	12.6	11.3	9.5	10.1	---	---	---
26	---	---	---	12.4	11.9	12.1	11.3	9.7	10.3	---	---	---
27	---	---	---	11.9	11.7	11.8	13.0	10.0	11.4	---	---	---
28	---	---	---	11.9	11.7	11.8	13.3	12.1	12.6	---	---	---
29	---	---	---	12.2	11.9	12.0	12.3	11.9	12.1	---	---	---
30	---	---	---	12.1	12.0	12.0	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	10.1	6.3	8.2	12.8	8.4	10.5	13.4	5.6	11.3	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	12.3	11.6	12.0	11.6	11.2	11.4	9.2	8.8	9.0
2	---	---	---	12.1	11.9	12.0	12.1	11.4	11.8	9.0	8.1	8.7
3	---	---	---	12.1	11.5	11.8	11.7	10.9	11.4	8.8	8.1	8.4
4	---	---	---	11.7	11.5	11.6	11.3	10.6	11.0	8.7	8.3	8.5
5	---	---	---	12.3	11.6	11.9	11.1	10.2	10.7	8.6	8.2	8.4
6	---	---	---	12.7	12.2	12.5	10.2	9.8	10.0	8.6	8.2	8.4
7	---	---	---	13.0	12.7	12.8	9.9	9.1	9.6	8.7	8.1	8.4
8	---	---	---	13.1	12.7	13.0	9.1	8.7	9.0	9.0	8.6	8.8
9	11.2	10.2	10.9	13.0	12.8	12.9	8.8	8.3	8.6	9.1	8.6	8.9
10	10.9	10.2	10.6	13.1	12.4	12.8	8.5	8.3	8.4	9.1	8.5	8.8
11	12.0	10.9	11.5	12.6	12.2	12.5	8.6	7.5	8.3	8.9	8.2	8.6
12	12.3	12.0	12.2	12.5	11.5	12.1	7.5	6.9	7.0	8.5	8.2	8.4
13	12.3	11.8	12.1	11.5	10.9	11.1	8.3	6.8	7.7	9.2	8.5	9.0
14	11.8	11.1	11.5	11.3	10.9	11.1	9.2	8.3	8.9	9.6	9.0	9.3
15	11.1	10.9	10.9	11.6	11.2	11.5	9.3	8.7	9.1	9.3	9.1	9.2
16	11.1	11.0	11.0	11.6	11.4	11.5	9.8	9.3	9.7	9.4	9.1	9.2
17	11.9	11.1	11.6	11.9	11.4	11.6	10.7	9.8	10.4	9.2	8.1	9.0
18	12.8	11.9	12.5	12.4	11.9	12.2	11.3	10.7	10.9	8.8	8.4	8.6
19	13.0	12.7	12.8	12.5	12.0	12.2	11.3	10.2	10.8	8.8	8.5	8.7
20	12.7	11.9	12.3	12.1	12.0	12.0	10.7	10.3	10.6	9.1	8.6	8.9
21	12.0	11.9	11.9	12.0	11.8	11.9	10.8	9.8	10.4	8.7	8.3	8.6
22	12.5	12.0	12.3	11.9	11.5	11.7	9.8	8.9	9.4	8.5	8.0	8.3
23	12.7	12.4	12.5	11.8	11.4	11.6	9.3	8.4	8.9	8.9	8.4	8.5
24	12.7	12.1	12.5	11.8	11.5	11.6	8.9	8.4	8.7	9.5	8.9	9.2
25	12.1	10.8	11.5	12.4	11.7	12.1	9.8	8.9	9.4	10.3	9.5	9.8
26	11.3	10.8	11.1	13.2	12.4	12.9	10.2	9.4	9.8	10.2	9.9	10.1
27	11.5	11.1	11.3	13.7	13.2	13.5	10.1	9.1	9.6	10.1	9.7	9.9
28	11.7	11.3	11.5	13.8	12.7	13.4	9.7	9.1	9.5	10.1	9.5	9.9
29	---	---	---	12.9	12.0	12.6	10.1	9.2	9.6	9.9	9.3	9.7
30	---	---	---	12.0	11.5	11.8	9.8	8.8	9.4	9.7	9.2	9.4
31	---	---	---	11.6	11.2	11.4	---	---	---	9.8	9.3	9.6
MONTH	13.0	10.2	11.7	13.8	10.9	12.1	12.1	6.8	9.7	10.3	8.0	9.0

SURFACE-WATER RECORDS

Hocking River Basin

03159500 HOCKING RIVER AT ATHENS, OHIO

LOCATION.—Latitude 39°19'44", longitude 82°05'16", in T.9 N., R.14 W., Athens County, Hydrologic Unit 05030204, on right bank 0.8 mi east of business section of Athens, Ohio, 1.4 mi downstream from Coats Run, and 3.0 mi downstream from Margaret Creek.

DRAINAGE AREA.—943 mi².

PERIOD OF RECORD.—May 1915 to current year.

REVISED RECORDS.—WSP 523: 1918-19(M). WSP 743: 1922(M). WSP 873: 1920, 1922, 1924-28, 1937. WSP 1113: 1932.

WDR-OH-90-1: 1979(M), 1983(M), 1985(M), 1986(M).

GAGE.—Water-stage recorder. Datum of gage is 611.26 ft above sea level. Prior to Aug. 17, 1931, nonrecording gage, Aug. 18, 1931 to June 19, 1970, at present site at datum 3.55 ft. higher. Jun. 19, 1970 to Sept. 30, 1971 and Oct. 1, 1976 to Mar. 31, 1993 water-stage recorder at site 5.3 mi downstream at datum 11.26 ft lower, published as "Below Athens" (03159510).

REMARKS.—Records fair except for periods of estimated record, which are poor. Water-quality data formerly collected at this site. Some regulation by Burr Oak Reservoir, capacity 26,900 acre-ft, on East Branch Sunday Creek 29 mi upstream beginning 1952 (see station 0315800); by Hocking Lake, capacity 3,080 acre-ft, on Clear Fork 39.4 mi upstream beginning in 1949; and by temporary retention in 8 retarding basins, combined capacity, 8,710 acre-ft, constructed between 1955 and 1961 upstream from Lancaster (see station 03156400).

EXTREMES OUTSIDE PERIOD RECORD.—Flood in March 1907 reached a stage of about 27 ft from flood marks, site and datum then in use; discharge 50,000 ft³/s, estimated by U.S. Army Corps of Engineers.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	188	164	191	e440	4710	441	624	669	1200	255	331	153
2	166	163	196	e400	2300	426	618	888	1290	258	254	136
3	149	163	193	e380	1410	417	573	789	1700	242	219	124
4	136	159	189	e360	1080	448	526	592	1540	282	198	116
5	134	156	184	e340	931	1610	487	523	1580	289	189	107
6	161	153	180	e330	814	1880	476	477	1210	267	176	101
7	189	154	180	e310	736	1320	492	438	3440	233	160	95
8	188	155	172	e300	678	1010	483	439	2610	219	148	91
9	168	173	174	e280	654	839	450	475	1640	207	140	88
10	151	205	172	e270	926	734	2380	444	1170	192	140	85
11	143	247	163	e260	1230	652	7430	394	938	185	330	82
12	137	251	165	e250	919	629	11100	369	812	191	435	80
13	130	229	213	e240	780	2160	10800	388	1410	175	256	78
14	125	212	399	e230	775	2530	4290	370	1100	162	194	81
15	119	204	605	e230	852	2050	2610	346	704	153	166	81
16	113	200	951	e220	1420	1690	2280	405	573	143	148	86
17	125	193	6870	e210	2070	1800	1890	1580	503	152	136	79
18	161	186	8180	e210	1700	2050	1610	e3200	441	238	131	77
19	362	179	4350	e200	1190	1470	1210	e4000	384	223	129	77
20	293	165	2020	e230	993	1280	1150	e3200	361	198	148	79
21	251	159	1220	e280	864	1900	3000	e2600	415	169	157	93
22	225	155	e860	e240	785	2910	2870	4110	1190	154	135	97
23	200	150	e740	e230	691	2240	2090	6110	680	144	125	87
24	190	145	e660	e220	625	1540	1860	3810	477	136	121	83
25	195	152	e620	e210	569	1270	1520	2470	399	143	125	79
26	202	164	e580	e200	545	1070	1200	1790	355	385	123	77
27	196	188	e560	e200	504	978	1010	1510	321	534	135	76
28	190	201	e520	e190	467	873	883	1450	291	290	179	74
29	179	199	e500	e190	---	764	768	1250	279	360	156	73
30	171	194	e480	1570	---	699	682	1060	271	1170	175	71
31	166	---	e460	4530	---	654	---	939	---	533	154	---
TOTAL	5503	5418	32947	13750	31218	40334	67362	47085	29284	8282	5613	2706
MEAN	178	181	1063	444	1115	1301	2245	1519	976	267	181	90.2
MAX	362	251	8180	4530	4710	2910	11100	6110	3440	1170	435	153
MIN	113	145	163	190	467	417	450	346	271	136	121	71

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 2001, BY WATER YEAR (WY)

	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	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
MEAN	241	530	991	1442	1743	2115	1831	1359	768	495	412	291																																																																										
MAX	1539	3194	3830	7796	3928	5975	4268	5672	3143	2957	3054	2031																																																																										
(WY)	1976	1920	1924	1937	1951	1963	1940	1968	1928	1958	1980	1979																																																																										
MIN	36.1	46.4	64.5	75.5	91.6	262	385	174	77.8	52.2	39.6	44.8																																																																										
(WY)	1931	1954	1931	1931	1954	1931	1925	1934	1930	1930	1930	1930																																																																										

SUMMARY STATISTICS

	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1916 - 2001	
ANNUAL TOTAL	324988		289502			
ANNUAL MEAN	888		793		1015	
HIGHEST ANNUAL MEAN					1794	
LOWEST ANNUAL MEAN					233	
HIGHEST DAILY MEAN	13000	Feb 20	11100	Apr 12	31200	Mar 11 1964
LOWEST DAILY MEAN	82	Sep 20	71	Sep 30	10	Oct 11 1930
ANNUAL SEVEN-DAY MINIMUM	91	Sep 15	76	Sep 24	24	Oct 11 1930
MAXIMUM PEAK FLOW			12900		32900	
MAXIMUM PEAK STAGE			19.54		24.18	
INSTANTANEOUS LOW FLOW			71		10	
10 PERCENT EXCEEDS	2110		1880		2430	
50 PERCENT EXCEEDS	262		310		424	
90 PERCENT EXCEEDS	133		127		89	

e Estimated.

SURFACE-WATER RECORDS
Shade River Basin

03159540 SHADE RIVER NEAR CHESTER, OHIO

LOCATION.—Latitude 39°03'49", longitude 81°52'55", in NE 1/4 sec. 10, T.3N., R.12 W., Meigs County, Hydrologic Unit 05030202, on right bank at downstream side of bridge on Oak Hill Road, 200 ft upstream from Sugar Run, 2.8 mi southeast of Chester, Ohio, and 8.5 mi northeast of Pomeroy, Ohio.

DRAINAGE AREA.—156 mi², includes that of Sugar Run.

PERIOD OF RECORD.—Water years 1956, 1962-64 (occasional low-flow measurements), June 1965 to current year.

GAGE.—Water-stage recorder and crest-stage gage. Datum of gage is 576.91 ft above sea level.

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 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	6.7	8.8	e12	290	50	86	47	162	12	47	44
2	13	6.3	8.3	e12	166	47	125	45	1200	107	32	22
3	10	6.1	7.7	e11	97	46	98	42	590	48	23	12
4	8.4	5.7	10	e11	100	136	80	38	286	326	18	11
5	6.9	5.3	7.1	e11	86	881	70	35	1110	194	16	7.6
6	6.6	6.0	6.8	e10	73	361	67	31	361	111	13	6.4
7	6.0	6.0	6.9	e10	65	205	69	28	329	57	10	5.6
8	5.6	13	6.8	e9.8	58	151	67	26	239	38	8.2	6.2
9	5.1	17	6.6	e9.6	56	123	62	36	139	31	6.8	5.3
10	4.8	39	6.7	e9.4	77	95	1320	44	93	25	6.0	5.1
11	4.7	51	6.8	e9.2	89	81	2070	30	71	19	79	5.1
12	4.4	33	6.2	e9.2	67	80	953	25	61	14	43	7.1
13	4.3	21	6.2	e9.0	61	1560	342	22	730	11	23	6.7
14	4.2	14	88	e9.0	66	702	210	19	203	8.3	25	5.3
15	4.6	11	130	e8.8	380	305	171	18	90	6.9	15	3.0
16	4.8	9.5	162	e8.8	513	659	204	35	66	5.8	10	2.3
17	5.2	8.4	2280	e8.8	971	693	149	157	55	5.5	8.6	1.8
18	15	7.7	884	e8.8	319	318	125	888	42	214	7.8	1.6
19	14	7.0	163	e20	177	204	101	1920	33	94	6.2	2.0
20	10	6.4	e76	e50	141	157	96	1090	27	42	6.4	4.5
21	7.2	6.0	e50	e30	109	801	164	427	23	26	4.6	4.7
22	9.5	7.4	e35	e28	85	1590	147	3300	99	17	3.7	4.8
23	7.0	5.4	e23	e26	77	418	117	3630	100	12	3.4	3.9
24	6.2	5.2	e18	e25	74	256	95	595	54	9.2	3.5	5.0
25	5.8	5.4	e16	e25	72	189	80	476	37	8.3	3.3	9.4
26	5.6	6.8	e15	e24	66	145	70	293	28	18	3.8	9.4
27	5.8	9.1	e14	e24	58	117	64	188	21	56	185	6.0
28	6.1	11	e14	e23	53	96	62	155	17	32	66	3.7
29	6.3	10	e13	e23	---	88	54	123	14	157	27	2.8
30	6.1	9.2	e13	903	---	85	49	86	12	399	15	1.9
31	6.2	---	e12	826	---	80	---	69	---	84	27	---
TOTAL	226.4	355.6	4100.9	2204.4	4446	10719	7367	13918	6292	2188.0	746.3	216.2
MEAN	7.30	11.9	132	71.1	159	346	246	449	210	70.6	24.1	7.21
MAX	17	51	2280	903	971	1590	2070	3630	1200	399	185	44
MIN	4.2	5.2	6.2	8.8	53	46	49	18	12	5.5	3.3	1.6
CFSM	.05	.08	.85	.46	1.02	2.22	1.57	2.88	1.34	.45	.15	.05
IN.	.05	.08	.98	.53	1.06	2.56	1.76	3.32	1.50	.52	.18	.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2001, BY WATER YEAR (WY)

	50.8	102	200	240	305	352	273	241	97.0	65.5	61.0	35.0
MEAN	50.8	102	200	240	305	352	273	241	97.0	65.5	61.0	35.0
MAX	259	386	765	755	884	1088	634	912	488	384	406	262
(WY)	1976	1974	1991	1994	1994	1997	1972	1968	1998	1980	1980	1979
MIN	.42	.99	20.2	24.0	40.7	53.4	48.6	33.2	2.37	2.40	.72	.38
(WY)	1988	1988	1988	1977	1978	1969	1995	1986	1988	1987	1988	1987

SUMMARY STATISTICS FOR 2000 CALENDAR YEAR FOR 2001 WATER YEAR WATER YEARS 1965 - 2001

ANNUAL TOTAL	35218.6	52779.8	
ANNUAL MEAN	96.2	145	169
HIGHEST ANNUAL MEAN			272
LOWEST ANNUAL MEAN			45.4
HIGHEST DAILY MEAN	2280	Dec 17	3630
LOWEST DAILY MEAN	1.8	Aug 22	1.6
ANNUAL SEVEN-DAY MINIMUM	2.3	Aug 17	2.8
MAXIMUM PEAK FLOW			4400
MAXIMUM PEAK STAGE			20.77
INSTANTANEOUS LOW FLOW			1.6
ANNUAL RUNOFF (CFSM)	.62		.93
ANNUAL RUNOFF (INCHES)	8.40		12.59
10 PERCENT EXCEEDS	278		322
50 PERCENT EXCEEDS	22		26
90 PERCENT EXCEEDS	5.1		5.5

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

SURFACE-WATER RECORDS
Raccoon Creek Basin

03201980 LITTLE RACCOON CREEK NEAR EWINGTON, OHIO

LOCATION.—Latitude 39°00'38", longitude 82°27'08", in SW 1/4 sec. 12, T.8N., R.17W., Jackson County, Hydrologic Unit 05090101, on left bank downstream side of Old Keystone Road, 5 mi west of Ewington, Ohio, 3.6 mi downstream from Tarcamp Creek, 0.15 mi upstream of Kuger Run.
DRAINAGE AREA.—99.7 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—July 1984 to June 1985 and November 1998 to current year.

GAGE.—Water-stage recorder and crest gage. Elevation of gage is 630 ft above sea level (from topographic map).

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 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.9	6.9	11	e13	146	38	64	24	193	32	14	34
2	9.4	7.1	10	e12	103	40	61	59	620	36	14	20
3	9.2	8.2	10	e12	74	38	54	40	480	28	13	13
4	8.2	7.4	9.0	e12	62	61	51	30	222	24	14	9.9
5	8.0	6.1	8.5	e11	55	273	46	25	269	24	13	7.6
6	8.3	5.5	8.4	e11	52	187	44	22	354	21	11	6.8
7	8.4	5.5	8.3	e11	48	127	45	21	455	19	10	6.6
8	7.5	7.1	8.8	e10	42	103	41	23	318	28	9.1	8.4
9	6.8	22	9.1	e10	42	87	39	86	166	36	8.9	7.3
10	6.5	75	8.6	e9.8	64	71	130	46	115	26	13	6.3
11	6.3	40	8.5	e9.6	69	60	261	32	86	26	12	6.2
12	6.2	18	8.8	e9.5	52	55	203	35	73	20	11	6.2
13	5.6	13	9.6	e9.4	48	132	143	35	79	16	12	6.2
14	5.5	11	45	e9.2	48	146	106	25	80	17	12	6.3
15	5.3	12	68	e9.2	155	116	87	40	63	15	9.5	6.9
16	5.7	10	73	e9.2	243	151	83	197	52	13	18	7.2
17	7.0	8.8	863	e9.0	380	170	71	619	44	14	11	7.5
18	13	7.7	735	e12	229	135	62	1460	35	69	7.6	8.6
19	18	6.6	230	e15	140	105	52	2200	30	43	6.9	9.1
20	14	6.1	89	e30	112	88	49	1470	27	29	8.0	10
21	11	6.9	e50	e60	90	228	63	856	30	26	8.4	12
22	17	6.8	e38	e40	71	498	56	1260	159	21	7.7	11
23	4.7	6.6	e25	e30	62	290	53	997	106	18	7.4	12
24	4.3	6.4	e22	e25	67	173	46	786	74	16	7.2	15
25	7.3	8.0	e20	e24	57	140	40	496	58	15	7.7	19
26	6.7	16	e18	e22	51	116	38	215	43	15	8.4	19
27	9.5	17	e16	e21	47	92	32	145	35	22	17	20
28	7.0	14	e15	e21	42	77	31	127	31	15	19	20
29	6.5	12	e14	e20	---	68	28	107	28	18	12	20
30	6.4	11	e13	178	---	66	24	87	24	19	10	20
31	6.6	---	e13	236	---	62	---	69	---	15	9.4	---
TOTAL	254.8	388.7	2465.6	910.9	2651	3993	2103	11634	4349	736	342.2	362.1
MEAN	8.22	13.0	79.5	29.4	94.7	129	70.1	375	145	23.7	11.0	12.1
MAX	18	75	863	236	380	498	261	2200	620	69	19	34
MIN	4.3	5.5	8.3	9.0	42	38	24	21	24	13	6.9	6.2
CFSM	.08	.13	.80	.29	.95	1.29	.70	3.76	1.45	.24	.11	.12
IN.	.10	.15	.92	.34	.99	1.49	.78	4.34	1.62	.27	.13	.14

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2001, BY WATER YEAR (WY)

	1999	2000	2001	1999	2000	2001	1999	2000	2001	1999	2000	2001
MEAN	8.59	19.9	49.9	117	281	183	98.0	150	60.1	16.8	10.2	10.5
MAX	8.95	26.9	79.5	252	588	248	150	375	145	23.7	12.5	13.9
(WY)	2000	2000	2001	1999	2000	1999	2000	2001	2001	2001	1999	2000
MIN	8.22	13.0	20.4	29.4	94.7	129	70.1	29.5	10.5	6.82	6.98	5.52
(WY)	2001	2001	1999	2001	2001	2001	2001	1999	1999	1999	2000	1999

SUMMARY STATISTICS

	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1999 - 2001	
ANNUAL TOTAL	35574.6		30190.3			
ANNUAL MEAN	97.2		82.7		89.3	
HIGHEST ANNUAL MEAN					95.9	
LOWEST ANNUAL MEAN					82.7	
HIGHEST DAILY MEAN	7460	Feb 19	2200	May 19	7460	Feb 19 2000
LOWEST DAILY MEAN	2.2	Sep 20	4.3	Oct 24	2.1	Sep 29 1999
ANNUAL SEVEN-DAY MINIMUM	3.7	Sep 15	5.9	Oct 10	3.1	Aug 2 1999
MAXIMUM PEAK FLOW			2590	May 19a	8450	Feb 19 2000
MAXIMUM PEAK STAGE			13.55	May 19	15.83	Feb 19 2000
INSTANTANEOUS LOW FLOW			2.6	Oct 23	2.1	Sep 29 1999
ANNUAL RUNOFF (CFSM)	.97		.83		.90	
ANNUAL RUNOFF (INCHES)	13.27		11.26		12.17	
10 PERCENT EXCEEDS	152		168		192	
50 PERCENT EXCEEDS	20		22		20	
90 PERCENT EXCEEDS	6.2		7.1		6.2	

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

SURFACE-WATER RECORDS
Raccoon Creek Basin

03201980 LITTLE RACCOON CREEK NEAR EWINGTON, OHIO—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—July 1984 to June 1985, December 21, 1998 to current year.

PERIOD OF DAILY RECORD.—

SUSPENDED SEDIMENT DISCHARGE: August 1984 to June 1985 (discontinued).

SPECIFIC CONDUCTANCE: December 1998 to current year.

pH: December 1998 to current year.

WATER TEMPERATURE: December 1998 to current year.

DISSOLVED OXYGEN: December 1998 to current year.

INSTRUMENTATION.—Water-quality monitor interfaced to electronic data logger with 1-hour recording interval. Satellite telemeter at station.

REMARKS.—Interruptions in the water-quality record were due to malfunctions of the instrument. All records good except for dissolved oxygen, which is poor from Oct. 1 to Mar. 7 and fair thereafter.

EXTREMES FOR PERIOD OF RECORD.—

SPECIFIC CONDUCTANCE: Maximum, 1,310 microsiemens, Sept. 19, 1999; minimum, 164 microsiemens, Feb. 20, 2000.

pH: Maximum, 8.0 units, Sept. 10 and 11, 1999; minimum, 4.8 units, Nov. 2, 1999.

WATER TEMPERATURE: Maximum, 29.0°C, July 31, 1999; minimum 0.0°C, on many days during winter.

DISSOLVED OXYGEN: Maximum, 14.9 mg/L, Jan. 1, 1999; minimum, 5.1 mg/L, Oct. 24-26, 2000.

EXTREMES FOR CURRENT YEAR.—

SPECIFIC CONDUCTANCE: Maximum, 1,250 microsiemens, Nov. 11; minimum, 180 microsiemens, May 21.

pH: Maximum, 7.8 units, Sept. 23-26 and 28-30; minimum, 4.9 units, Aug. 18 and 19.

WATER TEMPERATURE: Maximum, 27.5°C, Aug. 8; minimum 0.0°C, Jan. 20-24, 26, and 28.

DISSOLVED OXYGEN: Maximum, 13.6°C, Jan. 9, 10, and 20; minimum 5.1°C, Oct. 24-26.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	720	717	719	807	797	804	1000	919	979	686	666	677
2	736	719	725	807	803	804	958	857	900	666	649	654
3	738	730	735	803	786	796	857	828	837	664	650	656
4	737	730	733	786	781	782	838	829	832	667	664	666
5	744	731	738	798	782	789	841	823	833	674	663	668
6	743	733	735	813	798	807	827	823	825	673	666	668
7	735	719	728	818	811	814	826	824	825	683	666	676
8	751	716	729	840	806	817	824	801	812	681	673	676
9	793	751	772	848	801	811	801	788	793	715	681	700
10	813	793	808	998	848	929	834	796	817	747	715	737
11	813	796	806	1250	978	1090	835	814	828	751	745	748
12	796	782	788	1150	879	1000	814	781	799	749	743	746
13	805	783	792	879	768	812	781	765	775	746	739	743
14	839	805	821	768	738	749	777	685	749	748	730	740
15	878	839	860	738	729	734	885	743	808	730	697	713
16	902	878	890	731	420	678	1030	528	873	710	693	698
17	948	905	928	684	418	587	528	371	433	758	710	732
18	964	914	953	698	684	691	444	354	393	786	758	768
19	916	872	890	702	698	700	438	358	412	786	698	756
20	893	869	881	708	701	703	483	438	463	868	698	730
21	869	837	853	723	708	717	499	483	494	868	668	736
22	837	749	817	749	723	734	526	499	513	708	674	693
23	774	679	718	775	749	765	557	526	548	689	678	684
24	827	774	809	782	770	776	561	554	558	709	681	693
25	836	827	833	777	761	768	590	559	572	733	709	725
26	860	836	846	762	707	731	603	590	596	784	730	761
27	868	859	865	846	712	787	628	602	612	782	772	779
28	859	823	848	868	846	861	646	621	635	773	751	768
29	823	617	667	860	855	857	668	645	656	771	741	756
30	789	669	751	919	857	872	674	658	663	841	597	674
31	797	789	793	---	---	---	691	674	685	723	490	563
MONTH	964	617	801	1250	418	792	1030	354	694	868	490	709

SURFACE-WATER RECORDS
Raccoon Creek Basin

03201980 LITTLE RACCOON CREEK NEAR EWINGTON, OHIO—Continued

WATER-QUALITY RECORDS—Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	MAX	MIN	MEAN									
1	7.0	6.9	7.0	7.1	6.8	6.9	7.0	7.0	7.0	6.7	6.6	6.7
2	7.0	6.9	6.9	6.9	6.7	6.8	7.1	7.0	7.0	6.7	6.6	6.7
3	6.9	6.8	6.9	6.8	6.7	6.8	7.2	7.0	7.1	6.7	6.6	6.7
4	6.9	6.8	6.9	6.8	6.8	6.8	7.2	7.1	7.2	6.6	6.6	6.6
5	6.9	6.8	6.9	7.0	6.8	6.9	7.2	7.1	7.2	6.6	6.6	6.6
6	6.9	6.8	6.9	7.0	6.8	6.9	7.2	7.1	7.2	6.6	6.5	6.6
7	7.0	6.9	7.0	6.9	6.8	6.8	7.1	7.0	7.1	6.7	6.5	6.6
8	7.1	7.0	7.0	6.9	6.5	6.7	7.0	7.0	7.0	6.6	6.5	6.6
9	7.1	6.9	7.0	7.0	6.7	6.9	7.0	7.0	7.0	6.7	6.5	6.6
10	7.1	6.9	7.0	7.0	6.9	7.0	7.0	6.9	7.0	6.6	6.4	6.5
11	7.1	6.9	7.0	7.1	7.0	7.0	6.9	6.6	6.9	6.6	6.4	6.5
12	7.1	6.8	7.0	7.2	7.0	7.1	6.9	6.6	6.9	6.6	6.4	6.5
13	7.0	6.9	7.0	7.2	7.0	7.1	6.9	6.7	6.9	6.7	6.4	6.6
14	7.2	6.9	7.1	7.2	7.1	7.1	6.9	6.8	6.9	6.7	6.5	6.6
15	7.1	6.9	7.0	7.1	7.0	7.1	6.9	6.7	7.1	6.6	6.5	6.6
16	7.1	6.9	7.0	7.2	6.9	7.0	7.1	6.7	6.9	6.6	6.5	6.6
17	7.1	6.9	7.0	6.9	6.9	6.9	7.1	6.7	6.8	6.6	6.5	6.5
18	7.0	6.9	7.0	7.0	6.9	6.9	6.8	6.8	6.8	6.7	6.5	6.6
19	7.0	6.9	7.0	7.0	6.8	6.9	6.8	6.4	6.6	6.8	6.7	6.8
20	7.0	6.9	6.9	6.9	6.8	6.9	6.5	6.4	6.4	6.8	6.4	6.7
21	7.0	6.9	6.9	7.0	6.9	6.9	6.5	6.4	6.5	6.9	6.7	6.8
22	7.0	6.9	6.9	7.0	6.8	6.9	6.6	6.5	6.5	6.8	6.7	6.8
23	6.9	6.8	6.9	7.0	6.8	6.9	6.7	6.6	6.7	6.7	6.6	6.6
24	6.9	6.9	6.9	6.9	6.8	6.8	6.7	6.6	6.7	6.6	6.6	6.6
25	6.9	6.9	6.9	6.8	6.7	6.7	6.7	6.6	6.7	6.6	6.6	6.6
26	6.9	6.8	6.9	6.8	6.7	6.7	6.7	6.6	6.7	6.6	6.6	6.6
27	6.9	6.8	6.9	6.9	6.7	6.8	6.7	6.4	6.6	6.7	6.3	6.6
28	7.0	6.9	7.0	6.9	6.8	6.8	6.7	6.6	6.6	6.7	6.6	6.6
29	7.1	6.9	7.0	6.9	6.8	6.9	6.7	6.6	6.7	6.7	6.6	6.6
30	7.1	6.9	7.0	7.0	6.9	6.9	6.7	6.6	6.7	6.7	6.1	6.6
31	7.1	6.8	7.0	---	---	---	6.7	6.7	6.7	6.8	6.6	6.7
MONTH	7.2	6.8	7.0	7.2	6.5	6.9	7.2	6.4	6.8	6.9	6.1	6.6

DAY	MAX	MIN	MEAN									
1	6.7	6.6	6.6	6.6	6.4	6.6	---	---	---	7.2	7.1	7.1
2	6.7	6.6	6.7	6.6	6.5	6.6	---	---	---	7.2	6.4	7.0
3	6.7	6.6	6.7	6.6	6.5	6.6	---	---	---	7.3	7.1	7.2
4	6.7	6.6	6.6	6.7	6.4	6.6	---	---	---	7.2	7.1	7.1
5	6.7	6.6	6.7	6.7	6.2	6.5	---	---	---	7.2	7.1	7.1
6	6.7	6.6	6.7	6.7	6.4	6.5	---	---	---	7.2	7.1	7.1
7	6.7	6.6	6.6	6.6	6.3	6.4	---	---	---	7.3	7.2	7.2
8	6.7	6.5	6.6	6.4	6.3	6.4	---	---	---	7.2	7.1	7.2
9	6.7	6.6	6.7	6.4	6.4	6.4	---	---	---	7.2	6.3	7.0
10	6.8	6.6	6.7	6.4	6.3	6.4	---	---	---	7.2	7.0	7.1
11	6.9	6.5	6.7	6.4	6.3	6.4	---	---	---	7.1	7.0	7.1
12	6.9	6.8	6.8	6.5	6.3	6.4	---	---	---	7.1	7.0	7.1
13	6.8	6.7	6.8	6.5	6.3	6.4	---	---	---	7.2	7.1	7.2
14	6.8	6.6	6.7	---	---	---	---	---	---	7.3	7.2	7.2
15	6.7	6.3	6.6	---	---	---	---	---	---	7.2	6.9	7.1
16	6.7	6.5	6.6	---	---	---	---	---	---	7.0	6.0	6.6
17	6.7	6.4	6.5	---	---	---	---	---	---	6.7	6.5	6.6
18	6.7	6.3	6.5	---	---	---	6.9	6.8	6.9	6.6	6.3	6.5
19	6.6	6.4	6.5	---	---	---	6.9	6.7	6.8	6.8	6.4	6.6
20	6.6	6.4	6.5	---	---	---	6.9	6.8	6.9	6.8	6.8	6.8
21	6.6	6.5	6.5	---	---	---	6.8	6.5	6.7	6.8	6.6	6.7
22	6.6	6.4	6.6	6.6	6.5	6.5	6.9	6.7	6.7	6.6	6.5	6.6
23	6.7	6.5	6.6	6.7	6.2	6.4	6.9	6.8	6.9	6.8	6.6	6.7
24	6.6	6.4	6.5	---	---	---	7.0	6.9	7.0	6.8	6.7	6.7
25	6.7	6.2	6.4	---	---	---	7.0	6.9	7.0	6.8	6.6	6.6
26	6.7	6.5	6.6	---	---	---	7.0	6.9	7.0	6.6	6.6	6.6
27	6.6	6.5	6.6	---	---	---	7.0	6.9	7.0	6.6	6.6	6.6
28	6.6	6.5	6.6	---	---	---	7.1	7.0	7.0	6.7	6.6	6.6
29	---	---	---	---	---	---	7.1	7.0	7.1	6.7	6.7	6.7
30	---	---	---	---	---	---	7.1	6.9	7.0	6.8	6.7	6.8
31	---	---	---	---	---	---	---	---	---	6.8	6.8	6.8
MONTH	6.9	6.2	6.6	6.7	6.2	6.5	7.1	6.5	6.9	7.3	6.0	6.9

SURFACE-WATER RECORDS
Raccoon Creek Basin

03201980 LITTLE RACCOON CREEK NEAR EWINGTON, OHIO—Continued

WATER-QUALITY RECORDS—Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001—Continued

DAY	MAX	MIN	MEAN									
1	6.8	6.1	6.7	7.3	7.2	7.2	7.4	7.4	7.4	7.6	7.6	7.6
2	6.8	6.4	6.7	7.3	7.0	7.2	7.5	7.4	7.4	7.6	6.8	7.1
3	6.8	6.6	6.7	7.1	7.0	7.1	7.5	7.5	7.5	7.1	6.8	6.9
4	6.6	6.3	6.4	7.2	7.1	7.2	7.5	7.5	7.5	7.2	7.1	7.1
5	6.9	6.5	6.7	7.3	7.2	7.2	7.6	7.5	7.6	7.3	7.2	7.2
6	6.8	6.6	6.7	7.3	7.2	7.2	7.6	7.5	7.6	7.5	7.3	7.4
7	6.7	6.5	6.7	7.3	7.2	7.2	7.6	7.5	7.6	7.5	7.4	7.4
8	6.7	6.4	6.6	7.3	7.2	7.2	7.6	7.6	7.6	7.5	7.4	7.4
9	6.6	6.4	6.6	7.3	7.1	7.2	7.7	7.6	7.6	7.5	7.4	7.5
10	6.7	6.5	6.6	7.3	7.1	7.2	7.6	7.6	7.6	7.5	7.3	7.4
11	6.8	6.7	6.7	7.4	7.3	7.4	7.6	7.5	7.5	7.6	7.5	7.5
12	6.8	6.7	6.8	7.3	6.6	7.1	7.6	7.5	7.6	7.6	7.4	7.5
13	7.0	6.7	6.8	7.3	7.1	7.2	7.6	7.6	7.6	7.5	7.4	7.5
14	6.9	6.7	6.8	7.5	7.3	7.4	7.6	7.6	7.6	7.6	7.4	7.5
15	7.0	6.9	6.9	7.5	7.4	7.5	7.7	7.6	7.6	7.7	7.5	7.6
16	7.0	7.0	7.0	7.6	7.5	7.5	7.7	7.6	7.7	7.7	7.5	7.6
17	7.1	7.0	7.0	7.6	7.5	7.6	7.6	7.5	7.6	7.7	7.4	7.6
18	7.1	7.1	7.1	7.6	6.9	7.3	7.5	4.9	5.8	7.7	7.5	7.6
19	7.1	7.1	7.1	7.2	7.0	7.1	5.1	4.9	4.9	7.5	7.5	7.5
20	7.2	7.1	7.2	7.2	7.2	7.2	6.2	5.1	5.6	7.6	7.5	7.5
21	7.2	7.2	7.2	7.2	7.1	7.2	7.1	6.2	6.7	7.7	7.5	7.6
22	7.2	6.3	6.9	7.2	7.2	7.2	7.4	7.1	7.3	7.7	7.5	7.6
23	7.0	6.7	6.9	7.3	7.2	7.3	7.4	7.4	7.4	7.8	7.5	7.6
24	7.0	7.0	7.0	7.3	7.3	7.3	7.5	7.4	7.5	7.8	7.5	7.7
25	7.1	7.0	7.1	7.4	7.3	7.3	7.6	7.5	7.5	7.8	7.7	7.8
26	7.1	7.0	7.1	7.5	7.4	7.4	7.6	7.5	7.6	7.8	7.6	7.7
27	7.1	7.1	7.1	7.5	7.3	7.4	7.6	7.6	7.6	7.7	7.4	7.6
28	7.2	7.1	7.1	7.5	7.4	7.5	7.7	7.6	7.7	7.8	7.5	7.7
29	7.2	7.1	7.2	7.4	7.4	7.4	7.7	7.6	7.6	7.8	7.4	7.6
30	7.2	7.2	7.2	7.4	7.3	7.4	7.7	7.6	7.7	7.8	7.3	7.6
31	---	---	---	7.4	7.4	7.4	7.7	7.6	7.6	---	---	---
MONTH	7.2	6.1	6.9	7.6	6.6	7.3	7.7	4.9	7.3	7.8	6.8	7.5
YEAR	7.8	4.9	7.0									

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	15.0	13.0	14.0	10.5	7.5	9.0	4.0	3.5	3.5	.5	.5	.5
2	16.0	13.5	14.5	10.5	8.0	9.0	4.0	3.0	3.5	.5	.5	.5
3	17.0	14.5	15.5	12.0	9.5	10.5	3.0	1.5	2.5	.5	.5	.5
4	18.5	16.0	17.0	11.5	10.5	11.0	2.0	1.0	1.0	.5	.5	.5
5	19.0	17.0	17.5	11.0	9.0	10.0	2.0	1.0	1.5	.5	.5	.5
6	18.0	17.0	18.0	9.5	7.5	8.5	1.0	.5	1.0	.5	.5	.5
7	17.0	14.0	15.5	10.5	9.0	9.5	1.0	.5	.5	.5	.5	.5
8	14.0	11.5	12.5	15.5	10.0	11.0	1.5	.5	1.0	.5	.5	.5
9	11.5	9.5	10.0	13.0	11.5	12.5	1.5	.5	1.0	.5	.5	.5
10	11.0	9.0	9.5	13.0	11.0	12.0	1.0	.5	1.0	.5	.5	.5
11	11.0	8.0	9.5	11.0	10.5	10.5	2.0	1.0	1.5	.5	.5	.5
12	11.0	8.0	9.5	10.5	9.0	9.5	2.5	1.5	2.0	1.0	.5	.5
13	11.0	8.5	9.5	9.0	8.5	9.0	2.0	1.0	1.5	1.0	.5	.5
14	11.5	9.0	10.0	8.5	7.0	8.0	1.5	1.0	1.5	.5	.5	.5
15	12.0	10.0	11.0	7.5	6.5	7.0	2.0	1.5	1.5	.5	.5	.5
16	14.0	11.5	12.5	6.5	6.0	6.5	4.5	2.0	2.5	.5	.5	.5
17	14.5	13.0	13.5	6.0	5.5	6.0	6.0	3.5	5.0	.5	.5	.5
18	15.0	13.5	14.0	5.5	4.0	5.0	3.5	2.0	2.5	.5	.5	.5
19	14.0	13.0	13.5	5.0	3.5	4.0	4.5	1.5	3.0	.5	.5	.5
20	14.0	12.0	13.0	4.0	3.5	3.5	1.5	.5	1.0	.5	.0	.0
21	14.5	12.0	13.0	3.5	2.0	3.0	1.0	.5	.5	.5	.0	.0
22	15.0	13.0	14.0	2.5	1.0	1.5	1.0	.5	.5	.5	.0	.5
23	16.0	14.0	14.5	2.0	.5	1.0	.5	.5	.5	.5	.0	.5
24	15.5	14.5	15.0	2.0	.5	1.0	.5	.5	.5	.5	.0	.5
25	17.0	15.0	15.5	1.5	1.0	1.0	.5	.5	.5	.5	.5	.5
26	17.0	14.5	15.5	3.0	1.5	2.0	.5	.5	.5	.5	.0	.5
27	17.0	15.0	16.0	4.0	3.0	3.5	.5	.5	.5	.5	.5	.5
28	16.0	14.5	15.5	4.5	3.5	4.0	.5	.5	.5	.5	.0	.5
29	14.5	12.0	13.0	4.0	3.5	3.5	.5	.5	.5	.5	.5	.5
30	12.0	9.5	11.0	4.0	3.5	4.0	.5	.5	.5	.5	.5	.5
31	11.0	8.5	9.5	---	---	---	.5	.5	.5	2.0	.5	1.5
MONTH	19.0	8.0	13.5	15.5	.5	6.5	6.0	.5	1.4	2.0	.0	.5

SURFACE-WATER RECORDS
Raccoon Creek Basin

03201980 LITTLE RACCOON CREEK NEAR EWINGTON, OHIO—Continued

WATER-QUALITY RECORDS—Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	9.3	8.8	9.0	9.3	8.7	9.1	12.1	11.8	12.0	12.8	12.4	12.6
2	8.9	8.5	8.7	9.6	9.1	9.3	12.3	12.1	12.2	13.1	12.8	12.9
3	8.5	7.8	8.2	9.4	9.0	9.2	13.1	12.3	12.6	13.2	12.9	13.1
4	7.8	7.2	7.5	9.2	8.9	9.1	13.4	13.1	13.2	12.9	12.7	12.8
5	7.2	6.6	6.9	9.3	8.9	9.1	13.4	13.1	13.2	12.8	12.6	12.7
6	6.6	6.2	6.4	9.6	9.1	9.3	13.5	13.2	13.3	13.0	12.7	12.8
7	6.7	6.1	6.4	9.6	9.2	9.4	13.5	13.3	13.4	13.2	13.0	13.1
8	7.8	6.7	7.4	9.3	8.9	9.1	13.3	12.4	12.9	13.4	13.1	13.3
9	8.6	7.8	8.2	9.1	8.8	8.9	12.9	12.5	12.6	13.6	13.4	13.5
10	8.7	8.3	8.5	9.7	9.1	9.4	13.0	12.8	12.9	13.6	13.3	13.5
11	8.8	8.6	8.7	10.1	9.7	9.9	13.0	12.1	12.7	13.4	13.0	13.2
12	8.8	8.6	8.7	10.3	10.0	10.2	12.6	12.1	12.4	13.1	12.7	12.9
13	9.1	8.7	8.9	10.3	10.2	10.3	12.8	12.3	12.7	13.2	12.9	13.0
14	9.1	8.8	9.0	10.6	10.3	10.4	13.1	12.8	13.0	13.2	13.1	13.1
15	8.8	8.5	8.6	10.9	10.6	10.7	13.4	12.9	13.2	13.1	12.9	13.0
16	8.5	7.6	8.0	11.0	10.7	10.9	13.0	11.4	12.6	13.0	12.9	13.0
17	10.0	7.0	7.4	11.1	10.7	10.9	11.4	9.6	10.0	13.0	12.8	12.9
18	7.0	6.0	6.4	11.3	11.1	11.2	11.1	9.7	10.4	13.2	12.8	12.9
19	6.8	6.1	6.6	11.5	11.3	11.4	10.7	8.4	9.7	13.5	13.2	13.3
20	6.8	6.5	6.6	11.6	11.4	11.5	11.7	10.7	11.3	13.6	13.2	13.4
21	6.5	5.8	6.2	11.7	11.5	11.6	12.1	11.7	11.9	13.3	12.9	13.2
22	6.8	5.8	6.4	11.9	11.7	11.8	12.4	11.9	12.0	13.1	12.5	12.9
23	6.6	5.6	6.2	12.0	11.9	12.0	12.4	11.7	12.1	13.0	12.6	12.8
24	5.6	5.1	5.3	12.7	12.0	12.3	12.0	11.7	11.9	12.9	12.6	12.8
25	5.4	5.1	5.3	12.8	12.4	12.6	12.5	11.8	12.3	13.0	12.6	12.8
26	5.7	5.1	5.5	12.8	12.2	12.4	12.4	12.1	12.3	13.2	12.8	13.1
27	6.1	5.3	5.8	12.4	12.2	12.3	12.4	12.0	12.1	13.0	12.5	12.7
28	6.6	5.9	6.3	12.3	11.7	12.0	12.2	12.1	12.2	13.3	12.9	13.1
29	7.1	6.3	6.9	12.0	11.7	11.9	12.3	12.2	12.2	13.1	12.6	13.0
30	8.0	7.1	7.7	12.0	11.7	11.9	12.2	12.1	12.2	12.9	12.0	12.5
31	8.8	8.0	8.5	---	---	---	12.4	12.2	12.3	12.5	11.4	12.1
MONTH	10.0	5.1	7.3	12.8	8.7	10.7	13.5	8.4	12.3	13.6	11.4	13.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	12.3	12.0	12.2	12.0	10.6	11.4	---	---	---	9.4	8.7	9.0
2	12.6	12.2	12.4	11.8	11.0	11.4	---	---	---	9.6	8.6	8.9
3	13.1	12.6	12.9	11.2	10.6	10.9	---	---	---	9.0	8.3	8.7
4	13.3	12.6	12.9	11.2	10.5	10.8	---	---	---	9.0	8.2	8.5
5	12.8	12.5	12.6	11.9	10.8	11.4	---	---	---	8.7	7.9	8.3
6	12.8	12.3	12.6	11.2	10.0	10.4	---	---	---	8.6	7.6	8.0
7	12.7	12.2	12.5	11.7	9.3	10.7	---	---	---	8.6	7.4	7.9
8	12.8	11.7	12.4	11.5	11.0	11.3	---	---	---	8.5	7.6	8.1
9	11.9	10.6	11.5	11.1	11.0	11.1	---	---	---	8.7	8.2	8.5
10	11.1	10.6	11.0	11.5	10.4	10.9	---	---	---	8.6	8.1	8.4
11	11.9	11.1	11.6	11.1	10.0	10.6	---	---	---	8.7	7.6	8.4
12	12.4	11.7	12.2	10.2	8.8	9.7	---	---	---	8.3	7.6	7.9
13	12.3	11.7	12.1	9.2	8.7	8.9	---	---	---	9.2	8.0	8.7
14	11.7	10.8	11.4	---	---	---	---	---	---	9.8	8.7	9.3
15	10.9	10.4	10.7	---	---	---	---	---	---	9.0	8.4	8.7
16	10.6	9.7	10.0	---	---	---	---	---	---	8.5	8.1	8.3
17	11.3	10.2	10.8	---	---	---	---	---	---	---	---	---
18	11.2	9.7	10.2	---	---	---	---	---	---	---	---	---
19	11.2	9.9	10.7	---	---	---	9.7	8.9	9.3	6.5	5.9	6.2
20	11.6	10.3	11.0	---	---	---	9.6	9.0	9.4	6.9	6.1	6.6
21	10.7	9.9	10.2	---	---	---	9.5	8.6	9.2	6.9	5.7	6.2
22	10.8	9.8	10.5	9.0	8.6	8.7	8.9	7.9	8.5	7.2	5.9	6.7
23	11.8	10.8	11.3	8.6	7.1	8.2	8.3	7.3	7.9	7.7	6.2	7.2
24	12.2	10.9	11.5	---	---	---	7.9	7.4	7.7	7.8	7.5	7.7
25	10.9	9.3	10.2	---	---	---	8.5	7.7	8.2	7.7	6.9	7.4
26	9.8	9.1	9.4	---	---	---	9.1	8.3	8.8	7.2	6.8	7.0
27	10.6	9.2	9.9	---	---	---	9.6	8.4	9.0	7.3	6.9	7.1
28	10.9	10.1	10.5	---	---	---	9.5	8.6	9.1	7.5	7.1	7.3
29	---	---	---	---	---	---	9.9	9.1	9.5	7.4	7.0	7.2
30	---	---	---	---	---	---	9.6	9.0	9.3	7.3	7.1	7.2
31	---	---	---	---	---	---	---	---	---	7.5	7.1	7.3
MONTH	13.3	9.1	11.3	12.0	7.1	10.4	9.9	7.3	8.8	9.8	5.7	7.8

SURFACE-WATER RECORDS
Raccoon Creek Basin

03201980 LITTLE RACCOON CREEK NEAR EWINGTON, OHIO—Continued

WATER-QUALITY RECORDS—Continued

The following table lists the results of chemical analysis of surface-water samples collected from Little Raccoon Creek near Ewington. Samples were collected bi-monthly beginning in February 1999 to characterize water quality before reclamation projects to reduce acid-mine drainage were conducted.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

[(00061), USGS National Water Information System parameter code; mg/L, milligrams per liter; deg C, degrees Celsius; µg/L, micrograms per liter; ---, no data; <, concentration or value reported is less than that indicated.]

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	OXYGEN, DIS-SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	SPECIFIC CONDUCTANCE (US/CM) (00095)	TEMPERATURE AIR (DEG C) (00020)	TEMPERATURE WATER (DEG C) (00010)	ACIDITY TOTAL HEATED (MG/L AS CAC03) (70508)	ALKALINITY WAT DIS FIELD (MG/L AS CAC03) (39086)	BICARBONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	ALUMINUM, DIS-SOLVED (UG/L AS AL) (01106)	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL) (01105)
OCT 13...	1000	5.4	8.5	7.0	892	10.0	8.5	---	32	39	340	<15	147
DEC 08...	1000	8.7	12.4	6.8	837	5.5	1.0	---	34	42	346	18	132
FEB 14...	0900	47	11.5	6.9	557	12.0	5.0	---	27	33	192	31	490
APR 18...	1140	66	9.6	7.1	429	8.0	11.0	---	26	31	147	23	408
JUN 13...	1130	77	7.2	6.9	417	26.0	22.0	---	24	30	147	16	354
AUG 02...	0915	14	6.7	7.6	863	24.0	24.0	---	64	78	334	42	106

DATE	IRON, DIS-SOLVED (UG/L AS FE) (01046)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	MANGANESE, DIS-SOLVED (UG/L AS MN) (01056)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)
OCT 13...	90	480	1380	1350
DEC 08...	430	670	2480	2330
FEB 14...	700	1250	1940	1970
APR 18...	190	920	1480	1430
JUN 13...	30	1040	1370	1340
AUG 02...	<10	380	952	957

SURFACE-WATER RECORDS
Symmec Creek Basin

03205470 SYMMES CREEK AT AID, OHIO

LOCATION.—Latitude 38°35'46", longitude 82°29'43", Lawrence County, Hydrologic Unit 05090101, on right bank, at State Route 141 at Aid, 0.1 mi west of intersection with state route 378, 1.2 mi downstream of Sharps Creek.

DRAINAGE AREA.—302 mi².

PERIOD OF RECORD.—November 1, 2000 to September 30, 2001.

GAGE.—Water-stage recorder. Datum of gage is 560.00 ft above sea level.

REMARKS.—Records poor Nov. 1 to Apr. 27, fair Apr. 28 to Sep. 30, and for periods of estimated record, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	24	39	e34	e540	e196	e300	39	200	24	21	41
2	---	26	34	e33	e600	e187	e280	37	382	19	14	21
3	---	22	29	e32	e480	e172	e260	42	701	15	18	41
4	---	19	28	e30	e400	400	e250	34	555	17	10	30
5	---	17	26	e29	e320	1800	e230	33	1020	20	7.3	22
6	---	19	25	e28	e280	1430	e386	39	747	15	6.0	16
7	---	24	23	e27	e240	1140	e545	35	1290	13	6.0	12
8	---	23	22	e27	e210	895	630	32	872	15	4.1	8.9
9	---	30	24	e26	179	e551	455	36	697	13	3.1	6.7
10	---	60	47	e25	221	e401	339	29	550	12	3.0	4.8
11	---	119	56	e24	268	e295	274	37	307	10	2.7	3.6
12	---	121	39	e23	226	e248	227	33	194	10	2.3	2.5
13	---	94	32	e23	194	e1000	194	31	146	8.9	2.0	2.1
14	---	78	133	e22	177	e940	167	34	123	7.6	1.7	1.8
15	---	64	221	e22	235	e950	152	36	113	6.5	1.5	1.5
16	---	54	395	e21	820	e1100	162	384	99	5.6	1.9	1.4
17	---	45	2630	e21	1940	e1100	e146	1660	77	5.3	1.7	1.3
18	---	38	2530	e20	1540	e900	e121	3160	63	43	1.6	1.0
19	---	34	2160	e32	1230	e740	e98	6580	53	26	1.8	1.2
20	---	30	2280	e50	844	e600	e85	5930	43	34	1.7	1.7
21	---	25	1470	e42	461	e1300	e87	4320	35	14	1.5	2.1
22	---	23	471	e38	335	e2300	e111	3910	39	8.8	1.4	2.2
23	---	25	e210	e36	281	e2200	e128	4180	88	6.8	18	2.2
24	---	73	e180	e34	256	e1300	e112	4220	122	5.8	31	2.7
25	---	90	e140	e32	253	e860	e92	4200	91	4.7	17	3.1
26	---	95	e110	e30	e248	e700	e70	3010	65	4.3	7.7	2.8
27	---	107	e90	e29	e217	e560	e68	1900	50	4.5	6.3	2.4
28	---	106	e70	e27	e190	e470	e60	717	41	5.2	4.6	2.3
29	---	72	e60	e26	---	e410	e51	386	33	15	3.5	2.2
30	---	50	e50	e400	---	e370	e47	260	29	32	3.3	1.8
31	---	---	e42	e500	---	e340	---	202	---	19	4.2	---
TOTAL	---	1607	13666	1743	13185	25855	6127	45546	8825	440.0	209.9	245.3
MEAN	---	53.6	441	56.2	471	834	204	1469	294	14.2	6.77	8.18
MAX	---	121	2630	500	1940	2300	630	6580	1290	43	31	41
MIN	---	17	22	20	177	172	47	29	29	4.3	1.4	1.0

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

	2001	2001	2001	2001	2001	2001	2001	2001	2001	2001	2001	2001
MEAN	---	53.6	441	56.2	471	834	204	1469	294	14.2	6.77	8.18
MAX	---	53.6	441	56.2	471	834	204	1469	294	14.2	6.77	8.18
(WY)	---	2001	2001	2001	2001	2001	2001	2001	2001	2001	2001	2001
MIN	---	53.6	441	56.2	471	834	204	1469	294	14.2	6.77	8.18
(WY)	---	2001	2001	2001	2001	2001	2001	2001	2001	2001	2001	2001

SUMMARY STATISTICS

FOR 2001 WATER YEAR

HIGHEST DAILY MEAN	6580	May 19
LOWEST DAILY MEAN	1.0	Sep 18
ANNUAL SEVEN-DAY MINIMUM	1.4	Sep 14
MAXIMUM PEAK FLOW	7100	May 19
MAXIMUM PEAK STAGE	23.56	May 19
INSTANTANEOUS LOW FLOW	1.0	Sep 18
10 PERCENT EXCEEDS	920	
50 PERCENT EXCEEDS	43	
90 PERCENT EXCEEDS	3.2	

e Estimated.

SURFACE-WATER RECORDS
Scioto River Basin

03219500 SCIOTO RIVER NEAR PROSPECT, OHIO—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—June 1998 to current year.

PERIOD OF DAILY RECORD.—

SPECIFIC CONDUCTANCE: June 1998 to current year.

pH: June 1998 to current year.

WATER TEMPERATURES: June 1998 to current year.

DISSOLVED OXYGEN: June 1998 to current year.

INSTRUMENTATION.—Water-quality monitor. Electronic data logger. Set for 1-hour interval.

REMARKS.—Interruptions in the water-quality were due to malfunction of the instrument except for Dec. 12-Mar. 15 when monitor was turned off for the winter, and Mar. 16-May 3 due to pump problems. All records fair except for dissolved oxygen, which is poor.

EXTREMES FOR PERIOD OF DAILY RECORD.—

SPECIFIC CONDUCTANCE: Maximum, 1,830 microsiemens, Jan. 16, 1999; minimum, 289 microsiemens, Apr. 9, 2000.

pH: Maximum, 9.4 units, nov. 28, 1999; minimum, 6.9 units, JApr. 10, 29, May 3 and 16.

WATER TEMPERATURES: Maximum, 32.5°C, July 31, 1999; minimum, 0.0°C, on several days during winter.

DISSOLVED OXYGEN: Maximum, 18.7 mg/L, Nov. 28, 1999; minimum, 0.9 mg/L, July 23, 1999.

EXTREMES FOR CURRENT YEAR.—

SPECIFIC CONDUCTANCE: Maximum, 1,010 microsiemens, Nov. 4-6 and Dec. 10; minimum, 442 microsiemens, Sept. 2.

pH: Maximum, 8.8 units, July 13; minimum, 7.2 units, Sept. 1 and 2.

WATER TEMPERATURES: Maximum, 31.0°C, July 24; minimum, 0.0°C, Nov. 22, 23, and Dec. 5-10.

DISSOLVED OXYGEN: Maximum, 17.9 mg/L, Dec. 9; minimum, 2.8 mg/L, July 25.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	699	670	683	980	971	976	987	961	973	---	---	---
2	735	699	717	988	974	980	964	948	957	---	---	---
3	757	735	748	1000	988	994	977	960	968	---	---	---
4	759	752	756	1010	1000	1000	970	952	963	---	---	---
5	754	725	743	1010	1000	1010	967	953	961	---	---	---
6	795	753	769	1010	969	992	980	953	968	---	---	---
7	859	756	815	981	968	973	984	957	972	---	---	---
8	806	713	777	981	967	977	983	960	969	---	---	---
9	713	640	658	974	907	932	1000	972	990	---	---	---
10	748	668	720	918	909	914	1010	972	990	---	---	---
11	749	743	746	916	816	866	---	---	---	---	---	---
12	773	749	762	841	724	765	---	---	---	---	---	---
13	799	773	785	812	723	765	---	---	---	---	---	---
14	821	799	811	810	767	783	---	---	---	---	---	---
15	835	818	825	778	767	770	---	---	---	---	---	---
16	859	835	845	801	778	790	---	---	---	---	---	---
17	875	859	865	839	801	819	---	---	---	---	---	---
18	887	875	881	869	839	852	---	---	---	---	---	---
19	893	863	878	887	869	877	---	---	---	---	---	---
20	892	847	863	910	887	898	---	---	---	---	---	---
21	936	871	906	934	910	920	---	---	---	---	---	---
22	943	918	934	955	927	941	---	---	---	---	---	---
23	918	912	915	966	945	955	---	---	---	---	---	---
24	920	909	916	978	963	969	---	---	---	---	---	---
25	924	917	919	980	946	963	---	---	---	---	---	---
26	951	923	936	957	951	955	---	---	---	---	---	---
27	962	951	958	968	957	964	---	---	---	---	---	---
28	961	951	957	978	967	971	---	---	---	---	---	---
29	967	960	962	979	957	970	---	---	---	---	---	---
30	977	967	970	987	977	983	---	---	---	---	---	---
31	982	976	979	---	---	---	---	---	---	---	---	---
MONTH	982	640	839	1010	723	917	1010	948	971	---	---	---

SURFACE-WATER RECORDS
Scioto River Basin

03219500 SCIOTO RIVER NEAR PROSPECT, OHIO—Continued

WATER-QUALITY RECORDS—Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	MAX	MIN	MEAN									
1	7.7	7.6	7.6	7.7	7.4	7.5	8.0	7.7	7.8	---	---	---
2	7.7	7.6	7.7	7.8	7.4	7.6	8.1	7.7	7.9	---	---	---
3	7.7	7.6	7.7	7.7	7.4	7.5	8.1	7.8	7.9	---	---	---
4	7.7	7.6	7.7	7.7	7.4	7.5	8.2	7.8	7.9	---	---	---
5	7.7	7.5	7.6	7.8	7.5	7.6	8.2	7.8	8.0	---	---	---
6	7.5	7.5	7.5	7.9	7.4	7.6	8.2	7.8	8.0	---	---	---
7	7.5	7.3	7.4	7.8	7.4	7.5	8.1	7.8	7.9	---	---	---
8	7.6	7.3	7.5	7.6	7.4	7.4	8.2	7.8	8.0	---	---	---
9	7.5	7.5	7.5	7.5	7.4	7.4	8.2	7.8	7.9	---	---	---
10	7.6	7.5	7.5	7.5	7.4	7.5	8.2	7.8	7.9	---	---	---
11	7.6	7.5	7.5	7.5	7.3	7.4	7.8	7.6	7.7	---	---	---
12	7.6	7.5	7.5	7.5	7.4	7.5	7.9	7.5	7.7	---	---	---
13	7.6	7.5	7.5	7.5	7.5	7.5	---	---	---	---	---	---
14	7.6	7.5	7.5	7.5	7.4	7.5	---	---	---	---	---	---
15	7.5	7.5	7.5	7.6	7.5	7.5	---	---	---	---	---	---
16	7.5	7.4	7.5	7.6	7.5	7.5	---	---	---	---	---	---
17	7.5	7.4	7.5	7.7	7.6	7.6	---	---	---	---	---	---
18	7.6	7.4	7.5	7.7	7.5	7.7	---	---	---	---	---	---
19	7.5	7.4	7.4	7.8	7.7	7.7	---	---	---	---	---	---
20	7.4	7.4	7.4	7.8	7.7	7.8	---	---	---	---	---	---
21	7.5	7.4	7.5	7.9	7.8	7.8	---	---	---	---	---	---
22	7.5	7.4	7.5	7.9	7.8	7.8	---	---	---	---	---	---
23	7.5	7.4	7.5	7.9	7.8	7.8	---	---	---	---	---	---
24	7.4	7.4	7.4	7.9	7.8	7.8	---	---	---	---	---	---
25	7.4	7.3	7.4	7.8	7.7	7.8	---	---	---	---	---	---
26	7.5	7.4	7.4	7.8	7.7	7.7	---	---	---	---	---	---
27	7.5	7.4	7.4	7.8	7.7	7.8	---	---	---	---	---	---
28	7.6	7.4	7.5	7.9	7.7	7.8	---	---	---	---	---	---
29	7.7	7.4	7.5	7.8	7.7	7.7	---	---	---	---	---	---
30	7.7	7.4	7.5	8.0	7.7	7.8	---	---	---	---	---	---
31	7.7	7.4	7.5	---	---	---	---	---	---	---	---	---
MONTH	7.7	7.3	7.5	8.0	7.3	7.6	8.2	7.5	7.9	---	---	---

DAY	MAX	MIN	MEAN									
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	8.1	7.8	7.9
5	---	---	---	---	---	---	---	---	---	8.0	7.8	7.9
6	---	---	---	---	---	---	---	---	---	8.0	7.8	7.9
7	---	---	---	---	---	---	---	---	---	8.0	7.9	7.9
8	---	---	---	---	---	---	---	---	---	8.0	7.8	7.9
9	---	---	---	---	---	---	---	---	---	8.0	7.8	7.9
10	---	---	---	---	---	---	---	---	---	7.9	7.8	7.9
11	---	---	---	---	---	---	---	---	---	8.0	7.8	7.9
12	---	---	---	---	---	---	---	---	---	7.9	7.8	7.8
13	---	---	---	---	---	---	---	---	---	7.8	7.5	7.6
14	---	---	---	---	---	---	---	---	---	7.7	7.5	7.7
15	---	---	---	---	---	---	---	---	---	7.8	7.7	7.8
16	---	---	---	---	---	---	---	---	---	7.8	7.4	7.5
17	---	---	---	---	---	---	---	---	---	7.6	7.4	7.6
18	---	---	---	---	---	---	---	---	---	7.6	7.5	7.5
19	---	---	---	---	---	---	---	---	---	7.5	7.4	7.4
20	---	---	---	---	---	---	---	---	---	7.5	7.4	7.5
21	---	---	---	---	---	---	---	---	---	7.5	7.4	7.5
22	---	---	---	---	---	---	---	---	---	7.6	7.5	7.5
23	---	---	---	---	---	---	---	---	---	7.7	7.6	7.6
24	---	---	---	---	---	---	---	---	---	7.7	7.6	7.7
25	---	---	---	---	---	---	---	---	---	7.7	7.7	7.7
26	---	---	---	---	---	---	---	---	---	7.7	7.6	7.7
27	---	---	---	---	---	---	---	---	---	7.7	7.6	7.6
28	---	---	---	---	---	---	---	---	---	7.6	7.5	7.6
29	---	---	---	---	---	---	---	---	---	7.6	7.5	7.5
30	---	---	---	---	---	---	---	---	---	7.6	7.6	7.6
31	---	---	---	---	---	---	---	---	---	7.6	7.6	7.6
MONTH	---	---	---	---	---	---	---	---	---	8.1	7.4	7.7

SURFACE-WATER RECORDS
Scioto River Basin

03219500 SCIOTO RIVER NEAR PROSPECT, OHIO—Continued

WATER-QUALITY RECORDS—Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001—Continued

DAY	MAX	MIN	MEAN									
1	7.7	7.6	7.6	8.1	7.8	7.9	8.4	7.7	8.0	7.7	7.2	7.5
2	7.7	7.7	7.7	8.2	7.8	8.0	8.6	7.8	8.1	7.5	7.2	7.4
3	7.8	7.7	7.7	8.1	7.9	8.0	8.0	7.8	7.9	7.8	7.4	7.6
4	7.8	7.8	7.8	8.0	7.8	7.9	8.0	7.7	7.8	7.9	7.6	7.7
5	7.8	7.8	7.8	8.2	7.8	8.0	8.1	7.8	7.9	8.0	7.6	7.8
6	7.8	7.6	7.7	8.3	7.9	8.1	8.0	7.7	7.8	8.1	7.7	7.9
7	7.7	7.6	7.7	8.3	8.0	8.1	8.0	7.7	7.8	---	---	---
8	7.7	7.6	7.6	8.4	7.9	8.1	8.3	7.7	7.9	---	---	---
9	7.7	7.6	7.6	8.4	7.9	8.2	8.5	7.7	8.1	---	---	---
10	7.7	7.6	7.7	8.6	8.0	8.3	8.5	7.8	8.1	---	---	---
11	7.7	7.6	7.7	8.6	8.2	8.4	8.5	7.9	8.2	---	---	---
12	7.7	7.6	7.7	8.7	8.3	8.5	8.1	7.8	8.0	---	---	---
13	7.7	7.6	7.6	8.8	8.3	8.6	8.1	7.7	7.8	---	---	---
14	7.7	7.6	7.6	8.7	8.4	8.5	8.1	7.7	7.8	8.0	7.8	7.9
15	7.8	7.6	7.7	8.7	8.4	8.5	8.3	7.7	8.0	8.0	7.8	7.9
16	7.8	7.7	7.7	8.6	8.3	8.5	8.3	7.8	8.0	8.0	7.8	7.9
17	7.8	7.7	7.7	8.3	8.0	8.2	8.5	7.9	8.1	8.0	7.8	7.9
18	7.8	7.7	7.8	8.2	8.0	8.1	8.2	7.8	8.0	7.9	7.7	7.8
19	7.9	7.8	7.8	8.3	7.9	8.1	8.2	7.8	8.0	7.7	7.7	7.7
20	8.0	7.8	7.9	8.6	8.0	8.3	8.1	7.8	8.0	7.8	7.7	7.7
21	7.9	7.7	7.8	8.7	8.2	8.4	8.2	7.8	8.0	7.8	7.7	7.7
22	7.7	7.6	7.7	8.5	8.1	8.3	8.1	7.8	7.9	7.8	7.6	7.7
23	7.7	7.4	7.5	8.4	7.9	8.2	8.1	7.9	8.0	7.7	7.6	7.6
24	7.7	7.4	7.6	8.2	7.8	8.0	8.1	7.9	8.0	7.7	7.6	7.6
25	7.8	7.7	7.7	8.0	7.8	7.8	8.4	7.9	8.1	7.8	7.7	7.8
26	7.9	7.7	7.8	7.8	7.7	7.8	8.4	7.9	8.1	7.9	7.8	7.9
27	8.1	7.8	7.9	7.8	7.7	7.8	8.4	7.9	8.1	7.9	7.8	7.8
28	8.1	7.8	8.0	8.0	7.7	7.9	8.2	8.0	8.1	7.9	7.8	7.9
29	8.1	7.8	7.9	7.8	7.6	7.7	8.0	7.9	8.0	8.0	7.9	7.9
30	8.1	7.8	7.9	7.8	7.5	7.6	8.2	7.8	8.0	8.0	7.9	7.9
31	---	---	---	8.1	7.5	7.8	7.8	7.6	7.7	---	---	---
MONTH	8.1	7.4	7.7	8.8	7.5	8.1	8.6	7.6	8.0	8.1	7.2	7.8
YEAR	8.8	7.2	7.8									

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	18.0	14.0	15.5	---	---	---	4.5	3.0	4.0	---	---	---
2	20.0	15.0	17.5	14.5	10.5	12.5	4.0	1.5	2.5	---	---	---
3	21.5	17.0	19.0	15.5	12.0	13.0	3.5	.5	1.5	---	---	---
4	20.0	17.5	18.5	14.5	10.5	12.5	2.0	.5	1.0	---	---	---
5	18.0	16.5	17.0	13.5	9.0	10.5	1.5	.0	1.0	---	---	---
6	17.0	14.0	16.0	12.0	8.0	10.0	.5	.0	.5	---	---	---
7	14.0	12.5	13.0	13.0	10.0	11.0	.5	.0	.5	---	---	---
8	13.0	11.0	12.0	12.5	11.0	12.0	1.0	.0	.5	---	---	---
9	11.5	10.0	10.5	14.5	12.5	13.5	.5	.0	.5	---	---	---
10	12.5	9.5	10.5	13.0	10.5	11.0	.5	.0	.5	---	---	---
11	13.5	9.5	11.0	11.0	9.5	10.5	3.5	.5	1.5	---	---	---
12	14.0	9.5	11.0	10.5	9.5	10.0	---	---	---	---	---	---
13	14.5	10.0	12.0	9.5	8.5	9.0	---	---	---	---	---	---
14	15.5	11.0	13.0	8.5	7.0	7.5	---	---	---	---	---	---
15	15.0	13.0	14.0	7.5	6.0	6.5	---	---	---	---	---	---
16	16.0	13.5	14.5	6.5	5.5	6.0	---	---	---	---	---	---
17	15.0	14.0	14.5	5.5	4.0	4.5	---	---	---	---	---	---
18	16.5	13.0	14.5	4.5	3.5	3.5	---	---	---	---	---	---
19	16.5	12.5	14.0	5.5	3.0	4.0	---	---	---	---	---	---
20	16.5	13.0	14.5	3.5	1.5	3.0	---	---	---	---	---	---
21	16.0	13.0	14.5	1.5	.5	1.0	---	---	---	---	---	---
22	16.5	13.0	14.5	1.5	.0	.5	---	---	---	---	---	---
23	17.0	13.5	15.0	2.5	.0	1.0	---	---	---	---	---	---
24	17.0	15.0	16.0	3.5	.5	1.5	---	---	---	---	---	---
25	18.0	15.5	16.5	3.0	1.0	2.0	---	---	---	---	---	---
26	19.5	15.0	17.0	4.0	3.0	3.5	---	---	---	---	---	---
27	19.5	15.5	17.0	4.5	3.5	4.0	---	---	---	---	---	---
28	18.0	13.5	16.0	4.5	3.0	3.5	---	---	---	---	---	---
29	16.0	11.0	13.0	3.5	2.5	3.0	---	---	---	---	---	---
30	15.0	9.5	12.0	4.5	3.0	3.5	---	---	---	---	---	---
31	14.5	9.0	11.5	---	---	---	---	---	---	---	---	---
MONTH	21.5	9.0	14.5	15.5	.0	6.5	4.5	.0	1.5	---	---	---

SURFACE-WATER RECORDS
Scioto River Basin

03219500 SCIOTO RIVER NEAR PROSPECT, OHIO—Continued

WATER-QUALITY RECORDS—Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001												
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	6.9	5.9	6.4	---	---	---	14.3	10.2	11.6	---	---	---
2	6.4	5.3	5.9	15.1	5.1	8.7	15.3	10.4	12.2	---	---	---
3	6.4	5.1	5.6	13.9	4.2	6.7	16.1	11.1	12.7	---	---	---
4	6.7	5.2	5.9	11.2	4.1	6.6	16.6	11.5	13.2	---	---	---
5	6.6	4.9	5.9	15.4	5.8	9.1	16.5	11.7	13.5	---	---	---
6	6.3	4.8	5.4	12.2	6.0	8.5	17.3	12.1	14.0	---	---	---
7	5.9	4.1	5.2	10.5	5.0	6.9	16.7	12.1	13.6	---	---	---
8	7.7	4.9	7.2	7.0	4.3	5.4	17.1	11.9	13.7	---	---	---
9	8.4	7.6	7.9	6.5	4.4	5.5	17.9	12.1	14.2	---	---	---
10	9.3	8.3	8.9	6.5	5.1	5.9	17.5	12.0	13.8	---	---	---
11	10.0	8.8	9.3	6.1	5.1	5.6	---	---	---	---	---	---
12	10.2	8.8	9.4	7.2	6.0	6.9	---	---	---	---	---	---
13	10.4	8.6	9.3	7.6	7.1	7.4	---	---	---	---	---	---
14	10.1	8.2	9.0	8.2	7.6	7.9	---	---	---	---	---	---
15	8.7	7.3	8.0	9.2	8.2	8.7	---	---	---	---	---	---
16	8.5	6.3	7.3	9.4	8.5	9.0	---	---	---	---	---	---
17	7.5	6.1	6.6	10.1	9.2	9.6	---	---	---	---	---	---
18	8.9	5.9	7.0	11.0	9.6	10.2	---	---	---	---	---	---
19	7.9	5.3	6.1	11.5	9.9	10.5	---	---	---	---	---	---
20	7.1	4.9	5.8	11.8	10.0	10.8	---	---	---	---	---	---
21	8.1	5.7	6.7	12.7	10.9	11.7	---	---	---	---	---	---
22	8.6	5.9	6.9	12.8	11.4	11.9	---	---	---	---	---	---
23	8.1	5.0	6.3	13.1	11.3	11.9	---	---	---	---	---	---
24	6.5	4.3	5.3	13.2	11.2	11.9	---	---	---	---	---	---
25	6.4	3.8	4.8	12.4	10.8	11.5	---	---	---	---	---	---
26	8.1	3.8	5.4	11.8	10.4	10.9	---	---	---	---	---	---
27	8.8	3.6	5.5	12.6	10.4	11.1	---	---	---	---	---	---
28	9.8	3.7	5.9	13.5	10.3	11.3	---	---	---	---	---	---
29	11.9	5.2	7.7	12.0	10.0	10.7	---	---	---	---	---	---
30	13.6	6.2	8.7	13.6	10.3	11.3	---	---	---	---	---	---
31	14.8	6.0	8.8	---	---	---	---	---	---	---	---	---
MONTH	14.8	3.6	6.9	15.4	4.1	9.1	17.9	10.2	13.2	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	8.9	5.1	6.9
5	---	---	---	---	---	---	---	---	---	8.4	5.2	6.8
6	---	---	---	---	---	---	---	---	---	8.3	5.4	6.9
7	---	---	---	---	---	---	---	---	---	8.0	6.0	6.8
8	---	---	---	---	---	---	---	---	---	8.2	5.7	6.8
9	---	---	---	---	---	---	---	---	---	8.6	5.9	7.2
10	---	---	---	---	---	---	---	---	---	8.6	6.4	7.4
11	---	---	---	---	---	---	---	---	---	12.2	6.2	8.7
12	---	---	---	---	---	---	---	---	---	12.6	12.2	12.4
13	---	---	---	---	---	---	---	---	---	13.5	12.5	13.0
14	---	---	---	---	---	---	---	---	---	13.8	12.8	13.3
15	---	---	---	---	---	---	---	---	---	13.9	13.2	13.5
16	---	---	---	---	---	---	---	---	---	14.0	13.5	13.8
17	---	---	---	---	---	---	---	---	---	13.7	13.4	13.5
18	---	---	---	---	---	---	---	---	---	13.5	13.4	13.5
19	---	---	---	---	---	---	---	---	---	13.5	13.2	13.4
20	---	---	---	---	---	---	---	---	---	13.6	12.9	13.2
21	---	---	---	---	---	---	---	---	---	13.0	9.4	12.3
22	---	---	---	---	---	---	---	---	---	12.2	10.8	11.6
23	---	---	---	---	---	---	---	---	---	11.7	11.1	11.4
24	---	---	---	---	---	---	---	---	---	11.8	11.3	11.6
25	---	---	---	---	---	---	---	---	---	11.8	11.3	11.6
26	---	---	---	---	---	---	---	---	---	11.8	11.3	11.6
27	---	---	---	---	---	---	---	---	---	11.8	11.2	11.4
28	---	---	---	---	---	---	---	---	---	11.6	11.1	11.4
29	---	---	---	---	---	---	---	---	---	11.5	10.3	10.8
30	---	---	---	---	---	---	---	---	---	10.4	9.2	9.9
31	---	---	---	---	---	---	---	---	---	11.4	9.4	10.1
MONTH	---	---	---	---	---	---	---	---	---	14.0	5.1	10.7

SURFACE-WATER RECORDS
Scioto River Basin

03220000 MILL CREEK NEAR BELLEPOINT, OHIO

LOCATION.—Latitude 40°14'54", longitude 83°10'26", Delaware County, Hydrologic Unit 05060001, on left bank at upstream side of county road bridge, 1.2 mi west of Bellepoint, Ohio, 1.5 mi upstream from mouth, and 2.3 mi downstream from Blues Creek.

DRAINAGE AREA.—178 mi².

PERIOD OF RECORD.—October 1942 to current year. Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.—WSP 1908: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is 865.14 ft above sea level (levels by students of The Ohio State University, City of Columbus bench mark). Prior to Jan. 1, 1948, nonrecording gage at same site and datum.

REMARKS.—Records fair except for periods of estimated record, which are poor. Water-quality data formerly collected at this site. U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.—A stage of 18.0 ft occurred in March 1913.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	17	36	e29	395	72	33	34	124	17	9.8	84
2	16	14	33	e27	167	60	38	35	140	38	8.3	50
3	15	13	e23	e26	94	56	37	31	104	26	38	36
4	13	13	e20	e25	e70	49	34	33	69	24	237	20
5	146	12	e18	e23	e64	44	32	26	62	23	70	13
6	716	13	e15	e22	e50	41	34	23	519	19	40	9.7
7	288	14	e14	e21	e40	40	66	22	885	17	22	7.8
8	110	16	e13	e20	e54	36	93	22	247	17	16	6.1
9	63	25	e12	e19	160	36	68	31	120	15	13	15
10	43	192	e14	e18	962	33	107	25	75	10	11	19
11	36	220	e19	e17	466	30	2510	24	55	11	13	153
12	26	107	126	e16	163	31	2070	22	55	12	9.7	67
13	21	64	151	e24	115	41	436	18	55	10	11	32
14	19	46	e70	28	266	91	182	17	38	7.2	17	21
15	15	35	e60	59	1050	134	129	33	35	5.9	21	17
16	15	29	921	155	531	116	192	651	39	5.7	14	13
17	16	29	2320	146	277	248	203	1050	39	8.0	16	9.1
18	19	23	902	82	142	204	119	1610	26	6.3	14	6.9
19	19	22	220	e56	91	125	86	2440	20	10	34	12
20	15	18	112	e37	77	90	436	876	22	22	41	13
21	15	17	95	e30	68	75	1400	247	32	24	17	11
22	13	15	78	e27	63	63	410	178	48	14	11	20
23	15	15	104	e23	57	56	189	166	39	8.6	18	18
24	13	14	87	e21	50	49	122	502	66	7.2	21	15
25	11	14	e50	e20	74	44	83	966	41	9.4	17	13
26	14	18	e43	e18	190	40	64	943	27	27	17	12
27	13	22	e40	e17	134	37	53	1230	23	21	46	6.9
28	15	17	e38	e16	90	34	46	556	20	19	38	6.8
29	12	20	e37	e15	---	31	40	223	17	17	22	6.6
30	10	35	e34	e68	---	32	37	138	17	18	16	7.4
31	12	---	e31	961	---	33	---	114	---	14	16	---
TOTAL	1778	1109	5736	2666	5960	2071	9349	12286	3059	483.3	894.8	721.3
MEAN	57.4	37.0	185	86.0	213	66.8	312	396	102	15.6	28.9	24.0
MAX	716	220	2320	961	1050	248	2510	2440	885	38	237	153
MIN	10	12	12	15	40	30	32	17	17	5.7	8.3	6.1
CFSM	.32	.21	1.04	.48	1.20	.38	1.75	2.23	.57	.09	.16	.14
IN.	.37	.23	1.20	.56	1.25	.43	1.95	2.57	.64	.10	.19	.15

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 2001, BY WATER YEAR (WY)

MEAN	26.3	94.2	168	252	283	323	293	178	144	77.6	38.4	24.3
MAX	449	553	1130	1227	768	963	874	746	734	769	332	303
(WY)	1987	1973	1991	1950	1975	1978	1972	1996	1997	1992	1979	1979
MIN	.90	1.99	2.17	3.82	8.09	36.1	29.6	10.5	5.19	1.33	1.75	1.00
(WY)	1954	1964	1964	1977	1964	1983	1971	1955	1988	1944	1965	1944

SUMMARY STATISTICS FOR 2000 CALENDAR YEAR FOR 2001 WATER YEAR WATER YEARS 1944 - 2001

ANNUAL TOTAL	53964.2	46113.4	
ANNUAL MEAN	147	126	158
HIGHEST ANNUAL MEAN			258
LOWEST ANNUAL MEAN			51.4
HIGHEST DAILY MEAN	5070	Apr 8	2510
LOWEST DAILY MEAN	5.1	Sep 3	5.7
ANNUAL SEVEN-DAY MINIMUM	6.5	Aug 31	7.6
MAXIMUM PEAK FLOW			3360
MAXIMUM PEAK STAGE			7.34
INSTANTANEOUS LOW FLOW			5.3
ANNUAL RUNOFF (CFSM)	.83		.71
ANNUAL RUNOFF (INCHES)	11.28		9.64
10 PERCENT EXCEEDS	302		229
50 PERCENT EXCEEDS	36		32
90 PERCENT EXCEEDS	11		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
Scioto River Basin

03220510 SCIOTO RIVER AT O'SHAUGHNESSY DAM, OHIO

LOCATION.—Latitude 40°09'14", longitude 83°07'33", Delaware County, Hydrologic Unit 05060001, 200 ft downstream from dam.
DRAINAGE AREA.—979 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.—June 1998 to current year.

PERIOD OF DAILY RECORD—

SPECIFIC CONDUCTANCE: June 1998 to current year.

pH: June 1998 to current year.

WATER TEMPERATURES: June 1998 to September 1998.

DISSOLVED OXYGEN: June 1998 to current year.

INSTRUMENTATION.—Water-quality monitor. Electronic data logger. Set for 1-hour interval.

REMARKS.—Interruptions in the water-quality record were due to malfunction of the instrument. Specific conductance record is good to fair except for Feb. 27-Mar. 12, which is poor; pH record is fair except for Feb. 27-Mar. 12, which is poor; water temperature record is good; dissolved oxygen record is poor due to gage location and construction throughout the water year.

EXTREMES FOR PERIOD OF DAILY RECORD.—

SPECIFIC CONDUCTANCE: Maximum, 1,400 microsiemens, Dec. 21, 1998; minimum, 229 microsiemens, Apr. 9, 2000.

pH: Maximum, 9.1 units, Apr. 8, 2001; minimum, 6.1 units, Feb. 5 and Mar. 14, 2001.

WATER TEMPERATURES: Maximum, 30.5°C, July 30, 1999; minimum, 0.5°C, Feb. 13-17, Dec. 20, 2000, and Feb. 2, 2001.

DISSOLVED OXYGEN: Maximum, 17.5 mg/L, May 12, 2001; minimum, 0.2 mg/L, Aug. 13, 14, 1999, Aug. 25 and 26, 2000.

EXTREMES FOR CURRENT YEAR.—

SPECIFIC CONDUCTANCE: Maximum, 929 microsiemens, Mar. 29; minimum, 417 microsiemens, May 20.

pH: Maximum, 9.1 units, Apr. 8; minimum, 6.1 units, Feb. 5 and Mar. 14.

WATER TEMPERATURES: Maximum, 29.0°C, Aug. 12; minimum, 0.5°C, Dec. 20 and Feb. 2.

DISSOLVED OXYGEN: Maximum, 17.5 mg/L, May 12; minimum, 0.3 mg/L, July 5, Aug. 6, 31, and Sept. 1.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	767	750	761	725	694	705	826	818	823	652	638	648
2	764	743	757	737	716	725	835	822	827	672	652	662
3	765	752	760	736	697	717	837	827	832	679	669	674
4	771	728	759	712	700	706	839	823	831	684	671	679
5	794	729	761	719	701	710	845	831	838	708	673	692
6	777	726	747	732	714	722	845	829	835	713	703	707
7	743	725	733	764	722	747	851	826	837	718	705	710
8	741	734	738	774	729	751	851	845	848	720	700	710
9	750	736	743	792	748	775	855	843	847	703	695	700
10	760	741	753	790	758	775	863	849	856	711	697	703
11	759	731	744	759	752	755	874	850	862	716	703	709
12	746	728	738	753	744	747	898	864	878	716	705	711
13	735	702	716	784	744	762	864	838	852	720	712	715
14	723	706	713	804	768	783	845	837	839	731	719	723
15	728	716	720	807	790	797	895	845	879	728	719	723
16	728	713	718	882	802	835	925	851	891	747	727	739
17	723	709	715	822	810	817	852	613	743	750	737	744
18	727	715	721	823	806	815	613	427	483	757	744	750
19	729	716	722	816	797	807	451	425	435	769	751	758
20	728	703	713	802	788	796	457	448	452	770	764	767
21	716	698	708	807	798	802	516	457	499	784	765	773
22	711	700	706	805	785	799	575	516	554	782	767	775
23	715	696	707	806	786	797	574	562	568	780	768	774
24	720	703	711	805	788	798	582	566	572	781	773	777
25	721	703	712	810	787	799	610	582	594	787	777	782
26	718	696	713	823	808	815	608	598	603	794	779	785
27	715	674	694	823	814	818	614	600	609	798	793	795
28	725	688	705	827	810	820	615	598	608	804	793	800
29	696	687	690	829	817	823	618	609	614	811	793	803
30	695	680	689	829	820	825	618	610	614	825	686	800
31	695	684	691	---	---	---	638	618	630	834	807	821
MONTH	794	674	724	882	694	778	925	425	715	834	638	739

SURFACE-WATER RECORDS
Scioto River Basin

03220510 SCIOTO RIVER AT O'SHAUGHNESSY DAM, OHIO—Continued

WATER-QUALITY RECORDS—Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	MAX	MIN	MEAN									
1	7.8	7.5	7.6	7.7	7.3	7.5	7.8	7.4	7.7	7.5	7.4	7.4
2	7.8	7.5	7.6	7.5	7.3	7.4	7.7	7.2	7.5	7.5	7.4	7.5
3	7.9	7.5	7.6	7.7	6.9	7.4	7.8	7.2	7.5	7.5	7.4	7.5
4	8.0	7.4	7.7	7.8	7.3	7.5	7.8	7.2	7.5	7.5	6.2	7.0
5	7.6	7.4	7.5	7.9	7.4	7.6	7.7	7.1	7.6	7.5	6.5	7.3
6	7.8	7.5	7.6	8.0	7.3	7.7	7.8	7.2	7.4	7.5	7.3	7.4
7	7.7	7.5	7.6	7.7	7.4	7.6	7.8	7.2	7.5	7.5	7.3	7.5
8	7.6	7.5	7.5	7.7	7.2	7.6	7.8	7.2	7.6	7.5	7.0	7.3
9	7.6	7.5	7.5	7.6	7.0	7.5	7.8	7.2	7.4	7.4	7.0	7.2
10	7.8	7.4	7.5	7.6	7.4	7.5	7.8	7.2	7.6	7.5	7.0	7.3
11	7.8	7.3	7.6	7.7	7.4	7.6	7.8	7.7	7.7	7.5	7.0	7.4
12	7.8	7.2	7.6	7.7	7.4	7.6	7.7	6.6	7.5	7.5	7.0	7.3
13	7.7	7.4	7.5	7.7	7.4	7.6	7.9	7.2	7.6	7.5	6.3	7.4
14	7.8	7.3	7.5	7.7	7.4	7.6	7.9	7.9	7.9	7.6	7.5	7.5
15	7.7	7.3	7.5	7.7	7.4	7.5	7.9	7.7	7.8	7.6	7.1	7.5
16	7.8	7.3	7.6	7.7	7.3	7.6	8.0	7.6	7.8	7.5	7.2	7.5
17	7.7	7.5	7.6	7.7	7.3	7.5	8.0	6.3	7.5	7.5	7.0	7.1
18	7.8	7.2	7.6	7.7	7.3	7.5	7.6	7.1	7.3	7.5	7.0	7.3
19	7.8	7.1	7.6	7.8	7.3	7.5	7.6	7.0	7.4	7.5	7.0	7.4
20	7.8	7.3	7.6	7.8	7.1	7.6	7.5	7.1	7.3	7.6	7.0	7.3
21	7.8	7.3	7.6	7.7	7.3	7.5	7.5	7.0	7.2	7.4	7.0	7.2
22	7.9	7.3	7.6	7.8	7.2	7.6	7.4	7.0	7.1	7.6	7.0	7.2
23	8.1	7.5	7.7	7.8	7.3	7.5	7.3	7.0	7.2	7.5	7.0	7.3
24	7.7	7.5	7.6	7.8	7.3	7.6	7.4	7.0	7.1	7.5	7.1	7.3
25	7.8	7.5	7.6	7.7	7.4	7.7	7.4	7.0	7.2	7.4	7.0	7.2
26	7.7	7.4	7.5	7.7	7.6	7.6	7.4	7.0	7.1	7.6	7.1	7.4
27	7.8	7.3	7.5	7.7	7.2	7.6	7.4	7.0	7.1	7.6	7.1	7.3
28	7.9	7.0	7.5	7.7	7.5	7.6	7.4	7.0	7.2	7.6	7.1	7.3
29	7.9	7.5	7.7	7.7	6.7	7.6	7.4	7.0	7.1	7.6	6.9	7.4
30	8.0	7.4	7.7	7.8	7.5	7.7	7.4	7.0	7.2	7.8	6.3	7.6
31	7.9	7.5	7.7	---	---	---	7.4	7.0	7.3	7.9	7.8	7.8
MONTH	8.1	7.0	7.6	8.0	6.7	7.6	8.0	6.3	7.4	7.9	6.2	7.4

DAY	MAX	MIN	MEAN									
1	7.9	7.6	7.8	8.5	8.1	8.3	8.3	6.8	7.9	7.5	6.9	7.2
2	7.8	7.1	7.7	8.5	7.6	7.9	8.3	7.1	7.7	7.8	6.9	6.3
3	7.5	7.0	7.3	7.8	7.7	7.7	8.3	7.2	7.6	8.1	7.3	7.7
4	7.4	6.9	7.3	8.5	7.7	7.8	8.5	6.9	7.6	8.0	7.6	7.8
5	7.4	6.1	7.3	7.8	7.7	7.7	8.6	6.9	7.7	8.3	7.5	7.9
6	7.4	6.7	7.3	7.8	7.5	7.7	8.6	7.1	8.0	8.1	7.3	7.7
7	7.4	6.9	7.3	7.6	7.3	7.4	8.8	7.1	8.1	7.5	7.2	7.3
8	7.4	6.9	7.4	8.0	7.3	7.6	9.1	7.4	8.3	7.6	7.3	7.5
9	7.5	6.9	7.3	8.6	7.1	7.6	8.9	7.5	8.2	7.6	7.2	7.4
10	7.7	7.2	7.6	8.3	8.0	8.1	8.6	7.9	8.3	7.7	7.1	7.3
11	7.8	7.2	7.5	8.1	7.8	7.9	8.8	7.9	8.3	8.0	7.2	7.5
12	7.7	7.2	7.5	7.8	7.3	7.7	8.4	7.6	8.1	7.8	7.2	7.6
13	7.7	7.1	7.4	7.9	6.4	7.5	8.2	7.7	8.0	7.8	7.4	7.6
14	7.7	7.5	7.6	7.8	6.1	7.0	8.2	7.7	8.0	8.4	7.2	7.8
15	7.7	6.2	7.4	7.9	6.2	7.1	8.2	7.6	8.0	8.1	7.6	7.8
16	7.7	7.0	7.5	7.9	6.3	7.5	8.3	7.7	8.0	8.3	7.5	7.8
17	7.6	7.2	7.3	8.0	6.2	7.2	8.3	7.7	8.0	8.3	7.7	8.0
18	7.7	7.2	7.4	8.5	6.2	7.2	8.2	7.1	7.8	8.2	7.7	7.9
19	7.6	7.1	7.4	8.4	6.3	7.5	7.9	6.9	7.5	8.2	7.4	7.9
20	7.5	7.0	7.2	8.3	6.5	7.7	7.8	6.4	7.3	7.8	7.3	7.5
21	7.5	7.0	7.4	8.3	7.8	8.1	7.9	6.9	7.4	7.7	7.1	7.4
22	7.5	7.4	7.5	8.1	6.5	7.8	7.8	6.9	7.4	7.7	7.2	7.5
23	7.5	7.5	7.5	8.1	6.7	7.7	7.8	6.9	7.5	7.7	7.1	7.4
24	7.6	7.5	7.5	8.1	7.1	7.7	7.8	6.9	7.6	7.6	7.1	7.4
25	7.6	7.5	7.6	8.1	6.8	7.4	7.7	7.2	7.5	7.8	7.1	7.5
26	7.6	7.5	7.6	8.2	7.1	7.6	7.6	6.8	7.1	7.8	7.2	7.6
27	7.8	7.5	7.7	8.0	7.1	7.5	7.4	6.9	7.1	7.9	7.2	7.8
28	8.1	7.8	8.0	8.3	7.1	7.7	7.4	6.9	7.3	7.9	7.4	7.7
29	---	---	---	8.3	7.1	7.7	7.4	7.0	7.2	7.9	7.3	7.7
30	---	---	---	8.3	7.1	7.8	7.5	6.9	7.2	7.8	7.3	7.5
31	---	---	---	8.2	7.0	7.7	---	---	---	7.8	7.1	7.4
MONTH	8.1	6.1	7.5	8.6	6.1	7.6	9.1	6.4	7.7	8.4	6.9	7.6

SURFACE-WATER RECORDS
Scioto River Basin

03220510 SCIOTO RIVER AT O'SHAUGHNESSY DAM, OHIO—Continued

WATER-QUALITY RECORDS—Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001—Continued

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7.8	6.9	7.4	7.6	7.4	7.5	7.7	7.3	7.5	8.1	7.4	7.8
2	7.7	7.2	7.4	8.0	7.4	7.7	7.4	7.2	7.3	8.1	7.2	7.5
3	7.7	7.2	7.4	7.9	7.6	7.8	7.5	7.2	7.3	7.5	7.2	7.4
4	7.6	7.2	7.4	7.9	7.5	7.7	7.6	7.3	7.4	8.3	7.2	7.7
5	7.6	7.1	7.4	8.1	7.6	7.9	7.4	7.2	7.3	8.5	7.8	8.1
6	7.8	7.2	7.5	8.1	7.5	7.8	7.7	7.2	7.4	8.1	7.4	7.8
7	8.0	7.2	7.8	7.7	7.3	7.5	7.8	7.2	7.4	7.7	7.4	7.6
8	7.9	7.4	7.6	8.1	7.3	7.7	7.7	7.3	7.5	7.7	7.5	7.6
9	7.7	7.3	7.5	7.7	7.4	7.6	7.7	7.3	7.5	7.8	7.5	7.6
10	7.6	7.2	7.4	7.9	7.4	7.6	7.8	7.3	7.5	8.0	7.5	7.7
11	7.7	7.4	7.6	7.9	7.4	7.6	8.0	7.4	7.7	8.4	7.6	7.9
12	7.9	7.4	7.7	7.6	7.2	7.3	8.2	7.4	7.7	7.9	7.3	7.5
13	7.9	7.5	7.7	7.8	7.2	7.4	7.5	7.2	7.3	8.0	7.3	7.5
14	8.0	7.4	7.8	7.9	7.4	7.6	7.6	7.3	7.4	8.1	7.4	7.8
15	8.0	7.3	7.7	7.6	7.2	7.4	7.4	7.2	7.3	8.1	7.7	7.8
16	8.2	7.6	7.9	7.3	7.2	7.3	7.3	7.2	7.3	7.9	7.4	7.6
17	7.9	7.5	7.7	7.5	7.1	7.3	7.6	7.2	7.4	7.6	7.3	7.5
18	7.8	7.5	7.7	7.5	7.2	7.4	7.7	7.4	7.5	7.5	7.3	7.4
19	7.8	7.4	7.6	7.5	7.3	7.4	7.5	7.4	7.5	7.4	7.3	7.4
20	8.0	7.6	7.8	7.7	7.3	7.5	7.7	7.4	7.5	7.6	7.2	7.4
21	7.9	7.5	7.7	7.5	7.3	7.4	8.3	7.6	7.8	7.6	7.3	7.5
22	7.9	7.4	7.7	7.5	7.2	7.4	7.8	7.4	7.6	8.0	7.3	7.6
23	7.7	7.4	7.5	7.5	7.1	7.3	7.9	7.5	7.6	8.0	7.5	7.7
24	7.9	7.5	7.7	7.3	7.2	7.2	8.0	7.5	7.8	8.1	7.7	7.8
25	8.1	7.6	7.9	7.7	7.2	7.5	7.6	7.4	7.5	8.9	7.9	8.1
26	7.7	7.3	7.6	7.9	7.4	7.7	7.6	7.4	7.5	---	---	---
27	7.8	7.3	7.5	7.9	7.5	7.7	8.4	7.4	7.8	---	---	---
28	8.1	7.4	7.8	7.6	7.2	7.3	8.4	7.5	7.9	---	---	---
29	7.8	7.5	7.7	7.3	7.1	7.2	8.4	7.6	8.0	7.9	7.7	7.8
30	7.8	7.5	7.6	7.4	7.2	7.3	7.9	7.4	7.7	7.9	7.3	7.7
31	---	---	---	8.0	7.2	7.5	7.6	7.4	7.5	---	---	---
MONTH	8.2	6.9	7.6	8.1	7.1	7.5	8.4	7.2	7.5	8.9	7.2	7.7
YEAR	9.1	6.1	7.6									

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	18.5	16.5	17.5	15.0	13.0	13.5	6.0	5.0	5.5	2.0	1.0	1.5
2	18.5	16.5	17.5	14.0	13.0	13.5	5.5	4.5	5.0	2.0	1.5	1.5
3	20.5	17.5	19.0	15.0	13.5	14.0	5.5	4.0	4.5	2.0	1.5	1.5
4	20.5	18.5	19.5	15.0	13.0	14.0	5.0	3.5	4.5	2.0	1.5	2.0
5	19.0	17.5	18.5	15.0	12.5	13.5	4.5	3.5	4.0	2.0	1.5	2.0
6	18.5	18.0	18.0	14.0	12.5	13.0	4.0	3.0	3.5	2.5	2.0	2.0
7	18.0	16.5	17.0	14.0	13.0	13.5	4.0	3.5	3.5	2.5	2.0	2.0
8	16.5	15.5	16.0	14.0	13.0	13.5	4.0	3.5	4.0	2.0	1.5	2.0
9	16.0	15.0	15.5	14.5	13.5	14.0	4.0	3.0	3.5	2.5	1.5	1.5
10	16.5	14.5	15.5	13.5	12.5	12.5	4.0	3.5	3.5	2.5	1.5	2.0
11	16.5	14.0	15.0	13.0	12.5	12.5	4.5	4.0	4.0	2.5	1.5	2.0
12	16.0	14.0	15.0	12.5	12.0	12.5	4.5	3.0	3.5	3.0	2.0	2.0
13	15.5	13.5	14.5	12.0	11.5	12.0	3.0	3.0	3.0	2.5	1.5	2.0
14	15.5	13.0	14.0	11.5	11.0	11.5	3.0	2.5	3.0	2.5	2.0	2.0
15	15.5	14.0	14.5	11.0	10.0	10.5	3.5	2.5	3.0	2.5	2.0	2.0
16	16.0	14.5	15.0	10.5	9.5	10.0	3.5	2.5	3.5	2.0	2.0	2.0
17	16.0	15.5	15.5	9.5	9.0	9.5	2.5	1.0	1.5	2.0	2.0	2.0
18	16.0	14.5	15.0	9.0	8.5	9.0	2.0	1.0	1.5	2.5	2.0	2.0
19	16.5	14.0	15.0	9.5	8.0	8.5	1.5	1.0	1.0	2.5	2.0	2.5
20	16.0	13.5	14.5	8.0	7.0	8.0	1.0	.5	.5	2.0	1.5	2.0
21	16.0	13.5	14.5	7.0	6.0	7.0	1.0	1.0	1.0	2.5	1.5	2.0
22	16.5	14.5	15.5	7.5	5.5	6.5	1.5	1.0	1.0	3.0	2.0	2.5
23	16.5	15.0	16.0	7.5	5.5	6.5	1.5	1.0	1.0	3.0	2.0	2.5
24	16.0	15.5	15.5	7.5	5.5	6.5	1.5	1.0	1.0	3.5	2.5	2.5
25	16.5	15.5	16.0	6.5	6.0	6.5	1.5	1.0	1.0	3.0	2.0	2.5
26	16.0	14.0	15.0	6.5	6.5	6.5	1.5	1.0	1.0	3.0	2.0	2.5
27	16.0	13.5	15.0	6.5	6.5	6.5	1.5	1.0	1.5	2.5	2.0	2.5
28	16.5	14.5	15.5	6.5	5.5	6.0	1.5	1.0	1.5	3.0	2.0	2.5
29	16.0	14.0	14.5	6.0	5.0	5.5	1.5	1.0	1.5	3.5	2.5	3.0
30	16.0	13.0	14.5	6.0	5.5	5.5	1.5	1.5	1.5	7.5	2.0	3.0
31	15.5	13.0	14.5	---	---	---	1.5	1.5	1.5	2.0	1.5	2.0
MONTH	20.5	13.0	16.0	15.0	5.0	10.0	6.0	.5	2.5	7.5	1.0	2.0

SURFACE-WATER RECORDS
Scioto River Basin

03220510 SCIOTO RIVER AT O'SHAUGHNESSY DAM, OHIO—Continued

WATER-QUALITY RECORDS—Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001												
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	12.0	7.3	9.3	10.5	2.5	6.0	12.9	11.0	11.7	13.9	13.5	13.7
2	11.2	7.2	8.8	6.6	2.7	3.8	14.2	11.5	12.6	14.0	13.5	13.7
3	11.5	6.8	8.7	7.7	2.5	4.6	14.7	12.2	12.9	13.7	13.2	13.5
4	11.8	6.3	8.5	8.5	4.4	5.5	15.2	12.1	13.1	13.7	13.1	13.3
5	10.1	6.5	7.6	9.7	4.7	6.5	14.3	11.1	12.7	14.0	12.7	13.3
6	9.7	7.8	9.1	11.8	4.9	7.0	15.4	12.4	13.4	14.4	13.3	13.8
7	9.8	9.0	9.4	7.8	5.1	6.3	14.7	12.2	12.9	14.6	12.9	13.6
8	9.7	8.8	9.2	8.0	5.4	6.5	14.1	12.2	13.0	14.8	13.1	14.1
9	9.9	8.5	9.1	10.3	5.5	7.3	15.7	12.8	13.7	15.1	14.2	14.6
10	10.8	7.5	8.8	10.3	6.7	9.0	14.8	11.7	13.0	15.2	14.0	14.4
11	11.2	7.4	8.6	10.9	9.6	10.2	12.6	11.2	11.9	15.1	13.6	14.2
12	11.6	7.1	8.5	11.1	9.7	10.3	14.2	11.1	13.1	15.0	13.0	14.2
13	11.1	6.7	8.3	10.9	10.0	10.3	14.8	13.8	14.4	14.8	12.9	13.4
14	10.8	6.3	8.1	11.4	9.8	10.6	14.0	13.7	13.9	13.5	12.5	12.9
15	10.1	6.2	7.7	13.3	10.2	11.1	13.9	12.6	13.2	13.3	12.4	12.8
16	10.1	6.1	7.6	12.1	9.9	10.7	14.0	12.0	12.9	14.4	13.2	13.8
17	8.9	5.8	7.1	12.6	9.9	10.8	16.1	14.0	15.0	14.5	13.8	14.1
18	11.0	6.4	8.0	13.8	10.2	11.4	16.1	15.4	15.7	14.6	13.5	14.2
19	11.1	6.1	8.0	14.3	10.2	11.3	16.0	15.5	15.8	14.4	12.4	13.6
20	11.7	6.1	8.1	14.2	9.5	11.4	16.0	15.8	15.9	14.6	13.6	14.0
21	12.2	6.6	8.9	14.6	10.5	12.1	15.9	15.2	15.5	14.9	13.9	14.2
22	12.4	7.2	9.1	14.2	10.8	11.9	15.6	15.2	15.4	14.9	13.4	14.1
23	12.9	6.5	8.9	14.0	10.8	11.9	15.7	15.5	15.6	14.9	13.1	14.0
24	10.6	6.2	7.5	14.0	10.8	11.8	15.7	15.3	15.4	14.6	12.9	13.6
25	10.9	5.7	7.5	11.5	9.6	10.7	15.8	15.4	15.6	14.8	13.3	13.8
26	10.0	2.7	5.7	10.8	9.5	9.9	15.7	15.2	15.5	14.8	11.7	13.2
27	8.4	2.3	4.9	11.5	9.4	10.2	15.5	15.1	15.3	14.6	11.6	13.2
28	10.4	3.8	7.0	13.0	10.0	11.1	15.5	15.0	15.3	14.8	12.7	13.7
29	10.1	5.4	7.2	12.5	10.0	10.8	15.3	14.8	15.1	14.1	11.5	12.6
30	10.1	5.5	7.2	13.6	10.5	11.6	15.3	14.7	14.9	12.9	9.6	12.0
31	10.5	5.9	7.5	---	---	---	15.1	13.6	14.4	14.2	12.8	13.5
MONTH	12.9	2.3	8.1	14.6	2.5	9.4	16.1	11.0	14.2	15.2	9.6	13.6

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	15.0	13.0	14.4	15.6	7.7	12.4	14.1	10.0	11.6	8.5	7.2	7.7
2	15.2	14.4	14.8	---	---	---	14.1	10.7	12.1	7.9	6.5	7.2
3	14.9	14.3	14.6	---	---	---	13.3	10.5	11.3	9.9	5.7	7.2
4	14.5	12.6	13.9	---	---	---	14.0	10.7	12.2	10.5	5.6	7.0
5	14.1	12.6	13.1	---	---	---	14.8	10.7	12.6	11.7	5.7	9.0
6	14.1	12.4	13.4	---	---	---	12.3	9.4	10.5	8.5	5.1	6.7
7	14.1	12.8	13.7	10.1	6.6	8.2	11.9	10.9	11.3	8.1	5.2	6.4
8	14.0	12.0	13.3	15.1	8.2	11.4	11.2	10.2	10.9	11.1	5.4	8.4
9	13.5	12.1	12.9	15.0	11.4	12.8	10.5	9.1	10.1	9.8	6.7	8.1
10	14.7	12.3	13.9	---	---	---	9.3	7.9	8.7	16.1	6.7	9.9
11	14.8	13.6	14.4	---	---	---	9.9	8.1	8.9	15.6	7.9	11.7
12	14.1	13.8	13.9	14.1	10.4	13.0	9.5	8.5	9.0	17.5	7.4	13.0
13	13.9	12.6	13.7	12.9	10.1	11.2	8.9	8.2	8.6	16.6	12.1	14.1
14	12.6	12.1	12.3	12.4	10.3	11.2	8.8	7.9	8.5	13.9	7.4	11.2
15	14.1	12.4	13.7	11.5	10.7	11.0	8.3	7.4	7.9	8.6	5.4	7.3
16	13.8	11.9	13.1	11.3	10.5	10.8	8.7	7.9	8.2	7.2	4.5	5.7
17	13.7	13.5	13.6	11.6	10.6	11.1	9.1	8.2	8.7	7.2	5.2	6.1
18	13.8	13.3	13.6	12.2	11.6	11.9	9.5	9.0	9.2	9.9	5.2	6.9
19	13.6	11.8	13.1	12.0	11.2	11.7	10.4	9.1	10.0	10.3	9.6	10.0
20	13.2	12.5	12.9	11.5	10.5	11.2	11.3	9.8	10.4	10.5	9.7	10.1
21	13.8	12.8	13.1	11.4	9.9	10.6	11.5	10.6	11.1	9.9	5.9	7.5
22	15.0	9.5	14.0	11.7	10.0	10.6	10.8	9.6	10.5	10.0	5.8	7.4
23	11.1	7.2	8.8	11.8	10.0	10.7	10.1	9.3	9.7	9.4	4.6	6.6
24	10.8	7.2	9.0	12.0	9.9	10.8	9.5	8.4	9.1	8.4	4.7	6.2
25	11.2	9.3	10.4	12.9	9.9	11.4	9.1	7.6	8.4	10.4	5.3	7.2
26	11.9	10.4	11.3	13.6	10.8	12.0	8.4	7.2	7.8	11.2	9.2	10.4
27	11.8	9.9	11.3	13.6	10.9	13.0	8.2	6.9	7.5	11.8	11.0	11.3
28	14.8	11.8	12.8	13.5	10.2	11.7	7.9	6.9	7.4	12.0	10.8	11.4
29	---	---	---	13.7	10.2	11.2	8.2	6.9	7.5	11.5	8.8	9.9
30	---	---	---	13.2	10.7	11.8	8.5	7.2	7.8	11.4	8.9	9.7
31	---	---	---	13.4	10.9	11.7	---	---	---	11.2	7.6	9.1
MONTH	15.2	7.2	13.0	15.6	6.6	11.4	14.8	6.9	9.6	17.5	4.5	8.7

SURFACE-WATER RECORDS
Scioto River Basin

03223425 WHETSTONE CREEK AT MOUNT GILEAD, OHIO

LOCATION.—Latitude 40°32'56", longitude 82°49'17", Morrow County, Hydrologic Unit 05060001, on left upstream bank at State Route 95 bridge on east side of Mount Gilead, Ohio, and 0.3 mi downstream from Mount Gilead Lakes in Mount Gilead State Park.

DRAINAGE AREA.—37.9 mi².

PERIOD OF RECORD.—October 1996 to current year.

GAGE.—Water-stage recorder and crest gage. Datum of gage is 1,074.00 ft above sea level.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.86	2.5	17	e6.0	104	12	14	13	259	1.9	.90	23
2	.83	2.6	14	e5.8	57	12	26	12	246	2.4	.83	8.4
3	.80	2.8	11	e5.6	e30	12	20	11	124	1.7	1.1	3.8
4	.91	2.7	8.5	e5.4	e25	11	15	11	59	3.5	1.5	2.1
5	7.0	2.9	7.7	e5.2	e23	11	12	10	41	4.0	1.1	1.3
6	6.1	2.7	6.4	e5.0	e21	10	165	8.8	230	2.5	.84	1.0
7	3.1	3.2	6.1	e4.9	e20	9.5	194	8.1	219	1.8	.72	8.2
8	1.9	3.2	6.6	e4.8	e27	9.0	72	10	80	3.1	.71	5.5
9	1.7	9.0	5.7	e4.7	128	9.1	43	9.6	42	4.2	1.4	5.1
10	1.7	17	5.5	e4.7	268	8.7	47	7.8	27	4.1	1.9	6.0
11	1.5	12	12	e4.6	83	9.9	233	7.5	21	4.9	1.2	4.3
12	1.3	8.5	97	e4.5	42	11	213	25	18	3.6	1.2	2.6
13	1.3	7.0	36	e4.5	32	41	75	21	15	3.0	1.0	1.5
14	2.1	6.2	25	e4.4	130	65	44	13	12	3.1	.90	1.7
15	2.7	5.5	15	e20	278	40	48	33	12	2.1	.73	1.2
16	3.1	5.0	223	e50	116	39	100	223	11	.81	.79	1.5
17	3.9	4.7	482	e30	68	65	60	193	8.8	1.0	1.0	1.0
18	3.4	4.2	151	e20	37	47	41	147	7.0	e1.9	1.1	1.6
19	3.3	3.8	74	e17	27	33	31	228	6.8	e4.0	2.9	1.7
20	3.5	3.8	e37	e13	23	26	260	78	9.8	8.9	1.5	1.7
21	3.0	3.7	e28	e10	20	22	266	44	9.5	2.8	1.1	1.5
22	3.0	3.4	e20	e9.0	17	20	110	82	12	1.6	.89	1.4
23	3.1	3.3	e15	e8.0	16	17	75	72	9.6	1.3	1.2	1.1
24	3.5	3.3	e12	e7.0	14	15	48	50	7.0	1.2	1.3	2.2
25	3.7	4.6	e9.0	e6.6	18	13	34	87	5.5	4.2	1.3	1.7
26	3.5	8.1	e8.0	e6.0	17	12	26	81	4.6	2.6	2.7	1.7
27	3.0	15	e7.4	e5.8	15	11	22	94	3.5	1.3	6.3	1.6
28	3.6	17	e7.0	e5.6	14	10	18	66	2.7	.97	2.5	1.5
29	2.8	14	e6.6	e5.4	---	10	15	40	2.5	1.1	1.1	1.4
30	2.6	17	e6.4	e30	---	10	14	44	2.6	1.1	.80	1.3
31	2.5	---	e6.2	237	---	9.7	---	27	---	.98	9.2	---
TOTAL	85.30	198.7	1366.1	550.5	1670	630.9	2341	1756.8	1507.9	81.66	51.71	98.6
MEAN	2.75	6.62	44.1	17.8	59.6	20.4	78.0	56.7	50.3	2.63	1.67	3.29
MAX	7.0	17	482	237	278	65	266	228	259	8.9	9.2	23
MIN	.80	2.5	5.5	4.4	14	8.7	12	7.5	2.5	.81	.71	1.0

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2001, BY WATER YEAR (WY)

	1997	1998	1999	2000	2001	1997	1998	1999	2000	2001		
MEAN	3.37	11.6	46.5	52.4	65.1	54.7	77.8	47.2	75.7	7.21	3.42	1.55
MAX	7.04	28.1	133	89.2	90.6	96.6	131	72.2	214	14.5	9.53	3.29
(WY)	1997	1997	1997	1999	2000	1997	2000	1998	1998	2000	1997	2001
MIN	1.13	3.95	14.4	17.8	47.9	20.4	20.4	10.5	3.43	2.63	1.18	.13
(WY)	2000	2000	1999	2001	1999	2001	1997	1999	1999	2001	1999	1998

SUMMARY STATISTICS

	FOR 2000 CALENDAR YEAR	FOR 2001 WATER YEAR	WATER YEARS 1997 - 2001
ANNUAL TOTAL	14163.83	10339.17	
ANNUAL MEAN	38.7	28.3	36.9
HIGHEST ANNUAL MEAN			46.0
LOWEST ANNUAL MEAN			28.3
HIGHEST DAILY MEAN	1420	482	2060
LOWEST DAILY MEAN	.80	.71	.07
ANNUAL SEVEN-DAY MINIMUM	.89	.96	.07
MAXIMUM PEAK FLOW		754	5650
MAXIMUM PEAK STAGE		6.33	13.64
INSTANTANEOUS LOW FLOW		.71	.07
10 PERCENT EXCEEDS	100	75	86
50 PERCENT EXCEEDS	8.5	8.0	9.1
90 PERCENT EXCEEDS	2.0	1.3	1.3

e Estimated.

SURFACE-WATER RECORDS
Scioto River Basin

03225500 OLENTANGY RIVER NEAR DELAWARE, OHIO

LOCATION.—Latitude 40°21'18", longitude 83°04'02", in NE 1/4 T.5 N., R.19 W., Delaware County, Hydrologic Unit 05060001, on left bank 500 ft upstream from highway bridge, 1,000 ft downstream from Delaware Dam, 1300 ft upstream from Norfolk and Western Railway bridge, and 4.0 mi north of Delaware, Ohio.

DRAINAGE AREA.—393 mi².

PERIOD OF RECORD.—October 1923 to September 1934, April 1938 to current year. Monthly discharge only for some periods, published in WSP 1305.

GAGE.—Water-stage recorder and concrete control. Datum of gage is 878.00 ft above sea level (levels by U.S. Army Corps of Engineers). Prior to Oct. 1, 1950, water-stage recorder at this site 500 ft downstream at datum 1.72 ft lower. Oct. 1, 1950 to Sept. 30, 1985, at datum 78.42 ft lower.

REMARKS.—Records good. Flow completely regulated by Delaware Lake since 1951. Water-quality data formerly collected at this site. Water-temperature data collected at this site. U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 14,100 ft³/s Mar. 21, 1927, gage height, 16.9 ft, site and datum then in use; minimum daily, 0.1 ft³/s Sept. 14-29, 1934.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	13	228	93	1430	166	16	125	327	11	32	21
2	13	14	96	47	767	121	16	125	785	10	32	18
3	13	20	96	25	508	98	16	125	773	10	32	19
4	14	19	57	27	101	98	12	109	509	10	32	20
5	121	19	32	73	101	97	6.9	101	268	10	32	21
6	91	19	32	91	240	98	8.3	101	396	10	32	20
7	18	19	67	91	209	98	10	63	1040	10	32	20
8	17	13	65	37	101	98	621	17	1330	10	32	21
9	17	71	27	8.5	389	87	892	8.2	619	10	32	22
10	14	115	27	7.9	1030	74	237	5.5	174	10	32	22
11	14	115	55	7.7	1570	72	360	5.5	122	14	32	22
12	264	114	254	14	1140	72	1230	261	122	21	32	22
13	361	348	477	28	724	152	1700	445	86	23	32	22
14	18	571	466	28	463	183	1280	127	66	23	32	22
15	18	489	215	31	1360	239	609	379	97	23	32	22
16	16	235	211	137	1860	354	946	1160	98	23	32	22
17	16	106	228	591	1810	289	911	1500	98	23	32	20
18	16	106	1790	345	339	289	498	1020	98	23	32	18
19	16	104	2970	152	293	439	292	47	98	23	32	17
20	15	69	1750	128	432	410	962	552	95	23	32	16
21	15	33	324	128	289	240	1860	1030	59	25	29	21
22	15	28	104	128	183	183	1810	1020	100	29	27	22
23	15	23	38	109	141	156	1500	1010	181	30	27	22
24	15	23	39	79	96	96	1150	879	348	30	27	24
25	15	24	38	74	99	95	585	625	387	26	27	25
26	15	24	146	74	162	94	372	618	145	35	27	e25
27	16	33	183	74	188	93	226	822	12	44	27	e23
28	16	75	180	74	188	93	125	799	11	44	27	21
29	16	235	136	74	---	95	125	589	11	45	27	22
30	16	338	93	97	---	51	125	499	11	41	23	22
31	16	---	93	937	---	15	---	317	---	34	23	---
TOTAL	1256	3415	10517	3810.1	16213	4745	18501.2	14484.2	8466	703	931	634
MEAN	40.5	114	339	123	579	153	617	467	282	22.7	30.0	21.1
MAX	361	571	2970	937	1860	439	1860	1500	1330	45	32	25
MIN	13	13	27	7.7	96	15	6.9	5.5	11	10	23	16

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 2001, BY WATER YEAR (WY)

MEAN	74.9	272	432	483	651	743	561	400	304	246	115	64.4
MAX	560	1442	1683	1790	2073	2087	1537	1618	1247	1723	1259	538
(WY)	1987	1973	1991	1952	1959	1963	1964	1996	1981	1987	1995	1979
MIN	10.8	6.53	7.81	20.5	18.4	11.7	16.3	33.1	8.19	12.6	18.2	13.9
(WY)	1965	1992	1992	1954	1964	1983	1971	1962	1962	1988	1988	1967

SUMMARY STATISTICS FOR 2000 CALENDAR YEAR FOR 2001 WATER YEAR WATER YEARS 1951 - 2001

ANNUAL TOTAL	124637.5	83675.5	
ANNUAL MEAN	341	229	361
HIGHEST ANNUAL MEAN			609
LOWEST ANNUAL MEAN			137
HIGHEST DAILY MEAN	4160	Apr 11	5940
LOWEST DAILY MEAN	9.5	May 12	1.0
ANNUAL SEVEN-DAY MINIMUM	14	Sep 27	3.4
MAXIMUM PEAK FLOW			6000
MAXIMUM PEAK STAGE			88.13
INSTANTANEOUS LOW FLOW			1.0
10 PERCENT EXCEEDS	1090	741	1020
50 PERCENT EXCEEDS	91	74	90
90 PERCENT EXCEEDS	16	15	18

e Estimated.

SURFACE-WATER RECORDS

Scioto River Basin

03228300 BIG WALNUT CREEK AT SUNBURY, OHIO

LOCATION.—Latitude 40°14'10", longitude 82°51'05", Delaware County, Hydrologic Unit 05060001, on left bank 200 ft downstream from bridge on State Highway 37, 0.1 mi downstream from Rattlesnake Creek, 0.6 mi east of Sunbury, Ohio, and 0.9 mi upstream from Prairie Run.
DRAINAGE AREA.—101 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—October 1988 to current year.

GAGE.—Water-stage recorder. Elevation of gage is 945 ft above sea level (from topographic map).

REMARKS.—Records fair except for periods of estimated record, flows below 0.5 ft³/s, and discharge above 500 ft³/s, which are poor. Water-quality data collected at this site.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.9	5.5	86	e14	280	35	30	31	202	1.9	.59	6.2
2	3.1	5.4	60	e13	154	34	69	29	427	6.6	.63	2.4
3	2.6	5.3	e40	e12	e100	33	54	26	455	9.2	1.7	1.0
4	2.4	5.1	e31	e12	e80	32	41	22	158	8.7	1.2	.56
5	117	5.0	e27	e11	e62	e30	34	19	103	8.9	.98	.27
6	407	4.9	e22	e10	e56	e27	313	16	673	5.8	.88	.15
7	86	5.5	e19	e10	e52	25	459	12	440	4.0	.57	.09
8	39	5.9	e17	e9.6	138	23	155	13	157	3.1	.32	.08
9	23	9.8	e16	e9.0	316	24	95	16	88	2.5	.20	.06
10	16	238	e14	e8.8	700	23	119	13	61	2.0	.14	.05
11	11	134	e17	e8.6	205	24	1200	12	46	2.1	.09	.04
12	8.8	56	318	e8.2	114	25	465	14	37	1.8	.06	.02
13	7.2	36	e190	e8.0	92	86	176	21	37	.99	.04	.00
14	6.1	27	e110	e10	289	176	106	13	40	.79	.03	.02
15	5.1	20	e60	e31	682	103	90	30	30	.74	.01	.01
16	5.0	16	e300	e100	264	84	163	180	49	.69	.00	.00
17	5.5	14	e1800	e80	178	113	108	163	31	.53	.01	.00
18	6.0	14	e900	e62	100	90	81	508	19	.73	.05	.03
19	6.3	12	e450	e52	79	69	64	774	14	.22	.26	.04
20	6.1	11	e220	e45	69	58	575	175	13	.09	.07	.04
21	5.5	10	e130	e37	60	52	693	147	12	.05	.04	.03
22	5.1	9.7	e90	e31	47	48	232	499	29	.02	.03	.03
23	5.0	8.5	e52	e27	47	40	145	269	24	.05	.06	.02
24	5.2	8.1	e37	e23	41	36	103	161	17	.00	.06	.26
25	5.7	10	e30	e20	45	32	75	466	12	12	.04	.06
26	6.5	47	e26	e18	47	28	60	314	9.1	19	.10	e.05
27	6.8	104	e22	e17	41	25	52	405	7.4	3.1	.11	e.03
28	6.6	97	e20	e16	37	24	44	257	4.6	1.5	.07	.02
29	6.0	62	e18	e14	---	24	36	139	2.4	1.2	.07	.02
30	5.8	106	e16	e200	---	26	32	117	1.8	1.3	.16	.02
31	5.5	---	e15	781	---	23	---	81	---	1.1	.84	---
TOTAL	830.8	1092.7	5153	1698.2	4375	1472	5869	4942	3199.3	100.70	9.41	11.60
MEAN	26.8	36.4	166	54.8	156	47.5	196	159	107	3.25	.30	.39
MAX	407	238	1800	781	700	176	1200	774	673	19	1.7	6.2
MIN	2.4	4.9	14	8.0	37	23	30	12	1.8	.00	.00	.00
CFSM	.27	.36	1.65	.54	1.55	.47	1.94	1.58	1.06	.03	.00	.00
IN.	.31	.40	1.90	.63	1.61	.54	2.16	1.82	1.18	.04	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 2001, BY WATER YEAR (WY)

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
MEAN	14.0	64.0	129	186	171	162	197	150	147	87.1	25.9	7.67	
MAX	81.2	256	585	426	424	354	334	398	338	348	167	56.4	
(WY)	1991	1993	1991	1996	1990	1993	1996	1996	1989	1992	1995	1992	
MIN	.002	.051	.72	16.4	46.0	46.0	36.7	17.0	1.29	.15	.007	.006	
(WY)	1992	1992	1992	1992	1992	1990	1997	1999	1999	1991	1991	1991	

SUMMARY STATISTICS

	FOR 2000 CALENDAR YEAR	FOR 2001 WATER YEAR	FOR 2000 CALENDAR YEAR	FOR 2001 WATER YEAR	FOR 2000 CALENDAR YEAR	FOR 2001 WATER YEAR
ANNUAL TOTAL	36412.00	28753.71				
ANNUAL MEAN	99.5	78.8				
HIGHEST ANNUAL MEAN			111			
LOWEST ANNUAL MEAN			159			1996
HIGHEST DAILY MEAN			67.4			1992
LOWEST DAILY MEAN	2820	1800	4790	Dec 17	Jun 1	1997
ANNUAL SEVEN-DAY MINIMUM	.00	.00	.00	Jul 24	Jul 24	1991
MAXIMUM PEAK FLOW	.01	.01	.00	Sep 12	Jul 24	1991
MAXIMUM PEAK STAGE			6700	Dec 17ae	Jun 1	1997
INSTANTANEOUS LOW FLOW			11.86	Dec 17	Dec 20	1990
ANNUAL RUNOFF (CFSM)	.99	.78	.00	Jul 22	Jul 24	1991
ANNUAL RUNOFF (INCHES)	13.41	10.59	14.99			
10 PERCENT EXCEEDS	227	201	259			
50 PERCENT EXCEEDS	20	19	27			
90 PERCENT EXCEEDS	1.2	.06	.25			

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

SURFACE-WATER RECORDS
Scioto River Basin

03228300 BIG WALNUT CREEK AT SUNBURY, OHIO—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—April 2000 to current year.

PERIOD OF DAILY RECORD—

SPECIFIC CONDUCTANCE: April 2000 to current year.

pH: April 2000 to current year.

WATER TEMPERATURES: April 2000 to current year.

DISSOLVED OXYGEN: April 2000 to current year.

INSTRUMENTATION.—Water-quality monitor. Electronic data logger. Set for 1-hour interval.

REMARKS.—Interruptions in the water-quality were due to malfunction of the instrument except for Dec. 30-Mar. 29 when monitor was turned off for the winter. All records good except specific conductance for periods of ice in Dec. and extremely low flow Aug. and Sept., which is fair; dissolved oxygen record fair except for low flow periods in Aug. and Sept., which is poor.

EXTREMES FOR PERIOD OF RECORD.—

SPECIFIC CONDUCTANCE: Maximum, 777 microsiemens, July 16, 2000; minimum, 162 microsiemens, Dec. 17, 2001.

pH: Maximum, 8.6 units, Apr. 30, May 1, July 7-9, 18, 20, 21, and 23, 2000; minimum, 6.5 units, Apr. 18, 2001.

WATER TEMPERATURES: Maximum, 33.0°C, July 24 and Aug. 16, 2000; minimum, 0.5°C, on many days during winter.

DISSOLVED OXYGEN: Maximum, 20.0 mg/L, Sept. 1 and 29, 2000, and Aug. 20, 2001; minimum, 0.5 mg/L, June 8, 2000, and Aug. 24, 2001.

EXTREMES FOR CURRENT YEAR.—

SPECIFIC CONDUCTANCE: Maximum, 742 microsiemens, Dec. 28 and 29; minimum, 162 microsiemens, Dec. 17.

pH: Maximum, 8.5 units, May 3-6; minimum, 6.5 units, Apr. 18.

WATER TEMPERATURES: Maximum, 33.0°C, July 24; minimum, 0.5°C, on many days during winter.

DISSOLVED OXYGEN: Maximum, >20.0 mg/L, Aug. 20; minimum, 0.5 mg/L, Aug. 24.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	572	557	566	719	704	712	562	553	557	---	---	---
2	577	549	567	722	701	715	578	557	566	---	---	---
3	580	552	570	723	701	716	603	578	591	---	---	---
4	---	---	---	727	707	720	634	603	620	---	---	---
5	---	---	---	728	713	722	649	628	633	---	---	---
6	---	---	---	728	711	723	678	649	669	---	---	---
7	---	---	---	729	701	714	688	675	681	---	---	---
8	---	---	---	728	720	725	692	676	685	---	---	---
9	---	---	---	732	680	713	711	675	695	---	---	---
10	---	---	---	709	449	588	712	686	700	---	---	---
11	615	599	606	502	448	469	701	647	684	---	---	---
12	622	614	619	566	502	537	647	440	523	---	---	---
13	633	618	626	586	566	577	491	451	472	---	---	---
14	637	622	631	611	586	597	577	488	529	---	---	---
15	639	617	631	627	611	616	615	577	599	---	---	---
16	641	616	632	638	624	630	633	171	467	---	---	---
17	642	622	631	653	638	645	276	162	208	---	---	---
18	649	632	640	663	650	656	382	276	335	---	---	---
19	656	641	650	667	650	661	458	382	421	---	---	---
20	665	652	659	668	654	662	510	458	488	---	---	---
21	667	644	660	682	664	671	537	509	523	---	---	---
22	670	648	662	718	682	699	583	537	564	---	---	---
23	672	647	665	739	701	716	606	583	598	---	---	---
24	675	655	667	741	712	724	654	605	629	---	---	---
25	680	658	672	729	684	710	694	654	677	---	---	---
26	692	668	680	726	674	696	719	694	708	---	---	---
27	702	687	695	683	543	593	738	719	728	---	---	---
28	711	697	705	552	535	540	742	737	740	---	---	---
29	713	697	706	572	552	564	742	732	738	---	---	---
30	716	703	709	574	561	566	---	---	---	---	---	---
31	718	704	713	---	---	---	---	---	---	---	---	---
MONTH	718	549	648	741	448	653	742	162	587	---	---	---

SURFACE-WATER RECORDS
Scioto River Basin

03228300 BIG WALNUT CREEK AT SUNBURY, OHIO—Continued

WATER-QUALITY RECORDS—Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	MAX	MIN	MEAN									
1	8.1	7.7	7.8	7.9	7.5	7.7	7.7	7.2	7.4	---	---	---
2	8.1	7.6	7.9	7.9	7.6	7.8	7.8	7.2	7.4	---	---	---
3	8.1	7.6	7.8	8.1	7.6	7.8	7.7	7.1	7.3	---	---	---
4	---	---	---	7.9	7.6	7.7	7.6	7.1	7.4	---	---	---
5	---	---	---	7.9	7.5	7.7	7.7	7.2	7.4	---	---	---
6	---	---	---	7.8	7.5	7.7	7.6	7.1	7.4	---	---	---
7	---	---	---	7.9	7.5	7.7	7.7	7.1	7.3	---	---	---
8	---	---	---	7.8	7.5	7.7	7.8	7.1	7.4	---	---	---
9	---	---	---	7.9	7.6	7.7	7.6	7.1	7.3	---	---	---
10	---	---	---	7.9	7.3	7.6	7.6	7.1	7.3	---	---	---
11	7.9	7.6	7.8	7.6	7.3	7.5	8.0	7.1	7.4	---	---	---
12	7.9	7.6	7.8	7.7	7.3	7.5	7.7	6.9	7.3	---	---	---
13	8.0	7.7	7.8	7.8	7.4	7.6	7.4	6.9	7.2	---	---	---
14	8.1	7.7	7.9	7.8	7.3	7.6	7.6	7.0	7.3	---	---	---
15	8.1	7.7	7.8	7.9	7.3	7.6	7.6	7.1	7.3	---	---	---
16	8.2	7.7	7.9	7.8	7.4	7.6	7.8	6.8	7.2	---	---	---
17	7.9	7.6	7.8	7.9	7.3	7.5	7.2	6.7	6.9	---	---	---
18	8.1	7.6	7.8	7.7	7.2	7.4	7.2	6.7	6.9	---	---	---
19	8.0	7.6	7.8	7.7	7.2	7.4	7.1	6.8	6.9	---	---	---
20	8.1	7.6	7.8	7.9	7.2	7.5	7.2	6.8	7.0	---	---	---
21	8.1	7.6	7.8	7.7	7.2	7.4	7.2	6.9	7.0	---	---	---
22	8.0	7.7	7.8	7.6	7.1	7.4	7.3	6.9	7.1	---	---	---
23	8.1	7.6	7.8	7.6	7.1	7.3	7.5	6.8	7.1	---	---	---
24	8.0	7.6	7.8	7.9	7.1	7.4	7.3	6.9	7.1	---	---	---
25	8.0	7.6	7.8	7.9	7.2	7.4	7.5	7.0	7.2	---	---	---
26	8.0	7.7	7.8	7.8	7.1	7.4	7.5	7.0	7.2	---	---	---
27	8.0	7.7	7.8	7.9	7.2	7.5	7.5	7.0	7.2	---	---	---
28	7.9	7.7	7.8	7.8	7.2	7.5	7.5	7.0	7.2	---	---	---
29	7.8	7.6	7.7	7.8	7.2	7.4	7.6	7.0	7.2	---	---	---
30	7.8	7.5	7.7	7.8	7.2	7.5	---	---	---	---	---	---
31	7.9	7.5	7.7	---	---	---	---	---	---	---	---	---
MONTH	8.2	7.5	7.8	8.1	7.1	7.6	8.0	6.7	7.2	---	---	---

DAY	MAX	MIN	MEAN									
1	---	---	---	---	---	---	8.1	7.9	8.0	8.4	7.6	7.9
2	---	---	---	---	---	---	8.3	7.9	8.1	8.4	7.7	8.0
3	---	---	---	---	---	---	8.3	7.5	7.9	8.5	7.7	8.0
4	---	---	---	---	---	---	7.9	7.3	7.6	8.5	7.7	8.0
5	---	---	---	---	---	---	8.1	7.3	7.8	8.5	7.8	8.0
6	---	---	---	---	---	---	8.0	7.1	7.6	8.5	7.7	8.0
7	---	---	---	---	---	---	7.6	7.1	7.3	8.1	7.7	7.9
8	---	---	---	---	---	---	8.0	7.3	7.5	8.3	7.7	7.9
9	---	---	---	---	---	---	8.2	7.4	7.7	8.1	7.7	7.9
10	---	---	---	---	---	---	7.9	7.4	7.6	8.3	7.7	7.9
11	---	---	---	---	---	---	7.5	6.9	7.2	8.3	7.8	7.9
12	---	---	---	---	---	---	7.6	7.2	7.4	8.1	7.7	7.9
13	---	---	---	---	---	---	7.8	7.2	7.5	8.1	7.6	7.8
14	---	---	---	---	---	---	7.9	7.1	7.5	8.1	7.6	7.8
15	---	---	---	---	---	---	7.6	7.1	7.3	7.9	7.6	7.8
16	---	---	---	---	---	---	7.2	6.9	7.0	7.8	7.6	7.6
17	---	---	---	---	---	---	7.0	6.7	6.8	7.7	7.6	7.6
18	---	---	---	---	---	---	7.3	6.5	6.9	7.6	7.1	7.4
19	---	---	---	---	---	---	7.7	6.8	7.2	7.2	7.0	7.1
20	---	---	---	---	---	---	7.5	6.6	7.0	7.4	7.1	7.2
21	---	---	---	---	---	---	7.3	6.6	6.9	7.4	7.3	7.4
22	---	---	---	---	---	---	8.0	7.3	7.5	7.3	7.1	7.2
23	---	---	---	---	---	---	8.1	7.5	7.8	7.3	7.2	7.3
24	---	---	---	---	---	---	---	---	---	7.4	7.3	7.3
25	---	---	---	---	---	---	---	---	---	7.3	7.1	7.1
26	---	---	---	---	---	---	8.3	7.4	7.8	7.3	7.1	7.2
27	---	---	---	---	---	---	8.4	7.5	7.9	7.3	7.2	7.3
28	---	---	---	---	---	---	8.2	7.5	7.8	7.5	7.2	7.3
29	---	---	---	---	---	---	8.2	7.6	7.8	7.7	7.4	7.5
30	---	---	---	8.0	7.6	7.8	8.3	7.6	7.9	7.7	7.4	7.6
31	---	---	---	8.3	7.8	8.0	---	---	---	7.8	7.4	7.6
MONTH	---	---	---	8.3	7.6	7.9	8.4	6.5	7.5	8.5	7.0	7.6

SURFACE-WATER RECORDS
Scioto River Basin

03228300 BIG WALNUT CREEK AT SUNBURY, OHIO—Continued

WATER-QUALITY RECORDS—Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001—Continued

DAY	MAX	MIN	MEAN									
1	7.7	7.4	7.5	7.8	7.4	7.6	8.0	7.4	7.6	7.8	7.4	7.6
2	7.4	7.2	7.4	8.2	7.5	7.8	8.2	7.4	7.7	7.8	7.5	7.6
3	7.3	7.2	7.2	8.1	7.7	7.9	8.0	7.6	7.8	7.8	7.5	7.6
4	7.5	7.3	7.4	8.2	7.9	8.0	8.2	7.7	7.8	7.8	7.5	7.6
5	7.7	7.3	7.5	8.2	7.9	8.0	8.2	7.6	7.8	7.9	7.5	7.6
6	7.6	7.2	7.4	8.3	7.8	8.0	8.2	7.6	7.8	7.8	7.4	7.6
7	7.4	7.1	7.3	8.2	7.8	7.9	8.2	7.6	7.8	7.7	7.4	7.5
8	7.7	7.3	7.5	8.4	7.8	8.0	8.2	7.6	7.8	7.8	7.2	7.5
9	7.8	7.5	7.6	8.3	7.8	8.0	8.1	7.5	7.7	7.7	7.3	7.5
10	7.8	7.5	7.7	8.3	7.7	7.9	8.1	7.4	7.7	7.6	7.3	7.4
11	8.0	7.6	7.7	8.3	7.7	7.9	8.1	7.4	7.7	7.5	7.3	7.4
12	8.0	7.6	7.8	8.2	7.7	7.9	7.9	7.4	7.6	7.4	7.3	7.4
13	8.1	7.7	7.9	8.1	7.6	7.8	8.0	7.4	7.6	7.4	7.3	7.4
14	8.3	7.7	8.0	8.1	7.6	7.8	8.0	7.4	7.6	7.5	7.3	7.4
15	8.4	7.9	8.2	8.2	7.5	7.8	7.8	7.3	7.6	7.4	7.3	7.3
16	8.3	8.1	8.1	8.1	7.5	7.7	7.6	7.4	7.5	7.4	7.2	7.3
17	8.4	8.0	8.1	7.9	7.5	7.6	8.1	7.3	7.6	7.4	7.2	7.3
18	8.4	7.9	8.1	8.0	7.5	7.7	8.0	7.4	7.7	7.5	7.4	7.4
19	8.4	7.9	8.1	8.0	7.5	7.7	7.9	7.4	7.6	7.4	7.1	7.3
20	8.2	7.8	8.0	8.0	7.5	7.7	7.9	7.4	7.6	7.5	7.2	7.3
21	8.2	7.9	8.0	7.9	7.5	7.6	7.9	7.4	7.6	7.5	7.2	7.3
22	8.0	7.8	7.9	7.8	7.4	7.6	7.7	7.4	7.5	7.5	7.2	7.3
23	8.2	7.8	8.0	7.8	7.4	7.6	7.7	7.4	7.5	7.4	7.0	7.2
24	8.2	7.8	8.0	7.8	7.2	7.5	7.6	7.4	7.5	7.3	6.9	7.1
25	8.3	7.9	8.0	7.7	7.3	7.4	7.5	7.4	7.4	7.1	6.8	6.9
26	8.4	7.9	8.1	7.5	7.4	7.4	7.6	7.4	7.5	---	---	---
27	8.4	7.9	8.0	7.8	7.4	7.6	7.7	7.5	7.6	---	---	---
28	8.3	7.6	7.9	7.8	7.5	7.6	7.6	7.5	7.6	7.3	6.9	7.1
29	8.0	7.4	7.7	7.8	7.5	7.6	7.6	7.4	7.5	7.4	7.0	7.1
30	8.0	7.4	7.7	7.9	7.5	7.6	7.7	7.4	7.5	7.4	7.0	7.1
31	---	---	---	8.0	7.5	7.7	7.6	7.3	7.4	---	---	---
MONTH	8.4	7.1	7.8	8.4	7.2	7.7	8.2	7.3	7.6	7.9	6.8	7.4
YEAR	8.5	6.5	7.6									

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	17.5	13.5	15.0	12.5	9.0	10.5	4.0	3.5	4.0	---	---	---
2	18.5	14.5	16.0	12.5	9.5	11.0	3.5	1.5	3.0	---	---	---
3	20.0	16.5	18.0	14.5	11.5	12.5	1.5	.5	1.0	---	---	---
4	---	---	---	12.5	10.5	11.5	1.0	.5	.5	---	---	---
5	---	---	---	11.0	8.0	9.5	1.0	.5	.5	---	---	---
6	---	---	---	10.5	7.5	9.0	.5	.5	.5	---	---	---
7	---	---	---	13.0	9.5	11.0	.5	.5	.5	---	---	---
8	---	---	---	12.5	11.0	12.0	1.0	.5	.5	---	---	---
9	---	---	---	14.5	12.5	13.5	.5	.5	.5	---	---	---
10	---	---	---	13.5	10.0	11.5	.5	.5	.5	---	---	---
11	11.5	8.0	10.0	10.0	9.0	9.5	2.0	.5	1.0	---	---	---
12	12.0	8.5	10.0	9.5	8.0	8.5	2.0	.5	1.0	---	---	---
13	13.0	9.5	11.0	8.5	7.5	8.0	.5	.5	.5	---	---	---
14	14.0	10.5	12.0	7.5	5.5	6.5	.5	.5	.5	---	---	---
15	15.0	13.0	13.5	6.5	4.5	5.5	1.0	.5	.5	---	---	---
16	15.5	13.5	14.0	6.0	4.5	5.0	3.5	1.0	2.0	---	---	---
17	14.5	14.0	14.0	5.5	3.5	4.5	4.0	1.5	3.0	---	---	---
18	14.5	12.5	13.5	3.5	2.5	3.0	1.5	1.5	1.5	---	---	---
19	14.5	11.0	12.5	4.5	2.5	3.0	1.5	1.0	1.0	---	---	---
20	15.0	11.5	13.0	3.5	2.0	2.5	1.0	1.0	1.0	---	---	---
21	15.5	12.0	13.5	2.0	.5	1.0	1.0	.5	1.0	---	---	---
22	16.0	12.5	14.0	.5	.5	.5	1.0	.5	.5	---	---	---
23	16.5	13.5	15.0	1.0	.5	.5	.5	.5	.5	---	---	---
24	17.0	15.0	15.5	2.0	.5	1.0	.5	.5	.5	---	---	---
25	18.0	15.5	16.5	2.5	1.0	2.0	.5	.5	.5	---	---	---
26	18.5	15.0	16.5	3.0	2.5	2.5	.5	.5	.5	---	---	---
27	18.5	15.5	16.5	5.0	3.0	4.0	1.0	.5	.5	---	---	---
28	17.0	13.0	15.0	5.0	4.0	4.5	1.0	.5	.5	---	---	---
29	13.0	10.0	11.5	4.0	3.0	3.5	1.0	1.0	1.0	---	---	---
30	12.5	8.5	10.5	4.0	3.0	3.5	---	---	---	---	---	---
31	12.0	8.0	10.0	---	---	---	---	---	---	---	---	---
MONTH	20.0	8.0	13.5	14.5	.5	6.5	4.0	.5	1.0	---	---	---

SURFACE-WATER RECORDS
Scioto River Basin

03228300 BIG WALNUT CREEK AT SUNBURY, OHIO—Continued

WATER-QUALITY RECORDS—Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	12.6	8.6	10.6	11.2	8.2	9.5	12.7	11.8	12.1	---	---	---
2	12.9	7.6	10.0	11.5	7.7	9.3	14.0	12.1	12.9	---	---	---
3	12.1	7.1	9.0	10.8	7.0	8.5	15.0	13.1	14.0	---	---	---
4	---	---	---	10.9	7.4	8.8	15.4	13.6	14.2	---	---	---
5	---	---	---	11.2	8.1	9.5	15.3	13.4	14.1	---	---	---
6	---	---	---	11.4	8.4	9.8	16.0	13.7	14.4	---	---	---
7	---	---	---	10.8	7.6	8.9	15.4	13.5	14.1	---	---	---
8	---	---	---	9.6	7.4	8.2	15.6	13.5	14.2	---	---	---
9	---	---	---	8.5	6.9	7.6	17.2	13.6	14.8	---	---	---
10	---	---	---	9.2	7.1	8.7	16.4	13.7	14.5	---	---	---
11	12.5	10.4	11.5	9.8	9.2	9.6	15.1	12.7	13.7	---	---	---
12	12.8	10.5	11.6	10.4	9.5	9.9	14.0	12.7	13.6	---	---	---
13	13.1	10.0	11.4	10.8	9.6	10.1	14.1	13.7	13.9	---	---	---
14	12.6	9.0	10.7	11.5	9.8	10.6	14.3	13.6	13.9	---	---	---
15	12.3	8.3	9.8	12.4	10.5	11.3	14.7	13.5	14.0	---	---	---
16	12.8	8.1	9.7	12.3	10.4	11.3	13.7	10.0	12.6	---	---	---
17	10.1	8.1	8.8	12.3	10.6	11.5	11.5	10.0	10.5	---	---	---
18	12.6	8.3	9.6	13.9	11.7	12.5	12.2	11.5	11.8	---	---	---
19	12.2	8.3	10.0	14.2	11.7	12.7	12.0	11.6	11.8	---	---	---
20	11.8	7.9	9.6	14.5	11.8	12.8	12.4	11.9	12.0	---	---	---
21	12.5	7.6	9.4	15.1	12.5	13.5	12.5	12.0	12.3	---	---	---
22	11.8	7.2	9.0	15.7	13.1	14.0	13.0	12.1	12.7	---	---	---
23	11.6	6.6	8.5	16.2	13.2	14.2	13.4	12.5	12.9	---	---	---
24	10.3	6.0	7.4	15.8	13.1	14.0	12.9	12.5	12.7	---	---	---
25	9.9	5.9	7.3	14.4	12.1	13.2	13.3	12.7	12.9	---	---	---
26	9.7	5.9	7.3	12.7	12.1	12.4	13.3	12.4	12.8	---	---	---
27	9.3	5.9	7.2	12.4	11.1	11.7	13.0	12.2	12.5	---	---	---
28	9.2	6.0	7.3	12.5	11.2	11.6	13.5	12.2	12.6	---	---	---
29	10.5	7.3	8.8	12.7	11.6	12.1	13.0	12.1	12.4	---	---	---
30	10.8	8.1	9.3	12.8	11.8	12.3	---	---	---	---	---	---
31	11.1	8.3	9.5	---	---	---	---	---	---	---	---	---
MONTH	13.1	5.9	9.3	16.2	6.9	11.0	17.2	10.0	13.1	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	11.7	6.7	8.9
2	---	---	---	---	---	---	---	---	---	12.3	6.7	8.8
3	---	---	---	---	---	---	---	---	---	12.7	6.4	8.8
4	---	---	---	---	---	---	13.8	10.1	11.8	12.5	6.4	8.7
5	---	---	---	---	---	---	10.9	9.8	10.6	12.8	6.5	8.9
6	---	---	---	---	---	---	11.0	9.4	10.1	12.7	6.6	8.9
7	---	---	---	---	---	---	10.7	9.6	10.3	11.5	6.6	8.5
8	---	---	---	---	---	---	10.6	8.8	9.8	12.2	7.0	8.8
9	---	---	---	---	---	---	11.3	8.6	9.6	11.3	7.7	9.2
10	---	---	---	---	---	---	11.3	8.8	9.9	11.8	7.3	9.2
11	---	---	---	---	---	---	10.2	9.4	9.8	11.3	7.1	8.5
12	---	---	---	---	---	---	9.9	9.2	9.6	11.2	7.1	8.7
13	---	---	---	---	---	---	11.1	9.4	10.1	12.2	8.6	10.3
14	---	---	---	---	---	---	12.2	9.4	10.5	12.8	8.7	10.4
15	---	---	---	---	---	---	11.0	9.4	10.1	12.2	8.7	9.9
16	---	---	---	---	---	---	11.9	10.3	11.1	10.7	9.4	10.1
17	---	---	---	---	---	---	12.3	10.8	11.3	9.8	9.2	9.5
18	---	---	---	---	---	---	12.5	9.9	11.3	9.4	7.5	8.7
19	---	---	---	---	---	---	12.1	9.1	10.7	8.0	6.4	7.2
20	---	---	---	---	---	---	9.6	8.9	9.3	7.2	6.1	6.5
21	---	---	---	---	---	---	9.2	8.0	8.8	6.7	5.2	6.0
22	---	---	---	---	---	---	8.9	7.6	8.2	7.4	4.9	5.8
23	---	---	---	---	---	---	9.2	7.6	8.5	9.5	5.8	8.7
24	---	---	---	---	---	---	---	---	---	10.1	9.2	9.7
25	---	---	---	---	---	---	---	---	---	9.4	7.0	7.8
26	---	---	---	---	---	---	---	---	---	9.1	7.0	8.1
27	---	---	---	---	---	---	12.0	7.4	9.4	9.7	6.8	8.3
28	---	---	---	---	---	---	12.1	7.5	9.5	11.3	6.8	8.6
29	---	---	---	---	---	---	12.5	7.7	9.8	9.0	6.8	8.1
30	---	---	---	---	---	---	12.0	7.0	9.4	8.8	6.9	7.8
31	---	---	---	---	---	---	---	---	---	9.1	7.6	8.2
MONTH	---	---	---	---	---	---	13.8	7.0	10.0	12.8	4.9	8.6

SURFACE-WATER RECORDS

Scioto River Basin

03228500 BIG WALNUT CREEK AT CENTRAL COLLEGE, OHIO

LOCATION.—Latitude 40°06'13", longitude 82°53'03", T.2 N., R.17 W., Franklin County, Hydrologic Unit 05060001, on right bank at upstream side of county road bridge, 0.2 mi east of Central College, 0.4 mi downstream from Hoover Dam, and 3 mi southeast of Westerville, Ohio.

DRAINAGE AREA.—190 mi².

PERIOD OF RECORD.—July 1938 to current year.

REVISED RECORDS.—WSP 873: 1938. WSP 1435: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is 815.16 ft above sea level.

REMARKS.—Records good except those for estimated record which are fair. Flow completely regulated by Hoover Reservoir since Sept. 1954. (See station 03228400). Water-quality data collected at this site 1965 to 1977. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	163	e148	172	155	145	142	e106	145	203	168	e150	116
2	138	147	163	150	147	149	135	153	496	163	e140	98
3	156	151	157	152	134	137	133	159	1050	152	e130	125
4	149	156	147	148	139	134	106	176	570	133	e125	142
5	138	152	147	149	156	149	117	164	320	146	e130	136
6	139	145	159	148	150	148	130	154	664	155	e135	127
7	161	138	156	169	165	132	117	177	1520	158	e140	141
8	174	137	164	158	149	144	132	142	677	150	e145	146
9	172	156	179	148	149	150	144	147	338	178	e150	137
10	132	153	175	148	135	129	161	155	232	181	e145	128
11	171	153	136	164	144	138	435	157	177	e170	e135	127
12	163	149	148	160	149	144	1120	147	167	e160	e130	128
13	148	146	170	148	168	133	623	140	180	e150	e120	131
14	152	154	162	145	159	134	346	143	158	e145	e130	134
15	154	153	159	150	168	150	270	148	162	e140	e140	127
16	146	146	113	147	242	140	220	136	156	e160	152	136
17	118	145	154	147	289	134	277	142	152	e170	147	135
18	137	150	148	147	250	141	230	158	153	e190	145	132
19	147	161	183	147	223	143	154	477	162	e180	181	117
20	144	144	153	139	199	143	259	555	174	e160	147	121
21	126	149	149	142	189	144	1100	364	149	e145	148	116
22	127	167	140	147	154	124	667	756	145	e140	139	108
23	127	161	134	152	145	107	398	780	136	e125	152	121
24	115	154	143	148	136	91	295	484	136	e160	136	123
25	134	163	146	148	152	99	236	851	156	e140	140	128
26	135	176	145	145	150	115	188	835	160	e130	147	112
27	138	152	156	137	151	146	166	715	157	e120	136	104
28	148	143	146	138	135	122	144	674	174	e220	135	108
29	148	164	149	148	---	119	134	419	180	e200	140	125
30	128	181	150	169	---	115	141	311	185	e180	127	121
31	142	---	151	153	---	99	---	159	---	e160	123	---
TOTAL	4470	4594	4754	4646	4672	4095	8684	10123	9289	4929	4340	3750
MEAN	144	153	153	150	167	132	289	327	310	159	140	125
MAX	174	181	183	169	289	150	1120	851	1520	220	181	146
MIN	115	137	113	137	134	91	106	136	136	120	120	98

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 2001, BY WATER YEAR (WY)

MEAN	110	123	155	193	241	338	331	264	222	163	144	120
MAX	289	650	926	871	781	957	783	786	720	503	655	626
(WY)	1980	1973	1991	1959	1975	1963	1961	1996	1997	1987	1980	1979
MIN	.15	1.69	.77	1.02	6.24	89.1	46.2	21.5	.30	.55	4.86	3.43
(WY)	1956	1956	1956	1956	1956	1972	1955	1955	1955	1955	1955	1955

SUMMARY STATISTICS FOR 2000 CALENDAR YEAR FOR 2001 WATER YEAR WATER YEARS 1955 - 2001

ANNUAL TOTAL	77117	68346		
ANNUAL MEAN	211	187	200	
HIGHEST ANNUAL MEAN			337	1973
LOWEST ANNUAL MEAN			111	1966
HIGHEST DAILY MEAN	4610	Apr 8	1520	Jun 7
LOWEST DAILY MEAN	103	Apr 30	91	Mar 24
ANNUAL SEVEN-DAY MINIMUM	118	May 10	114	Mar 23
MAXIMUM PEAK FLOW			1920	Jun 7
MAXIMUM PEAK STAGE			7.63	Jun 7
INSTANTANEOUS LOW FLOW			91	Mar 24
10 PERCENT EXCEEDS	195	231	302	
50 PERCENT EXCEEDS	148	148	121	
90 PERCENT EXCEEDS	122	127	65	

e Estimated.

SURFACE-WATER RECORDS
Scioto River Basin

03228750 ALUM CREEK NEAR KILBOURNE, OHIO

LOCATION.—Latitude 40°21'24", longitude 82°55'18", Delaware County, Hydrologic Unit 05060001, on left bank of upstream side of bridge on County Road 34, 100 ft downstream from West Branch Alum Creek, and 2.6 mi northeast of Kilbourne.

DRAINAGE AREA.—64.9 mi².

PERIOD OF RECORD.—November 1973 to 1981, October 2000 to September 2001.

GAGE.—Water-stage recorder. Datum of gage is 900.99 ft above sea level.

REMARKS.—Records good except those for estimated record which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.6	3.6	26	e6.2	328	26	34	41	517	e1.7	e.98	e15
2	3.9	2.7	16	e6.0	212	24	42	41	417	e3.8	e.83	e13
3	4.5	3.1	17	e5.8	148	23	33	38	213	e2.6	e3.8	e5.2
4	5.7	3.5	20	e5.8	140	22	28	35	98	e2.4	e24	e2.0
5	69	2.6	8.0	e5.6	124	19	26	35	76	e2.3	e7.0	e1.3
6	120	2.1	11	e5.4	124	25	503	38	172	e1.9	e4.0	e.97
7	30	3.2	8.2	e5.4	99	20	307	35	174	e1.7	e2.2	e.78
8	15	4.7	8.9	e5.2	100	22	106	26	e80	e1.7	e1.6	e.61
9	16	4.1	6.9	e5.1	235	20	70	14	e49	e1.5	e1.3	e1.5
10	14	56	7.1	e5.0	448	22	126	8.8	e26	e1.0	e1.1	e1.9
11	9.3	23	17	e4.9	113	17	561	9.2	e15	e1.1	e1.3	e15
12	6.5	e12	199	e4.8	64	18	252	9.5	e10	e1.2	e.97	e6.7
13	5.6	e8.8	44	e4.7	55	51	99	10	e16	e1.0	e1.1	e3.2
14	4.0	e6.8	33	e4.7	275	57	70	9.7	38	e.72	e1.7	e2.1
15	3.5	e6.0	24	e80	408	37	84	49	16	e.59	e2.1	e1.7
16	4.0	e5.3	621	283	143	41	138	118	32	e.57	e1.4	e1.3
17	7.5	e4.8	881	190	87	57	83	94	33	e.80	e1.6	e.91
18	7.4	e4.4	144	e84	61	46	65	158	21	e.63	e1.4	e.69
19	5.0	e4.1	69	e50	63	35	56	237	18	e1.0	e3.4	e1.2
20	6.0	e3.9	e47	e31	42	32	595	87	16	e2.2	e4.1	e1.3
21	4.1	e3.7	e29	e22	37	30	418	69	18	e2.4	e1.7	e1.1
22	4.0	e3.5	e20	e16	45	29	162	139	37	e1.4	e1.1	e2.0
23	3.6	e3.3	e15	e13	40	27	111	93	39	e.86	e1.8	e1.8
24	5.1	e3.2	e11	e12	27	28	83	97	e20	e.72	e2.1	e1.5
25	7.1	e3.1	e9.6	e11	31	24	66	300	e15	e.94	e1.7	e1.3
26	8.0	7.7	e8.8	e10	29	25	58	141	e10	e2.7	e1.7	e1.2
27	6.1	15	e8.0	e9.4	25	29	53	154	e6.0	e2.1	e4.6	e.69
28	9.5	15	e7.6	e8.6	24	22	47	94	e2.9	e1.9	e2.3	e.68
29	4.7	18	e7.2	e8.2	---	21	42	73	e2.5	e1.7	e1.5	e.66
30	4.9	42	e6.8	e200	---	20	41	76	e2.0	e1.8	e.90	e.74
31	3.7	---	e6.4	681	---	26	---	50	---	e1.4	e1.3	---
TOTAL	405.3	279.2	2337.5	1783.8	3527	895	4359	2379.2	2189.4	48.33	86.58	88.03
MEAN	13.1	9.31	75.4	57.5	126	28.9	145	76.7	73.0	1.56	2.79	2.93
MAX	120	56	881	681	448	57	595	300	517	3.8	24	15
MIN	3.5	2.1	6.4	4.7	24	17	26	8.8	2.0	.57	.83	.61
CFSM	.20	.14	1.16	.89	1.94	.44	2.24	1.18	1.12	.02	.04	.05
IN.	.23	.16	1.34	1.02	2.02	.51	2.50	1.36	1.25	.03	.05	.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2001, BY WATER YEAR (WY)

MEAN	11.8	43.0	86.6	113	183	127	105	47.9	47.3	14.2	36.6	18.8
MAX	40.8	176	192	220	355	364	209	121	139	51.1	244	125
(WY)	1980	1980	1978	1974	1981	1978	1979	1981	1980	1980	1980	1979
MIN	2.96	5.63	11.0	8.04	16.2	28.9	21.4	12.0	4.60	1.56	1.93	1.86
(WY)	1975	1979	1977	1977	1978	2001	1976	1976	1977	2001	1975	1977

SUMMARY STATISTICS

FOR 2001 WATER YEAR

WATER YEARS 1974 - 2001

ANNUAL TOTAL	18378.34		
ANNUAL MEAN	50.4	69.1	
HIGHEST ANNUAL MEAN		101	1980
LOWEST ANNUAL MEAN		46.0	1976
HIGHEST DAILY MEAN	881	2650	Feb 24 1975
LOWEST DAILY MEAN	.57	.47	Aug 26 1981
ANNUAL SEVEN-DAY MINIMUM	.76	.52	Aug 21 1981
MAXIMUM PEAK FLOW	1680	4850	Feb 24 1975
MAXIMUM PEAK STAGE	7.65	12.05	Feb 24 1975
INSTANTANEOUS LOW FLOW	.57	.40	Aug 26 1981
ANNUAL RUNOFF (CFSM)	.78	1.07	
ANNUAL RUNOFF (INCHES)	10.53	14.47	
10 PERCENT EXCEEDS	131	147	
50 PERCENT EXCEEDS	13	18	
90 PERCENT EXCEEDS	1.3	2.1	

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

SURFACE-WATER RECORDS
Scioto River Basin

03228805 ALUM CREEK AT AFRICA, OHIO

LOCATION.—Latitude 40°10'56", longitude 82°57'42", in SE 1/4 sec. 1, T.3 N., R.18 W., Delaware County, Hydrologic Unit 05060001, on right bank 400 ft upstream of bridge on Lewis Center Road, 1,200 ft downstream from outlet of Alum Creek Dam, 0.3 mi west of Africa, Ohio, 2.8 mi upstream from Westerville Reservoir outlet, and 4.2 mi northwest of Westerville, Ohio.

DRAINAGE AREA.—122 mi².

PERIOD OF RECORD.—Water year 1962 (occasional low-flow measurements) June 1963 to current year.

GAGE.—Water-stage recorder. Datum of gage is 822.00 ft above sea level. (Levels by U.S. Army Corps of Engineers.) July 9, 1974, to Sept. 30, 1985, at datum 22.00 ft lower. Oct. 17, 1973, to July 9, 1974, nonrecording gage at bridge 400 ft downstream at datum 22.00 ft lower. Prior to Oct. 17, 1973, water-stage recorder 600 ft downstream at datum 4.63 ft lower.

REMARKS.—Records fair. Flow regulated by Alum Creek Lake since August 1973. Water-quality and sediment data formerly collected at this site. U.S. Army Corps of Engineers satellite telemeter at station.

EXTREME FOR PERIOD OF RECORD.—Maximum discharge, 6,160 ft³/s Mar. 10, 1964, gage height 13.95 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood of Mar. 5, 1963 reached a stage of 14.2 ft, from floodmarks; discharge, 6,460 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	20	16	19	26	27	18	21	105	11	20	16
2	14	20	17	20	27	19	18	21	294	10	16	17
3	14	18	17	19	27	19	18	21	452	9.9	12	17
4	14	17	17	19	27	20	18	16	475	10	13	17
5	17	18	17	19	27	20	17	14	475	9.9	14	17
6	15	18	18	20	27	20	17	14	478	9.9	14	18
7	15	17	18	20	26	19	17	13	478	10	14	17
8	15	17	18	20	27	20	17	13	477	9.6	14	17
9	15	17	18	20	27	20	17	13	249	9.9	14	17
10	15	17	17	21	27	20	19	13	123	10	13	18
11	15	16	18	21	27	20	21	13	86	9.5	13	18
12	15	16	18	21	117	20	18	13	63	9.2	12	18
13	15	15	18	21	241	21	18	13	63	7.3	12	18
14	15	15	18	22	352	19	17	12	63	11	12	17
15	15	15	18	22	617	48	17	13	e30	15	12	18
16	14	15	25	22	430	74	17	12	12	15	12	18
17	16	17	21	22	75	74	17	55	12	14	12	18
18	51	16	19	22	75	73	15	189	13	13	12	18
19	27	16	19	22	74	37	15	16	13	17	12	18
20	24	17	19	22	115	17	17	232	13	17	12	18
21	24	17	19	23	152	17	16	462	15	17	11	19
22	23	17	20	23	151	14	15	461	15	18	12	19
23	23	17	20	23	123	17	322	453	10	19	11	20
24	23	17	19	23	76	18	526	450	10	19	11	20
25	23	17	19	24	77	18	246	454	11	20	11	20
26	22	17	19	23	54	18	39	454	11	20	11	19
27	21	17	19	23	37	18	20	430	10	20	11	19
28	21	17	19	24	37	18	21	280	11	19	11	19
29	21	16	19	24	---	18	21	174	11	19	11	19
30	21	16	19	25	---	18	21	174	11	19	13	19
31	21	---	19	27	---	18	---	120	---	20	16	---
TOTAL	600	505	577	676	3098	799	1595	4639	4089	438.2	394	543
MEAN	19.4	16.8	18.6	21.8	111	25.8	53.2	150	136	14.1	12.7	18.1
MAX	51	20	25	27	617	74	526	462	478	20	20	20
MIN	14	15	16	19	26	14	15	12	10	7.3	11	16

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2001, BY WATER YEAR (WY)

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
MEAN	51.8	111	138	122	169	162	99.7	117	96.0	72.4	39.9	52.9			
MAX	309	375	460	437	464	514	358	651	293	364	570	618			
(WY)	1987	1988	1991	1993	1990	1979	1979	1996	1990	1987	1980	1980			
MIN	3.85	5.39	6.15	1.50	5.48	5.02	3.46	3.32	3.61	3.05	3.31	3.53			
(WY)	1974	1989	1976	1976	1981	1987	1981	1976	1976	1976	1981	1981			

SUMMARY STATISTICS

	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1974 - 2001	
ANNUAL TOTAL	13697.1		17953.2			
ANNUAL MEAN	37.4		49.2		102	
HIGHEST ANNUAL MEAN					243	
LOWEST ANNUAL MEAN					8.54	
HIGHEST DAILY MEAN	476	Jun 18	617	Feb 15	1980	Nov 29 1979
LOWEST DAILY MEAN	8.6	Jan 1	7.3	Jul 13	.00	Aug 25 1992
ANNUAL SEVEN-DAY MINIMUM	11	Jan 27	9.4	Jul 7	1.5	Jun 11 1976
MAXIMUM PEAK FLOW			719	Feb 15	2310	Sep 19 1979
MAXIMUM PEAK STAGE			3.85	Feb 15	27.74	Sep 19 1979
INSTANTANEOUS LOW FLOW			2.7	Mar 22	.00	Aug 25 1992
10 PERCENT EXCEEDS	67		81		288	
50 PERCENT EXCEEDS	17		18		18	
90 PERCENT EXCEEDS	12		12		5.9	

e Estimated.

SURFACE-WATER RECORDS
Scioto River Basin

03229500 BIG WALNUT CREEK AT REES, OHIO

LOCATION.—Latitude 39°51'24", longitude 82°57'26", in NE 1/4 sec. 26, T.4 N., R.22 W., Franklin County, Hydrologic Unit 05060001, on right bank at downstream side of bridge on Reese Road, 0.5 mi southwest of Reese, Ohio, 4.2 mi downstream from Alum Creek, and 10.5 mi upstream from mouth.

DRAINAGE AREA.—544 mi².

PERIOD OF RECORD.—August 1921 to December 1935, October 1938 to current year. Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.—WSP 1053: 1929, 1933(M), 1945. WSP 1305: 1923(M), 1925-26(M).

GAGE.—Water-stage recorder. Datum of gage is 698.20 ft above sea level. Aug. 18, 1921, to Oct. 23, 1927, nonrecording gage at site 0.3 mi upstream at datum 2.00 ft higher prior to Oct. 1, 1924, at present datum thereafter.

REMARKS.—Record good except for periods of estimated record, which are poor. Flow regulated by Hoover Reservoir 26 mi upstream (see station 03228400) and Alum Creek Lake 30 mi upstream since August 1973. Beginning June 15, 1956, diversion at Morse Road Treatment Plant, 21 mi upstream from station, for municipal water supply for the City of Columbus. Water-quality data formerly collected at this site. U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 59,800 ft³/s Jan. 22, 1959, gage height, 22.03 ft (from highwater mark in well), from rating curve extended above 13,000 ft³/s on basis of contracted-opening measurement of peak flow; minimum, 5 ft³/s Sept. 4, 5, 10-12, 1925; minimum daily since 1956, 9.4 ft³/s Sept. 13, 1964.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	84	108	136	e110	586	215	315	150	780	91	128	874
2	75	95	168	e105	374	208	325	144	1030	442	103	212
3	69	119	129	e100	265	195	201	140	1750	160	149	124
4	78	112	106	e98	245	252	178	140	1460	266	125	93
5	1260	90	99	e96	255	277	162	135	1090	208	89	84
6	2580	84	93	e94	264	204	220	121	1390	116	74	81
7	495	117	97	e92	299	196	466	112	2530	101	67	74
8	226	139	97	e90	290	187	268	489	1650	102	71	80
9	159	224	90	e88	357	184	254	233	1070	90	64	102
10	132	971	83	e86	840	186	1390	154	514	74	72	116
11	123	361	97	e85	413	175	2870	192	375	71	67	109
12	112	182	595	e84	282	168	1860	369	371	69	58	73
13	96	145	236	e82	390	423	1110	165	316	59	54	63
14	91	134	364	e80	837	412	622	129	230	55	57	141
15	91	122	254	e120	1580	267	543	377	197	52	57	99
16	97	109	2470	e200	1360	355	554	1040	166	53	55	69
17	451	104	6460	e170	817	401	359	1030	127	100	60	62
18	346	103	947	e160	555	323	382	1790	110	180	53	140
19	192	99	535	e150	454	280	276	3470	104	120	540	204
20	133	97	e330	e145	405	224	1090	1130	110	106	170	245
21	128	93	e240	e140	429	202	1680	1540	121	103	80	101
22	124	90	e200	e130	418	202	1150	2720	293	76	68	71
23	120	92	e175	e125	397	184	674	1880	166	97	130	65
24	132	84	e160	e120	325	162	955	1470	141	90	157	141
25	167	159	e150	e115	301	151	827	2230	120	1470	79	134
26	147	313	e140	e110	294	146	343	1810	90	1450	75	73
27	138	233	e135	e108	237	140	218	1800	98	292	261	66
28	132	182	e130	e104	214	142	192	1500	106	149	111	64
29	103	148	e125	e100	---	146	160	957	86	416	78	60
30	101	153	e120	1180	---	146	147	698	87	324	66	62
31	99	---	e115	1470	---	146	---	552	---	301	1380	---
TOTAL	8281	5062	15076	5937	13483	6899	19791	28667	16678	7283	4598	3882
MEAN	267	169	486	192	482	223	660	925	556	235	148	129
MAX	2580	971	6460	1470	1580	423	2870	3470	2530	1470	1380	874
MIN	69	84	83	80	214	140	147	112	86	52	53	60
(+)	120	111	113	124	110	106	111	127	138	146	140	123

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2001, BY WATER YEAR (WY)

	1974	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	
MEAN	207	376	506	535	690	751	692	559	505	369	274	219	1657	1313	1566	1814	1987	1986	1991	1993	1990	1984	1979	1996	1997	1990	1980	1979	
MAX	951	1398	2110	1458	1747	1688	1467	2057	1657	1313	1566	1814	1987	1986	1991	1993	1990	1984	1979	1996	1997	1990	1980	1979	1996	1997	1990	1980	1979
(WY)	1987	1986	1991	1993	1990	1984	1979	1996	1997	1990	1980	1979	1996	1997	1990	1980	1979	1996	1997	1990	1980	1979	1996	1997	1990	1980	1979	1996	1997
MIN	57.4	47.8	111	115	110	121	130	63.3	64.0	84.7	52.8	57.3	1995	1992	1988	1977	1992	1983	1976	1976	1988	1991	1993	1985	1988	1988	1988	1988	1988

SUMMARY STATISTICS FOR 2000 CALENDAR YEAR FOR 2001 WATER YEAR WATER YEARS 1974 - 2001

ANNUAL TOTAL	143934	135637	
ANNUAL MEAN	393 (+122)	372 (+122)	592#
HIGHEST ANNUAL MEAN			740
LOWEST ANNUAL MEAN			221
HIGHEST DAILY MEAN	7080	Apr 4	6460
LOWEST DAILY MEAN	47	Sep 18	52
ANNUAL SEVEN-DAY MINIMUM	58	Jan 25	56
MAXIMUM PEAK FLOW			9160
MAXIMUM PEAK STAGE			13.11
INSTANTANEOUS LOW FLOW			52
10 PERCENT EXCEEDS	781		1050
50 PERCENT EXCEEDS	153		150
90 PERCENT EXCEEDS	66		75

e Estimated.
Adjusted for diversion.
(+) Average diversion by City of Columbus municipal water supply.

SURFACE-WATER RECORDS
Scioto River Basin

03230310 LITTLE DARBY CREEK AT WEST JEFFERSON, OHIO

LOCATION.—Latitude 39°57'04", longitude 83°16'10", Madison County, Hydrologic Unit 05060001, at bridge on Middle Pike, 0.4 mi north of West Jefferson, Ohio, and 7.2 mi upstream from Big Darby Creek.

DRAINAGE AREA.—162 mi².

PERIOD OF RECORD.—October 1992 to current year.

GAGE.—Water-stage recorder. Datum of gage is 785 ft above sea level. Prior to 1992, low-flow partial-record site.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	24	36	e54	e300	97	61	75	234	41	29	39
2	15	23	39	e50	211	94	58	72	231	48	23	17
3	18	24	41	e47	149	89	52	67	203	60	43	17
4	17	23	e37	e48	129	81	48	61	163	54	31	13
5	70	22	e36	e50	111	76	44	58	144	49	42	11
6	690	23	e30	e52	99	69	45	55	153	42	33	9.3
7	462	24	e35	e44	90	65	50	52	304	36	21	7.8
8	204	27	e33	e40	88	61	50	56	228	37	16	6.8
9	124	33	e31	e37	164	60	53	54	172	35	13	6.2
10	87	157	e30	e35	567	57	219	51	140	32	11	8.1
11	69	219	e28	e34	465	54	617	48	123	28	10	6.9
12	56	124	e90	e33	250	54	882	50	111	25	9.8	11
13	47	90	171	e32	187	63	460	46	103	21	9.4	11
14	41	76	116	e32	202	70	266	42	93	19	8.5	9.9
15	37	64	87	e40	556	78	205	115	87	17	7.8	7.6
16	34	55	381	e70	475	83	173	764	84	15	6.7	6.3
17	37	52	1380	e60	335	104	143	1270	77	17	6.1	5.9
18	36	46	1070	e54	220	121	119	1070	67	21	6.4	7.7
19	36	40	476	e45	170	105	104	2830	62	26	13	7.3
20	35	39	276	e39	148	95	138	1660	61	23	11	6.8
21	31	38	202	e35	129	91	337	827	63	19	13	7.7
22	30	32	e140	e32	115	87	258	586	103	18	11	7.4
23	28	32	e120	e30	108	78	191	428	86	16	12	7.5
24	27	33	e100	e28	93	74	160	397	76	15	12	8.2
25	27	33	e90	e26	99	69	128	1100	66	16	12	7.6
26	28	36	e84	e24	116	63	110	1020	58	27	13	7.4
27	28	39	e76	e23	109	60	100	1000	51	43	17	6.6
28	27	38	e70	e22	101	56	91	697	45	26	14	6.7
29	26	35	e66	e20	---	55	80	434	43	42	11	6.7
30	25	34	e60	e100	---	56	75	310	41	59	9.5	6.8
31	24	---	e56	e520	---	56	---	241	---	44	28	---
TOTAL	2431	1535	5487	1756	5786	2321	5317	15536	3472	971	503.2	288.2
MEAN	78.4	51.2	177	56.6	207	74.9	177	501	116	31.3	16.2	9.61
MAX	690	219	1380	520	567	121	882	2830	304	60	43	39
MIN	15	22	28	20	88	54	44	42	41	15	6.1	5.9
CFSM	.48	.32	1.09	.35	1.28	.46	1.09	3.09	.71	.19	.10	.06
IN.	.56	.35	1.26	.40	1.33	.53	1.22	3.57	.80	.22	.12	.07

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 2001, BY WATER YEAR (WY)

MEAN	26.1	87.4	113	237	208	236	277	293	232	147	57.5	11.5
MAX	81.0	312	349	485	273	503	493	845	673	701	335	22.6
(WY)	1996	1994	1997	1996	1994	1993	1996	1996	1997	1993	1995	1996
MIN	1.74	6.81	10.5	56.6	91.7	74.9	70.2	55.5	18.5	16.8	3.50	.11
(WY)	2000	2000	2000	2001	1995	2001	1997	1999	1999	1999	1999	1999

SUMMARY STATISTICS

FOR 2000 CALENDAR YEAR

FOR 2001 WATER YEAR

WATER YEARS 1993 - 2001

ANNUAL TOTAL	44986.7	45403.4	
ANNUAL MEAN	123	124	160
HIGHEST ANNUAL MEAN			256
LOWEST ANNUAL MEAN			91.1
HIGHEST DAILY MEAN	2410	2830	4910
LOWEST DAILY MEAN	5.9	5.9	.00
ANNUAL SEVEN-DAY MINIMUM	6.4	7.0	.00
MAXIMUM PEAK FLOW		4100	6240
MAXIMUM PEAK STAGE		13.57	15.53
INSTANTANEOUS LOW FLOW		5.6	.00
ANNUAL RUNOFF (CFSM)	.76	.77	.99
ANNUAL RUNOFF (INCHES)	10.33	10.43	13.43
10 PERCENT EXCEEDS	275	253	400
50 PERCENT EXCEEDS	49	51	58
90 PERCENT EXCEEDS	11	11	7.7

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

SURFACE-WATER RECORDS
Scioto River Basin

03230450 HELLBRANCH RUN NEAR HARRISBURG, OHIO

LOCATION.—Latitude 39°49'50", longitude 83°09'36", Franklin County, Hydrologic Unit 05060001, on right side of abandoned bridge, 500 ft upstream from Lambert Road, 1.0 mi upstream from mouth, and 1.5 mi north-northeast of Harrisburg, Ohio.
DRAINAGE AREA.—37.0 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—October 1992 to current year.

GAGE.—Water-stage recorder and crest-stage gage. Elevation of gage is 785 ft above sea level (from topographic map).

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.7	3.9	6.6	e9.0	76	16	26	12	112	4.3	12	61
2	2.8	3.7	8.3	e8.4	54	16	38	10	115	5.8	6.6	21
3	2.5	4.1	e7.8	e8.0	42	15	25	9.1	89	5.3	24	11
4	3.0	3.9	e7.4	e7.6	31	15	18	8.4	59	6.8	19	6.7
5	60	4.0	e7.0	e7.2	29	15	15	8.1	50	6.5	8.9	4.8
6	151	3.9	e6.2	e6.8	28	13	15	7.4	77	4.7	5.3	3.5
7	46	4.0	e5.6	e6.4	29	12	13	7.0	132	3.8	3.7	2.5
8	23	4.1	e5.0	e6.0	38	11	14	8.7	71	3.9	2.8	1.9
9	14	9.5	e4.5	e5.8	59	11	32	8.6	48	3.3	2.2	1.6
10	10	55	e4.2	e5.6	112	10	585	7.5	35	2.6	1.9	e1.7
11	8.6	36	e4.1	e5.4	60	10	941	8.3	29	2.3	1.6	e1.6
12	6.5	22	e35	e5.2	43	10	350	11	33	2.1	1.5	e3.0
13	5.6	16	e25	e5.0	36	18	123	7.9	45	2.2	1.3	e8.0
14	4.6	12	e20	e5.0	75	23	78	6.6	26	1.9	1.2	e6.0
15	4.0	9.5	e22	e6.0	142	19	62	33	20	1.5	1.1	e3.0
16	3.6	8.6	644	e12	99	20	49	347	16	1.3	1.0	e2.0
17	12	7.5	1100	e10	76	22	38	633	14	1.6	.94	e1.5
18	19	6.0	239	e9.2	49	19	30	607	11	2.0	.97	e2.0
19	12	5.4	103	e8.0	38	17	25	905	11	3.5	2.0	e1.7
20	8.2	5.1	64	e7.0	34	15	72	269	9.9	5.5	6.0	e3.3
21	6.2	4.6	45	e6.0	29	15	86	185	9.5	5.0	3.1	e2.7
22	5.3	4.1	e27	e5.4	26	14	52	223	12	4.0	2.0	e2.3
23	4.3	3.7	e22	e5.0	23	13	40	131	10	2.7	2.1	e1.9
24	4.0	3.5	e17	e4.7	20	12	31	149	7.9	1.9	4.3	e2.3
25	4.4	4.9	e15	e4.3	23	11	23	654	6.6	32	3.5	e2.5
26	4.9	11	e14	e4.0	20	10	20	267	5.7	33	2.7	e2.6
27	4.9	11	e13	e3.7	18	9.6	18	190	5.0	11	14	e2.5
28	4.7	8.8	e12	e3.5	17	9.2	15	116	4.7	6.2	8.0	e2.4
29	4.4	7.6	e11	e3.3	---	9.2	13	81	4.8	92	4.3	e2.1
30	4.3	7.0	e10	e17	---	9.6	12	62	4.6	50	2.7	e2.0
31	4.1	---	e9.4	137	---	9.1	---	49	---	25	27	---
TOTAL	450.6	290.4	2514.1	337.5	1326	428.7	2859	5021.6	1073.7	333.7	177.71	171.1
MEAN	14.5	9.68	81.1	10.9	47.4	13.8	95.3	162	35.8	10.8	5.73	5.70
MAX	151	55	1100	137	142	23	941	905	132	92	27	61
MIN	2.5	3.5	4.1	3.3	17	9.1	12	6.6	4.6	1.3	.94	1.5
CFSM	.39	.26	2.19	.29	1.28	.37	2.58	4.38	.97	.29	.15	.15
IN.	.45	.29	2.53	.34	1.33	.43	2.87	5.05	1.08	.34	.18	.17

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 2001, BY WATER YEAR (WY)

	1993	1994	1995	1996	1997	1998	1999	2000	2001
MEAN	4.02	14.4	30.5	70.7	51.0	55.9	78.0	63.6	49.8
MAX	16.0	46.2	82.0	143	75.5	109	157	187	142
(WY)	1996	1993	1997	1996	2000	1993	1996	1997	1999
MIN	.000	.005	1.95	10.9	23.6	13.8	12.7	5.40	.36
(WY)	1995	2000	2000	2001	1995	2001	1997	1999	1999

SUMMARY STATISTICS

	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1993 - 2001	
ANNUAL TOTAL	11588.15		14984.11			
ANNUAL MEAN	31.7		41.1		37.9	
HIGHEST ANNUAL MEAN					66.8	
LOWEST ANNUAL MEAN					22.9	
HIGHEST DAILY MEAN	1100		1100		2000	
LOWEST DAILY MEAN	.00		.94		.00	
ANNUAL SEVEN-DAY MINIMUM	.80		1.1		.00	
MAXIMUM PEAK FLOW			1450		3180	
MAXIMUM PEAK STAGE			8.71		14.19	
INSTANTANEOUS LOW FLOW			.77		.00	
ANNUAL RUNOFF (CFSM)	.86		1.11		1.02	
ANNUAL RUNOFF (INCHES)	11.65		15.07		13.92	
10 PERCENT EXCEEDS	55		76		86	
50 PERCENT EXCEEDS	7.4		9.5		9.7	
90 PERCENT EXCEEDS	1.3		2.5		.04	

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

SURFACE-WATER RECORDS
Scioto River Basin

03230450 HELLBRANCH RUN NEAR HARRISBURG, OHIO—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—May 4, 1992, to current year.

PERIOD OF DAILY RECORD.—

SUSPENDED-SEDIMENT DISCHARGE: October 1, 1992, to current year.

INSTRUMENTATION.—Refrigerated water-quality pumping sampler since October 1, 1992.

REMARKS.—Water-quality samples were collected by equal-width-increment (EWI) sampling method, approximately once per month. Suspended-sediment samples and seasonal-event water-quality samples were collected by pumping sampler. Pumped samples were collected for every 0.5-ft rise and 1-ft drop in stage. Sediment samples were also collected by a local observer during the 2001 water year, approximately once per day, until June 28, 2001, when the observer resigned. Suspended-sediment loads were calculated using the mean-interval method (Porterfield, George, 1972, Computation of Fluvial-Sediment Discharge: U.S. Geological Survey, Techniques of Water-Resources Investigations, book 3, chap. C3, 66 p.). For days with unsteady concentration, discharge, or both, the day was subdivided into quarter-hour intervals and the daily load was calculated by summing the loads for these quarter-hour intervals. This required interpolation between measured and estimated concentrations.

EXTREMES FOR PERIOD OF DAILY RECORD.—

SEDIMENT CONCENTRATIONS: Maximum daily mean, 819 mg/L, June 29, 1998; minimum daily mean, 1 mg/L, Oct. 11, Nov. 3, 4, 1995, Aug. 7, Oct. 25, 1996, on several days during 1998, 2000, 2001, and Nov. 13, 1998.

SEDIMENT LOADS: Maximum daily, 4,420 tons, June 29, 1998; minimum daily, 0.00 ton, on many days during 1993, 1994, 1995, 1998, 1999, and on several days during 1996, 1997, and 2000.

EXTREMES FOR CURRENT YEAR.—

SEDIMENT CONCENTRATIONS: Maximum daily mean, 711 mg/L, May 16; minimum daily mean, 1 mg/L, on several days during the year.

SEDIMENT LOADS: Maximum daily, 1,380 tons, Apr. 11; minimum daily, 0.01 ton, on several days during the year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

[(00061), USGS National Water Information System parameter code; *, 10—stream cross-section sample collected by equal-width-increment (EWI) method, 50—point sample collected from refrigerated automatic sampler; mg/L, milligrams per liter; μ S/cm, microsiemens per centimeter; deg C, degrees Celsius; ---, no data; <, concentration or value reported is less than that indicated; e, estimated daily discharge, instantaneous discharge is not available.]

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SAM-PLING METHOD, CODES* (82398)	OXYGEN, DIS-SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)
NOV													
02...	1210	3.5	10	17.7	8.6	950	21.0	12.0	130	1.6	65	<2	<.03
DEC													
16...	1015	132	50	---	---	---	---	---	48	5.2	33	285	1.0
16...	1130	270	50	---	---	---	---	---	33	5.0	23	502	.71
16...	1245	521	50	---	---	---	---	---	30	5.1	21	656	.72
16...	1345	819	50	---	---	---	---	---	39	5.1	17	919	.38
16...	1430	1080	50	---	---	---	---	---	57	5.2	22	1090	.32
16...	1615	1340	50	---	---	---	---	---	72	4.9	28	749	.28
17...	1730	859	50	---	---	---	---	---	98	6.7	37	133	.24
18...	0130	404	50	---	---	---	---	---	100	7.0	46	91	.33
19...	0900	108	50	---	---	---	---	---	52	8.1	35	33	.56
JAN													
18...	1250	e9.2	10	14.1	8.4	907	5.0	1.5	98	5.7	65	3	.58
FEB													
27...	1210	18	10	16.3	8.3	894	7.0	6.0	110	2.3	67	5	.08
MAR													
21...	1230	15	10	15.2	8.6	943	13.0	8.5	100	1.7	67	2	.08
APR													
09...	2315	159	50	---	---	---	---	---	73	2.4	50	308	.09
09...	2345	320	50	---	---	---	---	---	69	2.5	46	709	.13
10...	0015	568	50	---	---	---	---	---	67	3.5	42	1230	.15
10...	0045	810	50	---	---	---	---	---	51	4.3	29	1680	.31
10...	1915	364	50	---	---	---	---	---	38	4.9	22	---	.22
11...	0430	597	50	---	---	---	---	---	42	8.4	27	146	.16
11...	0630	872	50	---	---	---	---	---	36	8.0	24	323	.14
11...	0730	1150	50	---	---	---	---	---	33	8.1	22	494	.10
11...	0930	1410	50	---	---	---	---	---	28	7.9	20	863	.07
11...	2215	859	50	---	---	---	---	---	26	7.7	18	640	.07
12...	0745	408	50	---	---	---	---	---	33	9.0	24	187	.16
13...	1530	110	50	---	---	---	---	---	36	9.3	26	110	.18
24...	1250	30	10	10.9	8.2	781	13.0	14.5	69	6.0	51	5	.03
MAY													
30...	1325	61	10	8.9	8.0	608	20.5	16.5	43	9.3	37	8	.04
JUN													
27...	1255	4.8	10	11.6	8.3	791	30.5	22.5	24	7.1	130	<2	.08
JUL													
29...	0800	61	50	---	---	---	---	---	40	5.2	36	1370	.03
29...	0845	166	50	---	---	---	---	---	31	4.8	28	1680	.03
29...	0915	349	50	---	---	---	---	---	25	4.9	86	1120	.05
29...	1830	82	50	---	---	---	---	---	28	8.0	24	68	<.03
31...	1035	26	10	8.3	7.8	526	27.5	22.0	49	9.0	43	12	.03
AUG													
28...	1310	7.2	10	8.3	7.9	535	27.0	21.5	66	6.8	44	4	.03

SURFACE-WATER RECORDS
Scioto River Basin

03230450 HELLBRANCH RUN NEAR HARRISBURG, OHIO—Continued

WATER-QUALITY RECORDS—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

[(00625), USGS National Water Information System parameter code; mg/L, milligrams per liter; ---, no data; <, concentration or value reported is less than that indicated.]

DATE	MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, AM- NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, ORTHO, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHORUS PHOS- PHORUS TOTAL (MG/L AS P) (00665)	SEDI- MENT, SUS- PENDEED (MG/L) (80154)
NOV						
02...	.3	<.18	<.02	<.01	<.02	2
DEC						
16...	5.6	5.4	<.02	.01	.51	303
16...	5.4	4.2	<.02	.04	.77	518
16...	5.3	4.0	<.02	.09	.92	652
16...	5.4	2.8	<.02	.10	1.2	---
16...	5.9	2.4	<.02	.10	1.4	1208
16...	4.6	2.6	<.02	.13	1.2	846
17...	2.0	2.9	<.02	.19	.47	165
18...	2.1	3.4	<.02	.20	.40	121
19...	2.4	5.8	<.02	.18	.28	58
JAN						
18...	1.2	4.6	<.02	.03	.05	2
FEB						
27...	.5	5.0	.55	<.01	<.02	2
MAR						
21...	.4	5.0	.07	<.01	.02	5
APR						
09...	1.5	4.6	.09	<.01	.27	734
09...	4.1	4.8	.06	.06	.82	1119
10...	9.2	3.9	.22	.03	1.4	1912
10...	9.0	2.2	.16	.04	1.9	2090
10...	8.2	2.0	.08	.07	1.7	195
11...	2.1	5.5	.09	.12	.43	371
11...	2.4	4.5	.07	.10	.50	553
11...	2.5	3.8	.06	.09	.58	988
11...	3.1	3.5	.06	.08	.82	857
11...	2.9	3.1	.03	.08	.78	237
12...	2.0	4.0	.09	.13	.42	135
13...	1.7	4.3	.11	.13	.34	50
24...	.4	5.2	<.02	.03	.05	3
MAY						
30...	.8	4.8	.05	.05	.11	15
JUN						
27...	.4	<.18	.02	<.01	.06	2
JUL						
29...	2.3	.84	<.02	.09	.67	1519
29...	3.7	.72	<.02	.07	1.1	1601
29...	3.4	.84	<.02	.09	.82	1190
29...	1.3	1.5	.02	.16	.30	79
31...	.7	1.8	.04	.14	.18	15
AUG						
28...	.5	.96	<.02	.08	.11	5

SURFACE-WATER RECORDS
Scioto River Basin

03230450 HELLBRANCH RUN NEAR HARRISBURG, OHIO—Continued

WATER-QUALITY RECORDS—Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

[cfs, cubic feet per second; mg/L, milligrams per liter; ---, no data; e, estimated.]

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	
										OCTOBER
1	2.7	4	.03	3.9	8	.08	6.6	1	.02	
2	2.8	3	.03	3.7	4	.04	8.3	2	.05	
3	2.5	4	.03	4.1	5	.06	e7.8	4	.09	
4	3.0	7	.06	3.9	3	.04	e7.4	6	.12	
5	60	114	52	4.0	2	.02	e7.0	6	.11	
6	151	177	93	3.9	1	.01	e6.2	5	.08	
7	46	30	4.1	4.0	3	.04	e5.6	4	.07	
8	23	11	.69	4.1	5	.06	e5.0	4	.06	
9	14	5	.19	9.5	12	.43	e4.5	4	.05	
10	10	2	.07	55	59	8.9	e4.2	4	.05	
11	8.6	1	.03	36	9	.94	e4.1	15	.17	
12	6.5	2	.03	22	1	.08	e35	22	2.1	
13	5.6	5	.07	16	1	.02	e25	7	.47	
14	4.6	5	.06	12	2	.05	e20	7	.38	
15	4.0	3	.03	9.5	3	.07	e22	6	.38	
16	3.6	3	.03	8.6	2	.06	644	424	1250	
17	12	11	.45	7.5	4	.07	1100	278	921	
18	19	13	.69	6.0	7	.11	239	95	64	
19	12	4	.12	5.4	5	.07	103	53	15	
20	8.2	3	.06	5.1	5	.07	64	34	5.9	
21	6.2	2	.04	4.6	6	.07	45	24	3.0	
22	5.3	3	.04	4.1	5	.05	e27	16	1.2	
23	4.3	3	.03	3.7	5	.05	e22	12	.74	
24	4.0	1	.02	3.5	4	.04	e17	9	.43	
25	4.4	3	.04	4.9	4	.06	e15	8	.34	
26	4.9	6	.07	11	6	.18	e14	8	.30	
27	4.9	4	.06	11	6	.19	e13	7	.26	
28	4.7	5	.06	8.8	4	.09	e12	7	.22	
29	4.4	6	.07	7.6	1	.03	e11	6	.18	
30	4.3	5	.06	7.0	2	.04	e10	6	.15	
31	4.1	7	.08	---	---	---	e9.4	5	.13	
TOTAL	450.6	---	152.34	290.4	---	12.02	2514.1	---	2267.05	
		JANUARY			FEBRUARY			MARCH		
1	e9.0	5	.12	76	17	3.5	16	6	.26	
2	e8.4	5	.11	54	8	1.2	16	6	.23	
3	e8.0	5	.10	42	5	.52	15	6	.23	
4	e7.6	4	.09	31	3	.28	15	6	.24	
5	e7.2	4	.08	29	3	.24	15	6	.24	
6	e6.8	4	.07	28	4	.27	13	4	.15	
7	e6.4	4	.07	29	4	.33	12	3	.10	
8	e6.0	4	.06	38	6	.61	11	4	.11	
9	e5.8	4	.05	59	36	7.5	11	4	.12	
10	e5.6	3	.05	112	168	57	10	4	.11	
11	e5.4	3	.05	60	21	3.6	10	4	.11	
12	e5.2	3	.05	43	6	.74	10	4	.10	
13	e5.0	5	.06	36	3	.34	18	11	.58	
14	e5.0	6	.08	75	44	15	23	9	.57	
15	e6.0	7	.11	142	80	34	19	5	.24	
16	e12	6	.19	99	25	6.7	20	6	.33	
17	e10	4	.11	76	13	2.9	22	10	.60	
18	e9.2	2	.06	49	7	.91	19	16	.80	
19	e8.0	3	.06	38	4	.44	17	12	.55	
20	e7.0	3	.06	34	3	.27	15	7	.31	
21	e6.0	4	.06	29	2	.20	15	9	.36	
22	e5.4	5	.07	26	5	.37	14	13	.52	
23	e5.0	6	.08	23	8	.49	13	10	.35	
24	e4.7	7	.08	20	8	.46	12	12	.39	
25	e4.3	7	.08	23	9	.54	11	14	.42	
26	e4.0	7	.07	20	6	.33	10	16	.45	
27	e3.7	6	.06	18	4	.17	9.6	17	.44	
28	e3.5	6	.06	17	7	.31	9.2	16	.41	
29	e3.3	6	.06	---	---	---	9.2	18	.44	
30	e17	20	.90	---	---	---	9.6	16	.42	
31	137	84	35	---	---	---	9.1	13	.32	
TOTAL	337.5	---	38.15	1326	---	139.22	428.7	---	10.50	

**SURFACE-WATER RECORDS
Scioto River Basin**

03230450 HELLBRANCH RUN NEAR HARRISBURG, OHIO—Continued

WATER-QUALITY RECORDS—Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001—Continued

[cfs, cubic feet per second; mg/L, milligrams per liter; ---, no data; e, estimated.]

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	
										APRIL
1	26	22	2.0	12	12	.39	112	84	31	
2	38	23	2.5	10	12	.33	115	79	26	
3	25	13	.88	9.1	11	.27	89	47	12	
4	18	7	.34	8.4	8	.18	59	17	2.7	
5	15	4	.17	8.1	6	.13	50	11	1.5	
6	15	6	.22	7.4	11	.21	77	70	22	
7	13	7	.26	7.0	13	.25	132	157	66	
8	14	8	.31	8.7	6	.13	71	37	7.2	
9	32	54	.29	8.6	7	.16	48	28	3.7	
10	585	629	1230	7.5	10	.21	35	22	2.1	
11	941	475	1380	8.3	14	.36	29	19	1.5	
12	350	127	132	11	18	.57	33	75	12	
13	123	59	21	7.9	9	.19	45	63	8.7	
14	78	36	7.8	6.6	7	.12	26	15	1.1	
15	62	24	4.0	33	36	4.2	20	12	.62	
16	49	13	1.8	347	711	770	16	11	.47	
17	38	12	1.2	633	378	692	14	10	.38	
18	30	9	.77	607	223	453	11	8	.25	
19	25	11	.74	905	169	445	11	17	.49	
20	72	57	17	269	63	48	9.9	21	.58	
21	86	52	13	185	163	131	9.5	22	.56	
22	52	25	3.5	223	168	111	12	21	.66	
23	40	15	1.6	131	44	16	10	15	.41	
24	31	9	.70	149	108	73	7.9	11	.23	
25	23	16	1.0	654	172	310	6.6	14	.25	
26	20	14	.75	267	70	52	5.7	21	.32	
27	18	12	.58	190	47	24	5.0	11	.16	
28	15	13	.54	116	32	10	4.7	16	.21	
29	13	15	.52	81	19	4.3	4.8	16	.20	
30	12	15	.48	62	14	2.3	4.6	15	.18	
31	---	---	---	49	13	1.7	---	---	---	
TOTAL	2859	---	2854.66	5021.6	---	3151.00	1073.7	---	203.47	
		JULY			AUGUST			SEPTEMBER		
1	4.3	14	.16	12	11	.38	61	129	27	
2	5.8	13	.20	6.6	8	.14	21	16	.90	
3	5.3	12	.17	24	27	2.2	11	12	.35	
4	6.8	11	.20	19	20	1.0	6.7	10	.18	
5	6.5	10	.18	8.9	10	.24	4.8	8	.10	
6	4.7	10	.12	5.3	7	.11	3.5	6	.05	
7	3.8	9	.09	3.7	7	.07	2.5	4	.03	
8	3.9	8	.08	2.8	6	.05	1.9	4	.02	
9	3.3	7	.06	2.2	9	.05	1.6	3	.01	
10	2.6	6	.04	1.9	11	.06	e1.7	2	.01	
11	2.3	6	.04	1.6	14	.06	e1.6	2	.01	
12	2.1	6	.04	1.5	16	.06	e3.0	2	.02	
13	2.2	6	.04	1.3	18	.07	e8.0	2	.04	
14	1.9	7	.03	1.2	14	.04	e6.0	2	.03	
15	1.5	7	.03	1.1	9	.03	e3.0	2	.02	
16	1.3	7	.02	1.0	8	.02	e2.0	2	.01	
17	1.6	7	.03	.94	8	.02	e1.5	2	.01	
18	2.0	7	.04	.97	8	.02	e2.0	2	.01	
19	3.5	7	.07	2.0	8	.05	e1.7	2	.01	
20	5.5	7	.11	6.0	8	.14	e3.3	2	.02	
21	5.0	7	.10	3.1	9	.07	e2.7	2	.01	
22	4.0	8	.08	2.0	9	.05	e2.3	2	.01	
23	2.7	8	.06	2.1	9	.05	e1.9	2	.01	
24	1.9	8	.04	4.3	9	.10	e2.3	2	.01	
25	32	137	32	3.5	9	.08	e2.5	2	.01	
26	33	52	4.8	2.7	9	.06	e2.6	2	.01	
27	11	37	1.1	14	14	.64	e2.5	2	.01	
28	6.2	23	.39	8.0	6	.15	e2.4	2	.01	
29	92	235	120	4.3	5	.05	e2.1	2	.01	
30	50	49	6.9	2.7	4	.03	e2.0	2	.01	
31	25	18	1.3	27	62	13	---	---	---	
TOTAL	333.7	---	168.52	177.71	---	19.09	171.1	---	28.93	
YEAR	14984.11		9044.95							

SURFACE-WATER RECORDS

Scioto River Basin

03230500 BIG DARBY CREEK AT DARBYVILLE, OHIO

LOCATION.—Latitude 39°42'02." longitude 83°06'37", Pickaway County, Hydrologic Unit 05060001, on right bank at upstream side of State

Highway 316, 0.4 mi northeast of Darbyville, 0.4 mi upstream from Lizzard Run, and 3.0 mi downstream from Greenbrier Creek.

DRAINAGE AREA.—534 mi².

PERIOD OF RECORD.—October 1921 to December 1935, January 1938 to current year. Prior to October 1959, published as Darby Creek at Darbyville.

REVISED RECORDS.—WSP 1083: 1922(M), 1924(M), 1927(M), 1933(M), 1938(M). WSP 1305: 1928-31(M), 1934(M), 1945(M). WSP 1505:

1932(M). WSP 1908: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is 713.69 ft above sea level. Prior to Mar. 17, 1940, nonrecording gage at same site and datum.

REMARKS.—Records fair except for periods of estimated record, which are poor. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	88	78	101	e190	1350	306	196	220	898	132	150	212
2	76	78	104	e180	762	285	258	215	953	137	121	133
3	65	81	108	e180	506	272	208	206	880	178	135	104
4	59	78	e100	e180	406	264	188	193	646	189	172	108
5	108	76	e96	e170	365	256	165	175	539	167	147	82
6	1080	77	e92	e160	329	230	157	163	601	140	178	66
7	1400	79	e86	e150	309	213	158	153	1130	130	125	57
8	618	82	e84	e140	304	196	158	164	1000	127	95	50
9	380	91	e82	e130	400	189	199	166	648	124	78	44
10	275	217	e80	e130	1230	180	1730	156	487	113	69	42
11	214	567	e86	e120	1600	170	3140	147	426	104	61	39
12	176	450	168	e120	842	166	3550	170	421	97	55	46
13	150	303	579	e110	589	207	2010	156	557	90	51	105
14	134	242	449	e110	615	247	1040	136	409	81	57	83
15	121	199	328	e110	1560	292	746	263	331	78	48	61
16	112	172	1440	e130	1680	297	609	1900	297	70	63	49
17	117	153	4260	e170	1190	322	528	3520	264	66	52	41
18	156	139	3690	e160	783	445	446	4470	231	73	43	37
19	133	126	1530	e140	552	375	377	6030	210	75	49	42
20	121	117	900	e130	475	323	517	6490	204	83	58	51
21	112	111	651	e120	422	297	1290	2470	197	77	57	44
22	104	105	477	e100	373	274	1130	2050	225	74	50	41
23	98	94	e350	e92	344	253	696	1560	297	70	70	83
24	93	90	e320	e84	311	233	538	1300	258	61	63	67
25	92	94	e300	e78	300	207	430	3290	224	92	61	53
26	91	106	e280	e72	329	189	361	2820	192	165	61	46
27	88	115	e260	e68	402	178	323	2680	184	141	79	43
28	93	110	e240	e64	338	172	291	2170	156	152	98	46
29	90	108	e220	e60	---	160	254	1380	146	515	84	48
30	86	105	e210	e300	---	162	227	995	138	313	65	43
31	81	---	e200	1740	---	165	---	772	---	227	74	---
TOTAL	6611	4443	17871	5688	18666	7525	21920	46580	13149	4141	2569	1966
MEAN	213	148	576	183	667	243	731	1503	438	134	82.9	65.5
MAX	1400	567	4260	1740	1680	445	3550	6490	1130	515	178	212
MIN	59	76	80	60	300	160	157	136	138	61	43	37
CFSM	.40	.28	1.08	.34	1.25	.45	1.37	2.81	.82	.25	.16	.12
IN.	.46	.31	1.24	.40	1.30	.52	1.53	3.24	.92	.29	.18	.14

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 2001, BY WATER YEAR (WY)

MEAN	106	255	466	705	784	925	834	589	452	253	154	92.5
MAX	1223	1745	2287	2808	2146	2758	2190	2766	2228	1868	1216	1652
(WY)	1927	1986	1991	1959	1975	1963	1957	1996	1997	1993	1980	1979
MIN	3.91	13.6	18.5	23.4	37.2	84.0	133	42.6	14.9	9.08	9.82	6.43
(WY)	1964	1954	1964	1945	1934	1931	1925	1934	1934	1934	1930	1964

SUMMARY STATISTICS

FOR 2000 CALENDAR YEAR

FOR 2001 WATER YEAR

WATER YEARS 1922 - 2001

ANNUAL TOTAL	141290	151129										
ANNUAL MEAN	386	414								466		
HIGHEST ANNUAL MEAN										840		1996
LOWEST ANNUAL MEAN										79.1		1934
HIGHEST DAILY MEAN	7690	Apr 9	6490	May 20	38400	Jan 22	1959					
LOWEST DAILY MEAN	26	Jan 1	37	Sep 18	1.4	Sep 17	1932					
ANNUAL SEVEN-DAY MINIMUM	37	Feb 4	44	Sep 16	2.0	Oct 7	1963					
MAXIMUM PEAK FLOW			7750	May 20a	49000	Jan 22	1959					
MAXIMUM PEAK STAGE			10.97	May 20	17.94	Jan 22	1959					
INSTANTANEOUS LOW FLOW			33	Sep 18	1.4	Sep 17	1932					
ANNUAL RUNOFF (CFSM)	.72		.78		.87							
ANNUAL RUNOFF (INCHES)	9.84		10.53		11.86							
10 PERCENT EXCEEDS	851		997		1120							
50 PERCENT EXCEEDS	162		166		156							
90 PERCENT EXCEEDS	51		62		26							

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

SURFACE-WATER RECORDS
Scioto River Basin

03230800 DEER CREEK AT MT. STERLING, OHIO

LOCATION.—Latitude 39°42'54", longitude 83°15'26", Madison County, Hydrologic Unit 05060002, on left bank at downstream side of bridge on State Highway 56, 0.2 mi downstream from unnamed right bank tributary, 0.6 mi southeast of Mount Sterling, and 4.9 mi upstream from Duff's Fork.
DRAINAGE AREA.—228 mi².
PERIOD OF RECORD.—October 1966 to September 1981; October 1995 to current year.
REVISED RECORDS.—WDR OH-75-1: 1968(M).
GAGE.—Water-stage recorder. Datum of gage is 836.25 ft above sea level.
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 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	59	46	e84	528	129	138	112	441	77	233	235
2	12	58	e42	e80	366	130	178	109	499	167	143	153
3	11	72	e39	e78	271	122	123	100	515	124	281	90
4	11	96	e38	e74	232	121	99	94	362	114	337	64
5	36	106	e37	e80	210	124	85	91	308	157	267	51
6	399	105	e36	e86	193	111	84	87	359	107	156	42
7	329	104	e36	e76	182	104	84	81	808	84	105	36
8	120	104	e35	e70	210	98	78	92	495	145	82	32
9	60	118	e35	e64	352	96	86	93	344	186	67	30
10	35	297	e34	e60	785	91	1780	84	270	115	58	29
11	24	258	e37	e56	486	87	4780	82	223	88	53	30
12	17	172	114	e52	322	88	2830	118	202	72	47	28
13	14	139	128	e50	245	114	820	110	243	60	42	24
14	13	118	117	e48	305	140	501	89	193	53	38	25
15	13	102	102	e52	835	128	386	409	168	47	34	26
16	14	92	1000	e72	626	131	326	2180	152	43	31	22
17	22	85	3950	e68	543	174	271	3190	131	41	30	20
18	41	76	1030	e62	338	161	220	2350	116	53	28	21
19	29	68	551	e56	265	135	190	4930	107	57	34	22
20	20	65	375	e50	232	124	314	1880	109	52	46	23
21	15	62	301	e47	210	119	637	860	123	51	36	22
22	14	55	e210	e42	191	110	419	1430	326	79	31	19
23	16	54	e190	e39	175	97	315	785	244	79	40	18
24	23	51	e170	e35	154	92	259	688	165	52	42	19
25	28	53	e150	e32	165	83	200	2760	134	44	35	20
26	42	63	e140	e29	158	76	168	1330	113	49	31	20
27	52	62	e120	e27	140	71	154	1020	99	45	45	18
28	66	57	e110	e24	134	68	139	856	90	35	61	18
29	76	52	e100	e23	---	68	120	527	83	670	67	17
30	66	51	e96	821	---	70	114	399	77	1150	55	16
31	60	---	e90	895	---	69	---	324	---	450	55	---
TOTAL	1689	2854	9459	3332	8853	3331	15898	27260	7499	4546	2610	1190
MEAN	54.5	95.1	305	107	316	107	530	879	250	147	84.2	39.7
MAX	399	297	3950	895	835	174	4780	4930	808	1150	337	235
MIN	11	51	34	23	134	68	78	81	77	35	28	16
CFSM	.24	.42	1.34	.47	1.39	.47	2.32	3.86	1.10	.64	.37	.17
IN.	.28	.47	1.54	.54	1.44	.54	2.59	4.45	1.22	.74	.43	.19

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 2001, BY WATER YEAR (WY)

	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
MEAN	52.7	149	268	305	364	418	396	357	275	116	103	67.7			
MAX	180	743	641	910	910	1239	786	1210	764	480	531	779			
(WY)	1980	1973	1978	1996	1975	1978	1996	1996	1997	1973	1979	1979			
MIN	6.29	9.67	15.7	10.0	111	107	58.5	29.2	17.0	12.9	13.7	3.73			
(WY)	2000	1999	1977	1977	1978	2001	1976	1976	1999	1977	1999	1998			

SUMMARY STATISTICS FOR 2000 CALENDAR YEAR FOR 2001 WATER YEAR WATER YEARS 1967 - 2001

ANNUAL TOTAL	65480	88521	
ANNUAL MEAN	179	243	
HIGHEST ANNUAL MEAN			394 1996
LOWEST ANNUAL MEAN			82.7 1977
HIGHEST DAILY MEAN	3950	Dec 17	4930 May 19 9400 May 24 1968
LOWEST DAILY MEAN	11	Aug 22	11 Oct 1 .91 Sep 19 1999
ANNUAL SEVEN-DAY MINIMUM	16	Aug 21	17 Oct 11 1.2 Sep 14 1999
MAXIMUM PEAK FLOW			7140 Apr 11a 11600 May 24 1968
MAXIMUM PEAK STAGE			10.88 Apr 11 11.95 Jun 29 1998
INSTANTANEOUS LOW FLOW			9.4 Oct 1 .91 Sep 19 1999
ANNUAL RUNOFF (CFSM)	.78	1.06	1.05
ANNUAL RUNOFF (INCHES)	10.68	14.44	14.21
10 PERCENT EXCEEDS	357	497	540
50 PERCENT EXCEEDS	78	92	93
90 PERCENT EXCEEDS	21	27	17

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

SURFACE-WATER RECORDS
Scioto River Basin

03231500 SCIOTO RIVER AT CHILLICOTHE, OHIO

LOCATION.—Latitude 39°20'29", longitude 82°58'16", Ross County, Hydrologic Unit 05060002, on right bank at north end of Chillicothe, Ohio, 1,400 ft downstream from Bridge Street bridge, 7.4 mi upstream from Paint Creek, and 15.4 mi downstream from Deer Creek.
DRAINAGE AREA.—3,849 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—December 1913 to September 1914 (gage heights and discharge measurements only). October 1920 to current year. Monthly discharge only for some periods, published in WSP 1305. Gage-height records collected in this vicinity since 1907 are contained in reports of the National Weather Service.

REVISED RECORDS.—WSP 803: 1929(M). WSP 1908: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is 594.05 ft above sea level. Prior to Sept. 30, 1914, nonrecording gage at site 1,300 ft upstream at different datum. Apr. 1, 1921, to Aug. 6, 1930, nonrecording gage, at site 1,400 ft upstream at present datum. Aug. 7, 1930, to Sept. 30, 1969, water-stage recorder 900 ft upstream at same datum.

REMARKS.—Records fair except for periods of estimated record, which are poor. Flow regulated by 6 reservoirs 36 mi to 91 mi upstream from station. Water-quality data collected at this site. U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood of Mar. 26, 1913, reached a stage of 39.8 ft; discharge, 260,000 ft³/s (estimated by Franklin County Conservancy District).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1010	818	1140	e1200	10100	2030	1450	1680	6410	1110	1970	3110
2	928	825	1270	e1140	6910	1850	1930	1730	7520	1100	1410	2060
3	860	813	1250	e1100	5140	1770	1840	1770	7830	1620	1070	1210
4	799	878	1050	e1040	3630	1720	1240	1680	7960	1340	1240	1050
5	790	881	960	e980	2950	2320	955	1530	6670	1530	1160	917
6	5060	819	871	e960	2150	2170	870	1450	5070	1380	1040	916
7	7190	812	816	e1000	1980	1770	949	1370	8720	1320	1050	794
8	3900	846	772	1090	2100	1610	1480	1330	9610	1170	1050	704
9	2490	907	778	e1020	2180	1530	2010	1840	7200	1090	970	699
10	1910	1090	818	e980	3250	1450	5680	1680	5050	1040	956	746
11	1490	2690	763	e940	6430	1400	13400	1410	3620	1020	875	752
12	1290	2280	827	e920	6970	1340	19700	1400	3120	975	783	730
13	1190	1890	1900	e900	5620	1400	17500	1710	3850	905	732	654
14	1250	1790	2620	e880	4280	2160	12100	1430	3430	859	709	690
15	1290	1880	3510	e860	6300	2280	9100	e1600	2640	814	685	758
16	1020	1890	3680	e840	9960	2110	6900	e8000	2070	788	657	788
17	981	1670	17200	1270	10300	2870	5490	e17000	1940	779	663	825
18	1720	1470	23000	1490	8130	3060	5430	e14000	1620	850	674	680
19	1670	1290	20300	1890	5550	3170	4620	e22000	2120	1010	748	709
20	1240	1220	11300	1660	3740	2810	3480	e16000	2470	1160	1340	934
21	1070	e1180	8480	1470	3080	2800	7200	e13000	2400	1080	994	926
22	998	e1100	4450	1230	2900	2550	10600	e14000	2040	1060	773	752
23	970	e1050	3010	e1170	2420	2020	9280	13700	2190	997	734	658
24	961	e1000	2310	e1100	2270	1790	7480	10300	2370	1020	822	657
25	964	e980	1900	e1030	1970	1640	6160	11200	2530	1040	911	721
26	1000	e1000	e1800	e980	1880	1490	4480	14400	2550	4000	778	773
27	992	1450	e1700	e960	1970	1380	2920	11500	2350	2880	768	662
28	941	1240	e1530	e940	2180	1510	2460	13000	1680	1300	1200	614
29	900	1140	e1430	e900	---	1600	1980	10700	1270	1150	954	600
30	874	1050	e1310	1940	---	1540	1740	8550	1230	3310	800	600
31	844	---	e1250	8540	---	1470	---	7420	---	2770	762	---
TOTAL	48592	37949	123995	42420	126340	60610	170424	228380	119530	42467	29278	26689
MEAN	1567	1265	4000	1368	4512	1955	5681	7367	3984	1370	944	890
MAX	7190	2690	23000	8540	10300	3170	19700	22000	9610	4000	1970	3110
MIN	790	812	763	840	1880	1340	870	1330	1230	779	657	600

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 2001, BY WATER YEAR (WY)

MEAN	970	2008	3501	5230	5793	7062	6066	4194	3267	2138	1427	978
MAX	8068	12130	14120	30110	13700	19450	14640	18590	11050	9507	8263	10180
(WY)	1927	1973	1991	1937	1951	1963	1957	1996	1997	1992	1980	1979
MIN	192	210	222	312	386	1041	1136	440	378	303	214	207
(WY)	1954	1935	1935	1931	1934	1931	1941	1934	1925	1930	1930	1953

SUMMARY STATISTICS FOR 2000 CALENDAR YEAR FOR 2001 WATER YEAR WATER YEARS 1921 - 2001

ANNUAL TOTAL	1171383	1056674	
ANNUAL MEAN	3200	2895	3541
HIGHEST ANNUAL MEAN			6217
LOWEST ANNUAL MEAN			883
HIGHEST DAILY MEAN	26400	Apr 10	23000
LOWEST DAILY MEAN	533	Sep 17	600
ANNUAL SEVEN-DAY MINIMUM	620	Feb 1	661
MAXIMUM PEAK FLOW			24100
MAXIMUM PEAK STAGE			11.89
INSTANTANEOUS LOW FLOW			600
10 PERCENT EXCEEDS	8310		7640
50 PERCENT EXCEEDS	1670		1450
90 PERCENT EXCEEDS	700		786

e Estimated.

SURFACE-WATER RECORDS
Scioto River Basin

03231500 SCIOTO RIVER AT CHILLICOTHE, OHIO—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—Water years 1950-51, 1965-1981, November 1985 to current year.

PERIOD OF DAILY RECORD.—

SPECIFIC CONDUCTANCE: May 1965 to October 1981, November 1985 to current year.

pH: June 1971 to October 1981, November 1985 to current year.

WATER TEMPERATURES: October 1950 to September 1951, October 1953 to October 1981, November 1985 to current year.

DISSOLVED OXYGEN: May 1965 to October 1981, November 1985 to current year.

INSTRUMENTATION.—Water-quality monitor. Electronic data logger replaced digital recorder since July 12, 1991. Set for 1-hour interval.

REMARKS.—Interruptions in the water-quality record were due to malfunction of the instrument. Specific conductance and temperature records good;

pH records fair, and dissolved oxygen records is fair except for Feb. 26-Mar. 23, which is poor.

EXTREMES FOR PERIOD OF DAILY RECORD.—

SPECIFIC CONDUCTANCE: Maximum, 1,430 microsiemens, Feb. 12, 2000; minimum, 150 microsiemens, June 29, 1972.

pH: Maximum, 9.3 units, Aug. 24-26, 1981, May 1, 1988, and Oct. 1, 2, 1995; minimum, 6.3 units, Mar. 6, 1979.

WATER TEMPERATURES: Maximum, 32.5°C, July 17, Aug. 18, 1988; minimum, 0.0°C, on many days during winters.

DISSOLVED OXYGEN: Maximum, >20.0 mg/L, on several days during 1978 thru 1995; minimum, 0.0 mg/L, April 27, Aug. 12, Sept. 22, 1966.

EXTREMES FOR CURRENT YEAR.—

SPECIFIC CONDUCTANCE: Maximum, 987 microsiemens, Dec. 16; minimum, 341 microsiemens, Apr. 11.

pH: Maximum, 9.0 units, June 28; minimum, 6.9 units, Oct. 29, 30, Nov. 2, and 3.

WATER TEMPERATURES: Maximum, 30.5°C, July 24; minimum, 0.0°C, Dec. 25 and 26.

DISSOLVED OXYGEN: Maximum, 18.6 mg/L, Mar. 31; minimum, 4.1 mg/L, July 27, Aug. 20, and 29.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	693	668	684	764	752	758	806	776	788	---	---	---
2	715	693	700	780	758	769	861	806	831	856	848	849
3	734	715	726	791	780	785	867	813	837	878	856	867
4	760	734	748	781	766	774	823	812	819	879	867	873
5	759	752	755	778	766	772	815	809	812	879	864	871
6	804	463	696	787	774	778	836	813	825	894	876	885
7	484	436	452	782	757	768	842	836	838	914	894	906
8	521	484	507	758	751	754	841	837	839	919	912	916
9	575	521	550	778	753	765	848	837	842	923	918	920
10	617	575	592	785	772	778	866	848	858	927	905	917
11	668	617	643	803	705	775	879	866	873	919	893	907
12	697	668	684	705	642	662	884	875	880	910	876	893
13	718	697	711	726	680	708	890	872	882	888	880	884
14	740	717	725	724	675	696	872	826	839	897	887	892
15	763	740	750	700	678	689	916	822	856	901	895	897
16	765	723	744	711	697	706	987	729	947	901	891	895
17	734	718	726	713	702	708	729	452	505	933	890	911
18	777	716	734	703	684	694	465	463	464	926	918	922
19	810	701	769	697	685	690	601	465	529	952	926	943
20	701	650	667	702	670	696	601	585	595	944	929	936
21	665	651	658	---	---	---	585	551	565	937	895	911
22	682	665	675	---	---	---	627	552	595	934	900	917
23	706	682	694	---	---	---	683	627	659	937	927	931
24	732	706	720	---	---	---	727	683	702	937	925	932
25	754	732	745	---	---	---	774	727	745	946	928	937
26	760	749	755	---	---	---	775	771	774	946	931	939
27	750	742	747	820	808	814	---	---	---	959	945	951
28	758	748	754	819	760	796	---	---	---	965	956	960
29	761	749	756	760	753	756	---	---	---	962	932	950
30	759	750	755	776	759	765	---	---	---	948	791	907
31	759	752	755	---	---	---	---	---	---	837	743	791
MONTH	810	436	696	820	642	744	987	452	758	965	743	907

SURFACE-WATER RECORDS
Scioto River Basin

03231500 SCIOTO RIVER AT CHILLICOTHE, OHIO—Continued

WATER-QUALITY RECORDS—Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	MAX	MIN	MEAN									
1	7.6	7.4	7.5	7.0	6.9	7.0	8.8	8.0	8.5	---	---	---
2	7.6	7.5	7.5	7.0	6.9	7.0	8.6	7.9	8.0	7.7	7.7	7.7
3	7.8	7.5	7.6	7.1	7.0	7.0	8.1	7.9	7.9	7.8	7.6	7.7
4	7.9	7.7	7.8	7.1	7.0	7.1	8.1	7.9	8.0	8.1	7.6	7.8
5	7.9	7.6	7.8	7.1	7.0	7.1	8.1	7.9	8.0	7.7	7.6	7.6
6	7.8	7.0	7.4	7.3	7.1	7.2	8.1	8.0	8.1	7.7	7.7	7.7
7	7.1	7.0	7.0	7.3	7.2	7.3	8.4	8.0	8.0	7.7	7.7	7.7
8	7.4	7.0	7.2	7.4	7.2	7.3	8.1	8.0	8.1	7.7	7.7	7.7
9	7.4	7.3	7.4	7.4	7.3	7.4	8.1	8.0	8.0	7.8	7.6	7.7
10	7.5	7.3	7.4	7.5	7.3	7.4	8.1	8.0	8.1	7.7	7.6	7.6
11	7.5	7.1	7.3	7.4	7.4	7.4	8.2	8.1	8.1	7.6	7.6	7.6
12	7.2	7.1	7.2	7.5	7.3	7.3	8.3	8.0	8.1	7.6	7.5	7.6
13	7.2	7.1	7.1	7.5	7.4	7.5	8.2	8.0	8.1	7.7	7.5	7.6
14	7.2	7.0	7.1	7.5	7.4	7.4	8.2	8.0	8.0	8.1	7.7	7.8
15	7.2	7.1	7.1	7.5	7.4	7.5	8.0	8.0	8.0	8.2	7.8	7.9
16	7.2	7.1	7.2	7.6	7.5	7.6	---	---	---	8.0	7.9	7.9
17	7.5	7.2	7.4	7.6	7.6	7.6	7.8	7.4	7.5	8.0	7.6	7.8
18	7.4	7.0	7.2	7.6	7.6	7.6	7.9	7.8	7.8	8.2	7.6	7.8
19	7.2	7.0	7.1	7.7	7.6	7.6	7.8	7.8	7.8	---	---	---
20	7.1	7.0	7.1	7.7	7.6	7.7	7.8	7.8	7.8	8.3	7.9	8.0
21	7.1	7.0	7.1	---	---	---	7.8	7.8	7.8	8.2	7.8	8.0
22	7.2	7.0	7.1	---	---	---	7.8	7.8	7.8	8.0	7.9	7.9
23	7.4	7.1	7.2	---	---	---	7.9	7.8	7.9	8.1	7.9	8.0
24	7.4	7.3	7.3	---	---	---	7.9	7.8	7.9	8.5	7.9	8.1
25	7.4	7.2	7.3	---	---	---	7.9	7.9	7.9	8.1	7.8	7.9
26	7.3	7.1	7.1	---	---	---	8.0	7.9	7.9	8.3	8.1	8.2
27	7.2	7.1	7.2	7.8	7.7	7.7	---	---	---	8.3	8.2	8.2
28	7.2	7.1	7.1	7.8	7.6	7.7	---	---	---	8.5	8.3	8.4
29	7.1	6.9	7.0	7.7	7.5	7.6	---	---	---	8.4	7.8	8.1
30	7.1	6.9	7.0	8.0	7.5	7.6	---	---	---	---	---	---
31	7.1	7.0	7.0	---	---	---	---	---	---	7.9	7.5	7.7
MONTH	7.9	6.9	7.3	8.0	6.9	7.4	8.8	7.4	8.0	8.5	7.5	7.8

DAY	MAX	MIN	MEAN									
1	8.0	7.5	7.7	8.3	8.1	8.2	8.9	8.5	8.6	---	---	---
2	8.3	7.7	7.9	8.2	8.2	8.2	---	---	---	---	---	---
3	8.1	7.9	8.0	8.2	8.2	8.2	---	---	---	---	---	---
4	8.0	7.9	8.0	8.6	8.2	8.5	8.7	8.4	8.6	8.4	8.2	8.3
5	8.2	8.0	8.2	8.6	8.3	8.5	8.7	8.4	8.6	8.6	8.2	8.4
6	8.4	8.0	8.2	8.5	8.4	8.4	8.9	8.2	8.4	8.6	8.2	8.4
7	8.4	8.1	8.3	8.5	7.8	8.1	8.7	8.2	8.4	8.6	8.3	8.4
8	8.3	8.2	8.3	7.9	7.7	7.8	8.5	8.0	8.2	8.6	8.3	8.4
9	8.3	8.0	8.1	7.9	7.8	7.9	8.3	7.8	7.9	8.5	8.3	8.4
10	8.3	8.0	8.2	8.0	7.9	7.9	8.3	7.7	7.9	8.7	7.9	8.4
11	8.4	8.2	8.3	8.0	8.0	8.0	8.1	7.7	7.9	8.9	8.3	8.6
12	8.2	8.1	8.1	8.2	8.0	8.1	8.0	7.7	7.9	8.9	8.5	8.7
13	8.1	8.1	8.1	8.4	8.1	8.2	7.8	7.8	7.8	8.6	8.2	8.4
14	8.3	8.1	8.2	8.4	8.2	8.3	7.9	7.8	7.8	8.3	8.1	8.2
15	8.2	8.0	8.2	8.5	8.2	8.3	8.2	7.8	7.9	---	---	---
16	8.0	7.5	7.8	8.7	8.3	8.5	7.9	7.8	7.8	---	---	---
17	7.5	7.4	7.5	8.5	8.3	8.4	8.3	7.8	8.0	---	---	---
18	7.6	7.3	7.4	8.4	8.3	8.4	8.1	7.9	8.0	---	---	---
19	7.6	7.4	7.5	8.6	8.3	8.4	8.0	8.0	8.0	---	---	---
20	7.6	7.4	7.5	8.7	8.5	8.6	8.3	8.0	8.1	---	---	---
21	7.7	7.6	7.6	8.8	8.5	8.6	8.3	7.8	7.9	---	---	---
22	7.9	7.7	7.8	8.7	8.5	8.6	7.8	7.8	7.8	8.1	7.8	8.0
23	7.9	7.8	7.8	8.9	8.6	8.7	7.8	7.8	7.8	8.0	7.9	7.9
24	8.0	7.8	7.9	8.8	8.6	8.7	8.1	7.8	7.8	8.1	7.9	8.0
25	8.2	7.9	8.0	8.8	8.5	8.6	8.0	7.8	7.9	8.0	7.8	7.9
26	8.1	8.1	8.1	8.7	8.5	8.6	7.9	7.9	7.9	8.1	7.8	7.9
27	8.2	8.1	8.1	8.7	8.5	8.6	8.0	7.9	7.9	8.2	7.8	8.0
28	8.2	8.1	8.2	8.6	8.4	8.5	8.0	7.9	7.9	8.2	7.8	8.0
29	---	---	---	8.5	8.3	8.4	8.0	7.8	7.9	7.9	7.8	7.9
30	---	---	---	8.6	8.4	8.5	8.0	7.8	7.9	7.9	7.8	7.9
31	---	---	---	8.7	8.5	8.6	---	---	---	7.9	7.8	7.9
MONTH	8.4	7.3	8.0	8.9	7.7	8.4	8.9	7.7	8.0	8.9	7.8	8.2

SURFACE-WATER RECORDS
Scioto River Basin

03231500 SCIOTO RIVER AT CHILLICOTHE, OHIO—Continued

WATER-QUALITY RECORDS—Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001—Continued

DAY	MAX	MIN	MEAN									
1	8.2	7.8	8.0	8.7	8.4	8.5	8.5	7.9	8.2	8.3	7.6	8.0
2	8.2	7.9	8.0	8.7	8.3	8.5	8.8	8.1	8.4	7.7	7.6	7.6
3	7.9	7.9	7.9	8.6	8.2	8.3	8.6	7.9	8.2	7.8	7.6	7.7
4	8.2	7.8	8.0	8.3	8.0	8.2	8.0	7.7	7.8	8.1	7.8	7.9
5	8.2	7.9	8.0	8.5	8.1	8.3	7.9	7.7	7.8	8.2	7.8	8.0
6	8.2	8.0	8.1	8.6	8.1	8.3	8.0	7.7	7.8	8.2	7.9	8.0
7	8.2	7.8	8.0	8.4	8.1	8.2	8.0	7.7	7.8	8.3	7.9	8.0
8	7.8	7.8	7.8	8.2	8.0	8.1	8.0	7.7	8.0	8.2	7.9	8.1
9	7.8	7.8	7.8	8.4	7.9	8.1	8.2	8.0	8.1	8.5	8.0	8.2
10	7.8	7.8	7.8	8.5	8.0	8.2	8.4	8.1	8.2	8.6	8.2	8.4
11	8.0	7.8	7.8	8.6	8.0	8.3	8.6	8.4	8.5	8.4	8.1	8.2
12	8.0	7.9	8.0	8.5	7.8	8.1	8.7	8.5	8.6	8.2	7.9	8.0
13	8.5	7.9	8.3	8.5	7.8	8.1	8.9	8.5	8.7	8.2	8.0	8.1
14	8.4	8.1	8.2	8.6	7.7	8.2	8.9	8.5	8.7	8.2	8.0	8.1
15	---	---	---	8.6	7.7	8.1	8.8	8.5	8.6	8.2	7.9	8.0
16	---	---	---	8.3	7.8	8.0	8.6	8.3	8.5	8.2	7.9	8.1
17	---	---	---	8.5	7.6	8.1	8.6	8.2	8.4	8.3	8.0	8.1
18	---	---	---	8.6	7.7	8.1	8.5	8.2	8.4	8.4	8.0	8.1
19	---	---	---	8.5	7.9	8.2	8.5	8.0	8.2	8.4	8.0	8.1
20	---	---	---	---	---	---	8.3	7.9	8.0	8.4	8.0	8.1
21	8.7	8.5	8.6	---	---	---	8.4	7.8	8.0	8.2	8.0	8.1
22	8.6	8.4	8.5	---	---	---	8.4	7.9	8.1	8.1	7.9	8.0
23	8.6	8.4	8.5	---	---	---	8.5	7.8	8.0	8.2	8.0	8.1
24	8.7	8.3	8.5	---	---	---	8.3	7.7	7.8	8.4	8.0	8.2
25	8.6	8.4	8.5	---	---	---	8.1	7.8	7.9	8.1	7.9	8.0
26	8.5	8.3	8.4	7.9	7.3	7.6	8.1	7.9	7.9	8.1	8.0	8.0
27	8.4	8.1	8.2	7.4	7.3	7.3	8.0	7.8	7.9	8.1	8.0	8.0
28	9.0	8.0	8.5	7.5	7.3	7.4	8.3	8.0	8.0	8.3	8.0	8.1
29	8.9	8.5	8.7	7.8	7.5	7.6	8.3	7.8	8.1	8.2	8.1	8.1
30	8.8	8.4	8.6	7.7	7.7	7.7	8.4	8.0	8.2	8.3	8.1	8.1
31	---	---	---	8.0	7.7	7.8	8.3	8.1	8.2	---	---	---
MONTH	9.0	7.8	8.2	8.7	7.3	8.1	8.9	7.7	8.2	8.6	7.6	8.1
YEAR	9.0	6.9	8.0									

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	18.5	16.5	17.5	13.5	12.5	13.0	6.5	6.0	6.5	---	---	---
2	19.5	17.0	18.0	13.5	12.5	13.0	6.5	6.0	6.5	---	---	---
3	20.5	18.5	19.5	15.0	13.5	14.0	6.0	5.0	5.5	1.5	.5	1.0
4	21.5	19.5	20.5	14.5	14.0	14.5	5.0	4.0	4.5	1.5	1.0	1.5
5	21.5	20.0	21.0	14.0	12.5	13.0	4.0	3.5	4.0	2.5	1.5	2.0
6	21.0	18.5	20.0	13.0	12.0	12.5	3.5	2.5	3.0	3.5	2.5	3.0
7	18.5	16.0	17.0	14.0	12.5	13.5	3.0	2.5	3.0	4.5	3.0	3.5
8	16.0	13.5	14.5	15.0	14.0	14.5	3.5	3.0	3.5	4.0	3.5	4.0
9	13.5	12.5	13.0	15.5	15.0	15.0	3.5	2.5	3.0	3.5	2.5	2.5
10	13.5	12.0	13.0	15.0	13.0	14.0	3.5	2.5	3.0	2.5	2.0	2.0
11	14.0	12.0	13.0	13.5	12.5	13.0	5.5	3.5	4.5	3.0	2.0	2.5
12	14.5	12.5	13.5	12.5	11.5	12.0	5.5	4.0	4.5	4.0	3.0	3.5
13	15.0	13.0	14.0	11.5	10.5	11.0	5.5	4.0	4.5	4.5	3.0	4.0
14	15.5	13.5	14.5	10.5	9.5	10.0	5.0	3.0	4.0	4.5	3.5	4.0
15	16.5	15.5	16.0	9.5	9.0	9.0	3.5	3.0	3.5	5.5	4.5	5.0
16	17.5	16.5	16.5	9.0	8.5	8.5	5.0	3.5	4.0	5.0	5.0	5.0
17	17.0	16.5	16.5	8.5	7.5	8.0	5.5	4.0	5.0	5.0	4.5	4.5
18	17.0	16.0	16.5	7.5	6.5	7.0	4.0	1.5	2.5	4.5	4.5	4.5
19	17.0	16.0	16.5	6.5	6.0	6.5	1.5	1.0	1.0	4.5	4.0	4.5
20	16.5	15.0	15.5	6.5	5.5	6.0	1.0	.5	1.0	4.0	2.0	3.0
21	17.0	15.0	16.0	---	---	---	1.0	.5	1.0	2.0	1.5	2.0
22	17.5	16.5	17.0	---	---	---	1.0	.5	.5	2.0	1.0	1.5
23	18.0	16.5	17.0	---	---	---	.5	.5	.5	2.5	1.0	2.0
24	18.0	17.0	17.5	---	---	---	1.0	.5	.5	3.0	2.0	2.5
25	18.5	17.5	18.0	---	---	---	.5	.0	.5	3.0	2.5	3.0
26	19.0	18.0	18.5	---	---	---	.5	.0	.5	2.5	1.5	2.0
27	19.5	18.0	18.5	8.0	6.5	7.0	---	---	---	2.5	2.0	2.5
28	19.0	17.0	18.0	8.0	7.5	8.0	---	---	---	2.5	1.5	2.0
29	17.0	15.0	15.5	7.5	6.5	6.5	---	---	---	4.0	2.5	3.5
30	15.0	13.5	14.0	6.5	6.5	6.5	---	---	---	5.0	4.0	4.5
31	14.0	12.5	13.5	---	---	---	---	---	---	5.0	3.0	4.0
MONTH	21.5	12.0	16.5	15.5	5.5	10.5	6.5	.0	3.0	5.5	.5	3.0

SURFACE-WATER RECORDS
Scioto River Basin

03231500 SCIOTO RIVER AT CHILLICOTHE, OHIO—Continued

WATER-QUALITY RECORDS—Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	10.9	9.2	10.1	11.7	8.9	10.2	11.9	10.7	11.4	---	---	---
2	10.7	9.7	10.2	10.0	8.4	9.2	11.8	10.2	11.1	14.5	14.4	14.4
3	10.5	9.4	9.9	9.3	8.2	8.7	11.9	10.4	11.2	14.7	14.4	14.5
4	10.4	8.8	9.6	9.3	7.9	8.7	13.2	11.1	12.3	17.0	14.4	15.2
5	9.8	8.1	9.0	13.3	8.3	10.2	13.7	11.8	12.8	14.4	14.0	14.2
6	9.2	6.9	7.9	11.9	8.2	10.0	13.7	12.4	13.1	14.0	13.6	13.8
7	14.4	8.1	11.6	11.9	9.2	10.2	13.8	12.4	13.0	13.7	13.3	13.5
8	---	---	---	13.5	8.8	9.9	13.0	12.3	12.6	13.5	13.2	13.3
9	---	---	---	13.4	8.1	11.1	14.2	11.9	13.1	13.9	13.3	13.6
10	---	---	---	14.5	12.0	13.3	14.2	13.0	13.6	14.4	13.7	14.0
11	9.4	8.6	9.0	14.0	12.5	13.2	14.7	12.7	13.6	14.6	13.9	14.2
12	9.3	8.4	8.8	14.7	12.9	14.0	13.3	11.8	12.6	---	---	---
13	8.8	8.0	8.2	15.7	12.3	14.5	15.1	11.2	11.9	---	---	---
14	8.7	8.0	8.3	15.0	13.9	14.5	15.1	11.6	12.0	---	---	---
15	8.7	7.8	8.3	14.3	12.3	13.5	12.8	11.6	11.9	---	---	---
16	9.0	8.0	8.5	14.7	12.1	13.5	14.1	11.8	12.9	---	---	---
17	8.8	8.1	8.4	13.3	11.6	12.7	11.9	10.2	10.6	11.9	11.7	11.9
18	8.3	7.3	8.0	13.3	12.1	12.6	12.3	10.4	11.1	12.7	11.8	12.3
19	9.6	6.2	6.9	14.3	9.9	11.8	12.5	11.8	12.2	12.4	12.2	12.3
20	11.9	6.0	9.1	11.6	9.4	10.4	13.0	12.5	12.8	13.9	12.4	13.2
21	9.8	7.9	8.8	---	---	---	13.1	12.9	13.0	14.9	13.9	14.4
22	9.6	7.4	8.6	---	---	---	12.9	12.4	12.6	15.5	14.5	14.9
23	9.5	7.3	8.3	---	---	---	12.5	12.3	12.4	15.8	14.7	15.2
24	12.9	7.6	9.2	---	---	---	12.4	12.2	12.3	15.3	14.4	14.9
25	13.3	8.2	9.8	---	---	---	12.5	12.2	12.4	15.0	13.7	14.4
26	12.7	8.0	9.7	---	---	---	12.6	12.5	12.6	15.4	13.9	14.6
27	10.0	7.0	8.3	---	---	---	---	---	---	15.5	13.6	14.5
28	8.8	7.1	7.7	---	---	---	---	---	---	16.4	14.2	15.2
29	12.5	8.8	10.6	---	---	---	---	---	---	15.8	14.0	14.9
30	13.6	9.2	11.7	13.4	11.6	12.1	---	---	---	14.3	12.6	13.3
31	14.6	9.4	11.4	---	---	---	---	---	---	12.9	12.2	12.5
MONTH	14.6	6.0	9.1	15.7	7.9	11.6	15.1	10.2	12.4	17.0	11.7	14.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	13.2	12.9	13.1	13.3	12.6	13.0	---	---	---	---	---	---
2	13.8	13.2	13.5	13.8	12.5	12.9	---	---	---	---	---	---
3	14.2	13.8	14.1	12.8	12.0	12.4	---	---	---	---	---	---
4	14.2	13.9	14.1	12.2	11.5	11.8	---	---	---	10.1	7.8	8.5
5	13.9	13.4	13.6	12.2	11.4	11.8	---	---	---	12.0	7.6	9.3
6	13.4	12.8	13.1	13.2	12.0	12.7	---	---	---	12.9	7.1	9.6
7	12.8	12.6	12.7	13.2	12.4	12.8	---	---	---	10.5	6.5	8.2
8	12.6	11.9	12.3	13.7	12.6	13.1	---	---	---	11.6	5.7	8.3
9	11.9	11.2	11.7	13.9	12.5	13.2	---	---	---	10.1	5.3	7.8
10	11.2	10.8	11.0	14.4	12.6	13.6	---	---	---	12.7	7.1	10.2
11	12.0	10.9	11.5	14.4	12.5	13.5	---	---	---	16.5	8.2	11.6
12	13.0	12.0	12.8	13.9	12.3	13.3	---	---	---	14.9	8.8	11.6
13	13.0	12.8	13.0	13.7	11.3	12.6	---	---	---	11.1	7.1	8.6
14	12.8	11.6	12.3	13.5	10.9	12.1	---	---	---	8.7	6.2	7.4
15	14.1	11.3	12.4	11.9	10.5	11.1	---	---	---	---	---	---
16	13.0	12.5	12.8	11.1	10.2	10.6	---	---	---	---	---	---
17	13.0	12.8	12.9	10.4	9.7	10.0	---	---	---	---	---	---
18	12.8	12.5	12.7	11.9	9.6	10.6	10.4	8.2	9.1	---	---	---
19	12.5	11.8	12.3	12.1	10.0	10.9	11.3	10.4	11.0	---	---	---
20	11.8	10.9	11.4	11.4	9.4	10.3	11.9	11.3	11.7	---	---	---
21	11.1	10.6	10.9	9.6	8.3	8.8	12.5	11.2	11.8	---	---	---
22	11.1	10.9	10.9	8.3	6.9	7.6	12.5	11.5	12.2	8.0	6.8	7.5
23	11.5	10.8	11.2	8.1	5.6	6.8	12.5	11.8	12.2	8.0	7.2	7.6
24	12.1	11.2	11.7	---	---	---	11.8	11.2	11.4	8.6	7.9	8.3
25	12.7	11.9	12.3	---	---	---	11.3	10.3	10.9	8.9	8.1	8.7
26	12.1	11.7	11.9	---	---	---	10.4	9.3	10.0	8.6	8.1	8.3
27	12.6	11.8	12.3	---	---	---	9.3	7.9	8.6	9.3	8.3	8.7
28	13.1	12.3	12.7	15.9	12.6	14.2	---	---	---	9.2	8.6	9.0
29	---	---	---	16.1	12.5	14.5	---	---	---	8.9	8.2	8.6
30	---	---	---	16.5	12.9	14.8	---	---	---	8.7	8.1	8.4
31	---	---	---	18.6	12.7	15.7	---	---	---	9.1	8.2	8.8
MONTH	14.2	10.6	12.4	18.6	5.6	12.0	12.5	7.9	10.9	16.5	5.3	8.8

SURFACE-WATER RECORDS

Scioto River Basin

03232000 PAINT CREEK NEAR GREENFIELD, OHIO

LOCATION.—Latitude 39°22'45", longitude 83°22'32", Fayette County, Hydrologic Unit 05060003, on right bank at upstream side of bridge on State Highway 753, 0.6 mi upstream from Stone Run, 2 mi north of Greenfield, Ohio, and 3.0 mi downstream from Indian Creek.

DRAINAGE AREA.—249 mi².

PERIOD OF RECORD.—August 1926 to November 1935, October 1939 to September 1956; water years 1962-66 (occasional low-flow measurements), water years 1963-66 (annual maximums); October 1966 to September 1981; water years 1993-1995 (stage only); October 1995 to current year.

REVISED RECORDS.—WSP 743: 1926(M). WSP 758: 1926-33. WSP 1908: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is 844.27 ft above sea level. Prior to Feb. 14, 1940, nonrecording gage, Feb. 14, 1940, to June 3, 1955, water-stage recorder, June 4, 1955, to Sept. 30, 1956, nonrecording gage, at same site at datum 1.00 ft higher.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	32	57	e60	1160	118	132	114	433	77	128	49
2	28	32	52	e66	712	119	290	111	571	72	84	33
3	24	32	48	e76	455	123	200	101	613	65	79	31
4	26	34	45	e86	332	168	152	93	477	87	71	39
5	89	35	e43	e70	278	288	126	87	402	87	140	26
6	226	34	e40	e62	241	211	120	80	1110	88	107	19
7	296	36	e39	e56	208	170	113	75	2840	92	74	14
8	226	39	e38	e52	200	152	104	75	1190	80	55	9.3
9	157	58	e37	e48	277	137	114	74	664	72	39	7.8
10	117	341	e42	e46	691	121	1780	68	438	70	31	10
11	84	448	46	e42	723	113	2760	65	328	79	28	9.2
12	65	324	83	e40	464	108	4420	71	269	61	22	7.7
13	50	237	169	e39	330	167	2310	64	235	48	17	5.1
14	40	185	196	e52	291	200	954	65	234	44	13	4.6
15	37	148	169	e80	317	199	577	128	197	39	10	8.0
16	38	122	1850	e120	490	198	458	2290	179	35	10	6.4
17	70	108	3660	e100	576	279	352	3210	152	31	11	3.9
18	269	90	2920	e90	418	301	277	4450	131	33	10	2.8
19	189	79	1260	e78	299	247	224	6820	118	34	25	3.0
20	132	74	614	e68	251	220	264	4940	121	31	25	6.0
21	106	67	394	e62	215	228	502	1940	114	33	13	6.9
22	88	52	258	e56	189	205	496	1670	158	66	11	5.5
23	72	53	210	e50	178	174	353	1470	230	52	10	3.2
24	65	50	233	e47	157	149	275	862	189	30	26	3.7
25	58	50	e130	e44	162	130	216	1780	151	39	17	2.7
26	61	68	e110	e40	154	117	180	2320	125	66	13	4.1
27	57	72	e100	e36	129	105	160	1670	110	55	11	2.7
28	53	73	e94	e34	120	101	142	1340	94	41	12	2.0
29	41	65	e86	e32	---	100	123	785	86	36	33	1.9
30	37	62	e80	779	---	100	116	543	81	33	49	2.1
31	36	---	e68	1600	---	96	---	406	---	136	37	---
TOTAL	2874	3100	13171	4111	10017	5144	18290	37767	12040	1812	1211	329.6
MEAN	92.7	103	425	133	358	166	610	1218	401	58.5	39.1	11.0
MAX	296	448	3660	1600	1160	301	4420	6820	2840	136	140	49
MIN	24	32	37	32	120	96	104	64	81	30	10	1.9
MED	65	66	94	56	284	152	244	406	214	55	25	6.2
CFSM	.37	.41	1.71	.53	1.44	.67	2.45	4.89	1.61	.23	.16	.04
IN.	.43	.46	1.97	.61	1.50	.77	2.73	5.64	1.80	.27	.18	.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1927 - 2001, BY WATER YEAR (WY)

MEAN	46.4	106	242	370	425	482	403	339	226	102	71.6	54.9
MAX	606	827	784	1510	1078	1712	1190	1731	791	519	633	830
(WY)	1927	1973	1951	1949	1951	1945	1940	1968	1981	1973	1980	1979
MIN	.59	1.11	2.08	2.97	8.06	28.9	57.3	20.6	2.48	.82	.47	1.16
(WY)	1931	1954	1995	1995	1954	1931	1941	1941	1993	1930	1930	1953

SUMMARY STATISTICS

FOR 2000 CALENDAR YEAR

FOR 2001 WATER YEAR

WATER YEARS 1927 - 2001

ANNUAL TOTAL	89597.2	109866.6	
ANNUAL MEAN	245	301	241
HIGHEST ANNUAL MEAN			442
LOWEST ANNUAL MEAN			56.1
HIGHEST DAILY MEAN	3730	Feb 19	6820
LOWEST DAILY MEAN	2.8	Jan 1	1.9
ANNUAL SEVEN-DAY MINIMUM	5.0	Sep 14	2.7
MAXIMUM PEAK FLOW			7930
MAXIMUM PEAK STAGE			11.17
INSTANTANEOUS LOW FLOW			1.5
ANNUAL RUNOFF (CFSM)	.98		1.21
ANNUAL RUNOFF (INCHES)	13.39		16.41
10 PERCENT EXCEEDS	553		576
50 PERCENT EXCEEDS	90		89
90 PERCENT EXCEEDS	18		17
			2.8

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

SURFACE-WATER RECORDS
Scioto River Basin

03234300 PAINT CREEK AT CHILLICOTHE, OHIO

LOCATION.—Latitude 39°19'13", longitude 82°58'42", Ross County, Hydrologic Unit 05060003, on left bank at downstream side of bridge on State Highway 772, 4.3 mi downstream from North Fork Paint Creek and 3.8 mi upstream from mouth.
DRAINAGE AREA.—1,136 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—October 1985 to current year.

REVISED RECORDS.—WDR-OH-88-1: 1986(M), 1987(M).

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, which are poor. Flow regulated by Paint Creek Lake, 35 mi upstream, capacity 145,000 acre-ft, and Rocky Fork Lake 41 mi upstream, capacity 34,100 acre-ft. Water-quality data collected at this site.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	194	208	206	e200	4570	521	346	616	5590	300	200	148
2	167	165	200	e200	3450	512	491	617	5640	262	192	245
3	146	139	194	e190	2000	505	477	607	5290	304	184	215
4	132	216	189	e250	1780	677	427	592	4350	350	210	185
5	125	229	192	e230	1540	3070	390	405	3020	347	205	165
6	187	228	193	e220	656	1890	374	345	2650	300	213	147
7	231	232	197	e220	779	1160	472	324	7700	278	230	134
8	747	231	179	e210	842	855	644	324	6680	278	222	124
9	968	245	152	e200	1010	848	438	288	5930	267	215	117
10	964	306	148	e250	1230	682	3660	303	2760	304	209	111
11	953	784	148	e230	1040	642	5760	310	2490	239	210	108
12	561	1040	176	e220	1160	616	6490	353	1460	157	203	104
13	367	1030	338	e210	2690	797	4760	371	1110	144	177	101
14	280	1020	554	e210	1910	1280	4780	307	1020	132	133	95
15	231	1010	540	e250	1480	1290	4280	300	1090	124	91	81
16	220	970	2330	e280	1500	1120	3770	8920	1050	128	78	76
17	254	462	6110	729	2400	1180	1750	10700	900	156	104	66
18	421	388	e4600	720	1960	1250	1270	7520	810	182	98	63
19	754	373	e2000	433	1660	965	1050	18900	620	161	102	74
20	752	364	e1200	e360	1260	1010	982	3500	580	169	107	85
21	558	352	e700	e320	1110	1580	1270	2660	583	184	109	77
22	384	347	e500	e290	921	1710	1150	5560	744	262	108	73
23	330	371	e370	e270	808	1460	1290	6120	756	204	103	73
24	313	384	e320	e260	655	1100	1340	6340	716	189	96	73
25	305	418	e280	e240	693	842	1060	6990	696	182	94	73
26	304	436	e260	e230	870	823	561	6640	796	287	98	71
27	320	433	e250	e210	665	797	461	6190	614	234	95	71
28	393	396	e240	e200	554	728	490	6190	432	197	109	71
29	370	314	e230	e210	---	567	817	5910	388	200	111	69
30	365	241	e220	1970	---	506	749	5840	366	200	105	68
31	265	---	e210	5830	---	391	---	5720	---	207	109	---
TOTAL	12561	13332	23426	15842	41193	31374	51799	119762	66831	6928	4520	3163
MEAN	405	444	756	511	1471	1012	1727	3863	2228	223	146	105
MAX	968	1040	6110	5830	4570	3070	6490	18900	7700	350	230	245
MIN	125	139	148	190	554	391	346	288	366	124	78	63

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 2001, BY WATER YEAR (WY)

	325	681	1195	1696	2292	2288	2131	2246	1421	618	314	140
MEAN	325	681	1195	1696	2292	2288	2131	2246	1421	618	314	140
MAX	2106	3368	5202	3533	3949	5148	4375	6366	4266	1687	1156	463
(WY)	1991	1986	1991	1996	2000	1997	1994	1996	1996	1990	1990	1990
MIN	48.2	46.0	62.8	298	310	458	376	239	94.4	66.1	61.5	62.1
(WY)	1988	2000	1988	1988	1987	1987	1986	1988	1988	1999	1986	1999

SUMMARY STATISTICS

	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1986 - 2001	
ANNUAL TOTAL	403377		390731			
ANNUAL MEAN	1102		1070		1273	
HIGHEST ANNUAL MEAN					2178	
LOWEST ANNUAL MEAN					483	
HIGHEST DAILY MEAN	18700	Feb 19	18900	May 19	25300	May 29 1990
LOWEST DAILY MEAN	56	Jan 1	63	Sep 18	33	Aug 5 1999
ANNUAL SEVEN-DAY MINIMUM	63	Sep 14	71	Sep 24	38	Sep 30 1998
MAXIMUM PEAK FLOW			26500	May 19	30100	May 29 1990
MAXIMUM PEAK STAGE			23.43	May 19	24.67	May 29 1990
INSTANTANEOUS LOW FLOW			63	Sep 18	33	Aug 5 1999
10 PERCENT EXCEEDS	2540		2860		3680	
50 PERCENT EXCEEDS	494		366		521	
90 PERCENT EXCEEDS	100		110		71	

e Estimated.

**SURFACE-WATER RECORDS
Scioto River Basin**

03234300 PAINT CREEK AT CHILLICOTHE, OHIO—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—Water years October 1985 to current year.

PERIOD OF DAILY RECORD.—

SPECIFIC CONDUCTANCE: October 1985 to current year.

pH: October 1985 to current year.

WATER TEMPERATURES: October 1985 to current year.

DISSOLVED OXYGEN: October 1985 to current year.

INSTRUMENTATION.—Water-quality monitor since Oct. 1985. Electronic data logger. Set for 1-hour intervals.

REMARKS.—Interruptions in the water-quality record were due to malfunction of the instrument. All records good except dissolved oxygen, which is fair

EXTREMES FOR PERIOD OF DAILY RECORD.—

SPECIFIC CONDUCTANCE: Maximum, 980 microsiemens, Dec. 9, 11, 1989; minimum, 110 microsiemens, Oct. 17, 1989.

pH: Maximum, 9.0 units, May 24, 1986; minimum, 7.1 units, July 26, 1992.

WATER TEMPERATURES: Maximum, 34.0°C, July 30, 1999; minimum, 0.0°C, on many days during winters.

DISSOLVED OXYGEN: Maximum, 19.2 mg/L, Feb. 11, 13, 1987; minimum, 3.8 mg/L, Aug. 16, 1986 and Aug. 14, 2000.

EXTREMES FOR CURRENT YEAR.—

SPECIFIC CONDUCTANCE: Maximum, 771 microsiemens, Jan. 21; minimum, 208 microsiemens, May 19.

pH: Maximum, 8.8 units, Apr. 4 and 5; minimum, 7.4 units, Oct. 31-Nov. 2, Nov. 4-10, and May 28.

WATER TEMPERATURE: Maximum, 30.5°C, Aug. 8; minimum, 0.0°C, on many days during winter.

DISSOLVED OXYGEN: Maximum, 17.2 mg/L, Sept. 7; minimum, 4.2 mg/L, Aug. 12.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001												
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	511	462	492	---	---	---	606	598	604	672	668	670
2	480	457	469	---	---	---	618	601	611	680	671	678
3	466	422	453	---	---	---	621	605	613	698	677	691
4	524	422	506	---	---	---	621	605	612	697	690	695
5	529	492	507	---	---	---	617	603	608	699	691	695
6	565	498	528	---	---	---	623	604	613	693	687	691
7	579	552	568	---	---	---	626	610	620	687	680	684
8	552	457	496	---	---	---	624	616	620	685	681	683
9	484	466	479	---	---	---	636	622	628	692	683	687
10	466	455	461	---	---	---	637	620	630	709	692	702
11	469	459	463	---	---	---	630	603	622	708	693	703
12	510	469	490	---	---	---	628	616	622	709	691	698
13	519	510	516	---	---	---	622	609	615	712	705	709
14	531	519	526	---	---	---	662	614	636	708	702	706
15	546	531	540	---	---	---	688	662	680	706	693	700
16	554	540	548	---	---	---	697	405	653	698	658	684
17	552	544	547	---	---	---	405	265	319	659	590	618
18	580	542	559	---	---	---	291	261	278	686	623	677
19	568	544	555	---	---	---	307	290	299	690	679	684
20	544	532	538	---	---	---	332	306	319	685	669	677
21	541	533	538	---	---	---	341	260	309	771	667	684
22	546	534	541	---	---	---	---	---	---	689	669	680
23	550	540	545	---	---	---	---	---	---	685	672	680
24	552	544	549	---	---	---	---	---	---	681	671	678
25	554	542	549	---	---	---	---	---	---	677	671	675
26	559	547	554	---	---	---	---	---	---	679	669	674
27	562	544	556	---	---	---	---	---	---	706	670	677
28	556	541	548	---	---	---	644	616	622	686	674	680
29	545	533	540	---	---	---	678	644	668	685	671	679
30	---	---	---	---	---	---	717	671	680	688	473	588
31	---	---	---	---	---	---	685	666	672	509	448	493
MONTH	580	422	523	---	---	---	717	260	566	771	448	675

SURFACE-WATER RECORDS
Scioto River Basin

03234300 PAINT CREEK AT CHILLICOTHE, OHIO—Continued

WATER-QUALITY RECORDS—Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	MAX	MIN	MEAN									
1	8.6	8.1	8.4	7.6	7.4	7.5	8.4	8.0	8.2	8.1	8.1	8.1
2	8.6	8.1	8.4	7.6	7.4	7.5	8.4	8.2	8.3	8.1	8.1	8.1
3	8.6	8.2	8.4	7.6	7.5	7.5	8.4	8.2	8.3	8.2	8.1	8.1
4	8.6	8.3	8.4	7.6	7.4	7.5	8.4	8.3	8.3	8.1	8.1	8.1
5	8.5	8.3	8.4	7.6	7.4	7.5	8.4	8.2	8.3	8.2	8.1	8.1
6	8.5	8.2	8.4	7.6	7.4	7.5	8.5	8.2	8.4	8.2	8.1	8.2
7	8.3	8.0	8.2	7.7	7.4	7.4	8.5	8.2	8.4	8.2	8.1	8.2
8	8.2	8.0	8.2	7.6	7.4	7.5	8.4	8.4	8.4	8.2	8.1	8.2
9	8.3	8.1	8.2	7.6	7.4	7.5	8.4	8.4	8.4	8.1	8.0	8.1
10	8.4	8.0	8.2	7.5	7.4	7.5	8.5	8.4	8.4	8.1	8.0	8.0
11	8.4	8.1	8.2	7.5	7.5	7.5	8.4	8.3	8.4	8.1	7.9	8.0
12	8.3	7.9	8.1	7.5	7.5	7.5	8.4	8.3	8.4	8.6	8.0	8.2
13	8.3	7.9	8.1	7.5	7.5	7.5	8.5	8.3	8.4	8.6	8.4	8.5
14	8.3	7.8	8.1	7.5	7.5	7.5	8.6	8.4	8.4	8.6	8.4	8.5
15	8.2	7.7	8.0	7.6	7.5	7.5	8.5	8.4	8.4	8.6	8.5	8.6
16	8.1	7.7	7.9	7.5	7.5	7.5	8.4	8.0	8.3	8.6	8.6	8.6
17	8.0	7.7	7.9	7.5	7.5	7.5	8.1	7.9	8.0	8.6	8.4	8.5
18	7.9	7.6	7.8	7.6	7.5	7.5	8.0	7.9	8.0	8.7	8.6	8.6
19	8.1	7.7	7.9	7.5	7.5	7.5	7.9	7.8	7.9	8.6	8.5	8.5
20	8.1	7.9	8.0	7.6	7.5	7.5	7.9	7.8	7.8	8.6	8.5	8.5
21	8.2	7.9	8.0	---	---	---	8.0	7.8	7.9	8.6	8.3	8.5
22	8.1	7.8	8.0	---	---	---	8.0	7.9	7.9	8.5	8.4	8.5
23	8.1	7.8	7.9	---	---	---	8.1	8.0	8.0	8.5	8.4	8.5
24	8.0	7.8	7.9	---	---	---	8.1	8.0	8.0	8.6	8.4	8.5
25	8.1	7.7	7.9	---	---	---	8.1	8.0	8.1	8.6	8.5	8.5
26	8.1	7.7	7.9	---	---	---	8.1	7.9	8.1	8.6	8.3	8.5
27	8.1	7.7	7.9	---	---	---	8.1	7.9	8.0	8.6	8.4	8.5
28	8.0	7.8	7.8	---	---	---	8.1	8.1	8.1	8.6	8.3	8.4
29	8.0	7.6	7.9	---	---	---	8.1	8.1	8.1	8.6	8.4	8.5
30	7.7	7.5	7.6	8.2	7.9	8.0	8.1	8.1	8.1	8.6	8.4	8.5
31	7.7	7.4	7.6	---	---	---	8.1	8.1	8.1	8.6	8.2	8.3
MONTH	8.6	7.4	8.1	8.2	7.4	7.5	8.6	7.8	8.2	8.7	7.9	8.4

DAY	MAX	MIN	MEAN									
1	8.2	8.2	8.2	8.5	8.3	8.4	8.6	8.2	8.4	8.7	8.4	8.5
2	8.2	8.1	8.2	8.6	8.4	8.4	8.6	8.0	8.3	8.7	8.3	8.5
3	8.2	8.1	8.1	8.6	8.4	8.5	8.7	8.2	8.4	8.7	8.3	8.5
4	8.2	8.1	8.1	8.6	8.3	8.4	8.8	8.1	8.5	8.6	8.3	8.5
5	8.2	8.1	8.2	8.4	8.3	8.3	8.8	8.3	8.5	8.8	8.4	8.6
6	8.2	8.2	8.2	8.4	8.2	8.4	8.7	8.4	8.5	8.7	8.4	8.5
7	8.3	8.2	8.2	8.4	8.4	8.4	8.6	8.3	8.4	8.6	8.4	8.5
8	8.3	8.2	8.3	8.5	8.3	8.4	8.6	8.3	8.4	8.6	8.3	8.4
9	8.5	8.3	8.4	8.4	8.4	8.4	8.6	8.3	8.4	8.6	8.3	8.4
10	8.4	8.3	8.4	8.5	8.3	8.4	8.6	7.9	8.1	8.6	8.3	8.4
11	8.3	8.2	8.3	8.6	8.4	8.4	8.1	7.8	8.0	8.5	8.3	8.4
12	8.3	8.2	8.2	8.6	8.4	8.5	7.9	7.8	7.9	8.4	8.1	8.3
13	8.4	8.3	8.3	8.7	8.4	8.5	8.4	7.8	8.1	8.3	8.0	8.1
14	8.6	8.3	8.4	8.7	8.4	8.6	8.2	8.1	8.1	8.2	7.9	8.1
15	8.4	8.3	8.3	8.7	8.5	8.6	8.1	8.0	8.0	8.3	7.9	8.1
16	8.3	8.3	8.3	8.6	8.4	8.5	8.0	8.0	8.0	8.3	7.6	7.9
17	8.3	8.3	8.3	8.5	8.3	8.4	8.1	8.0	8.0	8.2	7.6	7.8
18	8.3	8.2	8.3	8.6	8.3	8.4	8.1	8.0	8.1	7.9	7.6	7.8
19	8.3	8.3	8.3	8.6	8.3	8.5	8.2	8.0	8.1	7.9	7.7	7.7
20	8.4	8.3	8.3	8.6	8.4	8.5	8.2	8.1	8.1	7.8	7.6	7.7
21	8.4	8.2	8.3	8.6	8.3	8.4	8.3	8.1	8.2	7.7	7.6	7.7
22	8.3	8.3	8.3	8.5	8.2	8.4	8.3	8.3	8.3	8.0	7.6	7.8
23	8.4	8.3	8.3	8.6	8.3	8.4	8.3	8.2	8.3	7.9	7.6	7.8
24	8.4	8.3	8.3	8.6	8.4	8.5	8.5	8.2	8.3	7.6	7.6	7.6
25	8.5	8.3	8.4	8.6	8.3	8.5	8.4	8.2	8.3	7.8	7.6	7.6
26	8.5	8.4	8.5	8.5	8.2	8.4	8.4	8.2	8.3	7.6	7.6	7.6
27	8.5	8.3	8.4	8.6	8.3	8.4	8.5	8.3	8.4	7.7	7.6	7.6
28	8.5	8.4	8.4	8.6	8.3	8.5	8.6	8.3	8.4	7.6	7.4	7.5
29	---	---	---	8.6	8.2	8.4	8.6	8.3	8.5	7.6	7.5	7.5
30	---	---	---	8.7	8.3	8.5	8.6	8.3	8.5	7.5	7.5	7.5
31	---	---	---	8.7	8.4	8.5	---	---	---	7.6	7.5	7.6
MONTH	8.6	8.1	8.3	8.7	8.2	8.4	8.8	7.8	8.3	8.8	7.4	8.0

SURFACE-WATER RECORDS
Scioto River Basin

03234300 PAINT CREEK AT CHILLICOTHE, OHIO—Continued

WATER-QUALITY RECORDS—Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001—Continued

DAY	MAX	MIN	MEAN									
1	7.6	7.6	7.6	8.3	8.1	8.2	8.5	8.1	8.3	8.3	8.1	8.2
2	7.8	7.6	7.7	8.3	8.1	8.2	8.4	8.1	8.2	8.5	8.2	8.3
3	7.7	7.7	7.7	8.3	8.1	8.2	8.2	8.0	8.1	8.5	8.2	8.3
4	7.8	7.7	7.7	8.3	8.1	8.2	8.1	7.9	8.0	8.5	8.1	8.3
5	8.0	7.8	7.9	8.3	8.1	8.2	8.1	7.9	8.0	8.5	8.2	8.4
6	8.0	7.9	8.0	8.3	8.1	8.2	8.2	7.9	8.1	8.5	8.1	8.3
7	8.0	7.7	7.8	8.2	7.9	8.1	8.3	8.0	8.1	8.4	8.0	8.2
8	---	---	---	7.9	7.7	7.8	8.3	7.8	8.1	8.2	7.9	8.0
9	---	---	---	8.5	7.8	8.1	8.1	7.9	8.0	8.2	7.9	8.1
10	---	---	---	8.5	8.3	8.4	8.1	7.9	7.9	8.3	8.0	8.1
11	---	---	---	8.5	8.3	8.4	8.0	7.8	7.9	8.2	8.0	8.1
12	---	---	---	8.5	8.2	8.3	8.1	7.8	7.9	8.3	8.1	8.2
13	---	---	---	8.4	8.1	8.3	8.4	7.9	8.1	8.2	8.1	8.2
14	8.1	7.9	8.0	8.4	8.1	8.3	8.4	8.1	8.3	8.2	8.0	8.1
15	8.1	8.1	8.1	8.4	8.1	8.3	8.3	8.2	8.3	8.2	8.0	8.1
16	8.2	8.1	8.1	8.4	8.1	8.3	8.3	8.2	8.2	8.2	8.0	8.1
17	8.2	8.1	8.2	8.3	8.1	8.3	8.3	8.1	8.2	8.2	8.0	8.1
18	8.3	8.1	8.2	8.3	7.9	8.1	8.2	8.1	8.2	8.3	8.1	8.2
19	8.3	8.1	8.2	8.2	7.9	8.0	8.2	8.1	8.1	8.2	8.1	8.2
20	8.5	8.1	8.3	8.2	7.9	8.1	8.1	8.0	8.0	8.3	8.1	8.2
21	8.5	8.1	8.3	8.2	8.0	8.1	8.1	7.9	8.0	8.3	8.2	8.2
22	8.3	8.1	8.2	8.2	7.9	8.0	8.1	7.9	8.0	8.4	8.2	8.2
23	8.4	8.1	8.2	8.2	7.8	8.0	8.1	7.9	8.0	8.4	8.1	8.2
24	8.4	8.2	8.3	8.2	7.9	8.1	8.2	7.9	8.1	8.3	8.1	8.2
25	8.5	8.2	8.3	8.1	7.9	8.0	8.3	8.1	8.2	8.2	8.1	8.1
26	8.5	8.2	8.3	8.1	7.8	7.9	8.2	8.1	8.1	8.3	8.1	8.1
27	8.6	8.2	8.4	8.0	7.7	7.9	8.2	8.1	8.1	8.4	8.2	8.3
28	8.6	8.2	8.4	8.0	7.7	7.8	8.2	8.1	8.2	8.4	8.2	8.3
29	8.4	8.2	8.3	8.0	7.8	7.8	8.2	8.1	8.1	8.4	8.2	8.3
30	8.3	8.1	8.2	8.1	7.8	8.0	8.4	8.1	8.2	8.4	8.1	8.3
31	---	---	---	8.4	7.9	8.1	8.3	8.1	8.2	---	---	---
MONTH	8.6	7.6	8.1	8.5	7.7	8.1	8.5	7.8	8.1	8.5	7.9	8.2
YEAR	8.8	7.4	8.2									

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	18.5	15.5	17.0	---	---	---	---	---	---	1.0	.0	.5
2	19.5	17.0	18.0	---	---	---	5.5	5.0	5.5	1.5	.5	.5
3	21.0	18.0	19.5	---	---	---	5.0	3.0	4.0	.5	.0	.5
4	21.5	19.0	20.5	---	---	---	4.0	1.5	2.5	.5	.0	.5
5	21.0	20.0	20.5	---	---	---	3.0	2.5	2.5	1.5	.5	1.0
6	21.0	18.0	19.5	---	---	---	3.0	1.0	2.0	2.5	1.5	1.5
7	18.0	14.0	15.5	---	---	---	2.0	1.0	1.5	3.0	1.5	2.0
8	14.0	12.0	13.0	---	---	---	2.5	2.0	2.0	2.5	1.5	2.0
9	14.0	12.5	13.5	---	---	---	2.5	1.5	2.0	2.0	.0	1.0
10	15.0	13.0	14.0	---	---	---	2.0	1.5	1.5	1.0	.0	.5
11	15.5	13.5	14.5	---	---	---	3.5	2.0	2.5	1.5	.0	.5
12	15.0	13.0	14.5	---	---	---	4.5	2.5	3.5	3.0	1.0	1.5
13	15.5	12.5	14.0	---	---	---	3.0	2.0	2.5	3.0	1.0	2.0
14	15.5	13.0	14.0	---	---	---	2.5	1.0	2.0	3.0	2.0	2.5
15	16.5	14.0	15.0	---	---	---	2.5	2.0	2.0	4.0	3.0	3.5
16	16.5	15.0	16.0	---	---	---	4.5	2.5	3.0	4.0	3.5	3.5
17	16.5	15.5	16.0	---	---	---	6.0	3.5	5.0	3.5	2.0	2.5
18	16.5	15.0	16.0	---	---	---	3.5	1.5	2.0	2.5	1.5	2.0
19	15.5	14.0	14.5	---	---	---	3.0	2.0	3.0	2.5	2.0	2.0
20	15.5	13.5	14.5	---	---	---	3.0	1.5	2.0	2.0	1.0	1.5
21	16.0	14.5	15.0	---	---	---	2.0	1.0	1.5	1.0	.0	.5
22	17.5	15.5	16.0	---	---	---	2.0	.5	1.0	1.0	.0	.5
23	17.5	15.5	16.5	---	---	---	.5	.0	.0	1.0	.0	.5
24	18.0	16.5	17.0	---	---	---	.5	.0	.5	2.0	.0	1.0
25	18.5	17.0	17.5	---	---	---	.5	.0	.0	2.0	1.0	1.5
26	18.5	16.5	17.5	---	---	---	.5	.0	.0	1.5	.0	.5
27	18.5	16.5	17.5	---	---	---	.5	.0	.0	1.5	1.0	1.0
28	17.5	15.0	16.5	---	---	---	.5	.0	.0	1.5	.0	.5
29	---	---	---	---	---	---	.0	.0	.0	3.5	1.5	2.0
30	---	---	---	---	---	---	.5	.0	.0	3.5	2.0	3.0
31	---	---	---	---	---	---	.5	.0	.5	2.5	2.0	2.5
MONTH	21.5	12.0	16.0	---	---	---	6.0	.0	2.0	4.0	.0	1.5

SURFACE-WATER RECORDS
Scioto River Basin

03234300 PAINT CREEK AT CHILLICOTHE, OHIO—Continued

WATER-QUALITY RECORDS—Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	11.4	8.0	9.5	---	---	---	---	---	---	---	---	---
2	10.0	7.5	8.8	---	---	---	---	---	---	---	---	---
3	10.9	7.2	8.8	---	---	---	---	---	---	---	---	---
4	9.2	6.2	7.7	---	---	---	---	---	---	---	---	---
5	8.8	6.3	7.4	---	---	---	---	---	---	---	---	---
6	9.6	5.6	7.7	---	---	---	---	---	---	---	---	---
7	13.3	8.4	10.6	---	---	---	---	---	---	---	---	---
8	13.6	11.9	12.8	---	---	---	---	---	---	---	---	---
9	14.5	13.0	13.6	---	---	---	---	---	---	---	---	---
10	14.2	11.3	12.9	---	---	---	---	---	---	---	---	---
11	12.7	10.2	11.4	---	---	---	---	---	---	---	---	---
12	12.7	10.4	11.3	---	---	---	---	---	---	---	---	---
13	12.6	10.6	11.4	---	---	---	---	---	---	14.4	13.9	14.2
14	12.6	10.4	11.3	---	---	---	---	---	---	13.9	13.4	13.7
15	11.8	9.3	10.3	---	---	---	---	---	---	13.4	12.8	13.1
16	11.2	8.5	9.5	---	---	---	---	---	---	12.8	12.5	12.6
17	9.7	8.4	9.1	---	---	---	---	---	---	13.2	12.4	12.8
18	11.6	8.9	10.3	---	---	---	---	---	---	13.1	12.5	12.8
19	11.9	8.9	10.3	---	---	---	---	---	---	12.9	12.3	12.5
20	12.5	9.9	10.9	---	---	---	---	---	---	12.3	12.1	12.2
21	13.1	10.4	11.4	---	---	---	---	---	---	12.3	12.2	12.2
22	12.1	9.6	10.7	---	---	---	---	---	---	12.2	11.8	12.0
23	13.4	9.8	11.3	---	---	---	---	---	---	12.0	11.8	11.9
24	12.9	10.3	11.3	---	---	---	---	---	---	12.1	11.9	12.0
25	12.9	10.4	11.4	---	---	---	---	---	---	12.4	12.0	12.1
26	12.5	9.7	10.8	---	---	---	---	---	---	12.6	12.3	12.4
27	11.9	8.9	10.0	---	---	---	---	---	---	12.7	12.4	12.5
28	9.6	7.0	8.3	---	---	---	---	---	---	13.1	12.7	12.8
29	---	6.1	8.7	---	---	---	---	---	---	13.2	13.0	13.1
30	---	---	---	---	---	---	---	---	---	13.3	13.0	13.1
31	---	---	---	---	---	---	---	---	---	13.4	13.0	13.3
MONTH	14.5	5.6	10.3	---	---	---	---	---	---	14.4	11.8	12.7

DAY	MAX	MIN	MEAN									
1	13.5	13.3	13.4	15.0	13.8	14.3	---	---	---	13.6	10.3	11.8
2	13.5	13.5	13.5	14.9	13.5	14.1	14.2	10.6	11.9	13.5	10.1	11.6
3	13.5	13.4	13.4	15.1	13.2	13.9	11.4	9.0	9.7	13.8	9.9	11.6
4	13.5	13.2	13.4	13.8	12.7	13.2	12.6	11.1	11.6	13.9	9.8	11.4
5	13.2	13.1	13.2	13.5	13.3	13.4	12.6	9.8	11.1	15.2	9.3	11.9
6	13.5	13.1	13.3	13.8	13.3	13.6	12.3	9.1	10.4	14.5	9.0	11.6
7	13.8	13.5	13.6	13.3	12.5	12.8	11.3	8.6	9.9	13.3	8.7	10.5
8	13.7	13.4	13.5	13.5	12.3	12.8	11.1	8.6	9.7	13.0	8.7	10.5
9	13.4	13.1	13.3	13.8	12.8	13.3	11.3	8.2	9.6	13.1	8.7	10.7
10	13.4	13.1	13.2	14.3	12.8	13.3	11.0	8.7	9.1	12.7	8.3	10.4
11	13.8	13.4	13.6	14.3	12.4	13.1	9.1	8.3	8.7	12.5	8.3	10.2
12	13.9	13.5	13.7	13.4	11.9	12.6	8.8	7.5	8.0	11.5	8.2	9.7
13	13.7	13.6	13.7	13.7	11.1	12.2	10.2	7.7	9.3	11.9	9.1	10.4
14	13.7	13.1	13.5	12.6	11.0	11.7	10.4	10.1	10.3	11.3	8.6	10.1
15	13.6	13.3	13.5	11.9	10.7	11.2	10.3	10.1	10.1	10.3	8.4	9.3
16	13.8	13.6	13.7	11.8	10.6	11.1	10.6	10.3	10.5	9.1	7.8	8.3
17	14.1	13.7	13.9	11.6	10.4	10.9	11.0	10.4	10.7	10.1	8.0	9.4
18	14.2	13.8	14.0	12.9	11.1	11.7	11.6	11.0	11.4	10.1	9.3	9.9
19	13.9	13.5	13.7	12.9	10.8	11.7	11.7	11.3	11.4	---	---	---
20	13.6	13.3	13.5	12.6	10.5	11.4	11.8	11.2	11.4	---	---	---
21	14.0	13.3	13.6	11.5	10.4	10.8	12.1	11.6	11.9	---	---	---
22	14.0	13.6	13.8	11.9	10.7	11.2	11.6	11.1	11.3	---	---	---
23	14.1	13.7	13.9	12.5	10.8	11.5	11.3	10.7	11.0	8.6	7.8	8.3
24	14.2	13.7	13.9	12.9	10.7	11.6	11.5	10.7	11.0	9.1	8.6	8.9
25	14.2	13.4	13.7	13.2	10.9	11.9	12.4	11.4	11.8	9.7	9.1	9.5
26	14.7	13.4	14.0	13.2	11.1	12.1	12.4	11.3	11.8	---	---	---
27	14.9	13.6	14.1	13.2	11.3	12.1	12.5	11.1	11.8	---	---	---
28	14.9	13.7	14.2	---	---	---	13.3	10.8	11.9	---	---	---
29	---	---	---	---	---	---	13.2	11.1	12.0	---	---	---
30	---	---	---	---	---	---	13.3	10.9	11.9	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	14.9	13.1	13.6	15.1	10.4	12.4	14.2	7.5	10.7	15.2	7.8	10.3

SURFACE-WATER RECORDS
Scioto River Basin

03234500 SCIOTO RIVER AT HIGBY, OHIO

LOCATION.—Latitude 39°12'44", longitude 82°51'50", in sec. 6, T.7 N., R.20 W., Ross County, Hydrologic Unit 05060002, on left bank at upstream side of highway bridge, 0.8 mi downstream from Walnut Creek, 1.2 mi north of Higby, Ohio, 3 mi northwest of Richmondale, Ohio, and 5.0 mi upstream from Salt Creek.

DRAINAGE AREA.—5,131 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—October 1930 to current year. Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.—WSP 893: 1937(M). WSP 1908: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is 567.28 ft above sea level. Prior to Nov. 7, 1930, nonrecording gage at same site and datum.

REMARKS.—Records good except for periods of estimated record, which are fair. U.S. Army Corps of Engineers satellite telemeter at station. Water-quality data collected at this site.

EXTREMES OUTSIDE PERIOD OF RECORD.—A stage of 31.6 ft occurred Mar. 26, 1913.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1310	1120	1480	e1680	15100	3070	1730	2470	11600	1490	2340	e3400
2	1200	1100	1620	e1600	10900	2850	2130	2350	12800	1370	1700	2840
3	1110	1040	1680	e1500	7860	2710	2340	2260	12800	1900	1360	1590
4	1030	1140	1460	e1460	6100	2850	1890	2190	12400	1750	1450	1340
5	997	1190	1350	e1450	5240	5770	1730	2010	9840	1830	1480	1210
6	3710	1130	1240	e1500	3500	4600	1620	1860	7760	1790	1330	1100
7	7710	1120	1180	1630	3220	3320	1650	1750	15500	e1700	1330	1060
8	4980	1130	1120	1660	3380	2740	2280	1700	16000	e1580	1340	921
9	3720	1230	1090	1680	3620	2590	2680	2080	13100	e1490	1270	894
10	3050	1310	1120	1590	4740	2360	9340	1950	8010	e1420	1230	902
11	2550	3230	1090	1490	7680	2250	17900	1670	6100	e1480	1190	919
12	2030	3460	1100	1440	8550	2150	27700	1650	4660	e1270	1080	909
13	1670	3100	2200	1370	8640	2270	23600	2140	4540	1140	1010	847
14	1640	2920	3200	1400	6760	3510	18000	1790	4240	1080	937	840
15	1620	2960	4320	1430	7440	3860	14100	2040	3560	1030	876	858
16	1380	3010	5820	1520	11700	3540	11100	11800	3180	998	837	885
17	1320	2390	28000	2080	13100	4290	7630	29600	2890	1030	846	923
18	1940	2020	e35000	2380	10800	4650	7000	27200	2460	1140	858	841
19	2540	1800	28100	2710	8130	4440	6230	43200	2210	1200	951	772
20	2060	1720	17800	2480	5830	4120	4990	32300	2130	1200	e1750	1010
21	1710	1670	14300	2210	4820	4640	8100	23200	2180	1200	1300	1020
22	1480	1620	9740	1900	4480	4800	11900	18900	2390	1260	1010	901
23	1390	1500	4890	e1660	3820	3900	11100	20700	2560	1160	920	788
24	1360	1380	3860	e1500	3480	3270	9390	17200	2530	1070	956	770
25	1340	1380	3470	e1430	3190	2750	7810	17100	2410	1060	1080	781
26	1390	1470	2900	e1350	3200	2490	5800	21000	2630	2750	1000	873
27	1380	1930	e2300	e1300	3090	2350	3960	17500	2400	3400	e770	785
28	1410	1780	e2100	e1240	3210	2210	3320	18700	1950	1680	e1320	732
29	1330	1620	e2000	e1200	---	2030	3180	16700	1720	1370	e1000	712
30	1310	1450	e1860	3760	---	1910	2870	14400	1660	2930	e800	699
31	1220	---	e1750	13400	---	1820	---	13000	---	3090	966	---
TOTAL	62887	53920	189140	65000	181580	100110	233070	372410	178210	48858	36287	32122
MEAN	2029	1797	6101	2097	6485	3229	7769	12010	5940	1576	1171	1071
MAX	7710	3460	35000	13400	15100	5770	27700	43200	16000	3400	2340	3400
MIN	997	1040	1090	1200	3090	1820	1620	1650	1660	998	770	699
MED	1410	1560	2100	1520	5540	2850	6020	11800	3370	1370	1080	898
AC-FT	124700	107000	375200	128900	360200	198600	462300	738700	353500	96910	71980	63710
CFSM	.40	.35	1.19	.41	1.26	.63	1.51	2.34	1.16	.31	.23	.21
IN.	.46	.39	1.37	.47	1.32	.73	1.69	2.70	1.29	.35	.26	.23

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 2001, BY WATER YEAR (WY)

	1931	1935	1935	1931	1954	1941	1941	1941	1934	1944	1936	1953
MEAN	1200	2373	4285	6677	7805	9546	8375	6037	4257	2845	1954	1330
MAX	6524	15460	17190	39500	18620	28220	19600	25070	13580	11430	10070	13230
(WY)	1991	1973	1991	1937	1951	1963	1957	1996	1997	1992	1980	1979
MIN	263	304	349	433	518	1375	1485	809	718	518	457	301
(WY)	1931	1935	1935	1931	1954	1941	1941	1941	1934	1944	1936	1953

SUMMARY STATISTICS

	FOR 2000 CALENDAR YEAR	FOR 2001 WATER YEAR	WATER YEARS 1931 - 2001
ANNUAL TOTAL	1584424	1553594	
ANNUAL MEAN	4329	4256	4708
HIGHEST ANNUAL MEAN			8178
LOWEST ANNUAL MEAN			1364
HIGHEST DAILY MEAN	42500	Feb 19	43200
LOWEST DAILY MEAN	655	Jan 2	699
ANNUAL SEVEN-DAY MINIMUM	789	Feb 2	765
MAXIMUM PEAK FLOW			46000
MAXIMUM PEAK STAGE		19.12	May 19
INSTANTANEOUS LOW FLOW		683	Sep 30
ANNUAL RUNOFF (AC-FT)	3143000	3082000	3410000
ANNUAL RUNOFF (CFSM)	.84	.83	.92
ANNUAL RUNOFF (INCHES)	11.49	11.26	12.47
10 PERCENT EXCEEDS	10200	11700	12100
50 PERCENT EXCEEDS	2210	1950	2070
90 PERCENT EXCEEDS	934	1010	542

e Estimated.

SURFACE-WATER RECORDS
Scioto River Basin

03234500 SCIOTO RIVER AT HIGBY, OHIO—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—Water years 1954 to 1993, 1996 to current year.

PERIOD OF DAILY RECORD.—

SPECIFIC CONDUCTANCE: March 1967 to September 1993, 1996 to current year.

pH: March 1967 to September 1993, 1996 to current year.

WATER TEMPERATURES: March 1967 to September 1993, 1996 to current year.

DISSOLVED OXYGEN: March 1967 to September 1993, 1996 to current year.

INSTRUMENTATION.—Water-quality monitor since March 1967. Digital recorder set for 1-hour interval punch since May 1972. Electronic data logger since April 30, 1991, set for 1-hour interval.

REMARKS.—Samples were collected quarterly as part of the National Stream Quality Accounting Network. Interruptions in the water-quality record were due to malfunction of the instrument. Daily sediment data collected 1954-1974, 1979-1982. Specific conductance, pH, and water temperature record is good; dissolved oxygen record fair except for Apr. and May, which is poor.

EXTREMES FOR PERIOD OF DAILY RECORD.—

SPECIFIC CONDUCTANCE: Maximum, 1,200 microsiemens, Feb. 10 and 11, 2000; minimum, 113 microsiemens, Sept. 16, 1975.

pH: Maximum, 9.3 units, July 21, 1982, July 19, Aug. 21, 1984; minimum, 5.9 units, Mar. 8, 1980.

WATER TEMPERATURES: Maximum, 35.0°C, June 13, 1999; minimum, 0.0°C, on many days during winter.

DISSOLVED OXYGEN: Maximum, >20.0 mg/l, on several days from 1982-1989 and 2001; minimum, 0.0 mg/L, on many days during 1968, Sept. 13, 1969.

EXTREMES FOR CURRENT YEAR.—

SPECIFIC CONDUCTANCE: Maximum, 970 microsiemens, Jan 29; minimum, 276 microsiemens, May 17.

pH: Maximum, 8.9 units, Mar. 14, Apr. 5, and July 22-24; minimum, 7.1 units, Nov. 21.

WATER TEMPERATURE: Maximum, 30.5°C, June 17; minimum, 0.0°C Dec. 25 and Feb. 1-4.

DISSOLVED OXYGEN: Maximum, 20.0 mg/L, June 28, 29, and July 22; minimum, 3.9 mg/L, May 18.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	668	598	625	710	692	701	752	730	740	822	809	815
2	699	648	676	717	710	714	780	752	765	832	822	828
3	716	699	709	739	717	728	815	780	802	857	664	800
4	711	685	698	753	708	740	810	785	793	867	853	859
5	746	695	717	730	715	723	792	779	787	866	843	857
6	776	608	740	722	704	716	785	776	779	876	850	863
7	608	448	477	732	696	726	808	785	799	896	863	880
8	533	481	516	734	719	727	815	808	812	903	700	800
9	573	533	551	725	686	708	820	815	817	909	848	885
10	601	573	589	717	706	713	827	816	822	902	890	896
11	633	601	617	718	687	701	833	827	831	913	870	896
12	661	614	638	700	578	620	849	831	841	908	756	851
13	686	650	669	618	581	601	857	827	850	905	715	845
14	703	686	695	637	616	629	833	783	809	907	701	860
15	731	703	718	619	594	609	801	783	792	900	785	848
16	752	731	745	627	613	622	853	443	739	902	703	832
17	751	719	735	659	624	643	443	388	414	895	830	858
18	719	702	710	661	655	658	445	424	438	882	860	874
19	735	703	726	655	639	645	508	439	463	920	880	900
20	731	639	674	646	639	644	520	508	516	921	902	913
21	642	633	636	676	646	661	517	486	503	924	893	910
22	664	642	652	693	676	686	537	484	499	893	878	886
23	676	664	673	696	691	694	623	537	597	916	892	907
24	695	676	687	704	692	696	665	623	643	919	911	916
25	707	695	703	712	704	708	701	665	688	932	918	924
26	719	704	713	715	705	709	752	701	735	934	918	928
27	720	696	711	744	715	729	769	748	759	934	921	926
28	712	685	695	754	744	750	782	763	774	960	934	951
29	690	686	688	747	715	730	804	777	793	970	947	959
30	686	679	683	730	715	721	808	798	803	947	563	713
31	692	683	687	---	---	---	809	804	806	676	622	647
MONTH	776	448	669	754	578	688	857	388	716	970	563	865

SURFACE-WATER RECORDS
Scioto River Basin

03234500 SCIOTO RIVER AT HIGBY, OHIO—Continued

WATER-QUALITY RECORDS—Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	7.5	7.2	7.4	8.1	7.7	7.8	7.7	7.4	7.5	7.9	7.8	7.8
2	7.7	7.3	7.5	8.1	7.7	7.8	7.7	7.4	7.6	7.9	7.8	7.9
3	7.8	7.5	7.6	8.1	7.8	7.9	7.7	7.4	7.5	8.0	7.8	7.9
4	7.8	7.5	7.7	7.9	7.7	7.8	7.7	7.3	7.5	8.0	7.8	7.9
5	8.2	7.6	7.9	7.9	7.6	7.7	7.9	7.2	7.5	7.9	7.8	7.9
6	8.1	7.7	8.0	8.1	7.5	7.8	7.6	7.3	7.4	8.0	7.9	7.9
7	7.7	7.4	7.6	8.1	7.5	7.8	7.6	7.3	7.4	8.0	7.9	8.0
8	7.8	7.5	7.6	8.0	7.6	7.7	7.8	7.2	7.4	8.1	7.9	8.0
9	8.0	7.4	7.7	8.0	7.7	7.8	7.5	7.3	7.4	8.2	7.8	8.0
10	8.1	7.8	7.9	7.9	7.6	7.7	7.6	7.2	7.4	8.1	7.8	8.0
11	8.3	7.8	8.1	7.8	7.6	7.7	7.9	7.4	7.6	---	---	---
12	8.3	7.7	8.0	7.8	7.5	7.6	7.7	7.3	7.4	---	---	---
13	8.0	7.4	7.7	7.8	7.5	7.6	7.7	7.2	7.4	---	---	---
14	8.0	7.4	7.8	7.7	7.4	7.5	7.4	7.2	7.3	---	---	---
15	8.4	7.8	8.1	7.7	7.4	7.5	7.5	7.2	7.3	---	---	---
16	8.4	7.7	7.9	7.6	7.4	7.5	7.6	7.3	7.4	---	---	---
17	8.1	7.6	7.8	7.8	7.3	7.5	8.5	7.4	7.9	8.0	7.7	7.9
18	8.1	7.8	7.9	7.7	7.3	7.4	8.8	8.1	8.5	8.3	7.9	8.0
19	8.1	7.6	7.9	7.6	7.3	7.4	8.8	7.8	8.5	8.2	8.0	8.1
20	8.3	7.6	7.9	7.6	7.3	7.4	8.8	7.4	8.2	8.1	7.9	8.0
21	8.2	7.8	8.0	7.8	7.1	7.4	8.5	7.6	8.0	8.1	7.7	7.9
22	8.2	7.9	8.1	7.7	7.3	7.5	7.9	7.5	7.7	8.0	7.7	7.8
23	8.3	7.7	8.1	7.7	7.3	7.5	7.8	7.5	7.6	8.1	7.7	7.9
24	8.2	7.8	8.0	7.6	7.3	7.4	8.1	7.5	7.7	8.2	7.7	7.9
25	8.2	7.7	8.0	7.6	7.4	7.5	7.9	7.6	7.7	8.3	7.9	8.1
26	8.2	7.8	8.0	7.8	7.4	7.6	7.8	7.7	7.7	8.1	7.7	7.9
27	8.4	7.8	8.1	7.8	7.4	7.6	7.8	7.7	7.7	8.2	7.7	7.9
28	8.3	8.0	8.1	7.8	7.5	7.7	7.7	7.7	7.7	8.1	7.7	7.9
29	8.1	7.8	7.9	7.8	7.4	7.6	7.9	7.6	7.7	8.3	8.0	8.2
30	7.9	7.7	7.8	7.8	7.5	7.6	7.9	7.7	7.8	8.2	8.0	8.1
31	7.8	7.6	7.7	---	---	---	7.9	7.7	7.8	8.1	7.7	7.9
MONTH	8.4	7.2	7.9	8.1	7.1	7.6	8.8	7.2	7.7	8.3	7.7	8.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	7.8	7.6	7.7	8.3	8.2	8.3	8.7	8.4	8.6	8.8	8.5	8.7
2	8.0	7.6	7.8	8.4	8.2	8.3	8.7	8.4	8.6	8.6	8.4	8.5
3	7.9	7.5	7.7	8.5	8.3	8.4	8.7	8.5	8.6	8.5	8.4	8.5
4	8.0	7.5	7.7	8.5	8.3	8.4	8.8	8.3	8.6	8.5	8.3	8.4
5	8.1	8.0	8.0	8.4	8.2	8.3	8.9	8.4	8.6	8.4	8.3	8.4
6	8.1	8.0	8.0	8.4	8.1	8.3	8.7	7.7	8.3	8.4	8.1	8.3
7	8.2	8.0	8.1	8.7	8.3	8.5	8.5	7.7	8.1	8.2	8.1	8.2
8	8.2	8.1	8.1	8.7	8.4	8.6	8.6	7.9	8.3	8.2	8.2	8.2
9	8.3	8.2	8.2	8.7	8.5	8.6	---	---	---	8.7	8.2	8.4
10	8.3	8.3	8.3	8.7	8.5	8.6	8.2	7.8	8.1	8.8	8.2	8.4
11	8.3	8.2	8.3	8.8	8.5	8.6	8.2	8.0	8.1	8.5	7.9	8.2
12	8.2	7.9	8.1	8.8	8.5	8.6	8.3	8.0	8.1	8.6	8.2	8.4
13	8.0	7.9	7.9	8.8	8.5	8.7	8.3	8.0	8.1	8.5	8.1	8.4
14	8.0	7.8	7.9	8.9	8.6	8.7	8.1	8.0	8.1	8.3	8.0	8.1
15	8.3	7.9	8.1	8.7	8.4	8.5	8.5	8.0	8.2	8.1	7.8	7.9
16	8.3	7.7	8.1	8.7	8.3	8.5	8.4	8.0	8.1	7.9	7.7	7.8
17	7.7	7.3	7.5	8.5	8.3	8.3	8.2	7.6	7.8	7.8	7.6	7.6
18	7.5	7.4	7.5	8.5	8.2	8.3	8.4	7.5	8.1	8.1	7.5	7.7
19	8.2	7.4	7.6	8.5	8.1	8.3	8.4	7.9	8.2	7.8	7.5	7.6
20	8.3	7.9	8.1	8.6	8.3	8.4	8.5	8.0	8.3	7.6	7.4	7.5
21	8.0	7.9	8.0	8.5	8.3	8.4	8.6	8.3	8.5	7.7	7.5	7.6
22	8.1	7.9	8.0	8.6	8.4	8.5	8.6	8.1	8.5	7.9	7.6	7.7
23	8.1	7.9	8.0	8.7	8.4	8.5	---	---	---	7.8	7.6	7.7
24	8.2	7.9	8.0	8.6	8.0	8.4	---	---	---	7.7	7.5	7.6
25	8.4	8.2	8.3	8.6	8.0	8.5	8.4	8.2	8.2	7.5	7.3	7.4
26	8.4	8.2	8.4	8.6	8.4	8.5	8.5	8.1	8.3	7.5	7.2	7.3
27	8.5	8.3	8.3	8.5	8.4	8.5	8.3	7.8	8.1	7.5	7.3	7.3
28	8.4	8.2	8.3	8.6	8.4	8.5	8.0	7.9	8.0	7.4	7.3	7.3
29	---	---	---	8.6	8.4	8.5	8.0	7.9	8.0	7.4	7.2	7.3
30	---	---	---	8.7	8.5	8.5	8.5	7.9	8.1	7.4	7.3	7.3
31	---	---	---	8.8	8.5	8.7	---	---	---	7.3	7.2	7.3
MONTH	8.5	7.3	8.0	8.9	8.0	8.5	8.9	7.5	8.2	8.8	7.2	7.9

SURFACE-WATER RECORDS
Scioto River Basin

03234500 SCIOTO RIVER AT HIGBY, OHIO—Continued

WATER-QUALITY RECORDS—Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001—Continued

DAY	MAX	MIN	MEAN									
1	7.5	7.3	7.3	8.4	8.1	8.3	8.3	7.8	8.0	8.0	7.8	7.9
2	7.4	7.3	7.4	8.4	8.0	8.2	8.6	8.0	8.3	7.8	7.5	7.6
3	7.4	7.2	7.3	8.3	8.0	8.1	8.6	8.3	8.4	7.8	7.7	7.7
4	7.5	7.2	7.3	8.0	7.7	7.8	8.8	8.3	8.5	8.0	7.7	7.8
5	7.7	7.5	7.6	8.1	7.7	7.9	8.7	8.2	8.4	8.3	7.8	8.1
6	7.6	7.4	7.5	8.4	7.9	8.1	8.7	7.9	8.3	8.3	7.9	8.1
7	7.7	7.3	7.5	8.2	8.0	8.1	8.6	7.9	8.2	8.3	8.0	8.1
8	7.7	7.5	7.6	---	---	---	8.7	7.9	8.3	8.2	7.9	8.0
9	7.8	7.6	7.7	---	---	---	8.6	7.8	8.2	8.1	7.8	8.0
10	7.8	7.4	7.6	---	---	---	8.3	7.7	8.1	8.5	7.9	8.2
11	7.8	7.4	7.6	---	---	---	8.4	8.0	8.2	8.6	8.2	8.4
12	7.9	7.5	7.7	---	---	---	8.3	7.9	8.1	8.5	8.2	8.4
13	8.2	7.9	8.0	---	---	---	8.6	8.0	8.3	8.3	8.0	8.1
14	8.1	7.8	7.9	---	---	---	8.4	8.1	8.3	8.0	7.7	7.8
15	8.1	7.8	7.9	---	---	---	8.3	8.0	8.2	8.0	7.7	7.9
16	8.3	7.9	8.1	8.8	8.3	8.5	8.2	7.7	7.9	8.0	7.8	7.9
17	8.3	7.8	7.9	8.6	7.8	8.3	8.1	7.7	7.8	8.0	7.7	7.9
18	8.5	8.2	8.3	8.5	7.6	8.1	8.1	7.8	7.9	8.0	7.8	7.9
19	8.4	8.0	8.2	8.7	7.8	8.3	8.2	7.8	8.0	8.0	7.8	7.8
20	8.3	8.0	8.2	8.7	7.9	8.3	---	---	---	8.0	7.7	7.9
21	8.6	8.0	8.3	8.6	7.8	8.3	---	---	---	8.0	7.7	7.9
22	8.5	8.0	8.2	8.9	7.9	8.4	---	---	---	8.1	7.8	7.9
23	8.2	7.9	8.0	8.9	7.9	8.4	---	---	---	8.1	7.8	8.0
24	8.2	7.8	8.0	8.9	7.8	8.4	---	---	---	8.0	7.7	7.9
25	8.4	7.9	8.1	8.8	7.8	8.4	---	---	---	8.1	7.7	7.8
26	8.4	8.0	8.2	8.5	7.7	8.1	---	---	---	8.4	7.8	8.0
27	8.5	8.1	8.3	8.0	7.7	7.7	---	---	---	8.4	7.9	8.1
28	8.6	8.2	8.4	7.7	7.7	7.7	---	---	---	8.2	7.8	8.0
29	8.6	8.2	8.4	7.9	7.7	7.8	---	---	---	8.2	7.8	8.1
30	8.6	8.2	8.4	8.0	7.8	7.9	---	---	---	8.4	8.1	8.2
31	---	---	---	7.9	7.8	7.9	8.0	7.8	7.9	---	---	---
MONTH	8.6	7.2	7.9	8.9	7.6	8.1	8.8	7.7	8.2	8.6	7.5	8.0
YEAR	8.9	7.1	8.0									

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	19.0	17.0	18.0	14.0	12.5	13.5	6.5	6.0	6.5	2.5	1.5	2.0
2	20.0	17.5	18.5	14.0	12.5	13.5	7.0	6.0	6.5	3.0	2.0	2.0
3	21.0	18.5	20.0	15.0	13.5	14.0	6.5	5.0	5.5	2.0	.5	1.0
4	22.0	20.0	21.0	14.5	14.0	14.5	5.5	4.0	4.5	2.0	1.5	1.5
5	22.0	20.5	21.5	14.0	12.5	13.5	5.0	4.0	4.5	3.0	2.0	2.5
6	21.5	19.0	20.5	13.0	11.5	12.5	4.0	3.0	3.5	4.0	2.5	3.0
7	19.0	16.0	17.5	14.5	12.5	13.5	3.5	3.0	3.0	4.5	3.5	4.0
8	16.0	13.5	14.5	15.0	14.0	14.5	4.0	3.5	3.5	4.0	3.5	4.0
9	13.5	12.5	13.0	16.5	15.0	15.5	3.5	3.0	3.5	3.5	2.5	3.0
10	14.0	12.5	13.5	15.5	13.0	14.0	4.0	3.0	3.5	3.0	2.0	2.5
11	14.5	12.5	13.5	13.0	12.5	12.5	5.5	4.0	4.5	3.0	2.0	2.5
12	15.0	13.0	14.0	13.0	11.5	12.0	5.5	4.5	5.0	4.0	3.0	3.5
13	15.0	13.5	14.5	11.5	11.0	11.0	4.5	4.0	4.0	5.0	3.5	4.0
14	15.5	14.0	15.0	11.0	9.5	10.0	4.5	3.5	4.0	4.5	4.0	4.5
15	16.5	15.0	16.0	9.5	9.0	9.5	3.5	3.0	3.0	5.5	4.5	5.0
16	17.5	16.5	17.0	9.0	8.5	8.5	5.5	3.5	4.0	5.5	5.0	5.0
17	17.5	17.0	17.0	8.5	7.5	8.0	6.0	4.0	5.5	5.0	4.0	4.5
18	17.0	16.0	16.5	7.5	7.0	7.0	4.0	2.0	3.0	4.5	4.0	4.0
19	17.0	15.5	16.0	7.0	6.0	6.5	2.0	1.5	2.0	4.5	4.0	4.0
20	16.5	15.0	16.0	6.5	6.0	6.5	2.0	1.0	1.5	4.0	2.5	3.0
21	17.0	15.0	16.0	6.0	4.5	5.0	2.0	1.0	1.5	2.5	1.5	2.0
22	17.5	16.5	17.0	4.5	3.5	4.0	1.5	.5	1.0	3.0	1.5	2.0
23	18.5	16.5	17.5	4.5	3.0	3.5	.5	.5	.5	2.5	1.5	2.0
24	18.0	17.5	18.0	4.5	3.0	3.5	1.5	.5	.5	3.5	2.0	2.5
25	19.0	17.5	18.5	5.5	4.0	5.0	.5	.0	.5	3.5	2.5	3.0
26	19.5	18.0	18.5	6.5	5.5	6.0	1.0	.5	.5	3.0	2.0	2.5
27	19.5	18.0	18.5	7.5	6.5	7.0	1.0	.5	1.0	3.0	2.5	3.0
28	19.0	17.0	18.5	8.0	7.0	7.5	1.5	.5	1.0	3.0	2.0	2.5
29	17.0	15.0	16.0	7.5	7.0	7.0	1.5	.5	1.0	4.5	3.0	4.0
30	15.0	13.5	14.5	7.0	6.5	6.5	1.5	1.0	1.0	5.5	3.0	4.0
31	14.5	12.5	13.5	---	---	---	2.0	1.0	1.5	5.5	3.0	4.0
MONTH	22.0	12.5	17.0	16.5	3.0	9.5	7.0	.0	3.0	5.5	.5	3.0

SURFACE-WATER RECORDS
Scioto River Basin

03234500 SCIOTO RIVER AT HIGBY, OHIO—Continued

WATER-QUALITY RECORDS—Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	MAX	MIN	MEAN									
1	10.1	8.2	9.1	11.1	9.4	10.2	14.2	12.3	13.4	14.3	14.2	14.3
2	10.4	8.5	9.3	11.3	9.1	10.1	15.4	12.4	14.0	14.4	14.1	14.2
3	10.5	8.1	9.2	10.2	8.5	9.4	15.9	13.0	14.6	14.7	14.4	14.6
4	10.9	7.5	9.1	9.6	7.5	8.4	16.7	13.6	15.2	14.6	14.4	14.5
5	12.5	7.1	9.9	10.2	7.4	8.7	17.0	13.9	15.6	14.4	13.8	14.1
6	10.8	7.1	8.9	9.9	7.6	8.8	17.7	14.8	16.3	13.8	13.5	13.7
7	8.5	6.6	7.4	9.2	6.9	8.2	16.9	14.9	16.0	13.5	13.2	13.4
8	9.9	8.5	9.3	8.3	6.6	7.6	15.8	14.3	14.9	13.4	13.1	13.2
9	10.9	9.9	10.4	7.9	6.1	6.8	17.7	14.0	15.7	14.1	13.4	13.7
10	11.6	10.6	11.0	6.9	5.0	5.9	16.8	15.1	15.8	14.3	14.1	14.2
11	12.1	10.6	11.3	7.6	6.7	7.1	16.3	14.3	15.1	14.4	14.1	14.2
12	12.4	10.6	11.5	8.1	7.0	7.5	16.3	13.3	14.8	14.1	13.8	14.0
13	12.4	10.8	11.5	9.7	7.7	8.4	15.5	14.0	14.8	13.8	13.5	13.7
14	12.3	10.5	11.4	10.8	8.9	9.7	14.0	12.5	13.1	13.5	13.2	13.4
15	11.8	10.3	11.1	11.3	10.0	10.7	14.1	13.4	13.8	13.5	13.0	13.3
16	11.5	9.7	10.6	11.2	10.6	10.9	13.9	11.7	13.2	13.2	13.0	13.1
17	10.7	9.4	9.7	11.2	10.5	10.9	11.8	11.2	11.4	13.8	13.1	13.4
18	11.4	9.0	10.0	12.3	11.1	11.6	13.2	11.7	12.4	14.1	13.6	13.9
19	10.7	9.2	10.0	13.1	11.8	12.5	14.0	13.2	13.7	14.1	13.2	13.8
20	11.1	9.4	10.2	13.0	12.0	12.6	14.7	13.9	14.3	14.6	13.6	13.9
21	11.5	9.6	10.5	14.3	12.5	13.4	15.0	14.0	14.7	15.3	14.5	14.9
22	11.5	9.4	10.5	14.9	13.6	14.3	14.9	14.4	14.7	15.3	14.9	15.1
23	12.3	9.2	10.8	15.4	14.1	14.8	14.4	14.1	14.2	15.5	15.1	15.3
24	11.0	9.0	10.0	15.5	14.3	14.9	14.2	14.0	14.1	15.4	14.8	15.1
25	11.2	8.4	9.9	14.9	13.7	14.2	14.5	14.0	14.3	15.2	14.6	15.0
26	11.6	8.4	9.9	13.7	12.6	13.0	14.6	14.2	14.5	15.2	14.6	15.0
27	11.2	8.0	9.6	14.2	12.1	13.1	14.9	14.4	14.6	15.2	14.3	14.8
28	9.7	7.2	8.4	14.1	11.9	13.1	14.6	14.5	14.6	15.8	14.7	15.3
29	10.7	7.8	9.2	13.7	11.9	12.9	14.5	14.4	14.5	15.8	14.7	15.3
30	11.2	8.8	10.0	13.9	12.1	13.1	14.5	14.3	14.4	15.3	12.5	14.3
31	11.3	8.8	10.0	---	---	---	14.4	14.3	14.3	---	---	---
MONTH	12.5	6.6	10.0	15.5	5.0	10.8	17.7	11.2	14.4	15.8	12.5	14.2

DAY	MAX	MIN	MEAN									
1	---	---	---	12.5	11.9	12.2	17.8	12.8	15.1	---	---	---
2	---	---	---	12.3	11.7	12.0	18.8	13.2	16.1	---	---	---
3	---	---	---	12.3	11.5	11.9	19.8	13.5	16.6	---	---	---
4	---	---	---	12.2	11.2	11.5	18.8	12.6	16.4	---	---	---
5	14.3	13.9	14.1	12.1	11.7	11.9	18.5	14.5	17.2	---	---	---
6	13.9	13.3	13.6	12.4	10.9	11.9	19.7	12.9	16.2	---	---	---
7	13.5	13.2	13.3	13.1	10.4	12.2	17.6	12.4	15.1	---	---	---
8	13.3	12.6	13.0	13.0	12.3	12.7	16.2	8.1	10.0	---	---	---
9	12.6	9.9	11.5	12.5	11.5	11.8	---	---	---	---	---	---
10	12.4	10.4	12.0	11.9	10.8	11.4	---	---	---	15.4	10.2	12.1
11	12.4	11.5	12.1	11.1	9.8	10.5	---	---	---	14.8	9.1	12.0
12	11.5	10.2	10.8	10.1	8.6	9.2	---	---	---	12.5	8.9	10.7
13	10.2	6.2	8.6	9.0	7.3	8.2	---	---	---	11.2	8.3	9.5
14	---	---	---	---	---	---	---	---	---	8.7	6.7	7.5
15	12.8	12.0	12.6	---	---	---	---	---	---	7.4	6.7	7.0
16	12.0	8.9	10.1	---	---	---	---	---	---	6.9	6.3	6.5
17	---	---	---	---	---	---	---	---	---	6.4	4.1	5.2
18	---	---	---	---	---	---	11.0	9.4	10.1	5.2	3.9	4.3
19	---	---	---	---	---	---	10.8	8.5	9.8	5.9	5.2	5.5
20	13.9	11.2	12.8	13.5	12.6	13.0	10.8	6.5	9.2	6.5	5.9	6.2
21	13.6	13.2	13.4	13.0	11.3	12.2	---	---	---	7.0	6.5	6.8
22	13.6	13.4	13.5	13.4	11.3	12.2	---	---	---	7.5	6.8	7.2
23	13.8	13.6	13.7	14.0	11.6	12.7	---	---	---	8.8	7.4	7.9
24	13.7	13.2	13.5	12.9	8.4	9.8	---	---	---	8.8	6.9	8.2
25	13.2	12.2	12.7	15.9	8.6	12.6	11.3	11.0	11.2	---	---	---
26	12.2	11.8	11.9	17.3	13.1	15.1	11.5	11.0	11.2	---	---	---
27	11.9	11.4	11.7	18.0	14.0	16.0	13.0	10.5	11.4	---	---	---
28	12.3	11.6	11.9	19.0	14.5	16.5	---	---	---	---	---	---
29	---	---	---	18.1	14.0	15.9	---	---	---	---	---	---
30	---	---	---	19.6	13.6	16.3	---	---	---	---	---	---
31	---	---	---	17.8	13.2	15.5	---	---	---	---	---	---
MONTH	14.3	6.2	12.3	19.6	7.3	12.6	19.8	6.5	13.3	15.4	3.9	7.8

SURFACE-WATER RECORDS
Scioto River Basin

RESERVOIRS IN SCIOTO RIVER BASIN

03220500 O'SHAUGHNESSY RESERVOIR NEAR DUBLIN, OHIO

LOCATION.—Latitude 40°09'14", longitude 83°07'33", Delaware County, Hydrologic Unit 0506001, in gate house of dam on Scioto River, 4.0 mi north of Dublin, Ohio.

DRAINAGE AREA.—979 mi².

PERIOD OF RECORD.—October 1924 to current year.

GAGE.—Water-stage recorder. Monthend contents only for some periods published in WSP 1305. Datum of gage is sea level (levels by City of Columbus). Prior to Dec. 2, 1940, nonrecording gage at same site and datum.

REMARKS.—Reservoir is formed by concrete dam; dam completed and storage begun in 1924. Usable capacity, 14,500 acre-ft, between elevations 789.5 ft (sill of outlet gate) and 845 ft (crest of spillway), based on survey made in 1942. Flashboards installed May 8, 1945, additional capacity, 2,480 acre-ft, between elevations 845 ft (crest of spillway) and 847.9 ft (crest of flashboards). Dead storage below elevation 789.5 ft, 55 acre-ft. Figures given herein represent usable contents. Water used for municipal supply of City of Columbus and recreational purposes. Reservoir also used for power generation since July 1987. Capacity table computed from data furnished by City of Columbus.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 24,240 acre-ft Jan. 22, 1959, elevation, 854.40 ft; minimum contents, 43 acre-ft Feb. 11, 1945, elevation, 791.97 ft.

03221500 GRIGGS RESERVOIR NEAR COLUMBUS, OHIO

LOCATION.—Latitude 40°00'54", longitude 83°05'38", Franklin County, Hydrologic Unit 0506001, on left abutment of dam on Scioto River, 6.2 mi northwest of State Capitol building in Columbus, Ohio, and 6.5 mi upstream from Olentangy River.

DRAINAGE AREA.—1,044 mi².

PERIOD OF RECORD.—January 1921 to current year.

GAGE.—Water-stage recorder. Monthend contents only for some periods, published in WSP 1305. Daily readings have been obtained by City of Columbus, Division of Water, since 1908. Datum of gage is 680.38 ft above sea level (levels by City of Columbus). Prior to Oct. 4, 1940, nonrecording gage at same site and datum.

REMARKS.—Reservoir formed by concrete dam; dam completed and storage begun in 1905. Usable capacity, 3,700 acre-ft between elevations 735.4 ft (lowest outlets) and 753.4 ft (crest of spillway), based on survey made in 1935. Flashboards installed July 28, 1945, additional capacity, 750 acre-ft, between elevations 753.4 ft (crest of spillway) and 755.6 ft (crest of flashboards). Dead storage below elevation 735.4 ft, 239 acre-ft. Figures given herein represent usable contents. Water is used for municipal supply of City of Columbus and recreational purposes. Capacity table computed from data furnished by City of Columbus.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 7,490 acre-ft Jan. 22, 1959, elevation, 763.91 ft; minimum, 38 acre-ft Jan. 24, 1945, elevation, 735.78 ft.

EXTREMES FOR CURRENT YEAR.—Maximum contents, 5,540 acre-ft May 18, elevation 758.97 ft; minimum contents, 4,538 acre-ft Sept. 30, elevation 755.87.

03228400 HOOVER RESERVOIR AT CENTRAL COLLEGE

LOCATION.—Latitude 40°06'30", longitude 82°52'59", in T.2 N., R.17 W., Franklin County, Hydrologic Unit 0506001, in gate house of dam on Big Walnut Creek, 0.5 mi northeast of Central College, and 12 mi northeast of Columbus, Ohio.

DRAINAGE AREA.—190 mi².

PERIOD OF RECORD.—March 1955 to current year.

REVISED RECORDS.—WRD OH-78-1: 1975 (M).

GAGE.—Water-stage recorder. Datum of gage is sea level. Prior to Sept. 10, 1956, nonrecording gage at same site and datum.

REMARKS.—Reservoir formed by earthfill dam with concrete spillway; dam completed in 1954 and storage begun in March 1955. Usable capacity, 60,130 acre-ft between elevations 830.0 ft (lowest outlet) and 890.0 ft (crest of spillway). Additional flood-control storage above elevation 890.0 ft by bascule gates installed in May 1970, 25,750 acre-ft. Dead storage below elevation 830.0 ft, 214 acre-ft. Figures given herein represent usable contents. Reservoir is used for municipal supply of City of Columbus and for recreational purposes. Outflow is controlled mostly by operation of valves in tunnel through dam, but above spillway level bascule gates can be used. Capacity table computed from data furnished by City of Columbus.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 87,480 acre-ft, June 2, 1997, elevation, 898.45 ft; minimum, 19,010 acre-ft Mar. 1, 1964, elevation, 868.58 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents, 76,515 acre-ft June 6, elevation, 895.35 ft.

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

Date	O'Shaughnessy Reservoir			Griggs Reservoir			Hoover Reservoir		
	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	848.71	17770		756.40	4720		885.04	47199	
Oct. 31	848.65	17760	-10	756.22	4805	+85	885.01	47123	-76
Nov. 30	848.78	17890	+130	756.43	4729	-76	886.01	49642	+2519
Dec. 31	848.81	18110	+220	756.54	4769	+40	891.93	65470	+15828
CALENDAR YEAR 2000			+1510			+242			+29573
Jan. 31	849.48	18610	+500	757.38	5071	+302	891.55	64404	-1066
Feb. 28	848.81	18110	-500	756.60	4790	-281	893.40	69948	+5544
Mar. 31	848.79	17900	-210	756.55	4772	-81	892.74	67879	-2069
Apr. 30	848.76	17870	-30	756.57	4779	+7	893.58	70529	+2650
May 31	849.03	18140	+270	758.65	5541	+762	894.03	71988	+1459
June 30	848.15	18110	-30	756.45	4736	-805	892.35	66712	-5276
July 31	848.64	17750	-360	756.13	4626	-110	889.33	58327	-8385
Aug. 31	848.41	17530	-220	756.46	4740	+114	887.14	52549	-5778
Sept. 30	848.18	17300	-230	755.87	4538	-202	885.41	48130	-4419
WATER YEAR 2001			-470			-182			+931

SURFACE-WATER RECORDS
Ohio Brush Creek Basin

03237500 OHIO BRUSH CREEK NEAR WEST UNION, OHIO

LOCATION.—Latitude 38°48'13", longitude 83°25'16", Adams County, Hydrologic Unit 05090201, on right bank at downstream side of bridge on State Highway 348, 0.3 mi downstream from Cedar Run, 7.0 mi east of West Union, Ohio, and 7.1 mi upstream from Beasley Fork.
 DRAINAGE AREA.—387 mi².
 PERIOD OF RECORD.—August 1926 to November 1935, September 1940 to current year.
 REVISED RECORDS.—WSP 1908: Drainage area.
 GAGE.—Water-stage recorder. Datum of gage is 510.6 ft above sea level. Prior to Nov. 22, 1940, nonrecording gage at same site and datum.
 REMARKS.—Records poor. Water-quality and sediment data formerly collected at this site.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	152	27	55	e70	887	177	169	46	115	43	110	690
2	106	26	51	e66	554	160	180	44	169	40	78	311
3	83	25	48	e64	380	150	175	42	679	38	245	141
4	68	24	46	e62	323	404	167	41	338	46	269	86
5	57	23	43	e62	285	2230	151	39	849	52	143	66
6	183	22	41	e60	266	812	212	37	825	67	81	53
7	299	22	40	e58	246	525	690	36	1720	47	57	44
8	148	23	38	e58	215	423	326	40	701	37	44	35
9	100	39	38	e56	204	355	221	37	388	31	36	28
10	76	414	37	e54	1200	295	194	36	256	27	36	23
11	62	309	36	e54	625	255	227	34	178	24	35	19
12	55	163	36	e52	396	230	193	36	134	20	66	16
13	48	111	37	e52	321	311	148	33	1250	17	56	15
14	42	87	410	e50	285	464	117	31	458	13	43	12
15	38	73	507	e52	938	320	106	30	670	11	34	11
16	35	62	5740	e64	1420	304	110	190	360	8.8	27	9.6
17	35	53	11300	e82	1840	588	112	430	196	8.0	23	8.1
18	60	46	1190	e70	771	431	99	1940	130	5080	20	6.5
19	120	42	603	e88	532	314	90	2960	100	550	18	6.1
20	96	38	e250	e300	427	273	88	959	81	208	18	5.2
21	69	35	e210	e230	355	1450	97	428	88	111	28	4.4
22	60	32	e180	e180	295	1160	106	1240	804	1430	42	4.0
23	67	29	e140	e140	261	683	90	1080	320	698	33	3.5
24	51	26	e130	e110	234	509	77	542	167	248	26	6.1
25	43	28	e120	e96	277	404	69	633	113	132	22	7.8
26	39	38	e110	e82	399	323	62	421	86	601	24	6.9
27	37	82	e96	e72	275	272	58	293	69	544	149	5.6
28	36	93	e88	e66	209	233	56	276	58	472	181	5.1
29	34	76	e84	e60	---	201	53	239	50	515	88	4.3
30	31	63	e76	e1800	---	190	50	161	44	361	72	3.3
31	29	---	e72	1500	---	177	---	120	---	179	55	---
TOTAL	2359	2131	21852	5810	14420	14623	4493	12474	11396	11658.8	2159	1636.5
MEAN	76.1	71.0	705	187	515	472	150	402	380	376	69.6	54.5
MAX	299	414	11300	1800	1840	2230	690	2960	1720	5080	269	690
MIN	29	22	36	50	204	150	50	30	44	8.0	18	3.3
CFSM	.20	.18	1.82	.48	1.33	1.22	.39	1.04	.98	.97	.18	.14
IN.	.23	.20	2.10	.56	1.39	1.41	.43	1.20	1.10	1.12	.21	.16

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1927 - 2001, BY WATER YEAR (WY)

MEAN	88.2	250	529	746	844	1010	740	540	267	185	146	129
MAX	651	1447	2252	2637	2242	3909	2030	2230	1424	1222	1000	2053
(WY)	1976	1986	1991	1950	2000	1964	1948	1996	1998	1932	1935	1979
MIN	.13	.28	2.28	12.1	24.9	96.5	106	27.5	3.18	1.46	1.04	.43
(WY)	1954	1954	1954	1977	1954	1941	1971	1930	1988	1988	1988	1953

SUMMARY STATISTICS FOR 2000 CALENDAR YEAR FOR 2001 WATER YEAR WATER YEARS 1927 - 2001

ANNUAL TOTAL	165446.1	105012.3	
ANNUAL MEAN	452	288	454
HIGHEST ANNUAL MEAN			951
LOWEST ANNUAL MEAN			158
HIGHEST DAILY MEAN	26500	Feb 19	11300
LOWEST DAILY MEAN	2.8	Jan 1	3.3
ANNUAL SEVEN-DAY MINIMUM	9.2	Jun 10	5.1
MAXIMUM PEAK FLOW			24100
MAXIMUM PEAK STAGE			18.80
INSTANTANEOUS LOW FLOW			2.9
ANNUAL RUNOFF (CFSM)	1.17	.74	1.17
ANNUAL RUNOFF (INCHES)	15.90	10.09	15.95
10 PERCENT EXCEEDS	746	612	996
50 PERCENT EXCEEDS	76	88	107
90 PERCENT EXCEEDS	24	24	5.2

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

SURFACE-WATER RECORDS
Little Miami River Basin

03247500 EAST FORK LITTLE MIAMI RIVER AT PERINTOWN, OHIO

LOCATION.—Latitude 39°08'13", longitude 84°14'17", Clermont County, Hydrologic Unit 05090202, on right bank at upstream wingwall of highway bridge at Perintown, Ohio, 0.2 mi downstream from Sugarcamp Run, 5 mi upstream from mouth, and at mile 6.4.

DRAINAGE AREA.—476 mi².

PERIOD OF RECORD.—May 1915 to September 1917, October 1917 to May 1920 (gage heights only), January 1925 to current year.

GAGE.—Water-stage recorder and crest gage. Datum of gage is 507.03 ft above sea level. Prior to Feb. 6, 1940, nonrecording gage at same site and datum.

REMARKS.—Records fair except for periods of estimated record, which are poor. Occasional regulation by Stonelick Lake 14 mi upstream. Surface area at spillway level, 171 acres. Flow regulated by William H. Harsha Reservoir, formerly East Fork Lake, since 1977. Water-quality data formerly collected at this site. U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 42,400 ft³/s Mar. 10, 1964, gage height, 23.84 ft; minimum daily, 0.4 ft³/s July 24, 1930, Sept. 11, 12, 23, 1939; minimum gage height, -0.18 ft Oct. 3-7, 1917. Maximum discharge since start of construction of East Fork Dam, 23,200 ft³/s Aug. 30, 1974, gage height, 19.52 ft, result of failure of cofferdam.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	709	55	183	e100	3200	195	91	62	271	60	286	2170
2	990	54	82	e76	2800	191	93	61	249	77	203	3260
3	1550	34	76	e74	1840	184	85	59	278	61	177	2890
4	1540	31	35	e72	535	662	79	59	522	98	147	1040
5	1640	30	33	e70	241	1240	73	58	826	110	99	734
6	604	30	32	e70	322	1850	74	56	1980	67	69	614
7	503	36	33	e68	330	2040	271	57	3660	60	64	168
8	461	35	33	e66	347	1240	145	158	3430	152	62	123
9	447	63	32	e65	200	285	103	91	1930	358	62	112
10	223	278	34	e64	1030	396	138	72	557	84	63	112
11	206	331	42	e64	785	340	275	66	191	69	96	84
12	182	402	181	e64	682	158	235	118	124	62	1110	79
13	48	305	78	e62	646	395	123	102	137	59	1580	77
14	45	159	221	e62	660	496	98	74	115	52	1380	72
15	76	149	330	e62	1080	627	119	66	119	50	257	70
16	76	94	4650	e61	1300	471	116	65	195	50	115	69
17	80	71	2770	e60	1430	332	95	219	308	66	95	68
18	66	53	2590	e96	1080	275	93	811	262	6750	72	60
19	59	51	3990	e110	1010	199	82	1410	159	1570	2910	60
20	58	50	3900	e130	989	191	111	547	128	3280	1670	69
21	57	40	3840	e250	846	197	156	392	168	3240	1280	104
22	57	37	3550	e200	447	297	111	1160	178	3210	213	104
23	57	45	2900	e130	251	339	95	1540	160	3170	169	102
24	58	48	2110	e120	171	304	153	1750	81	2470	169	91
25	43	70	622	e110	297	174	145	1400	74	965	109	78
26	36	136	525	e98	327	136	103	1460	70	2590	854	81
27	66	140	319	e94	434	134	77	1190	69	2530	1330	55
28	73	182	e140	e88	359	130	71	1070	68	2100	1590	51
29	73	205	e130	e86	---	128	68	931	73	373	1390	48
30	61	202	e120	1680	---	126	64	326	61	338	1000	46
31	55	---	e110	2360	---	78	---	262	---	298	3080	---
TOTAL	10199	3416	33691	6712	23639	13810	3542	15692	16443	34419	21701	12691
MEAN	329	114	1087	217	844	445	118	506	548	1110	700	423
MAX	1640	402	4650	2360	3200	2040	275	1750	3660	6750	3080	3260
MIN	36	30	32	60	171	78	64	56	61	50	62	46

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 2001, BY WATER YEAR (WY)

MEAN	241	367	688	771	1027	1077	895	886	534	287	201	227
MAX	980	1446	2108	1637	2162	2432	1789	3657	2165	1110	1220	1869
(WY)	1984	1986	1991	1991	1990	1997	1998	1996	1997	2001	1979	1979
MIN	18.5	48.0	54.1	15.3	168	138	73.5	48.4	35.6	32.4	38.6	30.1
(WY)	1983	2000	1977	1977	1987	1983	1986	1988	1988	1984	1987	1983

SUMMARY STATISTICS

FOR 2000 CALENDAR YEAR

FOR 2001 WATER YEAR

WATER YEARS 1977 - 2001

ANNUAL TOTAL	222631	195955		
ANNUAL MEAN	608	537		598
HIGHEST ANNUAL MEAN				1058
LOWEST ANNUAL MEAN				266
HIGHEST DAILY MEAN	6650	Feb 18	6750	Jul 18
LOWEST DAILY MEAN	30	Nov 5	30	Nov 5
ANNUAL SEVEN-DAY MINIMUM	33	Dec 4	33	Dec 4
MAXIMUM PEAK FLOW			16000	Jul 18
MAXIMUM PEAK STAGE			16.46	Jul 18
INSTANTANEOUS LOW FLOW			30	Nov 5
10 PERCENT EXCEEDS	2230		1650	
50 PERCENT EXCEEDS	134		136	
90 PERCENT EXCEEDS	40		57	

e Estimated.

SURFACE-WATER RECORDS

Mill Creek Basin

03259000 MILL CREEK AT CARTHAGE, OHIO

LOCATION.—Latitude 39°12'07", longitude 84°28'16", in SW 1/4 sec. 1, R.1, T.3, Hamilton County, Hydrologic Unit 05090203, on right bank at Anthony Wayne Avenue Bridge in Carthage, Ohio, 1.0 mi downstream from West Fork Mill Creek, and 11.0 mi upstream from mouth.

DRAINAGE AREA.—115 mi².

PERIOD OF RECORD.—November 1946 to current year.

REVISED RECORDS.—WDR-OH-95-1: 1993 (M). WSP 1908: Drainage area.

GAGE.—Water-stage recorder and crest gage. Datum of gage is 507.00 ft above Ohio River datum. Prior to Oct. 1, 1954, at same site at datum 512.00 ft above Ohio River Datum. Oct. 1, 1954, to Sept. 30, 1977, at site 100 ft downstream at datum 512.00 ft above Ohio River Datum. Oct. 1, 1977, to Oct. 16, 1984, at site 100 ft upstream at present datum.

REMARKS.—Records fair except for periods of estimated record, which are poor. Some interbasin transfers of water between Mill Creek and Great Miami River basins by industrial and municipal operations. Flow regulated by West Fork Mill Creek Reservoir, 6.9 mi upstream, beginning 1953. Water-quality data formerly collected at this site. Because of interbasin transfers and regulation, statistics are not published.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 9,030 ft³/s Sept. 14, 1979, gage height, 21.82 ft present datum, from rating curve extended above 4,000 ft³/s on basis of slope-area measurement of peak flow; no flow many days in 1947-48.

EXTREMES FOR CURRENT YEAR.—Maximum discharge, 7,940 ft³/s July 18, gage height, 20.81 ft; minimum daily, 14.0 ft³/s Jan. 3-5.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	22	28	e15	176	58	22	19	185	79	41	211
2	27	25	27	e15	93	52	53	19	186	69	38	130
3	26	35	22	e14	74	49	34	20	99	44	112	41
4	37	22	23	e14	68	46	27	19	117	113	62	36
5	766	21	25	e14	62	150	20	20	115	228	36	38
6	244	29	24	e15	51	94	18	16	1250	67	34	63
7	98	104	23	e17	47	74	169	15	1210	70	32	44
8	51	54	22	e18	45	51	188	67	414	462	30	71
9	37	262	21	e16	139	48	120	262	142	341	29	95
10	31	309	20	e16	194	46	72	72	82	103	126	264
11	31	126	287	e16	88	36	129	50	51	54	135	98
12	34	50	330	e15	78	36	813	75	55	28	191	71
13	32	43	141	e15	66	40	324	210	121	22	75	36
14	28	42	209	e15	76	70	194	82	127	20	40	35
15	25	32	104	e15	143	45	150	69	185	18	34	28
16	25	29	1310	e15	170	38	186	70	110	16	30	25
17	270	27	647	e15	134	94	98	131	53	23	30	27
18	129	23	393	e20	95	117	77	624	42	4100	78	37
19	90	22	161	e56	80	74	71	911	30	858	527	123
20	60	23	84	e38	71	51	43	500	47	634	135	115
21	31	22	e42	e28	49	47	91	247	326	311	47	74
22	27	22	e34	e24	48	38	48	99	304	209	72	31
23	29	20	e26	e22	52	33	32	e164	180	111	69	27
24	33	18	e22	e21	46	29	29	e315	55	170	40	179
25	32	167	e19	e20	327	29	29	175	42	122	39	86
26	31	117	e18	e19	116	26	24	209	36	110	60	68
27	27	74	e17	e19	78	25	22	312	e36	61	87	32
28	25	36	e16	e19	69	23	22	132	37	88	42	24
29	23	29	e16	e19	---	23	19	74	43	95	47	21
30	24	28	e15	e200	---	22	17	64	51	56	51	19
31	26	---	e15	569	---	23	---	53	---	48	455	---
TOTAL	2377	1833	4141	1334	2735	1587	3141	5095	5731	8730	2824	2149
MEAN	76.7	61.1	134	43.0	97.7	51.2	105	164	191	282	91.1	71.6
MAX	766	309	1310	569	327	150	813	911	1250	4100	527	264
MIN	23	18	15	14	45	22	17	15	30	16	29	19
CAL YR 2000	TOTAL 51370	MEAN 140	MAX 2340	MIN 15								
WTR YR 2001	TOTAL 41677	MEAN 114	MAX 4100	MIN 14								

e Estimated.

SURFACE-WATER RECORDS
Great Miami River Basin

03261950 LORAMIE CREEK NEAR NEWPORT, OHIO

LOCATION.—Latitude 40°18'25", longitude 84°23'02", in SE 1/4 sec, 24, T.11 N., R.4 E., Shelby County, Hydrologic Unit 05080001, right bank at downstream side of bridge on Cardo Roman Road, 1.1 mi northwest of Newport, Ohio, 3 mi south of Fort Loramie, Ohio, 3 mi downstream from Mile Creek, and at mile 16.5.

DRAINAGE AREA.—152 mi².

PERIOD OF RECORD.—October 1964 to current year.

REVISED RECORDS.—WRD Ohio 1971: 1966(M). WDR Ohio 1985-1: 1984(M).

GAGE.—Water-stage recorder. Datum of gage is 926.57 ft above sea level. October 1, 1964, to September 30, 1980, water-stage recorder at same site at datum 0.43 ft higher.

REMARKS.—Records fair except for estimated record, which is poor. Some regulation by Lake Loramie 5 mi upstream, capacity, 13,000 acre-ft. Sediment data formerly collected at this site.

COOPERATION.—Gage-height record and 8 discharge measurements furnished by Miami Conservancy District.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood of Mar. 25, 1913, reached a stage of 17.0 ft and flood of Jan. 21, 1959, a stage of 14.2 ft, from flood profile furnished by Miami Conservancy District.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	2.6	13	e11	357	104	22	15	97	5.7	61	31
2	7.3	2.4	17	e10	196	90	20	16	78	3.9	30	19
3	6.1	3.1	11	e10	112	22	16	14	64	3.7	27	8.4
4	5.9	3.3	7.7	e9.8	84	15	14	12	52	6.2	33	5.0
5	47	3.2	e6.9	e9.3	66	13	13	11	48	47	20	4.0
6	224	3.0	e6.7	e9.0	74	8.8	15	10	72	25	11	3.2
7	141	5.2	e6.4	e8.8	92	11	15	13	149	14	6.4	2.6
8	76	6.6	e6.1	e8.3	110	9.6	15	48	87	24	4.2	3.8
9	45	12	e6.0	e8.1	266	49	15	43	60	21	3.0	19
10	27	90	e6.0	e7.9	957	49	63	30	46	14	3.2	259
11	18	140	e6.0	e7.7	510	16	546	26	37	8.9	3.2	180
12	13	85	415	e7.5	236	7.1	584	35	38	5.6	3.4	80
13	8.9	57	269	e7.3	155	13	286	23	47	3.9	2.8	43
14	6.5	45	147	e7.1	375	14	147	15	40	3.4	3.2	27
15	6.9	40	84	e30	958	9.8	172	25	31	2.4	3.4	13
16	8.6	35	242	e120	557	18	386	164	29	1.8	3.5	6.6
17	10	24	941	e82	294	58	285	447	23	11	3.3	4.2
18	11	22	533	e62	163	86	194	662	15	14	2.8	3.9
19	15	18	231	e50	130	90	146	1170	11	4.5	20	68
20	11	12	119	e40	113	85	167	677	9.9	3.1	13	224
21	9.8	7.8	80	e30	30	74	276	278	9.7	2.9	6.6	86
22	7.3	12	e41	e24	21	70	206	153	15	15	6.5	87
23	5.7	12	e31	e20	22	67	139	96	13	8.8	25	54
24	5.8	10	e25	e17	15	65	111	93	9.7	6.0	38	72
25	7.5	9.6	e22	e14	32	55	99	312	7.8	53	28	98
26	7.5	13	e20	e12	84	13	86	686	6.3	133	116	62
27	7.4	15	e18	e12	114	10	28	1480	5.1	56	70	45
28	11	13	e16	e10	105	8.7	19	1240	4.6	22	30	30
29	9.5	15	e14	e10	---	9.5	14	499	4.8	226	15	21
30	3.8	13	e13	e100	---	10	14	237	5.6	369	8.2	14
31	2.6	---	e12	701	---	14	---	139	---	166	9.6	---
TOTAL	777.1	729.8	3365.8	1455.8	6228	1164.5	4113	8669	1115.5	1280.8	610.3	1573.7
MEAN	25.1	24.3	109	47.0	222	37.6	137	280	37.2	41.3	19.7	52.5
MAX	224	140	941	701	958	104	584	1480	149	369	116	259
MIN	2.6	2.4	6.0	7.1	15	7.1	13	10	4.6	1.8	2.8	2.6

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2001, BY WATER YEAR (WY)

MEAN	33.2	104	175	170	216	265	234	132	120	106	45.0	23.9
MAX	360	656	802	560	613	826	700	437	561	830	322	186
(WY)	1987	1973	1991	1996	1975	1978	1972	1996	1981	1992	1995	1972
MIN	.75	1.32	1.63	.63	14.1	37.6	23.1	7.14	1.47	.51	.22	.53
(WY)	1965	1981	1977	1977	1978	2001	1971	1988	1988	1965	1965	1966

SUMMARY STATISTICS FOR 2000 CALENDAR YEAR FOR 2001 WATER YEAR WATER YEARS 1965 - 2001

ANNUAL TOTAL	29321.9	31083.3	
ANNUAL MEAN	80.1	85.2	135
HIGHEST ANNUAL MEAN			249
LOWEST ANNUAL MEAN			39.6
HIGHEST DAILY MEAN	1420	Apr 8	5100
LOWEST DAILY MEAN	1.7	Jan 2	.10
ANNUAL SEVEN-DAY MINIMUM	2.8	Jan 23	.13
MAXIMUM PEAK FLOW			6500
MAXIMUM PEAK STAGE			10.31
INSTANTANEOUS LOW FLOW			1.5
10 PERCENT EXCEEDS	211	225	346
50 PERCENT EXCEEDS	22	19	22
90 PERCENT EXCEEDS	3.4	4.9	1.7

e Estimated.

SURFACE-WATER RECORDS
Great Miami River Basin

03262000 LORAMIE CREEK AT LOCKINGTON, OHIO

LOCATION.—Latitude 40°12'35", longitude 84°14'32", in NE 1/4 sec. 30, T.7 N., R.6 E., Shelby County, Hydrologic Unit 05080001, on left bank at downstream side of county road bridge, 1,300 ft downstream from Lockington Dam, 0.5 mi northwest of Lockington, Ohio, and at mile 1.9.

DRAINAGE AREA.—257 mi².

PERIOD OF RECORD.—October 1915 to current year.

REVISED RECORDS.—WSP 923: 1916. WSP 1908: Drainage area.

GAGE.—Water-stage recorder and concrete control. Datum of gage is 800.03 ft above sea level. Prior to July 3, 1924, nonrecording gage at same site at datum 75.96 ft higher. July 3, 1924, to Aug. 17, 1926, nonrecording gage, and Aug. 18 to Sept. 30, 1926, water-stage recorder, at same site at datum 74.96 ft higher.

REMARKS.—Records good except for periods of estimated record, which are poor. Slight regulation by Lake Loramie 18 mi upstream, capacity, 13,000 acre-ft. Flood flow regulated by Lockington retarding basin beginning in 1921.

COOPERATION.—Gage-height record and 8 discharge measurements furnished by Miami Conservancy District.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 10,400 ft³/s May 7, 1916, gage height, 86.4 ft, present datum, from rating curve extended above 5,400 ft³/s.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood of March 25, 1913, reached a stage of 91.6 ft, present datum; discharge, 25,600 ft³/s, at site upstream from Turtle Creek, drainage area, 211 mi², computed by Miami Conservancy District.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	15	25	e21	740	135	38	34	161	18	112	19
2	22	14	25	e19	384	137	45	38	130	21	61	34
3	19	14	e23	e18	e160	81	37	33	106	21	76	20
4	15	14	e20	e17	e120	45	33	28	92	17	74	13
5	289	14	e18	e16	110	41	30	26	94	42	50	16
6	556	14	e17	e16	89	36	30	20	106	56	37	21
7	285	15	e16	e15	124	33	34	20	214	38	29	11
8	141	15	e15	e14	153	33	32	40	147	36	20	13
9	85	30	e15	e14	561	42	30	57	104	39	18	27
10	59	209	e14	e13	1860	65	50	40	79	33	17	669
11	51	245	92	e13	966	55	1400	33	69	26	15	285
12	37	152	1180	e12	419	32	1230	58	64	21	28	144
13	22	97	615	e12	250	35	513	43	62	19	23	78
14	18	85	e280	e12	837	44	230	30	57	16	16	55
15	15	66	e200	e80	1810	38	264	39	59	16	14	38
16	21	57	848	e200	1080	61	797	132	50	16	11	22
17	30	46	1960	e130	591	142	537	453	43	20	6.8	18
18	30	37	1050	e110	284	129	367	865	36	55	6.8	15
19	30	33	e320	e85	210	140	258	1610	30	31	46	26
20	31	30	e190	e64	187	123	311	869	29	18	40	274
21	29	25	e105	e43	112	109	498	333	35	16	33	135
22	27	21	e78	e36	66	99	362	166	43	16	29	98
23	22	23	e64	e32	64	92	243	108	38	24	70	79
24	18	24	e45	e28	57	86	175	95	34	19	73	323
25	15	23	e38	e25	71	81	143	329	26	60	59	202
26	14	24	e34	e23	104	57	132	1130	23	207	93	125
27	25	28	e31	e21	156	33	80	2410	21	113	120	83
28	24	28	e28	e19	139	31	44	1570	21	52	60	59
29	25	26	e26	e18	---	30	37	735	19	602	34	38
30	23	26	e24	e300	---	30	31	342	18	515	20	29
31	17	---	e22	1420	---	30	---	216	---	254	15	---
TOTAL	2022	1450	7418	2846	11704	2125	8011	11902	2010	2437	1306.6	2969
MEAN	65.2	48.3	239	91.8	418	68.5	267	384	67.0	78.6	42.1	99.0
MAX	556	245	1960	1420	1860	142	1400	2410	214	602	120	669
MIN	14	14	14	12	57	30	30	20	18	16	6.8	11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 2001, BY WATER YEAR (WY)

MEAN	47.9	123	224	331	348	446	386	209	186	126	65.7	48.1
MAX	540	1025	1203	1728	1119	1235	1301	1017	1754	1088	682	1092
(WY)	1987	1973	1991	1937	1950	1978	1922	1933	1958	1992	1995	1926
MIN	2.92	4.64	4.59	4.35	9.19	21.4	43.0	11.9	9.23	5.35	3.37	2.46
(WY)	1964	1964	1964	1977	1964	1941	1971	1941	1988	1936	1936	1983

SUMMARY STATISTICS

FOR 2000 CALENDAR YEAR

FOR 2001 WATER YEAR

WATER YEARS 1921 - 2001

ANNUAL TOTAL	52897.3	56200.6	
ANNUAL MEAN	145	154	211
HIGHEST ANNUAL MEAN			413
LOWEST ANNUAL MEAN			53.0
HIGHEST DAILY MEAN	2550	Apr 8	6400
LOWEST DAILY MEAN	5.8	Jan 29	.51
ANNUAL SEVEN-DAY MINIMUM	6.1	Jan 24	1.6
MAXIMUM PEAK FLOW			6590
MAXIMUM PEAK STAGE			81.55
INSTANTANEOUS LOW FLOW			6.8
10 PERCENT EXCEEDS	337	350	535
50 PERCENT EXCEEDS	46	39	42
90 PERCENT EXCEEDS	13	16	7.2

e Estimated.

SURFACE-WATER RECORDS
Great Miami River Basin

03262700 GREAT MIAMI RIVER AT TROY, OHIO

LOCATION.—Latitude 40°02'25", longitude 84°11'52", Miami County, Hydrologic Unit 05080001, 400 ft downstream from B & O Railroad bridge, 1,300 ft downstream from bridge on State Highway 55 at Troy, Ohio, 1.2 mi upstream from small left bank tributary, 2.3 mi downstream from Spring Creek, and at mile 105.

DRAINAGE AREA.—926 mi².

PERIOD OF RECORD.—Occasional low-flow measurements, water years 1961, 1962 (published as Miami River at Troy). October 1962 to current year.

GAGE.—Water-stage recorder. Datum of gage is 810.67 ft above sea level.

REMARKS.—Records fair except for periods of estimated record, which are poor. Flood flow regulated by retarding basin on Loramic Creek, 18 mi upstream. Low and medium flow slightly regulated by Indian Lake; capacity, 45,900 acre-ft, 54 mi upstream. Water supply for city of Troy is pumped from wells adjacent to the Great Miami River upstream from the station. The pumpage averaged 8.29 ft³/s in 2001 and is returned as sewage 1 mi downstream from the station. Water-quality and sediment data formerly collected at this site.

COOPERATION.—Gage-height record and 8 discharge measurements furnished by Miami Conservancy District.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood of June 11, 1958, reached a stage of 16.4 ft; discharge, 21,000 ft³/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	298	172	233	e210	e1800	562	310	317	1060	221	361	209
2	267	156	223	e205	e1150	490	301	314	786	218	200	196
3	246	157	236	e200	e740	410	299	295	619	208	195	176
4	224	159	239	e190	e560	359	248	263	543	174	365	148
5	700	165	201	e185	e460	340	273	251	481	254	340	122
6	2580	163	177	e175	e420	411	239	262	475	255	216	137
7	1530	154	185	e170	e380	412	260	273	766	258	201	111
8	838	175	202	e160	e360	344	273	327	655	282	181	118
9	573	271	174	e150	e600	290	269	353	517	250	164	225
10	461	1070	180	e145	3270	304	359	313	422	201	148	2800
11	376	1230	246	e135	2590	300	2170	256	347	165	81	1750
12	316	810	2040	e130	1580	260	3580	326	365	150	241	793
13	271	570	1860	e125	1090	317	2340	356	337	150	174	446
14	248	479	1150	e120	1300	377	1620	313	371	116	189	309
15	232	419	751	e150	4150	423	1220	405	529	104	141	264
16	221	367	1290	e300	3080	455	1660	2050	390	88	136	227
17	243	333	5900	e640	2120	944	1640	3600	376	162	125	181
18	236	290	3710	e480	1420	971	1330	5800	339	191	109	182
19	234	279	2210	e400	966	774	970	8090	328	138	248	234
20	236	249	e700	e320	719	641	912	5370	314	121	218	492
21	221	229	e500	e260	598	580	2050	3240	361	106	202	441
22	205	233	e440	e240	510	544	1840	2020	550	104	181	335
23	198	217	e400	e200	448	514	1450	1410	561	159	267	303
24	193	203	e360	e180	422	441	1100	1010	471	151	353	777
25	193	205	e330	e170	472	456	841	1120	371	272	309	1100
26	181	215	e300	e155	632	426	646	2570	306	544	239	725
27	192	238	e280	e145	659	344	515	6460	263	469	308	436
28	203	251	e270	e135	625	308	425	5070	234	308	241	341
29	191	242	e250	e130	---	292	386	3210	215	934	186	290
30	245	233	e240	e400	---	288	339	2050	184	1450	155	228
31	185	---	e220	e2600	---	301	---	1470	---	706	273	---
TOTAL	12537	9934	25497	9205	33121	13878	29865	59164	13536	8909	6747	14096
MEAN	404	331	822	297	1183	448	996	1909	451	287	218	470
MAX	2580	1230	5900	2600	4150	971	3580	8090	1060	1450	365	2800
MIN	181	154	174	120	360	260	239	251	184	88	81	111

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 2001, BY WATER YEAR (WY)

MEAN	241	613	984	927	1228	1592	1507	972	786	621	343	187
MAX	2268	3824	3949	3069	3403	4005	4032	3294	2858	3458	2246	671
(WY)	1987	1973	1991	1974	1975	1963	1964	1996	1981	1993	1995	1972
MIN	24.9	49.4	49.2	34.6	58.7	308	270	140	65.9	65.2	41.0	24.1
(WY)	1964	1964	1977	1977	1964	1981	1971	1988	1988	1965	1965	1963

SUMMARY STATISTICS FOR 2000 CALENDAR YEAR FOR 2001 WATER YEAR WATER YEARS 1963 - 2001

ANNUAL TOTAL	236390	236489	
ANNUAL MEAN	646	648	831
HIGHEST ANNUAL MEAN			1662
LOWEST ANNUAL MEAN			300
HIGHEST DAILY MEAN	7450	8090	18900
LOWEST DAILY MEAN	80	81	4.3
ANNUAL SEVEN-DAY MINIMUM	82	130	19
MAXIMUM PEAK FLOW		9800	21700
MAXIMUM PEAK STAGE		10.56	16.02
INSTANTANEOUS LOW FLOW		58	4.3
10 PERCENT EXCEEDS	1560	1550	2150
50 PERCENT EXCEEDS	330	308	303
90 PERCENT EXCEEDS	120	158	72

e Estimated.

SURFACE-WATER RECORDS
Great Miami River Basin

03266000 STILLWATER RIVER AT ENGLEWOOD, OHIO

LOCATION.—Latitude 39°52'10", longitude 84°16'57", in NW 1/4 sec. 23, T.5 N., R.5 E., Montgomery County, Hydrologic Unit 05080001, on right bank 1,000 ft downstream from Englewood Dam, 1 mi southeast of Englewood, Ohio, and at mile 8.9.

DRAINAGE AREA.—650 mi².

PERIOD OF RECORD.—October 1925 to current year (monthly discharge only, October 1925, published in WSP 1305).

REVISED RECORDS.—WSP 1908: Drainage area.

GAGE.—Water-stage recorder and concrete control. Datum of gage is 699.82 ft above sea level.

REMARKS.—Records good except for periods of estimated record, which are poor. Flood flow regulated by Englewood retarding basin.

COOPERATION.—Gage-height tapes and 8 discharge measurements furnished by Miami Conservancy District.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood in March 1913 reached a discharge of 85,400 ft³/s at site 1 mi downstream, computed by Miami Conservancy District.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	87	81	94	e170	1430	338	214	232	592	183	227	1850
2	78	79	96	e160	809	324	216	230	522	261	166	870
3	70	83	92	e160	555	305	211	227	459	248	138	432
4	72	84	88	e150	459	284	196	213	389	246	132	281
5	474	81	87	e150	399	264	183	202	359	230	105	221
6	2410	76	86	e140	336	246	180	192	381	195	90	183
7	1390	86	86	e140	298	233	187	196	462	177	84	164
8	591	88	92	e135	270	229	192	222	469	182	74	173
9	343	143	87	e130	392	223	190	285	385	183	73	233
10	251	351	81	e130	2500	214	335	279	325	171	76	3690
11	207	347	112	e125	2380	207	2680	235	294	146	73	2190
12	177	240	898	e120	1050	202	4430	224	291	126	137	946
13	154	204	1240	e120	666	227	3400	227	286	112	106	505
14	139	186	552	e120	604	241	1360	211	363	104	139	330
15	122	177	329	e150	2370	229	907	198	387	94	100	253
16	113	164	624	e418	2180	245	796	219	290	88	82	220
17	124	153	3040	504	1300	388	706	345	257	89	73	198
18	122	137	2680	338	791	612	550	751	242	136	74	187
19	114	124	1110	e260	562	469	462	2330	214	175	170	187
20	108	117	598	e220	487	383	477	3290	243	190	208	1130
21	102	108	e380	e200	414	341	512	1690	256	151	185	1210
22	96	99	e330	e180	344	311	456	975	435	128	147	578
23	90	93	e290	e170	327	285	394	648	394	113	575	382
24	93	93	e260	e160	301	266	363	526	362	102	1940	774
25	88	100	e245	e150	367	249	319	672	278	101	872	1220
26	88	106	e230	e140	468	231	289	1240	238	189	428	709
27	88	106	e220	e130	443	219	276	2300	207	238	299	472
28	90	103	e200	e120	372	212	262	3310	189	169	254	351
29	87	102	e190	e110	---	209	244	1990	180	335	224	284
30	87	95	e185	e500	---	209	234	1070	171	1010	189	250
31	83	---	e180	e2300	---	209	---	720	---	433	704	---
TOTAL	8138	4006	14782	8000	22874	8604	21221	25449	9920	6305	8144	20473
MEAN	263	134	477	258	817	278	707	821	331	203	263	682
MAX	2410	351	3040	2300	2500	612	4430	3310	592	1010	1940	3690
MIN	70	76	81	110	270	202	180	192	171	88	73	164
CFSM	.40	.21	.73	.40	1.26	.43	1.09	1.26	.51	.31	.40	1.05
IN.	.47	.23	.85	.46	1.31	.49	1.21	1.46	.57	.36	.47	1.17

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1926 - 2001, BY WATER YEAR (WY)

MEAN	167	341	557	882	935	1128	1073	686	583	362	205	148
MAX	1781	2215	2495	5129	2840	3147	3015	2931	4244	1582	2438	1993
(WY)	1987	1973	1991	1937	1950	1963	1964	1933	1958	1993	1979	1926
MIN	15.6	27.3	27.9	28.6	63.0	111	180	61.1	52.2	30.0	19.7	17.9
(WY)	1964	1945	1945	1945	1964	1941	1941	1941	1934	1988	1988	1963

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR	FOR 2001 WATER YEAR	WATER YEARS 1926 - 2001
ANNUAL TOTAL	168448	157916	
ANNUAL MEAN	460	433	587
HIGHEST ANNUAL MEAN			1027
LOWEST ANNUAL MEAN			130
HIGHEST DAILY MEAN	5690	Apr 9	9980
LOWEST DAILY MEAN	48	Jan 29	4.8
ANNUAL SEVEN-DAY MINIMUM	50	Jan 24	9.7
MAXIMUM PEAK FLOW		4590	9980
MAXIMUM PEAK STAGE		76.90	80.88
INSTANTANEOUS LOW FLOW		62	3.7
ANNUAL RUNOFF (CFSM)	.71	.67	.90
ANNUAL RUNOFF (INCHES)	9.64	9.04	12.27
10 PERCENT EXCEEDS	1080	923	1400
50 PERCENT EXCEEDS	190	227	200
90 PERCENT EXCEEDS	66	90	43

e Estimated.

SURFACE-WATER RECORDS
Great Miami River Basin

03266560 MAD RIVER AT WEST LIBERTY, OHIO

LOCATION.—Latitude 40°15'08", longitude 83°44'59", Logan County, Hydrologic Unit 05080001, on left bank upstream from the State Route 245 bridge, on east side of West Liberty, Ohio, 0.4 mi east of intersection of State Route 245 and State Route 68.

DRAINAGE AREA.—36.6 mi².

PERIOD OF RECORD.—December 1993 to current year.

GAGE.—Water-stage recorder. Datum of gage is 1,078.00 ft above sea level.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	27	24	26	40	34	31	35	54	32	20	22
2	30	26	22	25	33	35	30	34	53	31	20	20
3	29	27	21	26	27	34	29	33	50	33	27	19
4	29	26	20	25	29	33	28	32	48	37	29	19
5	75	26	22	25	29	32	28	32	47	34	22	18
6	69	26	19	25	28	32	29	31	72	31	21	18
7	43	27	21	25	29	32	30	31	60	31	20	18
8	38	26	23	24	30	31	29	34	51	30	20	17
9	35	43	21	22	43	30	28	31	46	29	21	20
10	33	53	21	23	80	30	42	30	43	28	22	81
11	32	37	35	23	40	30	245	29	42	29	20	25
12	31	32	74	23	37	30	85	31	41	28	25	21
13	30	30	33	23	35	42	52	30	39	26	22	19
14	29	28	30	24	77	44	45	29	38	25	20	18
15	29	27	28	36	92	37	49	68	40	25	25	18
16	29	27	144	35	57	43	55	155	45	24	21	18
17	29	25	147	29	46	45	46	231	39	26	20	18
18	28	22	49	27	38	40	43	272	37	27	21	18
19	27	25	42	27	39	37	40	196	36	26	24	19
20	27	27	35	24	38	36	141	91	44	25	21	19
21	27	20	34	23	36	35	90	76	42	27	20	18
22	26	19	29	24	34	33	59	75	57	25	23	17
23	27	21	32	24	34	32	51	62	44	24	25	17
24	27	23	30	24	35	31	46	68	40	23	22	19
25	27	27	28	23	45	31	43	69	38	27	21	18
26	27	30	28	23	41	30	41	96	36	24	20	18
27	27	29	28	23	38	30	39	122	34	23	22	17
28	26	27	27	22	35	30	37	83	34	22	20	17
29	27	26	27	24	---	30	36	66	32	24	20	17
30	27	26	27	76	---	29	36	62	32	22	20	17
31	27	---	26	65	---	29	---	55	---	21	22	---
TOTAL	998	835	1147	868	1165	1047	1583	2289	1314	839	676	620
MEAN	32.2	27.8	37.0	28.0	41.6	33.8	52.8	73.8	43.8	27.1	21.8	20.7
MAX	75	53	147	76	92	45	245	272	72	37	29	81
MIN	26	19	19	22	27	29	28	29	32	21	20	17
CFSM	.88	.76	1.01	.77	1.14	.92	1.44	2.02	1.20	.74	.60	.56
IN.	1.01	.85	1.17	.88	1.18	1.06	1.61	2.33	1.34	.85	.69	.63

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 2001, BY WATER YEAR (WY)

	1994	1995	1996	1997	1998	1999	2000	2001
MEAN	21.8	23.0	32.5	41.4	42.8	46.9	62.2	66.4
MAX	32.2	40.9	81.2	70.8	66.6	86.6	96.5	140
(WY)	2001	1997	1997	1996	1997	1997	1996	1996
MIN	12.4	14.0	14.4	15.9	17.1	27.1	45.4	30.6
(WY)	2000	1995	2000	1995	1995	2000	1995	1999

SUMMARY STATISTICS

FOR 2000 CALENDAR YEAR

FOR 2001 WATER YEAR

WATER YEARS 1994 - 2001

ANNUAL TOTAL	12232	13381	
ANNUAL MEAN	33.4	36.7	39.5
HIGHEST ANNUAL MEAN			56.6
LOWEST ANNUAL MEAN			28.5
HIGHEST DAILY MEAN	500	272	704
LOWEST DAILY MEAN	12	17	7.2
ANNUAL SEVEN-DAY MINIMUM	14	18	7.7
MAXIMUM PEAK FLOW		715	1200
MAXIMUM PEAK STAGE		6.46	8.43
INSTANTANEOUS LOW FLOW		16	5.0
ANNUAL RUNOFF (CFSM)	.91	1.00	1.08
ANNUAL RUNOFF (INCHES)	12.43	13.60	14.67
10 PERCENT EXCEEDS	49	56	69
50 PERCENT EXCEEDS	27	29	29
90 PERCENT EXCEEDS	18	20	14

SURFACE-WATER RECORDS
Great Miami River Basin

03267900 MAD RIVER AT ST. PARIS PIKE AT EAGLE CITY, OHIO

LOCATION.—Latitude 39°57'51", longitude 83°49'54", in W 1/2 sec. 1, R.10, T.4, Clark County, Hydrologic Unit 05080001, on left bank at downstream side of bridge on St. Paris Pike, 0.8 mi southeast of Eagle City, Ohio, 1.1 mi downstream from Moore Run, 3.1 mi upstream from Buck Creek, 3.3 mi south of Tremont City, Ohio, and at mile 29.5.

DRAINAGE AREA.—310 mi².

PERIOD OF RECORD.—October 1965 to September 1996, October 1998 to current year.

GAGE.—Water-stage recorder. Datum of gage is 904.66 ft above sea level.

REMARKS.—Records good except for periods of estimated record, which are poor. Water supply for city of Springfield is pumped from wells, adjacent to Mad River, just upstream from station. Recharge to the well field is largely by induced infiltration from Mad River and Moore Run. Pumpage, averaging 20.1 ft³/s in 2001, is returned as sewage 1.4 mi upstream from gaging station near Springfield (station 03269500). Satellite telemeter at station operated for U.S. Army Corps of Engineers. Water-quality data collected at this site and published in volume 2, project data, Results from Selected Sites in the Great Miami and Little Miami River Basin.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood in Mar. 1913 reached a stage of 19.8 ft, from data furnished by Miami Conservancy District. Flood of Jan. 21, 1959 reached a stage of 15.7 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	181	144	168	e195	317	235	184	217	406	273	252	216
2	175	142	166	e190	271	231	178	210	388	288	231	186
3	168	139	163	e185	234	220	175	202	366	254	264	176
4	165	137	163	e185	229	213	170	198	351	256	311	170
5	527	136	163	e180	222	211	168	193	346	256	244	167
6	545	137	159	e180	215	206	172	188	375	234	221	164
7	322	145	161	e175	207	204	174	186	390	249	209	171
8	272	139	161	e175	211	200	169	204	345	342	199	166
9	248	237	154	e170	282	198	175	190	321	327	217	164
10	232	364	153	e170	555	192	249	183	307	258	215	744
11	215	293	186	e165	333	188	1250	181	300	237	195	330
12	205	242	533	e165	279	188	673	183	294	225	192	251
13	195	224	293	e160	260	216	388	177	306	216	188	215
14	186	212	256	e160	389	230	304	176	325	210	182	205
15	183	205	223	e180	703	213	283	293	405	202	176	188
16	180	198	1000	e230	427	243	286	1180	438	200	176	180
17	182	192	1390	e200	346	296	271	957	315	731	172	172
18	176	183	547	e190	290	259	268	1590	285	440	170	172
19	172	180	419	e185	277	239	264	1880	268	300	204	177
20	168	178	345	e180	267	225	518	848	323	257	178	179
21	164	174	315	e170	253	217	542	622	307	238	171	168
22	160	166	e270	e170	244	208	349	554	543	336	178	162
23	156	167	e250	e165	239	200	294	476	396	248	199	156
24	156	164	e240	e165	226	197	272	475	345	222	185	174
25	155	171	e230	e165	285	190	266	586	306	236	176	172
26	153	175	e220	e160	289	186	260	738	284	278	176	166
27	151	175	e215	e160	261	185	251	1010	272	225	173	159
28	148	173	e210	e160	247	183	238	663	263	208	172	153
29	145	171	e205	e160	---	183	226	523	255	902	167	147
30	145	169	e205	407	---	180	220	454	252	402	173	142
31	144	---	e200	474	---	177	---	415	---	290	237	---
TOTAL	6374	5532	9363	5976	8358	6513	9237	15952	10077	9340	6203	5992
MEAN	206	184	302	193	298	210	308	515	336	301	200	200
MAX	545	364	1390	474	703	296	1250	1880	543	902	311	744
MIN	144	136	153	160	207	177	168	176	252	200	167	142

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 2001, BY WATER YEAR (WY)

	1966	1967	1968	1969	1970	1971	1972	1973	1974	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		
MEAN	135	159	231	275	370	336	384	406	272	204	174	143	143	143	143	143	143	143	143	143	143	143	143	143	143	143	143	143	143	143	143	143	143	143	143	143	143	
MAX	206	214	378	548	718	655	682	629	368	301	287	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200
(WY)	2001	1970	1968	1969	1971	1967	1970	1968	1969	2001	1969	2001	2001	2001	2001	2001	2001	2001	2001	2001	2001	2001	2001	2001	2001	2001	2001	2001	2001	2001	2001	2001	2001	2001	2001	2001	2001	2001
MIN	101	116	114	139	188	183	196	184	155	134	120	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5
(WY)	1967	1971	1966	1971	1967	1966	1971	1971	1966	1966	1971	1966	1966	1966	1966	1966	1966	1966	1966	1966	1966	1966	1966	1966	1966	1966	1966	1966	1966	1966	1966	1966	1966	1966	1966	1966	1966	1966

SUMMARY STATISTICS

	FOR 2000 CALENDAR YEAR	FOR 2001 WATER YEAR	WATER YEARS 1966 - 2001
ANNUAL TOTAL	89321	98917	
ANNUAL MEAN	244	271	257
HIGHEST ANNUAL MEAN			327
LOWEST ANNUAL MEAN			169
HIGHEST DAILY MEAN	4100	Apr 8	1880
LOWEST DAILY MEAN	105	Feb 6	136
ANNUAL SEVEN-DAY MINIMUM	108	Feb 2	139
MAXIMUM PEAK FLOW			3360
MAXIMUM PEAK STAGE			10.84
INSTANTANEOUS LOW FLOW			136
10 PERCENT EXCEEDS	389		417
50 PERCENT EXCEEDS	183		211
90 PERCENT EXCEEDS	122		163

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

SURFACE-WATER RECORDS
Great Miami River Basin

03269500 MAD RIVER NEAR SPRINGFIELD, OHIO

LOCATION.—Latitude 39°55'23", longitude 83°52'13", in NW 1/4 sec. 16, R.9, T.4, Clark County, Hydrologic Unit 05080001, on right bank 150 ft downstream from Rock Run, 300 ft downstream from bridge on Lower Valley Pike, 2 mi downstream from Buck Creek, 3 mi west of Springfield, Ohio, and at mile 24.1.

DRAINAGE AREA.—490 mi².

PERIOD OF RECORD.—January 1904 to March 1906 (fragmentary), February 1914 to current year. Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.—WSP 603: 1924. WSP 823: 1929(M). WSP 1305: 1914(M), 1916-17(M), 1922-23(M), 1925(M). WSP 1625: 1924(M). WSP 1908: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is 881.42 ft above sea level. Jan. 1, 1904, to Mar. 31, 1906, nonrecording gage at site 0.3 mi downstream at different datum. Feb. 1, 1914, to Feb. 29, 1924, nonrecording gage at site 1.8 mi upstream at datum 6.39 ft higher. Mar. 1, 1924, to July 31, 1925, nonrecording gage at site 300 ft upstream at same datum.

REMARKS.—Records good except for periods of estimated record, which is poor. Some regulation by C.J. Brown Reservoir, 8.3 mi upstream on Buck Creek, since 1972. Occasional low-flow regulation by powerplant 2.3 mi upstream; daily flows are not affected appreciably. Water-quality data formerly collected at this site.

COOPERATION.—Gage-height record and 9 discharge measurements furnished by Miami Conservancy District.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 30,500 ft³/s Jan. 21, 1959, gage height, 15.76 ft, from rating curve extended above 14,000 ft³/s on basis of slope-area and contracted opening measurements of peak flow; minimum daily discharge, 30 ft³/s Sept. 15, 1904.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood of March 25, 1913, reached a stage of 16.9 ft, present datum; discharge, 55,400 ft³/s computed by Miami Conservancy District.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	272	267	249	297	e500	368	273	290	642	446	403	531
2	264	267	244	290	e420	354	249	282	597	439	570	402
3	257	266	228	280	e360	327	243	274	561	448	670	354
4	284	263	209	e275	e340	315	238	269	538	447	546	332
5	1200	266	208	e268	e325	309	236	261	526	408	472	310
6	1140	268	203	e260	e307	303	242	251	656	357	396	277
7	876	293	202	e254	e280	301	245	255	720	386	326	292
8	809	281	188	e248	e270	297	241	319	595	547	312	337
9	478	438	170	e241	e330	291	301	263	521	506	375	349
10	446	584	168	e236	871	283	944	248	475	421	344	1150
11	377	448	238	e231	603	280	2060	265	648	385	303	545
12	317	389	610	e228	512	284	1120	257	523	355	295	439
13	308	368	370	e223	445	330	637	237	515	330	280	394
14	296	349	349	e220	579	334	505	232	560	307	270	391
15	319	315	363	e244	1070	313	472	469	535	291	260	358
16	367	276	1420	e320	750	374	452	1920	636	282	262	345
17	408	266	1940	e281	622	397	413	1300	477	720	256	319
18	377	256	923	e270	511	349	391	2230	423	572	261	304
19	337	251	884	e260	464	326	365	2830	396	455	324	344
20	299	252	777	e254	443	309	629	1430	458	420	266	333
21	295	246	475	e243	409	300	737	1160	475	402	254	314
22	296	238	e400	e237	375	281	516	1070	666	533	270	304
23	296	236	e370	e230	353	273	454	993	582	400	353	297
24	292	232	e342	e226	336	270	406	968	502	345	280	337
25	315	253	e323	e220	447	263	369	1200	445	432	263	320
26	328	253	e310	e218	428	255	349	1460	415	411	303	309
27	294	251	e290	e215	395	253	334	1590	399	332	286	290
28	289	242	296	e211	379	249	313	940	370	310	310	284
29	279	247	305	e210	---	249	300	722	329	2100	276	278
30	271	241	306	e400	---	247	294	760	321	931	698	272
31	269	---	305	764	---	244	---	730	---	488	893	---
TOTAL	12655	8802	13665	8354	13124	9328	14328	25475	15506	15206	11377	11111
MEAN	408	293	441	269	469	301	478	822	517	491	367	370
MAX	1200	584	1940	764	1070	397	2060	2830	720	2100	893	1150
MIN	257	232	168	210	270	244	236	232	321	282	254	272
CFSM	.83	.60	.90	.55	.96	.61	.97	1.68	1.05	1.00	.75	.76
IN.	.96	.67	1.04	.63	1.00	.71	1.09	1.93	1.18	1.15	.86	.84
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2001, BY WATER YEAR (WY)												
MEAN	350	413	525	573	670	691	711	673	586	487	352	323
MAX	1081	904	1583	1177	1409	1279	1174	2106	1371	1284	947	1279
(WY)	1987	1986	1991	1991	1975	1978	1996	1996	1980	1993	1979	1979
MIN	176	190	188	189	235	251	312	240	174	189	162	177
(WY)	1989	2000	1977	1977	1992	1983	1976	1988	1988	1988	1988	1977
SUMMARY STATISTICS												
				FOR 2000 CALENDAR YEAR				FOR 2001 WATER YEAR				WATER YEARS 1974 - 2001
ANNUAL TOTAL				145419				158931				
ANNUAL MEAN				397				435				
HIGHEST ANNUAL MEAN												529
LOWEST ANNUAL MEAN												792
HIGHEST DAILY MEAN												279
LOWEST DAILY MEAN				5730				Apr 8				8200
ANNUAL SEVEN-DAY MINIMUM				150				Jan 28				100
MAXIMUM PEAK FLOW				163				Jan 26				193
MAXIMUM PEAK STAGE								4760				103
INSTANTANEOUS LOW FLOW								7.58				11.88
ANNUAL RUNOFF (CFSM)				.81				.89				1.08
ANNUAL RUNOFF (INCHES)				11.04				12.07				14.66
10 PERCENT EXCEEDS				681				725				975
50 PERCENT EXCEEDS				305				327				381
90 PERCENT EXCEEDS				190				244				215

e Estimated.

SURFACE-WATER RECORDS
Great Miami River Basin

03270000 MAD RIVER NEAR DAYTON, OHIO

LOCATION.—Latitude 39°47'50", longitude 84°05'19", in SW 1/4 sec. 7, R. 8, T.2, Greene County, Hydrologic Unit 05080001, on left bank in retarding basin 300 ft upstream from Huffman Dam, 2.3 mi downstream from Mud Run, 6.2 mi northeast of Dayton, Ohio, and at mile 6.1.

DRAINAGE AREA.—635 mi².

PERIOD OF RECORD.—October 1914 to current year. Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.—WSP 453: 1915. WSP 743: 1929-32. WSP 1305: 1916(M), 1925(M) 1930-32(M). WSP 1908: Drainage area. WDR-OH-82-1: 1980. GAGE.—Water-stage recorder. Datum of gage is 777.06 ft above sea level. Jan. 21, 1959, to Dec. 14, 1967, at site 900 ft downstream, at datum 77.01 ft lower. See WSP 1725 for history of changes prior to Jan. 21, 1959. Water-quality data collected at this site 1947-1948, 1962-1963, 1966-1980.

REMARKS.—Records good except for periods of estimated records which are poor. Flood flows affected by backwater from Huffman retarding dam beginning in 1921, some regulation by C. J. Brown Reservoir 26 mi upstream on Buck Creek since 1974. Water-quality data was formerly collected on left bank 900 ft downstream.

COOPERATION.—Gage-height record and 8 discharge measurements furnished by Miami Conservancy District.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 21,200 ft³/s Jan. 22, 1959 (based on Huffman retarding basin outflow records); maximum gage height, 87.9 ft Feb. 26, 1929, at site and datum then in use; minimum daily discharge, 94 ft³/s Aug. 6, 1934, but may have been less during 1921-1924.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood of March 25, 1913, reached a stage of 14.0 ft, original site and datum; discharge 75,700 ft³/s, computed by Miami Conservancy District.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	304	281	377	379	873	503	343	390	845	576	593	1020
2	289	278	391	374	e600	488	312	381	771	749	608	628
3	276	284	366	346	e535	451	295	370	719	609	851	518
4	272	273	322	e334	e470	431	282	362	672	686	653	476
5	1230	279	321	e325	e422	418	275	353	657	586	599	446
6	1660	282	310	e315	e396	409	275	342	807	512	530	400
7	981	314	309	e305	e379	402	281	340	1130	602	446	412
8	948	298	294	e296	e360	389	277	404	828	839	419	449
9	604	726	257	e286	e480	385	338	364	681	831	437	466
10	507	1050	248	e279	1310	374	1060	336	611	627	552	2030
11	464	880	322	e270	994	366	3170	347	726	540	417	955
12	381	679	875	e268	754	359	2130	368	1550	486	405	667
13	361	611	721	e262	657	404	1030	323	1140	447	387	558
14	341	562	589	e260	694	413	746	312	1040	401	372	521
15	329	526	593	e300	1740	392	652	454	991	373	354	475
16	385	447	1460	e420	1270	455	610	1550	1710	355	349	452
17	438	427	3240	e380	998	509	555	1870	851	455	345	433
18	420	402	1420	e360	781	459	521	2140	657	867	350	395
19	393	388	1140	e335	644	421	493	4040	565	547	471	441
20	336	387	1110	e306	603	399	672	1960	586	493	376	445
21	324	379	759	e294	548	379	1030	1510	653	512	349	412
22	321	363	602	e280	501	359	715	1290	901	574	353	395
23	317	357	e535	e270	471	343	591	1270	801	497	451	382
24	315	344	e500	e260	442	339	529	1050	768	420	405	467
25	316	384	e460	e253	645	326	487	1660	596	500	367	439
26	348	396	e435	e248	666	317	462	1850	542	607	387	413
27	321	392	e410	e241	555	314	446	2340	517	425	430	388
28	304	381	395	e236	525	307	426	1460	499	378	406	374
29	296	376	406	e230	---	304	405	1000	460	2420	426	363
30	285	383	403	e600	---	301	396	952	430	1890	379	353
31	282	---	397	1260	---	293	---	935	---	815	1620	---
TOTAL	14348	13129	19967	10572	19313	12009	19804	32323	23704	20619	15087	16173
MEAN	463	438	644	341	690	387	660	1043	790	665	487	539
MAX	1660	1050	3240	1260	1740	509	3170	4040	1710	2420	1620	2030
MIN	272	273	248	230	360	293	275	312	430	355	345	353
CFSM	.73	.69	1.01	.54	1.09	.61	1.04	1.64	1.24	1.05	.77	.85
IN.	.84	.77	1.17	.62	1.13	.70	1.16	1.89	1.39	1.21	.88	.95

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2001, BY WATER YEAR (WY)

	1974	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
MEAN	419	513	678	744	880	918	945	887	748	608	438	392																
MAX	1425	1175	2027	1559	1839	1637	1561	2885	1745	1525	1235	1528																
(WY)	1987	1986	1991	1991	1975	1978	1996	1996	1981	1993	1979	1979																
MIN	198	188	208	239	287	344	444	268	192	211	172	178																
(WY)	2000	2000	2000	1977	1992	1983	1976	1988	1988	1988	1988	1999																

SUMMARY STATISTICS FOR 2000 CALENDAR YEAR FOR 2001 WATER YEAR WATER YEARS 1974 - 2001

ANNUAL TOTAL	193742	217048	
ANNUAL MEAN	529	595	680
HIGHEST ANNUAL MEAN			1029
LOWEST ANNUAL MEAN			336
HIGHEST DAILY MEAN	6760	Apr 8	4040
LOWEST DAILY MEAN	180	Sep 8	230
ANNUAL SEVEN-DAY MINIMUM	187	Sep 14	248
MAXIMUM PEAK FLOW			5230
MAXIMUM PEAK STAGE			11.36
INSTANTANEOUS LOW FLOW			230
ANNUAL RUNOFF (CFSM)	.83	.94	1.07
ANNUAL RUNOFF (INCHES)	11.35	12.72	14.54
10 PERCENT EXCEEDS	954	1040	1270
50 PERCENT EXCEEDS	393	433	484
90 PERCENT EXCEEDS	219	296	248

e Estimated.

SURFACE-WATER RECORDS
Great Miami River Basin

03270500 GREAT MIAMI RIVER AT DAYTON, OHIO

LOCATION.—Latitude 39°45'55", longitude 84°11'51", in sec. 10, R.7, T.1, Montgomery County, Hydrologic Unit 05080002, on left bank 1,000 ft downstream from Main Street Bridge in Dayton, Ohio, 0.7 mi upstream from Wolf Creek, 0.8 mi downstream from Mad River, and at mile 80.0.

DRAINAGE AREA.—2,511 mi².

PERIOD OF RECORD.—April to September 1905, January to September 1906, January 1907 to December 1909 (gage heights only), April 1913 to current year. Monthly discharge only for October 1919 to September 1921, published in WSP 1305. Gage-height records collected at Main Street Bridge since January 1892 are contained in reports of National Weather Service. Prior to October 1962, published as Miami River at Dayton.

REVISED RECORDS.—WSP 1385: 1917. WSP 1908: Drainage area.

GAGE.—Water-stage recorder. Datum of gage is 700.00 ft above sea level as requested by cooperator (699.71 ft adjustment of 1929). Prior to Oct. 1, 1921, nonrecording gage at Main Street Bridge at datum 23.73 ft higher. Oct. 1, 1921, to July 24, 1931, nonrecording gage at Main Street Bridge at datum 21.00 ft higher.

REMARKS.—Records are poor. Flood flow regulated by four retarding basins upstream from station beginning in 1920 on Mad River 6.5 mi upstream, on Stillwater River 10.5 mi upstream, on Great Miami River 11.5 mi upstream, and on Loramie Creek 40 mi upstream. Also see REMARKS for stations 03261500, 03261950 and 03269500. Water is diverted 6 mi upstream from station for use in Dayton; much of the flow is diverted to the Little Miami River Basin through the Dayton sewer systems. Sediment data formerly collected at this site. U.S. Army Corps of Engineers satellite telemeter at station.

COOPERATION.—Gage-height record and 9 discharge measurements furnished by Miami Conservancy District.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 60,900 ft³/s Jan. 22, 1959, gage height, 36.00 ft Jan. 22, 1959; minimum discharge 109 ft³/s Aug. 8, 1934.

EXTREMES OUTSIDE PERIOD OF RECORD.—Flood of Mar. 26, 1913, reached a stage of 29.0 ft, site and datum then in use; discharge, 250,000 ft³/s, computed by Miami Conservancy District.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1080	e540	e700	e960	4690	1720	e1000	e1050	2790	1170	1440	2520
2	763	506	e740	e900	3170	e1600	e940	e1000	2320	1330	1100	1510
3	624	529	e700	e840	2360	e1450	e880	e980	2000	1100	1270	996
4	571	486	e660	e860	1950	e1300	e820	e940	1760	1130	1180	764
5	3010	471	e620	e900	1720	e1200	e740	e900	1640	1000	1140	641
6	6160	470	607	e940	e1600	e1150	e760	e830	1910	998	1000	595
7	4340	521	563	e920	e1500	e1150	e780	e900	2410	1050	800	654
8	2830	501	598	e880	e1400	e1200	e800	e960	2130	1240	644	618
9	1940	1360	560	e800	e1600	e1050	e1100	e1000	1710	1240	682	e800
10	1620	2360	486	e760	5750	e1000	2180	e980	1470	1030	819	e9000
11	e1300	2850	801	e780	6340	e980	9210	e1000	1400	860	656	e5600
12	e1100	2090	3130	e760	3740	e940	11500	e900	2860	724	927	e3400
13	e920	1670	4270	e760	2740	e1050	7810	e800	2210	694	836	e2000
14	e840	e1400	2850	e760	2480	e1150	4390	e840	1850	628	785	1210
15	e780	e1200	2100	1140	7630	e1200	3340	e800	2340	595	627	987
16	e750	e1100	3270	1750	6890	e1400	3230	e2000	2590	573	580	879
17	e900	e1000	11800	2040	4770	1870	3350	6880	1620	630	564	788
18	e860	e940	8720	1660	3380	2310	2910	9850	1330	1490	579	738
19	e800	e850	5030	e1400	2590	1950	2480	17300	1120	1020	1040	803
20	e740	e780	3500	e1200	2200	e1600	2630	12700	1140	885	748	1280
21	e700	e720	2560	e1100	1950	e1500	3770	7170	1270	925	638	1780
22	e680	e700	1880	e1050	1710	e1350	3650	4730	1850	916	618	1220
23	662	e690	e1400	e1000	1660	e1250	2980	3600	1940	840	840	999
24	646	e680	e1600	e940	1600	e1150	2540	2880	1640	724	1800	1290
25	634	e740	e1500	e880	1900	e1100	e2000	3340	1330	852	1310	2170
26	650	e780	e1200	e840	2080	e1050	e1700	5100	1130	1530	983	e1700
27	614	e720	e1250	e800	2040	e960	e1500	11900	1020	1150	868	e1400
28	597	e730	e1150	e760	1820	e900	e1300	12200	975	825	791	e1100
29	552	e740	e1100	e800	---	e880	e1200	7180	885	3880	762	893
30	593	e730	e1050	2080	---	e860	e1150	4520	823	5350	603	807
31	606	---	e1000	6320	---	e840	---	3420	---	2360	2260	---
TOTAL	38862	28854	67395	37580	83260	39110	82640	128650	51463	38739	28890	49142
MEAN	1254	962	2174	1212	2974	1262	2755	4150	1715	1250	932	1638
MAX	6160	2850	11800	6320	7630	2310	11500	17300	2860	5350	2260	9000
MIN	552	470	486	760	1400	840	740	800	823	573	564	595

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2001, BY WATER YEAR (WY)

	1974	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
MEAN	935	1663	2586	2963	3631	4063	3925	3023	2635	2030	1158	781																
MAX	5792	6233	9210	7217	8926	10140	7410	11030	7357	7510	5727	2862																
(WY)	1987	1994	1991	1996	1975	1978	1989	1996	1981	1993	1979	1979																
MIN	232	236	296	270	636	890	1069	583	259	299	196	175																
(WY)	2000	2000	1977	1977	1992	1992	1976	1988	1988	1977	1988	1999																

SUMMARY STATISTICS FOR 2000 CALENDAR YEAR FOR 2001 WATER YEAR WATER YEARS 1974 - 2001

ANNUAL TOTAL	675036	674585	
ANNUAL MEAN	1844	1848	2443
HIGHEST ANNUAL MEAN			3765
LOWEST ANNUAL MEAN			881
HIGHEST DAILY MEAN	20100	17300	39700
LOWEST DAILY MEAN	180	470	111
ANNUAL SEVEN-DAY MINIMUM	187	498	125
MAXIMUM PEAK FLOW		19800	43800
MAXIMUM PEAK STAGE		30.06	33.15
INSTANTANEOUS LOW FLOW		470	111
10 PERCENT EXCEEDS	3720	3540	5670
50 PERCENT EXCEEDS	1360	1100	1260
90 PERCENT EXCEEDS	324	643	366

e Estimated.

SURFACE-WATER RECORDS
Great Miami River Basin

03271510 GREAT MIAMI RIVER NEAR LINDEN AVENUE AT MIAMISBURG, OHIO

WATER-QUALITY RECORDS

LOCATION.—Latitude 39°38'14", longitude 84°17'33", Montgomery County, Hydrologic Unit 05080002, on left bank at Miamisburg, 1.0 mi downstream from Bear Creek, 0.6 mi downstream from discharge station at Miamisburg, 0.65 mi downstream from discharge station below Miamisburg, and at mile 65.75.

DRAINAGE AREA.—2,713 mi².

PERIOD OF RECORD.—June 1978 to current year.

PERIOD OF DAILY RECORD.—

SPECIFIC CONDUCTANCE: June 1978 to current year.

pH: June 1978 to current year.

WATER TEMPERATURES: June 1978 to current year.

DISSOLVED OXYGEN: June 1978 to current year.

INSTRUMENTATION.—Water-quality monitor since June 1978. Electronic data logger replaced digital recorder since June 19, 1991. Set for 1-hour interval.

REMARKS.—Interruptions in the water-quality record were due to malfunction of the instrument. Prior to June 1978, records published as 03271600, Great Miami River near Miamisburg, Ohio. See records of discharge for gaging station below Miamisburg (station 03271601). All records good except for dissolved oxygen, which is fair.

EXTREMES FOR PERIOD OF DAILY RECORD.—

SPECIFIC CONDUCTANCE: Maximum, 2,080 microsiemens, Jan. 13, 1999; minimum, 206 microsiemens, Feb. 18, 1982.

pH: Maximum, 9.8 units, Oct. 12, 1992; minimum, 7.0 units, July 30, Aug. 30, 1979.

WATER TEMPERATURES: Maximum, 33.0°C, July 20, 22, 1978; minimum, 0.0°C, on many days during winters.

DISSOLVED OXYGEN: Maximum, >20.0 mg/L, on several days in water years 1978-1994, 2000, and 2001; minimum, 0.4 mg/L, Aug. 27, 1981 and Aug. 2, 1982.

EXTREMES FOR CURRENT YEAR.—

SPECIFIC CONDUCTANCE: Maximum, 1,290 microsiemens, Jan. 30; minimum, 356 microsiemens, Sept. 10 and 11.

pH: Maximum, 9.0 units, Mar. 23, 24, 27, and 28; minimum, 7.3 units, July 29 and 30.

WATER TEMPERATURES: Maximum, 30.5°C, July 25; minimum, 0.5°C, Dec. 19-26 and 30.

DISSOLVED OXYGEN: Maximum, >20.0 mg/L, Dec. 9; minimum, 4.1 mg/L, June 13, July 2, and 10.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	750	717	734	918	883	894	917	865	883	977	932	947
2	792	743	758	936	903	916	919	886	898	939	922	931
3	821	785	799	934	911	921	901	873	883	952	917	934
4	837	811	823	924	877	896	900	881	888	973	939	952
5	824	438	596	918	881	902	906	885	895	953	925	941
6	564	437	491	913	874	889	917	897	906	949	928	939
7	591	540	564	906	858	879	939	906	922	940	911	925
8	623	590	604	898	848	870	943	924	935	941	911	928
9	657	622	638	871	627	773	937	910	924	951	926	940
10	725	656	697	647	611	628	942	904	925	953	939	945
11	761	724	744	706	633	676	946	787	906	954	934	946
12	801	758	781	736	704	718	860	736	790	953	925	939
13	821	783	805	758	735	750	1010	683	746	941	928	933
14	835	809	819	774	753	766	1060	879	937	976	922	946
15	842	818	828	785	765	775	882	810	838	1000	944	966
16	850	824	837	809	773	794	915	708	804	994	921	964
17	852	809	835	828	799	816	737	541	628	931	871	898
18	844	796	810	836	817	826	644	548	572	887	826	853
19	831	799	817	846	827	836	683	644	663	843	826	838
20	832	807	820	862	835	850	734	683	707	844	816	831
21	847	815	831	886	857	869	782	727	757	842	816	828
22	857	832	842	895	869	879	850	778	822	855	835	845
23	853	834	845	894	875	884	867	837	853	881	843	866
24	868	837	856	892	874	883	881	848	867	892	872	881
25	880	855	867	887	851	869	872	849	862	899	876	887
26	883	868	874	876	847	860	902	864	879	985	889	914
27	883	866	875	878	846	861	924	890	907	993	918	941
28	882	859	869	893	861	877	934	893	915	1040	971	1000
29	885	848	864	893	867	878	926	911	919	1110	943	971
30	912	855	877	887	865	872	970	916	935	1290	1020	1070
31	902	880	890	---	---	---	989	929	955	1040	667	851
MONTH	912	437	784	936	611	837	1060	541	849	1290	667	921

SURFACE-WATER RECORDS
Great Miami River Basin

03271510 GREAT MIAMI RIVER NEAR LINDEN AVENUE AT MIAMISBURG, OHIO—Continued

WATER-QUALITY RECORDS—Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	8.3	8.2	8.2	7.8	7.8	7.8	8.0	7.7	7.9	7.5	7.5	7.5
2	8.4	8.2	8.2	8.0	7.8	7.8	7.9	7.8	7.8	7.6	7.5	7.5
3	8.3	8.1	8.3	7.8	7.8	7.8	7.9	7.8	7.8	7.6	7.5	7.5
4	8.3	8.2	8.2	7.8	7.7	7.8	7.8	7.8	7.8	7.6	7.6	7.6
5	8.2	7.7	8.0	7.9	7.7	7.8	7.8	7.8	7.8	7.6	7.6	7.6
6	7.9	7.7	7.8	8.0	7.8	8.0	7.8	7.8	7.8	7.7	7.6	7.6
7	7.9	7.8	7.9	8.0	7.9	7.9	7.8	7.8	7.8	7.8	7.6	7.7
8	8.0	7.8	7.9	8.0	7.8	7.9	7.8	7.7	7.7	7.8	7.7	7.7
9	8.1	8.0	8.0	7.8	7.6	7.8	7.7	7.7	7.7	7.8	7.7	7.7
10	8.1	7.6	7.9	7.6	7.5	7.6	7.7	7.7	7.7	7.7	7.7	7.7
11	7.6	7.5	7.5	7.7	7.6	7.6	7.7	7.7	7.7	7.8	7.7	7.7
12	7.5	7.5	7.5	7.8	7.7	7.7	7.7	7.6	7.7	7.8	7.8	7.8
13	7.5	7.4	7.5	7.9	7.7	7.8	7.6	7.6	7.6	7.8	7.8	7.8
14	7.6	7.4	7.5	7.9	7.8	7.9	7.6	7.6	7.6	7.8	7.8	7.8
15	7.6	7.4	7.5	8.0	7.9	7.9	7.6	7.6	7.6	7.8	7.7	7.7
16	7.6	7.4	7.5	8.0	7.9	8.0	7.6	7.5	7.6	7.8	7.7	7.8
17	7.5	7.4	7.5	8.1	8.0	8.0	7.5	7.5	7.5	7.8	7.8	7.8
18	7.5	7.4	7.4	8.1	8.0	8.0	7.5	7.5	7.5	7.8	7.8	7.8
19	7.6	7.4	7.5	8.1	8.0	8.1	7.5	7.5	7.5	7.9	7.8	7.8
20	7.6	7.4	7.5	8.3	8.1	8.2	7.5	7.5	7.5	8.0	7.8	7.9
21	7.6	7.4	7.5	8.2	8.2	8.2	7.5	7.5	7.5	8.0	7.9	7.9
22	7.6	7.4	7.5	8.2	8.2	8.2	7.5	7.5	7.5	8.0	7.9	7.9
23	7.6	7.4	7.5	8.3	8.2	8.2	7.5	7.5	7.5	7.9	7.9	7.9
24	7.6	7.5	7.5	8.3	8.2	8.3	7.5	7.5	7.5	8.0	7.9	8.0
25	7.6	7.5	7.6	8.3	8.3	8.3	7.5	7.5	7.5	8.0	8.0	8.0
26	7.6	7.5	7.6	8.3	8.3	8.3	7.5	7.5	7.5	8.0	8.0	8.0
27	7.6	7.5	7.6	8.5	8.2	8.3	7.5	7.4	7.4	8.0	8.0	8.0
28	7.6	7.6	7.6	---	---	---	7.6	7.4	7.5	8.1	8.0	8.1
29	7.7	7.6	7.7	---	---	---	7.4	7.4	7.4	8.1	8.1	8.1
30	7.7	7.6	7.7	---	---	---	7.6	7.4	7.5	8.3	8.1	8.2
31	7.8	7.7	7.8	---	---	---	7.6	7.5	7.5	8.2	8.1	8.2
MONTH	8.4	7.4	7.7	8.5	7.5	8.0	8.0	7.4	7.6	8.3	7.5	7.8

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	8.1	8.1	8.1	8.6	8.4	8.5	8.7	8.4	8.5	8.7	8.4	8.6
2	8.2	8.1	8.1	8.6	8.4	8.5	8.7	8.2	8.4	8.6	8.2	8.4
3	8.3	8.2	8.2	8.6	8.4	8.5	8.7	8.3	8.5	8.4	8.0	8.2
4	8.3	8.2	8.3	8.6	8.4	8.5	8.7	8.2	8.5	8.4	8.0	8.2
5	8.3	8.3	8.3	8.7	8.4	8.5	8.7	8.2	8.4	8.3	8.0	8.2
6	8.4	8.3	8.3	8.8	8.5	8.6	8.4	8.0	8.2	8.3	8.0	8.1
7	8.4	8.3	8.3	8.8	8.6	8.7	8.3	7.9	8.1	8.7	8.0	8.3
8	8.5	8.3	8.4	8.9	8.6	8.7	8.3	7.8	8.0	8.5	8.0	8.3
9	8.4	8.3	8.3	8.9	8.6	8.7	8.7	7.9	8.1	8.6	8.2	8.4
10	8.3	8.2	8.3	8.9	8.6	8.7	8.4	7.8	8.1	8.5	8.2	8.3
11	8.2	8.1	8.1	8.9	8.6	8.7	7.9	7.5	7.7	8.4	8.0	8.2
12	8.2	8.1	8.1	8.8	8.6	8.7	7.7	7.6	7.6	8.0	7.8	7.9
13	8.2	8.2	8.2	8.7	8.5	8.6	7.8	7.7	7.7	8.2	7.8	8.0
14	8.2	8.2	8.2	8.8	8.4	8.6	8.0	7.8	7.9	8.5	8.1	8.3
15	8.2	8.1	8.2	8.8	8.5	8.6	8.1	8.0	8.1	8.6	8.3	8.4
16	8.1	8.1	8.1	8.7	8.5	8.6	8.4	8.1	8.2	8.4	8.1	8.2
17	8.2	8.1	8.1	8.5	8.4	8.4	8.4	8.3	8.3	8.1	7.8	7.9
18	8.2	8.2	8.2	8.6	8.4	8.5	8.5	8.4	8.4	7.8	7.6	7.7
19	8.3	8.0	8.2	8.7	8.5	8.5	8.5	8.4	8.4	7.7	7.5	7.6
20	---	---	---	8.7	8.5	8.6	8.4	8.3	8.4	7.7	7.6	7.6
21	---	---	---	8.7	8.5	8.6	8.3	8.2	8.2	8.1	7.7	7.9
22	---	---	---	8.8	8.5	8.6	8.2	7.9	8.1	8.1	8.1	8.1
23	---	---	---	9.0	8.5	8.7	8.3	7.9	8.0	8.2	8.1	8.1
24	---	---	---	9.0	8.6	8.8	8.4	8.2	8.3	8.2	8.1	8.2
25	---	---	---	8.9	8.6	8.8	8.5	8.3	8.4	8.3	8.2	8.2
26	---	---	---	8.9	8.6	8.8	8.6	8.3	8.4	8.3	7.6	8.3
27	8.4	8.1	8.3	9.0	8.7	8.8	8.6	8.3	8.4	8.2	7.6	8.2
28	8.5	8.3	8.4	9.0	8.7	8.8	8.6	8.3	8.4	8.1	8.0	8.0
29	---	---	---	8.9	8.6	8.7	8.6	8.1	8.3	8.1	8.1	8.1
30	---	---	---	8.9	8.5	8.7	8.8	8.0	8.3	8.2	8.1	8.2
31	---	---	---	8.8	8.4	8.6	---	---	---	8.3	8.2	8.2
MONTH	8.5	8.0	8.2	9.0	8.4	8.6	8.8	7.5	8.2	8.7	7.5	8.1

SURFACE-WATER RECORDS
Great Miami River Basin

03271510 GREAT MIAMI RIVER NEAR LINDEN AVENUE AT MIAMISBURG, OHIO—Continued

WATER-QUALITY RECORDS—Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001—Continued

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	8.3	8.2	8.3	8.4	8.1	8.2	7.9	7.7	7.8	7.7	7.6	7.6
2	8.3	8.3	8.3	8.1	7.5	7.7	8.1	7.8	8.0	7.8	7.7	7.8
3	8.4	8.3	8.3	7.9	7.8	7.9	8.2	8.0	8.1	7.9	7.8	7.9
4	8.4	8.3	8.4	7.9	7.8	7.8	8.3	8.0	8.1	8.1	7.9	8.0
5	8.4	8.4	8.4	8.0	7.8	7.9	8.4	8.2	8.3	8.4	8.1	8.2
6	8.4	8.3	8.4	8.1	7.9	8.0	8.5	8.2	8.3	8.5	8.2	8.3
7	8.3	8.1	8.2	8.0	7.9	7.9	8.8	8.1	8.5	8.4	8.3	8.3
8	8.2	8.1	8.2	7.9	7.7	7.8	8.6	8.3	8.5	8.3	8.2	8.3
9	8.3	8.2	8.2	7.8	7.7	7.8	8.7	8.1	8.4	8.4	8.2	8.3
10	8.4	8.2	8.3	8.5	7.7	8.1	8.5	8.3	8.4	8.3	7.7	8.0
11	8.6	8.2	8.4	8.6	8.2	8.3	8.4	8.1	8.2	8.2	7.7	8.0
12	8.4	7.5	8.0	8.5	8.1	8.3	8.4	8.1	8.2	8.3	8.2	8.3
13	7.9	7.4	7.6	8.4	8.1	8.2	8.6	8.2	8.4	8.4	8.3	8.4
14	7.9	7.5	7.8	8.3	7.9	8.1	8.7	8.4	8.5	8.4	8.3	8.4
15	8.1	7.9	8.0	8.1	7.4	7.8	8.6	8.2	8.4	8.5	8.3	8.4
16	8.1	7.5	7.8	8.6	7.6	8.0	8.6	8.3	8.5	8.6	8.4	8.5
17	7.7	7.5	7.7	8.8	8.2	8.5	8.6	8.3	8.5	8.7	8.5	8.5
18	8.1	7.7	7.8	8.4	7.8	8.0	8.6	8.4	8.4	8.6	8.5	8.5
19	8.2	8.0	8.1	7.9	7.7	7.8	8.4	8.0	8.3	8.5	8.3	8.4
20	8.2	7.9	8.1	8.2	7.8	8.0	8.6	7.9	8.2	8.4	8.3	8.3
21	8.0	7.9	8.0	8.1	7.8	7.9	8.6	8.2	8.4	8.4	8.3	8.3
22	7.9	7.8	7.9	7.9	7.5	7.7	8.4	7.9	8.2	8.3	8.2	8.2
23	7.9	7.8	7.9	8.3	7.5	7.8	8.1	7.9	7.9	8.4	8.2	8.3
24	7.9	7.8	7.9	8.5	8.0	8.2	8.1	7.8	7.9	8.3	8.0	8.2
25	8.1	7.8	7.9	8.4	7.9	8.2	8.0	7.8	7.9	8.2	8.0	8.1
26	8.2	8.0	8.1	8.1	7.5	7.8	8.0	7.8	7.9	8.2	8.1	8.2
27	8.5	8.0	8.3	7.6	7.5	7.6	8.1	7.9	8.0	8.2	8.0	8.1
28	8.5	8.3	8.4	7.7	7.5	7.6	8.2	8.0	8.1	8.2	8.1	8.1
29	8.6	8.3	8.4	7.7	7.3	7.6	8.2	8.0	8.1	8.2	8.1	8.1
30	8.6	8.2	8.4	7.5	7.3	7.3	8.7	8.1	8.4	8.4	8.1	8.2
31	---	---	---	7.7	7.5	7.6	8.4	7.6	8.1	---	---	---
MONTH	8.6	7.4	8.1	8.8	7.3	7.9	8.8	7.6	8.2	8.7	7.6	8.2
YEAR	9.0	7.3	8.1									

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	19.5	16.5	18.0	15.0	13.0	14.0	7.0	6.5	7.0	2.5	1.5	2.0
2	20.5	17.5	19.0	15.5	13.5	14.5	6.5	5.0	6.0	2.5	1.5	2.0
3	21.5	19.0	20.0	16.5	15.0	15.5	5.0	4.0	4.5	1.5	1.0	1.5
4	21.5	20.0	21.0	16.0	15.0	15.5	4.5	3.0	4.0	2.0	1.0	1.5
5	21.0	19.0	20.0	15.0	13.5	14.5	4.0	3.5	3.5	3.0	1.5	2.5
6	19.0	17.0	18.0	14.0	12.5	13.5	3.5	2.5	3.0	3.5	2.5	3.0
7	17.0	14.5	15.5	14.0	13.0	13.5	3.0	2.5	2.5	4.0	2.5	3.0
8	14.5	12.5	13.0	14.5	13.5	14.0	3.5	3.0	3.5	4.0	3.0	3.5
9	13.0	12.0	12.5	15.5	14.5	15.0	3.5	2.0	3.0	3.0	2.0	2.5
10	13.5	12.0	12.5	15.0	12.5	13.5	4.0	3.0	3.5	3.0	1.5	2.0
11	14.0	12.0	12.5	12.5	11.5	11.5	6.0	4.0	4.5	3.5	1.5	2.5
12	15.0	12.5	13.5	11.5	10.5	11.0	5.5	3.5	4.5	4.5	3.0	3.5
13	15.5	13.0	14.0	11.0	10.0	11.0	3.5	2.0	2.5	5.0	3.5	4.0
14	16.5	13.5	15.0	10.0	8.5	9.5	2.0	2.0	2.0	5.0	4.0	4.5
15	17.0	15.0	16.0	8.5	8.0	8.5	2.5	2.0	2.0	5.0	4.5	5.0
16	17.5	15.5	16.5	8.5	7.5	8.0	4.5	2.5	3.5	4.5	3.5	4.0
17	17.5	16.5	16.5	8.0	6.5	7.5	4.5	2.0	3.5	3.5	2.5	2.5
18	17.0	15.5	16.5	6.5	6.0	6.5	2.0	1.0	1.0	3.5	2.5	3.0
19	17.5	15.0	16.0	6.5	5.5	6.0	1.0	.5	.5	3.5	3.0	3.5
20	17.5	15.0	16.0	6.0	5.0	5.5	.5	.5	.5	3.0	2.0	2.5
21	17.5	15.5	16.5	5.0	3.5	4.5	1.0	.5	.5	2.5	1.0	2.0
22	18.0	16.5	17.0	4.5	2.5	3.5	.5	.5	.5	3.5	1.5	2.5
23	18.0	16.5	17.5	4.5	2.5	3.5	1.0	.5	.5	4.0	2.0	3.0
24	18.5	17.5	18.0	5.0	3.0	4.0	1.0	.5	1.0	4.5	2.5	3.5
25	19.5	18.0	18.5	6.0	4.5	5.0	1.0	.5	.5	4.0	2.5	3.5
26	19.5	18.0	18.5	7.0	6.0	6.5	1.0	.5	.5	3.5	2.5	2.5
27	20.0	18.0	19.0	8.0	6.5	7.0	1.5	1.0	1.5	3.5	2.5	3.0
28	19.5	17.5	18.5	8.0	7.0	7.5	1.5	1.0	1.0	3.0	1.5	2.5
29	17.5	15.5	16.0	7.5	7.0	7.0	1.5	1.0	1.0	4.5	3.0	3.5
30	15.5	14.0	15.0	7.5	6.5	7.0	1.5	.5	1.0	5.0	4.0	4.5
31	15.0	13.0	14.0	---	---	---	2.0	1.0	1.5	5.0	2.5	3.5
MONTH	21.5	12.0	16.5	16.5	2.5	9.5	7.0	.5	2.5	5.0	1.0	3.0

SURFACE-WATER RECORDS
Great Miami River Basin

03271510 GREAT MIAMI RIVER NEAR LINDEN AVENUE AT MIAMISBURG, OHIO—Continued

WATER-QUALITY RECORDS—Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001												
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	8.5	7.4	7.9	12.3	9.6	10.8	15.1	13.1	13.8	17.2	16.4	16.7
2	---	---	---	12.4	9.5	10.8	16.5	12.7	14.3	17.2	16.3	16.6
3	---	---	---	12.1	8.9	10.3	17.6	13.5	15.3	17.3	16.5	16.8
4	---	---	---	10.6	8.3	9.5	17.3	14.3	15.6	17.3	16.4	16.7
5	---	---	---	12.5	9.1	10.5	19.0	14.2	16.3	16.9	15.7	16.3
6	---	---	---	12.7	9.7	11.0	19.1	14.7	16.6	16.7	15.4	15.9
7	---	---	---	12.0	9.4	10.7	17.9	14.9	16.2	16.8	15.2	15.8
8	---	---	---	10.8	9.0	9.8	17.9	14.4	15.9	16.9	15.0	15.7
9	---	---	---	9.2	8.0	8.8	20.1	14.9	17.0	17.8	15.3	16.2
10	10.2	9.7	10.0	9.5	8.0	8.9	18.4	14.6	16.4	18.0	15.8	16.7
11	10.4	9.6	9.9	10.7	9.3	10.2	16.2	13.4	14.5	17.9	15.9	16.6
12	10.4	9.6	9.9	11.0	9.6	10.2	14.8	13.3	13.9	17.5	15.1	16.0
13	10.4	9.4	9.8	10.3	9.7	10.0	15.8	14.8	15.4	17.6	14.5	15.7
14	10.5	9.2	9.7	13.0	10.1	11.7	15.8	15.6	15.7	15.5	14.2	14.8
15	10.4	8.7	9.3	14.6	12.6	13.5	16.1	15.6	15.9	15.5	13.5	14.3
16	10.5	8.4	9.2	14.3	13.3	13.6	15.6	13.6	14.6	15.2	13.5	14.3
17	9.1	8.1	8.5	14.6	13.2	13.8	15.0	13.4	14.0	16.7	15.0	15.6
18	10.1	8.3	8.9	16.1	13.9	14.9	16.4	15.0	15.8	16.9	15.0	15.8
19	10.7	8.6	9.3	16.4	14.7	15.4	17.0	16.4	16.8	15.1	14.3	14.6
20	10.7	8.3	9.3	16.4	14.7	15.4	17.2	16.9	17.0	17.1	14.3	15.3
21	11.0	8.3	9.4	17.6	15.1	16.2	16.9	16.7	16.8	18.7	15.3	16.6
22	10.5	7.9	9.1	18.3	16.3	17.1	17.3	16.8	17.0	18.5	15.8	16.8
23	10.2	7.5	8.6	18.3	16.4	17.2	17.4	16.8	17.2	18.4	15.3	16.4
24	10.1	7.2	8.5	18.3	16.2	17.0	17.3	16.8	17.0	19.0	14.9	16.3
25	9.9	7.5	8.5	16.8	15.4	16.0	17.6	17.2	17.4	18.1	14.5	16.0
26	9.8	7.0	8.3	15.4	13.6	14.3	17.5	17.0	17.3	17.4	14.9	15.9
27	9.5	6.8	8.1	16.1	13.3	14.3	17.3	15.0	16.8	19.4	14.6	16.4
28	9.9	6.9	8.1	16.5	13.0	14.2	18.0	16.6	17.4	19.6	15.0	17.0
29	10.7	7.8	9.0	15.7	11.7	13.4	17.3	16.7	17.0	18.4	14.7	16.2
30	11.5	8.3	9.8	16.9	12.7	14.5	17.3	16.6	16.9	14.8	12.2	13.1
31	12.3	9.6	10.7	---	---	---	17.3	16.7	16.9	13.5	12.3	12.9
MONTH	12.3	6.8	9.1	18.3	8.0	12.8	20.1	12.7	16.1	19.6	12.2	15.8

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	13.1	12.7	12.9	17.0	14.0	15.0	13.4	8.0	10.1	12.8	7.6	10.2
2	12.7	12.3	12.5	16.1	13.3	14.4	14.2	7.8	10.3	12.7	6.1	9.2
3	12.4	11.6	12.1	16.6	12.7	14.0	13.5	8.4	10.7	13.0	5.7	8.9
4	11.6	10.1	11.1	14.3	12.1	13.0	14.3	7.7	10.5	12.9	4.4	8.1
5	10.1	9.1	9.7	17.7	12.3	14.0	14.7	7.5	10.6	---	---	---
6	9.7	8.4	9.1	15.6	12.5	14.0	---	---	---	---	---	---
7	9.6	7.8	8.6	16.0	12.0	13.4	---	---	---	---	---	---
8	8.5	6.7	7.7	16.6	12.0	13.8	---	---	---	10.6	6.1	7.5
9	---	---	---	16.8	12.3	14.1	---	---	---	11.1	5.1	7.5
10	---	---	---	18.7	12.9	14.8	---	---	---	10.6	4.5	7.0
11	---	---	---	18.7	12.6	14.7	---	---	---	---	---	---
12	---	---	---	15.7	11.6	13.3	---	---	---	---	---	---
13	---	---	---	14.3	10.9	12.3	---	---	---	---	---	---
14	13.0	12.4	12.6	13.5	10.2	11.5	---	---	---	11.5	8.0	9.1
15	13.0	12.5	12.7	10.6	7.7	8.4	---	---	---	12.6	7.5	9.7
16	13.8	13.0	13.4	---	---	---	---	---	---	8.8	6.7	7.4
17	15.1	13.8	14.5	---	---	---	10.6	9.2	9.9	7.6	6.9	7.1
18	15.9	15.1	15.6	---	---	---	12.3	10.5	11.2	7.3	6.2	6.9
19	16.2	15.4	15.8	---	---	---	12.1	10.3	11.0	8.0	6.2	7.4
20	15.4	14.6	15.1	---	---	---	10.6	8.8	9.4	8.0	7.4	7.8
21	15.6	14.5	14.9	---	---	---	8.8	7.5	8.2	8.7	7.4	8.1
22	16.1	14.7	15.2	---	---	---	7.5	6.3	6.9	8.6	8.2	8.4
23	16.6	15.0	15.7	---	---	---	9.2	5.4	6.6	9.0	7.9	8.5
24	16.1	14.4	15.3	14.8	9.6	11.6	10.2	7.8	8.8	9.3	8.7	9.0
25	14.4	12.5	13.2	14.3	9.5	11.4	11.9	8.3	9.6	9.8	8.7	9.3
26	13.7	12.4	12.9	15.1	10.4	12.4	12.3	8.1	9.7	9.9	9.2	9.7
27	14.5	12.9	13.6	16.6	11.4	13.6	11.9	7.4	9.2	10.1	9.6	9.9
28	16.4	13.4	14.5	17.3	11.6	13.9	12.6	6.2	8.9	10.1	9.8	10.0
29	---	---	---	15.6	10.6	12.6	---	---	---	9.9	9.4	9.7
30	---	---	---	17.0	9.7	12.6	---	---	---	9.7	9.2	9.4
31	---	---	---	15.0	8.8	11.3	---	---	---	9.9	9.1	9.5
MONTH	16.6	6.7	13.0	18.7	7.7	13.0	14.7	5.4	9.5	13.0	4.4	8.6

SURFACE-WATER RECORDS
Great Miami River Basin

03271601 GREAT MIAMI RIVER BELOW MIAMISBURG, OHIO

LOCATION.—Latitude 39°36'24", longitude 84°17'13", in sec. 23, R.5, T.2, Montgomery County, Hydrologic Unit 05080002, on right bank 50 ft below outflow and dam of Hutchings Power station, 0.3 mi upstream of Crains Run at south edge of Miamisburg, Ohio corporate boundary, and at mile point 63.4.

DRAINAGE AREA.—2,715 mi².

PERIOD OF RECORD.—October 1991 to current year.

GAGE.—Water-stage recorder. Datum of gage is 670.00 ft above sea level.

REMARKS.—Records good except for periods of estimated record, which are fair. Diurnal fluctuation caused by powerplant at gage. Flood flow regulated by retarding dams on Mad River 22 mi upstream, on Stillwater River 26 mi upstream, on Great Miami River 26 mi upstream, and on Loramie Creek 55 mi upstream.

COOPERATION.—Eight discharge measurements furnished by Miami Conservancy District.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	929	690	833	1180	6110	1870	1170	1230	3420	1310	1740	3530
2	807	660	870	1110	4040	1770	1060	1180	2850	2400	1290	2190
3	718	708	843	969	2920	1750	1010	1140	2450	1390	1370	1440
4	666	641	792	976	2330	1580	946	1070	2160	1460	1350	1100
5	4660	627	722	1030	2050	1360	868	992	2030	1270	1300	894
6	7670	621	691	1100	1850	1300	875	950	2240	1210	1120	777
7	5710	703	668	1070	1660	1290	905	1020	3130	1210	926	965
8	3570	677	675	1030	1560	1320	898	1130	2640	1420	745	973
9	2410	1570	674	928	1700	1190	948	1140	2120	1380	734	970
10	1770	2980	620	885	5770	1140	2710	1120	1820	1230	924	9970
11	1500	3460	872	907	7830	1140	12400	1160	1600	1030	849	7270
12	1240	2560	3250	886	4800	1070	13000	1070	2770	886	1130	3550
13	1090	1900	5450	889	3300	1210	9210	913	3280	841	992	2250
14	978	1550	3620	882	2770	1320	5390	973	2370	813	894	1710
15	911	1420	2540	1000	7700	1330	3840	929	2500	752	755	1330
16	878	1290	5200	1530	8480	1620	3440	2000	3450	686	661	1180
17	1050	1180	12900	2250	5980	2060	3610	5920	1990	742	627	1070
18	1030	1080	10800	1810	4220	2670	3120	8930	1610	1910	611	1120
19	920	1000	6360	1540	3070	2270	2650	15500	1390	1240	1420	1190
20	869	924	4370	1490	2560	1900	2950	13800	1350	1200	990	1390
21	844	834	3090	1240	2200	1670	4000	8340	1510	1000	880	2390
22	809	815	2060	1240	1890	1520	4140	5560	2260	1480	1140	1650
23	778	814	1570	1170	1770	1430	3280	4190	2380	1010	1060	1310
24	767	789	1790	1070	1680	1400	2720	3480	2120	901	2160	1640
25	757	863	1630	1040	2570	1280	2230	3700	1650	854	1910	2650
26	757	901	1360	969	2420	1230	1940	5680	1360	1740	1520	e2200
27	747	842	1390	939	2320	1100	1710	11600	1220	1340	1320	e1700
28	709	859	1310	887	2030	1020	1510	13000	1110	1060	1270	e1400
29	683	874	1230	924	---	1000	1370	8580	1020	3130	1180	1180
30	685	852	1240	2260	---	984	1300	5510	985	6440	880	1070
31	729	---	1190	7280	---	977	---	4150	---	2900	2650	---
TOTAL	47641	34684	80610	42481	97580	44771	95200	135957	62785	46235	36398	62059
MEAN	1537	1156	2600	1370	3485	1444	3173	4386	2093	1491	1174	2069
MAX	7670	3460	12900	7280	8480	2670	13000	15500	3450	6440	2650	9970
MIN	666	621	620	882	1560	977	868	913	985	686	611	777
CFSM	.57	.43	.96	.50	1.28	.53	1.17	1.62	.77	.55	.43	.76
IN.	.65	.48	1.10	.58	1.34	.61	1.30	1.86	.86	.63	.50	.85

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2001, BY WATER YEAR (WY)

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001		
MEAN	846	2000	2076	3522	2999	3628	4455	3820	3442	2802	1538	882
MAX	1814	6603	7690	7884	4820	6894	7343	11920	6770	7539	5404	2069
(WY)	1996	1994	1997	1996	1997	1993	1996	1997	1993	1995	2001	
MIN	402	403	553	867	842	1143	2124	1239	978	832	464	298
(WY)	2000	2000	2000	1992	1992	1992	1997	1992	1999	1999	1999	1999

SUMMARY STATISTICS

	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1992 - 2001	
ANNUAL TOTAL	758740		786401			
ANNUAL MEAN	2073		2155		2665	
HIGHEST ANNUAL MEAN					4283	
LOWEST ANNUAL MEAN					1742	
HIGHEST DAILY MEAN	22600		Apr 9	15500	May 19	32000
LOWEST DAILY MEAN	406		Jan 2	611	Aug 18	250
ANNUAL SEVEN-DAY MINIMUM	433		Jan 25	662	Nov 2	265
MAXIMUM PEAK FLOW			17600		May 19	33800
MAXIMUM PEAK STAGE			13.54		May 19	17.27
INSTANTANEOUS LOW FLOW			611		Aug 18	122
ANNUAL RUNOFF (CFSM)	.76		.79		.98	
ANNUAL RUNOFF (INCHES)	10.40		10.77		13.34	
10 PERCENT EXCEEDS	4570		4200		6110	
50 PERCENT EXCEEDS	1240		1310		1370	
90 PERCENT EXCEEDS	516		791		500	

e Estimated.

SURFACE-WATER RECORDS
Great Miami River Basin

03272100 GREAT MIAMI RIVER AT MIDDLETOWN, OHIO

LOCATION.—Latitude 39°31'12", longitude 84°24'51", Butler County, Hydrologic Unit 05080002, on downstream side of Central Avenue Bridge on State Route 122, 1.9 mi downstream from Browns Run, on northwest side of city of Middletown, Ohio.

DRAINAGE AREA.—3,134 mi².

PERIOD OF RECORD.—July 1994 to current year.

GAGE.—Water-stage recorder. Datum of gage is 626 ft above sea level (levels by Miami Conservancy District).

REMARKS.—Records fair except for periods of estimated record, which are poor. Some regulation and diversion at low flow by industrial plants upstream from station. Flood flow regulated by five retarding basins upstream from station (see REMARKS for station numbers 03271500 and 03272000). Water-temperature data formerly collected at this site.

COOPERATION.—Gage-height record and 8 discharge measurements furnished by Miami Conservancy District.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	980	e770	962	1310	6610	2310	1320	1470	4390	1570	2170	4140
2	897	740	946	1280	4220	2190	1310	1420	3680	4270	1550	2740
3	805	790	935	1160	3080	2020	1220	1380	3120	2190	1490	1770
4	764	720	908	1150	2500	1840	1180	1290	2680	2140	1600	1350
5	4500	697	894	1200	2200	1710	1090	1190	2540	2130	1480	1100
6	9240	690	846	1230	1980	1600	1070	1140	2690	1610	1330	947
7	6240	785	822	1190	1820	1580	1080	1220	4860	1420	1120	1040
8	3730	759	815	1160	1690	1570	1060	1400	3560	1730	897	1250
9	2550	1450	801	1070	1780	1440	e1100	1420	2780	1730	830	1160
10	1870	3390	758	1020	5920	1320	e2500	1380	2340	1570	1050	11600
11	1590	3690	864	1030	8330	1310	e10000	1300	2030	1270	1060	9840
12	1350	2760	3600	1010	5000	1290	e15500	1640	3170	1060	1410	5030
13	1170	2090	5570	992	3510	1370	e9000	1250	4470	942	1280	3090
14	1070	1760	3850	987	2910	1570	5810	1210	3750	888	1060	2260
15	989	1590	2750	1120	7110	1560	4630	1160	3130	820	923	1710
16	952	1440	6590	1660	9640	1860	e4400	2030	4680	773	776	1460
17	1080	1320	15400	2380	6890	2600	e4700	6670	2680	793	744	1310
18	1150	1210	12300	2050	5040	3140	4020	10300	2100	2960	671	1330
19	1030	1120	6940	1760	3660	2760	3370	18400	1770	1640	1530	1450
20	981	1080	4640	1640	3050	2340	3660	16200	1650	1380	1240	2150
21	910	1020	3370	1390	2620	2070	4850	10200	1920	1270	1060	3150
22	886	979	2380	1370	2270	1910	5220	6910	3220	1680	1270	2250
23	853	929	1790	1310	2140	1770	4080	5410	3350	1160	1500	1710
24	848	903	1930	1230	1910	1640	3370	4590	2890	1040	2450	2110
25	838	952	1820	1200	2960	1500	2770	4670	2210	942	2450	3680
26	829	1040	1570	1140	3240	1460	2390	6350	1790	1770	1850	e3200
27	828	1020	1570	1120	2870	1370	2110	13500	1560	1540	1750	e2500
28	784	1010	1490	1110	2550	1250	1850	15300	1400	1170	1470	e1800
29	757	1020	1420	1100	---	1230	1660	10400	1250	2240	1590	1520
30	748	993	1390	2620	---	1180	1550	6720	1140	7060	1110	1350
31	802	---	1340	7540	---	1150	---	5270	---	3560	2320	---
TOTAL	52021	38717	91261	47529	107500	53910	107870	162790	82800	56318	43031	79997
MEAN	1678	1291	2944	1533	3839	1739	3596	5251	2760	1817	1388	2667
MAX	9240	3690	15400	7540	9640	3140	15500	18400	4860	7060	2450	11600
MIN	748	690	758	987	1690	1150	1060	1140	773	671	947	947
CFSM	.54	.41	.94	.49	1.23	.55	1.15	1.68	.88	.58	.44	.85
IN.	.62	.46	1.08	.56	1.28	.64	1.28	1.93	.98	.67	.51	.95

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 2001, BY WATER YEAR (WY)

	1994	1995	1996	1997	1998	1999	2000	2001
MEAN	895	1128	2305	3967	3680	4303	4995	5569
MAX	1759	2585	8508	8581	5289	7590	8320	13960
(WY)	1996	1996	1997	1996	1999	1997	1996	1997
MIN	352	369	560	1220	1370	1739	2306	1637
(WY)	2000	2000	2000	2000	1995	2001	1997	1999

SUMMARY STATISTICS

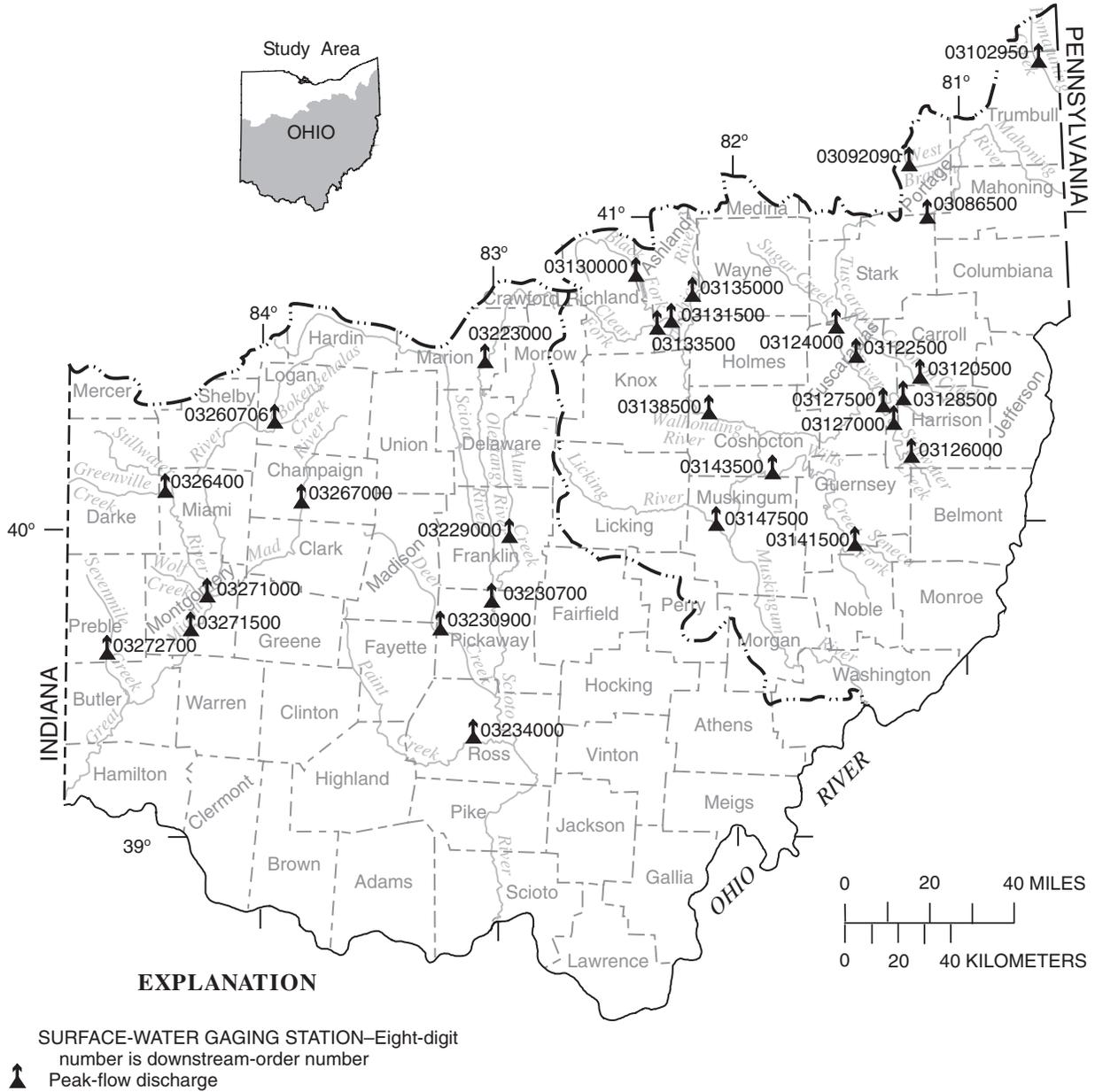
	FOR 2000 CALENDAR YEAR	FOR 2001 WATER YEAR	WATER YEARS 1994 - 2001
ANNUAL TOTAL	859134	923744	
ANNUAL MEAN	2347	2531	3023
HIGHEST ANNUAL MEAN			4724
LOWEST ANNUAL MEAN			1958
HIGHEST DAILY MEAN	27700	18400	36900
LOWEST DAILY MEAN	404	671	220
ANNUAL SEVEN-DAY MINIMUM	446	740	236
MAXIMUM PEAK FLOW		20200	38500
MAXIMUM PEAK STAGE		8.55	12.72
INSTANTANEOUS LOW FLOW		671	110
ANNUAL RUNOFF (CFSM)	.75	.81	.96
ANNUAL RUNOFF (INCHES)	10.20	10.96	13.10
10 PERCENT EXCEEDS	5010	5030	6790
50 PERCENT EXCEEDS	1390	1570	1520
90 PERCENT EXCEEDS	597	897	500

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.



DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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

MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS

[MI², square miles; FT, feet' FT³/S, cubic feet per second; ≠, operated as a continuous-record gaging station; ---, no data; e, estimated]

LOCATION	DRAINAGE AREA (MI ²)	PERIOD OF RECORD	WATER YEAR 2001 MAXIMUM			PERIOD OF RECORD MAXIMUM		
			DATE	GAGE HEIGHT (FT)	DISCHARGE (FT ³ /S)	DATE	GAGE HEIGHT (FEET)	DISCHARGE (FT ³ /S)
OHIO RIVER BASIN								
Beaver River Basin								
<u>03086500 MAHONING RIVER AT ALLIANCE, OHIO</u>								
Latitude 40°55'58", longitude 81°05'41", Stark County, Hydrologic Unit 05030103, on right bank 15 ft upstream from Webb Avenue bridge in Alliance, 0.2 mi upstream from water works dam, and 4 mi upstream from Beach Creek.	89.2	1941-93≠ 1994-01	12/17/00	3.64	1230	01/21/59	9.11	9740
<u>03092090 WEST BRANCH MAHONING RIVER NR RAVENNA, OHIO</u>								
Latitude 41°09'41", longitude 81°11'50", Portage County, Hydrologic Unit 05030103, on left bank at downstream side of bridge on Newton Falls Road, 2.5 mi east of Ravenna.	21.8	1965-93≠ 1994-01	04/07/01	5.51	908	09/14/79	8.63	2810
<u>03102950 PYMATUNING CREEK AT KINSMAN, OHIO</u>								
Latitude 41°26'34", longitude 80°35'18", Trumbull County, Hydrologic Unit 05030102, on left bank at downstream side of bridge on State Highway 7 at Kinsman, 0.8 mi downstream from Sugar Creek, and 1.2 mi upstream from Stratton Creek.	96.7	1966-94≠ 1995-01	12/17/00	10.71	771	11/06/85	12.40	2740
Muskingum River Basin								
<u>03120500 MCGUIRE CREEK BELOW LEESVILLE DAM, NEAR LEESVILLE, OHIO</u>								
Latitude 40°28'13", longitude 81°11'48", Carroll County, Hydrologic Unit 05040001, on left bank at outlet of Leesville Dam, 1.3 mi upstream from mouth, and 1.4 mi northeast of Leesville.	48.3	1938-91≠ 1992-01	02/12/01	4.70	296	03/04/40	7.88	740
<u>03122500 TUSCARAWAS RIVER BELOW DOVER DAM, NEAR DOVER, OHIO</u>								
Latitude 40°31'47", longitude 81°25'48", Tuscarawas County, Hydrologic Unit 05040001, on left bank at downstream side of bridge on State Highway 416, 2.2 mi downstream from Dover Dam, 1.5 mi east of Dover, and 3.4 mi upstream from Sugar Creek.	1405	1923-91≠ 1992-01	12/26/00	7.24	5740	01/26/37	15.51	26400
<u>03124000 SUGAR CREEK BELOW BEACH CITY DAM, NEAR BEACH CITY, OHIO</u>								
Latitude 40°38'08", longitude 81°33'11", Tuscarawas County, Hydrologic Unit 05040001, on right bank 1,000 ft downstream from Beach City Dam, 0.4 mi downstream from South Fork, and 1.8 mi southeast of Beach City.	300	1938-91≠ 1992-01	12/17/00	6.28	2020	07/06/69	11.26	7,520

**DISCHARGE AT PARTIAL-RECORD STATIONS
AND MISCELLANEOUS SITES**

MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS—Continued

[MI², square miles; FT, feet' FT³/S, cubic feet per second; ≠, operated as a continuous-record gaging station; ---, no data; e, estimated]

LOCATION	DRAINAGE AREA (MI ²)	PERIOD OF RECORD	WATER YEAR 2001 MAXIMUM			PERIOD OF RECORD MAXIMUM		
			DATE	GAGE HEIGHT (FT)	DISCHARGE (FT ³ /S)	DATE	GAGE HEIGHT (FEET)	DISCHARGE (FT ³ /S)
Muskingum River Basin—Continued								
<u>03126000 STILLWATER CREEK AT PIEDMONT, OHIO</u>								
Latitude 40°11'41", longitude 81°12'56", Harrison County, Hydrologic Unit 05040001, on left bank 400 ft downstream from outlet of Piedmont Dam and Boggs Fork, and 0.7 mi northwest of Piedmont.	122	1938-91≠ 1992-01	12/18/00	7.18	712	12/04/50	11.44	1470
<u>03127000 STILLWATER CREEK AT TIPPECANOE, OHIO</u>								
Latitude 40°16'13", longitude 81°17'26", Harrison County, Hydrologic Unit 05040001 on left bank downstream side of highway bridge at Tippecanoe, 0.4 mi downstream from Brushy Fork, 3.6 mi upstream from Weaver Run, 6 mi upstream from Laurel Creek, and 9 mi south of Dennison.	282	1938-91≠ 1992-01	02/01/01	12.37	1550	03/05/63	17.29	4410
<u>03127500 STILLWATER CREEK AT UHRICHSVILLE, OHIO</u>								
Latitude 40°23'10", longitude 81°20'50", Tuscarawas County, Hydrologic Unit 05040001, on left bank at concrete dam of Dennison Water Supply Co. at Uhrichsville, 2.2 mi upstream from Little Stillwater Creek.	367	1922-91≠ 1992-01	02/01/01	2.89	1870	08/08/35	12.80	7650
<u>03128500 LITTLE STILLWATER CREEK BELOW TAPPAN DAM, AT TAPPAN, OHIO</u>								
Latitude 40°21'25", longitude 81°13'49", Harrison County, Hydrologic Unit 05040001, on right bank 150 ft downstream from outlet of lake at Tappan Dam, 1 mi west of Tappan, and 2 mi upstream from Plum Run.	71.1	1938-91≠ 1992-01	12/19/00	6.73	473	03/13/39	10.00	1050
<u>03130000 BLACK FORK BELOW CHARLES MILL DAM, NEAR MIFFLIN, OHIO</u>								
Latitude 40°44'16", longitude 82°21'48", Ashland County, Hydrologic Unit 05040002, on left bank 700 ft downstream from Charles Mill Dam, 2.5 mi south of Mifflin, and 4 mi upstream from Rocky Fork.	217	1938-91≠ 1992-01	04/09/01	4.72	694	03/13/64	8.45	2800
<u>03131500 BLACK FORK AT LOUDONVILLE, OHIO</u>								
Latitude 40°38'09", longitude 82°14'22", Ashland County, Hydrologic Unit 05040002, on right bank at downstream side of bridge on State Highway 39 at Loudonville, 1.5 mi downstream from Big Run.	349	1931-91≠ 1992-01	12/17/00	9.96	3070	07/05/69	14.11	8460
<u>03133500 CLEAR FORK BELOW PLEASANT HILL DAM, NEAR PERRYVILLE, OHIO</u>								
Latitude 40°37'13", longitude 82°19'28", Ashland County, Hydrologic Unit 05040002, on left bank 0.2 mi downstream from Pleasant Hill Dam, 2.8 mi south of Perryville, and 4.7 mi upstream from the confluence of Clear Fork and Black Fork.	198	1938-91≠ 1992-01	12/18/00	3.23	999	01/23/59	4.89	2340
<u>03135000 LAKE FORK BELOW MOHICANVILLE DAM, NEAR MOHICANVILLE, OHIO</u>								
Latitude 40°43'24", longitude 82°09'18", Ashland County, Hydrologic Unit 05040002, on right bank 800 ft downstream from Mohicanville Dam, 2 mi east of Mohicanville, and 2.4 mi downstream from the confluence of Jerome and Muddy Forks.	271	1938-93≠ 1994-01	12/20/00	8.93	1280	07/05/69	14.32	5490

**DISCHARGE AT PARTIAL-RECORD STATIONS
AND MISCELLANEOUS SITES**

MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS—Continued

[MI², square miles; FT, feet' FT³/S, cubic feet per second; ≠, operated as a continuous-record gaging station; ---, no data; e, estimated]

LOCATION	DRAINAGE AREA (MI ²)	PERIOD OF RECORD	WATER YEAR 2001 MAXIMUM			PERIOD OF RECORD MAXIMUM		
			DATE	GAGE HEIGHT (FT)	DISCHARGE (FT ³ /S)	DATE	GAGE HEIGHT (FEET)	DISCHARGE (FT ³ /S)
Muskingum River Basin—Continued								
<u>03138500 WALHONDING RIVER BELOW MOHAWK DAM, AT NELLIE, OHIO</u>								
Latitude 40°20'29", longitude 82°03'56", Coshocton County, Hydrologic Unit 05040003, on right bank at upstream side of bridge on U.S. Highway 36 at Nellie, 0.5 mi upstream from Mohawk Creek, and 1.7 mi downstream from Mohawk Dam.	1505	1910-13 1921-91≠ 1992-01	12/19/00	11.05	6890	01/25/37	18.80	43800
<u>03141500 SENECA FORK BELOW SENECAVILLE DAM, NEAR SENECAVILLE, OHIO</u>								
Latitude 39°55'28", longitude 81°26'17", Guernsey County, Hydrologic Unit 05040005, on left bank 650 ft downstream from Senecaville Dam, and 1.5 mi southeast of Senecaville.	118	1938-91≠ 1992-01	12/20/00	9.01	889	08/24/80	9.69	985
<u>03143500 WILLS CREEK BELOW WILLS CREEK DAM AT WILLS CREEK, OHIO</u>								
Latitude 40°09'34", longitude 81°50'51", Coshocton County, Hydrologic Unit 05040005, on left bank 1,200 ft. downstream from Wills Creek Dam, 1.3 mi southeast of town of Wills Creek, 2.7 mi southeast of Conesville, and 6.2 mi upstream from mouth.	842	1938-91≠ 1992-01	02/03/01	11.81	3740	03/07/40	17.40	6930
<u>03147500 LICKING RIVER BELOW DILLON DAM, NEAR DILLON FALLS, OHIO</u>								
Latitude 39°59'18", longitude 82°04'50", Muskingum County, Hydrologic Unit 05040006, on left bank 500 ft downstream from Dillon Dam, 2.0 mi northwest of Dillon Falls, and 5.8 mi upstream from mouth.	742	1939-91≠ 1992-01	12/19/00	9.76	4920	01/22/59	32.46	47000
Scioto River Basin								
<u>03223000 OLENTANGY RIVER NEAR CLARIDON, OHIO</u>								
Latitude 40°34'58", longitude 82°59'20", 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	1946-98≠ 1999-01	12/17/00	7.96	1470	01/22/59	16.77	14900
<u>03229000 ALUM CREEK AT COLUMBUS, OHIO</u>								
Latitude 39°56'42", longitude 82°56'28", Franklin County, Hydrologic Unit 05060001, on left bank 0.2 mi downstream from Livingston Avenue bridge in Columbus, and 6 mi upstream from mouth.	189	1963-98≠ 1999-01	12/16/00	8.44	3900	01/22/59	19.59	26400
<u>03230700 SCIOTO RIVER AT CIRCLEVILLE, OHIO</u>								
Latitude 39°36'05", longitude 82°57'19", Pickaway County, Hydrologic Unit 05060002, on right bank 100 ft upstream from U.S. Highway 22 bridge, 1,400 ft downstream from Hargus Creek, and 1.0 mi downstream from Big Darby Creek.	3217	1974-79≠ 2000-01	05/20/01	16.42	24800	02/25/75	21.95	61500

**DISCHARGE AT PARTIAL-RECORD STATIONS
AND MISCELLANEOUS SITES**

MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS—Continued

[MI², square miles; FT, feet' FT³/S, cubic feet per second; ≠, operated as a continuous-record gaging station; ---, no data; e, estimated]

LOCATION	DRAINAGE AREA (MI ²)	PERIOD OF RECORD	WATER YEAR 2001 MAXIMUM			PERIOD OF RECORD MAXIMUM		
			DATE	GAGE HEIGHT (FT)	DISCHARGE (FT ³ /S)	DATE	GAGE HEIGHT (FEET)	DISCHARGE (FT ³ /S)
Scioto River Basin—Continued								
	<u>03230900 DEER CREEK NEAR PANCOASTBURG, OHIO</u>							
Latitude 39°37'14", longitude 83°12'47", Pickaway County, Hydrologic Unit 05060002, on left bank 200 ft downstream from bridge on Crownover Mill Road, 1,200 ft downstream from Deer Creek Dam, and 2.8 mi east of Pancoastburg.	277	1964-66 1966-97≠ 1998-01	12/18/00	6.28	2530	03/10/64	12.93	19500
	<u>03234000 PAINT CREEK NEAR BOURNEVILLE, OHIO</u>							
Latitude 39°15'49", longitude 83°10'01", Ross County, Hydrologic Unit 05060001, on upstream side of left abutment of highway bridge, 0.2 mi downstream from Sulfer Lick, 1.2 mi southwest of Bourneville.	807	1921-37 1938-98≠ 1999-01	05/18/01	10.93	8960	03/10/64	20.50	56900
Great Miami River Basin								
	<u>03260706 BOKENGAHALAS CREEK AT DEGRAFF, OHIO</u>							
Latitude 40°18'40", longitude 83°54'45", Logan County, Hydrologic Unit 05080001, at DeGraff on right bank 100 ft downstream from bridge on County Road 11 and 1.1 mi upstream from mouth.	40.4	1993-96≠ 1998-01	05/18/01	5.11	624	06/02/97	5.68	753
	<u>03264000 GREENVILLE CREEK NEAR BRADFORD, OHIO</u>							
Latitude 40°06'08", longitude 84°25'48", Miami County, Hydrologic Unit 05080001, on left bank at downstream side of bridge at State Highway 721, 1.8 mi south of Bradford, Ohio	193	1930-00≠ 2001	08/24/01	4.89	1450	05/14/33 03/05/63	--- 10.31	9320 ---
	<u>03267000 MAD RIVER NEAR URBANA, OHIO</u>							
Latitude 40°06'27", longitude 83°47'57", Champaign County, Hydrologic Unit 05080001, on left bank at downstream side of bridge on U.S. Highway 36, 1.8 mi upstream from Dugan Run, 1.8 mi downstream from Muddy Creek, 2.5 mi west of Urbana.	162	1925-31 1939-98≠ 1999-01	05/19/01	6.06	1750	01/22/59	12.05	8000
	<u>03271000 WOLF CREEK AT DAYTON, OHIO</u>							
Latitude 39°46'00", longitude 84°14'10", Montgomery County, Hydrologic Unit 05080002, on right bank, at West Riverview Avenue Bridge, in Dayton, 1.8 mi upstream from mouth.	68.7	1938-50≠ 1986-96≠ 1998-01	04/11/01	7.37	3680	03/19/43	13.50	9950
	<u>03271500 GREAT MIAMI RIVER AT MIAMISBURG, OHIO</u>							
Latitude 39°38'40", longitude 84°17'32", Montgomery County, Hydrologic Unit 05080002, on left bank 600 ft downstream from bridge on U.S. Highway 725, at Miamisburg, 0.3 mi downstream from Bear Creek, 3.2 mi upstream from Craine Run and at mile 66.4.	2711	1916-20≠ 1924-35≠ 1952-95≠ 1996-01	05/19/01	10.61	16700	01/21/59	21.30	61800
	<u>03272700 SEVENMILE CREEK AT CAMDEN, OHIO</u>							
Latitude 39°37'45", longitude 84°38'40", Preble County, Hydrologic Unit 05080002, on right bank at downstream side of bridge on State Highway 725 in Camden, Ohio	69.0	1971-00≠ 2001	07/18/01	8.85	2500	05/26/89	18.67	20200

**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 2000 TO SEPTEMBER 2001

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

DATE	TIME	DISCHARGE (FT ³ /S)	GAGE HEIGHT (FEET)	DATE	TIME	DISCHARGE (FT ³ /S)	GAGE HEIGHT (FEET)
OHIO RIVER BASIN							
Beaver River Basin							
<u>03093000 EAGLE CREEK AT PHALANX STATION, OHIO</u> (Base discharge: 1,300 ft ³ /s)							
Apr. 07	2400	*3130	*12.26				
Little Beaver Creek Basin							
<u>03109500 LITTLE BEAVER CREEK NEAR EAST LIVERPOOL, OHIO</u> (Base discharge: 5,000 ft ³ /s)							
Dec. 17	1100	*3350	7.43	Jan. 31	0900	---	*8.35b
Yellow Creek Basin							
<u>03110000 YELLOW CREEK NEAR HAMMONDSVILLE, OHIO</u> (Base discharge: 2,000 ft ³ /s)							
Dec. 17	1100	*2100	*6.13				
Short Creek Basin							
<u>03111500 SHORT CREEK NEAR DILLONVALE, OHIO</u> (Base discharge: 1,200 ft ³ /s)							
Dec. 17	0830	*1480	*5.87	Jan. 31	0600	1390	5.67
Wheeling Creek Basin							
<u>03111548 WHEELING CREEK BELOW BLAINE, OHIO</u> (Base discharge: 1,500 ft ³ /s)							
June 06	0900	*3210	*6.34				
Captina Creek Basin							
<u>03114000 CAPTINA CREEK AT ARMSTRONGS MILLS, OHIO</u> (Base discharge: 3,000 ft ³ /s)							
Dec. 17	1100	*4020	*8.19	June 01	2100	3700	7.91
Little Muskingum River Basin							
<u>03115400 LITTLE MUSKINGUM RIVER AT BLOOMFIELD, OHIO</u> (Base discharge: 3,000 ft ³ /s)							
Jan. 30	2100	4050	17.07	Apr. 11	2130	*7820	*21.92
Muskingum River Basin							
<u>03115973 SCHOCALOG RUN AT COPLEY JUNCTION, OHIO</u> (Base discharge: 90 ft ³ /s)							
Dec. 17	0210	*96	*12.33				
<u>03117500 SANDY CREEK AT WAYNESBURG, OHIO</u> (Base discharge: 1,800 ft ³ /s)							
Dec. 17	1100	*2080	*5.19				

**PEAK DISCHARGE AND STAGE AT
CONTINUOUS-RECORD SURFACE DISCHARGE STATIONS**

PEAK DISCHARGES EQUAL TO OR GREATER THAN BASE DISCHARGES, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001—Continued

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

DATE	TIME	DISCHARGE (FT ³ /S)	GAGE HEIGHT (FEET)	DATE	TIME	DISCHARGE (FT ³ /S)	GAGE HEIGHT (FEET)
Muskingum River Basin—Continued							
<u>03118000 MIDDLE BRANCH NIMISHILLEN CREEK AT CANTON, OHIO</u> (Base discharge: 400 ft ³ /s)							
Dec. 17	1530	*592	*5.24				
<u>031118500 NIMISHILLEN CREEK AT NORTH INDUSTRY, OHIO</u> (Base discharge; 400 ft ³ /s)							
Dec. 17	0400	*3110	*8.01	Aug. 09	2100	2470	7.04
<u>03121850 HUFF RUN AT MINERAL CITY, OHIO</u> (Base discharge: 100 ft ³ /s)							
Dec. 17	0900	*149	*3.11	Jan. 31	0500	119	2.96
<u>03139000 KILLBUCK CREEK AT KILLBUCK, OHIO</u> (Base discharge: 2,000 ft ³ /s)							
Dec. 17	2000	*2630	*16.27				
<u>03140000 MILL CREEK NEAR COSHOCTON, OHIO</u> (Base discharge: 700 ft ³ /s)							
Dec. 17	---	*770e	*8.80e				
<u>03144000 WAKATOMIKA CREEK NEAR FRAZEYSBURG, OHIO</u> (Base discharge: 1,600 ft ³ /s)							
Dec. 17	1000	*7340	*10.20				
<u>03146500 LICKING RIVER NEAR NEWARK, OHIO</u> (Base discharge: 6,500 ft ³ /s)							
Dec. 17	0700	*17700	*14.24	Jan. 31	0500	6550	9.64
Apr. 11	1400	6950	9.86	May 19	0200	7000	9.89
Hocking River Basin							
<u>03157000 CLEAR CREEK NEAR ROCKBRIDGE, OHIO</u> (Base discharge: 1,900 ft ³ /s)							
Dec. 17	0345	2580	8.10	May 17	0345	2950	8.82
Apr. 11	1330	*4720	*12.18				
<u>03157500 HOCKING RIVER AT ENTERPRISE, OHIO</u> (Base discharge: 3,500 ft ³ /s)							
Dec. 17	1600	6510	12.70	May 19	0700	4320	9.97
Apr. 11	2000	*9140	*15.24				
<u>03158195 SNOW FORK MONDAY CREEK AT BUCHTEL, OHIO</u> (Base discharge: 250 ft ³ /s)							
Dec. 17	0300	796	9.21	May 22	1645	334	6.73
Apr. 11	1200	*1030	*10.42	June 06	2100	420	7.27
May 18	2245	502	7.74				
<u>03158200 MONDAY CREEK AT DOANVILLE, OHIO</u> (Base discharge: 600 ft ³ /s)							
Dec. 18	0545	---	14.57e	May 19	1145	1060	11.72
Jan. 31	1930	912	10.77	May 23	0430	990	11.29
Apr. 12	---	*2000e	*16.09e	June 07	0915	624	8.78
Apr. 21	0545	675	9.14				
Shade River Basin							
<u>03159540 SHADE RIVER NEAR CHESTER, OHIO</u> (Base discharge: 2,400 ft ³ /s)							
Dec. 17	0900	2530	16.06	May 22	2300	*4400	*20.77

**PEAK DISCHARGE AND STAGE AT
CONTINUOUS-RECORD SURFACE DISCHARGE STATIONS**

PEAK DISCHARGES EQUAL TO OR GREATER THAN BASE DISCHARGES, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001—Continued

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

DATE	TIME	DISCHARGE (FT ³ /S)	GAGE HEIGHT (FEET)	DATE	TIME	DISCHARGE (FT ³ /S)	GAGE HEIGHT (FEET)
Raccoon Creek Basin							
<u>03201980 LITTLE RACCOON CREEK AT EWINGTOWN, OHIO</u> (Base discharge: 860 ft ³ /s)							
Dec. 17	1045	1060	11.48	May 19	1045	*2590	*13.55
<u>03202000 RACCOON CREEK NEAR ADAMSVILLE, OHIO</u> (Base discharge: 3,000 ft ³ /s)							
Dec. 17	0700	4500	14.83	May 22	2300	*7560	*19.45
Scioto River Basin							
<u>03219500 SCIOTO RIVER NEAR PROSPECT, OHIO</u> (Base discharge: 3,600 ft ³ /s)							
Apr. 13	2000	*3040	*8.06				
<u>03220000 MILL CREEK NEAR BELLEPOINT, OHIO</u> (Base discharge: 2,500 ft ³ /s)							
Apr. 11	1200	*3360	*7.34	May 19	0100	3240	7.23
<u>03228300 BIG WALNUT CREEK AT SUNBURY, OHIO</u> (Base discharge: 2,200 ft ³ /s)							
dec. 17	---	*2200e	*8.81e				
<u>03228750 ALUM CREEK NEAR KILBOURNE, OHIO</u> (Base discharge: 1000 ft ³ /s)							
Dec. 16	2400	*1680	*7.65	Apr. 20	1700	1300	6.85
Apr. 06	1600	1160	6.54				
<u>03230310 LITTLE DARBY CREEK AT WEST JEFFERSON, OHIO</u> (Base discharge: 1000 ft ³ /s)							
Dec. 17	1645	1560	10.02	May 19	1030	*4100	13.57
Apr. 12	0700	1010	8.68	May 25	1800	1300	9.42
<u>03230450 HELLBRANCH RUN NEAR HARRISBURG, OHIO</u> (Base discharge: 300 ft ³ /s)							
Oct. 05	2315	303	6.19	May 18	2230	1180	8.13
Dec. 17	0030	*1450	*8.63	May 21	1900	389	6.42
Apr. 11	0945	1420	8.57	May 25	0930	789	7.32
May 16	2115	960	7.68	July 28	0930	400	6.45
<u>03230500 BIG DARBY CREEK AT DARBYVILLE, OHIO</u> (Base discharge: 4,500 ft ³ /s)							
May 20	0700	*7750	*10.97				
<u>03230800 DEER CREEK AT MOUNT STERLING, OHIO</u> (Base discharge: 1,900 ft ³ /s)							
Dec. 17	0700	5200	10.15	May 19	0800	5930	10.47
Apr. 11	1900	*7140	*10.88	May 22	0400	1970	7.97
May 17	0500	4380	9.75	May 25	1400	3520	9.27
<u>03232000 PAINT CREEK NEAR GREENFIELD, OHIO</u> (Base discharge: 2,000 ft ³ /s)							
Dec. 16	2200	4120	8.65	May 26	0200	2970	7.49
Apr. 12	1500	5460	9.75	June 06	2330	4120	8.65
May 18	1800	*7930	*11.17				
Upper Twin Creek Basin							
<u>03237280 UPPER TWIN CREEK AT MCGAW, OHIO</u> (Base discharge: 450 ft ³ /s)							
Dec. 16	2215	*756	*6.13	May 22	0745	518	5.65

**PEAK DISCHARGE AND STAGE AT
CONTINUOUS-RECORD SURFACE DISCHARGE STATIONS**

PEAK DISCHARGES EQUAL TO OR GREATER THAN BASE DISCHARGES, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001—Continued

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

DATE	TIME	DISCHARGE (FT ³ /S)	GAGE HEIGHT (FEET)	DATE	TIME	DISCHARGE (FT ³ /S)	GAGE HEIGHT (FEET)
Ohio Brush Creek Basin							
<u>03237500 OHIO BRUSH CREEK NEAR WEST UNION, OHIO</u> (Base discharge: 11,000 ft ³ /s)							
Dec. 17	0330	24100	*18.80	July 18	1330	15900	15.77
White Oak Creek Basin							
<u>03238500 WHITE OAK CREEK NEAR GEORGETOWN, OHIO</u> (Base discharge: 5,500 ft ³ /s)							
Dec. 17	0600	*13600	*8.39	July 22	1500	9770	7.44
Mar. 05	0330	5920	6.25	July 26	2000	8100	6.97
July 18	2100	12800	8.20	Sep. 01	0130	8270	7.02
Little Miami River Basin							
<u>03240000 LITTLE MIAMI RIVER NEAR OLDTOWN, OHIO</u> (Base discharge: 800 ft ³ /s)							
Dec. 17	1330	945	4.83	May 19	1230	*2850	*8.08
Apr. 11	0600	2770	7.97	June 11	2130	1540	6.07
May 17	0530	1640	6.25	July 30	0730	929	4.79
<u>03241500 MASSIES CREEK AT WILBERFORCE, OHIO</u> (Base discharge: 600 ft ³ /s)							
Dec. 17	0130	878	6.22	May 19	1030	1540	7.77
Apr. 11	0500	*2220	*9.04				
<u>03245500 LITTLE MIAMI RIVER AT MILFORD, OHIO</u> (Base discharge: 15,000 ft ³ /s)							
May 18	2300	18600	14.46	July 18	0400	*43900	*21.81
June 07	0400	20200	15.01				
Great Miami River Basin							
<u>03261500 GREAT MIAMI RIVER AT SIDNEY, OHIO</u> (Base discharge: 4,000 ft ³ /s)							
May 19	0030	*5470	*9.07				
<u>03261950 LORAMIE CREEK NEAR NEWPORT, OHIO</u> (Base discharge: 1,500 ft ³ /s)							
May 27	1730	*1700	*10.31				
<u>03265000 STILLWATER RIVER AT PLEASANT HILL, OHIO</u> (Base discharge: 5,000 ft ³ /s)							
Apr. 11	2130	*4610	*8.12				
<u>03267900 MAD RIVER AT ST. PARIS PIKE AT EAGLE CITY, OHIO</u> (Base discharge: 2,500 ft ³ /s)							
May 18	2400	*3360	*10.84	July 17	1500	2800	10.08

GROUND-WATER RECORDS
Ashland County

405303082170700. LOCAL NUMBER, AS-2

LOCATION.—Latitude 40°53'03", longitude 82°17'07", Hydrologic Unit 05040002, Jerome Fork well field 2 mi northeast of Ashland, Ohio. Owner: Ashland Water Department.

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled test water table well, diameter 6 in., depth 64 ft, cased.

INSTRUMENTATION.—Digital recorder, 60-minute punch.

DATUM.—Elevation of land-surface datum is 980 ft above sea level, from topographic map. Measuring point: Floor of instrument shelter 2.00 ft above land-surface datum.

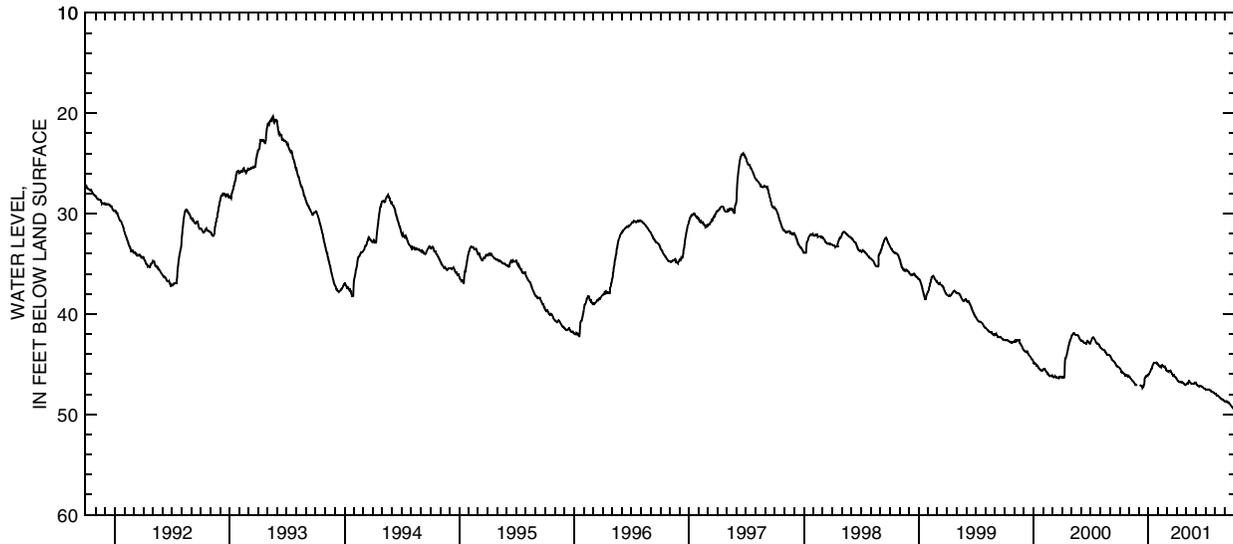
REMARKS.—Station operated by Ohio Department of Natural Resources (ODNR), Division of Water. Some historical records not published by the USGS are available from ODNR.

PERIOD OF RECORD.—March 1964 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 49.43 ft below land-surface datum, Sept. 28 and 29, 2001; minimum daily low, 11.56 ft below land-surface datum, Jan. 1, 1991.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45.41	46.25	---	46.04	45.08	45.70	46.53	46.99	46.91	47.54	47.94	48.72
2	45.46	46.29	---	46.00	45.14	45.73	46.57	46.99	46.98	47.54	47.95	48.75
3	45.51	46.35	---	45.94	45.14	45.74	46.64	46.96	47.06	47.54	47.97	48.78
4	45.59	46.39	47.07	45.89	45.15	45.74	46.66	46.94	47.10	47.56	48.03	48.79
5	45.63	46.44	47.12	45.82	45.16	45.75	46.67	46.93	47.11	47.58	48.08	48.78
6	45.69	46.48	47.12	45.79	45.24	45.70	46.74	46.86	47.13	47.59	48.11	48.73
7	45.72	46.54	47.15	45.65	45.26	45.68	46.75	46.81	47.16	47.55	48.14	48.77
8	45.77	46.55	47.20	45.57	45.27	45.65	46.77	46.76	47.17	47.53	48.14	48.81
9	45.78	46.58	47.20	45.50	45.32	45.67	46.81	46.75	47.19	47.53	48.13	48.81
10	45.82	46.65	47.21	45.46	45.35	45.67	46.82	46.74	47.20	47.53	48.16	48.77
11	45.84	46.66	47.21	45.42	45.24	45.71	46.82	46.76	47.23	47.55	48.17	48.82
12	45.86	46.68	47.33	45.35	45.12	45.68	46.82	46.79	47.24	47.55	48.19	48.85
13	45.86	46.73	47.27	45.26	45.09	45.77	46.81	46.81	47.21	47.56	48.25	48.89
14	45.91	46.78	47.29	45.14	45.12	45.82	46.78	46.87	47.18	47.57	48.28	48.92
15	45.95	46.80	47.29	45.04	45.16	45.86	46.82	46.91	47.18	47.59	48.32	48.96
16	45.99	46.87	47.20	44.95	45.18	45.95	46.80	46.96	47.20	47.61	48.36	49.00
17	46.02	46.91	47.10	44.90	45.23	46.02	46.83	46.99	47.20	47.64	48.38	49.03
18	46.06	46.94	47.03	44.88	45.22	46.05	46.82	47.00	47.22	47.69	48.40	49.07
19	46.06	46.99	46.59	44.90	45.23	46.07	46.84	47.00	47.23	47.72	48.44	49.12
20	46.14	47.08	46.43	44.90	45.27	46.11	46.86	47.00	47.24	47.76	48.47	49.16
21	46.14	47.08	46.31	44.90	45.31	46.09	46.90	47.00	47.24	47.78	48.49	49.20
22	46.14	47.08	46.29	44.90	45.29	46.12	46.91	47.00	47.28	47.79	48.50	49.23
23	46.14	47.08	46.27	44.88	45.39	46.15	46.93	46.98	47.33	47.79	48.51	49.26
24	46.12	47.08	46.19	44.88	45.41	46.22	47.01	46.96	47.38	47.79	48.53	49.30
25	46.12	47.07	46.19	44.89	45.56	46.24	47.03	46.95	47.40	47.80	48.55	49.34
26	46.18	47.04	46.14	44.87	45.58	46.27	47.03	46.90	47.42	47.83	48.58	49.37
27	46.23	---	46.10	44.94	45.64	46.29	47.07	46.83	47.42	47.83	48.60	49.41
28	46.27	---	46.13	44.92	45.67	46.31	47.08	46.83	47.45	47.85	48.64	49.43
29	46.27	---	46.10	44.91	---	46.34	47.06	46.83	47.47	47.88	48.64	49.43
30	46.24	---	46.07	44.94	---	46.39	47.02	46.85	47.49	47.90	48.66	49.42
31	46.21	---	46.07	45.04	---	46.42	---	46.86	---	47.92	48.71	---
MAX	46.27	47.08	47.33	46.04	45.67	46.42	47.08	47.00	47.49	47.92	48.71	49.43
CAL YR 2000	LOW 47.33											
WTR YR 2001	LOW 49.43											



GROUND-WATER RECORDS
Ashland County

405425082173000. LOCAL NUMBER, AS-3

LOCATION.—Latitude 40°54'25", longitude 82°17'30", Hydrologic Unit 05040002, Ashland Bates well field along Jerome Fork near Ashland, Ohio.

Owner: Ashland Water Department.

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled unused artesian well, diameter 8 in., depth 78 ft, cased.

INSTRUMENTATION.—Digital recorder, 60-minute punch.

DATUM.—Elevation of land-surface datum is 990 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.

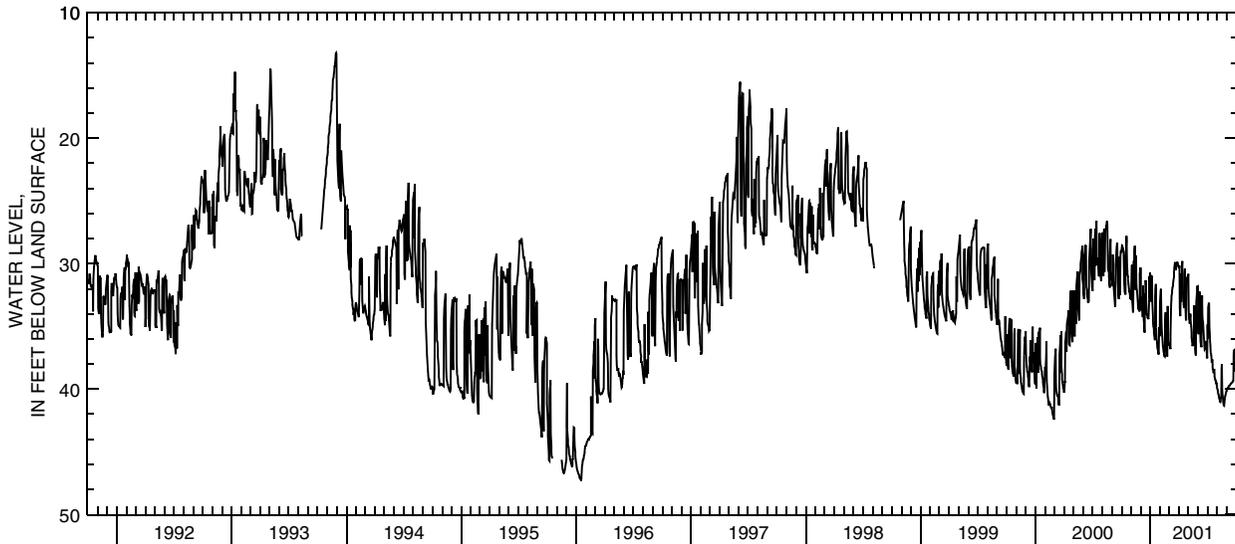
PERIOD OF RECORD.—August 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 47.29 ft below land-surface datum, Jan. 17, 1996; minimum daily low, 5.14 ft below land-surface, Dec. 24, 1974.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28.78	32.88	33.00	33.02	32.59	36.39	30.29	30.81	34.83	34.85	39.91	40.05
2	28.56	30.10	33.40	30.90	32.19	36.51	30.32	33.63	35.55	35.96	40.02	39.99
3	28.58	32.29	33.60	32.83	32.00	36.72	30.15	34.38	35.61	33.53	40.15	39.92
4	28.74	32.96	33.68	31.06	33.63	36.69	33.51	34.37	33.13	33.31	40.30	39.89
5	28.79	33.39	32.63	30.97	34.84	36.81	34.12	34.75	32.58	33.19	40.41	39.84
6	28.97	33.73	33.73	31.01	35.41	35.68	34.17	34.77	32.34	33.12	40.55	39.79
7	29.05	33.88	34.28	33.10	35.80	33.22	30.79	33.99	32.24	35.14	40.66	39.76
8	29.10	30.56	31.74	34.22	36.17	32.84	32.83	34.16	35.52	35.53	40.77	39.74
9	31.64	29.77	33.79	34.65	36.53	32.58	33.06	34.50	36.19	36.16	40.89	39.71
10	32.01	31.31	34.46	34.96	36.74	32.33	32.70	35.01	36.39	36.56	40.99	39.68
11	32.19	28.95	34.77	35.20	36.92	32.13	30.21	35.44	36.55	37.08	41.02	39.62
12	32.38	28.57	35.36	35.49	37.13	31.95	29.81	35.90	36.67	37.15	40.85	39.59
13	32.46	31.18	35.48	35.65	37.20	31.74	32.15	36.25	33.37	37.35	40.61	39.56
14	29.48	31.84	32.46	35.81	37.38	31.60	32.35	36.57	32.53	37.76	40.70	39.53
15	28.72	32.09	32.46	36.11	37.42	31.35	32.66	36.53	34.19	37.89	38.38	39.52
16	28.20	29.33	31.91	32.68	34.60	31.05	33.24	36.38	34.53	37.63	37.99	39.50
17	27.78	31.66	31.32	32.00	34.03	30.69	33.55	36.19	34.66	38.02	39.98	39.46
18	30.20	32.01	33.15	31.63	33.87	30.32	30.88	36.52	35.10	38.30	40.41	39.41
19	30.62	32.18	33.80	35.11	36.57	29.88	30.52	33.98	35.63	38.54	40.72	39.39
20	30.88	32.52	34.00	35.78	36.73	29.94	30.39	33.33	36.14	38.72	40.96	39.38
21	31.05	32.90	34.15	36.17	36.92	30.19	32.98	35.72	36.51	38.68	41.16	39.35
22	31.22	33.29	34.26	36.48	37.26	30.39	33.79	36.30	36.79	38.37	41.32	37.17
23	31.58	33.55	34.32	36.73	37.38	30.52	34.33	36.80	36.73	38.78	41.33	36.97
24	32.00	33.66	34.38	36.80	34.65	30.19	34.52	37.18	36.55	39.00	41.08	36.89
25	32.18	33.18	34.41	36.97	33.39	30.17	31.62	37.30	36.43	39.19	40.79	36.87
26	32.21	33.64	34.42	37.15	36.05	30.07	31.28	33.93	36.29	39.32	40.60	36.89
27	32.49	33.80	33.00	37.23	36.23	29.85	31.08	32.98	36.30	39.29	40.51	38.61
28	32.73	30.72	30.99	35.72	36.42	29.93	31.02	32.30	36.92	39.43	40.38	36.97
29	32.81	33.01	32.70	35.06	---	30.00	30.97	31.83	37.31	39.60	40.29	36.93
30	32.12	30.32	30.71	35.80	---	30.11	30.91	31.80	37.53	39.55	40.17	36.86
31	32.61	---	30.76	33.08	---	30.16	---	31.77	---	39.77	40.12	---
MAX	32.81	33.88	35.48	37.23	37.42	36.81	34.52	37.30	37.53	39.77	41.33	40.05

CAL YR 2000 LOW 42.42
WTR YR 2001 LOW 41.33



GROUND-WATER RECORDS
Athens County

392004082071600. LOCAL NUMBER, AT-2A

LOCATION.—Latitude 39°20'04", longitude 82°07'16", Hydrologic Unit 05030204, 1.1 mi west of city hall in Athens, Ohio. Owner: City of Athens.
AQUIFER.—Sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.—Drilled unused water table well, diameter 12 in., depth 48 ft, cased.

INSTRUMENTATION.—Periodic measurement with chalked tape by Ohio Department of Natural Resources personnel.

DATUM.—Elevation of land-surface datum is 641.81 ft above sea level. Measuring point: Floor of instrument shelter, 5.80 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. Prior to water year 1978, well depth reported as 43 ft.

PERIOD OF RECORD.—October 1966 to September 1982 continuous, periodic thereafter. This well replaced At-2, which has continuous record from March 1954 to September 1966.

EXTREMES FOR PERIOD OF RECORD.—Maximum measured low, 21.52 ft below land-surface datum, Oct. 15, 1993; minimum daily low, 1.05 ft below land-surface datum, May 25, 28, 1968.

WATER LEVEL
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION,
WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL
Oct. 20	20.73
Apr. 21	18.32

GROUND-WATER RECORDS
Athens County

392009082072200. LOCAL NUMBER, AT-5

LOCATION.—Latitude 39°20'09", longitude 82°07'22", Hydrologic Unit 05030204, well field along Hocking River in Athens, Ohio. Owner: Athens Water Department.

AQUIFER.—Sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.—Drilled unused water table well, diameter 12 in., depth 48 ft, cased.

INSTRUMENTATION.—Digital recorder, 60-minute punch.

DATUM.—Elevation of land surface datum is 640 ft above sea level, from topographic map. Measuring point: Floor of instrument shelter, 4.75 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.

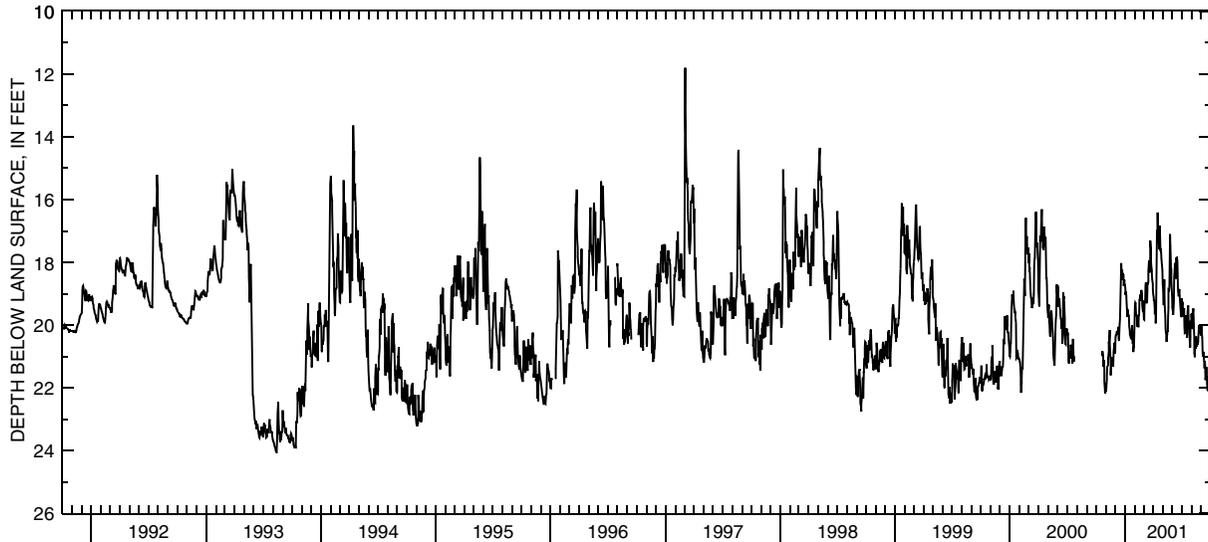
PERIOD OF RECORD.—July 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 24.06 ft below land-surface datum, Aug. 12, 13, 1993; minimum daily low 8.87 ft below land-surface datum, May 31, 1990.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	22.13	20.90	18.73	19.71	19.60	19.00	18.70	19.43	19.14	19.64	20.27
2	---	21.99	20.38	18.87	19.35	19.82	19.13	18.82	19.57	19.37	19.89	20.00
3	---	22.04	20.32	19.03	19.29	19.84	19.23	19.05	19.64	19.26	20.13	20.30
4	---	21.73	20.32	18.93	19.30	19.33	19.18	19.37	19.67	19.43	19.64	20.40
5	---	21.58	20.28	19.08	19.57	19.28	19.46	18.83	19.25	19.55	19.56	20.84
6	---	21.32	20.22	19.12	19.69	19.24	19.65	18.54	19.15	19.67	19.47	21.00
7	---	21.28	20.19	19.49	19.69	18.76	19.61	19.30	18.48	19.72	19.47	20.88
8	---	21.05	20.25	19.73	19.71	18.64	19.47	19.53	18.11	19.46	20.13	20.88
9	---	21.05	20.26	19.49	20.05	18.68	19.94	19.71	18.02	20.04	20.42	21.05
10	---	20.85	20.18	19.55	19.87	18.91	19.78	20.13	18.40	20.25	20.90	21.15
11	---	20.52	20.06	19.66	19.70	19.26	19.31	20.26	18.52	20.24	21.02	21.38
12	---	20.60	20.41	19.68	20.02	19.31	18.38	20.19	18.12	20.20	20.64	21.15
13	---	20.16	20.50	19.69	20.07	18.87	16.98	20.53	17.89	20.05	20.72	21.27
14	---	20.58	20.17	19.74	19.66	18.71	17.20	20.30	17.83	20.10	20.76	21.75
15	---	20.83	19.96	20.03	19.69	18.67	16.41	20.31	17.90	19.69	20.63	21.63
16	---	21.20	19.82	20.20	19.20	18.60	16.82	20.18	17.88	20.25	20.36	21.35
17	---	21.60	19.37	20.30	19.18	18.28	17.24	20.21	17.96	20.40	20.63	21.38
18	---	21.35	18.71	20.33	19.05	17.95	17.29	19.71	18.54	19.85	20.67	21.38
19	---	21.20	18.38	20.39	19.05	18.01	17.44	19.45	18.89	19.58	20.61	21.86
20	20.99	21.28	18.02	20.42	19.11	18.32	17.58	18.87	18.98	19.44	20.61	22.07
21	20.84	21.25	18.28	20.43	19.23	18.28	17.55	18.89	19.08	19.38	20.47	22.08
22	20.83	21.02	18.28	20.27	18.88	17.86	16.84	18.75	18.96	19.88	20.55	21.89
23	20.94	21.24	18.23	20.14	18.94	17.30	17.24	18.33	18.85	19.90	20.13	21.81
24	21.26	21.30	18.56	20.01	19.03	17.59	17.64	17.10	19.05	20.27	20.04	21.65
25	21.33	21.31	18.34	20.51	19.37	17.90	17.57	17.48	19.18	20.40	20.00	21.65
26	21.11	20.86	18.40	20.60	19.48	18.09	17.68	17.49	19.36	20.52	20.27	21.89
27	21.38	20.74	18.38	20.43	19.56	18.26	17.88	18.16	19.47	20.72	20.10	22.11
28	21.79	20.80	18.76	20.86	19.22	18.38	17.99	18.24	19.68	20.40	20.04	22.34
29	22.09	20.56	18.60	20.70	---	18.54	18.11	18.63	19.72	19.86	20.03	22.44
30	22.18	20.84	18.56	20.67	---	18.68	18.26	19.00	19.74	19.95	20.06	22.49
31	21.85	---	18.68	20.28	---	18.83	---	19.29	---	19.64	20.33	---
MAX	22.18	22.13	20.90	20.86	20.07	19.84	19.94	20.53	19.74	20.72	21.02	22.49

CAL YR 2000 LOW 22.18
WTR YR 2001 LOW 22.49



GROUND-WATER RECORDS
Auglaize County

403233083574500. LOCAL NUMBER, AU-3

LOCATION.—Latitude 40°32'33", longitude 83°57'45", Hydrologic Unit 05080001, 1.0 mi southwest of New Hampshire, Ohio. Owner: State of Ohio.

AQUIFER.—Limestone of Silurian Age.

WELL CHARACTERISTICS.—Drilled test artesian well, diameter 12 in., depth 380 ft, cased to 52 ft.

INSTRUMENTATION.—Periodic measurements with chalked tape by Ohio Department of Natural Resources personnel.

DATUM.—Elevation of land-surface datum is 1,020 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 September 1982 continuous, periodic thereafter.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 11.87 ft below land-surface datum, Feb. 7-8, 1977; minimum measured low, 4.08 ft below land-surface datum, June 12, 1996.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION,
WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL
Oct. 30	5.94
Apr. 28	5.17

GROUND-WATER RECORDS
Belmont County

400118081082200. LOCAL NUMBER, B-3

LOCATION.—Latitude 40°01'18", longitude 81°08'22", Hydrologic Unit 05040001, Mt. Olivett Public Square, Mt. Olivett, Ohio. Owner: Village of Mt. Olivett.

AQUIFER.—Shale of Pennsylvanian Age.

WELL CHARACTERISTICS.—Drilled observation well, diameter 6 in., depth 119 ft.

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

DATUM.—Elevation of land-surface datum is 1,265 ft above sea level, from topographic map. Measuring point: Floor of instrument shelter, 1.5 ft above land-surface datum.

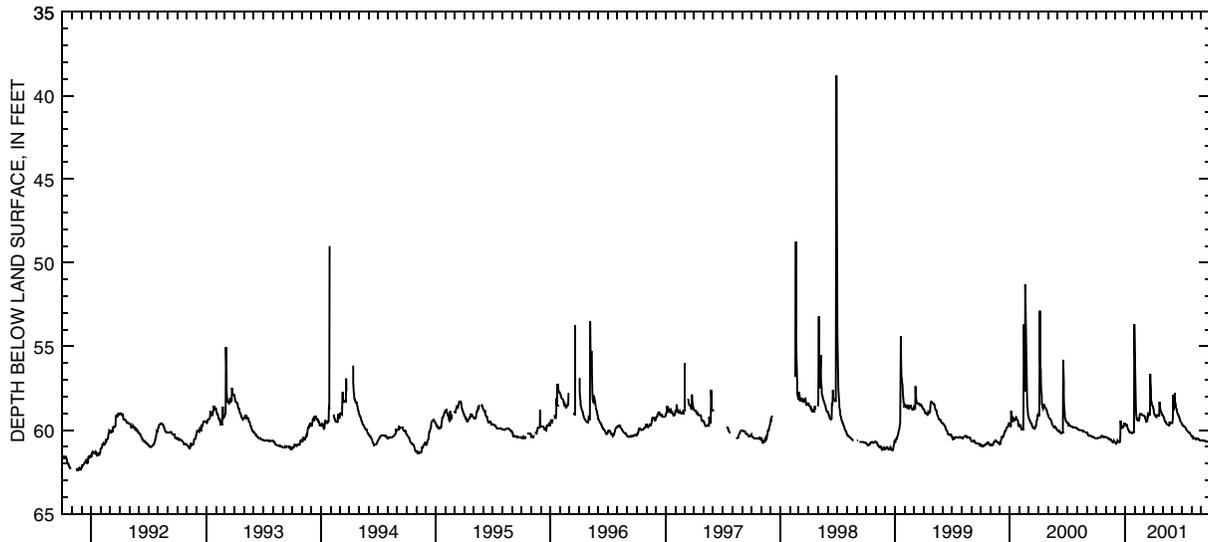
REMARKS.—Station operated by Ohio Department of Natural Resources (ODNR), Division of Water. Some historical records not published by the USGS are available from ODNR.

PERIOD OF RECORD.—July 1984 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 62.94 ft below land-surface datum, Dec. 26, 1988; minimum daily low, 38.81 ft below land-surface datum, June 28, 1998.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60.51	60.42	60.75	59.66	54.72	59.14	58.68	59.10	59.57	59.60	60.38	60.62
2	60.51	60.43	60.79	59.72	56.40	59.14	58.79	59.13	59.29	59.68	60.41	60.63
3	60.51	60.45	60.83	59.73	57.59	59.18	58.91	59.19	57.92	59.72	60.41	60.63
4	60.51	60.45	60.83	59.73	58.32	59.19	59.03	59.24	58.43	59.72	60.39	60.62
5	60.51	60.45	60.79	59.72	58.76	59.24	59.09	59.28	58.74	59.72	60.41	60.64
6	60.47	60.45	60.75	59.67	59.06	59.29	59.12	59.36	58.85	59.76	60.45	60.64
7	60.47	60.47	60.71	59.70	59.27	59.37	59.13	59.42	58.07	59.79	60.48	60.64
8	60.47	60.49	60.64	59.76	59.34	59.39	59.16	59.48	57.78	59.79	60.48	60.62
9	60.47	60.48	60.68	59.87	59.34	59.42	59.18	59.51	58.16	59.79	60.48	60.62
10	60.47	60.49	60.68	59.94	59.40	59.45	59.22	59.52	58.38	59.81	60.48	60.63
11	60.47	60.54	60.68	59.96	59.45	59.48	59.24	59.52	58.50	59.84	60.49	60.64
12	60.47	60.57	60.68	59.99	59.45	59.48	59.07	59.58	58.59	59.88	60.49	60.66
13	60.47	60.57	60.72	60.04	59.45	59.42	59.14	59.63	58.70	59.91	60.51	60.66
14	60.47	60.57	60.69	60.06	59.43	59.19	59.16	59.66	58.76	59.94	60.51	60.68
15	60.45	60.59	60.72	60.06	59.31	59.06	59.16	59.66	58.82	59.97	60.53	60.69
16	60.42	60.59	60.68	60.11	59.31	59.12	59.13	59.66	58.91	60.02	60.53	60.69
17	60.41	60.60	60.42	60.14	59.07	59.13	59.13	59.66	58.98	60.04	60.53	60.68
18	60.36	60.64	59.45	60.14	59.03	58.99	59.14	59.67	59.04	60.06	60.53	60.68
19	60.36	60.64	59.66	60.12	59.04	59.09	59.16	59.68	59.10	60.09	60.51	60.68
20	60.36	60.64	59.81	60.11	59.04	59.09	59.16	59.70	59.14	60.12	60.51	60.68
21	60.36	60.68	59.81	60.17	59.07	59.09	58.31	59.70	59.18	60.12	60.53	60.69
22	60.36	60.69	59.85	60.21	59.07	56.64	58.58	59.70	59.18	60.12	60.56	60.72
23	60.43	60.74	59.88	60.21	59.07	57.02	58.68	59.60	59.24	60.14	60.56	60.75
24	60.43	60.74	59.87	60.18	59.10	57.62	58.80	59.63	59.33	60.14	60.59	60.75
25	60.43	60.74	59.85	60.17	59.09	57.98	58.88	59.60	59.39	60.15	60.60	60.78
26	60.43	60.71	59.85	60.17	59.12	58.24	58.91	59.57	59.45	60.18	60.60	60.79
27	60.42	60.64	59.79	60.12	59.14	58.41	58.92	59.57	59.51	60.24	60.60	60.84
28	60.42	60.68	59.68	60.14	59.14	58.50	59.03	59.55	59.54	60.27	60.60	60.89
29	60.42	60.69	59.66	60.14	---	58.53	59.09	59.55	59.55	60.27	60.62	60.93
30	60.42	60.72	59.58	60.11	---	58.56	59.10	59.55	59.57	60.29	60.63	60.98
31	60.42	---	59.60	53.67	---	58.59	---	59.57	---	60.33	60.63	---
MAX	60.51	60.74	60.83	60.21	59.45	59.48	59.24	59.70	59.57	60.33	60.63	60.98
CAL YR 2000	LOW	60.83										
WTR YR 2001	LOW	60.98										



GROUND-WATER RECORDS

Brown County

385932083412400. LOCAL NUMBER, BR-20

LOCATION.—Latitude 38°59'32", longitude 83°41'24", Hydrologic Unit 05090201, near Fincastle, Ohio. Owner: Davon Inc.

AQUIFER.—Limestone of Silurian Age.

WELL CHARACTERISTICS.—Drilled observation well, diameter 6 in., depth 40 ft, cased to 25 ft.

INSTRUMENTATION.—Digital recorder, 60-minute punch.

DATUM.—Elevation of land-surface datum is 1,026.27 ft above sea level. Measuring point: Floor of instrument shelter, 3.00 ft above land-surface datum.

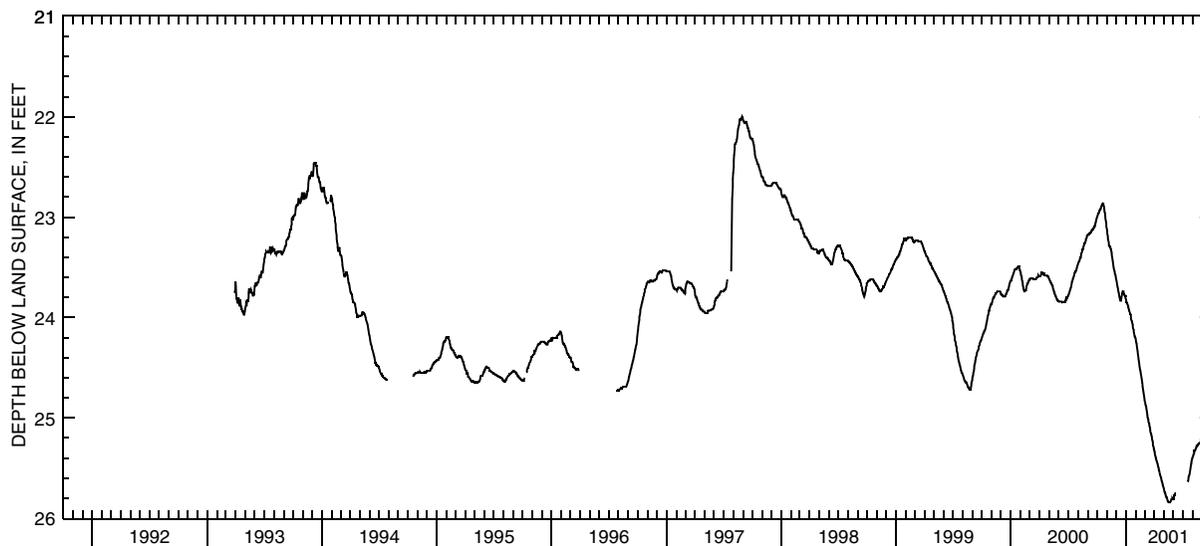
REMARKS.—Station operated by Ohio Department of Natural Resources (ODNR), Division of Water. Some historical records not published by the USGS are available from ODNR.

PERIOD OF RECORD.—March 1993 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 25.84 ft below land-surface datum, May 16-21, 2001; minimum daily low, 22.00 ft below land-surface datum, Aug. 29, 1997.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.00	23.12	23.62	23.82	24.21	24.82	25.32	25.70	25.80	---	25.39	25.18
2	22.99	23.14	23.63	23.84	24.23	24.84	25.34	25.71	25.79	---	25.38	25.17
3	22.98	23.16	23.65	23.85	24.25	24.85	25.35	25.73	25.77	---	25.37	25.16
4	22.97	23.19	23.67	23.85	24.26	24.87	25.37	25.74	25.77	---	25.36	25.15
5	22.96	23.21	23.69	23.86	24.29	24.88	25.39	25.74	25.77	---	25.35	25.14
6	22.96	23.23	23.70	23.87	24.31	24.89	25.40	25.75	25.76	---	25.34	25.14
7	22.95	23.25	23.72	23.88	24.33	24.91	25.41	25.77	25.75	---	25.33	---
8	22.94	23.28	23.74	23.89	24.36	24.93	25.42	25.78	25.75	---	25.33	---
9	22.93	23.29	23.75	23.90	24.38	24.95	25.43	25.79	---	---	25.32	---
10	22.93	23.29	23.77	23.92	24.41	24.97	25.44	25.79	---	---	25.31	---
11	22.92	23.30	23.79	23.93	24.43	24.99	25.45	25.80	---	---	25.30	---
12	22.92	23.30	23.80	23.94	24.45	25.01	25.46	25.81	---	25.64	25.31	---
13	22.91	23.31	23.82	23.95	24.48	25.02	25.48	25.82	---	---	25.29	---
14	22.90	23.32	23.83	23.96	24.50	25.04	25.49	25.83	---	---	25.29	---
15	22.89	23.33	23.83	23.96	24.52	25.05	25.50	25.83	---	---	25.28	---
16	22.88	23.35	23.83	23.97	24.53	25.06	25.52	25.84	---	25.63	25.28	---
17	22.88	23.37	23.81	24.00	24.55	25.08	25.53	25.84	---	25.63	25.27	---
18	22.87	23.39	23.79	24.02	24.57	25.10	25.54	25.84	---	25.62	25.27	---
19	22.86	23.41	23.77	24.03	24.59	25.12	25.56	25.84	---	25.59	25.26	---
20	22.86	23.43	23.75	24.04	24.61	25.14	25.57	25.84	---	25.58	25.26	---
21	22.86	23.45	23.74	24.05	24.63	25.15	25.58	25.84	---	25.57	25.26	---
22	22.88	23.48	23.74	24.07	24.65	25.16	25.59	25.83	---	25.56	25.25	---
23	22.90	23.50	23.74	24.09	24.69	25.17	25.60	25.83	---	25.54	25.25	---
24	22.92	23.52	23.74	24.11	24.71	25.19	25.62	25.82	---	25.52	25.25	---
25	22.94	23.53	23.76	24.12	24.73	25.20	25.63	25.81	---	25.50	25.25	---
26	22.96	23.54	23.77	24.14	24.75	25.22	25.64	25.81	---	25.48	25.24	---
27	22.99	23.56	23.77	24.15	24.77	25.24	25.65	25.81	---	25.46	25.23	---
28	23.01	23.57	23.78	24.17	24.79	25.26	25.67	25.81	---	25.45	25.22	---
29	23.04	23.58	23.79	24.19	---	25.28	25.68	25.80	---	25.43	25.21	---
30	23.06	23.60	23.79	24.19	---	25.30	25.69	25.81	---	25.41	25.21	---
31	23.09	---	23.81	24.20	---	25.31	---	25.81	---	25.40	25.20	---
MAX	23.09	23.60	23.83	24.20	24.79	25.31	25.69	25.84	25.80	25.64	25.39	25.18
CAL YR 2000	LOW 23.85											
WTR YR 2001	LOW 25.84											



GROUND-WATER RECORDS

Butler County

391805084261800. LOCAL NUMBER, BU-9

LOCATION.—Latitude 39°18'05", longitude 84°26'18", Hydrologic Unit 05090203, 2.5 mi northwest of Sharonville, Ohio. Owner: Olinkraft, Inc.

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled unused artesian well, diameter 8 in., depth 85 ft.

INSTRUMENTATION.—Periodic measurement with chalked tape by Ohio Department of Natural Resources personnel.

DATUM.—Elevation of land-surface datum is 586.89 ft above sea level. Measuring point: Floor of instrument shelter, 4.66 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. Prior to water year 1978, well diameter reported as 26 in.

PERIOD OF RECORD.—July 1938 to October 1982 continuous, periodic thereafter.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 24.40 ft below land-surface datum, Mar. 16, 1954; minimum daily low, 4.40 ft below land-surface datum, Aug. 3, 1958.

WATER LEVEL
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION,
WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL
Oct. 31	9.53
Apr. 30	9.66

GROUND-WATER RECORDS
Butler County

391942084345700. LOCAL NUMBER, BU-18

LOCATION.—Latitude 39°19'42", longitude 84°34'57", Hydrologic Unit 05080002, in Fairfield, Ohio. Owner: City of Hamilton.

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled unused observation well, diameter 6 in., depth 210 ft, cased.

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

DATUM.—Elevation of land-surface datum is 570 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. Some historical records not published by the USGS are available from ODNR.

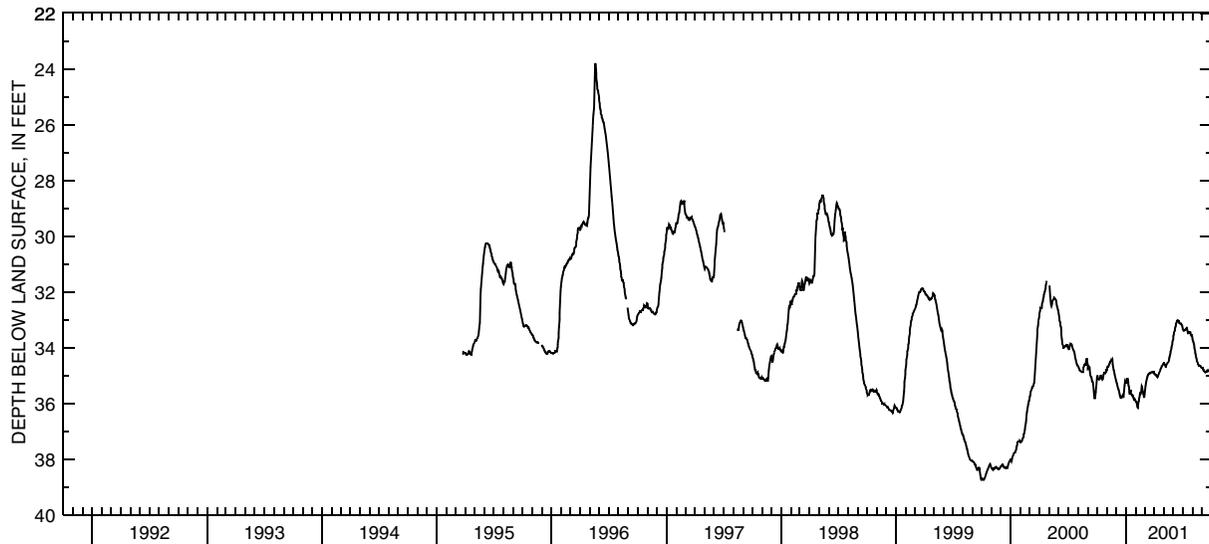
PERIOD OF RECORD.—March 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 38.74 ft below land-surface datum, Sept. 29, 30, Oct. 4 and 5, 1999; minimum daily low, 23.79 ft below land surface, May 20, 1996.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35.06	34.81	35.19	35.26	35.93	35.68	34.92	34.55	33.58	33.33	33.70	34.73
2	34.99	34.73	35.23	35.27	35.93	35.56	34.93	34.55	33.52	33.37	33.76	34.75
3	35.03	34.70	35.28	35.17	35.95	35.46	34.96	34.58	33.46	33.39	33.79	34.74
4	35.10	34.65	35.31	35.10	35.97	35.37	34.97	34.61	33.42	33.39	33.82	34.79
5	35.11	34.67	35.37	35.17	36.03	35.30	34.97	34.62	33.38	33.38	33.86	34.82
6	35.14	34.67	35.41	35.18	36.09	35.22	34.99	34.65	33.33	33.38	33.94	34.82
7	35.14	34.64	35.46	35.15	36.14	35.17	35.00	34.68	33.28	33.37	34.01	34.84
8	35.14	34.63	35.47	35.24	36.15	35.12	35.01	34.68	33.22	33.35	34.09	34.86
9	35.12	34.59	35.52	35.33	36.03	35.08	35.02	34.62	33.16	33.35	34.15	34.88
10	35.09	34.56	35.56	35.40	35.93	35.05	35.03	34.59	33.12	33.32	34.21	34.88
11	35.07	34.53	35.62	35.48	35.91	35.01	35.04	34.57	33.07	33.31	34.27	34.89
12	35.01	34.50	35.69	35.59	35.82	34.99	35.02	34.55	33.04	33.30	34.31	34.88
13	34.98	34.47	35.72	35.68	35.76	34.95	35.01	34.55	33.04	33.29	34.36	34.86
14	35.04	34.50	35.77	35.69	35.70	34.94	34.98	34.53	33.05	33.31	34.44	34.86
15	35.07	34.46	35.80	35.55	35.64	34.92	34.93	34.51	33.04	33.36	34.48	34.84
16	35.11	34.44	35.80	35.54	35.65	34.92	34.91	34.49	33.05	33.42	34.51	34.82
17	35.14	34.43	35.80	35.60	35.63	34.92	34.87	34.46	33.02	33.48	34.54	34.84
18	35.11	34.44	35.79	35.66	35.59	34.92	34.86	34.40	33.04	33.48	34.59	34.85
19	35.11	34.42	35.77	35.70	35.50	34.90	34.83	34.36	33.10	33.46	34.60	34.84
20	35.05	34.56	35.72	35.68	35.38	34.89	34.80	34.32	33.13	33.44	34.62	34.83
21	35.00	34.67	35.70	35.70	35.40	34.88	34.77	34.26	33.13	33.43	34.63	34.81
22	34.95	34.71	35.74	35.71	35.47	34.87	34.74	34.20	33.12	33.43	34.63	34.80
23	34.93	34.80	35.77	35.76	35.56	34.87	34.71	34.15	33.12	33.44	34.64	34.79
24	34.88	34.82	35.77	35.76	35.60	34.88	34.68	34.09	33.12	33.43	34.65	34.77
25	34.90	34.88	35.64	35.79	35.67	34.88	34.67	34.03	33.13	33.47	34.65	34.77
26	34.90	34.94	35.50	35.84	35.70	34.88	34.64	33.99	33.16	33.54	34.66	34.75
27	34.91	35.00	35.38	35.87	35.76	34.89	34.61	33.91	33.18	33.56	34.68	34.74
28	34.91	35.05	35.28	35.87	35.77	34.88	34.59	33.86	33.19	33.56	34.70	34.75
29	34.85	35.10	35.20	35.85	---	34.88	34.58	33.79	33.21	33.57	34.71	34.76
30	34.87	35.14	35.22	35.85	---	34.88	34.56	33.73	33.27	33.58	34.71	34.75
31	34.80	---	35.22	35.90	---	34.89	---	33.67	---	33.64	34.72	---
MAX	35.14	35.14	35.80	35.90	36.15	35.68	35.04	34.68	33.58	33.64	34.72	34.89

CAL YR 2000 LOW 38.06
WTR YR 2001 LOW 36.15



GROUND-WATER RECORDS
Butler County

392017084345200. LOCAL NUMBER, BU-7

LOCATION.—Latitude 39°20'17", longitude 84°34'52", Hydrologic Unit 05080002, 5584 East River Road in Fairfield, Ohio. Owner: C. E. Schiering. AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled unused water-table well, diameter 6 in., depth 176 ft, cased.

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

DATUM.—Elevation of land-surface datum is 572.54 ft above sea level. Measuring point: Floor of instrument shelter 1.93 ft above land-surface datum.

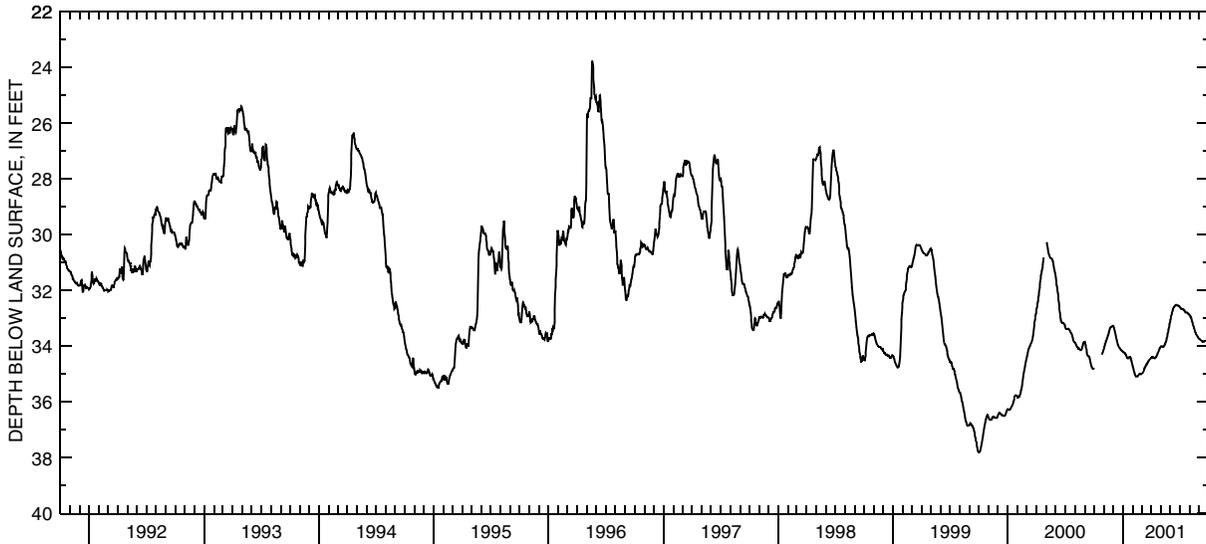
REMARKS.—Station operated by Ohio Department of Natural Resources (ODNR), Division of Water. Some historical records not published by the USGS are available from ODNR.

PERIOD OF RECORD.—August 1943 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 37.81 ft below land-surface datum, Sept. 30, Oct. 1 and 2, 1999; minimum daily low, 11.45 ft below land-surface datum, June 6, 1947.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUE

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34.79	34.09	33.28	34.20	34.71	35.00	34.43	34.02	33.04	32.61	32.89	33.75
2	---	34.06	33.30	34.21	34.75	34.99	34.42	34.01	32.99	32.63	32.91	33.75
3	---	34.01	33.33	34.22	34.79	34.98	34.41	34.01	32.94	32.65	32.93	33.76
4	---	33.97	33.36	34.23	34.84	34.96	34.41	34.01	32.89	32.66	32.95	33.77
5	---	33.93	33.41	34.23	34.89	34.94	34.40	34.01	32.84	32.66	32.97	33.78
6	---	33.89	33.46	34.24	34.93	34.92	34.41	34.02	32.80	32.67	33.00	33.79
7	---	33.86	33.51	34.25	34.97	34.90	34.41	34.03	32.77	32.67	33.03	33.80
8	---	33.82	33.56	34.27	35.01	34.87	34.41	34.03	32.72	32.67	33.08	33.81
9	---	33.79	33.61	34.29	35.04	34.84	34.42	34.03	32.68	32.68	33.12	33.83
10	---	33.76	33.67	34.31	35.07	34.81	34.43	34.01	32.65	32.68	33.16	33.83
11	---	33.73	33.72	34.34	35.09	34.78	34.44	34.00	32.62	32.68	33.20	33.84
12	---	33.69	33.77	34.36	35.09	34.76	34.44	33.98	32.60	32.69	33.24	33.84
13	---	33.65	33.82	34.39	35.10	34.74	34.44	33.96	32.58	32.70	33.27	33.84
14	---	33.61	33.87	34.42	35.09	34.72	34.43	33.93	32.57	32.71	33.31	33.84
15	---	33.58	33.92	34.43	35.09	34.69	34.42	33.91	32.55	32.72	33.35	33.83
16	---	33.55	33.96	34.44	35.09	34.67	34.41	33.88	32.54	32.74	33.39	33.83
17	---	33.51	33.99	34.44	35.07	34.65	34.39	33.85	32.53	32.77	33.43	33.82
18	---	33.48	34.02	34.44	35.06	34.63	34.36	33.82	32.53	32.79	33.47	33.82
19	---	33.44	34.04	34.43	35.04	34.61	34.33	33.78	32.52	32.80	33.50	33.82
20	---	33.40	34.06	34.41	35.03	34.59	34.30	33.74	32.53	32.80	33.53	33.82
21	---	33.36	34.07	34.40	35.01	34.58	34.27	33.69	32.54	32.80	33.55	33.81
22	---	33.33	34.09	34.39	34.99	34.56	34.24	33.63	32.54	32.80	33.58	33.81
23	---	33.32	34.11	34.38	34.99	34.54	34.21	33.57	32.54	32.80	33.60	33.80
24	---	33.32	34.13	34.40	34.99	34.52	34.18	33.52	32.54	32.81	33.62	33.79
25	---	33.31	34.14	34.42	35.00	34.51	34.15	33.46	32.54	32.81	33.64	33.78
26	34.30	33.31	34.15	34.45	35.00	34.50	34.12	33.40	32.55	32.83	33.66	33.78
27	34.26	33.30	34.16	34.49	35.01	34.48	34.10	33.35	32.55	32.85	33.67	33.77
28	34.23	33.29	34.16	34.53	35.01	34.47	34.07	33.29	32.56	32.86	33.70	33.76
29	34.20	33.28	34.17	34.57	---	34.46	34.05	33.22	32.57	32.86	33.71	33.75
30	34.16	33.28	34.18	34.61	---	34.44	34.03	33.16	32.59	32.87	33.72	33.75
31	34.13	---	34.19	34.66	---	34.43	---	33.10	---	32.88	33.74	---
MAX	34.79	34.09	34.19	34.66	35.10	35.00	34.44	34.03	33.04	32.88	33.74	33.84
CAL YR 2000	LOW	36.29										
WTR YR 2001	LOW	35.10										



GROUND-WATER RECORDS
Butler County

392048084311400. LOCAL NUMBER, BU-8

LOCATION.—Latitude 39°20'48", longitude 84°31'14", Hydrologic Unit 05080002, Symmes and Gilmore Road, east of Hamilton, Ohio. Owner: Hamilton Water Department.

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled test artesian well, diameter 6 in., depth 200 ft, cased.

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

DATUM.—Elevation of land-surface datum is 630 ft above sea level, from topographic map. Measuring point: Floor of instrument shelter 4.13 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.

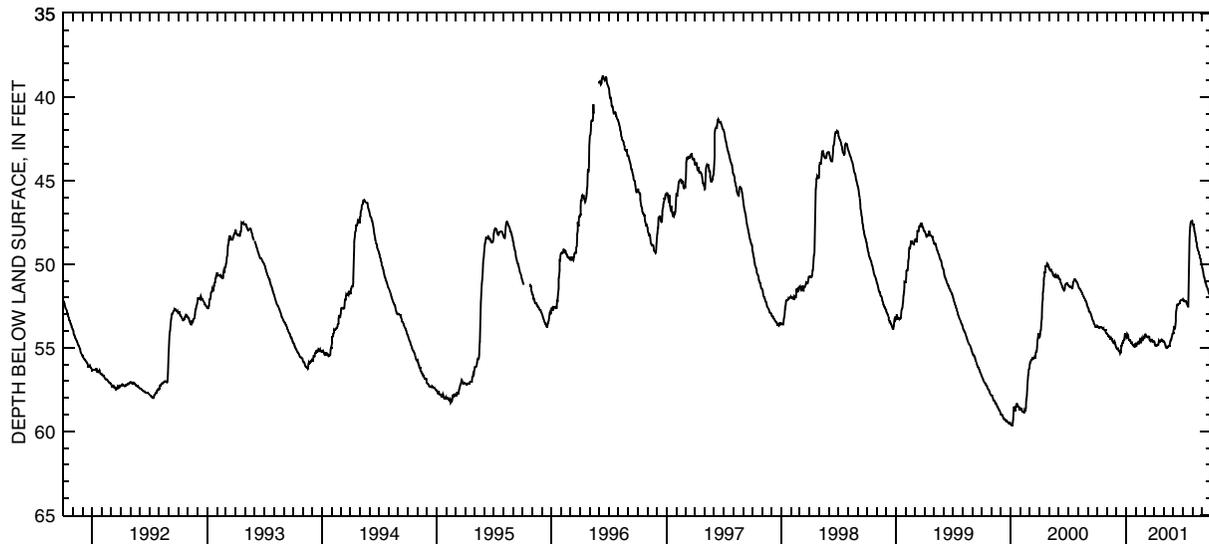
PERIOD OF RECORD.—April 1944 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 71.70 ft below land-surface datum, Oct. 24, 1944; minimum daily low, 38.24 ft below land-surface datum, June 8, 1947.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53.73	54.14	54.97	54.29	54.87	54.39	54.62	54.60	54.03	52.09	47.58	50.21
2	53.67	54.15	55.04	54.39	54.91	54.28	54.70	54.61	53.86	52.16	47.64	50.30
3	53.70	54.20	55.07	54.39	54.91	54.20	54.76	54.67	53.80	52.19	47.65	50.36
4	53.76	54.23	55.07	54.34	54.87	54.20	54.86	54.72	53.82	52.19	47.70	50.48
5	53.77	54.25	55.06	54.28	54.74	54.24	54.88	54.76	53.83	52.18	47.80	50.64
6	53.79	54.25	55.07	54.18	54.69	54.29	54.87	54.82	53.82	52.22	47.92	50.73
7	53.82	54.28	55.05	54.23	54.74	54.33	54.85	54.91	53.76	52.23	48.02	50.79
8	53.82	54.33	55.10	54.31	54.74	54.33	54.84	54.98	53.40	52.22	48.12	50.85
9	53.80	54.33	55.19	54.45	54.71	54.35	54.84	55.02	53.09	52.20	48.19	50.92
10	53.77	54.38	55.19	54.51	54.68	54.37	54.86	55.02	52.81	52.19	48.31	51.05
11	53.75	54.46	55.19	54.52	54.75	54.36	54.86	55.01	52.60	52.22	48.43	51.13
12	53.78	54.46	55.25	54.54	54.75	54.35	54.84	54.96	52.49	52.28	48.54	51.15
13	53.78	54.40	55.32	54.58	54.69	54.27	54.81	54.98	52.43	52.33	48.66	51.20
14	53.76	54.39	55.26	54.58	54.64	54.33	54.81	54.98	52.42	52.38	48.77	51.30
15	53.75	54.44	55.29	54.55	54.49	54.34	54.72	54.96	52.41	52.43	48.89	51.35
16	53.79	54.44	55.24	54.63	54.51	54.35	54.58	54.87	52.39	52.49	49.00	51.39
17	53.82	54.50	54.85	54.69	54.61	54.49	54.61	54.87	52.39	52.53	49.13	51.44
18	53.85	54.56	54.88	54.69	54.64	54.58	54.64	54.90	52.39	52.53	49.19	51.49
19	53.87	54.56	54.79	54.67	54.62	54.59	54.64	54.90	52.36	51.72	49.20	51.52
20	53.86	54.57	54.74	54.71	54.46	54.58	54.61	54.86	52.33	50.17	49.27	51.61
21	53.84	54.67	54.72	54.79	54.50	54.53	54.57	54.69	52.33	49.15	49.36	51.67
22	53.88	54.70	54.63	54.84	54.50	54.46	54.56	54.56	52.24	48.44	49.41	51.74
23	53.93	54.73	54.64	54.84	54.49	54.47	54.55	54.56	52.18	48.03	49.48	51.77
24	53.94	54.74	54.55	54.82	54.50	54.50	54.52	54.53	52.15	47.78	49.57	51.84
25	53.94	54.74	54.52	54.89	54.37	54.54	54.56	54.47	52.14	47.58	49.64	51.92
26	53.93	54.65	54.52	54.90	54.41	54.59	54.58	54.44	52.14	47.47	49.67	51.96
27	53.94	54.70	54.40	54.86	54.43	54.64	54.57	54.30	52.15	47.47	49.75	52.02
28	54.02	54.79	54.24	54.93	54.43	54.65	54.61	54.20	52.15	47.47	49.84	52.09
29	54.08	54.83	54.20	54.93	---	54.63	54.63	54.16	52.13	47.41	49.95	52.17
30	54.10	54.92	54.12	54.79	---	54.60	54.63	54.14	52.10	47.39	50.03	52.22
31	54.12	---	54.21	54.77	---	54.59	---	54.14	---	47.48	50.10	---
MAX	54.12	54.92	55.32	54.93	54.91	54.65	54.88	55.02	54.03	52.53	50.10	52.22

CAL YR 2000 LOW 59.65
WTR YR 2001 LOW 55.32



GROUND-WATER RECORDS
Butler County

392737084291300. LOCAL NUMBER, BU-16

LOCATION.—Latitude 39°27'37", longitude 84°29'13", Hydrologic Unit 05080002, Wayne–Madison Road 2 mi southwest of Trenton, Ohio. Owner: Miller Brewing Company.

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled test water table well, diameter 4 in., depth 218 ft, cased.

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

DATUM.—Elevation of land-surface datum is 640 ft above sea level, from topographic map. Measuring point: Floor of instrument shelter, 4.5 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. Prior to 1992 published as 392733084293000.

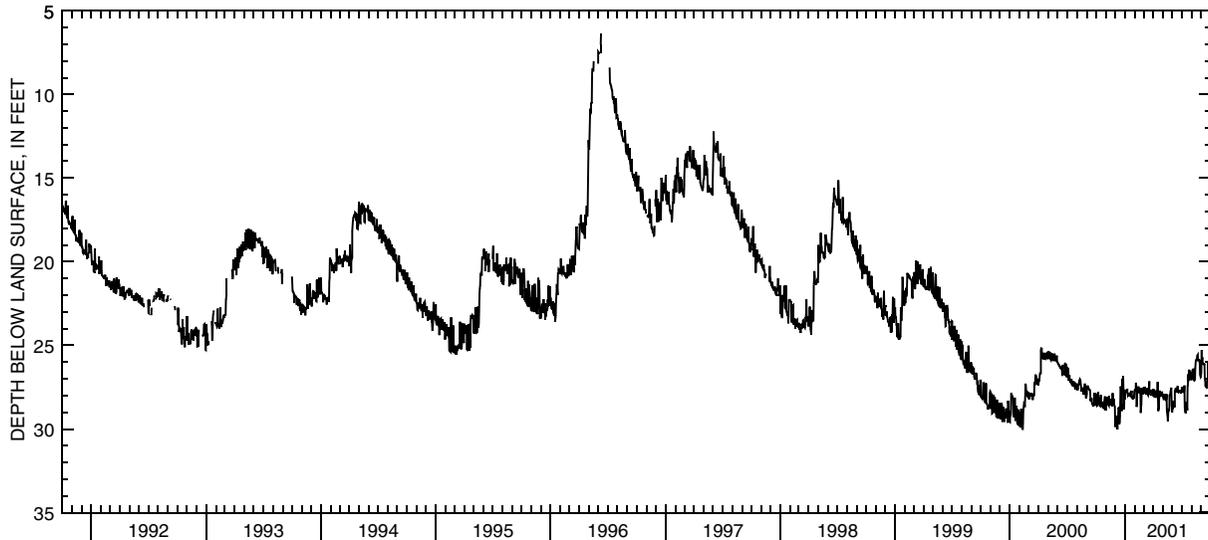
PERIOD OF RECORD.—May 1982 to July 1987, April 1991 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 30.05 ft below land-surface datum, Feb. 10, 2000; minimum daily low, 5.71 ft below land-surface datum, April. 17, 1991.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27.88	28.88	29.88	28.23	27.66	27.50	27.69	28.04	28.61	27.47	27.02	26.60
2	28.58	28.18	29.21	27.65	27.68	27.83	27.66	28.04	28.67	27.77	27.00	25.28
3	28.43	28.13	29.25	27.77	27.68	27.81	27.98	28.13	28.33	27.74	27.05	25.92
4	28.61	28.37	29.61	27.74	27.68	27.48	28.04	28.10	28.67	27.72	26.68	25.71
5	28.59	28.37	29.67	27.81	27.23	27.50	28.04	28.14	28.33	27.71	27.02	26.06
6	28.49	28.07	29.67	27.81	27.39	27.56	27.78	27.92	28.67	27.77	26.38	26.06
7	28.47	28.44	29.65	27.69	28.68	27.86	27.74	28.23	28.67	27.74	26.99	26.08
8	27.80	28.33	30.02	27.58	28.61	27.86	27.74	28.18	28.65	27.74	27.05	26.12
9	28.49	28.55	29.38	27.74	27.83	27.90	28.07	28.18	27.75	27.40	26.99	26.13
10	28.49	28.61	29.38	27.96	27.81	27.92	28.08	28.18	27.71	28.67	27.13	26.12
11	28.18	28.11	28.80	27.93	27.80	27.62	28.07	28.23	27.53	28.93	26.43	26.12
12	28.59	28.10	28.79	27.99	27.71	27.60	27.98	28.22	27.81	28.97	27.03	26.97
13	28.62	28.52	28.67	27.98	27.45	27.60	27.96	27.90	27.74	29.06	26.36	27.06
14	28.63	28.56	29.70	27.92	27.77	27.92	27.93	28.90	27.75	28.73	25.85	27.43
15	28.40	28.22	29.57	27.92	27.77	27.99	27.18	29.04	27.80	28.41	25.89	27.32
16	27.96	28.58	29.24	27.86	27.83	27.74	27.84	29.18	27.77	28.70	25.86	27.48
17	28.65	28.55	28.49	27.99	27.83	27.95	28.92	29.54	27.48	28.70	25.88	27.48
18	28.62	28.53	27.45	27.99	27.53	27.68	28.79	29.22	27.47	28.88	25.88	27.53
19	28.40	28.22	27.50	28.04	27.66	27.15	28.79	28.80	27.78	27.42	25.58	27.53
20	28.41	28.50	28.80	27.99	29.03	27.86	28.02	28.90	27.81	27.36	25.53	27.08
21	28.43	28.63	28.52	27.77	28.76	27.90	27.71	28.89	27.80	26.72	25.82	27.11
22	28.43	28.58	28.92	27.77	28.52	27.90	27.95	28.55	27.75	27.13	25.86	25.98
23	28.73	27.86	26.99	27.87	27.88	27.80	27.98	27.96	27.75	26.51	25.85	26.27
24	28.46	28.40	27.63	28.13	27.56	27.95	27.95	27.95	27.74	26.51	25.88	26.24
25	28.73	28.33	27.32	28.15	27.86	27.65	27.99	27.98	27.74	26.94	25.92	26.27
26	28.76	28.22	26.85	28.01	27.86	27.92	28.01	27.80	27.66	26.97	25.90	26.36
27	28.32	28.25	27.65	28.17	27.86	27.88	28.01	27.60	27.80	26.60	25.90	26.33
28	28.32	28.58	28.08	28.14	27.84	27.95	28.01	27.53	27.78	26.58	26.73	26.38
29	28.04	28.61	28.82	28.11	---	27.95	27.77	27.71	27.81	26.93	26.82	26.40
30	28.55	28.67	27.68	28.15	---	27.98	27.98	28.97	27.80	26.93	26.87	25.63
31	28.58	---	28.13	27.71	---	27.68	---	29.00	---	26.58	26.85	---
MAX	28.76	28.88	30.02	28.23	29.03	27.99	28.92	29.54	28.67	29.06	27.13	27.53

CAL YR 2000 LOW 30.05
WTR YR 2001 LOW 30.02



GROUND-WATER RECORDS
Butler County

392743084295500. LOCAL NUMBER, BU-17

LOCATION.—Latitude 39°27'43", longitude 84°29'55", Hydrologic Unit 05080002, southwest of Trenton, Ohio. Owner: Southwest Regional Water District.

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled test water table well, diameter 8 in., depth 212 ft, cased.

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

DATUM.—Elevation of land-surface datum is 635.28 ft above sea level. Measuring point: Floor of instrument shelter, 2.2 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. Prior to 1992 published as 392733084293000.

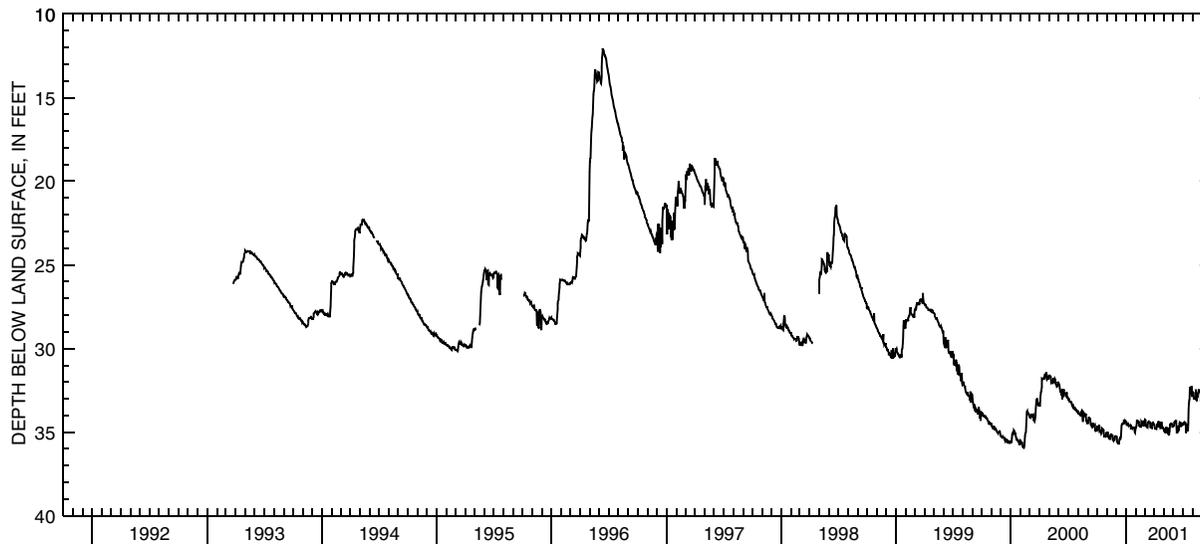
PERIOD OF RECORD.—March 1993 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 35.94 ft below land-surface datum, Feb. 11, 2000; minimum daily low, 12.06 ft below land-surface datum, June 12, 1996.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34.91	35.04	35.26	34.40	34.75	34.29	34.50	34.82	34.62	34.53	32.66	32.84
2	34.68	34.99	35.26	34.45	34.71	34.34	34.73	34.78	34.63	34.47	32.64	33.17
3	34.63	35.02	35.28	34.49	34.65	34.26	34.78	34.89	34.65	34.44	32.61	32.57
4	34.88	35.02	35.59	34.47	34.60	34.29	34.78	34.93	34.40	34.44	32.63	33.13
5	34.67	35.02	35.62	34.54	34.25	34.57	34.80	34.98	34.35	34.44	33.03	33.20
6	34.67	35.29	35.65	34.55	34.32	34.60	34.78	35.03	34.38	34.47	32.93	33.20
7	34.59	35.35	35.64	34.48	34.37	34.67	34.78	35.06	34.40	34.41	32.96	32.72
8	34.57	35.34	35.67	34.55	34.35	34.67	34.80	34.74	34.32	34.43	32.99	32.72
9	34.95	35.38	35.68	34.55	34.40	34.70	34.60	34.73	34.38	34.44	33.02	32.72
10	34.92	35.41	35.68	34.60	34.35	34.71	34.62	34.74	34.35	34.53	33.03	33.00
11	34.92	35.38	35.44	34.60	34.37	34.70	34.56	34.80	35.04	35.04	32.99	32.97
12	35.01	35.37	35.43	34.63	34.60	34.40	34.52	34.78	35.09	34.86	32.46	33.00
13	35.03	35.11	35.37	34.58	34.60	34.38	34.44	34.71	34.68	34.89	33.03	33.05
14	35.07	35.13	35.38	34.60	34.63	34.43	34.41	35.04	34.71	34.50	33.12	33.09
15	35.04	35.11	35.34	34.61	34.63	34.44	34.34	35.07	34.73	34.89	33.13	33.07
16	34.75	35.16	35.26	34.61	34.68	34.43	34.63	35.13	34.71	34.88	32.73	33.13
17	34.77	35.17	34.84	34.81	34.68	34.46	34.60	35.16	34.88	34.92	32.79	32.85
18	34.83	35.20	34.54	34.69	34.67	34.35	34.38	35.13	34.86	34.49	32.78	32.88
19	34.83	35.14	34.51	34.73	34.38	34.65	34.65	34.97	34.89	33.66	32.72	32.42
20	34.85	35.44	34.51	34.72	34.41	34.70	34.71	34.92	34.49	33.28	32.42	32.40
21	34.88	35.46	34.48	34.73	34.44	34.71	34.67	34.56	34.41	33.10	32.50	32.94
22	34.83	35.50	34.51	34.66	34.40	34.74	34.70	34.50	34.44	32.99	32.53	32.87
23	35.18	35.39	34.48	34.68	34.43	34.73	34.38	34.55	34.43	32.40	32.52	32.91
24	35.18	35.41	34.48	34.73	34.41	34.75	34.41	34.52	34.43	32.30	32.55	33.02
25	35.22	35.43	34.31	34.75	34.46	34.73	34.47	34.57	34.67	32.35	32.58	33.15
26	35.22	35.44	34.31	34.73	34.65	34.43	34.68	34.50	34.63	32.35	32.52	33.18
27	35.27	35.20	34.36	34.74	34.38	34.41	34.73	34.50	34.57	32.27	32.82	33.21
28	35.27	35.26	34.34	34.74	34.32	34.47	34.74	34.68	34.53	32.75	33.15	33.25
29	35.25	35.26	34.36	35.01	---	34.50	34.74	34.67	34.55	32.24	32.82	33.24
30	35.01	35.26	34.36	35.04	---	34.50	34.77	34.67	34.52	32.88	32.88	33.18
31	35.02	---	34.34	34.89	---	34.50	---	34.65	---	32.55	32.87	---
MAX	35.27	35.50	35.68	35.04	34.75	34.75	34.80	35.16	35.09	35.04	33.15	33.25

CAL YR 2000 LOW 35.94
WTR YR 2001 LOW 35.68



GROUND-WATER RECORDS
Butler County

392939084231700. LOCAL NUMBER, BU-3

LOCATION.—Latitude 39°29'39", longitude 84°23'17", Hydrologic Unit 05080002, Armco Steel Corp., Route 122 in Middletown, Ohio. Owner: Armco Steel Corp.

WELL CHARACTERISTICS.—Drilled unused artesian well, diameter 24 in., depth 250 ft, cased.

INSTRUMENTATION.—Digital recorder, 60-minute punch.

DATUM.—Elevation of land-surface datum is 668 ft above sea level, from topographic map. Measuring point: Floor of instrument shelter 1.08 ft above land-surface datum.

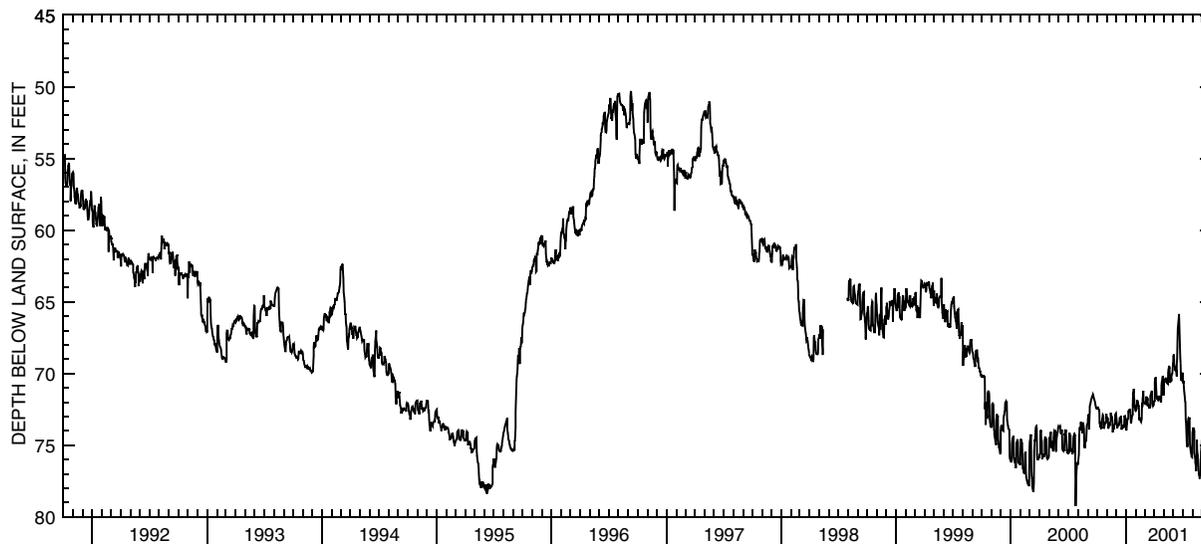
REMARKS.—Station operated by Ohio Department of Natural Resources (ODNR), Division of Water. Some historical records not published by the USGS are available from ODNR.

PERIOD OF RECORD.—July 1938 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 147.27 ft below land-surface datum, Apr. 4, 1955; minimum daily low, 45.27 ft below land-surface datum, July 21, 1980.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	72.43	73.13	72.93	73.22	72.61	72.05	71.94	71.34	68.80	70.15	74.11	74.66
2	72.40	73.03	73.14	73.98	72.55	72.06	71.91	70.43	68.68	70.67	73.88	74.56
3	72.44	73.10	73.40	73.78	72.50	72.08	70.60	70.65	68.67	70.52	73.76	74.48
4	72.43	73.15	73.83	73.47	72.47	72.10	70.34	70.51	69.41	70.81	73.84	76.10
5	72.40	73.22	73.76	73.26	72.20	72.15	70.24	70.38	69.55	71.16	73.95	76.33
6	72.49	73.84	73.68	73.24	71.85	71.60	70.25	70.35	69.76	71.41	73.99	76.44
7	72.53	73.74	73.55	73.15	71.95	71.65	70.71	70.35	69.79	71.61	75.52	76.55
8	72.59	73.65	73.61	73.12	71.99	71.66	71.35	70.40	69.76	71.89	75.82	76.71
9	73.50	73.48	73.60	72.61	72.14	71.71	71.60	70.42	69.79	71.99	75.99	76.82
10	73.48	73.64	73.47	72.58	72.24	71.73	71.82	70.41	69.80	73.18	76.16	76.91
11	73.62	73.55	73.45	72.64	72.27	71.71	71.62	70.66	70.22	73.40	76.51	75.17
12	73.76	73.38	73.12	72.62	73.10	72.29	71.70	70.67	69.33	74.09	76.75	75.28
13	73.70	73.29	73.11	72.64	73.26	72.15	71.65	70.70	69.03	74.68	76.82	75.38
14	73.82	72.75	73.11	72.53	73.14	72.22	71.64	70.74	66.92	74.87	75.24	75.40
15	73.79	73.03	73.11	72.53	73.19	72.21	71.79	69.90	66.89	75.12	74.60	75.51
16	73.85	73.01	72.96	73.43	73.25	72.27	71.75	69.71	66.67	74.98	75.43	75.45
17	73.20	73.20	73.25	73.46	73.34	72.37	71.54	69.58	66.39	73.37	75.71	76.87
18	73.03	73.21	73.90	73.42	73.38	72.38	71.65	69.45	66.16	73.19	75.82	77.02
19	72.89	73.23	73.76	73.07	73.28	72.31	71.70	69.63	65.86	73.11	76.00	77.03
20	72.94	74.10	73.78	72.99	73.15	71.59	71.78	69.59	66.30	73.14	76.98	77.11
21	73.03	73.99	73.70	72.94	72.04	71.43	71.90	70.64	66.96	73.14	77.09	77.14
22	73.14	73.80	73.71	72.86	72.34	71.43	72.00	70.52	68.26	73.07	77.05	77.21
23	73.85	73.86	73.67	72.17	71.77	71.32	71.94	70.31	68.95	74.83	77.33	77.24
24	73.68	73.84	73.72	71.38	71.51	71.21	70.83	70.26	69.31	75.12	77.11	77.31
25	73.65	73.62	73.78	71.25	71.21	71.29	70.56	70.54	70.48	75.28	77.14	75.64
26	73.48	73.57	73.68	71.07	71.95	72.04	70.52	70.19	69.95	75.46	77.13	75.36
27	73.44	73.52	72.93	71.68	72.00	72.26	70.28	70.06	70.12	75.57	77.16	75.21
28	73.46	72.91	73.01	71.83	72.07	72.08	70.29	70.03	69.99	75.65	75.45	75.09
29	73.38	72.80	72.98	72.42	---	72.23	70.27	70.03	70.55	75.81	75.22	75.00
30	73.32	72.76	73.08	72.36	---	72.13	71.54	69.31	69.94	75.84	74.89	74.91
31	72.80	---	73.16	72.57	---	71.89	---	69.11	---	74.29	74.72	---
MAX	73.85	74.10	73.90	73.98	73.38	72.38	72.00	71.34	70.55	75.84	77.33	77.31
CAL YR 2000	LOW 79.24											
WTR YR 2001	LOW 77.33											



GROUND-WATER RECORDS
Butler County

393103084240900. LOCAL NUMBER, BU-2

LOCATION.—Latitude 39°31'03", longitude 84°24'09", Hydrologic Unit 05080002, in basement of YMCA in Middletown, Ohio. Owner: Middletown YMCA.

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled unused artesian well, diameter 12 in., depth 88 ft, cased.

INSTRUMENTATION.—Digital recorder, 60-minute punch.

DATUM.—Elevation of land-surface datum is 636.27 ft above sea level. Measuring point: Top of platform 14.77 ft below 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.

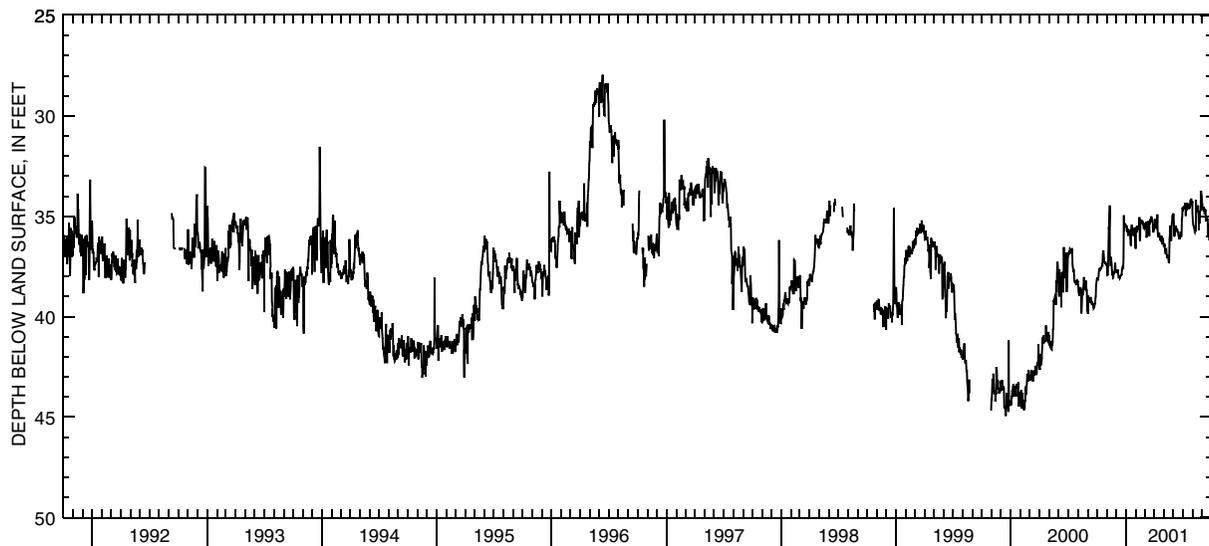
PERIOD OF RECORD.—October 1942 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 52.15 ft below land-surface datum, Sept. 28, Nov. 5, 1953, and Jan. 22, 1954; minimum daily low, 24.21 ft below land-surface datum, Jan. 6, 1991.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38.10	37.46	37.66	35.48	36.62	35.55	35.49	36.50	34.86	34.77	34.84	34.41
2	38.06	37.91	37.77	35.50	35.79	35.44	35.61	36.38	35.29	34.58	35.35	34.59
3	38.12	37.92	37.70	35.47	35.68	35.36	35.15	36.48	35.96	34.64	35.45	34.59
4	38.14	37.91	37.82	35.59	35.55	35.37	35.40	36.47	35.99	34.51	35.49	34.67
5	38.08	37.59	37.70	35.78	35.82	35.65	35.49	36.70	35.96	34.57	35.52	34.73
6	37.92	36.67	37.65	35.80	35.55	35.30	35.48	36.78	35.87	34.48	35.60	34.53
7	37.72	35.52	37.86	35.61	35.47	36.07	35.47	36.88	35.75	34.60	35.68	34.61
8	37.68	35.56	37.93	35.97	35.67	35.97	35.53	36.68	35.59	34.33	35.79	34.91
9	37.57	35.72	38.09	35.93	35.59	35.59	35.64	36.65	35.46	34.53	35.75	34.79
10	37.73	34.46	38.02	35.77	35.64	35.59	35.50	36.92	35.62	34.99	35.71	34.72
11	37.66	36.95	38.02	35.68	35.56	35.80	34.91	36.94	35.71	34.45	35.72	34.66
12	37.54	37.06	38.09	35.76	35.51	35.35	35.72	37.09	35.66	34.42	34.19	35.19
13	37.62	37.48	38.06	35.91	35.06	35.24	36.04	36.96	35.61	34.71	34.81	35.18
14	37.60	37.50	37.98	35.80	36.19	35.35	36.01	37.04	35.82	34.53	34.49	35.24
15	37.51	37.03	37.95	35.89	36.23	35.48	35.97	37.02	35.77	34.34	34.53	35.09
16	37.48	37.45	37.93	36.49	35.36	35.99	35.87	37.18	35.79	34.46	34.79	35.14
17	37.42	37.55	37.91	36.09	35.20	35.37	35.86	37.34	35.92	34.47	34.46	35.10
18	37.44	37.80	37.93	35.64	35.30	35.35	35.96	37.26	36.00	34.54	34.47	35.22
19	36.92	37.77	37.65	35.41	35.37	35.15	36.14	36.39	36.12	34.60	34.51	35.50
20	36.76	37.79	37.65	35.51	35.17	35.29	36.17	36.19	36.03	34.60	35.45	35.97
21	36.70	38.08	37.51	35.53	35.34	35.15	36.10	35.75	36.14	34.40	35.69	35.36
22	36.71	38.07	37.50	35.71	35.22	35.27	36.14	35.46	35.93	34.54	34.78	35.41
23	37.10	37.88	37.62	35.75	35.31	35.00	36.16	35.60	36.04	34.55	35.37	36.20
24	37.32	37.85	37.05	35.78	35.38	35.18	36.04	36.23	35.76	34.50	34.99	35.89
25	37.28	37.81	34.96	35.99	35.36	35.29	35.99	36.11	35.97	34.19	34.74	35.81
26	37.34	37.85	35.74	35.65	35.58	35.17	36.40	35.58	35.99	34.45	34.69	35.59
27	37.36	37.52	35.70	35.63	35.61	35.39	36.16	35.27	35.91	34.11	34.42	36.04
28	37.26	37.32	35.38	35.65	35.49	35.58	36.09	35.05	35.11	34.25	33.73	35.68
29	37.38	37.69	35.38	35.64	---	35.81	36.20	35.03	35.03	34.38	33.92	35.70
30	37.41	37.72	35.41	35.62	---	35.72	36.35	35.07	34.55	34.32	33.99	35.58
31	37.44	---	35.54	36.38	---	35.49	---	34.97	---	34.26	34.24	---
MAX	38.14	38.08	38.09	36.49	36.62	36.07	36.40	37.34	36.14	34.99	35.79	36.20

CAL YR 2000 LOW 44.68
WTR YR 2001 LOW 38.14



GROUND-WATER RECORDS

Butler County

393202084241500. LOCAL NUMBER, BU-15

LOCATION.—Latitude 39°32'02", longitude 84°24'15", Hydrologic Unit 05080002, at Hook Field (municipal airport) at Middletown, Ohio. Owner: City of Middletown.

AQUIFER.—Sand and gravel of Pleistocene Age.

INSTRUMENTATION.—Periodic measurement with chalked tape by Ohio Department of Natural Resources personnel.

WELL CHARACTERISTICS.—Drilled observation water table well, diameter 6 in., depth 23 ft, cased.

DATUM.—Elevation of land-surface datum is 641 ft, 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. Some historical records not published by the USGS are available from ODNR. Water level affected by pumping wells nearby in Middletown well field.

PERIOD OF RECORD.—June 1972 to October 1982 continuous, periodic thereafter.

EXTREMES FOR PERIOD OF RECORD.—Maximum measured low, 15.72 ft below land-surface datum, Oct. 24, 1994; minimum daily low, 0.06 ft below land-surface datum, Feb. 25, 1975.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION,
WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL
Oct. 30	13.79
Apr. 26	11.28

GROUND-WATER RECORDS

Carroll County

403709081052800. LOCAL NUMBER, C-1

LOCATION.—Latitude 40°37'09", longitude 81°05'28", Hydrologic Unit 05040001, Carrollton well field, State Route 171, 3 mi north of Carrollton, Ohio. Owner: Carrollton Water Department.

AQUIFER.—Sandstone of Pennsylvanian Age.

WELL CHARACTERISTICS.—Drilled unused artesian well, diameter 10 in., depth 70 ft, cased.

INSTRUMENTATION.—Digital recorder, 60-minute punch.

DATUM.—Elevation of land-surface datum is 1,050 ft above sea level, from topographic map. Measuring point: Top of platform 3.0 ft above land-surface datum.

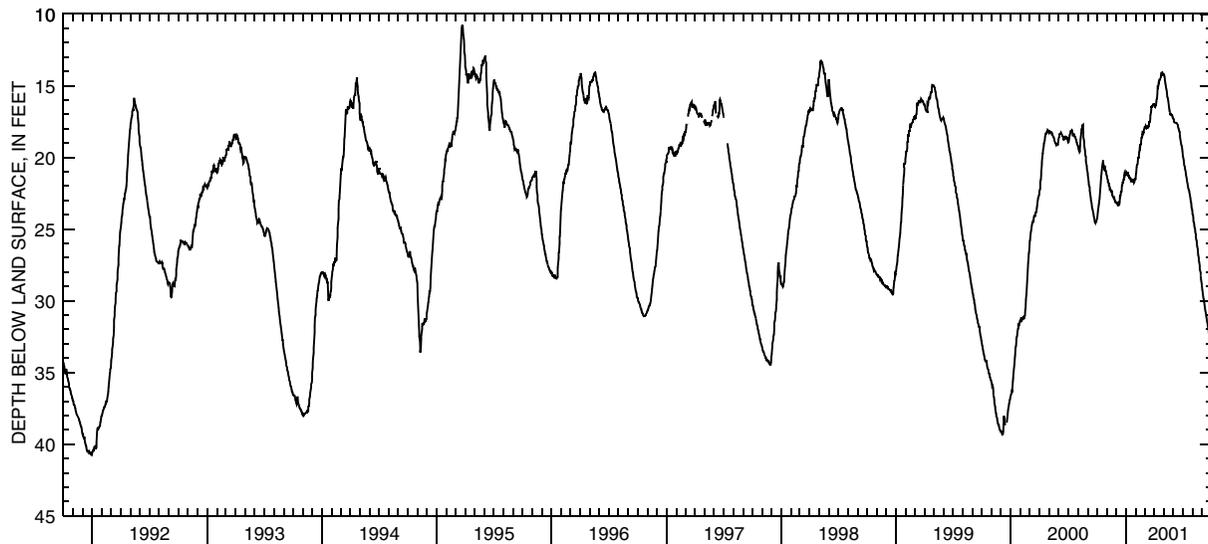
REMARKS.—Station operated by Ohio Department of Natural Resources (ODNR), Division of Water. Some historical records not published by the USGS are available from ODNR.

PERIOD OF RECORD.—August 1951 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 41.05 ft below land-surface datum, Dec. 5, 1971; minimum daily low, 7.20 ft below land-surface datum, Jan. 10 and 14, 1971.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.26	21.29	23.17	21.17	21.50	17.89	16.37	14.21	17.32	19.86	23.94	29.23
2	24.13	21.40	23.21	21.19	21.13	17.89	16.37	14.21	17.36	19.99	24.05	29.37
3	23.92	21.49	23.20	21.03	21.02	17.92	16.47	14.32	17.52	20.10	24.22	29.53
4	23.69	21.56	23.12	21.09	20.70	17.83	16.49	14.40	17.55	20.24	24.45	29.74
5	23.55	21.71	23.23	21.11	20.54	17.90	16.38	14.66	17.58	20.50	24.58	29.86
6	23.37	21.76	23.18	21.17	20.52	17.94	16.34	14.81	17.58	20.60	24.71	29.94
7	23.23	21.85	23.16	21.17	20.50	17.91	16.33	14.92	17.59	20.66	24.84	30.11
8	23.00	21.90	23.33	21.24	20.20	17.86	16.07	15.09	17.59	20.85	24.98	30.29
9	22.85	21.87	23.33	21.30	19.96	17.94	15.92	15.21	17.59	20.91	25.12	30.38
10	22.58	22.19	23.25	21.30	20.08	17.92	15.89	15.31	17.59	21.03	25.28	30.63
11	22.31	22.21	23.25	21.30	19.97	17.99	15.62	15.45	17.60	21.23	25.37	30.73
12	21.98	22.18	23.10	21.41	19.65	17.87	15.12	15.74	17.63	21.34	25.56	30.83
13	21.65	22.26	22.64	21.42	19.58	17.79	15.14	15.84	17.67	21.45	25.74	31.02
14	21.34	22.32	22.70	21.42	19.30	17.91	15.00	15.90	17.72	21.60	25.88	31.17
15	21.12	22.39	22.64	21.51	19.35	17.64	14.79	16.01	17.72	21.78	26.04	31.26
16	20.88	22.37	22.37	21.60	19.08	17.47	14.81	16.19	17.85	21.86	26.20	31.42
17	20.70	22.59	22.46	21.60	19.13	17.53	14.60	16.36	17.97	22.00	26.42	31.54
18	20.50	22.58	22.38	21.53	18.96	17.47	14.60	16.53	18.02	22.15	26.52	31.70
19	20.36	22.59	21.97	21.64	18.68	17.28	14.55	16.66	18.10	22.22	26.79	31.82
20	20.20	22.69	21.97	21.65	18.58	17.08	14.51	16.77	18.21	22.30	27.01	31.95
21	20.46	22.76	21.76	21.71	18.65	16.87	14.42	16.87	18.23	22.38	27.16	32.10
22	20.64	22.82	21.77	21.68	18.37	16.65	14.38	17.05	18.49	22.51	27.28	32.26
23	20.69	22.85	21.68	21.56	18.41	16.44	14.13	17.02	18.71	22.61	27.53	32.31
24	20.83	22.88	21.55	21.58	18.32	16.53	14.15	17.01	18.83	22.73	27.73	31.98
25	20.89	22.84	21.54	21.75	18.25	16.46	14.13	17.08	18.96	22.87	27.88	31.99
26	20.66	22.93	21.32	21.57	18.27	16.45	14.06	17.01	19.10	23.10	28.05	32.19
27	20.68	23.05	21.18	21.74	18.06	16.42	14.06	17.05	19.19	23.17	28.25	32.43
28	20.94	23.10	21.23	21.71	17.98	16.32	14.22	17.08	19.26	23.29	28.50	32.56
29	20.95	23.08	21.06	21.59	---	16.26	14.29	17.14	19.40	23.49	28.65	32.62
30	21.08	23.17	21.11	21.46	---	16.28	14.22	17.25	19.60	23.63	28.79	---
31	21.19	---	21.18	21.56	---	16.23	---	17.31	---	23.78	29.00	---
MAX	24.26	23.17	23.33	21.75	21.50	17.99	16.49	17.31	19.60	23.78	29.00	32.62
CAL YR 2000	LOW 36.56											
WTR YR 2001	LOW 32.62											



GROUND-WATER RECORDS
Champaign County

400638083453900. LOCAL NUMBER, CH-3

LOCATION.—Latitude 40°06'38", longitude 83°45'39", Hydrologic Unit 05080001, in Urbana, Ohio. Owner: Howard Paper Company.

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled test water table well, diameter 8 in., depth 40 ft, cased.

INSTRUMENTATION.—Digital recorder, 60-minute punch.

DATUM.—Elevation of land-surface datum is 1,030 ft above sea level, from topographic map. Measuring point: Floor of instrument shelter 4.50 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.

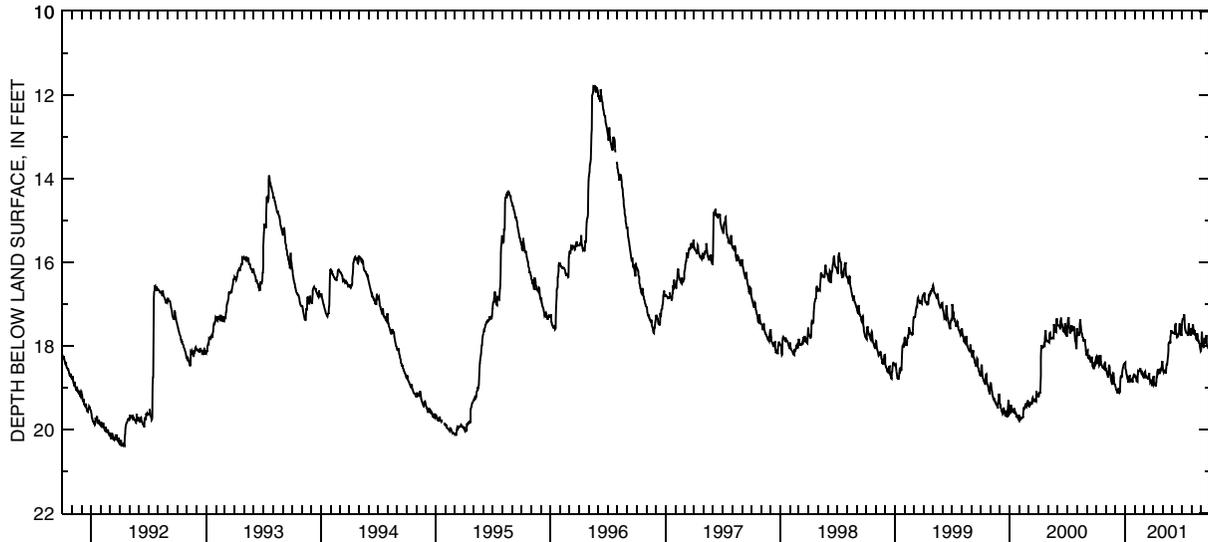
PERIOD OF RECORD.—June 1957 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 24.80 ft below land-surface datum, Feb. 26 to Mar. 4, 1964; minimum daily low, 11.76 ft below land-surface datum, May 20, 1996.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.27	18.54	18.94	18.40	18.73	18.76	18.76	18.49	17.69	17.52	17.69	18.03
2	18.25	18.55	18.97	18.39	18.74	18.76	18.72	18.55	17.69	17.41	17.72	17.77
3	18.36	18.59	19.00	18.55	18.73	18.67	18.84	18.61	17.69	17.37	17.57	17.66
4	18.43	18.61	19.04	18.58	18.72	18.64	18.87	18.63	17.68	17.35	17.61	17.81
5	18.39	18.66	19.06	18.62	18.73	18.62	18.95	18.60	17.68	17.34	17.49	17.86
6	18.23	18.67	19.06	18.66	18.79	18.61	18.92	18.60	17.66	17.35	17.58	17.94
7	18.25	18.71	19.08	18.71	18.84	18.68	18.93	18.59	17.68	17.35	17.68	17.99
8	18.25	18.75	19.10	18.73	18.84	18.72	18.92	18.61	17.73	17.24	17.71	18.02
9	18.31	18.73	19.14	18.78	18.85	18.75	18.96	18.63	17.57	17.27	17.72	18.05
10	18.39	18.64	19.02	18.79	18.86	18.74	18.93	18.63	17.49	17.49	17.63	17.83
11	18.46	18.52	19.07	18.85	18.67	18.73	18.86	18.66	17.45	17.57	17.65	17.83
12	18.45	18.45	19.03	18.87	18.59	18.76	18.74	18.53	17.60	17.62	17.68	17.84
13	18.46	18.51	19.04	18.76	18.60	18.74	18.74	18.45	17.69	17.65	17.71	17.89
14	18.30	18.57	19.07	18.73	18.61	18.75	18.63	18.44	17.73	17.66	17.75	17.92
15	18.22	18.67	19.10	18.72	18.61	18.79	18.58	18.44	17.76	17.69	17.79	17.95
16	18.32	18.69	19.09	18.72	18.61	18.79	18.55	18.36	17.80	17.69	17.84	17.78
17	18.43	18.74	18.85	18.82	18.58	18.73	18.59	18.28	17.79	17.69	17.86	17.74
18	18.44	18.80	18.75	18.84	18.56	18.68	18.62	18.22	17.78	17.67	17.76	17.93
19	18.47	18.85	18.75	18.82	18.53	18.64	18.64	18.09	17.77	17.74	17.69	17.97
20	18.48	18.87	18.71	18.85	18.60	18.77	18.63	17.96	17.72	17.76	17.77	18.00
21	18.51	18.91	18.71	18.83	18.61	18.82	18.59	17.90	17.72	17.64	17.83	18.03
22	18.51	18.93	18.75	18.83	18.64	18.85	18.61	17.93	17.71	17.56	17.85	18.05
23	18.51	18.72	18.62	18.79	18.67	18.87	18.62	17.92	17.56	17.45	17.88	18.05
24	18.52	18.65	18.57	18.84	18.68	18.85	18.58	17.89	17.46	17.62	17.91	18.04
25	18.53	18.66	18.53	18.87	18.65	18.86	18.58	17.93	17.54	17.67	17.93	18.07
26	18.55	18.66	18.50	18.78	18.67	18.87	18.56	17.78	17.61	17.69	17.95	18.09
27	18.56	18.77	18.47	18.73	18.71	18.90	18.59	17.70	17.66	17.74	17.98	18.17
28	18.44	18.91	18.44	18.72	18.74	18.93	18.50	17.62	17.69	17.74	18.03	18.23
29	18.40	18.92	18.43	18.71	---	18.92	18.40	17.64	17.74	17.73	18.08	18.06
30	18.38	18.92	18.43	18.66	---	18.94	18.36	17.68	17.76	17.58	18.12	18.02
31	18.52	---	18.42	18.71	---	18.82	---	17.69	---	17.61	18.10	---
MAX	18.56	18.93	19.14	18.87	18.86	18.94	18.96	18.66	17.80	17.76	18.12	18.23

CAL YR 2000 LOW 19.77
WTR YR 2001 LOW 19.14



GROUND-WATER RECORDS
Clark County

395639084012200. LOCAL NUMBER, CL-9

LOCATION.—Latitude 39°56'39", longitude 84°01'22", Hydrologic Unit 05080001, at north edge of New Carlisle, Ohio. Owner: New Carlisle Water Department.

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled unused artesian well, diameter 12 in., depth 113 ft, cased.

INSTRUMENTATION.—Digital recorder, 60-minute punch.

DATUM.—Elevation of land-surface datum is 900 ft above sea level, from topographic map. Measuring point: Top of platform 2.50 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.

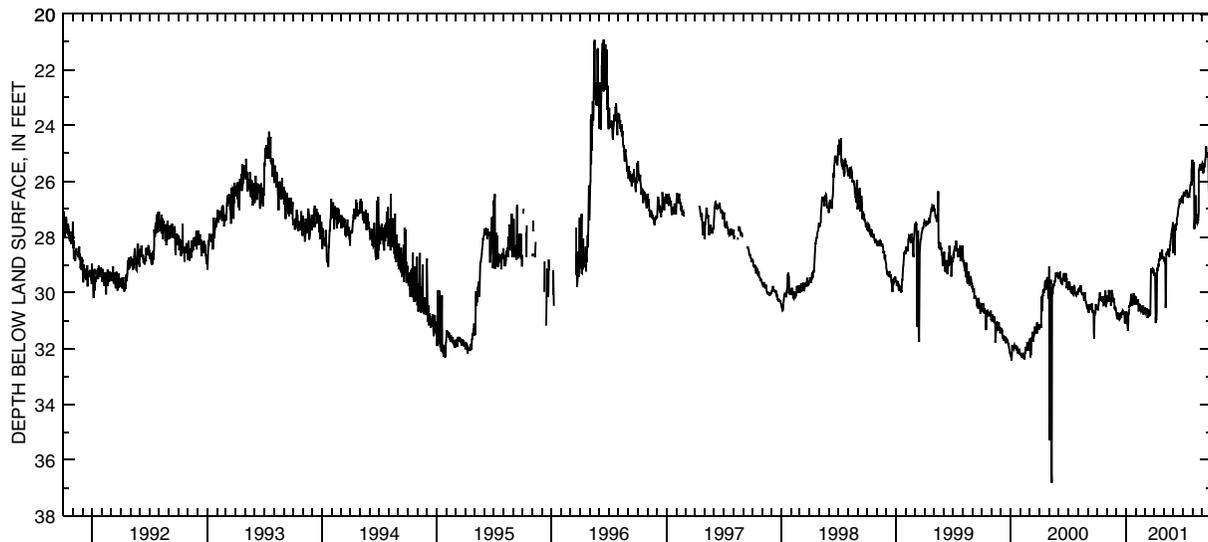
PERIOD OF RECORD.—September 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 36.82 ft below land-surface datum, May 10, 2000; minimum daily low, 18.20 ft below land-surface datum, July 4, 1980.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30.57	30.34	30.68	31.05	30.13	30.51	29.40	28.79	28.59	26.73	25.36	25.35
2	30.56	30.11	30.76	31.09	30.21	30.56	29.33	28.70	27.58	26.56	25.40	25.38
3	30.49	30.26	30.84	30.67	30.36	30.66	29.31	28.89	27.57	26.45	26.02	25.61
4	30.63	30.32	30.71	30.90	30.43	30.73	29.31	28.80	27.65	26.37	25.31	25.71
5	30.49	30.28	30.95	30.71	30.31	30.72	31.09	28.97	28.66	26.51	25.39	25.61
6	30.40	30.33	30.84	31.10	30.36	30.72	30.88	28.89	28.26	26.55	27.61	25.67
7	30.22	30.15	30.72	31.37	30.37	30.70	30.94	30.54	27.66	26.42	27.72	25.40
8	30.31	29.90	30.76	31.06	30.26	30.74	30.99	30.27	27.76	26.40	27.20	25.49
9	30.06	30.22	30.87	30.83	30.24	30.56	30.64	28.58	27.76	26.46	26.83	25.40
10	29.98	30.26	30.92	30.76	30.64	30.73	29.35	28.63	27.51	26.37	26.64	25.23
11	30.17	30.15	30.96	30.56	30.64	30.91	29.10	28.50	27.60	26.46	26.82	25.17
12	30.20	30.32	30.93	30.49	30.60	30.76	29.21	28.57	27.39	26.31	26.51	25.04
13	30.25	30.20	30.79	30.49	30.49	30.83	29.08	28.64	27.30	26.40	27.17	24.75
14	30.17	30.43	30.89	30.44	30.39	30.80	28.96	28.50	27.21	26.30	27.22	25.14
15	30.30	30.46	30.72	30.36	30.44	30.64	29.07	28.42	27.18	26.58	27.48	25.01
16	30.14	29.90	30.86	30.24	30.54	30.59	28.77	28.67	27.06	26.57	27.51	24.97
17	30.34	30.02	30.91	30.20	30.62	30.82	28.82	28.58	26.95	26.45	27.43	25.13
18	30.23	30.17	30.70	30.04	30.66	30.81	28.85	28.71	26.89	26.46	27.38	25.13
19	30.22	30.01	30.77	30.24	30.65	30.75	28.76	28.52	26.90	26.52	27.40	25.11
20	30.12	30.13	30.69	30.44	30.64	30.58	28.58	28.31	26.81	26.47	27.09	25.09
21	30.33	30.24	30.70	30.45	30.53	29.22	28.58	28.31	26.63	26.58	25.55	26.11
22	30.44	30.17	30.65	30.43	30.49	29.13	28.79	28.23	26.82	26.40	25.64	26.36
23	30.42	30.35	30.66	30.16	30.45	29.16	28.66	28.16	26.66	26.32	25.43	26.38
24	30.30	30.21	30.79	30.42	30.57	29.25	28.79	28.02	26.65	26.22	25.42	26.46
25	30.34	30.35	30.76	30.27	30.78	29.26	28.61	27.90	26.58	26.11	25.38	26.31
26	30.35	30.58	30.67	30.02	30.63	29.24	28.45	27.91	26.65	26.16	25.51	26.07
27	30.36	30.52	30.78	30.41	30.62	29.28	28.70	27.70	26.64	26.02	25.61	26.40
28	29.92	30.57	31.08	30.42	30.62	29.14	28.75	27.87	26.59	26.16	25.53	26.79
29	30.52	30.54	30.96	30.18	---	29.15	28.79	27.67	26.51	25.58	25.49	26.44
30	30.39	30.60	31.03	30.11	---	29.19	28.73	27.47	26.79	25.37	25.41	26.52
31	30.41	---	31.11	30.32	---	29.26	---	27.52	---	25.23	25.40	---
MAX	30.63	30.60	31.11	31.37	30.78	30.91	31.09	30.54	28.66	26.73	27.72	26.79

CAL YR 2000 LOW 36.82
WTR YR 2001 LOW 31.37



GROUND-WATER RECORDS
Clark County

395840083495200. LOCAL NUMBER, CL-7

LOCATION.—Latitude 39°58'40", longitude 83°49'52", Hydrologic Unit 05080001. Eagle City Road northwest of Springfield, Ohio. Owner: State of Ohio.

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled test water table well, diameter 6 in., depth 50 ft, cased.

INSTRUMENTATION.—Digital recorder, 60-minute punch.

DATUM.—Elevation of land-surface datum is 928.02 ft. Measuring point: Floor of instrument shelter 2.00 ft above land-surface datum.

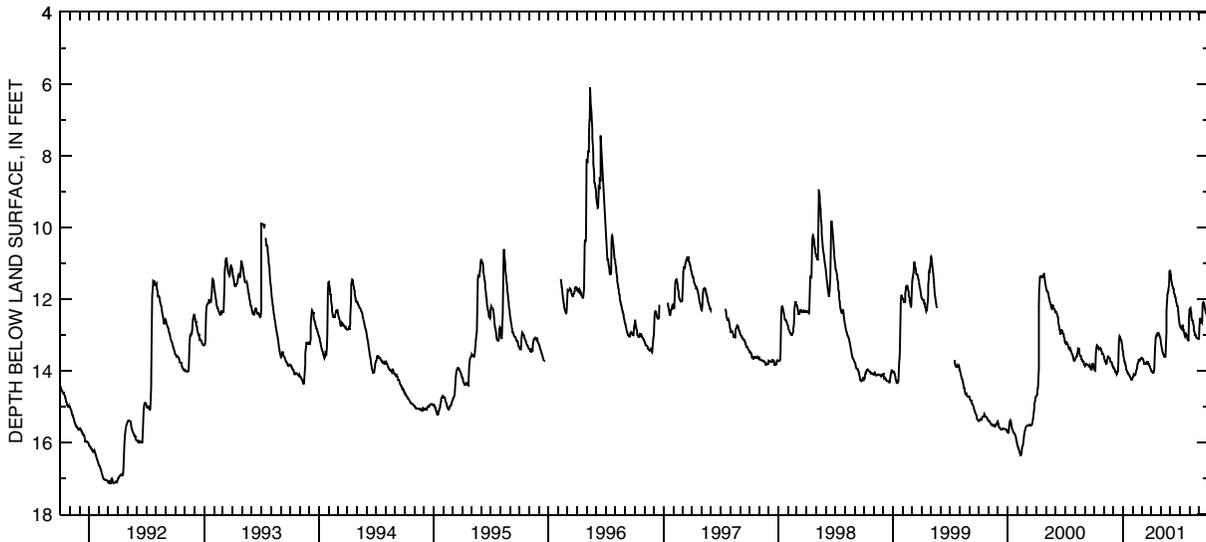
REMARKS.—Station operated by Ohio Department of Natural Resources (ODNR), Division of Water. Some historical records not published by the USGS are available from ODNR.

PERIOD OF RECORD.—October 1960 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 30.17 ft below land-surface datum, Feb. 18, 19, 1961; minimum daily low, 6.10 ft below land-surface datum, May 12, 1996.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.92	13.60	13.89	13.47	14.19	13.64	14.00	13.17	11.28	12.73	12.28	12.84
2	13.94	13.66	13.93	13.55	14.17	13.65	14.01	13.24	11.34	12.77	12.26	12.68
3	13.98	13.68	13.93	13.62	14.16	13.67	14.03	13.29	11.39	12.79	12.25	12.59
4	14.01	13.71	13.93	13.66	14.12	13.67	14.04	13.35	11.47	12.79	12.28	12.53
5	14.01	13.73	13.96	13.72	14.10	13.67	14.05	13.39	11.55	12.81	12.34	12.56
6	13.68	13.75	13.98	13.75	14.11	13.69	14.06	13.45	11.61	12.83	12.41	12.60
7	13.50	13.79	14.00	13.76	14.13	13.72	14.06	13.50	11.63	12.84	12.49	12.63
8	13.39	13.82	14.05	13.79	14.13	13.76	14.06	13.51	11.66	12.81	12.57	12.65
9	13.34	13.82	14.06	13.83	14.12	13.78	14.01	13.54	11.69	12.74	12.61	12.67
10	13.29	13.78	14.06	13.88	14.10	13.78	14.01	13.56	11.69	12.74	12.59	12.61
11	13.30	13.75	14.06	13.96	14.06	13.80	13.92	13.58	11.74	12.81	12.64	12.22
12	13.33	13.70	14.09	13.98	14.00	13.80	13.66	13.61	11.81	12.84	12.65	12.10
13	13.33	13.65	14.07	14.00	13.97	13.79	13.41	13.62	11.85	12.87	12.69	12.08
14	13.36	13.61	14.03	14.02	13.95	13.80	13.26	13.62	11.88	12.92	12.78	12.09
15	13.39	13.60	14.03	14.02	13.91	13.80	13.11	13.62	11.93	12.97	12.86	12.10
16	13.40	13.64	14.01	14.06	13.82	13.80	13.05	13.59	11.94	13.02	12.91	12.11
17	13.39	13.65	13.82	14.07	13.80	13.79	13.00	13.38	11.95	13.04	12.95	12.19
18	13.39	13.65	13.43	14.07	13.77	13.79	12.99	13.18	11.98	13.00	13.00	12.25
19	13.38	13.65	13.17	14.10	13.75	13.76	13.01	12.91	12.05	12.94	13.00	12.29
20	13.38	13.65	13.10	14.11	13.70	13.75	13.02	12.34	12.11	12.97	13.00	12.33
21	13.38	13.69	13.04	14.13	13.69	13.75	12.99	12.03	12.12	13.00	13.03	12.38
22	13.37	13.73	13.06	14.15	13.69	13.79	12.97	11.90	12.19	13.01	13.07	12.39
23	13.41	13.76	13.06	14.17	13.72	13.82	12.92	11.84	12.21	13.02	13.08	12.39
24	13.43	13.76	13.11	14.18	13.72	13.82	12.95	11.81	12.21	13.09	13.09	12.43
25	13.46	13.77	13.15	14.21	13.68	13.83	12.97	11.76	12.26	13.13	13.10	12.46
26	13.49	13.77	13.15	14.21	13.68	13.86	12.99	11.73	12.35	13.15	13.10	12.50
27	13.52	13.79	13.18	14.23	13.67	13.88	13.02	11.61	12.47	13.16	13.09	12.54
28	13.53	13.84	13.23	14.26	13.65	13.89	13.06	11.40	12.54	13.18	13.11	12.59
29	13.53	13.86	13.27	14.26	---	13.93	13.08	11.23	12.63	13.18	13.12	12.64
30	13.55	13.89	13.36	14.25	---	13.96	13.09	11.21	12.70	12.50	13.12	12.66
31	13.57	---	13.42	14.22	---	13.98	---	11.22	---	12.35	13.10	---
MAX	14.01	13.89	14.09	14.26	14.19	13.98	14.06	13.62	12.70	13.18	13.12	12.84
CAL YR 2000	LOW 16.35											
WTR YR 2001	LOW 14.26											



GROUND-WATER RECORDS
Coshocton County

401256081525100. LOCAL NUMBER, CS-3

LOCATION.—Latitude 40°12'56", longitude 81°52'51", Hydrologic Unit 05040004, 1.5 mi north of Conesville, Ohio. Owner: Universal Cyclops Corp.
 AQUIFER.—Sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.—Drilled test water table well, diameter 8 in., depth 110 ft, cased.

INSTRUMENTATION.—Digital recorder, 60-minute punch.

DATUM.—Elevation of land-surface datum is 745 ft above sea level, from topographic map. Measuring point: Floor of instrument shelter 2.80 ft above land-surface datum.

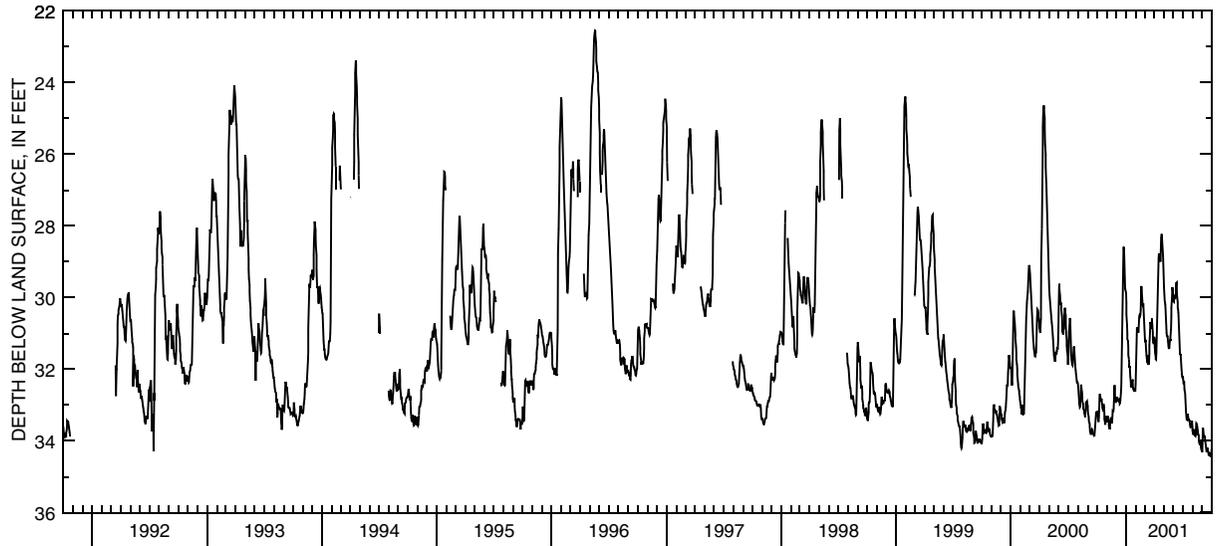
REMARKS.—Station operated by Ohio Department of Natural Resources (ODNR), Division of Water. Some historical records not published by the USGS are available from ODNR.

PERIOD OF RECORD.—April 1958 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 36.86 ft below land-surface datum, Sept. 28, 1973; minimum daily low, 21.10 ft below land-surface datum, Feb. 15, 1959.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33.24	33.43	32.88	29.86	32.41	30.97	31.10	29.46	30.11	32.20	33.70	34.31
2	33.17	33.43	32.86	30.16	32.09	31.14	31.17	29.74	30.12	32.27	33.81	33.99
3	33.24	33.45	32.79	30.47	31.57	31.24	31.38	29.91	30.08	32.39	33.81	33.63
4	33.39	33.45	32.79	30.76	31.17	31.18	31.54	30.07	29.95	32.39	33.80	33.70
5	33.45	33.31	32.85	31.02	30.86	31.32	31.66	30.14	29.94	32.34	33.70	33.80
6	33.45	33.36	32.87	31.18	30.86	31.48	31.73	30.19	30.00	32.55	33.71	33.86
7	33.32	33.47	32.87	31.21	30.90	31.61	31.74	30.46	30.01	32.62	33.82	33.89
8	33.02	33.56	32.89	31.39	30.91	31.69	31.54	30.67	29.92	32.65	33.86	33.89
9	32.72	33.63	32.88	31.59	30.96	31.81	31.14	30.84	29.75	32.83	33.87	33.89
10	32.68	33.66	32.81	31.73	30.96	31.81	30.91	30.98	29.59	33.01	33.86	34.00
11	32.75	33.68	32.89	31.86	30.79	31.60	30.70	31.07	29.58	33.19	33.82	34.05
12	32.80	33.55	32.95	31.93	30.56	31.73	30.43	31.09	29.78	33.31	33.67	34.13
13	32.88	33.38	32.94	31.93	30.49	31.87	30.00	31.09	29.98	33.41	33.51	34.20
14	32.88	33.37	32.88	31.99	30.48	31.88	29.49	31.19	30.13	33.42	33.54	34.28
15	32.82	33.36	32.76	32.18	30.51	31.81	28.91	31.28	30.29	33.35	33.58	34.28
16	32.90	33.41	32.65	32.37	30.47	31.58	28.76	31.36	30.33	33.25	33.60	34.22
17	32.99	33.49	32.47	32.48	30.35	31.34	28.82	31.42	30.41	33.30	33.72	34.19
18	33.08	33.49	32.04	32.50	29.90	30.98	28.83	31.42	30.68	33.35	33.80	34.24
19	33.11	33.35	31.35	32.50	29.68	30.70	28.86	31.40	30.97	33.39	33.80	34.28
20	33.09	33.17	30.59	32.48	29.83	30.69	28.98	31.30	31.21	33.42	33.86	34.33
21	33.09	33.18	29.93	32.32	29.96	30.75	28.98	31.18	31.41	33.44	33.96	34.39
22	32.96	33.18	29.37	32.28	30.09	30.86	28.65	31.18	31.58	33.44	34.05	34.39
23	33.07	33.11	28.96	32.44	30.22	30.87	28.33	31.12	31.59	33.51	34.09	34.31
24	33.25	32.85	28.61	32.53	30.23	30.83	28.25	30.87	31.58	33.58	34.10	34.40
25	33.39	32.62	28.61	32.59	30.16	30.59	28.25	30.52	31.74	33.62	34.10	34.42
26	33.48	32.45	28.77	32.60	30.38	30.75	28.40	30.28	31.88	33.62	34.01	34.42
27	33.55	32.71	29.13	32.60	30.58	30.98	28.59	29.99	32.02	33.59	34.10	34.41
28	33.55	32.86	29.47	32.59	30.79	31.15	28.73	29.75	32.12	33.54	34.19	34.42
29	33.31	32.90	29.76	32.53	---	31.24	28.86	29.71	32.21	33.47	34.25	34.39
30	33.35	32.91	29.79	32.61	---	31.30	29.17	29.85	32.24	33.47	34.26	34.23
31	33.43	---	29.79	32.61	---	31.30	---	30.01	---	33.60	34.29	---
MAX	33.55	33.68	32.95	32.61	32.41	31.88	31.74	31.42	32.24	33.62	34.29	34.42
CAL YR 2000	LOW 33.86											
WTR YR 2001	LOW 34.42											



GROUND-WATER RECORDS
Coshocton County

401735081523800. LOCAL NUMBER, CS-2

LOCATION.—Latitude 40°17'35", longitude 81°52'38", Hydrologic Unit 05040003, 1.7 mi northwest of courthouse in Coshocton, Ohio. Owner: City of Coshocton.

AQUIFER.—Sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.—Drilled test well, diameter 6 in., depth 40 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 8.50 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.

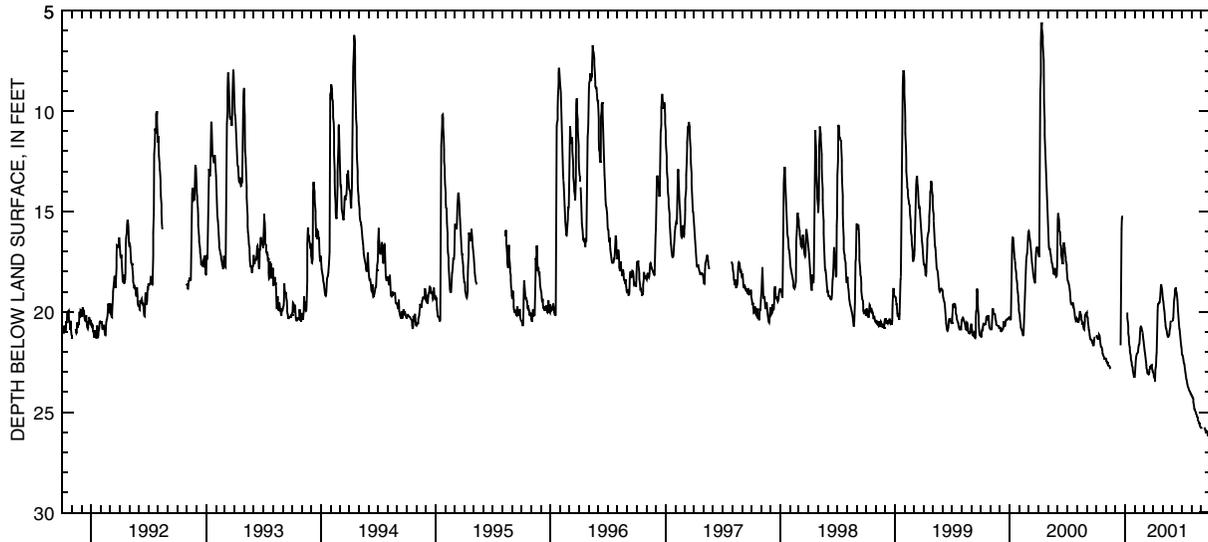
PERIOD OF RECORD.—May 1949 to September 1982. Reactivated April 1989.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 26.18 ft below land-surface datum, Sept. 22, 2001; minimum measured low, 0.43 ft below land-surface datum, Feb. 21, 1951.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.24	22.34	---	---	23.24	21.45	23.01	19.28	20.42	22.01	24.16	25.78
2	21.20	22.34	---	---	23.09	21.58	23.09	19.40	20.41	22.13	24.19	25.78
3	21.20	22.44	---	---	22.79	21.73	23.19	19.48	20.38	22.15	24.23	25.78
4	21.23	22.46	---	---	22.54	21.89	23.25	19.64	20.33	22.20	24.26	25.76
5	21.31	22.49	---	---	22.33	21.99	23.33	19.82	19.64	22.28	24.27	---
6	21.35	22.55	---	---	22.21	22.11	23.39	19.92	19.60	22.40	24.33	---
7	21.35	22.55	---	---	22.13	22.25	23.39	20.06	19.37	22.51	24.50	---
8	21.35	22.58	---	20.03	22.08	22.39	22.86	20.35	19.14	22.56	24.65	---
9	21.25	22.67	---	20.28	22.06	22.52	22.75	20.48	18.96	22.62	24.77	---
10	21.12	22.69	---	20.54	22.05	22.67	22.68	20.66	18.84	22.74	24.85	25.74
11	21.15	22.69	---	20.73	22.03	22.78	22.18	20.80	18.78	22.87	24.88	25.78
12	21.17	22.69	---	21.06	21.90	22.90	22.03	20.80	18.84	22.99	24.91	25.80
13	21.28	22.73	---	21.25	21.74	23.01	21.46	20.90	18.96	23.11	24.95	25.85
14	21.44	22.73	---	21.43	21.65	23.07	20.49	21.00	19.08	23.21	25.00	25.91
15	21.60	22.80	---	21.61	21.63	23.09	19.95	21.11	19.14	23.32	25.05	25.91
16	21.68	22.81	---	21.78	21.56	23.10	19.64	21.17	19.23	23.39	25.09	25.92
17	21.74	---	---	21.92	21.34	23.10	19.63	21.23	19.38	23.47	25.14	25.97
18	21.74	---	21.67	22.05	21.01	23.09	19.57	21.23	19.63	23.57	25.19	25.97
19	21.78	---	19.47	22.17	20.80	23.00	19.53	21.20	19.96	23.65	25.23	25.98
20	21.84	---	17.32	22.28	20.73	22.86	19.51	21.20	20.15	23.71	25.26	25.97
21	21.92	---	15.88	22.41	20.73	22.80	19.51	21.16	20.36	23.76	25.34	26.13
22	22.05	---	15.35	22.51	20.77	22.77	19.44	21.08	20.62	23.81	25.42	26.18
23	22.12	---	15.25	22.61	20.83	22.76	19.26	20.95	20.80	23.86	25.48	---
24	22.15	---	15.26	22.69	20.92	22.75	19.04	20.83	20.88	23.90	25.53	---
25	22.21	---	---	22.78	20.95	22.70	18.76	20.68	21.05	23.94	25.56	---
26	22.26	---	---	22.87	21.01	22.65	18.62	20.53	21.21	23.97	25.57	---
27	22.34	---	---	22.96	21.17	22.63	18.71	20.44	21.38	24.00	25.63	---
28	22.34	---	---	23.04	21.35	22.73	18.79	---	21.55	24.03	25.67	---
29	22.34	---	---	23.14	---	22.85	18.88	---	21.70	24.06	25.74	---
30	22.31	---	---	23.23	---	22.96	19.10	---	21.79	24.09	25.77	---
31	22.29	---	---	23.24	---	23.00	---	20.42	---	24.14	25.78	---
MAX	22.34	22.81	21.67	23.24	23.24	23.10	23.39	21.23	21.79	24.14	25.78	26.18

CAL YR 2000 LOW 22.81
WTR YR 2001 LOW 26.18



GROUND-WATER RECORDS
Darke County

400514084345700. LOCAL NUMBER, D-2

LOCATION.—Latitude 40°05'14", longitude 84°34'57", Hydrologic Unit 05080001, State Route 571, 3 mi east of Greenville, Ohio. Owner: Greenville Water Department.

AQUIFER.—Sand and gravel of Pleistocene Age.

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

INSTRUMENTATION.—Digital recorder, 60-minute punch.

DATUM.—Elevation of land-surface datum is 1,038 ft above sea level, from topographic map. Measuring point: Floor of instrument shelter 4.00 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.

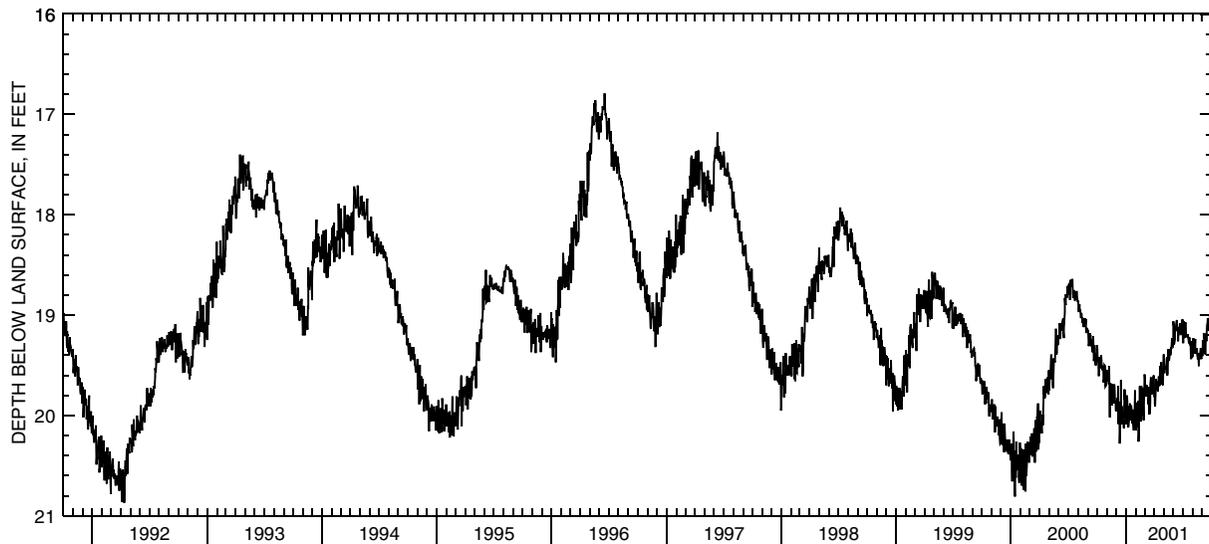
PERIOD OF RECORD.—August 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 20.87 ft below land-surface datum, Apr. 12, 1992; minimum daily low, 16.72 ft below land-surface datum, Feb. 13, Mar. 27, 1991.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.30	19.56	19.92	20.02	20.15	19.59	19.81	19.39	19.06	19.19	19.42	19.41
2	19.33	19.56	19.96	20.09	20.10	19.63	19.81	19.48	19.12	19.28	19.32	19.33
3	19.46	19.66	19.94	19.95	20.09	19.71	19.88	19.58	19.14	19.23	19.23	19.25
4	19.43	19.63	19.83	19.80	19.87	19.77	19.91	19.51	19.28	19.06	19.29	19.33
5	19.42	19.65	19.91	19.86	19.90	19.81	19.75	19.53	19.25	19.16	19.38	19.37
6	19.60	19.58	19.90	19.92	20.06	19.80	19.65	19.53	19.16	19.23	19.38	19.30
7	19.60	19.68	19.71	19.95	20.12	19.80	19.64	19.53	19.16	19.13	19.31	19.18
8	19.54	19.69	20.08	20.05	19.92	19.70	19.72	19.54	19.13	19.08	19.29	19.23
9	19.52	19.51	20.08	20.12	19.86	19.79	19.69	19.50	19.12	19.08	19.24	19.24
10	19.42	20.02	19.87	20.03	20.26	19.79	19.72	19.44	19.09	19.08	19.35	19.39
11	19.52	19.96	19.87	19.91	20.19	19.81	19.66	19.42	19.05	19.19	19.37	19.30
12	19.53	19.70	20.28	20.00	19.88	19.76	19.74	19.60	19.09	19.21	19.37	19.20
13	19.44	19.68	20.19	20.01	19.88	19.77	19.76	19.58	19.14	19.22	19.38	19.21
14	19.40	19.72	20.07	19.88	19.71	19.89	19.68	19.49	19.16	19.20	19.38	19.26
15	19.45	19.73	20.07	19.96	19.84	19.72	19.62	19.37	19.12	19.21	19.33	19.15
16	19.53	19.69	19.65	20.05	19.91	19.84	19.62	19.34	19.26	19.21	19.39	19.10
17	19.50	19.89	20.08	20.05	20.06	19.98	19.70	19.45	19.20	19.19	19.44	19.09
18	19.55	19.89	20.08	19.90	19.98	19.98	19.70	19.45	19.17	19.23	19.40	19.04
19	19.53	19.69	19.91	19.97	19.71	19.86	19.58	19.42	19.14	19.25	19.38	19.04
20	19.51	19.85	20.00	20.04	19.84	19.69	19.51	19.37	19.14	19.28	19.50	19.13
21	19.58	19.88	19.97	20.08	20.00	19.62	19.61	19.34	19.10	19.23	19.51	19.10
22	19.67	19.82	20.07	20.06	19.73	19.70	19.67	19.40	19.08	19.23	19.43	19.16
23	19.65	19.81	20.08	19.94	19.89	19.68	19.47	19.40	19.13	19.30	19.39	19.10
24	19.55	19.77	20.05	19.97	19.88	19.79	19.69	19.32	19.19	19.26	19.42	19.04
25	19.50	19.69	20.13	20.15	19.97	19.79	19.67	19.34	19.19	19.28	19.39	19.04
26	19.51	19.72	19.96	19.99	20.05	19.77	19.55	19.34	19.17	19.39	19.33	18.99
27	19.54	19.83	19.74	20.15	19.84	19.77	19.54	19.23	19.16	19.44	19.38	19.02
28	19.71	19.87	19.84	20.11	19.74	19.73	19.70	19.29	19.10	19.32	19.43	19.06
29	19.70	19.87	19.75	19.96	---	19.62	19.65	19.30	19.05	19.26	19.44	19.10
30	19.58	19.95	19.91	19.75	---	19.60	19.46	19.31	19.05	19.31	19.39	19.02
31	19.56	---	20.02	20.07	---	19.63	---	19.27	---	19.40	19.33	---
MAX	19.71	20.02	20.28	20.15	20.26	19.98	19.91	19.60	19.28	19.44	19.51	19.41

CAL YR 2000 LOW 20.80
WTR YR 2001 LOW 20.28



GROUND-WATER RECORDS
Delaware County

402126083040400. LOCAL NUMBER, DL-3

LOCATION.—Latitude 40°21'26", longitude 83°04'04", Hydrologic Unit 05060001, east bank of Olentangy River at toe of Delaware dam. Owner: U.S. Army Corps of Engineers.

AQUIFER.—Limestone of Devonian Age.

WELL CHARACTERISTICS.—Drilled test artesian well, diameter 12 in., depth 135 ft, cased.

INSTRUMENTATION.—Type F continuous recorder.

DATUM.—Elevation of land-surface datum is 900 ft above sea level, from topographic map. Measuring point: Floor of instrument shelter 2.60 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.

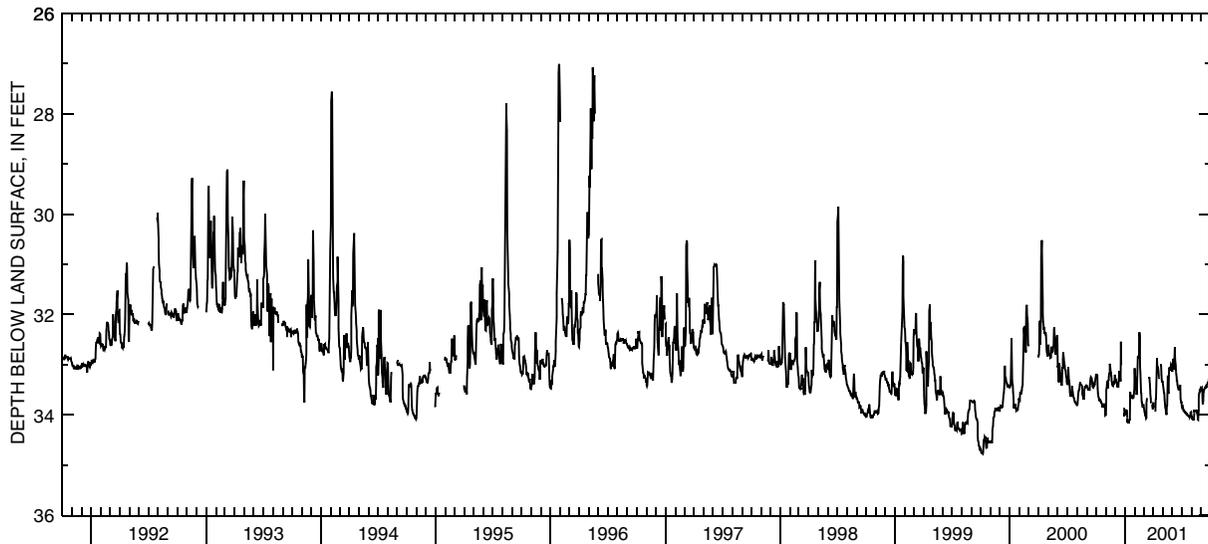
PERIOD OF RECORD.—October 1948 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 37.04 ft below land-surface datum, Nov. 1, 1948, Dec. 2, 3, 1949; minimum daily low, 20.43 ft below land-surface datum, Jan. 27, 1959.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33.20	34.00	33.25	34.00	33.07	33.78	33.76	33.35	33.03	33.84	34.06	33.47
2	33.20	33.70	33.29	34.00	33.25	33.86	33.77	33.40	33.00	33.86	34.06	33.46
3	33.20	33.50	33.30	33.96	33.25	33.89	33.80	33.45	32.88	33.85	34.06	33.45
4	33.21	33.43	33.30	33.96	33.38	33.94	33.85	33.50	32.95	33.84	34.06	33.54
5	33.20	33.39	33.35	33.89	33.42	33.96	---	33.55	33.08	33.89	34.10	33.73
6	33.47	33.36	33.37	33.90	33.45	34.01	---	33.57	33.10	33.91	34.10	33.78
7	33.56	33.32	33.35	33.93	33.60	34.01	---	33.70	33.00	33.90	34.09	33.72
8	33.62	33.47	33.43	34.07	33.55	34.01	33.93	33.78	32.65	33.91	34.06	33.55
9	33.65	33.33	33.45	34.12	33.38	34.06	33.68	33.85	32.70	33.93	33.96	33.51
10	33.67	33.30	33.42	34.12	33.15	34.05	33.67	33.87	32.90	33.93	33.92	33.50
11	33.71	33.25	33.43	34.14	32.83	33.75	33.45	33.92	33.02	33.96	33.92	33.48
12	33.71	33.17	33.32	34.15	32.84	33.66	33.21	33.97	33.07	33.96	33.91	33.46
13	33.68	33.15	33.22	34.15	32.85	---	32.87	34.00	33.15	33.95	33.92	33.45
14	33.70	32.98	33.12	34.14	32.82	---	33.02	33.82	33.27	33.96	33.93	33.47
15	33.71	33.00	33.15	34.10	32.79	---	33.05	33.81	33.33	33.97	33.92	33.44
16	33.74	33.14	33.15	34.10	32.35	---	33.05	33.54	33.30	34.00	33.91	33.41
17	33.74	33.21	33.29	33.98	32.45	---	33.08	33.22	33.38	34.00	33.92	33.46
18	33.76	33.21	33.33	33.54	33.05	33.28	33.15	33.50	33.42	33.99	33.91	33.40
19	33.77	33.22	32.54	33.63	33.15	33.26	33.25	33.58	33.45	34.01	33.96	33.38
20	33.79	33.32	33.01	33.63	33.30	33.25	33.28	33.58	33.48	34.02	34.03	33.37
21	33.80	33.36	---	33.65	33.54	33.40	---	33.08	33.48	34.02	34.09	33.37
22	33.84	33.41	---	33.64	33.57	33.53	---	33.06	33.50	34.02	34.10	33.35
23	33.84	33.42	---	33.60	33.74	33.57	---	33.05	33.47	34.03	33.90	33.34
24	33.81	33.43	---	33.64	33.75	33.70	---	33.08	33.47	34.03	33.65	33.31
25	33.79	33.39	---	33.68	33.83	33.75	32.98	33.11	33.43	34.05	33.58	33.30
26	33.78	33.37	---	33.65	33.85	33.77	33.02	33.09	33.40	34.03	33.53	33.28
27	33.79	33.38	---	33.66	---	---	33.20	32.99	33.68	34.03	33.50	33.30
28	33.84	33.38	---	33.66	---	---	33.30	33.00	33.71	34.01	33.49	33.31
29	33.86	33.33	33.86	33.64	---	33.79	33.35	33.02	33.75	33.95	33.50	33.32
30	33.99	33.20	33.95	33.55	---	33.88	33.32	33.11	33.75	33.94	33.47	33.30
31	34.01	---	34.00	33.49	---	33.81	---	33.14	---	34.01	33.48	---
MAX	34.01	34.00	34.00	34.15	33.85	34.06	33.93	34.00	33.75	34.05	34.10	33.78

CAL YR 2000 LOW 34.01
WTR YR 2001 LOW 34.15



GROUND-WATER RECORDS
Fairfield County

393450082403600. LOCAL NUMBER, F-7

LOCATION.—Latitude 39°34'50", longitude 82°40'36", Hydrologic Unit 05030204, southeast of Amanda, Ohio. Owner: Pine Grove Springs Water Company Inc.

AQUIFER.—Sandstone of Mississippian Age.

WELL CHARACTERISTICS.—Drilled unused artesian well, diameter 5 in., depth 120 ft, cased to 31 ft.

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

DATUM.—Elevation of land-surface datum is 980 ft above sea level, from topographic map. Measuring point: Floor of instrument shelter 0.60 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.

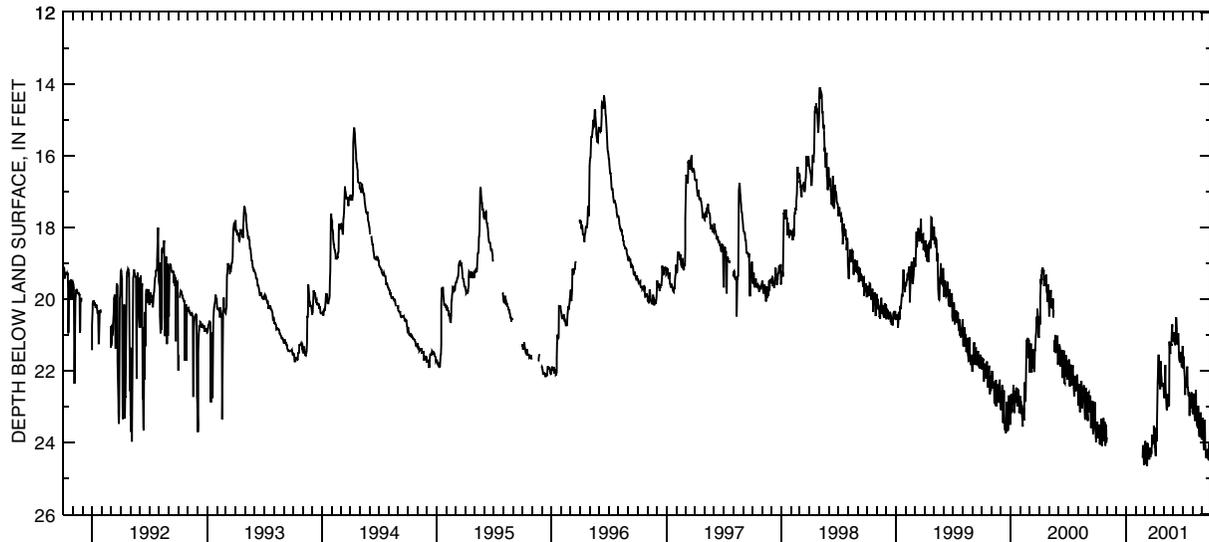
PERIOD OF RECORD.—August 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 25.36 ft below land-surface datum, Sept. 20, 1988; minimum daily low, 12.38 ft below land-surface datum, Apr. 17, 1991.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.56	23.85	---	---	---	24.56	23.57	22.52	21.17	21.35	23.14	23.83
2	23.41	---	---	---	---	24.59	23.76	22.71	20.96	21.93	23.19	23.30
3	23.87	---	---	---	---	23.95	24.13	22.76	20.91	21.87	23.19	23.83
4	23.85	---	---	---	---	24.05	24.08	22.60	21.14	21.60	22.91	23.85
5	23.50	---	---	---	---	24.51	24.37	22.10	21.25	21.91	22.63	24.07
6	23.79	---	---	---	---	24.59	24.19	21.83	21.28	22.05	23.15	24.18
7	23.57	---	---	---	---	24.50	23.97	22.49	21.26	22.19	23.17	24.18
8	23.49	---	---	---	---	24.57	23.59	22.70	21.21	22.66	23.37	23.77
9	24.02	---	---	---	---	24.65	23.96	22.86	20.90	22.23	23.39	23.36
10	24.03	---	---	---	---	24.29	23.65	23.04	20.50	22.16	23.14	24.01
11	23.99	---	---	---	---	24.01	22.99	23.09	20.81	22.35	22.67	24.16
12	23.67	---	---	---	---	24.18	22.34	22.88	21.02	22.46	22.53	24.27
13	23.61	---	---	---	---	24.39	22.09	22.65	21.17	22.23	23.15	24.38
14	23.34	---	---	---	---	24.43	21.78	22.83	21.27	21.91	23.33	24.44
15	23.65	---	---	---	---	24.44	21.54	22.85	21.18	21.87	23.50	24.22
16	24.04	---	---	---	---	24.47	22.10	22.88	20.95	22.47	23.52	24.21
17	24.09	---	---	---	---	24.13	22.25	22.97	20.97	22.47	23.59	24.27
18	23.93	---	---	---	---	24.23	22.33	22.96	21.33	22.61	23.29	24.41
19	23.70	---	---	---	---	24.41	22.41	21.75	21.61	22.69	22.97	24.42
20	23.68	---	---	---	---	24.41	22.50	21.18	21.70	22.58	23.33	24.47
21	23.40	---	---	---	---	24.29	21.87	21.50	21.71	22.69	23.61	24.49
22	23.31	---	---	---	---	24.23	21.73	21.52	21.76	23.25	23.81	24.20
23	23.67	---	---	---	24.42	24.33	22.10	21.27	21.54	22.80	23.82	24.02
24	23.96	---	---	---	24.07	24.06	22.17	21.26	21.46	22.85	23.70	24.32
25	23.71	---	---	---	24.11	23.78	22.34	21.26	21.61	22.90	23.33	24.49
26	23.43	---	---	---	24.41	24.00	22.41	21.21	21.69	22.99	23.15	24.52
27	24.09	---	---	---	24.60	23.89	22.40	20.78	21.87	23.05	23.63	24.63
28	24.07	---	---	---	24.62	23.86	22.40	20.70	21.88	22.60	23.78	24.65
29	23.49	---	---	---	---	24.03	22.33	21.04	21.61	22.79	23.81	24.40
30	23.67	---	---	---	---	24.04	22.41	21.13	21.30	22.95	23.89	24.14
31	24.00	---	---	---	---	23.53	---	21.16	---	23.01	23.89	---
MAX	24.09	23.85	---	---	24.62	24.65	24.37	23.09	21.88	23.25	23.89	24.65

CAL YR 2000 LOW 24.09
WTR YR 2001 LOW 24.65



GROUND-WATER RECORDS
Fairfield County

394257082362900. LOCAL NUMBER, F-6

LOCATION.—Latitude 39°42'57", longitude 82°36'29", Hydrologic Unit 05030204, near Hocking River in well field at Lancaster, Ohio. Owner: Lancaster Water Department.

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled unused water table well, diameter 12 in., depth 108 ft, cased.

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

DATUM.—Elevation of land-surface datum is 820 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.

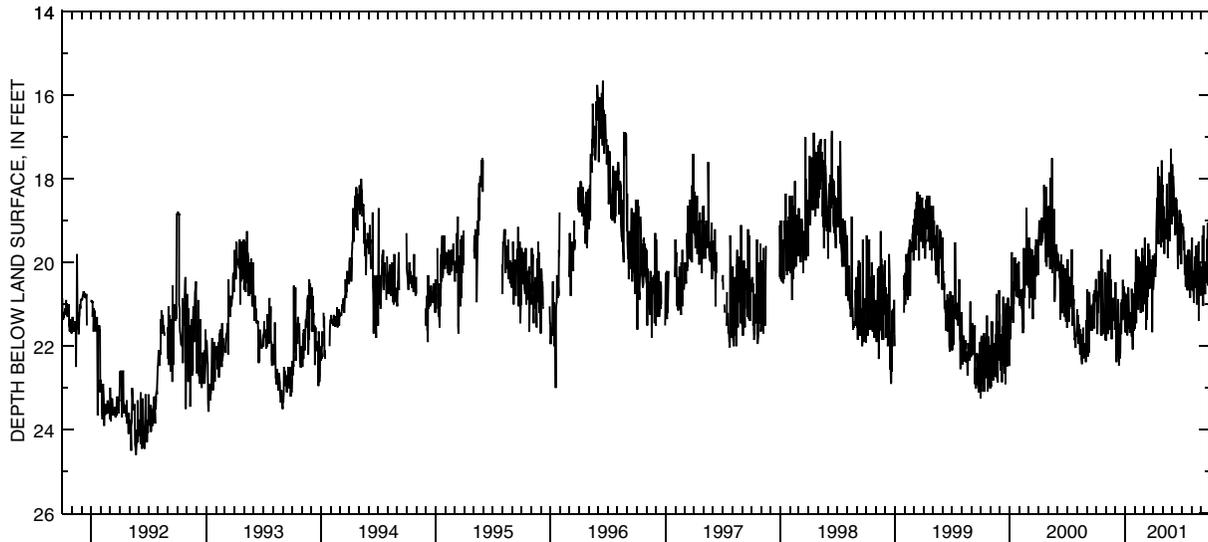
PERIOD OF RECORD.—June 1978 to current year.

EXREMES FOR PERIOD OF RECORD.—Maximum daily low, 27.45 ft below land-surface datum, Aug. 17, 1988; minimum daily low, 15.65 ft below land-surface datum, June 16, 1996.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.39	20.54	21.45	21.65	20.99	20.09	20.66	18.14	17.65	19.29	19.92	20.10
2	20.81	21.87	20.47	21.65	21.59	19.83	20.42	18.99	18.90	19.06	19.41	20.40
3	20.76	21.80	21.12	21.32	20.47	20.93	20.07	19.52	18.05	19.25	20.67	20.47
4	20.97	20.81	21.69	21.29	20.70	20.69	20.18	19.34	17.93	19.20	20.28	20.25
5	21.71	20.61	22.38	21.41	19.68	19.41	19.79	18.66	18.25	19.14	20.27	19.35
6	21.45	20.96	22.17	20.75	21.45	20.72	20.20	19.79	18.44	19.17	20.61	20.91
7	20.69	21.44	21.53	21.53	19.89	21.00	20.30	18.96	18.57	19.70	20.64	21.03
8	21.21	19.94	22.07	21.74	20.04	20.43	20.34	19.00	18.54	19.47	20.96	19.11
9	20.60	21.71	21.38	21.11	21.08	21.60	20.07	19.02	18.96	19.52	20.20	20.18
10	20.20	21.41	20.87	21.29	20.52	20.47	20.09	19.25	19.34	20.28	20.40	20.24
11	20.78	20.79	21.80	21.51	20.76	20.18	19.25	19.26	19.20	20.28	19.86	20.04
12	20.81	20.27	22.19	20.60	19.86	21.36	19.00	19.44	18.44	19.81	20.60	20.42
13	20.58	21.44	22.46	21.24	21.12	20.07	18.61	18.66	18.48	20.58	20.45	20.76
14	20.57	21.60	21.47	21.57	19.88	20.22	18.45	18.12	18.51	19.85	20.16	20.01
15	20.34	19.81	21.80	21.27	20.75	20.82	18.84	19.41	18.66	19.88	19.72	20.49
16	21.69	21.35	22.29	21.68	20.27	19.55	17.72	18.81	18.72	20.51	19.59	20.40
17	21.74	21.17	22.16	21.39	20.88	19.95	19.43	19.89	18.90	20.66	21.00	20.45
18	19.68	20.40	21.26	21.32	20.20	20.22	19.56	18.96	19.85	20.01	20.40	19.92
19	21.74	21.09	20.96	21.56	20.57	20.64	19.10	18.75	20.15	20.67	20.37	19.44
20	21.36	21.83	21.71	21.18	21.21	19.68	17.93	19.22	19.06	20.03	20.37	19.86
21	21.11	20.96	21.30	21.21	19.97	20.20	18.14	18.87	19.83	19.70	19.89	19.05
22	20.16	21.36	20.88	21.77	20.69	20.60	18.87	17.85	19.70	19.81	19.59	20.43
23	21.20	21.39	21.30	20.63	21.11	20.11	19.17	19.49	19.49	20.46	19.50	20.55
24	21.17	21.14	21.38	21.14	20.20	20.10	18.42	18.90	18.75	19.70	21.39	19.95
25	20.99	21.02	20.42	22.08	19.65	19.94	19.08	18.53	19.28	20.34	20.36	20.11
26	21.71	20.84	21.17	21.83	21.03	20.28	19.64	19.05	19.55	20.54	20.01	19.90
27	21.39	21.36	21.24	20.76	21.17	20.61	18.63	17.28	18.84	20.84	20.70	19.83
28	21.24	21.35	20.57	20.73	20.87	20.03	17.56	18.57	19.56	20.01	20.11	19.88
29	21.11	21.17	21.22	21.56	---	21.66	18.33	18.69	20.04	20.04	20.67	19.95
30	21.86	21.60	21.35	21.63	---	20.20	18.25	19.08	19.22	20.45	20.79	20.09
31	20.24	---	20.70	21.47	---	19.83	---	18.00	---	20.16	20.15	---
MAX	21.86	21.87	22.46	22.08	21.59	21.66	20.66	19.89	20.15	20.84	21.39	21.03

CAL YR 2000 LOW 22.46
WTR YR 2001 LOW 22.46



GROUND-WATER RECORDS
Fairfield County

394544082271000. LOCAL NUMBER, F-1

LOCATION.—Latitude 39°45'44", longitude 82°27'10", Hydrologic Unit 05030204, near the west edge of West Rushville, Ohio. Owner: State of Ohio.
AQUIFER.—Sandstone of Mississippian Age.

WELL CHARACTERISTICS.—Drilled observation well, diameter 6 in., depth 84 ft, cased.

INSTRUMENTATION.—Type F continuous recorder.

DATUM.—Elevation of land-surface datum is 980 ft above sea level, from topographic map. Measuring point: Floor of instrument shelter 8.02 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.

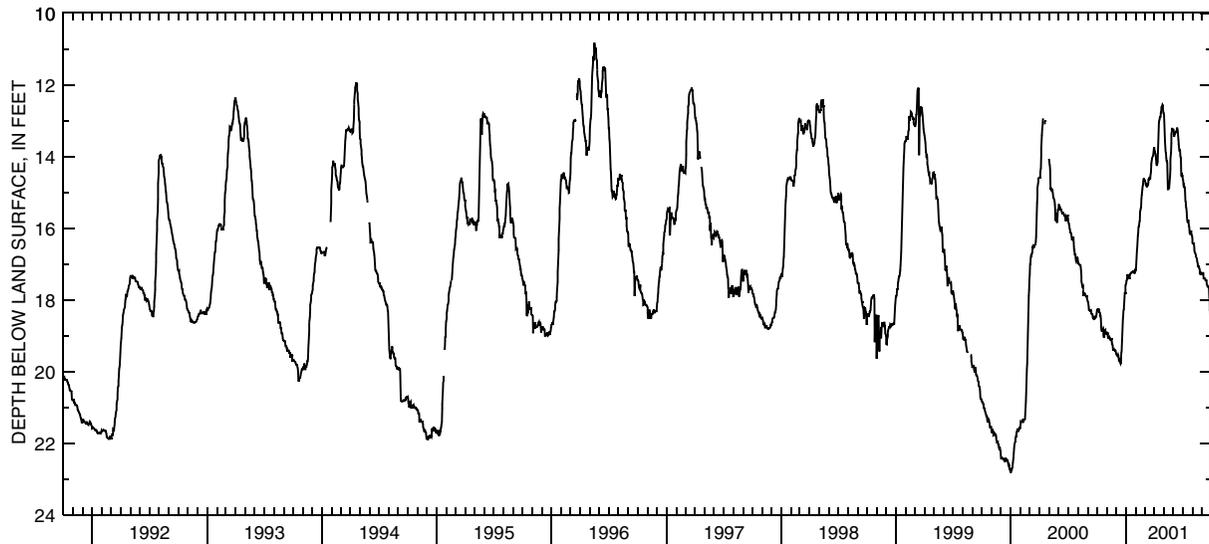
PERIOD OF RECORD.—March 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 22.80 ft below land-surface datum, Dec. 31, 1999 - Jan. 1, 2000; minimum daily low, 7.27 ft below land-surface datum, May 5-6, 1962.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.27	18.91	19.50	17.55	17.17	14.66	13.73	12.80	13.22	14.64	16.41	17.28
2	18.27	18.93	19.51	17.50	17.13	14.66	13.85	12.83	13.32	14.65	16.43	17.28
3	18.28	18.94	19.54	17.47	17.00	14.69	13.86	13.00	13.43	14.82	16.43	17.25
4	18.27	18.93	19.55	17.43	16.83	14.74	13.89	13.22	13.43	14.84	16.40	17.25
5	18.29	19.02	19.57	17.32	16.64	14.80	13.95	13.58	13.35	14.81	16.45	17.40
6	18.24	19.06	19.57	17.30	16.53	14.81	13.98	13.71	13.37	14.85	16.56	17.40
7	18.31	19.06	19.53	17.30	16.37	14.83	14.07	13.88	13.31	14.87	16.61	17.40
8	18.33	19.03	19.56	17.34	16.20	14.83	14.19	13.90	13.32	15.00	16.68	17.40
9	18.34	19.02	19.63	17.38	16.12	14.74	14.24	14.03	13.32	15.24	16.71	17.40
10	18.35	19.05	19.70	17.40	15.96	14.81	14.24	14.12	13.29	15.27	16.71	17.40
11	18.44	19.10	19.70	17.40	15.95	14.81	14.18	14.12	13.28	15.39	16.74	17.45
12	18.44	19.12	19.68	17.35	15.90	14.80	14.15	14.16	13.23	15.44	16.80	17.45
13	18.52	19.12	19.69	17.32	15.81	14.70	13.92	14.55	13.19	15.54	16.81	17.45
14	18.78	19.10	19.75	17.29	15.80	14.63	13.58	14.90	13.28	15.69	16.85	17.45
15	18.86	19.10	19.77	17.27	15.52	14.62	13.28	14.93	13.29	15.80	16.85	17.56
16	18.87	19.10	19.75	17.25	15.50	14.60	13.04	14.87	13.41	15.83	16.92	17.56
17	18.87	19.15	19.45	17.25	15.44	14.57	12.99	14.88	13.51	15.83	17.00	17.61
18	18.83	19.22	19.44	17.25	15.43	14.63	12.96	14.88	13.64	15.76	17.06	17.61
19	18.80	19.22	19.18	17.21	15.20	14.62	12.90	14.76	13.74	15.85	17.06	17.64
20	18.78	19.27	18.94	17.20	15.08	14.55	12.89	14.76	13.83	15.92	17.06	17.64
21	18.82	19.39	18.72	17.23	15.00	14.43	12.89	14.54	13.85	15.96	17.07	17.65
22	19.00	19.39	18.55	17.23	14.90	14.24	12.78	14.33	13.79	16.11	17.11	17.65
23	19.05	19.38	18.43	17.22	14.82	14.19	12.78	14.06	13.95	16.16	17.16	17.93
24	19.01	19.37	18.27	17.18	14.79	14.08	12.60	13.88	14.03	16.16	17.24	17.93
25	18.96	19.40	18.25	17.24	14.65	14.06	12.62	13.62	14.04	16.14	17.28	18.27
26	18.84	19.42	18.12	17.24	14.62	14.02	12.59	13.37	14.54	16.11	17.28	18.27
27	18.83	19.42	17.94	17.17	14.62	13.98	12.56	13.28	14.55	16.06	17.28	18.54
28	18.90	19.40	17.80	17.25	14.65	13.98	12.57	13.20	14.55	16.17	17.27	18.54
29	18.92	19.41	17.80	17.25	---	13.96	12.71	13.25	14.52	16.17	17.24	18.72
30	18.96	19.45	17.80	17.22	---	13.79	12.77	13.25	14.55	16.22	17.25	18.72
31	18.95	---	17.60	17.16	---	13.79	---	13.22	---	16.28	17.28	---
MAX	19.05	19.45	19.77	17.55	17.17	14.83	14.24	14.93	14.55	16.28	17.28	18.72

CAL YR 2000 LOW 22.80
WTR YR 2001 LOW 19.77



GROUND-WATER RECORDS
Fairfield County

395053082361900. LOCAL NUMBER, F-5

LOCATION.—Latitude 39°50'53", longitude 82°36'19", Hydrologic Unit 05060001, Gaylord Paper Company, Baltimore, Ohio. Owner: Crown Zellerbach, Gaylord Paper Division.

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled unused artesian well, diameter 12 in., depth 180 ft, cased.

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

DATUM.—Elevation of land-surface datum is 850 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. Some historical records not published by the USGS are available from ODNR.

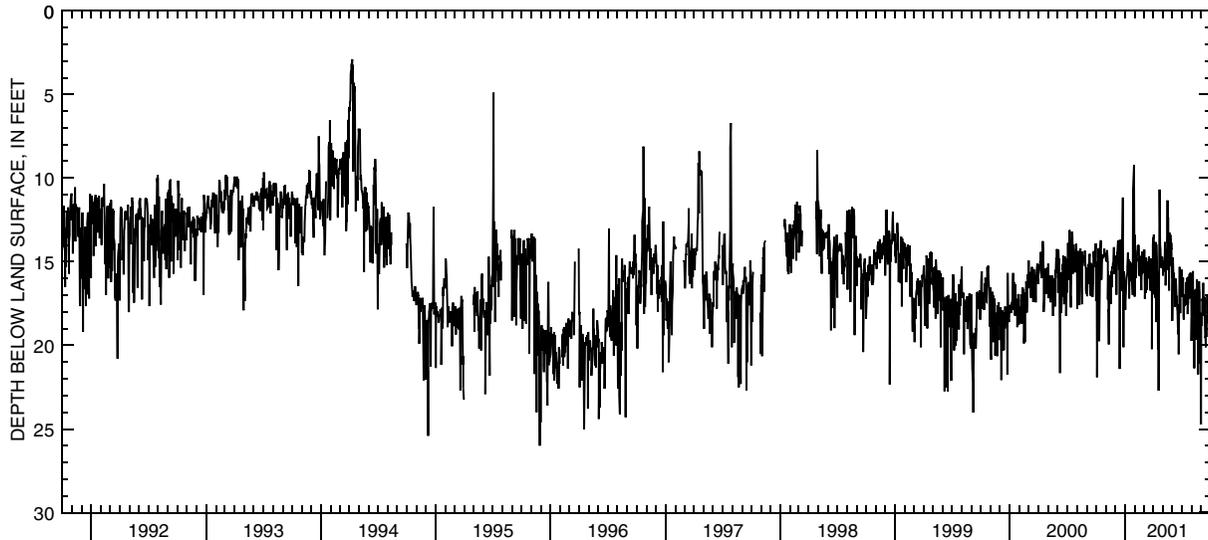
PERIOD OF RECORD.—June 1971 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 34.50 ft below land-surface datum, Sept. 13, 1984; minimum daily low, 0.98 ft above land-surface datum, Nov. 7, 1979.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.34	14.85	14.73	17.19	17.09	14.55	13.58	15.06	18.54	15.48	19.74	18.20
2	16.97	14.97	14.65	17.86	13.41	15.05	13.53	15.83	16.04	16.53	17.19	18.54
3	14.96	14.72	15.33	17.58	14.85	14.26	13.38	15.12	14.76	16.26	17.90	18.83
4	21.90	15.00	15.32	16.80	15.12	14.37	16.95	15.60	15.50	16.29	15.84	17.20
5	18.11	14.31	16.97	16.22	15.97	17.22	13.86	15.03	16.65	15.96	15.57	17.36
6	15.20	14.45	15.74	16.11	15.65	16.29	14.09	15.00	15.68	18.25	18.42	17.27
7	14.85	15.03	14.46	15.81	14.85	15.90	15.29	15.05	16.00	18.45	18.51	16.26
8	14.19	17.25	14.35	15.65	14.88	16.86	17.16	13.82	16.70	17.72	18.80	17.50
9	14.34	15.62	14.03	15.29	14.39	14.75	13.82	14.25	17.69	16.97	20.85	17.73
10	14.31	19.94	13.71	14.46	14.28	15.01	18.60	16.41	16.94	17.64	21.36	18.22
11	19.75	17.82	13.90	15.51	14.01	15.66	13.97	15.68	16.17	17.55	16.68	17.11
12	16.85	18.08	14.90	15.27	14.35	16.68	14.49	14.76	16.02	17.52	17.20	17.94
13	15.40	16.31	15.51	14.96	14.00	15.66	15.25	15.42	16.35	17.16	18.61	19.55
14	14.37	15.83	14.58	14.87	14.24	15.95	16.05	15.48	17.64	16.29	19.65	19.49
15	13.92	16.56	21.41	17.20	14.67	15.93	15.60	12.18	17.04	16.23	18.12	20.10
16	13.71	15.78	15.75	15.00	15.84	15.01	20.22	11.34	17.75	17.55	16.64	18.30
17	14.81	17.52	14.00	15.95	14.75	15.45	15.72	13.89	17.85	17.31	16.61	18.29
18	16.08	15.90	13.68	16.17	14.73	14.70	22.70	12.33	18.35	15.95	16.06	19.47
19	15.50	15.57	15.99	15.30	15.23	15.10	13.07	13.74	19.34	18.14	17.28	17.39
20	14.91	16.53	16.75	15.20	15.59	15.20	11.82	13.44	17.56	17.64	18.57	16.97
21	14.72	15.29	14.70	15.15	16.05	15.35	10.68	16.72	20.52	17.42	19.00	18.00
22	14.70	15.42	14.64	15.29	16.70	16.72	12.84	13.25	17.31	15.89	21.72	17.54
23	14.55	15.36	13.86	15.18	15.66	15.96	14.00	14.13	16.22	16.32	17.67	17.58
24	14.67	15.06	13.11	16.05	15.75	14.84	14.25	15.24	15.30	17.19	16.79	17.75
25	14.70	15.14	11.16	16.98	14.40	14.82	14.88	13.74	16.79	15.74	16.17	18.61
26	14.65	14.60	15.59	15.45	15.69	14.97	15.35	13.38	18.08	16.95	16.85	18.68
27	14.22	14.13	20.10	10.68	15.05	16.94	15.17	14.22	16.56	16.25	21.11	18.25
28	14.43	15.75	16.05	10.26	15.57	20.22	15.00	14.28	16.17	15.65	18.03	19.22
29	14.61	14.75	15.59	9.84	---	16.11	14.69	13.86	16.77	16.17	20.94	18.60
30	14.61	14.99	15.87	9.21	---	14.73	14.75	15.93	17.07	16.65	20.18	18.72
31	14.43	---	16.38	11.55	---	14.00	---	15.96	---	17.60	24.72	---
MAX	21.90	19.94	21.41	17.86	17.09	20.22	22.70	16.72	20.52	18.45	24.72	20.10

CAL YR 2000 LOW 21.90
WTR YR 2001 LOW 24.72



GROUND-WATER RECORDS
Fayette County

393153083322000. LOCAL NUMBER, FA-1

LOCATION.—Latitude 39°31'53", longitude 83°32'20", Hydrologic Unit 05060003, Burnett-Perill Road about 6 mi west of Washington Court House, Ohio. Owner: Martha Slagle.

AQUIFER.—Limestone of Silurian Age.

WELL CHARACTERISTICS.—Drilled unused artesian well, diameter 5 in., depth 78 ft, cased.

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

DATUM.—Elevation of land-surface datum is 1,010 ft above sea level, from topographic map. Measuring point: Floor of instrument shelter 3.30 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.

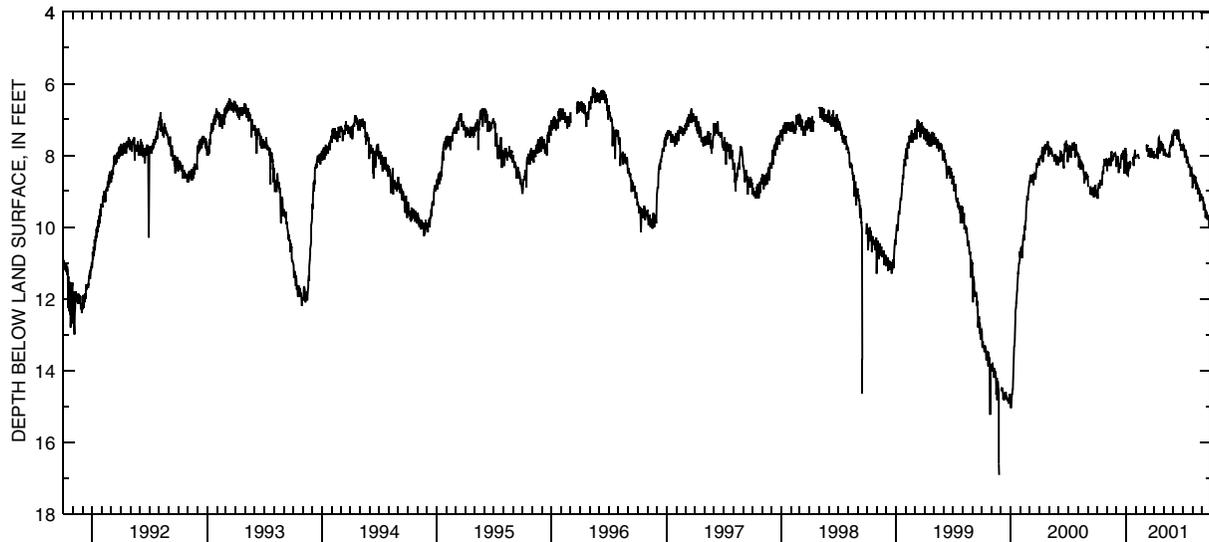
PERIOD OF RECORD.—February 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 16.92 ft below land-surface datum, Nov. 25, 1999; minimum daily low, 3.26 ft below land-surface datum, Apr. 28, 1964.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.11	8.29	8.06	8.06	8.02	---	8.08	8.00	7.37	7.88	8.91	9.19
2	9.09	8.44	8.32	7.96	8.01	---	7.98	7.86	7.30	7.77	8.84	9.18
3	9.21	8.25	8.16	8.52	8.01	---	8.02	7.85	7.31	7.72	8.58	9.15
4	8.95	8.16	8.17	8.25	8.01	---	8.02	7.82	7.40	7.74	8.58	9.28
5	8.94	8.10	8.06	8.18	8.00	---	8.04	7.88	7.45	7.78	8.54	9.52
6	8.81	8.15	8.02	8.55	8.00	7.71	8.02	7.95	7.44	7.89	8.78	9.46
7	8.77	8.10	8.13	8.56	8.00	7.71	8.02	8.01	7.31	8.07	8.64	9.36
8	8.85	8.30	8.27	8.32	7.99	7.86	7.97	7.99	7.33	7.90	8.58	9.38
9	8.92	8.07	8.49	8.45	7.99	7.75	8.06	8.01	7.29	7.86	8.64	9.40
10	8.79	8.19	8.34	8.27	8.05	7.75	7.99	8.00	7.37	7.86	8.59	9.59
11	8.84	8.18	8.22	8.20	8.09	7.86	7.81	7.98	7.39	7.91	8.71	9.75
12	8.68	8.21	8.24	8.23	8.06	7.86	7.79	7.99	7.28	8.01	8.95	9.59
13	8.79	8.13	8.25	8.36	---	7.81	8.10	8.01	7.55	8.22	8.81	9.57
14	8.69	8.30	8.37	8.16	---	8.04	7.77	8.01	7.41	8.03	8.85	9.60
15	8.84	7.98	8.20	8.28	---	7.97	7.51	8.04	7.36	8.06	8.85	9.61
16	8.80	7.89	8.07	8.19	---	7.79	7.49	8.04	7.28	8.07	8.82	9.65
17	8.69	7.91	8.01	---	---	7.97	7.56	7.95	7.31	8.18	8.88	9.80
18	8.47	8.17	8.00	---	---	7.91	7.63	7.91	7.36	8.21	9.08	9.69
19	8.46	8.04	7.96	8.20	---	7.97	7.94	8.06	7.57	8.34	8.90	9.69
20	8.43	8.14	8.11	---	---	8.06	7.80	7.87	7.61	8.28	8.94	9.69
21	8.52	8.06	7.92	---	---	7.88	7.68	7.71	7.57	8.25	9.00	9.70
22	8.30	8.12	7.98	---	---	7.86	7.66	7.78	7.54	8.30	9.08	9.77
23	8.27	7.99	7.90	---	---	7.80	7.60	7.70	7.74	8.34	8.97	10.03
24	8.18	8.03	7.86	8.05	---	7.91	7.69	7.61	7.68	8.34	9.29	9.79
25	8.14	7.93	8.12	8.30	---	7.96	7.88	7.75	7.86	8.60	9.07	9.80
26	8.14	8.04	8.25	8.06	---	8.06	7.71	7.71	7.70	8.46	9.22	10.06
27	8.30	7.94	8.51	8.02	---	7.96	7.70	7.48	7.79	8.37	9.13	9.84
28	8.18	7.93	8.07	8.00	---	8.05	7.73	7.50	7.68	8.36	9.06	9.87
29	8.17	7.97	8.08	7.98	---	7.91	7.70	7.48	7.73	8.41	9.10	10.04
30	8.15	8.02	7.95	7.84	---	7.91	7.81	7.74	7.76	8.51	9.23	9.90
31	8.08	---	7.79	8.09	---	8.00	---	7.61	---	8.71	9.24	---
MAX	9.21	8.44	8.51	8.56	8.09	8.06	8.10	8.06	7.86	8.71	9.29	10.06

CAL YR 2000 LOW 15.05
WTR YR 2001 LOW 10.06



GROUND-WATER RECORDS
Franklin County

394956083002700. LOCAL NUMBER, FR-18

LOCATION.—Latitude 39°49'56", longitude 83°00'27", Hydrologic Unit 05060001, south of State Route 665 at Shadeville, Ohio. Owner: City of Columbus.

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled test water table well, diameter 6 in., depth 86.4 ft, cased.

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

DATUM.—Elevation of land-surface datum is 690 ft above sea level, from topographic map. Measuring point: Floor of instrument shelter 3.80 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.

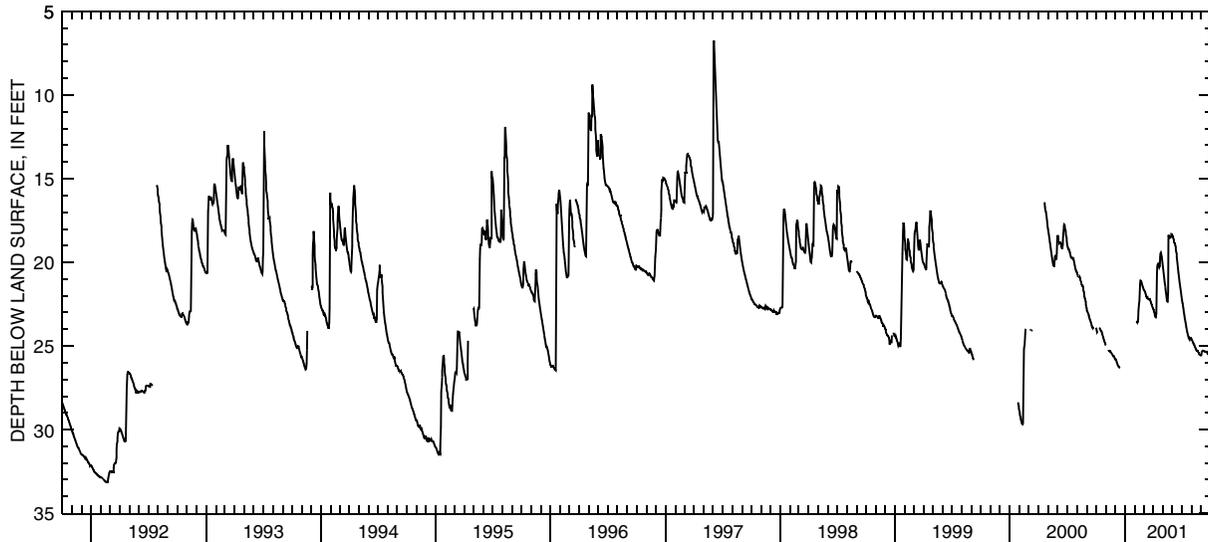
PERIOD OF RECORD.—November 1985 to March 1986 periodic, continuous thereafter.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 33.15 ft below land-surface datum, Feb. 19-22, 1992; minimum daily low, 6.74 ft below land-surface datum, June 4, 1997.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.90	24.93	25.79	---	---	21.60	22.79	20.14	18.42	22.20	24.61	25.53
2	23.96	---	25.77	---	---	21.65	22.83	20.32	18.44	22.32	24.67	25.40
3	24.06	---	25.80	---	---	21.69	22.91	20.48	18.48	22.44	24.70	25.32
4	24.15	---	25.86	---	---	21.72	22.95	20.65	18.56	22.50	24.72	25.29
5	24.12	---	25.91	---	---	21.73	23.04	20.82	18.66	22.65	24.76	25.28
6	---	---	25.97	---	23.53	21.79	23.12	20.98	18.76	22.77	24.82	25.28
7	---	---	26.03	---	23.55	21.86	23.18	21.16	18.82	22.92	24.86	25.29
8	---	---	26.09	---	23.57	21.92	23.26	21.28	18.84	23.05	24.90	25.30
9	---	25.31	26.14	---	23.60	21.99	23.29	21.44	18.88	23.17	24.94	25.32
10	---	25.27	26.19	---	23.55	22.03	23.14	21.62	18.95	23.31	24.98	25.32
11	23.90	25.24	26.23	---	23.55	22.09	23.04	21.78	19.08	23.41	25.02	25.32
12	23.93	25.27	26.23	---	23.36	22.13	21.65	21.90	19.21	23.53	25.06	25.33
13	23.97	25.29	26.27	---	22.85	22.12	20.64	22.08	19.34	23.63	25.11	25.34
14	24.00	25.31	26.28	---	22.63	22.13	20.26	22.26	19.49	23.74	25.14	25.34
15	24.05	25.33	26.27	---	22.44	22.19	20.12	22.33	19.66	23.87	25.18	25.34
16	24.09	25.35	26.26	---	22.28	22.19	20.09	22.34	19.82	23.98	25.24	25.34
17	24.11	25.37	---	---	21.71	22.17	20.14	22.18	20.00	24.06	25.26	25.36
18	24.11	25.39	---	---	21.31	22.19	20.18	21.76	20.19	24.17	25.31	25.40
19	24.17	25.43	---	---	21.09	22.20	20.24	20.58	20.37	24.25	25.28	25.41
20	24.22	25.45	---	---	21.08	22.23	20.28	18.36	20.56	24.33	25.27	25.38
21	24.29	25.48	---	---	21.11	22.25	20.24	18.45	20.72	24.41	25.33	25.41
22	24.36	25.52	---	---	21.17	22.27	20.20	18.43	20.88	24.49	25.37	25.46
23	24.44	25.56	---	---	21.23	22.31	19.64	18.48	21.03	24.53	25.39	25.50
24	24.50	25.60	---	---	21.29	22.36	19.42	18.54	21.20	24.58	25.44	25.52
25	24.56	25.63	---	---	21.35	22.41	19.40	18.52	21.33	24.61	25.48	25.56
26	24.63	25.58	---	---	21.43	22.47	19.47	18.48	21.47	24.51	25.51	25.61
27	24.68	25.61	---	---	21.49	22.51	19.56	18.48	21.61	24.53	25.50	25.68
28	24.74	25.66	---	---	21.55	22.56	19.66	18.40	21.74	24.57	25.52	25.74
29	24.80	25.71	---	---	---	22.65	19.81	18.32	21.89	24.58	25.54	25.80
30	24.86	25.75	---	---	---	22.71	19.97	18.33	22.04	24.53	25.56	25.86
31	24.92	---	---	---	---	22.76	---	18.38	---	24.57	25.56	---
MAX	24.92	25.75	26.28	---	23.60	22.76	23.29	22.34	22.04	24.61	25.56	25.86

CAL YR 2000 LOW 29.68
WTR YR 2001 LOW 26.28



GROUND-WATER RECORDS
Franklin County

395055083000600. LOCAL NUMBER, FR-19

LOCATION.—Latitude 39°50'55", longitude 83°00'06", Hydrologic Unit 05060001, adjacent to State Route 23 near Shadeville, Ohio. Owner: City of Columbus.

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled observation well, diameter 6 in., depth 73 ft, present depth 72 ft, cased.

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

DATUM.—Elevation of land-surface datum is 741.95 ft above sea level. Measuring point: Floor of instrument shelter 2.5 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.

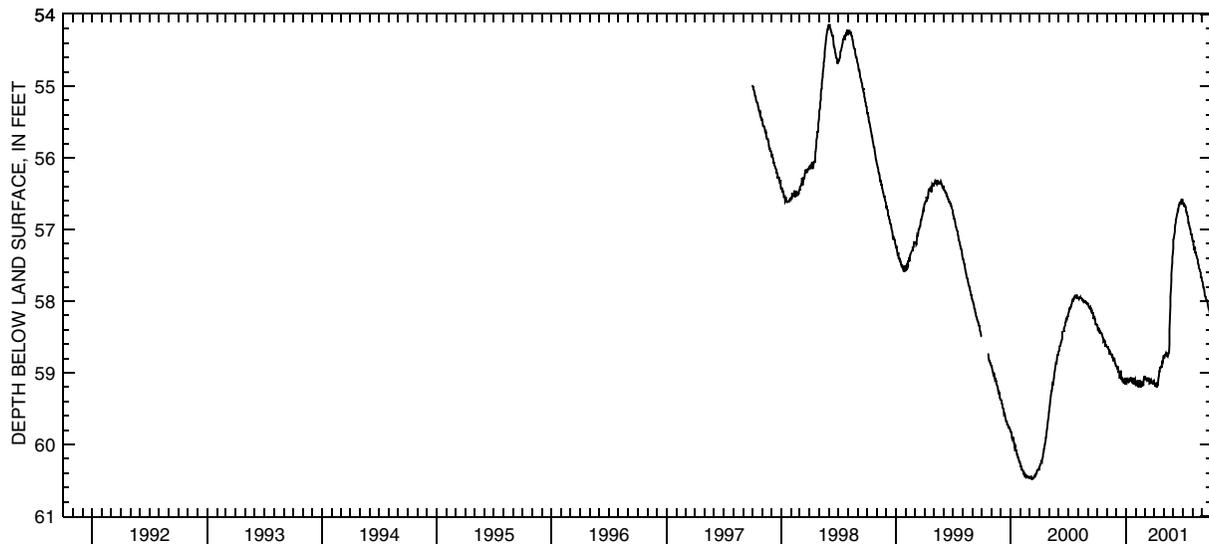
PERIOD OF RECORD.—September 1997 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 60.48 ft below land-surface datum, Mar. 8-10, and 12, 2000; minimum daily low, 54.15 ft below land-surface datum, May 31 to June 4, 1998.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58.33	58.64	58.89	59.14	59.16	59.04	59.15	58.77	57.14	56.64	57.15	57.73
2	58.34	58.64	58.91	59.15	59.18	59.06	59.16	58.78	57.12	56.65	57.17	57.74
3	58.37	58.64	58.92	59.09	59.15	59.07	59.19	58.79	57.11	56.62	57.17	57.76
4	58.41	58.64	58.90	59.08	59.12	59.07	59.19	58.76	57.08	56.64	57.21	57.81
5	58.37	58.66	58.94	59.09	59.11	59.09	59.15	58.75	57.03	56.65	57.25	57.81
6	58.42	58.67	58.92	59.10	59.15	59.09	59.15	58.74	56.98	56.68	57.25	57.82
7	58.41	58.68	58.92	59.09	59.17	59.10	59.14	58.75	56.94	56.65	57.27	57.84
8	58.42	58.68	59.00	59.11	59.11	59.07	59.14	58.73	56.90	56.68	57.27	57.88
9	58.41	58.69	58.99	59.14	59.17	59.09	59.16	58.74	56.87	56.68	57.28	57.92
10	58.42	58.75	58.98	59.12	59.20	59.09	59.20	58.73	56.85	56.69	57.32	57.94
11	58.44	58.73	58.98	59.09	59.17	59.10	59.15	58.73	56.81	56.74	57.32	57.94
12	58.44	58.71	59.08	59.11	59.12	59.07	59.17	58.76	56.80	56.76	57.34	57.95
13	58.44	58.73	59.03	59.11	59.14	59.09	59.16	58.77	56.78	56.76	57.36	57.98
14	58.44	58.73	59.06	59.07	59.10	59.12	59.09	58.74	56.75	56.78	57.38	57.99
15	58.45	58.75	59.06	59.08	59.15	59.07	59.06	58.73	56.72	56.81	57.38	57.99
16	58.47	58.75	58.97	59.10	59.16	59.11	59.04	58.73	56.73	56.82	57.41	58.00
17	58.47	58.77	59.10	59.11	59.20	59.15	58.98	58.73	56.70	56.82	57.42	58.01
18	58.49	58.77	59.08	59.06	59.18	59.14	58.98	58.69	56.68	56.91	57.45	58.04
19	58.51	58.76	59.06	59.10	59.12	59.12	58.94	58.60	56.66	56.91	57.48	58.07
20	58.52	58.79	59.09	59.11	59.14	59.11	58.94	58.40	56.66	56.92	57.51	58.09
21	58.54	58.81	59.08	59.14	59.19	59.09	58.92	58.16	56.63	56.95	57.54	58.11
22	58.57	58.80	59.10	59.12	59.12	59.11	58.92	58.07	56.63	56.96	57.55	58.12
23	58.56	58.81	59.11	59.07	59.17	59.10	58.90	57.94	56.62	56.98	57.56	58.13
24	58.55	58.82	59.13	59.11	59.15	59.14	58.93	57.82	56.63	56.99	57.58	58.16
25	58.55	58.79	59.15	59.16	59.18	59.13	58.89	57.71	56.61	57.01	57.59	58.18
26	58.56	58.82	59.10	59.10	59.11	59.15	58.84	57.63	56.62	57.07	57.60	58.22
27	58.58	58.85	59.08	59.16	59.08	59.15	58.84	57.51	56.61	57.07	57.63	58.25
28	58.63	58.87	59.11	59.15	59.07	59.13	58.85	57.46	56.59	57.07	57.67	58.28
29	58.63	58.88	59.07	59.09	---	59.12	58.81	57.39	56.59	57.11	57.67	58.29
30	58.62	58.91	59.10	59.08	---	59.11	58.77	57.32	56.59	57.11	57.68	58.30
31	58.63	---	59.14	59.14	---	59.11	---	57.26	---	57.14	57.71	---
MAX	58.63	58.91	59.15	59.16	59.20	59.15	59.20	58.79	57.14	57.14	57.71	58.30

CAL YR 2000 LOW 60.48
WTR YR 2001 LOW 59.20



GROUND-WATER RECORDS
Franklin County

400101083021800. LOCAL NUMBER, FR-10

LOCATION.—Latitude 40°01'01", longitude 83°02'18", Hydrologic Unit 05060001, Kenny and Ackerman Roads, Columbus, Ohio. Owner: Ohio State University.

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled test artesian well, diameter 4 in., depth 75 ft, cased.

INSTRUMENTATION.—Type F continuous recorder.

DATUM.—Elevation of land-surface datum is 775 ft above sea level, from topographic map. Measuring point: Floor of instrument shelter 4.00 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.

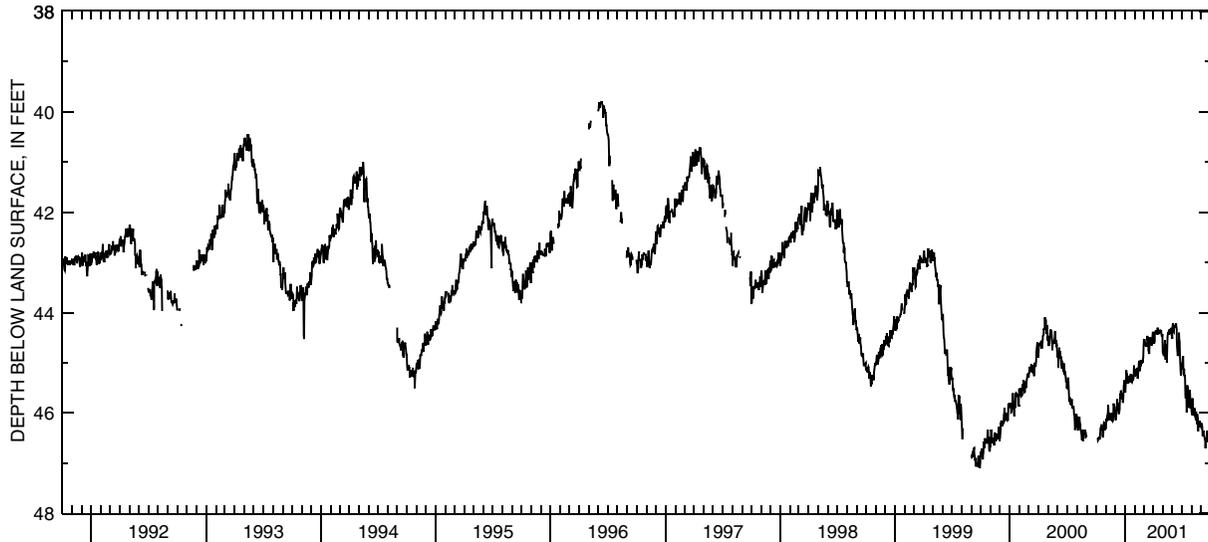
PERIOD OF RECORD.—March 1944 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 48.20 ft below land-surface datum, Oct. 7, 1954; minimum daily low, 37.76 ft below land-surface datum, Apr. 13, 1951.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	46.31	46.07	45.56	45.20	44.68	44.45	44.78	44.31	45.00	45.93	46.20
2	---	46.18	46.12	45.59	45.28	44.55	44.47	44.81	44.22	45.14	46.04	46.32
3	---	46.14	46.14	45.55	45.26	44.55	44.56	44.79	44.31	45.02	45.86	46.23
4	---	46.15	46.08	45.34	45.16	44.53	44.62	44.69	44.37	44.90	45.71	46.28
5	---	46.12	45.96	45.15	45.12	44.58	44.57	44.84	44.39	44.87	45.95	46.46
6	46.50	46.06	45.90	45.20	45.23	44.65	44.42	44.87	44.32	45.23	46.05	46.41
7	46.54	46.00	45.73	45.23	45.25	44.66	44.40	44.66	44.28	45.24	46.02	46.41
8	46.53	46.00	45.91	45.35	45.20	44.60	44.42	44.55	44.30	45.12	46.04	46.35
9	46.51	45.84	45.97	45.40	45.10	44.67	44.39	44.85	44.31	45.26	46.02	46.43
10	46.51	46.09	45.83	45.40	45.30	44.67	44.39	44.94	44.28	45.26	45.90	46.46
11	46.48	46.15	45.80	45.36	45.32	44.66	44.36	44.70	44.25	45.29	46.01	46.49
12	46.53	46.03	46.01	45.37	45.20	44.66	44.42	44.63	44.22	45.63	45.98	46.52
13	46.50	46.00	46.01	45.38	45.15	44.47	44.42	44.70	44.24	45.71	46.07	46.52
14	46.40	46.03	45.97	45.35	45.02	44.55	44.40	45.00	44.34	45.54	46.14	46.71
15	46.31	46.09	45.92	45.26	44.96	44.52	44.30	44.75	44.55	45.54	45.99	46.59
16	46.31	46.05	45.71	45.36	45.10	44.49	44.35	44.49	44.69	45.99	45.99	46.52
17	46.30	46.14	45.64	45.37	45.15	44.74	44.42	44.42	44.78	45.90	46.19	46.52
18	46.25	46.14	45.65	45.30	45.15	44.81	44.42	44.43	44.87	45.45	46.23	46.49
19	46.26	46.08	45.55	45.22	45.02	44.82	44.40	44.43	44.81	45.51	46.02	46.40
20	46.34	46.00	45.62	45.32	44.95	44.72	44.35	44.40	44.70	45.53	46.13	46.35
21	46.34	46.15	45.60	45.38	45.07	44.60	44.40	44.34	44.66	45.69	46.29	46.49
22	46.45	46.15	45.71	45.39	44.97	44.53	44.40	44.37	44.40	45.69	46.37	46.57
23	46.49	46.16	45.73	45.37	45.02	44.50	44.34	44.42	44.54	45.81	46.19	46.57
24	46.37	46.13	45.70	45.24	45.00	44.60	44.37	44.37	44.58	45.90	46.22	46.46
25	46.25	46.07	45.80	45.36	44.95	44.60	44.37	44.39	44.85	45.81	46.17	46.56
26	46.19	45.81	45.77	45.35	45.00	44.63	44.35	44.40	44.99	45.54	46.22	46.57
27	46.20	45.84	45.62	45.30	44.93	44.66	44.43	44.31	45.15	45.66	46.16	46.49
28	46.28	45.89	45.45	45.31	44.90	44.65	44.46	44.40	45.26	45.90	46.19	46.59
29	46.32	45.89	45.42	45.24	---	44.52	44.46	44.43	45.02	45.75	46.29	46.74
30	46.34	46.03	45.35	45.06	---	44.40	44.43	44.48	45.03	45.74	46.25	46.83
31	46.31	---	45.47	45.15	---	44.38	---	44.52	---	45.80	46.28	---
MAX	46.54	46.31	46.14	45.59	45.32	44.82	44.62	45.00	45.26	45.99	46.37	46.83

CAL YR 2000 LOW 46.55
WTR YR 2001 LOW 46.83



GROUND-WATER RECORDS
Gallia County

383638082103300. LOCAL NUMBER, G-2

LOCATION.—Latitude 38°36'38", longitude 82°10'33", Hydrologic Unit 05090101, 5.9 mi east of Crown City, Ohio. Owner: State of Ohio.

AQUIFER.—Sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.—Drilled test water-table well, diameter 12 in., depth 65 ft, cased.

INSTRUMENTATION.—Periodic measurement with chalked tape by Ohio Department of Natural Resources personnel.

DATUM.—Elevation of land-surface datum is 552 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 1975 to September 1982 continuous, periodic thereafter.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 33.94 ft below land-surface datum, Sept. 22, 1983; minimum daily low 16.43 ft below land-surface datum, Mar. 8, 1979.

WATER LEVEL
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION,
WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL
Oct. 24	33.25
Apr. 12	27.30

GROUND-WATER RECORDS
Greene County

394411083561300. LOCAL NUMBER, GR-1

LOCATION.—Latitude 39°44'11", longitude 83°56'13", Hydrologic Unit 05090202, along Massies Creek near U.S. 68 north of Xenia, Ohio. Owner: Xenia Water Department.

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled unused artesian well, diameter 30 in., depth 77 ft, cased.

INSTRUMENTATION.—Digital recorder, 60-minute punch.

DATUM.—Elevation of land-surface datum is 818.88 ft above sea level. Measuring point: Floor of instrument shelter 4.50 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.

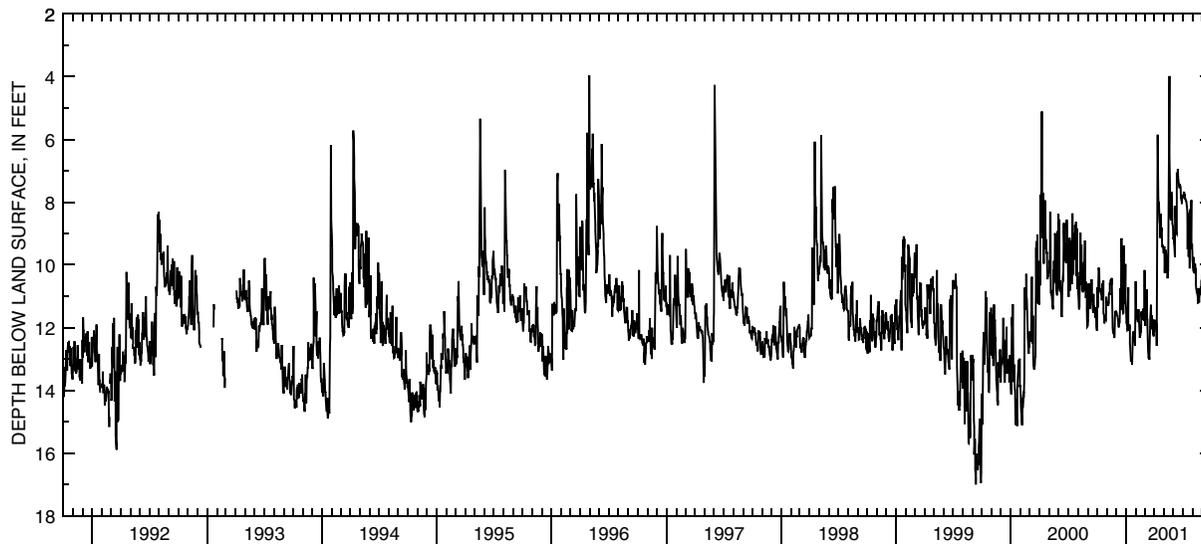
PERIOD OF RECORD.—August 1944 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 21.60 ft below land-surface datum, July 7, 1966; minimum daily low, 0.65 ft above land-surface datum, Aug. 3, 1958.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.10	11.23	11.50	11.36	10.52	10.17	12.15	9.63	9.13	7.86	9.82	10.31
2	10.73	11.24	11.50	11.73	11.27	11.61	11.75	9.58	9.21	7.76	10.10	10.30
3	11.37	11.29	11.57	11.83	11.50	11.89	11.95	9.42	9.27	7.79	10.08	10.00
4	10.86	11.17	11.61	11.91	11.66	11.94	12.05	10.26	9.34	7.70	9.75	10.20
5	10.66	11.21	11.63	12.02	11.62	11.59	11.79	9.89	9.75	7.67	10.15	10.13
6	10.09	11.29	11.68	12.09	11.74	11.69	12.00	10.25	9.69	7.79	10.26	10.51
7	10.13	11.20	11.77	12.07	11.76	11.55	11.96	9.80	8.12	7.78	10.24	10.50
8	10.27	10.92	11.85	10.71	11.82	10.79	11.85	9.52	8.62	7.89	9.95	10.53
9	10.76	10.89	11.99	12.02	11.72	11.72	12.59	9.68	8.75	7.89	10.00	11.18
10	10.79	10.96	11.81	11.89	11.42	11.74	11.49	9.77	8.99	7.94	10.20	11.26
11	10.82	10.58	11.86	11.95	11.56	11.98	9.53	9.79	9.02	7.95	10.16	11.43
12	10.81	10.61	11.81	12.00	11.74	12.72	5.85	9.97	7.05	7.98	10.63	11.41
13	10.90	10.47	11.14	11.97	11.99	12.82	7.17	10.43	7.30	8.06	10.74	11.64
14	10.94	10.51	10.75	12.52	12.33	12.98	7.84	10.16	7.01	8.15	10.89	11.87
15	10.87	10.49	11.32	12.64	12.20	12.94	8.05	10.17	6.95	8.31	10.81	11.91
16	11.13	10.62	11.43	13.04	12.21	12.97	7.99	9.06	7.12	9.51	10.89	11.75
17	10.60	10.42	9.21	13.07	12.03	13.02	8.26	8.26	7.30	8.34	11.04	11.78
18	11.04	10.93	9.15	13.02	12.14	12.34	8.61	7.34	7.37	8.42	11.23	11.66
19	11.10	11.63	10.21	13.07	11.49	11.75	8.68	3.98	7.49	9.74	10.75	11.49
20	10.56	12.01	10.82	13.15	11.60	11.66	9.14	6.54	7.51	8.48	10.88	11.44
21	10.50	12.11	11.15	13.15	11.75	11.27	8.43	7.68	7.55	8.51	11.06	11.42
22	11.54	12.18	11.46	12.37	11.70	11.76	8.37	7.77	7.42	10.09	11.20	11.39
23	11.60	12.13	11.55	12.33	11.49	11.78	8.94	8.48	7.49	10.09	10.78	11.45
24	11.83	12.21	11.53	12.13	11.56	11.64	8.80	8.58	7.53	8.29	10.82	11.74
25	11.86	12.33	9.39	12.19	11.40	11.61	8.90	7.71	7.86	8.21	10.79	11.78
26	11.67	12.27	10.19	12.21	11.54	12.05	9.40	7.67	7.92	9.32	10.88	11.96
27	11.76	11.70	10.59	12.23	11.69	11.73	9.43	8.04	7.95	7.98	10.73	11.85
28	11.72	11.48	11.22	12.37	11.78	12.11	9.39	8.23	8.05	7.93	10.97	11.81
29	11.75	11.52	11.22	12.45	---	12.22	9.40	8.67	7.84	9.42	10.51	11.36
30	11.02	11.46	9.97	12.57	---	12.28	9.59	8.77	7.79	9.38	10.51	11.61
31	11.05	---	11.02	11.46	---	12.16	---	9.17	---	9.63	10.58	---
MAX	12.10	12.33	11.99	13.15	12.33	13.02	12.59	10.43	9.75	10.09	11.23	11.96

CAL YR 2000 LOW 15.13
WTR YR 2001 LOW 13.15



GROUND-WATER RECORDS
Greene County

394425083551100. LOCAL NUMBER, GR-10

LOCATION.—Latitude 39°44'25", longitude 83°55'11", Hydrologic Unit 05090202, in well field along Massies Creek north of Xenia, Ohio. Owner: Xenia Water Department.

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled unused artesian well, diameter 6 in., depth 100 ft, cased.

INSTRUMENTATION.—Digital recorder, 60-minute punch.

DATUM.—Elevation of land-surface datum is 835 ft above sea level, from topographic map. Measuring point: Floor of instrument shelter at land-surface datum.

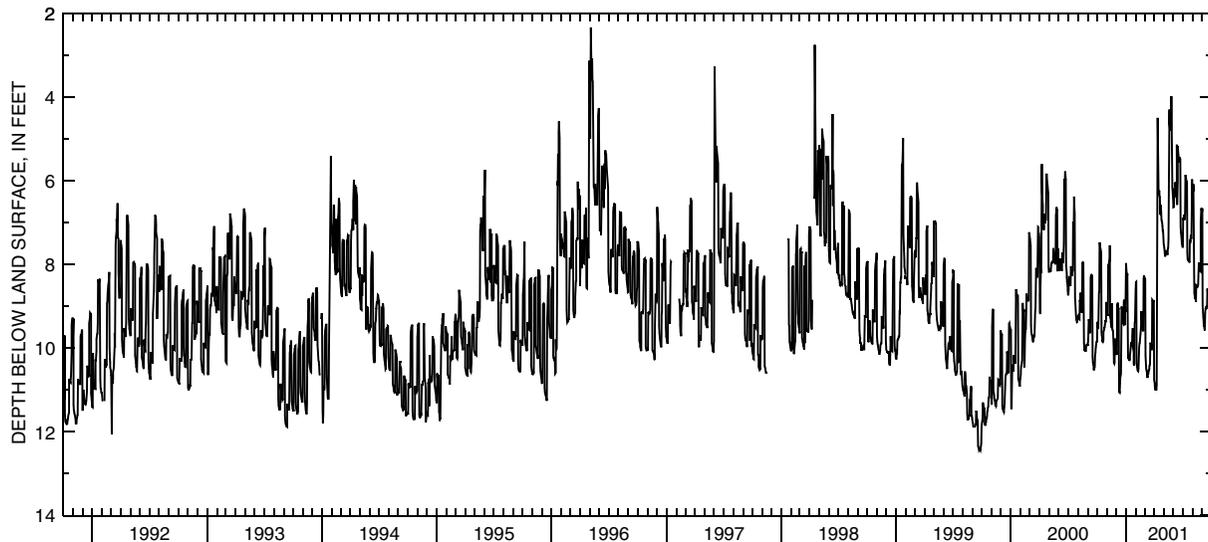
REMARKS.—Station operated by Ohio Department of Natural Resources (ODNR), Division of Water. Some historical records not published by the USGS are available from ODNR.

PERIOD OF RECORD.—March 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 20.40 ft below land-surface datum, Nov. 5, 1977; minimum daily low, 0.15 ft below land-surface datum, Feb. 1, 1982.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.85	9.09	10.07	7.97	8.59	8.32	10.77	7.51	6.63	7.58	6.14	6.66
2	9.37	9.17	10.13	8.12	8.42	8.34	10.84	7.55	6.62	6.88	6.24	8.97
3	9.44	9.20	10.16	8.15	8.41	8.35	10.89	7.61	6.62	6.92	6.25	9.10
4	9.50	9.20	8.96	8.22	10.35	10.18	10.98	7.71	6.24	6.92	6.08	9.26
5	9.51	9.22	8.97	8.26	10.42	10.35	10.97	7.79	6.26	6.81	7.90	9.37
6	9.02	8.00	8.91	8.22	10.47	10.49	11.00	7.79	6.29	6.92	8.50	9.47
7	8.68	7.98	9.03	10.13	10.54	10.52	10.98	7.73	6.03	6.92	8.68	9.48
8	8.65	7.96	9.06	10.22	10.55	10.56	11.01	7.73	6.14	6.76	8.79	9.56
9	7.47	7.96	9.06	10.26	10.56	10.66	10.89	7.66	6.31	5.86	8.82	9.58
10	7.50	7.84	10.98	10.17	10.48	10.68	10.18	7.69	6.37	5.90	8.80	9.16
11	7.61	7.54	11.06	10.30	10.18	10.71	9.25	7.72	6.41	5.93	8.87	9.06
12	7.62	9.26	11.07	10.31	9.99	10.57	4.49	7.74	5.13	6.00	8.90	9.06
13	7.67	9.31	10.86	10.27	9.90	10.58	5.43	7.77	6.57	6.01	8.49	9.01
14	7.71	9.37	10.69	10.21	9.87	10.55	5.99	7.62	5.97	6.04	8.51	9.06
15	9.60	9.43	10.66	10.11	9.78	10.52	6.33	7.60	5.17	7.72	8.55	8.98
16	9.71	9.48	10.61	9.95	9.67	10.49	6.33	7.40	5.27	7.89	8.55	9.01
17	9.73	9.52	9.73	9.92	9.59	10.43	6.23	6.85	5.37	7.90	8.51	8.58
18	9.86	8.93	9.01	9.87	9.44	10.39	6.37	5.99	5.43	7.91	8.52	8.68
19	9.80	9.56	9.06	9.86	9.12	9.87	6.39	4.30	5.56	7.90	8.48	8.62
20	9.83	9.57	9.17	9.94	9.30	9.88	6.81	4.67	5.53	7.93	7.95	8.67
21	9.81	9.59	9.31	9.97	9.37	9.92	6.57	4.80	5.53	7.94	8.11	8.68
22	9.61	9.77	9.40	9.52	9.43	9.92	6.63	4.47	5.44	7.95	8.13	8.71
23	9.56	9.93	9.42	9.72	9.54	9.98	6.73	4.68	5.48	7.40	8.12	8.73
24	9.50	10.36	9.34	10.00	9.58	10.04	6.94	4.70	7.10	7.44	8.15	7.57
25	9.52	10.38	8.86	10.07	9.60	10.05	6.96	4.06	7.22	7.45	8.16	7.62
26	9.43	10.34	8.85	10.37	8.34	8.85	6.99	3.98	7.30	7.28	8.17	7.63
27	9.38	9.77	9.43	10.41	8.28	8.87	7.07	5.72	7.39	7.37	6.97	7.68
28	9.36	9.88	9.45	10.35	8.28	8.87	7.20	6.06	7.52	7.39	6.83	7.68
29	9.36	9.96	8.97	9.38	---	8.88	7.20	6.14	7.53	7.39	6.65	7.70
30	8.90	10.01	9.11	9.36	---	8.88	7.35	6.41	7.58	5.97	6.71	9.94
31	9.06	---	9.14	8.99	---	8.89	---	6.53	---	6.72	6.74	---
MAX	9.86	10.38	11.07	10.41	10.56	10.71	11.01	7.79	7.58	7.95	8.90	9.94
CAL YR 2000	LOW 11.46											
WTR YR 2001	LOW 11.07											



GROUND-WATER RECORDS
Hamilton County

257

391039084291500. LOCAL NUMBER, H-11

LOCATION.—Latitude 39°10'39", longitude 84°29'15", Hydrologic Unit 05090203, 5.6 mi north of Riverfront Stadium in Cincinnati, Ohio. Owner: Procter and Gamble Company.

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled test artesian well, diameter 6 in., depth 148 ft, cased.

INSTRUMENTATION.—Biyearly measurement with chalked tape by Ohio Department of Natural Resources personnel.

DATUM.—Elevation of land-surface datum is 539 ft above sea level, from topographic map. Measuring point: Floor of instrument shelter 2.23 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 1939 to October 1982 continuous, periodic thereafter.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 129.72 ft below land-surface datum, Oct 25, 1948; minimum measured low, 43.27 ft below land-surface datum, Apr. 30, 2001.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION,
WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL
Oct. 31	43.62
Apr. 30	43.27

GROUND-WATER RECORDS
Hamilton County

391101084172100. LOCAL NUMBER, H-3

LOCATION.—Latitude 39°11'01", longitude 84°17'21", Hydrologic Unit 05090202, southeast of Miami, Ohio. Owner: Indian Hills Water Department.

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled test water table well, diameter 4 in., depth 60 ft, cased.

INSTRUMENTATION.—Digital recorder, 60-minute punch.

DATUM.—Elevation of land-surface datum is 532.22 ft above sea level. Measuring point: Floor of instrument shelter 3.00 ft above land-surface datum.

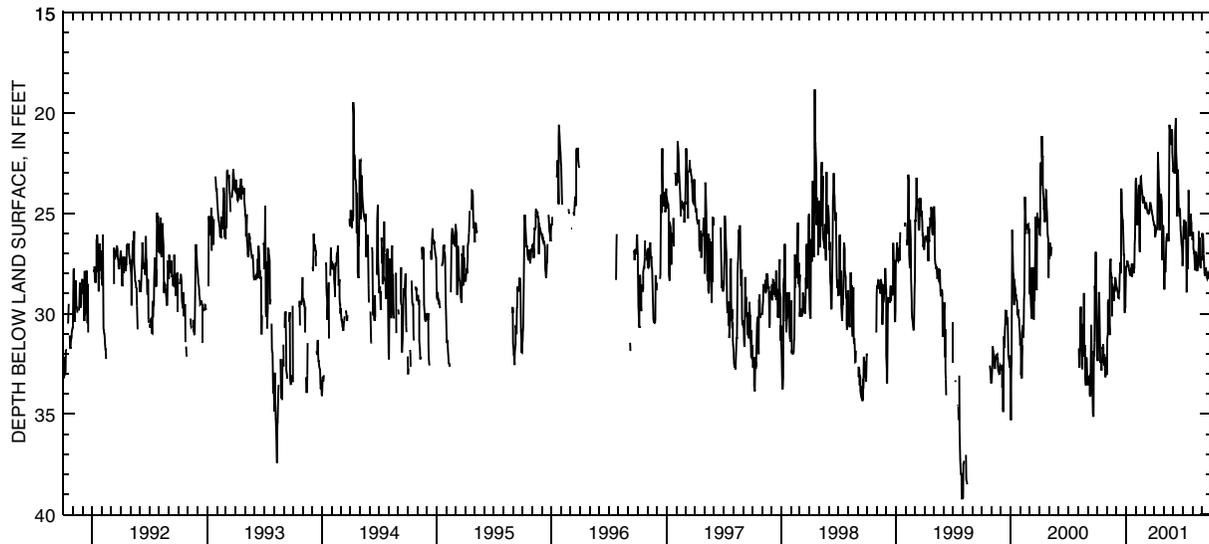
REMARKS.—Station operated by Ohio Department of Natural Resources (ODNR), Division of Water. Some historical records not published by the USGS are available from ODNR.

PERIOD OF RECORD.—August 1952 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 39.20 ft below land-surface datum, July 29-31, 1999; minimum daily low, 15.60 ft below land-surface datum, Feb. 28, 1962.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32.17	33.05	28.53	27.69	23.43	24.46	25.58	26.79	22.94	27.29	26.32	25.99
2	32.23	31.87	28.65	27.62	23.24	24.61	25.59	27.51	22.67	26.70	25.93	26.20
3	32.34	31.24	28.71	27.66	23.51	24.73	25.65	28.80	22.78	25.66	26.37	26.03
4	32.19	30.96	28.76	27.59	23.85	24.74	26.18	27.96	22.96	25.63	26.73	26.32
5	30.92	29.46	28.88	27.43	24.44	24.60	26.01	27.68	22.96	25.32	26.93	27.01
6	29.89	29.41	28.91	27.35	25.00	24.45	25.93	27.94	23.01	25.37	26.91	27.28
7	28.91	29.27	29.10	27.54	25.61	24.57	25.84	27.71	20.93	25.44	27.06	27.71
8	29.21	29.34	29.21	27.64	24.81	24.71	25.68	26.94	20.27	26.29	27.72	27.94
9	30.63	30.51	29.22	27.53	24.67	24.81	25.78	26.40	20.99	25.61	27.81	28.08
10	31.49	31.06	28.90	27.77	24.51	24.85	25.83	26.20	21.97	25.41	27.85	28.08
11	32.22	28.13	28.88	27.86	23.83	24.97	25.54	26.10	22.65	25.71	27.69	27.70
12	32.44	27.36	28.03	27.84	23.59	25.00	22.69	26.11	23.14	26.78	26.92	27.72
13	32.32	27.27	27.97	28.07	26.45	25.02	21.93	25.98	25.14	28.93	27.11	27.88
14	32.55	27.88	27.44	28.07	26.91	25.01	22.64	26.11	23.47	27.51	27.15	27.95
15	32.82	27.96	27.62	28.10	24.12	24.96	23.00	26.23	22.81	27.67	27.66	28.04
16	32.28	28.23	27.99	28.10	23.62	24.95	23.69	26.40	23.08	27.77	27.88	28.21
17	32.45	28.17	23.76	27.69	23.17	24.89	23.78	26.21	23.60	27.56	27.66	28.26
18	31.67	30.12	23.99	27.79	23.15	24.53	25.85	24.56	24.71	26.37	27.73	28.20
19	31.74	28.50	24.94	27.81	23.52	24.44	25.34	21.19	24.95	23.84	27.39	28.20
20	31.50	28.69	25.14	27.51	23.73	24.46	24.52	20.58	24.72	24.64	26.47	27.99
21	31.68	28.73	25.31	28.16	23.88	24.60	24.28	20.96	25.17	25.43	25.89	28.01
22	31.99	29.08	25.37	27.51	24.05	24.68	24.03	21.28	24.77	25.60	26.96	28.12
23	32.58	29.32	26.19	27.53	24.34	24.78	24.11	21.58	25.21	25.83	26.68	28.18
24	32.47	29.36	26.75	27.85	24.44	24.90	24.28	21.38	25.84	26.13	26.22	28.19
25	32.01	28.85	27.10	27.99	24.50	24.96	24.44	20.93	26.03	26.00	27.59	27.96
26	32.74	28.79	27.04	27.99	24.21	25.04	25.22	20.81	26.29	25.03	27.72	28.06
27	32.92	28.81	29.79	27.78	24.23	25.18	27.33	20.87	26.58	25.40	27.47	28.17
28	33.16	28.18	29.95	27.71	24.36	25.25	26.07	21.27	26.60	25.48	27.14	28.27
29	32.90	28.26	29.72	26.52	---	25.35	25.59	21.95	26.91	25.95	27.20	28.32
30	32.16	28.36	29.65	26.24	---	25.44	25.70	22.48	27.62	26.10	27.25	27.13
31	32.43	---	29.25	24.94	---	25.53	---	22.84	---	26.03	27.27	---
MAX	33.16	33.05	29.95	28.16	26.91	25.53	27.33	28.80	27.62	28.93	27.88	28.32
CAL YR 2000	LOW	35.30										
WTR YR 2001	LOW	33.16										



GROUND-WATER RECORDS
Hamilton County

391201084281600. LOCAL NUMBER, H-10

LOCATION.—Latitude 39°12'01", longitude 84°28'16", Hydrologic Unit 05090203, Section Road, Cincinnati, Ohio. Owner: National Distillers.

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled unused artesian well, diameter 8 in., depth 170 ft, cased.

INSTRUMENTATION.—Digital recorder—60-minute.

DATUM.—Elevation of land-surface datum is 544.7 ft above sea level. Measuring point: Floor of instrument shelter 8.13 ft above land-surface datum.

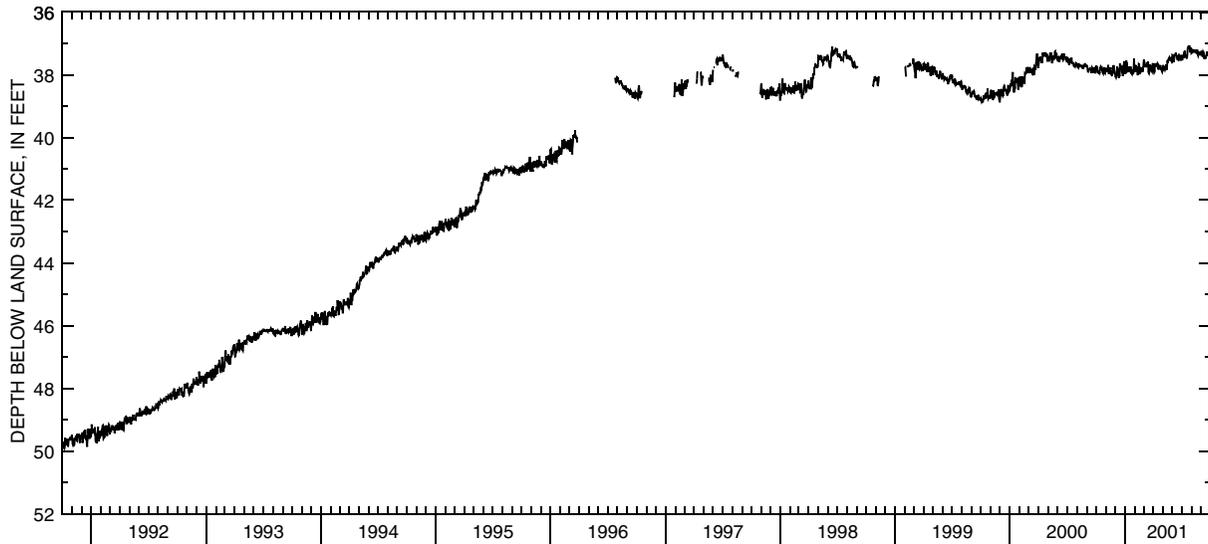
REMARKS.—Station operated by Ohio Department of Natural Resources (ODNR), Division of Water. Some historical records not published by the USGS are available from ODNR.

PERIOD OF RECORD.—June 1943 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 121.58 ft below land-surface datum, Nov. 3, 10, 1950; minimum daily low, 37.09 ft below land-surface datum, July 22-25, 2001.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37.78	37.83	37.97	37.87	37.82	37.63	37.76	37.69	37.36	37.43	37.31	37.31
2	37.70	37.78	38.06	37.97	37.89	37.51	37.80	37.73	37.37	37.53	37.29	37.29
3	37.77	37.84	38.08	37.89	37.85	37.56	37.87	37.81	37.51	37.46	37.19	37.24
4	37.82	37.85	38.01	37.67	37.72	37.60	37.92	37.79	37.58	37.40	37.18	37.33
5	37.75	37.90	37.95	37.55	37.69	37.67	37.88	37.76	37.58	37.38	37.26	37.42
6	37.88	37.84	37.92	37.61	37.80	37.72	37.74	37.78	37.55	37.46	37.29	37.39
7	37.93	37.83	37.74	37.62	37.90	37.75	37.68	37.81	37.47	37.42	37.28	37.27
8	37.94	37.85	37.99	37.76	37.79	37.67	37.70	37.84	37.36	37.31	37.24	37.29
9	37.94	37.68	38.02	37.89	37.73	37.74	37.64	37.81	37.36	37.28	37.19	37.32
10	37.86	37.94	37.84	37.88	37.96	37.76	37.69	37.75	37.33	37.23	37.22	37.47
11	37.92	37.97	37.83	37.81	38.01	37.73	37.62	37.67	37.29	37.33	37.24	37.47
12	37.94	37.84	38.09	37.85	37.84	37.70	37.66	37.78	37.33	37.39	37.25	37.40
13	37.86	37.78	38.05	37.87	37.84	37.60	37.75	37.84	37.35	37.42	37.27	37.41
14	37.79	37.82	38.02	37.74	37.66	37.72	37.70	37.80	37.40	37.42	37.27	37.49
15	37.76	37.87	38.02	37.78	37.67	37.58	37.65	37.65	37.38	37.42	37.26	37.44
16	37.79	37.76	37.64	37.88	37.78	37.69	37.68	37.53	37.47	37.45	37.27	37.39
17	37.78	37.95	37.80	37.88	37.95	37.90	37.79	37.60	37.51	37.48	37.33	37.37
18	37.83	37.97	37.79	37.78	37.97	37.95	37.83	37.55	37.52	37.36	37.27	37.30
19	37.84	37.86	37.68	37.74	37.79	37.91	37.76	37.51	37.48	37.18	37.19	37.25
20	37.80	37.92	37.77	37.89	37.76	37.79	37.69	37.49	37.50	37.14	37.29	37.32
21	37.83	38.02	37.76	37.94	37.91	37.67	37.75	37.44	37.44	37.10	37.35	37.31
22	37.92	37.97	37.90	37.97	37.77	37.73	37.80	37.51	37.33	37.09	37.38	37.39
23	37.96	37.96	37.91	37.87	37.84	37.71	37.68	37.50	37.38	37.09	37.29	37.36
24	37.89	37.93	37.95	37.82	37.82	37.81	37.81	37.48	37.46	37.09	37.35	37.36
25	37.82	37.76	38.03	37.98	37.80	37.83	37.82	37.55	37.47	37.09	37.31	37.38
26	37.78	37.68	37.92	37.88	37.90	37.87	37.82	37.53	37.51	37.23	37.26	37.36
27	37.76	37.78	37.71	37.92	37.81	37.90	37.76	37.43	37.54	37.28	37.28	37.38
28	37.92	37.86	37.69	37.93	37.78	37.87	37.89	37.47	37.49	37.20	37.30	37.46
29	37.95	37.88	37.58	37.82	---	37.72	37.91	37.56	37.41	37.13	37.32	37.52
30	37.88	37.95	37.65	37.47	---	37.63	37.81	37.60	37.36	37.19	37.30	37.51
31	37.85	---	37.80	37.72	---	37.64	---	37.59	---	37.27	37.24	---
MAX	37.96	38.02	38.09	37.98	38.01	37.95	37.92	37.84	37.58	37.53	37.38	37.52
CAL YR 2000	LOW	38.56										
WTR YR 2001	LOW	38.09										



GROUND-WATER RECORDS
Hamilton County

391214084470100. LOCAL NUMBER, H-1

LOCATION.—Latitude 39°12'14", longitude 84°47'01", Hydrologic Unit 05080003, Kilby Road 4 mi southeast of Harrison, Ohio. Owner: Robert Weber.

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled test water-table well, diameter 6 in., depth 124 ft, cased.

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

DATUM.—Elevation of land-surface datum is 500 ft above sea level, from topographic map. Measuring point: Floor of instrument shelter 2.70 ft above land-surface datum.

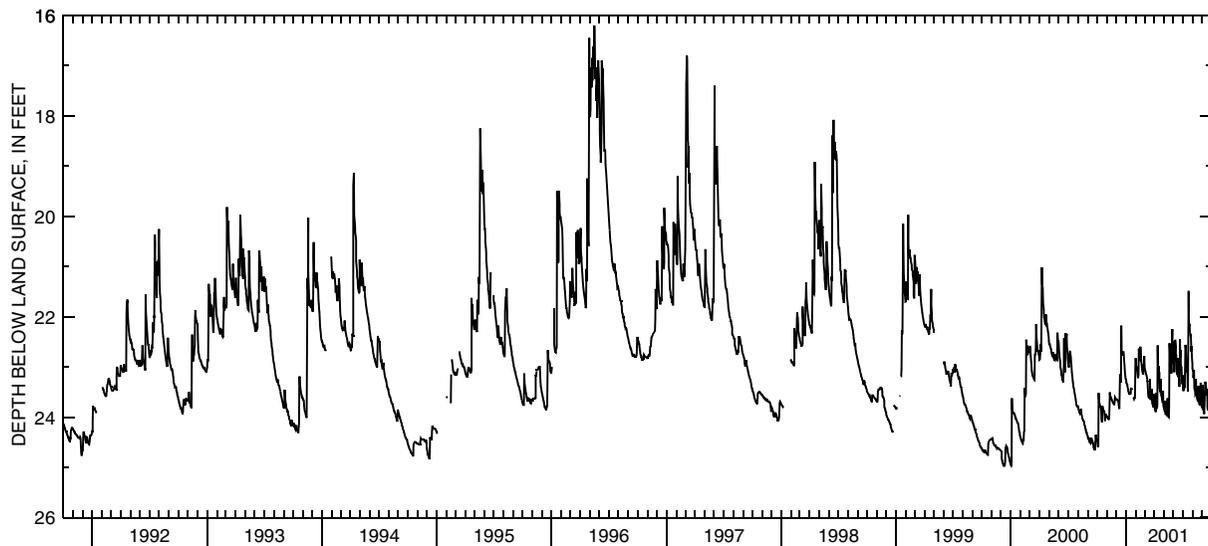
REMARKS.—Station operated by Ohio Department of Natural Resources (ODNR), Division of Water. Some historical records not published by the USGS are available from ODNR.

PERIOD OF RECORD.—February 1948 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 25.95 ft below land-surface datum, Oct. 26 and 27, 1988; minimum daily low, 14.00 ft below land-surface datum, Jan. 22, 1959.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.47	23.98	23.65	23.26	22.83	22.97	23.54	23.80	22.92	23.17	23.03	23.75
2	24.49	24.00	23.66	23.30	22.92	23.05	23.81	23.83	22.98	23.42	23.09	23.36
3	24.56	24.01	23.66	23.33	22.99	23.07	23.84	23.86	22.81	23.48	23.17	23.49
4	24.60	24.02	23.66	23.34	23.00	23.09	23.86	23.89	23.11	23.24	23.22	23.81
5	24.57	24.02	23.67	23.35	23.04	23.12	23.89	23.91	22.84	23.44	23.07	23.87
6	23.52	24.04	23.67	23.38	23.07	23.15	23.90	23.68	22.82	23.37	23.37	23.90
7	23.64	24.05	23.68	23.43	23.13	23.17	23.73	23.96	22.46	23.41	23.43	23.94
8	23.71	24.05	23.69	23.46	23.21	23.19	23.52	23.84	22.59	23.12	23.47	23.73
9	23.74	24.04	23.77	23.49	23.21	23.22	23.82	23.86	22.87	22.56	23.52	23.56
10	23.76	23.56	23.79	23.52	23.15	23.30	23.84	23.89	22.76	22.62	23.55	23.30
11	23.78	23.51	23.84	23.55	22.64	23.28	23.75	23.93	23.08	22.74	23.53	23.32
12	23.80	23.57	23.54	23.55	22.73	23.53	22.57	23.92	23.14	22.97	23.24	23.37
13	23.82	23.60	23.15	23.51	22.77	23.56	22.95	23.63	23.15	23.06	23.50	23.40
14	23.85	23.61	23.25	23.51	22.86	23.60	23.12	23.94	22.95	23.11	23.55	23.53
15	24.04	23.63	23.30	23.55	22.87	23.62	22.98	23.98	23.05	23.06	23.61	23.57
16	24.09	23.65	23.30	23.52	22.60	23.63	23.30	24.00	23.00	23.40	23.64	23.45
17	24.09	23.67	22.18	23.45	22.70	23.57	23.11	24.01	22.83	23.49	23.68	23.79
18	23.78	23.68	22.63	23.43	22.84	23.24	23.42	23.80	23.17	23.18	23.70	23.85
19	23.83	23.69	22.72	23.44	22.92	23.53	23.46	22.79	23.27	21.49	23.38	23.85
20	23.85	23.70	22.77	23.45	22.98	23.56	23.49	22.53	23.40	22.10	23.62	23.71
21	23.86	23.71	22.75	---	23.04	23.59	23.48	22.81	23.26	22.17	23.68	23.56
22	23.87	23.73	22.71	---	23.08	23.62	23.25	22.86	22.45	22.14	23.73	23.61
23	23.88	23.74	22.71	---	23.12	23.65	23.56	23.13	22.81	22.31	23.76	23.44
24	23.89	23.75	22.71	---	23.14	23.66	23.58	22.97	22.67	22.33	23.77	23.66
25	23.90	23.75	22.76	23.61	23.14	23.44	23.61	23.08	23.01	22.39	23.56	23.48
26	24.08	23.70	22.88	23.62	22.94	23.73	23.66	23.13	23.00	22.35	23.32	23.30
27	23.99	23.61	22.96	23.64	22.97	23.76	23.69	22.51	23.04	22.49	23.57	23.24
28	23.95	23.62	23.07	23.62	22.78	23.76	23.72	22.25	23.23	22.70	23.74	23.47
29	23.95	23.63	23.15	23.62	---	23.79	23.48	22.62	23.32	22.59	23.76	23.62
30	23.96	23.64	23.19	23.59	---	23.80	23.78	22.64	23.35	22.86	23.80	23.44
31	23.97	---	23.22	23.01	---	23.81	---	22.49	---	22.94	23.81	---
MAX	24.60	24.05	23.84	23.64	23.21	23.81	23.90	24.01	23.40	23.49	23.81	23.94
CAL YR 2000	LOW 24.97											
WTR YR 2001	LOW 24.60											



GROUND-WATER RECORDS
Hamilton County

391341084275300. LOCAL NUMBER, H-8

LOCATION.—Latitude 39°13'41", longitude 84°27'53", Hydrologic Unit 05090203, Vine and Water Streets, Wyoming, Ohio. Owner: Wyoming Water Department.

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled unused artesian well, diameter 8 in., depth 194 ft, cased.

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

DATUM.—Elevation of land-surface datum is 576.2 ft above sea level. Measuring point: Top of platform 3.30 ft above land-surface datum.

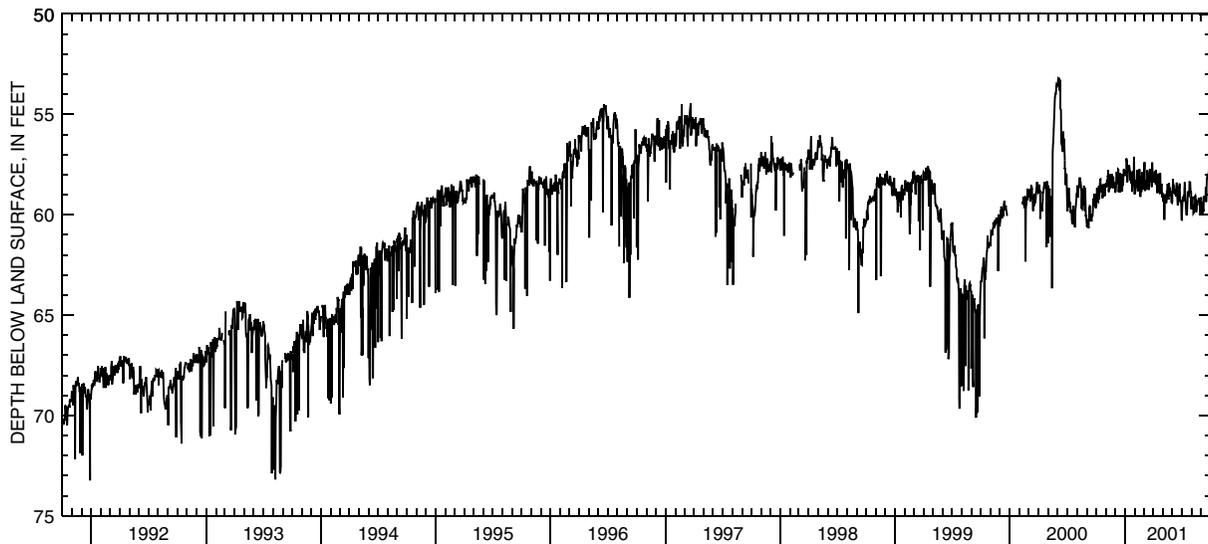
REMARKS.—Station operated by Ohio Department of Natural Resources (ODNR), Division of Water. Some historical records not published by the USGS are available from ODNR.

PERIOD OF RECORD.—July 1938 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 148.86 ft below land-surface datum, Dec. 1, 1948; minimum daily low, 53.19 ft below land-surface datum, June 4, 2000.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59.54	58.44	58.91	57.93	58.99	58.18	58.31	59.04	58.91	60.26	59.12	59.18
2	59.55	58.62	58.86	58.07	58.76	58.29	57.96	59.19	58.43	59.70	59.46	59.81
3	59.09	58.65	58.82	58.01	58.89	57.75	58.34	59.36	58.23	59.37	59.10	59.42
4	58.68	58.52	58.53	58.02	58.35	57.38	58.38	59.27	58.49	59.31	59.46	59.36
5	59.01	58.29	57.95	57.98	58.62	58.82	58.10	59.22	58.58	59.12	59.58	60.03
6	59.24	58.37	57.98	57.20	58.37	58.61	57.89	60.27	58.93	59.24	59.76	59.70
7	59.36	58.07	57.89	57.33	58.39	58.49	57.87	59.60	58.74	59.04	59.93	59.81
8	59.37	58.11	58.49	57.69	58.20	58.28	58.20	58.99	58.77	59.34	59.88	59.82
9	59.01	57.79	58.20	58.38	57.77	58.49	58.49	59.19	58.98	58.74	59.67	59.09
10	58.56	58.88	57.74	57.79	58.64	58.65	57.78	59.18	58.85	58.39	59.55	59.18
11	59.25	58.73	57.75	57.56	58.79	58.77	58.31	59.25	59.06	58.67	59.42	59.07
12	58.95	58.77	58.88	57.71	58.83	58.11	58.49	59.42	59.09	59.22	59.09	59.12
13	58.49	58.11	58.54	57.57	58.35	57.78	58.64	59.29	58.80	59.40	59.06	59.12
14	58.26	58.07	58.62	57.56	58.56	58.08	58.93	58.82	58.41	59.74	59.29	59.14
15	58.24	58.71	58.24	57.56	58.53	57.96	57.96	58.86	58.67	60.03	59.45	58.62
16	58.88	57.98	57.93	57.75	57.74	58.13	57.99	58.47	58.91	59.99	59.88	59.37
17	58.73	58.18	58.88	58.23	58.22	58.67	58.89	58.52	59.18	60.04	59.67	59.06
18	58.80	58.49	58.73	58.23	58.76	58.77	58.32	59.21	59.54	59.74	59.31	58.47
19	58.56	58.16	58.52	57.90	59.12	58.54	58.31	59.22	59.45	59.36	59.54	58.11
20	58.54	58.37	58.29	58.13	58.56	58.39	58.14	59.06	59.36	58.85	59.29	58.08
21	58.62	57.99	57.99	58.37	58.16	57.72	58.77	58.43	58.58	59.06	59.33	58.04
22	59.18	58.67	58.26	58.46	58.88	58.11	58.98	59.09	58.65	58.99	59.33	58.14
23	59.03	58.65	58.83	58.18	58.20	58.13	57.92	58.65	58.70	59.03	59.16	58.11
24	58.70	58.68	58.26	58.86	58.22	58.37	58.49	59.03	58.46	58.86	59.25	57.93
25	58.70	58.10	58.50	58.44	57.89	58.41	58.58	59.04	58.95	58.34	59.31	57.87
26	58.49	58.41	58.47	57.84	58.01	57.83	58.49	58.97	59.28	58.43	59.39	57.78
27	58.56	58.61	58.01	58.31	58.73	58.62	58.54	58.93	59.36	58.37	59.36	57.66
28	58.88	58.50	57.74	58.50	58.07	58.08	58.47	59.22	59.28	58.71	59.61	57.79
29	59.07	58.49	57.92	58.11	---	57.41	59.14	59.39	59.42	58.82	59.94	58.76
30	58.49	58.37	57.95	57.11	---	58.18	58.91	59.42	60.29	58.89	59.22	58.70
31	58.65	---	57.77	58.02	---	58.01	---	59.33	---	59.73	59.13	---
MAX	59.55	58.88	58.91	58.86	59.12	58.82	59.14	60.27	60.29	60.26	59.94	60.03
CAL YR 2000	LOW 63.68											
WTR YR 2001	LOW 60.29											



GROUND-WATER RECORDS

Hamilton County

391442084262900. LOCAL NUMBER, H-7

LOCATION.—Latitude 39°14'42", longitude 84°26'29", Hydrologic Unit 05090203, at Evendale, Ohio. Owner: General Electric Corp.

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled test artesian well, diameter 6 in., depth 180 ft, cased.

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

DATUM.—Elevation of land-surface datum is 555.40 ft above sea level. Measuring point: Floor of instrument shelter 7.78 ft above land-surface datum.

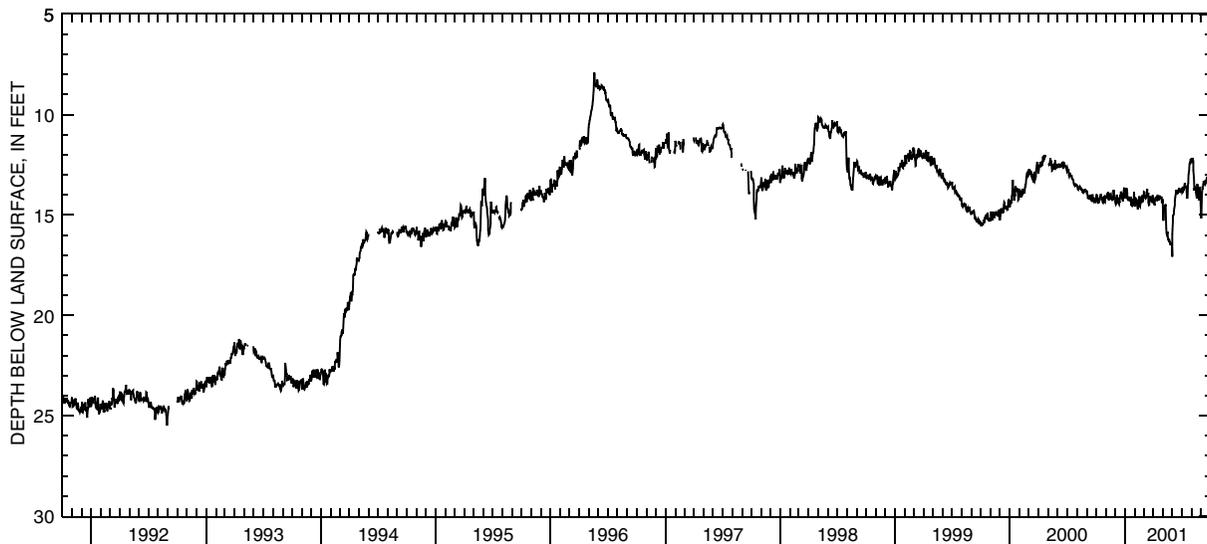
REMARKS.—Station operated by Ohio Department of Natural Resources (ODNR), Division of Water. Some historical records not published by the USGS are available from ODNR.

PERIOD OF RECORD.—April 1941 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 101.09 ft below land-surface datum, Jan. 29, 1964; minimum daily low, 7.90 ft below land-surface datum, May 20, 1996.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.17	14.09	14.27	14.02	14.38	14.07	14.11	14.20	15.95	13.67	12.37	15.15
2	14.00	14.03	14.42	14.17	14.54	13.86	14.23	14.98	15.31	13.86	12.36	14.55
3	14.00	14.10	14.46	14.16	14.54	13.87	14.27	15.29	15.05	13.83	12.28	13.99
4	14.04	14.12	14.41	13.78	14.39	13.87	14.47	15.09	15.04	13.71	12.16	13.67
5	14.05	14.09	14.17	13.66	14.19	14.06	14.46	14.72	14.95	13.62	12.27	13.69
6	14.26	14.01	14.19	13.67	14.20	14.12	14.30	14.59	14.83	13.76	12.32	13.65
7	14.39	13.90	13.98	13.73	14.42	14.15	14.20	14.56	14.69	13.73	12.78	13.46
8	14.39	13.96	14.25	13.91	14.39	14.11	14.20	14.57	14.51	13.58	13.15	13.35
9	14.36	13.84	14.40	14.19	14.24	14.14	14.17	14.55	14.31	13.52	13.63	13.35
10	14.21	14.16	14.27	14.24	14.59	14.18	14.12	14.46	14.14	13.42	13.70	13.46
11	14.21	14.27	14.13	14.19	14.71	14.09	14.11	15.08	13.94	13.47	13.70	13.47
12	14.26	14.18	14.44	14.19	14.58	14.09	14.09	15.65	13.79	13.57	13.56	13.39
13	14.19	13.92	14.48	14.28	14.35	13.72	14.28	15.90	13.80	13.63	13.66	13.28
14	14.07	13.94	14.35	14.19	14.21	13.99	14.28	15.97	13.82	13.65	13.78	13.43
15	14.01	14.02	14.40	14.08	14.06	13.98	14.09	15.92	13.78	13.63	13.86	13.40
16	14.04	13.97	14.11	14.27	14.17	13.89	14.06	15.82	13.91	13.84	13.95	13.31
17	14.02	14.12	13.99	14.32	14.55	14.37	14.18	16.07	13.94	14.11	14.17	13.24
18	14.13	14.23	14.06	14.28	14.58	14.51	14.27	16.18	13.91	14.17	14.08	13.15
19	14.18	14.12	13.82	14.10	14.43	14.50	14.19	16.27	13.81	14.01	13.46	13.08
20	14.16	14.07	13.95	14.32	14.08	14.30	14.10	16.28	13.83	13.54	13.54	13.18
21	14.18	14.25	13.90	14.51	14.35	14.14	14.10	16.17	13.81	13.39	13.61	13.19
22	14.35	14.26	14.16	14.54	14.34	14.06	14.18	16.29	13.65	12.97	13.67	13.27
23	14.39	14.25	14.23	14.46	14.30	14.08	14.09	16.33	13.74	12.87	14.05	13.27
24	14.34	14.20	14.16	14.21	14.30	14.20	14.10	16.33	13.82	12.75	14.25	13.21
25	14.18	14.09	14.32	14.51	14.01	14.26	14.16	16.49	13.81	12.42	14.12	13.25
26	14.10	13.74	14.28	14.51	14.33	14.31	14.17	16.49	13.79	12.38	13.72	13.26
27	14.08	13.86	13.95	14.46	14.31	14.35	14.09	16.41	13.83	12.46	13.60	13.26
28	14.31	14.03	13.74	14.53	14.22	14.34	14.32	16.42	13.80	12.39	13.84	13.39
29	14.37	14.04	13.68	14.46	---	14.12	14.39	16.37	13.73	12.22	14.03	13.48
30	14.28	14.24	13.64	13.86	---	14.01	14.27	16.55	13.68	12.20	14.69	13.47
31	14.15	---	13.92	14.13	---	14.04	---	17.08	---	12.29	15.07	---
MAX	14.39	14.27	14.48	14.54	14.71	14.51	14.47	17.08	15.95	14.17	15.07	15.15
CAL YR 2000	LOW	14.57										
WTR YR 2001	LOW	17.08										



GROUND-WATER RECORDS
Hamilton County

391608084254400. LOCAL NUMBER, H-6

LOCATION.—Latitude 39°16'08", longitude 84°25'44", Hydrologic Unit 05090203, Water Treatment Plant in Glendale, Ohio. Owner: Glendale Water Department.

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled unused artesian well, diameter 8 in., depth 167 ft, cased.

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

DATUM.—Elevation of land-surface datum is 570.65 ft above sea level. Measuring point: Floor of instrument shelter 4.05 ft above land-surface datum.

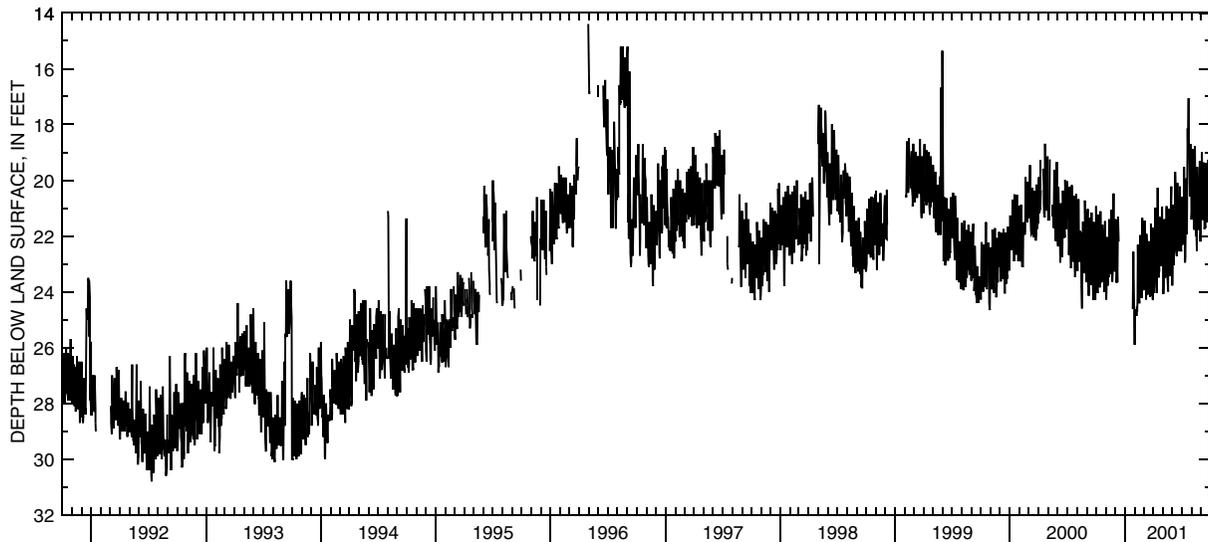
REMARKS.—Station operated by Ohio Department of Natural Resources (ODNR), Division of Water. Some historical records not published by the USGS are available from ODNR.

PERIOD OF RECORD.—July 1938 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 84.10 ft below land-surface datum, Oct. 14, 1960; minimum daily low, 14.40 ft below land-surface datum, Apr. 30, 1996.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.93	23.76	22.80	---	25.90	23.39	21.71	22.67	23.78	20.58	21.41	20.76
2	22.10	23.87	22.50	---	24.81	23.84	23.07	22.97	22.10	21.60	20.99	20.00
3	23.76	24.27	21.39	---	24.80	23.39	24.05	24.08	20.88	22.31	20.84	18.99
4	23.18	23.31	22.56	---	24.65	21.44	23.87	23.82	22.08	21.65	20.20	20.03
5	23.78	22.04	23.67	---	24.65	22.79	23.33	22.68	23.04	21.93	18.87	21.17
6	24.05	22.74	23.58	---	24.71	23.84	23.39	21.39	22.74	21.66	19.89	21.42
7	23.00	23.78	23.18	---	24.86	23.93	22.35	22.70	22.50	21.59	21.11	21.32
8	21.22	23.55	23.66	---	24.53	23.81	20.99	23.42	22.02	19.52	21.63	20.78
9	22.53	23.36	22.67	---	24.71	24.27	22.49	23.49	20.43	20.22	21.77	19.36
10	23.28	23.46	21.32	---	24.27	23.16	23.45	23.42	19.70	21.47	21.62	20.20
11	23.64	22.74	21.74	---	22.31	21.92	23.46	22.95	20.63	22.95	20.22	21.75
12	23.07	21.39	22.20	---	23.51	22.58	24.05	22.29	22.19	22.74	18.78	21.62
13	23.84	22.02	---	---	24.12	23.93	23.51	20.93	22.50	21.59	20.94	21.68
14	22.97	23.31	---	---	23.97	24.11	21.54	21.77	22.72	21.14	21.99	21.69
15	21.11	23.31	---	---	24.27	23.70	20.27	22.71	22.67	19.94	21.72	20.87
16	22.35	23.00	---	---	24.41	23.96	22.43	23.55	21.63	20.82	21.59	19.38
17	23.16	23.31	---	---	23.67	23.94	23.10	23.81	20.09	21.92	22.52	20.61
18	23.19	22.74	---	---	21.97	22.19	23.49	23.99	21.03	20.20	20.90	20.97
19	23.63	21.06	---	---	22.86	22.53	22.98	22.08	22.43	18.14	19.53	21.26
20	23.66	22.53	---	---	23.85	23.60	23.28	21.02	22.52	18.97	20.90	21.50
21	22.50	23.42	---	---	23.61	24.18	22.40	21.62	22.04	18.21	21.39	20.84
22	21.59	23.64	---	---	23.84	23.94	21.32	22.34	22.53	17.06	21.45	20.81
23	22.10	23.37	---	---	24.22	24.15	22.02	23.37	21.45	19.23	21.35	19.26
24	23.30	22.11	---	---	23.22	23.12	22.59	23.43	20.61	19.41	21.77	20.09
25	23.36	20.96	---	---	21.35	21.56	22.58	22.65	20.22	19.89	20.42	20.58
26	23.51	20.47	---	24.62	23.01	22.61	23.03	21.60	21.92	20.42	19.32	21.27
27	24.00	22.05	---	24.03	23.94	23.57	23.07	20.52	22.08	20.57	20.54	21.39
28	23.55	22.41	---	22.56	23.76	23.69	22.64	20.22	22.43	19.80	21.22	21.99
29	21.47	23.27	---	23.69	---	23.97	20.94	22.11	22.55	18.70	22.20	20.39
30	22.29	23.07	---	24.81	---	24.30	21.77	22.80	21.45	19.45	21.83	19.53
31	23.18	---	---	25.26	---	23.64	---	22.97	---	21.03	21.27	---
MAX	24.05	24.27	23.67	25.26	25.90	24.30	24.05	24.08	23.78	22.95	22.52	21.99
CAL YR 2000		LOW 24.60										
WTR YR 2001		LOW 25.90										



GROUND-WATER RECORDS
Hamilton County

391733084392400. LOCAL NUMBER, H-2

LOCATION.—Latitude 39°17'33", longitude 84°39'24", Hydrologic Unit 05080002, East Miami River Road 1.5 mi south of Ross, Ohio. Owner: Lee Wilhelm.

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled test water table well, diameter 6 in., depth 89 ft, cased.

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

DATUM.—Elevation of land-surface datum is 534.21 ft above sea level. Measuring point: Floor of instrument shelter 8.97 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.

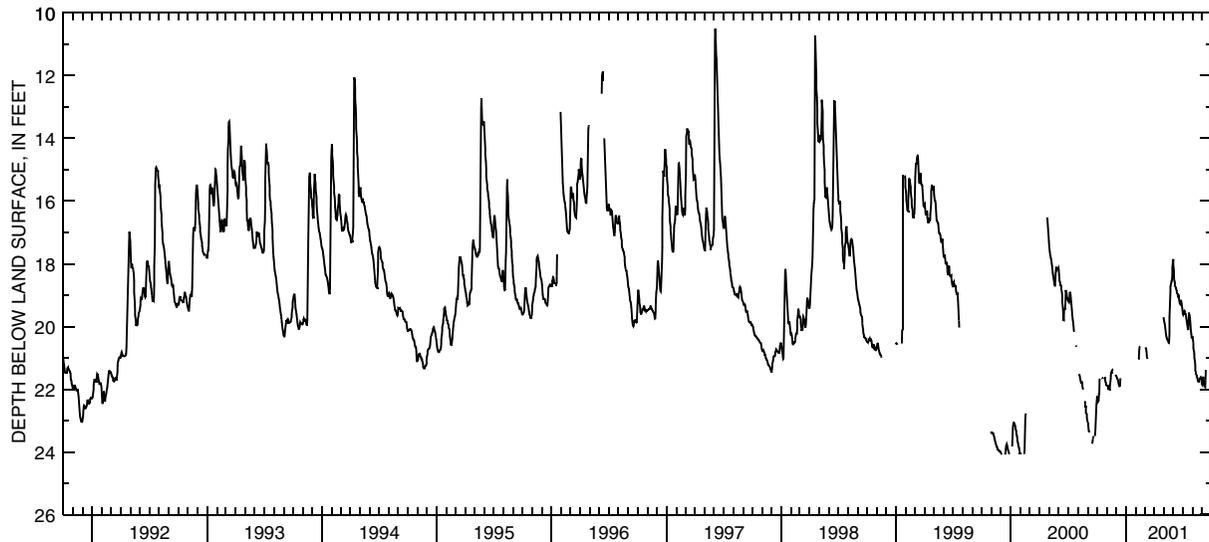
PERIOD OF RECORD.—August 1952 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 24.37 ft below land-surface datum, Sept. 13 and 14, 24 and 25, 1972; minimum daily low 2.63 ft below land-surface datum, June, 16, 1958. (Water level above land surface but could not be measured during January 1959 flood.)

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.26	21.89	21.57	---	---	---	---	19.74	18.02	19.59	20.31	21.86
2	22.25	21.90	21.59	---	---	---	---	19.80	18.21	19.62	20.43	21.75
3	22.22	21.90	21.63	---	---	---	---	19.86	18.40	19.58	20.55	21.63
4	22.31	21.90	21.65	---	---	20.66	---	19.90	18.53	19.52	20.70	21.60
5	22.37	21.99	21.68	---	---	20.70	---	19.97	18.60	19.52	20.79	21.68
6	22.35	21.99	21.69	---	---	20.73	---	20.04	18.69	19.50	20.88	21.74
7	22.14	22.01	21.72	---	---	20.79	---	20.15	18.72	19.53	20.99	21.81
8	22.14	22.01	21.78	---	---	20.93	---	20.24	18.75	19.59	21.11	21.87
9	21.66	22.01	21.83	---	---	20.99	---	20.30	18.77	19.59	21.24	21.92
10	---	22.01	21.87	---	21.05	21.03	---	20.34	18.80	19.61	21.38	21.93
11	---	21.97	21.90	---	21.03	---	---	20.39	18.86	19.68	21.48	21.72
12	---	21.83	21.90	---	20.79	---	---	20.42	18.93	19.75	21.51	21.38
13	---	21.65	21.89	---	20.67	---	---	20.42	18.95	19.81	21.53	---
14	---	21.56	21.68	---	20.64	---	---	20.43	18.96	19.89	21.56	---
15	---	21.48	21.65	---	20.64	---	---	20.46	19.00	19.95	21.60	---
16	21.63	21.47	---	---	---	---	---	20.51	19.04	20.01	21.63	---
17	21.65	21.42	---	---	---	---	---	20.52	19.00	20.09	21.71	---
18	21.65	21.39	---	---	---	---	---	20.46	19.00	20.10	21.74	---
19	---	21.38	---	---	---	---	---	20.22	19.10	19.79	21.75	---
20	---	21.41	---	---	---	---	---	19.72	19.17	19.56	21.75	---
21	---	---	---	---	---	---	---	19.22	19.26	19.61	21.71	---
22	---	---	---	---	---	---	---	18.89	19.28	19.65	21.68	---
23	21.63	---	---	---	---	---	---	18.72	19.25	19.71	21.65	---
24	21.63	---	---	---	---	---	---	18.63	19.20	19.81	21.68	---
25	21.65	---	---	---	20.51	---	---	18.59	19.15	19.97	21.66	---
26	21.68	---	---	---	---	---	---	18.57	19.20	20.10	21.63	---
27	21.71	---	---	---	---	---	---	18.51	19.26	20.19	21.63	---
28	21.75	---	---	---	---	---	---	18.36	19.32	20.25	21.68	---
29	21.80	21.53	---	---	---	---	---	18.11	19.41	20.34	21.71	---
30	21.86	21.56	---	---	---	---	19.70	17.91	19.50	20.37	21.77	---
31	21.87	---	---	---	---	---	---	17.85	---	20.31	21.84	---
MAX	22.37	22.01	21.90	---	21.05	21.03	19.70	20.52	19.50	20.37	21.84	21.93

CAL YR 2000 LOW 24.06
WTR YR 2001 LOW 22.37



GROUND-WATER RECORDS
Hamilton County

391817084393300. LOCAL NUMBER, H-4

LOCATION.—Latitude 39°18'17", longitude 84°39'33", Hydrologic Unit 05080002, 0.7 mi southwest of Ross, Ohio. Owner: Southwestern Ohio Water Company.

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled test water table well, diameter 6 in., depth 100 ft, cased.

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

DATUM.—Elevation of land-surface datum is 541.57 ft above sea level. (Levels by Miami Conservancy District.) 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.

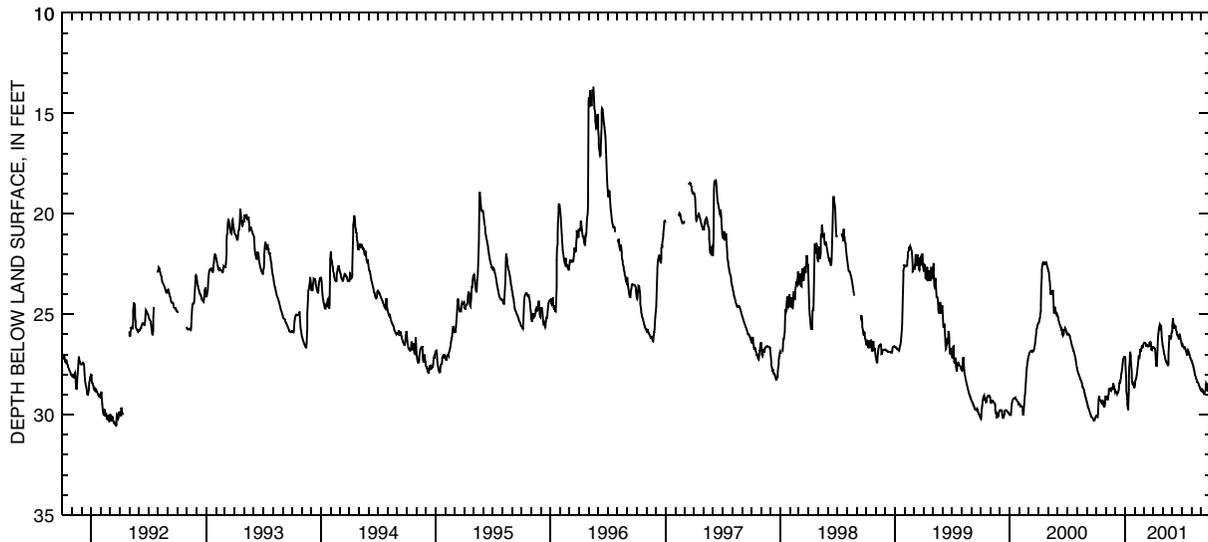
PERIOD OF RECORD.—December 1954 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 32.23 ft below land-surface datum, Dec. 5, 1971; minimum daily low, 11.60 ft below land-surface datum, June 16, 1958.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30.08	29.13	28.88	27.15	28.59	26.48	26.63	26.58	25.55	26.54	27.32	28.83
2	30.08	29.13	28.85	27.18	28.55	26.43	26.64	26.63	25.28	26.60	27.36	28.83
3	30.08	29.22	28.89	27.45	28.32	26.42	26.67	26.72	25.20	26.60	27.43	28.73
4	30.12	29.10	28.89	28.07	28.28	26.42	26.68	26.82	25.43	26.55	27.45	28.74
5	30.13	29.06	28.90	28.55	28.22	26.43	26.70	26.93	25.61	26.61	27.53	28.80
6	30.13	29.24	28.92	28.82	28.18	26.43	26.73	27.02	25.71	26.65	27.57	28.85
7	29.97	29.25	28.98	29.07	28.08	26.45	26.73	27.05	25.68	26.67	27.63	28.88
8	29.61	29.25	28.92	29.25	28.01	26.48	26.91	27.11	25.58	26.63	27.71	28.92
9	29.27	29.12	28.93	29.51	27.83	26.51	27.18	27.21	25.56	26.63	27.80	28.97
10	29.15	28.92	28.89	29.68	27.68	26.52	27.43	27.30	25.58	26.63	27.87	28.98
11	29.07	28.74	28.85	29.76	27.56	26.54	27.57	27.32	25.62	26.68	27.96	28.97
12	29.21	28.71	28.79	29.54	27.38	26.54	27.57	27.39	25.74	26.75	28.04	28.86
13	29.27	28.76	28.62	28.79	27.20	26.55	27.42	27.39	25.82	26.79	28.08	28.82
14	29.31	28.76	28.46	28.10	27.05	26.57	27.00	27.38	25.88	26.85	28.13	28.79
15	29.33	28.76	28.41	27.62	27.15	26.57	26.55	27.43	25.93	26.88	28.17	28.65
16	29.36	28.80	28.46	27.29	27.17	26.58	26.22	27.50	26.01	26.94	28.23	28.43
17	29.37	28.77	28.37	27.06	27.05	26.60	26.00	27.54	26.06	27.02	28.28	28.47
18	29.42	28.79	28.28	26.87	26.87	26.57	25.85	27.54	26.06	27.03	28.33	28.58
19	29.46	28.65	28.17	27.05	26.72	26.49	25.73	27.50	26.08	26.83	28.33	28.65
20	29.46	28.73	27.98	27.26	26.83	26.42	25.62	27.02	26.13	26.78	28.38	28.74
21	29.33	28.73	27.93	27.48	26.83	26.38	25.56	26.42	26.19	26.82	28.40	28.80
22	29.27	28.73	27.78	27.88	26.73	26.37	25.50	26.06	26.24	26.87	28.44	28.82
23	29.37	28.73	27.69	28.14	26.64	26.37	25.53	26.08	26.15	26.91	28.49	28.59
24	29.46	28.56	27.50	28.37	26.60	26.40	25.67	26.15	26.00	26.96	28.53	28.47
25	29.54	28.44	27.36	28.50	26.55	26.45	25.65	26.19	26.00	27.02	28.58	28.38
26	29.58	28.52	27.26	28.47	26.65	26.76	25.53	26.22	26.13	27.08	28.61	28.49
27	29.64	28.59	27.20	28.43	26.63	26.78	25.85	26.21	26.22	27.15	28.65	28.55
28	29.64	28.63	27.15	28.50	26.52	26.76	26.13	26.10	26.30	27.20	28.68	28.52
29	29.48	28.71	27.12	28.49	---	26.67	26.28	25.95	26.37	27.23	28.73	28.31
30	29.22	28.77	27.12	28.61	---	26.64	26.43	25.89	26.46	27.27	28.74	28.29
31	29.12	---	27.13	28.67	---	26.63	---	25.86	---	27.29	28.79	---
MAX	30.13	29.25	28.98	29.76	28.59	26.78	27.57	27.54	26.46	27.29	28.79	28.98

CAL YR 2000 LOW 30.30
WTR YR 2001 LOW 30.13



GROUND-WATER RECORDS
Hardin County

404218083503700. LOCAL NUMBER, HN-1

LOCATION.—Latitude 40°42'18", longitude 83°50'37", Hydrologic Unit 05060001, at grain elevator in Alger. Owner: Village of Alger.

AQUIFER.—Limestone of Silurian Age.

WELL CHARACTERISTICS.—Drilled unused artesian well, diameter 6 in., depth 40 ft, cased.

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

DATUM.—Elevation of land-surface datum is 975 ft above sea level, from topographic map. Measuring point: Floor of instrument shelter 1.5 ft above land-surface datum.

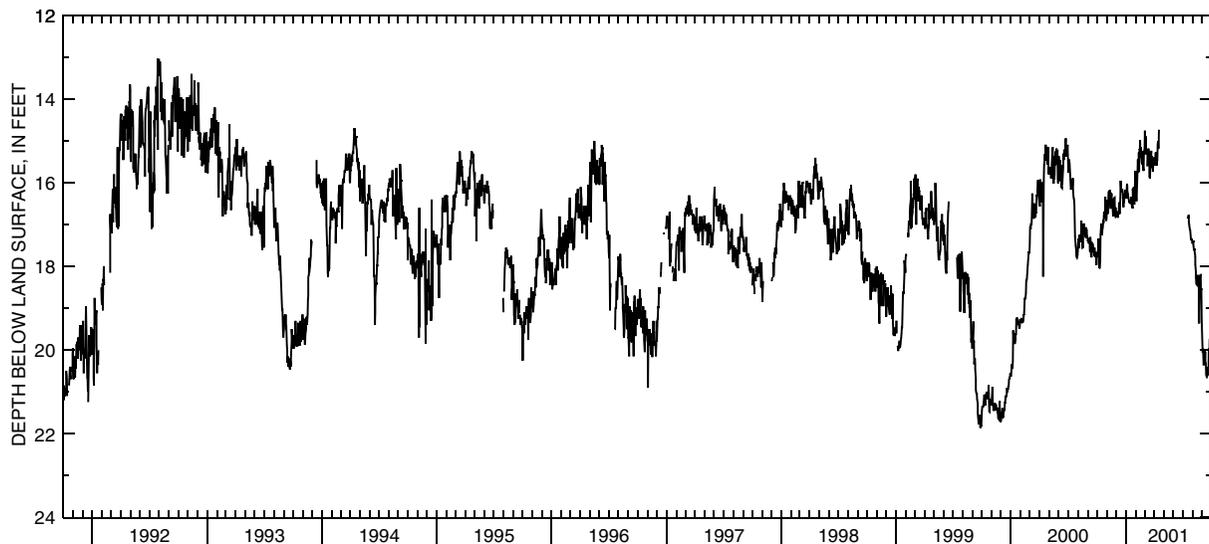
REMARKS.—Station operated by Ohio Department of Natural Resources (ODNR), Division of Water. Some historical records not published by the USGS are available from ODNR.

PERIOD OF RECORD.—April 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 23.90 ft below land-surface datum, Aug. 7, 1991;
minimum daily low, 5.77 ft below land-surface datum, Feb. 24, 1949.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.67	16.62	16.80	16.35	15.95	15.18	15.40	---	---	---	17.45	19.75
2	17.78	16.59	16.68	16.38	16.23	14.75	15.50	---	---	---	17.39	20.06
3	17.69	16.41	16.77	16.29	16.40	15.15	15.45	---	---	---	17.39	19.95
4	17.61	16.74	16.72	16.02	16.44	14.88	15.59	---	---	---	17.49	20.10
5	17.60	16.68	16.74	16.08	16.14	15.09	15.27	---	---	---	17.60	20.36
6	17.33	16.67	16.83	16.19	15.83	15.23	15.33	---	---	---	17.60	20.31
7	17.94	16.20	16.79	16.26	15.60	15.33	15.47	---	---	---	17.58	20.31
8	18.02	16.36	16.68	16.34	15.44	15.24	15.59	---	---	---	17.69	19.98
9	18.03	16.43	16.74	16.35	15.75	15.25	15.56	---	---	---	17.76	20.22
10	18.00	16.55	16.47	16.41	15.74	15.33	15.48	---	---	---	17.95	20.03
11	17.85	16.17	16.68	16.47	15.27	15.60	15.47	---	---	---	18.14	20.34
12	17.24	16.44	16.74	16.45	15.72	15.39	15.10	---	---	---	18.25	20.30
13	17.13	16.23	16.52	16.50	15.21	15.30	15.00	---	---	---	18.42	20.57
14	16.97	16.62	16.36	16.47	15.21	15.18	15.12	---	---	---	18.44	20.63
15	17.25	16.32	15.95	16.47	14.97	15.39	15.18	---	---	---	18.44	20.64
16	17.09	16.26	16.11	16.50	15.29	15.47	14.73	---	---	16.85	18.40	20.63
17	17.25	16.40	16.22	16.34	15.39	15.84	---	---	---	16.81	18.35	20.60
18	17.10	16.38	16.16	16.36	15.14	15.90	---	---	---	16.85	18.21	20.55
19	17.07	16.49	16.22	16.49	15.36	15.59	---	---	---	16.77	18.30	20.40
20	16.98	16.61	16.14	16.53	15.48	15.65	---	---	---	16.95	18.33	20.60
21	16.89	16.75	16.19	16.59	15.47	15.36	---	---	---	17.00	19.08	20.06
22	16.97	16.80	16.29	16.59	15.56	15.23	---	---	---	17.07	19.36	19.97
23	16.70	16.65	16.52	16.14	15.24	15.39	---	---	---	17.10	18.44	20.15
24	16.83	16.72	16.58	16.22	15.60	15.36	---	---	---	17.13	18.31	19.74
25	16.74	16.36	16.43	16.10	15.66	15.47	---	---	---	17.22	18.21	19.75
26	16.67	16.35	16.44	16.38	15.71	15.60	---	---	---	17.31	18.20	19.72
27	16.34	16.64	16.26	16.43	15.23	15.68	---	---	---	17.36	18.27	20.00
28	16.62	16.81	16.28	16.52	15.25	15.74	---	---	---	17.36	18.56	20.69
29	16.88	16.59	16.16	16.26	---	15.60	---	---	---	17.33	18.53	20.20
30	16.56	16.81	16.22	15.96	---	15.39	---	---	---	17.39	19.23	20.06
31	16.91	---	16.17	15.71	---	15.50	---	---	---	17.45	19.45	---
MAX	18.03	16.81	16.83	16.59	16.44	15.90	15.59	---	---	17.45	19.45	20.69
CAL YR 2000	LOW 20.63											
WTR YR 2001	LOW 20.69											



GROUND-WATER RECORDS
Hocking County

393200082235300. LOCAL NUMBER, HK-1

LOCATION.—Latitude 39°32'00", longitude 82°23'53", Hydrologic Unit 05060002, at railroad yards southeast edge of Logan, Ohio. Owner: Chessie System.

AQUIFER.—Sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.—Drilled unused water table well, diameter 6 in., depth 88 ft, cased.

INSTRUMENTATION.—Periodic measurement with chalked tape by Ohio Department of Natural Resources personnel.

DATUM.—Elevation of land-surface datum is 710 ft above sea level, from topographic map. Measuring point: Top of gage platform 4.90 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 1962 to November 1982 continuous, periodic thereafter.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 21.35 ft below land-surface datum, Dec. 21 and 22, 1967; minimum daily low, 9.11 ft below land-surface datum, Apr. 22, 1964.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION,
WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL
Oct. 24	18.12
Apr. 20	14.85

GROUND-WATER RECORDS
Knox County

402344082300700. LOCAL NUMBER, K-1

LOCATION.—Latitude 40°23'44", longitude 82°30'07", Hydrologic Unit 05040003, in city park, Mt. Vernon, Ohio. Owner: Mt. Vernon Water Department.

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled unused water table well, diameter 8 in., depth 90 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 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.

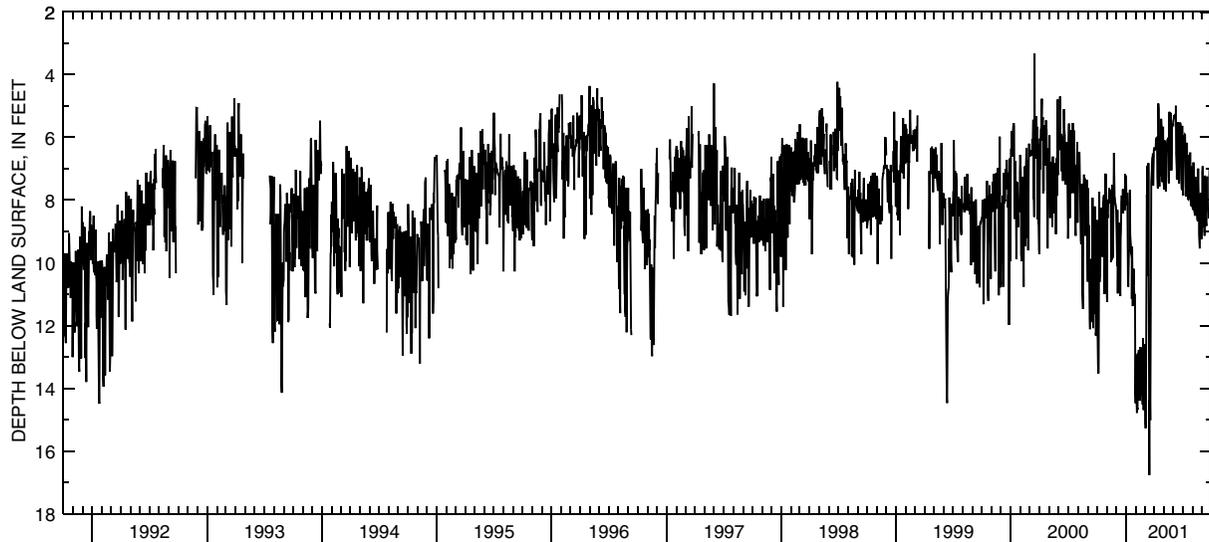
PERIOD OF RECORD.—April 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 20.74 ft below land-surface datum, July 14, 1988; minimum daily low, 1.43 ft below land-surface datum, Apr. 29, 1950.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.64	11.08	8.30	7.21	14.48	14.21	6.34	7.46	5.49	7.64	8.21	7.12
2	12.22	11.25	9.14	7.94	12.98	12.59	6.35	7.65	5.39	7.86	8.29	6.92
3	12.42	8.44	9.62	7.81	12.92	15.12	6.35	6.61	5.30	6.47	8.29	7.93
4	13.25	8.57	10.09	8.16	14.41	15.27	6.37	6.20	5.33	6.19	6.80	8.84
5	13.53	8.57	8.31	7.76	14.78	15.21	6.33	6.10	5.33	5.96	7.69	8.74
6	13.47	7.98	10.98	8.90	14.62	12.43	6.25	7.30	5.30	5.97	8.19	8.63
7	9.37	8.11	9.78	10.54	14.68	9.26	6.02	7.66	5.26	5.92	8.36	8.69
8	7.73	8.11	10.21	10.76	12.88	7.84	6.01	7.72	5.25	5.93	8.47	9.13
9	10.61	7.62	8.95	10.66	14.39	8.04	6.01	6.55	4.99	7.05	8.49	7.22
10	9.74	8.07	9.94	9.62	12.88	7.23	6.01	6.23	6.53	7.56	7.26	7.33
11	10.45	8.08	10.28	9.62	12.77	6.90	7.23	6.19	7.10	7.79	7.77	8.75
12	8.49	7.66	8.72	8.08	13.14	10.43	7.58	6.09	7.29	7.88	8.36	8.69
13	9.73	7.98	10.79	7.69	12.81	7.37	7.63	6.09	7.35	6.22	8.39	8.77
14	8.25	8.21	11.05	7.67	14.12	6.82	4.92	6.07	5.85	6.17	7.97	8.82
15	9.09	9.98	9.22	9.08	14.40	15.67	5.09	6.01	5.59	7.44	8.45	7.93
16	9.79	9.31	8.94	9.43	12.68	16.77	6.93	7.21	5.52	7.83	8.60	7.24
17	8.69	9.91	8.06	9.68	12.74	14.61	7.48	7.46	6.87	7.97	8.68	7.97
18	9.80	7.51	7.86	9.70	12.74	14.32	7.56	6.64	7.34	7.98	7.44	8.23
19	9.01	7.69	7.91	9.84	13.39	14.94	6.95	5.19	7.47	6.57	6.99	8.29
20	8.07	9.45	8.01	11.14	14.23	15.02	7.20	6.57	6.02	7.29	8.04	8.37
21	7.99	9.84	8.19	9.48	13.80	9.54	7.22	6.97	5.72	7.82	8.51	8.40
22	7.92	8.45	7.65	11.28	14.40	7.97	5.90	7.04	5.55	7.97	9.14	8.58
23	7.82	7.90	8.42	11.38	14.52	7.39	5.41	5.22	5.55	7.20	9.54	7.29
24	8.81	6.49	7.86	10.28	12.41	7.01	5.62	5.36	5.58	6.48	8.87	7.02
25	10.99	7.53	7.95	10.71	14.20	6.84	6.93	6.79	6.62	7.62	8.80	8.10
26	10.14	7.92	7.80	10.19	14.69	6.66	7.36	7.05	7.37	7.99	7.77	8.34
27	7.15	7.95	7.94	10.85	13.38	6.57	7.42	5.76	7.59	8.13	8.38	8.45
28	10.98	8.10	8.33	11.02	13.90	6.51	6.12	5.59	7.67	8.19	8.60	8.52
29	7.16	8.12	7.17	11.03	---	7.54	5.66	5.58	5.63	6.92	9.25	8.57
30	10.74	8.19	7.59	10.99	---	6.58	6.95	5.59	7.32	7.51	8.81	8.58
31	9.12	---	7.48	14.15	---	6.40	---	5.60	---	8.03	9.02	---
MAX	13.53	11.25	11.05	14.15	14.78	16.77	7.63	7.72	7.67	8.19	9.54	9.13

CAL YR 2000 LOW 13.53
WTR YR 2001 LOW 16.77



GROUND-WATER RECORDS
Knox County

402747082374300. LOCAL NUMBER, K-4

LOCATION.—Latitude 40°27'47", longitude 82°37'43", Hydrologic Unit 05040003, near Fredericktown, Ohio. Owner: Delco Water Company.

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled unused observation well, diameter 6 in., depth 151 ft, cased.

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

DATUM.—Elevation of land-surface datum is 1,085 ft above sea level, from topographic map. Measuring point: Floor of instrument shelter 1.5 ft above land-surface datum.

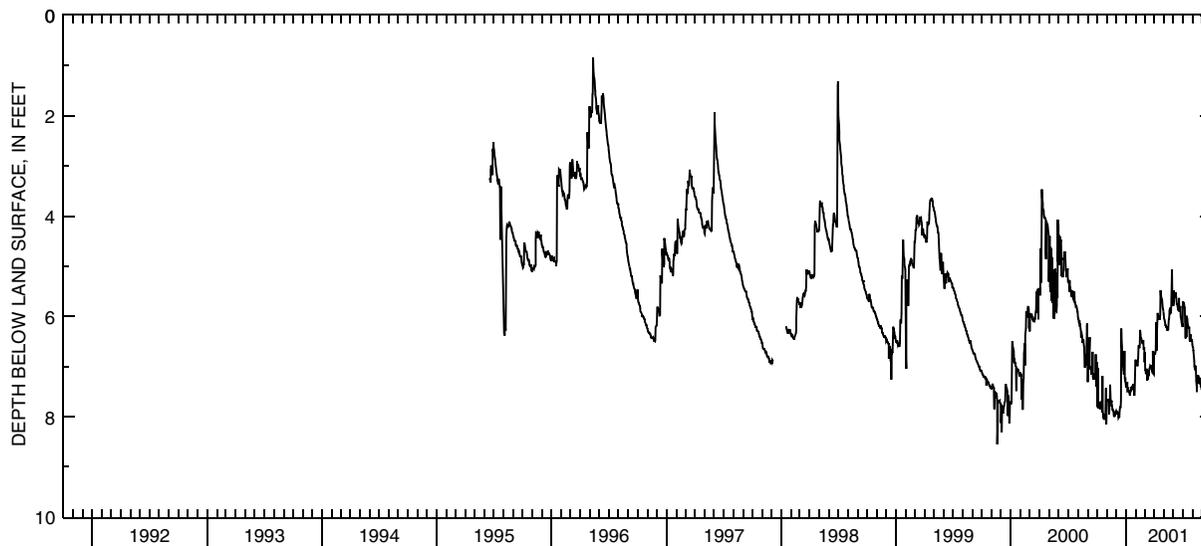
REMARKS.—Station operated by Ohio Department of Natural Resources (ODNR), Division of Water. Some historical records not published by the USGS are available from ODNR.

PERIOD OF RECORD.— June 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 8.55 ft below land-surface datum, Nov. 19, 1999; minimum daily low 0.84 ft below land-surface datum, May 12, 1996.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.92	7.67	7.89	7.40	6.86	6.92	6.75	5.96	5.79	5.70	6.59	7.22
2	7.67	7.67	7.91	7.40	6.89	6.72	6.71	6.03	5.66	5.73	6.61	7.23
3	7.81	7.65	7.94	7.36	6.92	7.06	6.72	6.06	5.49	5.72	6.69	7.28
4	7.02	7.65	7.88	7.34	6.90	7.06	6.76	6.08	5.58	5.73	6.68	7.32
5	7.83	7.67	7.95	7.31	6.94	7.13	6.68	6.11	5.60	5.76	6.83	7.40
6	7.71	7.68	7.91	7.46	6.96	7.13	6.50	6.17	5.63	5.81	6.90	7.44
7	7.76	7.68	7.94	7.44	6.99	7.14	6.12	6.17	5.54	5.82	6.99	7.43
8	7.71	7.69	8.01	7.49	6.92	7.04	6.20	6.20	5.54	6.02	7.05	7.36
9	7.76	7.95	8.00	7.50	6.81	7.28	6.68	6.20	5.61	6.42	7.04	7.46
10	7.85	7.67	8.00	7.51	6.59	7.25	6.29	6.21	5.61	6.44	6.98	7.44
11	7.76	7.71	8.01	7.47	6.59	7.22	6.11	6.24	5.75	5.99	7.04	7.49
12	7.76	7.36	7.86	7.51	6.61	7.25	5.93	6.26	5.77	6.41	7.06	7.51
13	7.69	7.71	7.81	7.56	6.63	7.08	6.02	6.29	5.75	6.05	7.29	7.53
14	7.76	7.71	7.81	7.58	6.56	7.19	6.05	6.21	5.82	6.03	7.44	7.55
15	7.81	7.71	7.81	7.51	6.27	7.10	5.99	6.27	5.82	6.05	7.51	7.55
16	7.79	7.68	7.68	7.49	6.32	7.05	6.05	6.17	5.84	6.14	7.25	7.58
17	7.91	7.79	6.24	7.40	6.41	7.05	6.02	6.06	5.88	6.17	7.23	7.61
18	7.19	7.76	6.50	7.43	6.44	7.01	6.05	6.03	5.84	6.21	7.22	7.56
19	7.89	7.85	6.59	7.40	6.44	7.01	6.05	5.93	5.63	6.21	7.17	7.59
20	7.98	7.85	6.75	7.40	6.47	6.98	5.97	5.93	5.91	6.24	7.22	7.58
21	7.97	7.89	6.83	7.46	6.50	6.99	5.48	5.96	5.87	6.21	7.26	7.58
22	7.97	7.86	6.93	7.43	6.48	6.99	5.58	5.82	5.85	6.44	7.34	7.65
23	8.00	7.94	7.02	7.44	6.53	7.02	5.60	5.88	5.79	6.50	7.28	7.29
24	8.06	8.00	7.08	7.35	6.53	7.01	5.64	5.90	5.99	6.45	7.22	7.71
25	7.98	7.98	7.16	7.46	6.47	7.04	5.66	5.73	6.03	6.36	7.34	7.76
26	7.97	7.97	7.13	7.43	6.65	7.10	5.67	5.66	6.06	6.44	7.34	7.74
27	8.00	7.94	6.69	7.50	6.65	7.14	5.76	5.07	6.12	6.50	7.40	7.76
28	8.06	7.98	7.23	7.58	6.61	6.69	5.84	5.63	6.15	6.47	7.36	7.79
29	7.43	7.91	7.26	7.50	---	7.14	5.85	5.54	6.15	6.45	7.40	7.76
30	8.10	7.91	7.25	7.20	---	7.16	5.90	5.52	6.21	6.50	7.46	7.79
31	8.15	---	7.29	6.90	---	7.10	---	5.54	---	6.56	7.31	---
MAX	8.15	8.00	8.01	7.58	6.99	7.28	6.76	6.29	6.21	6.56	7.51	7.79
CAL YR 2000	LOW 8.15											
WTR YR 2001	LOW 8.15											



GROUND-WATER RECORDS
Licking County

400848082251100. LOCAL NUMBER, LI-4

LOCATION.—Latitude 40°08'48", longitude 82°25'11", Hydrologic Unit 05040006, near St. Louisville, Ohio. Owner: City of Newark

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled observation well, diameter 6 in., depth 79 ft, cased.

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

DATUM.—Elevation of land-surface datum is 885 ft above sea level, from topographic map. Measuring point: Floor of instrument shelter 4.00 ft above land-surface datum.

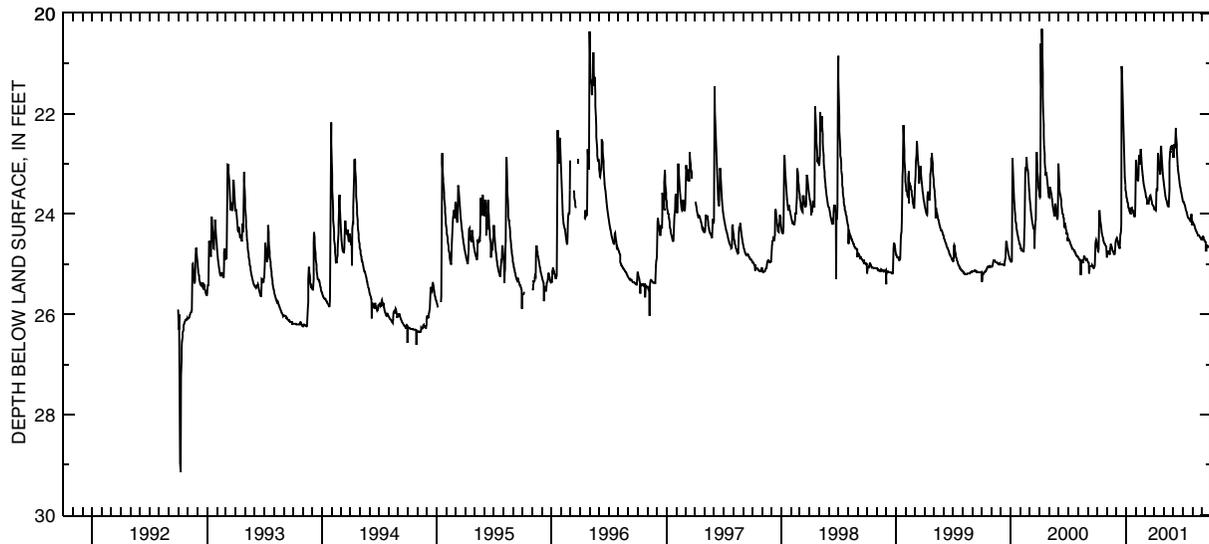
REMARKS.—Station operated by Ohio Department of Natural Resources (ODNR), Division of Water. Some historical records not published by the USGS are available from ODNR.

PERIOD OF RECORD.—August 1992 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 29.15 ft below land-surface datum, Oct. 8 1992; minimum daily low, 20.31 ft below land-surface datum, Apr. 9, 2000.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.60	24.87	24.51	23.57	23.19	23.49	23.90	23.36	22.86	23.75	24.15	24.51
2	24.66	24.75	24.48	23.63	22.92	23.52	23.90	23.42	22.86	23.76	24.18	24.50
3	24.68	24.74	24.47	23.66	22.98	23.55	23.91	23.47	22.83	23.76	24.20	24.45
4	24.74	24.74	24.48	23.70	23.09	23.58	23.91	23.52	22.61	23.76	24.20	24.45
5	24.75	24.75	24.53	23.73	23.18	23.63	23.93	23.57	22.64	23.79	24.21	24.48
6	24.69	24.77	24.54	23.76	23.25	23.66	23.93	23.63	22.68	23.81	24.22	24.50
7	24.20	24.77	24.57	23.79	23.31	23.67	23.87	23.66	22.62	23.82	24.24	24.51
8	23.94	24.78	24.62	23.84	23.33	23.70	23.57	23.69	22.28	23.84	24.26	24.53
9	23.94	24.78	24.63	23.87	23.33	23.73	23.49	23.72	22.34	23.87	24.29	24.54
10	24.03	24.81	24.65	23.88	23.21	23.75	23.52	23.73	22.46	23.90	24.30	24.56
11	24.11	24.80	24.65	23.90	22.91	23.78	23.52	23.76	22.61	23.93	24.32	24.57
12	24.17	24.69	24.69	23.93	22.83	23.78	23.24	23.79	22.72	23.94	24.33	24.57
13	24.21	24.62	24.57	23.96	22.92	23.81	22.79	23.82	22.83	23.97	24.35	24.75
14	24.27	24.60	24.41	23.97	23.00	23.81	22.83	23.84	23.06	23.99	24.36	24.63
15	24.33	24.62	24.39	23.99	23.00	23.73	22.95	23.85	23.04	24.02	24.38	24.63
16	24.38	24.65	24.35	23.99	22.76	23.66	23.00	23.85	23.12	24.05	24.39	24.63
17	24.41	24.68	24.20	23.94	22.70	23.66	23.04	23.81	23.18	24.06	24.41	24.63
18	24.44	24.69	21.05	23.88	22.79	23.64	23.09	23.66	23.22	24.08	24.42	24.65
19	24.47	24.71	21.11	23.87	22.89	23.63	23.15	23.51	23.28	24.09	24.42	24.65
20	24.48	24.74	21.57	23.88	23.00	23.64	23.21	22.98	23.34	24.09	24.42	24.65
21	24.51	24.75	21.96	23.93	23.09	23.67	23.13	22.77	23.39	24.09	24.44	24.65
22	24.54	24.75	22.29	23.93	23.15	23.69	22.68	22.77	23.43	24.09	24.44	24.66
23	24.57	24.78	22.53	23.94	23.22	23.72	22.64	22.71	23.47	24.12	24.45	24.66
24	24.59	24.80	22.76	23.97	23.27	23.76	22.79	22.64	23.49	24.14	24.45	24.66
25	24.59	24.80	22.92	24.00	23.34	23.78	22.88	22.68	23.54	24.15	24.47	24.66
26	24.60	24.80	23.06	24.00	23.39	23.81	22.97	22.68	23.57	24.15	24.47	24.66
27	24.62	24.77	23.16	24.03	23.43	23.82	23.07	22.67	23.60	24.05	24.47	24.66
28	24.63	24.66	23.27	24.05	23.46	23.82	23.18	22.62	23.63	24.00	24.50	24.66
29	24.65	24.57	23.34	24.05	---	23.84	23.24	22.64	23.67	24.05	24.50	24.66
30	24.65	24.53	23.43	24.03	---	23.85	23.31	22.72	23.70	24.22	24.50	24.66
31	24.68	---	23.51	23.81	---	23.87	---	22.79	---	24.15	24.51	---
MAX	24.75	24.87	24.69	24.05	23.46	23.87	23.93	23.85	23.70	24.22	24.51	24.75
CAL YR 2000	LOW 25.22											
WTR YR 2001	LOW 24.87											



GROUND-WATER RECORDS

Logan County

401510083444400. LOCAL NUMBER, LO-3

LOCATION.—Latitude 40°15'10", longitude 83°44'44", Hydrologic Unit 05080001, at West Liberty, Ohio. Owner: City of West Liberty
 AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled observation well, diameter 6 in., depth 71 ft, cased.

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 3.5 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.

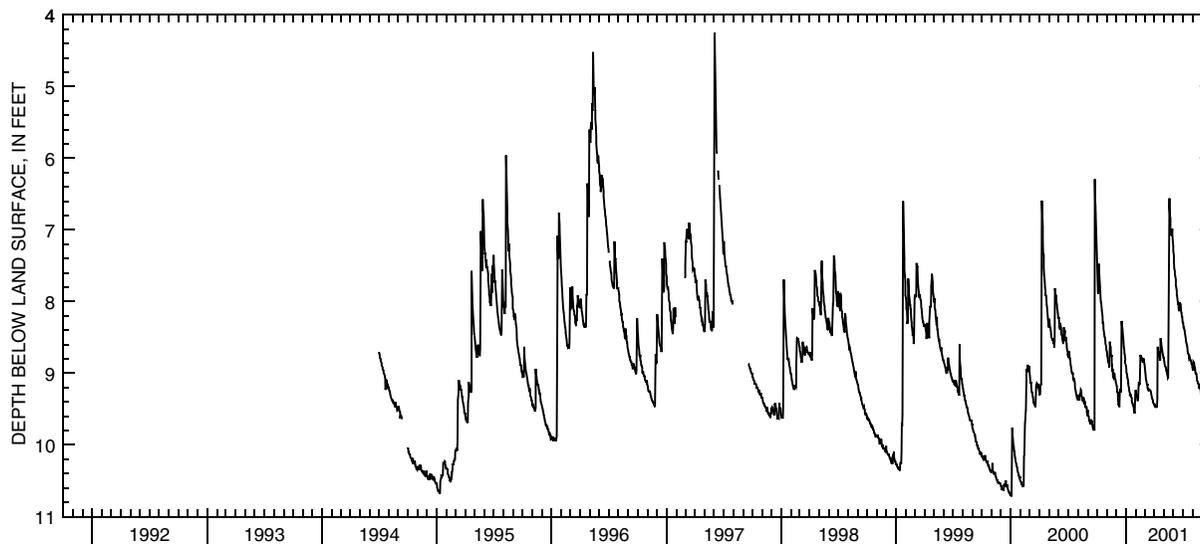
PERIOD OF RECORD.—June 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 10.71 ft below land-surface datum, Jan. 2 and 3, 2000; minimum daily low, 4.25 ft below land-surface, June 3, 1997.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.58	8.70	9.14	8.90	9.23	8.88	9.44	8.78	7.29	8.30	8.92	9.34
2	7.68	8.74	9.16	8.96	9.26	8.92	9.44	8.81	7.36	8.30	8.96	9.34
3	7.79	8.76	9.18	8.99	9.29	8.97	9.45	8.84	7.44	8.36	8.94	9.36
4	7.88	8.79	9.24	9.01	9.30	9.01	9.47	8.87	7.53	8.36	8.84	9.41
5	7.89	8.82	9.27	9.05	9.31	9.06	9.47	8.90	7.58	8.37	8.85	9.41
6	7.47	8.84	9.26	9.06	9.34	9.09	9.45	8.91	7.62	8.40	8.88	9.42
7	7.53	8.87	9.38	9.09	9.38	9.11	9.47	8.92	7.64	8.41	8.91	9.44
8	7.62	8.90	9.44	9.14	9.38	9.15	9.47	8.92	7.69	8.45	8.92	9.47
9	7.69	8.90	9.44	9.16	9.34	9.16	9.47	8.96	7.77	8.48	8.96	9.49
10	7.76	8.67	9.42	9.20	9.20	9.16	9.45	8.96	7.79	8.51	8.99	9.24
11	7.83	8.56	9.47	9.23	9.12	9.20	9.36	8.99	7.85	8.55	9.00	9.16
12	7.95	8.61	9.31	9.26	9.14	9.23	8.63	9.01	7.91	8.58	9.01	9.21
13	8.01	8.64	9.21	9.27	9.15	9.24	8.69	9.03	7.92	8.59	9.00	9.23
14	8.01	8.69	9.24	9.30	9.14	9.24	8.70	9.06	8.00	8.61	9.05	9.29
15	8.06	8.76	9.26	9.29	8.91	9.23	8.70	9.05	8.03	8.63	9.08	9.29
16	8.12	8.76	9.26	9.30	8.74	9.24	8.72	8.70	8.03	8.69	9.11	9.33
17	8.16	8.91	8.49	9.31	8.76	9.23	8.74	8.12	8.04	8.72	9.12	9.36
18	8.19	8.90	8.27	9.33	8.78	9.24	8.76	7.13	8.10	8.73	9.15	9.38
19	8.31	8.97	8.33	9.34	8.78	9.24	8.81	6.56	8.13	8.74	9.14	9.36
20	8.28	8.94	8.36	9.38	8.78	9.24	8.81	6.69	8.10	8.74	9.15	9.38
21	8.33	9.05	8.39	9.41	8.79	9.26	8.51	6.81	8.12	8.79	9.20	9.41
22	8.37	9.06	8.46	9.42	8.82	9.29	8.54	6.83	8.01	8.78	9.20	9.44
23	8.43	9.00	8.49	9.44	8.84	9.29	8.56	7.01	8.03	8.81	9.18	9.44
24	8.46	9.00	8.56	9.45	8.84	9.33	8.61	7.04	8.04	8.82	9.18	9.47
25	8.48	9.01	8.63	9.47	8.82	9.33	8.64	7.06	8.10	8.82	9.21	9.48
26	8.51	9.01	8.66	9.47	8.79	9.36	8.67	7.08	8.15	8.82	9.24	9.49
27	8.54	9.06	8.72	9.53	8.82	9.38	8.70	7.01	8.16	8.84	9.26	9.54
28	8.58	9.08	8.74	9.54	8.85	9.39	8.73	6.98	8.21	8.87	9.27	9.54
29	8.61	9.09	8.78	9.56	---	9.41	8.74	7.06	8.21	8.87	9.30	9.57
30	8.64	9.12	8.82	9.45	---	9.42	8.78	7.17	8.27	8.88	9.30	9.59
31	8.67	---	8.87	9.27	---	9.42	---	7.23	---	8.91	9.31	---
MAX	8.67	9.12	9.47	9.56	9.38	9.42	9.47	9.06	8.27	8.91	9.31	9.59

CAL YR 2000 LOW 10.71
 WTR YR 2001 LOW 9.59



GROUND-WATER RECORDS

Madison County

395301083272200. LOCAL NUMBER, M-2

LOCATION.—Latitude 39°53'01", longitude 83°27'22", Hydrologic Unit 05060002, U.S. Highway 42 and Westmore Drive, London, Ohio. Owner: State of Ohio

AQUIFER.—Limestone of Silurian Age.

WELL CHARACTERISTICS.—Drilled test artesian well, diameter 12 in., depth 350 ft, cased.

INSTRUMENTATION.—Digital recorder, 60-minute punch.

DATUM.—Elevation of land-surface datum is 1,035 ft above sea level, from topographic map. Measuring point: Floor of instrument shelter 1.00 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.

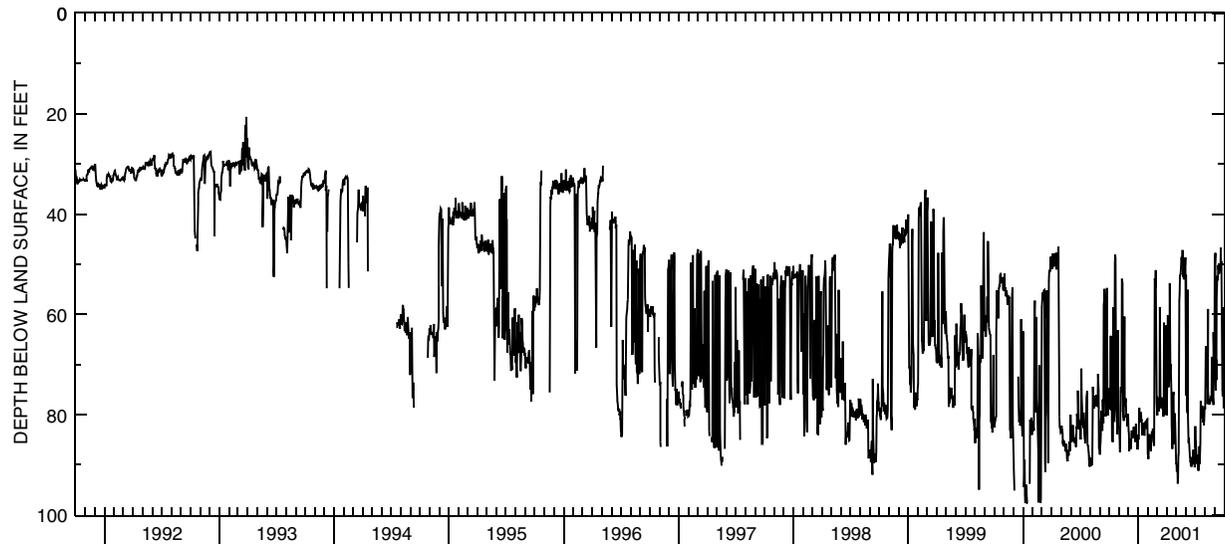
PERIOD OF RECORD.—August 1971 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 97.58 ft below land-surface datum, Jan. 8, 14, and 15, Feb. 26, 2000; minimum daily low, 0.55 ft above land-surface, Apr. 13, 1980.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	74.71	82.21	81.19	84.03	87.67	77.56	75.01	88.14	70.97	90.29	78.31	57.00
2	77.01	83.24	83.17	84.95	88.44	78.74	78.05	89.69	76.18	82.30	78.87	50.41
3	77.64	85.41	83.76	84.05	88.85	80.13	80.16	89.65	52.17	86.46	72.39	47.75
4	78.93	87.43	87.22	78.78	87.30	77.56	70.52	91.30	73.03	85.20	66.29	73.30
5	77.39	84.67	85.85	78.78	84.57	76.74	60.12	90.69	73.46	87.25	74.47	75.18
6	64.21	76.02	84.82	81.19	83.86	76.75	69.66	89.96	78.94	89.22	73.40	69.03
7	79.11	74.44	85.16	81.46	84.79	77.42	73.23	93.73	79.64	89.71	70.02	73.06
8	74.10	75.28	84.82	79.54	85.30	79.39	73.49	92.71	55.11	88.21	75.41	56.89
9	75.49	75.18	86.82	79.56	85.75	78.16	74.48	88.15	79.93	89.30	77.87	54.80
10	84.63	57.35	85.71	79.63	86.29	76.15	71.84	87.66	85.65	87.95	75.57	52.52
11	85.29	52.92	83.86	81.11	87.22	58.63	65.35	64.58	84.59	91.10	58.92	52.24
12	85.29	53.73	83.14	81.09	85.54	74.32	53.78	57.24	84.70	88.66	75.43	53.17
13	85.26	73.48	84.03	83.14	84.13	78.46	62.46	55.81	86.77	91.10	76.84	50.19
14	58.56	79.19	84.06	84.02	83.27	78.51	71.11	52.33	88.20	88.44	77.94	51.14
15	65.63	80.38	83.84	83.72	84.42	76.71	69.92	52.07	88.20	86.30	77.99	50.12
16	81.41	81.21	84.57	81.65	83.95	76.55	74.96	51.99	89.32	89.75	77.12	51.90
17	80.34	80.07	84.15	81.56	82.76	76.88	76.89	50.66	89.22	87.80	77.90	49.89
18	53.92	60.46	82.42	82.97	83.09	77.21	82.25	49.57	90.13	85.52	77.60	50.57
19	49.63	73.83	83.92	82.50	85.19	77.86	86.14	48.58	88.46	77.27	77.17	51.35
20	48.05	78.36	83.48	83.83	85.50	78.20	86.80	49.81	90.36	78.09	76.19	51.10
21	48.79	77.31	83.69	84.15	86.14	76.71	80.64	48.18	89.69	78.81	76.76	46.74
22	57.21	76.99	83.94	81.74	59.00	80.37	76.20	47.20	89.92	80.72	76.44	50.20
23	78.60	76.70	85.41	81.81	52.79	79.37	75.94	48.07	89.51	79.90	68.42	49.41
24	80.17	80.55	83.86	81.37	53.57	66.40	75.42	52.56	89.07	78.22	74.80	65.10
25	81.28	79.82	81.83	81.36	54.59	61.64	83.99	50.84	87.02	79.48	77.21	71.54
26	81.89	80.29	85.09	81.96	51.17	75.22	85.81	53.01	88.30	80.18	76.77	75.18
27	83.90	82.05	84.08	81.36	63.81	77.56	79.65	50.29	88.59	81.53	76.49	76.30
28	63.12	82.29	84.32	82.81	73.43	79.52	80.05	48.99	87.89	80.86	78.06	58.55
29	78.03	79.81	84.79	81.02	---	79.81	81.52	49.85	89.35	82.08	63.53	71.32
30	82.20	80.70	86.89	80.92	---	80.00	85.67	50.12	90.49	81.01	67.00	78.74
31	82.48	---	85.53	81.16	---	62.20	---	48.65	---	78.90	73.00	---
MAX	85.29	87.43	87.22	84.95	88.85	80.37	86.80	93.73	90.49	91.10	78.87	78.74

CAL YR 2000 LOW 97.58
WTR YR 2001 LOW 93.73



GROUND-WATER RECORDS
Madison County

395352083292100. LOCAL NUMBER, M-5

LOCATION.—Latitude 39°53'52", longitude 83°29'21", Hydrologic Unit 05060002, at London Correctional Institute near London, Ohio. Owner: State of Ohio.

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled unused water table well, diameter 8 in., depth 55 ft, cased.

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. Some historical records not published by the USGS are available from ODNR.

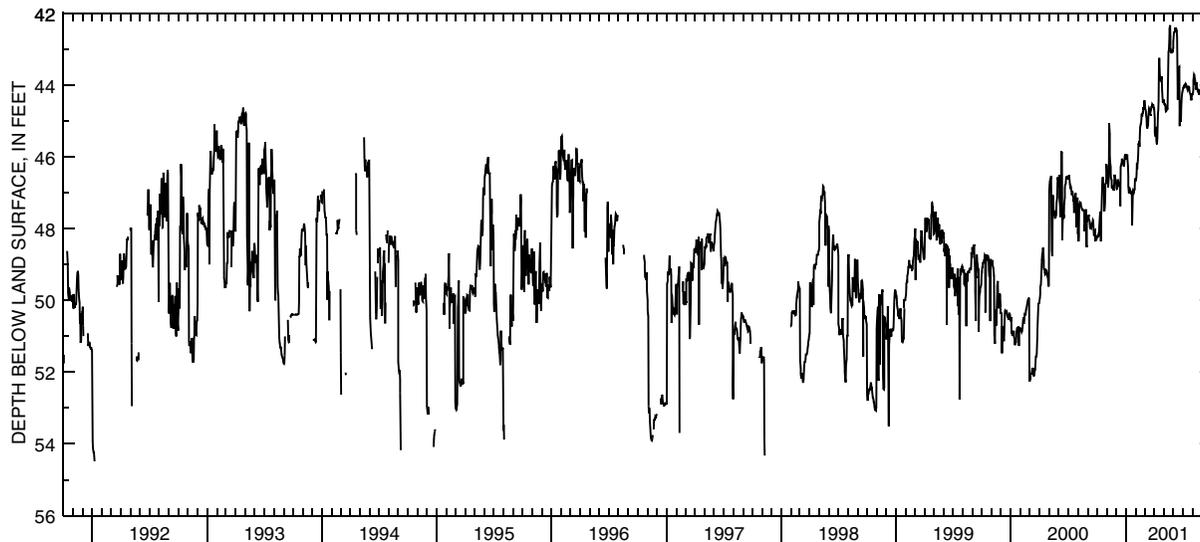
PERIOD OF RECORD.—September 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 54.65 ft below land-surface datum, Jan. 17, 1992; minimum daily low, 40.47 ft below land-surface datum, Apr. 11, 1989.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48.23	46.26	46.74	46.05	46.67	44.43	44.64	44.39	42.78	44.13	44.25	44.25
2	48.18	46.53	46.86	46.07	46.62	44.52	44.93	44.43	42.54	44.07	44.21	44.21
3	48.21	46.68	46.89	46.05	46.59	44.64	45.30	44.52	42.50	44.07	44.09	44.10
4	48.24	46.76	46.88	45.95	46.47	44.67	45.41	44.52	42.51	44.01	43.86	44.03
5	48.21	46.82	46.77	45.93	46.17	44.72	45.41	44.55	42.48	44.00	43.70	45.95
6	48.14	46.82	46.76	46.01	46.34	44.84	45.15	44.55	42.38	44.06	43.71	45.90
7	48.15	46.57	46.62	46.25	46.16	44.88	45.33	44.69	42.42	44.04	43.73	44.67
8	47.94	46.53	46.71	46.53	46.10	45.14	45.53	44.73	42.42	43.95	43.83	44.43
9	47.79	45.06	46.71	46.80	45.92	45.18	45.62	44.72	42.39	44.00	43.89	44.91
10	47.63	45.36	46.80	47.01	45.62	45.20	45.65	44.69	42.42	43.97	43.98	44.91
11	47.58	45.96	46.80	46.83	45.65	45.14	45.48	44.64	42.48	43.98	44.00	43.74
12	47.52	46.13	46.82	46.86	45.57	45.12	45.03	44.66	42.53	44.01	43.98	43.95
13	48.36	46.28	46.88	46.89	45.71	44.87	44.79	44.67	42.65	44.04	44.12	44.16
14	47.60	46.47	47.37	46.89	45.48	44.85	44.69	44.34	44.04	44.06	43.92	44.25
15	47.49	46.61	46.25	46.92	45.18	44.64	44.42	43.85	44.40	44.09	44.01	44.28
16	47.18	46.64	46.23	47.01	45.12	44.66	43.50	43.05	43.70	44.12	44.09	44.25
17	46.85	46.83	46.19	47.03	45.09	44.78	43.23	43.04	43.49	44.10	44.16	44.24
18	46.68	46.86	46.20	47.01	45.06	44.82	43.52	42.87	43.50	44.04	44.19	44.21
19	46.56	46.79	46.05	46.98	44.94	44.82	43.73	42.60	43.49	44.04	44.10	44.19
20	46.89	46.83	46.07	47.07	44.79	44.75	43.83	42.42	43.47	44.07	44.18	44.18
21	46.76	46.89	46.10	47.91	44.85	44.69	43.86	42.32	45.14	44.06	44.24	43.92
22	46.82	46.89	46.17	47.09	44.85	44.61	43.88	42.63	44.46	44.16	44.24	43.92
23	47.15	46.92	46.17	47.06	44.75	44.61	43.82	42.93	44.75	44.22	44.18	43.94
24	47.51	46.92	46.20	46.94	44.76	44.61	43.74	43.04	44.91	44.24	44.13	44.18
25	47.49	46.68	46.26	46.98	44.61	44.61	43.80	43.10	45.02	44.24	44.15	45.00
26	47.30	46.49	46.23	46.98	44.67	44.52	44.15	43.10	44.61	44.34	44.12	45.36
27	46.91	46.55	46.08	46.89	44.63	44.55	44.31	43.01	44.40	44.39	44.10	45.63
28	46.74	46.62	45.98	46.91	44.43	44.57	44.45	43.04	44.28	44.42	44.15	45.75
29	46.71	46.62	45.95	46.88	---	44.52	44.49	43.08	44.21	44.37	44.18	45.84
30	46.59	46.65	45.92	46.59	---	44.64	44.46	42.99	44.16	44.25	45.29	45.89
31	46.20	---	46.02	46.62	---	44.64	---	42.95	---	44.27	44.43	---
MAX	48.36	46.92	47.37	47.91	46.67	45.20	45.65	44.73	45.14	44.42	45.29	45.95

CAL YR 2000 LOW 52.26
WTR YR 2001 LOW 48.36



GROUND-WATER RECORDS
Madison County

395357083304400. LOCAL NUMBER, M-4

LOCATION.—Latitude 39°53'57", longitude 83°30'44", Hydrologic Unit 05060002, 3.5 mi northwest of London, Ohio. Owner: State of Ohio.

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled unused water table well, diameter 10 in., depth 49 ft, cased.

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

DATUM.—Elevation of land-surface datum is 1,112 ft above sea level, from topographic map. Measuring point: Floor of instrument shelter 4.00 ft above land-surface datum.

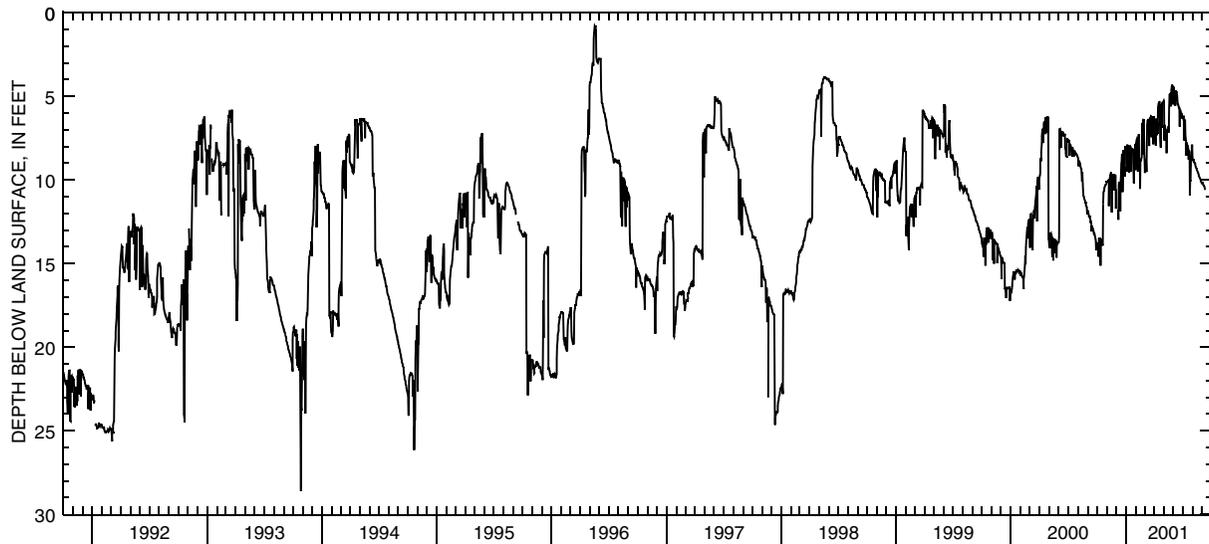
REMARKS.—Station operated by Ohio Department of Natural Resources (ODNR), Division of Water. Some historical records not published by the USGS are available from ODNR.

PERIOD OF RECORD.—June 1983 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 28.60 ft below land-surface datum, Oct. 26, 1993; minimum daily low 0.50 ft above land-surface datum, May 13, 14, and 16, 1989.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.80	10.13	10.56	8.06	9.41	8.82	6.24	5.25	4.43	6.24	8.64	10.16
2	13.85	10.08	---	8.10	7.81	9.59	6.68	5.33	4.48	6.30	8.82	10.16
3	13.92	10.09	---	8.01	7.74	8.81	7.16	7.65	4.62	6.26	8.81	10.20
4	13.98	10.06	11.70	9.49	7.62	8.84	7.23	6.71	4.68	6.24	8.84	10.31
5	13.98	10.08	---	7.89	7.56	8.90	7.94	6.87	4.69	7.64	8.91	10.32
6	14.58	10.05	---	7.94	7.62	8.97	6.44	6.93	4.71	6.45	8.94	10.34
7	13.50	10.09	11.81	7.95	7.67	9.53	6.39	7.01	5.57	6.41	8.97	10.37
8	13.51	11.57	12.38	8.03	9.51	8.52	6.38	7.04	4.64	6.45	9.01	10.46
9	13.51	10.08	10.34	8.09	7.50	6.68	7.34	7.05	4.67	7.36	9.05	10.50
10	13.51	10.02	10.14	8.04	7.38	6.54	7.05	8.40	4.71	7.53	9.16	10.58
11	13.60	9.91	10.56	9.57	7.26	6.44	6.57	7.06	4.74	7.67	9.21	---
12	15.12	9.72	10.26	8.06	8.70	6.41	7.23	7.08	4.86	8.55	9.27	---
13	13.56	9.60	10.14	8.06	8.97	6.36	5.69	7.11	4.92	7.77	9.31	---
14	13.58	9.59	11.88	8.00	8.99	6.45	5.55	7.10	5.51	7.83	9.34	---
15	13.64	9.59	10.08	7.98	10.53	6.38	5.39	7.04	5.40	7.94	9.38	---
16	13.68	11.94	9.72	8.07	8.88	7.95	5.36	6.78	5.51	8.00	9.48	---
17	13.79	11.12	9.03	8.07	8.85	6.45	5.33	7.16	5.57	8.00	9.53	---
18	13.89	9.78	8.91	9.51	8.81	6.44	5.33	5.66	5.63	8.09	9.54	---
19	13.92	9.66	8.48	8.10	8.66	6.36	6.20	5.09	5.69	8.79	9.59	---
20	11.45	9.74	8.45	8.16	8.63	6.24	7.62	4.89	5.70	8.22	9.71	---
21	10.88	9.78	10.73	8.24	7.04	6.17	7.98	4.86	6.81	8.25	9.76	---
22	10.74	9.72	9.90	8.24	6.60	7.44	8.07	4.91	5.75	8.33	9.81	---
23	10.64	9.74	8.41	8.19	8.46	6.21	5.76	4.91	5.84	10.92	9.86	---
24	10.50	10.61	8.22	8.19	6.59	6.24	5.46	5.60	5.91	10.02	9.90	---
25	10.41	9.78	8.27	10.17	6.41	6.24	5.43	4.62	5.96	10.08	9.93	---
26	10.37	9.66	9.30	8.33	6.45	6.24	6.87	4.58	6.02	9.16	9.98	---
27	10.29	9.75	9.21	8.33	6.36	6.26	5.33	4.31	6.08	8.78	10.04	---
28	10.29	9.83	9.81	8.34	8.46	6.24	5.40	4.35	6.32	8.69	10.11	---
29	10.28	9.81	8.07	8.28	---	7.86	5.39	4.43	6.15	8.64	10.16	---
30	10.20	11.72	7.98	8.04	---	6.63	5.28	4.47	6.18	7.89	10.19	---
31	10.14	---	8.06	7.86	---	6.18	---	5.49	---	8.51	10.17	---
MAX	15.12	11.94	12.38	10.17	10.53	9.59	8.07	8.40	6.81	10.92	10.19	10.58
CAL YR 2000	LOW 16.65											
WTR YR 2001	LOW 15.12											



GROUND-WATER RECORDS
Madison County

275

395740083255700. LOCAL NUMBER, M-3

LOCATION.—Latitude 39°57'40", longitude 83°25'57", Hydrologic Unit 05060002, 5.2 mi north of London, Ohio. Owner: State of Ohio.

AQUIFER.—Limestone of Silurian Age.

WELL CHARACTERISTICS.—Drilled test artesian well, diameter 12 in., depth 290 ft, cased to 145 ft.

INSTRUMENTATION.—Periodic measurement with chalked tape by Ohio Department of Natural Resources personnel.

DATUM.—Elevation of land-surface datum is 1,020 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.—November 1974 to October 1982 continuous, periodic thereafter.

EXTREMES FOR PERIOD OF RECORD.—Maximum measured low, 12.01 ft below land-surface datum, Dec. 18, 1991; minimum daily low, 3.93 ft below land-surface datum, Feb. 25 and Mar. 19, 1975.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION,
WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL
Oct. 26	7.40
Apr. 25	6.10

GROUND-WATER RECORDS
Mahoning County

410042080453800. LOCAL NUMBER, MA-1

LOCATION.—Latitude 41°00'42", longitude 80°45'38", Hydrologic Unit, 05030103, in county fairgrounds at south edge of Canfield, Ohio. Owner: Canfield Water Department.

AQUIFER.—Sandstone of Pennsylvanian Age.

WELL CHARACTERISTICS.—Drilled unused artesian well, diameter 8 in., depth 170 ft, cased to 99.5 ft.

INSTRUMENTATION.—Periodic measurement with chalked tape by Ohio Department of Natural Resources personnel.

DATUM.—Elevation of land-surface datum is 1,160 ft above sea level, from topographic map. Measuring point: Floor of instrument shelter 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. Influenced by seasonal water demand at county fairgrounds.

PERIOD OF RECORD.—May 1946 to September 1982 continuous, periodic thereafter.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 110.75 ft below land-surface datum, Sept. 18, 1946; minimum measured low, 29.42 ft below land-surface datum, Apr. 1, 1993.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION,
WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL
Nov. 1	35.57
Apr. 20	33.92

GROUND-WATER RECORDS
Marion County

403413083170500. LOCAL NUMBER, MN-4

LOCATION.—Latitude 40°34'13", longitude 83°17'05", Hydrologic Unit 05060001, 1.9 mi southeast of New Bloomington, Ohio. Owner: State of Ohio.

AQUIFER.—Limestone of Silurian Age.

WELL CHARACTERISTICS.—Drilled test artesian well, diameter 12 in., depth drilled 290 ft, present depth 286 ft, cased to 33 ft.

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

DATUM.—Elevation of land-surface datum is 915.96 ft above sea level. Measuring point: Floor of 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. Influenced by seasonal water demand for nearby wildlife refuge.

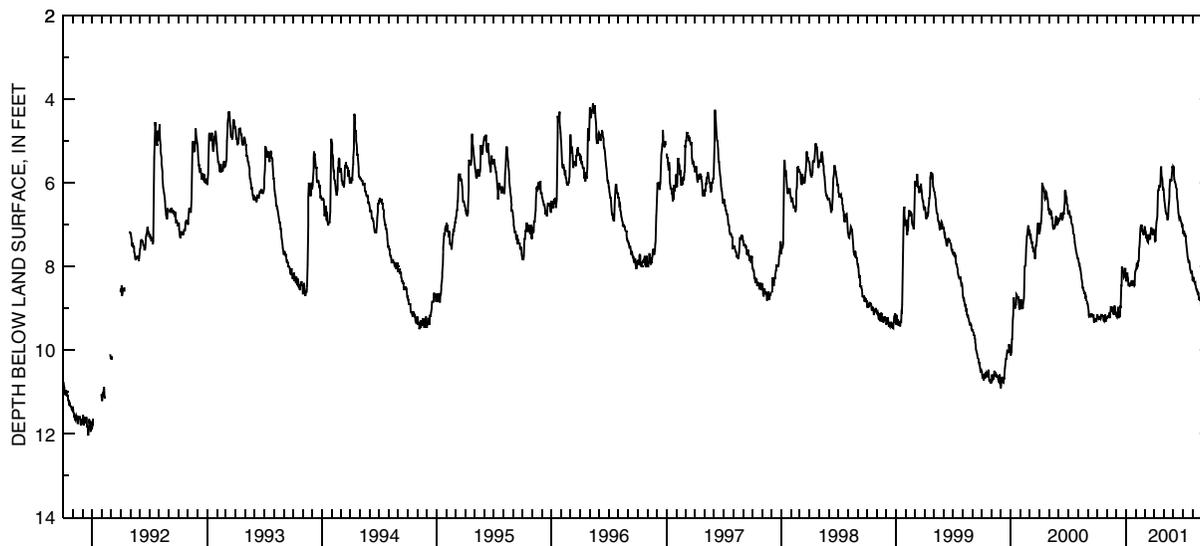
PERIOD OF RECORD.—January 1973 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 32.57 ft below land-surface datum, Sept. 14, 1983; minimum daily low, 2.94 ft below land-surface datum, Jan. 1, 1991.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.20	9.23	9.15	8.27	8.10	7.06	7.20	6.18	5.61	7.11	8.33	9.03
2	9.14	9.20	9.20	8.36	8.07	7.04	7.25	6.32	5.63	7.22	8.34	9.06
3	9.18	9.20	9.21	8.33	8.06	7.13	7.36	6.41	5.81	7.20	8.28	9.05
4	9.23	9.20	9.15	8.21	7.97	7.16	7.40	6.47	5.90	7.16	8.25	9.18
5	9.23	9.21	9.11	8.15	7.91	7.19	7.38	6.54	5.99	7.16	8.33	9.26
6	9.26	9.20	9.08	8.19	7.97	7.31	7.25	6.59	5.97	7.28	8.36	9.26
7	9.27	9.20	8.97	8.28	8.00	7.31	7.08	6.68	6.00	7.22	8.36	9.23
8	9.26	9.23	9.20	8.39	7.98	7.29	6.96	6.71	6.05	7.22	8.40	9.26
9	9.26	9.11	9.23	8.45	7.88	7.36	6.90	6.74	6.08	7.28	8.39	9.30
10	9.18	9.23	9.16	8.46	7.88	7.38	6.87	6.74	6.11	7.28	8.43	9.33
11	9.24	9.23	9.16	8.46	7.85	7.41	6.80	6.74	6.15	7.40	8.48	9.36
12	9.26	9.15	9.20	8.45	7.56	7.43	6.50	6.84	6.24	7.47	8.49	9.30
13	9.23	9.01	9.21	8.48	7.53	7.23	6.21	6.89	6.36	7.55	8.54	9.27
14	9.16	8.99	8.94	8.45	7.41	7.35	6.17	6.86	6.47	7.61	8.58	9.33
15	9.16	9.00	8.99	8.39	7.22	7.31	6.17	6.81	6.50	7.69	8.59	9.31
16	9.16	8.96	8.72	8.46	7.10	7.26	6.12	6.63	6.61	7.77	8.58	9.29
17	9.18	9.03	8.46	8.45	7.04	7.34	6.05	6.51	6.71	7.81	8.67	9.27
18	9.18	9.08	8.46	8.39	7.05	7.35	6.08	6.44	6.76	7.85	8.69	9.26
19	9.20	9.00	8.00	8.33	7.02	7.34	6.11	6.32	6.80	7.91	8.61	9.21
20	9.20	9.01	8.06	8.36	7.02	7.25	6.08	6.17	6.86	7.89	8.72	9.21
21	9.20	9.11	8.03	8.45	7.13	7.14	5.94	5.93	6.84	7.88	8.79	9.26
22	9.29	9.12	8.13	8.45	7.13	7.08	5.67	5.93	6.80	7.92	8.79	9.26
23	9.31	9.14	8.13	8.41	7.19	7.06	5.61	5.96	6.84	8.00	8.74	9.29
24	9.26	9.14	8.19	8.33	7.20	7.14	5.81	5.93	6.89	8.06	8.81	9.24
25	9.20	9.09	8.25	8.45	7.13	7.16	5.87	5.96	6.92	8.09	8.81	9.26
26	9.18	8.94	8.24	8.43	7.25	7.20	5.88	5.94	6.94	8.13	8.76	9.24
27	9.16	9.03	8.12	8.41	7.20	7.25	5.94	5.77	6.98	8.17	8.81	9.30
28	9.30	9.09	8.07	8.45	7.17	7.23	6.11	5.66	7.01	8.15	8.87	9.38
29	9.30	9.11	8.06	8.43	---	7.16	6.15	5.60	6.99	8.10	8.92	9.42
30	9.26	9.12	8.04	8.17	---	7.11	6.14	5.67	7.01	8.16	8.91	9.42
31	9.24	---	8.17	8.12	---	7.11	---	5.69	---	8.24	8.92	---
MAX	9.31	9.23	9.23	8.48	8.10	7.43	7.40	6.89	7.01	8.24	8.92	9.42

CAL YR 2000 LOW 10.11
WTR YR 2001 LOW 9.42



GROUND-WATER RECORDS
Marion County

403443083230400. LOCAL NUMBER, MN-1

LOCATION.—Latitude 40°34'43", longitude 83°23'04", Hydrologic Unit 05060001, State Route 37 at Baptist Church in LaRue, Ohio. Owner: Village of LaRue.

AQUIFER.—Limestone of Silurian Age.

WELL CHARACTERISTICS.—Drilled unused artesian well, diameter 4 in., depth 100 ft, cased.

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

DATUM.—Elevation of land-surface datum is 930 ft above sea level, from topographic map. Measuring point: Floor of instrument shelter 3.30 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.

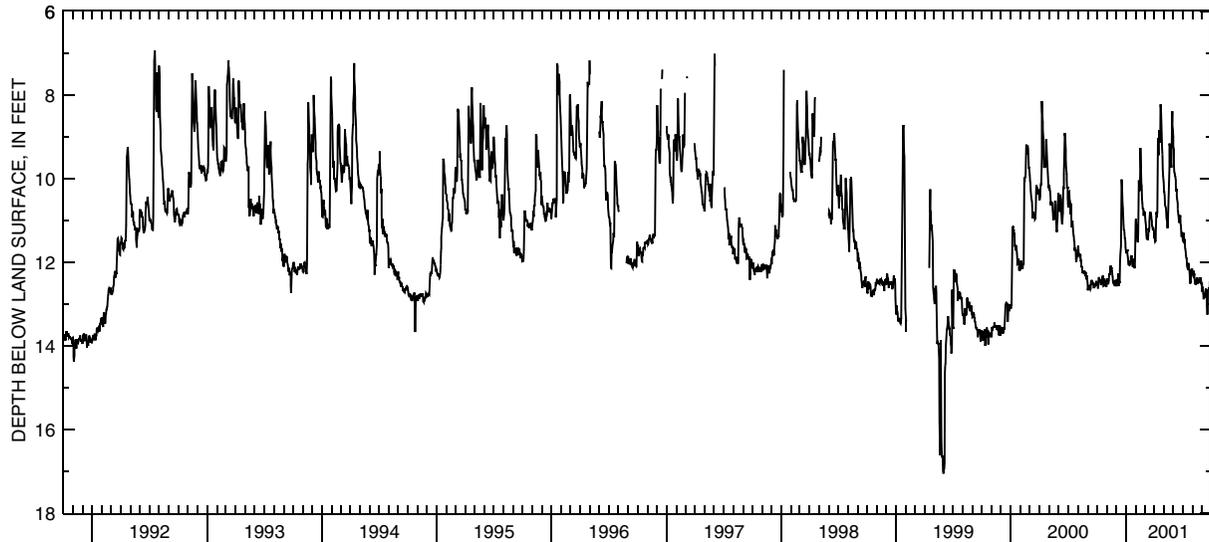
PERIOD OF RECORD.—March 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 17.04 ft below land-surface datum, May 31 and June 1, 1999; minimum daily low, 5.67 ft below land-surface datum, Jan. 23, 1959.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.50	12.51	12.56	11.75	11.01	10.83	11.42	10.09	9.23	11.49	12.27	12.71
2	12.53	12.44	12.56	11.79	10.97	10.79	11.34	10.32	9.30	11.51	12.32	12.59
3	12.56	12.41	12.56	11.76	11.09	10.94	11.45	10.32	9.67	11.48	12.29	12.67
4	12.63	12.41	12.47	11.73	11.17	11.03	11.51	10.40	9.84	11.30	12.20	12.75
5	12.56	12.42	12.48	11.73	11.30	11.09	11.48	10.61	9.89	11.49	12.32	12.89
6	12.39	12.53	12.53	11.79	11.39	11.27	11.34	10.67	9.95	11.51	12.27	12.83
7	12.35	12.44	12.47	11.90	11.51	11.37	11.01	10.68	9.93	11.45	12.35	12.75
8	12.42	12.41	12.27	11.99	11.51	11.36	10.80	10.70	10.04	11.66	12.47	12.80
9	12.48	12.26	12.54	12.05	11.33	11.45	10.86	10.85	10.17	11.69	12.45	12.85
10	12.44	12.30	12.57	12.06	10.94	11.45	10.88	10.98	10.31	11.76	12.47	12.75
11	12.47	12.14	12.45	11.99	10.04	11.43	10.79	10.97	10.25	11.85	12.54	12.67
12	12.41	12.14	12.50	12.02	10.19	11.43	9.69	11.12	10.42	11.90	12.50	12.63
13	12.54	12.08	12.00	12.08	10.28	11.28	9.03	11.19	10.49	11.91	12.47	12.71
14	12.48	12.08	11.82	12.08	10.28	11.19	9.36	11.09	10.59	12.08	12.39	12.66
15	12.50	12.17	11.73	11.96	10.01	11.27	9.44	10.88	10.73	12.11	12.50	12.96
16	12.42	12.12	11.63	11.94	9.27	11.17	9.03	10.58	10.80	12.15	12.36	13.23
17	12.36	12.17	11.24	11.87	9.62	11.03	8.84	10.26	10.86	12.18	12.50	13.23
18	12.38	12.20	10.02	11.85	9.90	10.80	8.97	10.04	10.95	12.02	12.51	13.25
19	12.32	12.30	10.13	11.85	10.13	10.86	9.12	9.74	11.04	12.05	12.47	12.84
20	12.38	12.35	10.41	11.88	10.17	10.79	9.14	9.16	11.06	12.17	12.44	12.66
21	12.47	12.48	10.61	11.96	10.50	10.86	8.22	9.26	10.92	12.17	12.50	12.63
22	12.57	12.50	10.70	12.11	10.58	10.89	8.30	9.30	10.92	12.24	12.44	12.62
23	12.56	12.51	10.88	11.91	10.71	10.92	8.48	9.59	10.88	12.38	12.50	12.66
24	12.50	12.44	11.10	11.97	10.74	11.03	8.87	9.65	11.10	12.51	12.38	12.59
25	12.38	12.48	11.24	12.02	10.71	11.12	9.09	9.74	11.12	12.44	12.38	12.59
26	12.47	12.51	11.22	12.08	10.89	11.13	9.29	9.62	11.30	12.45	12.41	12.45
27	12.45	12.50	11.31	12.05	10.79	11.22	9.42	9.00	11.39	12.20	12.36	12.54
28	12.51	12.54	11.43	12.11	10.80	11.24	9.78	8.39	11.30	12.20	12.51	12.53
29	12.56	12.42	11.43	12.15	---	11.16	9.93	8.73	11.30	12.24	12.50	12.60
30	12.56	12.48	11.55	11.96	---	11.24	10.01	8.85	11.40	12.15	12.56	12.69
31	12.59	---	11.63	11.52	---	11.24	---	9.01	---	12.24	12.50	---
MAX	12.63	12.54	12.57	12.15	11.51	11.45	11.51	11.19	11.40	12.51	12.56	13.25

CAL YR 2000 LOW 13.11
WTR YR 2001 LOW 13.25



GROUND-WATER RECORDS
Marion County

403601083110400. LOCAL NUMBER, MN-2

LOCATION.—Latitude 40°36'01", longitude 83°11'04", Hydrologic Unit 05060001, water treatment plant 2 mi west of Marion, Ohio. Owner: Marion Water Department.

AQUIFER.—Limestone of Silurian Age.

WELL CHARACTERISTICS.—Drilled unused artesian well, diameter 12 in., depth 67 ft, cased.

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

DATUM.—Elevation of land-surface datum is 910 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. Some historical records not published by the USGS are available from ODNR.

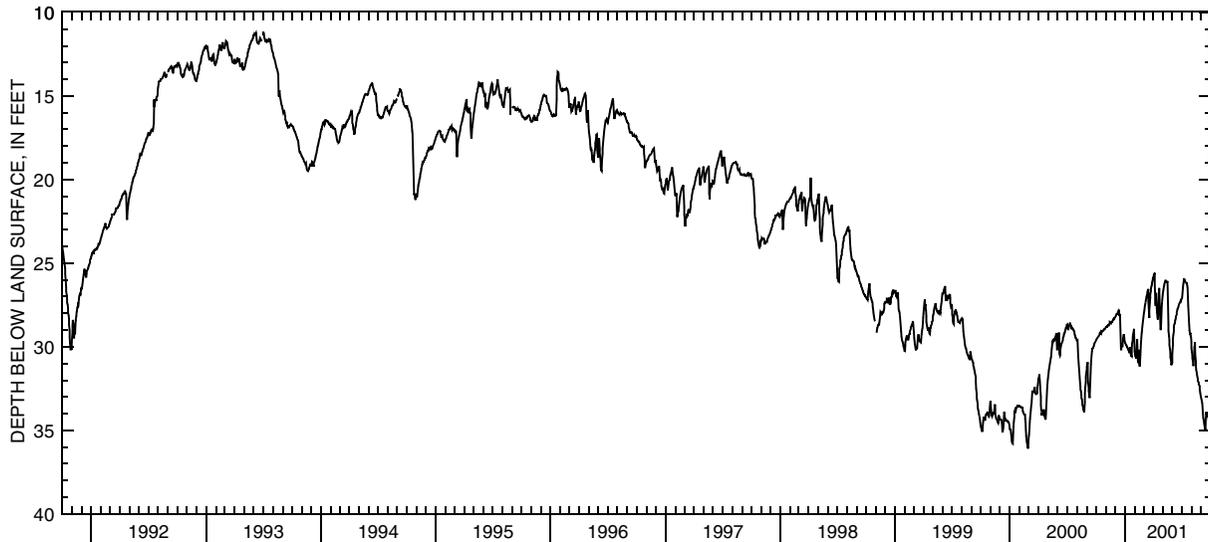
PERIOD OF RECORD.—May 1950 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 49.50 ft below land-surface datum, Feb. 11, 1956; minimum daily low, 7.00 ft below land-surface datum, July 12, 1987.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29.60	28.85	28.20	29.73	30.26	28.15	25.82	26.88	30.45	27.08	30.09	33.10
2	29.55	28.83	28.17	29.79	30.43	27.99	25.76	26.73	29.91	27.03	30.36	33.18
3	29.52	28.80	28.14	29.82	30.58	27.87	25.68	26.61	29.55	26.76	30.57	33.27
4	29.49	28.80	28.11	29.87	30.62	27.74	25.65	26.49	29.31	26.55	30.69	33.36
5	29.46	28.77	28.05	29.90	30.66	27.58	25.58	26.37	29.08	26.36	30.86	33.69
6	29.43	28.76	28.04	29.93	30.69	27.45	26.22	26.27	28.83	26.21	31.08	33.99
7	29.42	28.73	28.01	29.97	30.27	27.36	26.96	26.16	28.65	26.06	31.14	34.23
8	29.40	28.71	28.02	30.03	29.83	27.24	27.42	26.12	28.62	25.89	30.56	34.31
9	29.38	28.68	28.02	30.06	29.55	27.13	27.54	26.04	28.58	26.00	30.21	34.41
10	29.33	28.71	27.93	30.11	30.03	27.06	26.82	26.04	28.44	26.03	30.02	34.59
11	29.28	28.71	27.88	30.13	30.75	26.96	26.83	26.04	28.31	26.10	29.85	34.71
12	29.24	28.65	27.93	30.18	30.96	26.88	27.58	26.12	28.20	26.13	29.73	34.82
13	29.19	28.62	27.90	30.20	30.78	26.75	27.92	26.15	28.11	26.15	30.48	34.93
14	29.13	28.52	28.11	30.30	30.18	26.67	28.13	26.15	28.04	26.16	30.87	34.95
15	29.10	28.55	28.14	30.33	30.72	26.58	28.32	26.10	27.93	26.19	31.15	34.35
16	29.21	28.53	28.02	30.29	31.05	26.54	28.38	26.07	27.86	26.21	31.37	34.03
17	29.22	28.58	28.74	30.03	31.17	27.30	27.77	27.06	27.78	26.25	31.56	33.88
18	29.12	28.59	29.48	30.15	30.93	28.01	27.38	28.13	27.72	26.33	31.61	33.99
19	29.08	28.55	30.03	30.33	30.58	28.28	26.85	28.67	27.65	26.48	31.71	34.07
20	29.07	28.53	30.20	30.45	30.13	27.84	26.49	29.04	27.60	26.96	31.89	34.11
21	29.04	28.53	29.91	30.54	29.73	27.36	27.48	29.36	27.53	27.54	32.03	34.16
22	29.04	28.49	29.94	30.57	29.43	27.06	28.13	29.63	27.45	27.93	32.09	34.17
23	29.03	28.44	29.97	30.15	29.19	26.85	28.56	29.90	27.40	28.29	32.15	34.17
24	29.01	28.41	29.97	29.81	29.03	26.68	28.92	30.15	27.36	28.68	32.24	34.31
25	29.00	28.37	29.64	29.60	28.80	26.55	29.01	30.39	27.32	28.97	32.28	34.40
26	28.97	28.32	29.46	29.43	28.63	26.42	28.62	30.62	27.27	29.19	32.34	34.38
27	28.93	28.29	29.34	29.27	28.47	26.31	28.01	30.81	27.24	29.25	32.49	33.77
28	28.93	28.31	29.24	29.18	28.31	26.24	27.57	31.02	27.26	29.16	32.66	33.33
29	28.92	28.28	29.34	29.07	---	26.13	27.30	31.10	27.20	29.30	32.79	33.03
30	28.89	28.23	29.51	28.92	---	26.01	27.09	30.95	27.12	29.43	32.90	32.76
31	28.88	---	29.63	29.75	---	25.92	---	30.98	---	29.72	32.99	---
MAX	29.60	28.85	30.20	30.57	31.17	28.28	29.01	31.10	30.45	29.72	32.99	34.95

CAL YR 2000 LOW 36.09
WTR YR 2001 LOW 34.95



GROUND-WATER RECORDS
Medina County

410120081431800. LOCAL NUMBER, MD-3

LOCATION.—Latitude 41°01'20", longitude 81°43'18", Hydrologic Unit 05040001, Auble Street at water treatment plant in Wadsworth, Ohio. Owner: Wadsworth Water Department.

AQUIFER.—Sandstone of Mississippian Age.

WELL CHARACTERISTICS.—Drilled unused artesian well, diameter 12 in., depth 275 ft, cased.

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

DATUM.—Elevation of land-surface datum is 1,180 ft above sea level, from topographic map. Measuring point: Floor of instrument shelter 1.00 ft above land-surface datum.

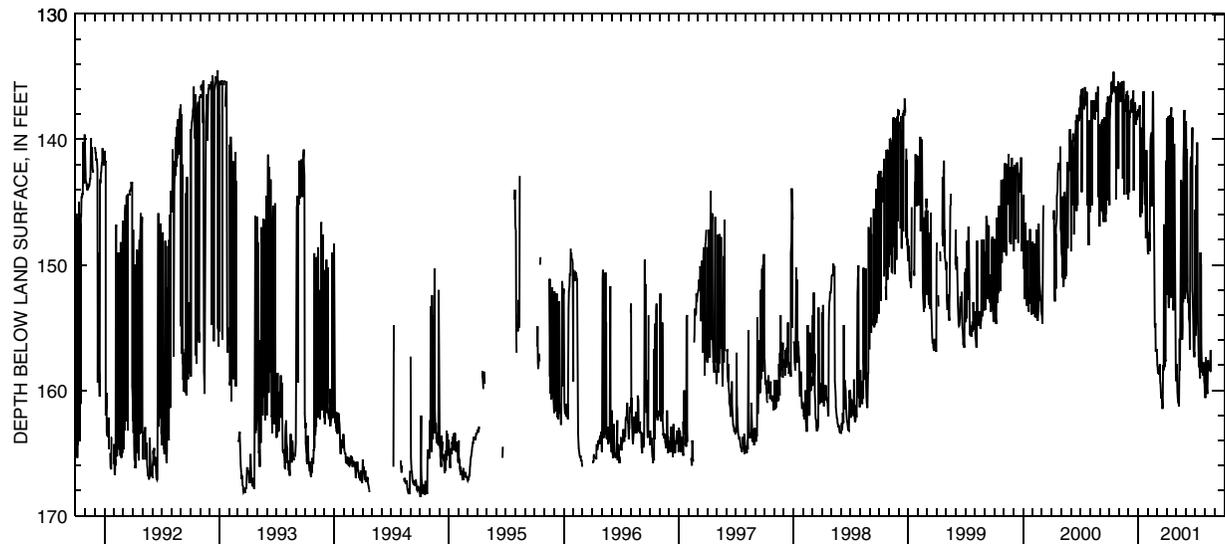
REMARKS.—Station operated by Ohio Department of Natural Resources (ODNR), Division of Water. Some historical records not published by the USGS are available from ODNR.

PERIOD OF RECORD.—February 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 186.74 ft below land-surface datum, Jan. 21, 1975; minimum daily low, 134.50 ft below land-surface datum, Dec. 26, 1992.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	143.13	136.51	144.78	137.61	148.91	156.72	151.41	158.46	152.16	145.62	160.20	---
2	145.26	135.81	137.94	137.89	149.17	157.10	139.22	158.46	140.57	155.36	160.53	---
3	138.27	135.50	138.26	138.08	147.42	157.97	138.32	159.30	138.53	155.64	160.61	---
4	137.99	135.90	144.21	138.20	147.44	158.11	152.39	157.88	150.03	142.07	157.35	---
5	136.50	136.70	138.15	137.57	147.47	158.69	139.66	159.33	151.34	151.34	157.94	---
6	137.06	137.01	138.26	137.28	147.93	158.46	138.67	160.13	140.75	153.96	158.49	---
7	136.08	135.67	137.67	144.47	148.91	158.70	138.15	160.59	152.03	143.14	159.56	---
8	135.42	136.26	137.91	146.19	141.98	158.60	152.97	160.89	152.40	140.25	160.08	---
9	136.31	135.42	136.92	139.05	140.94	158.73	153.45	161.03	153.04	152.73	160.29	---
10	136.41	136.08	137.45	144.67	139.91	158.41	152.24	161.06	152.69	154.56	158.91	---
11	135.44	135.50	137.60	145.14	139.68	157.92	151.91	161.28	153.36	155.19	157.61	---
12	135.45	135.39	136.76	145.59	140.09	159.30	138.09	157.73	154.23	156.91	158.03	---
13	135.27	143.13	137.31	144.67	139.46	159.44	152.03	155.89	154.58	157.88	158.00	---
14	135.54	136.42	137.43	145.86	145.32	160.16	140.25	158.40	156.45	158.14	158.16	---
15	134.61	135.33	137.84	142.50	140.55	160.68	138.23	157.22	156.76	157.92	158.33	---
16	135.66	135.95	136.29	138.38	137.76	160.34	137.45	155.66	143.64	158.45	158.41	---
17	136.22	136.26	136.10	137.55	136.17	160.54	152.61	154.29	141.96	159.03	157.88	---
18	135.93	144.41	144.08	136.16	136.32	160.73	139.92	143.24	141.42	149.01	158.33	---
19	136.29	139.39	137.40	143.33	137.66	161.48	152.19	154.38	141.39	157.95	156.81	---
20	135.78	137.45	137.48	136.23	138.74	161.26	139.80	152.37	141.45	149.94	157.80	---
21	136.22	136.82	137.03	144.30	142.91	158.00	138.27	155.97	141.78	156.44	158.49	---
22	136.39	137.40	137.22	145.17	151.71	158.09	151.11	154.94	139.05	157.28	---	---
23	144.78	137.79	137.25	145.02	154.77	158.40	153.64	143.43	152.06	158.60	---	---
24	137.21	136.44	138.76	145.26	154.97	146.76	153.33	153.00	152.41	158.06	---	---
25	136.50	136.77	138.76	147.44	154.66	156.64	152.06	141.54	154.88	158.25	---	---
26	136.08	136.20	137.75	147.89	156.91	158.16	140.34	140.39	155.13	158.72	---	---
27	135.75	136.17	137.97	146.66	156.75	157.36	153.87	138.83	156.91	158.81	---	---
28	136.39	144.39	138.39	140.86	156.86	157.47	155.85	137.67	156.98	157.77	---	---
29	135.39	137.45	138.39	146.73	---	157.70	156.71	152.04	157.36	157.94	---	---
30	142.34	136.51	137.87	147.41	---	154.83	157.64	152.70	156.09	159.29	---	---
31	136.68	---	137.84	147.60	---	141.69	---	152.37	---	159.44	---	---
MAX	145.26	144.41	144.78	147.89	156.91	161.48	157.64	161.28	157.36	159.44	160.61	---
CAL YR 2000	LOW 154.70											
WTR YR 2001	LOW 161.48											



GROUND-WATER RECORDS
Mercer County

402833084375200. LOCAL NUMBER, MR-2

LOCATION.—Latitude 40°28'33", longitude 84°37'52", Hydrologic Unit 05120101, at AVCO Manufacturing Company building in Coldwater, Ohio.

Owner: New Idea Farm Equipment Company

AQUIFER.—Limestone of Silurian Age.

WELL CHARACTERISTICS.—Drilled unused artesian well, diameter 6 in., depth 253 ft, cased.

INSTRUMENTATION.—Digital recorder, 60-minute punch.

DATUM.—Elevation of land-surface datum is 915 ft above sea level, from topographic map. Measuring point: Top of platform 1.2 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.

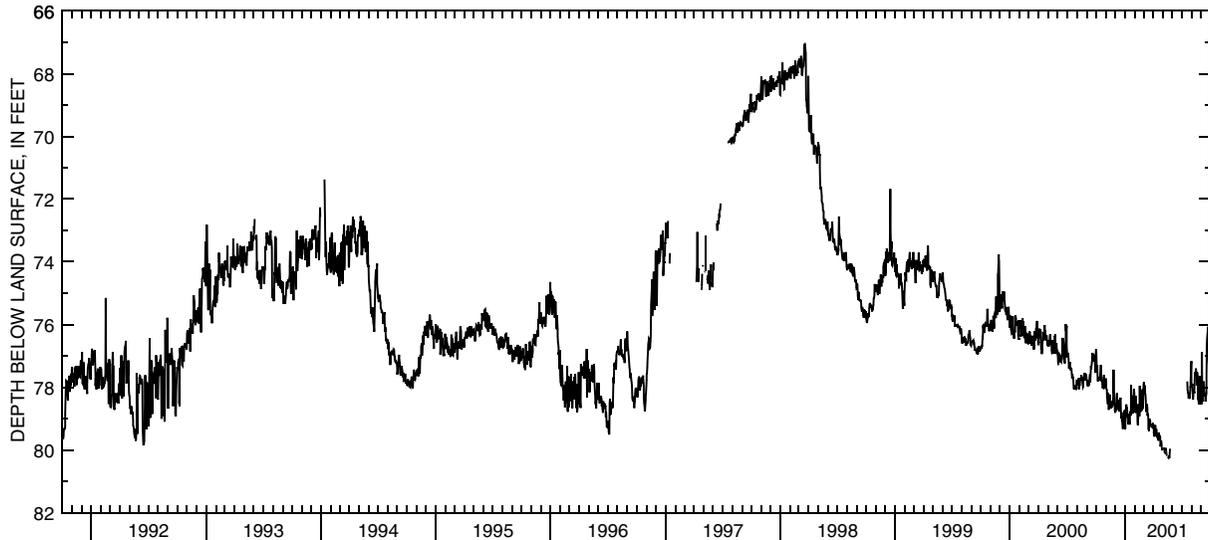
PERIOD OF RECORD.—February 1967 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 81.60 ft below land-surface datum, Sept. 15, 1988; minimum daily low, 60.13 ft below land-surface datum, Feb. 14, 1967.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	76.79	77.71	78.79	79.34	78.43	77.90	79.17	---	---	---	77.98	78.46
2	76.92	77.80	78.78	79.30	78.77	77.83	79.30	---	---	---	77.91	78.53
3	77.33	78.05	78.75	79.08	78.78	78.05	79.45	---	---	---	77.91	76.88
4	77.44	78.08	78.56	78.90	78.27	77.99	79.57	79.93	---	---	78.07	78.27
5	77.28	78.19	78.72	78.55	78.49	77.94	79.52	79.98	---	---	78.40	78.45
6	77.79	78.32	78.43	78.77	78.69	78.19	79.38	79.93	---	---	78.28	78.28
7	77.78	78.52	78.19	78.62	78.78	78.24	79.23	80.08	---	---	78.11	78.07
8	77.78	78.53	78.65	78.78	78.68	78.44	79.20	80.10	---	---	78.18	78.20
9	77.71	78.17	78.68	78.96	78.55	78.78	79.34	80.10	---	---	78.14	77.82
10	77.66	78.69	78.51	78.90	79.08	78.70	79.56	---	---	---	78.19	78.18
11	77.71	78.72	78.40	78.89	79.20	78.62	79.33	79.93	---	---	77.52	78.27
12	77.78	78.43	78.70	79.19	79.01	78.54	79.56	80.05	---	---	77.65	78.18
13	77.70	78.24	78.75	79.08	78.90	78.70	79.58	80.12	---	---	77.58	78.24
14	77.58	78.23	78.75	78.90	78.53	78.90	79.46	80.18	---	---	77.58	78.45
15	77.46	78.44	78.61	79.08	78.60	78.83	79.56	---	---	---	77.40	78.35
16	77.28	78.44	78.52	79.19	78.92	79.05	79.57	---	---	---	77.49	78.25
17	77.52	78.68	78.36	78.99	77.95	79.31	79.57	80.25	---	---	77.94	78.19
18	77.79	78.63	78.33	78.79	78.72	79.39	79.71	80.24	---	77.82	77.76	76.73
19	77.78	78.51	78.78	78.77	78.59	79.07	79.44	80.25	---	78.08	77.52	76.48
20	77.82	78.55	78.98	78.90	78.61	79.01	79.52	80.25	---	78.16	77.74	76.33
21	77.89	78.62	78.80	77.92	78.78	79.05	79.54	80.17	---	78.19	78.39	76.22
22	78.03	78.61	79.07	78.73	78.25	79.08	79.58	80.25	---	78.35	78.36	76.21
23	77.99	78.58	79.09	78.63	78.75	79.18	79.56	80.23	---	78.32	78.48	76.07
24	77.90	78.48	79.18	78.63	78.61	79.22	79.89	79.96	---	78.27	78.53	77.15
25	77.70	78.25	79.33	78.84	78.07	79.20	79.83	---	---	78.37	78.44	77.21
26	77.60	77.44	79.10	78.26	78.69	79.25	79.69	---	---	78.27	78.54	77.21
27	77.80	78.20	78.98	78.75	78.63	79.27	79.76	---	---	78.11	77.64	77.41
28	78.02	78.17	78.90	78.75	78.21	79.20	79.90	---	---	77.98	78.39	77.63
29	78.00	78.24	78.76	78.48	---	79.19	80.02	---	---	78.00	78.46	77.76
30	77.89	78.77	78.75	78.06	---	79.24	---	---	---	77.24	77.73	77.73
31	77.82	---	79.20	78.19	---	79.14	---	---	---	77.16	78.37	---
MAX	78.03	78.77	79.33	79.34	79.20	79.39	80.02	80.25	---	78.37	78.54	78.53

CAL YR 2000 LOW 79.33
WTR YR 2001 LOW 80.25



GROUND-WATER RECORDS
Miami County

395848084085500. LOCAL NUMBER, MI-3

LOCATION.—Latitude 39°58'48", longitude 84°08'55", Hydrologic Unit 05080001, 2.0 mi northeast of Tipp City, Ohio. Owner: Fulton Fruit Farms.

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled unused water table well, diameter 5 in., depth 48 ft, cased.

INSTRUMENTATION.—Periodic measurement with chalked tape by Ohio Department of Natural Resources personnel.

DATUM.—Elevation of land-surface datum is 804.78 ft above sea level. (Levels by Miami Conservancy District.) Measuring point: Floor of 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.—October 1966 to October 1982 continuous, periodic thereafter.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 13.45 ft below land-surface datum, July 25, 1988; minimum daily low, 7.53 ft below land-surface datum, Feb. 25, 1975.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION,
WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL
Oct. 23	11.21
Apr. 24	10.42

GROUND-WATER RECORDS
Montgomery County

394012084151700. LOCAL NUMBER, MT-55

LOCATION.—Latitude 39°40'12", longitude 84°15'17", Hydrologic Unit 05080002, Elm Street in West Carrollton, Ohio. Owner: Oxford Paper Company.

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled unused water table well, diameter 12 in., depth 84 ft, cased.

INSTRUMENTATION.—Digital recorder, 60-minute punch.

DATUM.—Elevation of land-surface datum is 717.6 ft above sea level. Measuring point: Floor of instrument shelter 0.30 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.

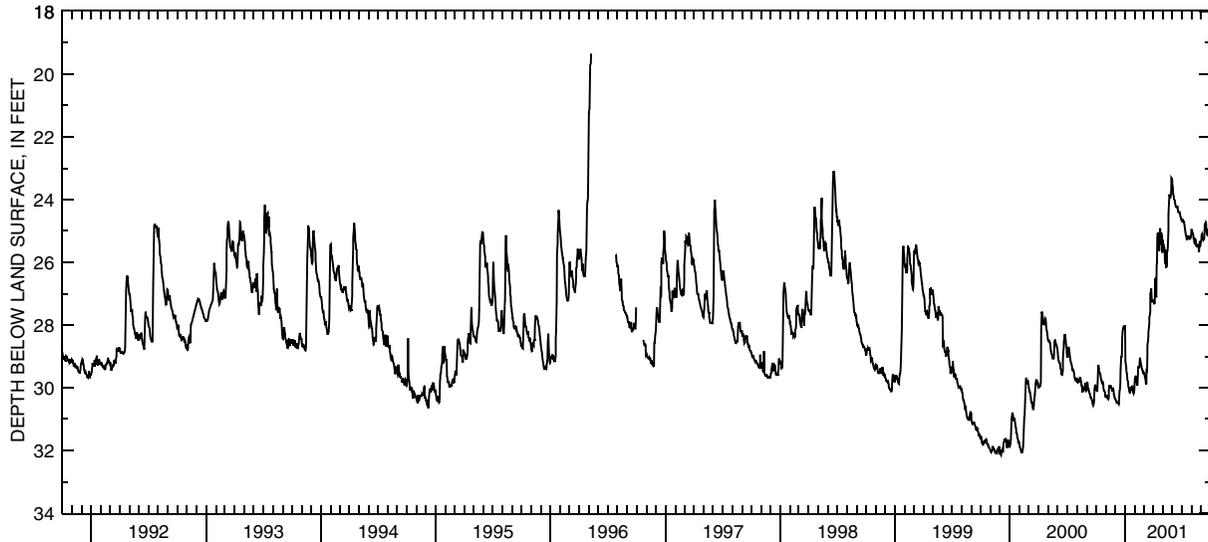
PERIOD OF RECORD.—April 1970 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 58.57 ft below land-surface datum, Nov. 24, 1974; minimum daily low, 19.35 ft below land-surface datum, May 9, 1996.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30.04	30.30	30.36	28.04	29.84	29.55	27.22	25.28	23.51	24.69	24.94	25.28
2	30.06	30.30	30.39	28.91	29.68	29.49	27.25	25.45	23.61	24.69	25.00	25.10
3	30.04	30.27	30.40	29.16	29.66	29.57	27.27	25.41	23.69	24.64	25.05	25.08
4	30.10	30.27	30.42	29.28	29.65	29.59	27.31	25.46	23.82	24.64	25.05	25.16
5	30.10	30.24	30.43	29.38	29.62	29.66	27.30	25.49	23.92	24.68	25.09	25.22
6	29.85	30.32	30.50	29.47	29.78	29.68	27.27	25.54	23.98	24.71	25.15	25.27
7	29.57	30.33	30.47	29.55	29.83	29.72	26.61	25.60	24.00	24.72	25.21	25.29
8	29.27	30.35	30.48	29.72	29.84	29.84	26.52	26.04	24.03	24.72	25.28	25.26
9	29.29	30.37	30.48	29.76	29.93	29.89	26.50	25.60	24.08	24.80	25.34	25.24
10	29.37	30.31	30.47	29.80	29.90	29.86	27.06	25.66	24.12	24.86	25.38	25.24
11	29.46	30.12	30.50	29.92	29.65	29.45	27.12	26.18	24.21	24.95	25.41	25.00
12	29.54	29.99	30.52	29.97	29.39	29.47	26.05	25.63	24.25	25.02	25.35	24.76
13	29.53	29.91	30.43	30.01	29.31	28.89	26.03	26.15	24.23	25.08	25.27	24.79
14	29.55	29.99	30.19	30.04	29.34	28.63	25.22	25.64	24.25	25.13	25.30	24.76
15	29.60	30.02	30.08	30.09	29.37	28.51	25.06	25.65	24.25	25.18	25.35	24.73
16	29.67	29.92	30.05	30.16	29.30	28.37	25.07	25.62	24.23	25.24	25.42	24.76
17	29.74	30.01	29.90	30.17	29.13	28.26	25.10	25.51	24.20	25.29	25.46	24.96
18	29.78	29.99	29.39	30.05	29.03	28.05	25.62	25.27	24.26	25.26	25.47	25.07
19	29.84	29.99	29.19	29.97	29.14	27.94	25.09	24.94	24.35	25.19	25.47	25.11
20	29.86	30.00	29.02	29.98	29.20	27.76	25.64	24.46	24.40	25.17	25.43	25.14
21	29.82	30.06	29.02	30.05	29.24	27.67	25.06	24.01	24.42	25.17	25.50	25.13
22	29.81	30.11	28.94	30.07	29.29	27.57	25.01	23.84	24.42	25.17	25.48	25.01
23	29.84	30.04	28.40	30.05	29.37	27.01	24.91	23.87	24.41	25.18	25.58	24.93
24	29.92	30.04	28.22	29.93	29.39	26.94	25.46	23.91	24.40	25.22	25.63	25.07
25	30.00	30.03	28.13	30.00	29.42	26.88	25.34	23.93	24.44	25.26	25.63	25.11
26	30.09	30.09	28.11	30.05	29.47	26.83	25.04	23.93	24.51	25.26	25.33	25.12
27	30.10	30.22	28.07	30.13	29.51	27.28	25.09	23.82	24.55	25.25	25.44	24.92
28	30.11	30.23	28.08	30.13	29.49	27.20	25.14	23.58	24.58	25.23	25.50	24.92
29	30.15	30.31	28.04	30.17	---	27.22	25.15	23.30	24.62	25.21	25.44	24.94
30	30.23	30.33	28.04	30.14	---	27.23	25.70	23.34	24.66	25.15	25.35	24.94
31	30.29	---	28.08	30.07	---	27.23	---	23.41	---	24.96	25.35	---
MAX	30.29	30.37	30.52	30.17	29.93	29.89	27.31	26.18	24.66	25.29	25.63	25.29

CAL YR 2000 LOW 32.06
 WTR YR 2001 LOW 30.52



GROUND-WATER RECORDS
Montgomery County

394025084162800. LOCAL NUMBER, MT-49

LOCATION.—Latitude 39°40'25", longitude 84°16'28", Hydrologic Unit 05080002, 1.2 mi west of city hall in West Carrollton, Ohio. Owner: Metal Shredders, Inc.

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled test water table well, diameter 6 in., depth 220 ft, cased.

INSTRUMENTATION.—Digital recorder, 60-minute punch.

DATUM.—Elevation of land-surface datum is 714.61 ft above sea level. (Levels by Miami Conservancy District.) Measuring point: Floor of shelter 2.50 ft above land-surface datum.

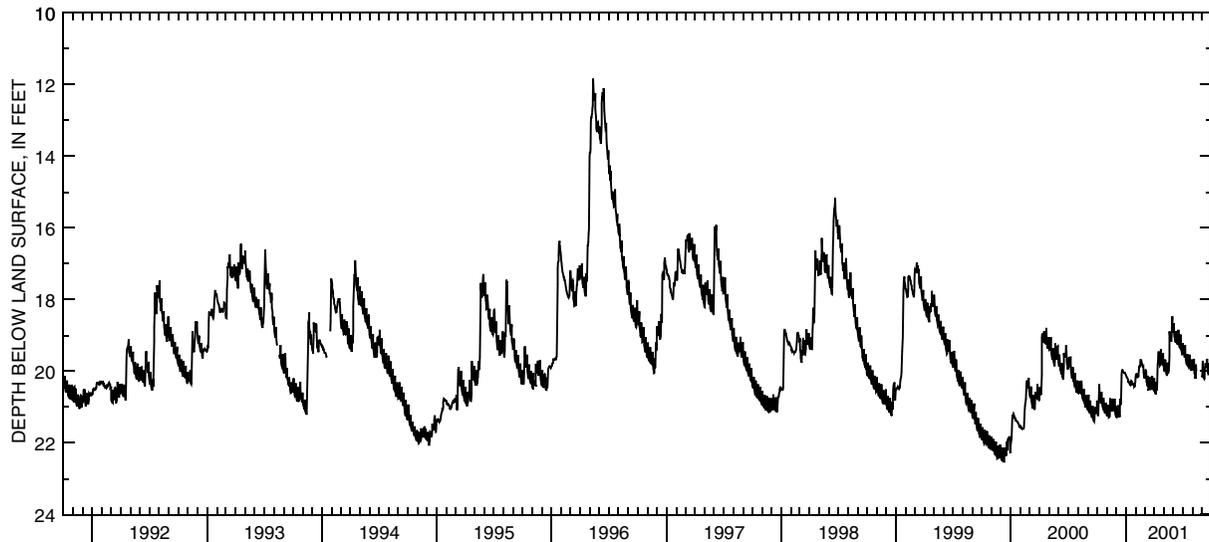
REMARKS.—Station operated by Ohio Department of Natural Resources (ODNR), Division of Water. Some historical records not published by the USGS are available from ODNR.

PERIOD OF RECORD.—November 1947 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 36.30 ft below land-surface datum, Dec. 8, 1974; minimum daily low, 10.68 ft below land-surface datum, Jan. 23, 1959.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.82	21.23	21.27	20.11	20.15	20.15	20.20	19.87	18.92	19.22	19.87	20.09
2	21.13	21.17	21.28	20.15	20.09	20.21	20.48	19.96	18.72	19.45	19.93	19.76
3	21.20	21.25	20.97	20.15	20.07	19.98	20.56	19.99	18.67	19.51	19.94	19.71
4	21.25	21.25	21.19	20.17	20.07	19.96	20.60	20.01	19.01	19.35	19.93	20.07
5	21.21	20.94	21.27	20.18	20.11	19.98	20.62	19.77	19.10	19.52	19.66	20.14
6	20.87	21.18	21.06	20.21	20.13	19.99	20.65	19.67	19.14	19.59	19.95	20.20
7	20.70	21.28	20.95	20.23	20.16	20.29	20.50	19.93	19.16	19.59	20.05	20.22
8	20.36	21.29	21.28	20.24	20.15	20.29	20.30	20.01	19.20	19.27	20.10	20.18
9	20.60	21.28	21.08	20.28	20.14	20.39	20.52	20.06	19.20	19.56	20.14	19.93
10	20.67	21.24	20.97	20.28	20.14	20.39	20.54	20.09	18.89	19.65	20.18	19.88
11	20.75	21.16	21.26	20.29	19.97	20.13	20.26	20.12	19.21	19.72	20.18	19.78
12	20.82	20.76	21.28	20.34	19.88	20.39	19.81	20.08	19.25	19.77	19.82	19.83
13	20.89	20.98	20.90	20.36	19.89	20.48	19.74	19.76	19.22	19.81	19.99	19.86
14	20.86	21.02	20.78	20.33	19.88	20.51	19.62	20.01	19.26	19.81	---	19.90
15	20.58	21.05	20.92	20.37	19.87	20.51	19.45	20.06	19.24	19.52	---	19.86
16	20.88	21.08	20.92	20.37	19.69	20.49	19.70	20.03	19.19	19.83	---	19.66
17	20.91	21.13	20.47	20.33	19.69	20.46	19.76	19.98	18.84	19.88	---	19.92
18	20.98	20.95	20.10	20.27	19.69	20.16	19.78	19.85	19.18	19.83	---	20.01
19	21.01	20.77	19.99	20.28	19.71	20.29	19.83	19.56	19.27	19.86	---	20.06
20	21.03	21.05	19.97	20.30	19.76	20.37	19.82	18.89	19.31	19.89	---	20.08
21	21.02	21.07	19.97	20.33	19.82	20.40	19.76	19.05	19.34	19.87	---	20.07
22	20.74	21.02	20.00	20.35	19.82	20.46	19.39	19.11	19.35	19.54	---	20.04
23	21.04	20.84	20.01	20.33	19.87	20.49	19.60	19.04	19.33	19.84	---	19.77
24	21.08	21.03	20.03	20.35	19.87	20.48	19.69	19.14	18.98	19.89	---	19.99
25	21.14	21.04	20.04	20.39	19.86	20.17	19.73	19.18	19.30	19.94	---	20.01
26	21.15	20.77	20.04	20.37	20.03	20.14	19.78	19.18	19.38	19.97	---	20.05
27	21.17	21.08	20.05	20.42	20.11	20.43	19.82	18.76	19.44	19.98	---	20.10
28	21.18	21.16	20.05	20.40	20.09	20.48	19.83	18.47	19.50	19.98	---	20.14
29	20.89	21.21	20.04	20.41	---	20.51	19.50	18.70	19.53	19.67	---	20.07
30	21.12	21.25	20.09	20.35	---	20.54	19.80	18.82	19.52	19.71	20.17	19.85
31	21.18	---	20.09	20.28	---	20.54	---	18.87	---	19.81	20.15	---
MAX	21.25	21.29	21.28	20.42	20.16	20.54	20.65	20.12	19.53	19.98	20.18	20.22
CAL YR 2000	LOW 21.99											
WTR YR 2001	LOW 21.29											



GROUND-WATER RECORDS
Montgomery County

394425084113200. LOCAL NUMBER, MT-3

LOCATION.—Latitude 39°44'25", longitude 84°11'32", Hydrologic Unit 05080002, Patterson Boulevard. at Stewart Street in Dayton, Ohio. Owner: State of Ohio.

AQUIFER.—Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.—Drilled test water table well, diameter 6 in., depth 80 ft, cased.

INSTRUMENTATION.—Digital recorder, 60-minute punch.

DATUM.—Elevation of land-surface datum is 744 ft above sea level, from topographic map. Measuring point: Floor of instrument shelter 1.20 ft above land-surface datum.

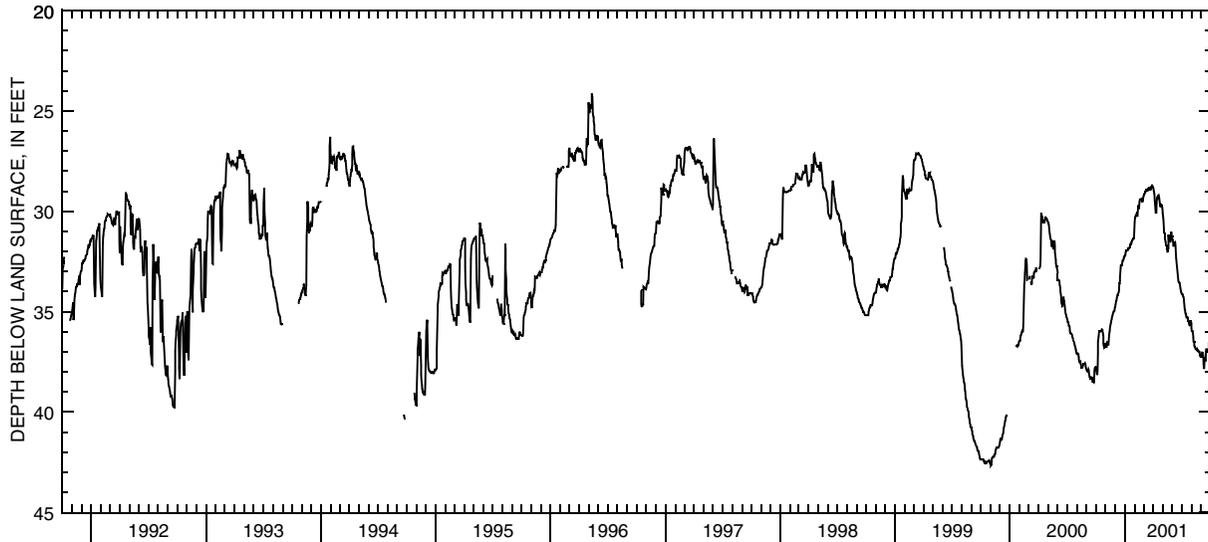
REMARKS.—Station operated by Ohio Department of Natural Resources (ODNR), Division of Water. Some historical records not published by the USGS are available from ODNR.

PERIOD OF RECORD.—May 1945 to June 1974. Reactivated June 1980.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low 78.90 ft below land-surface datum, May 24, 1968, and Sept. 30, 1969; minimum daily low, 24.13 ft below land-surface datum, May 12, 1996.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37.75	36.59	34.76	32.22	30.54	29.26	28.80	30.07	31.38	34.12	35.81	37.26
2	37.88	36.68	34.66	32.17	30.35	29.17	28.86	30.23	31.38	34.12	35.96	37.14
3	37.99	36.76	34.55	32.12	30.30	29.14	28.97	30.34	31.46	34.12	35.96	37.03
4	38.11	36.76	34.47	32.00	30.19	29.13	29.03	30.60	31.59	34.18	35.96	37.04
5	38.11	36.64	34.44	31.95	30.15	29.08	29.14	30.92	31.75	34.24	35.96	37.06
6	37.89	36.52	34.31	31.93	30.12	29.02	29.46	31.07	31.64	34.25	36.25	37.06
7	37.04	36.53	34.26	31.93	30.10	29.01	29.66	31.08	31.60	34.33	36.35	37.15
8	36.49	36.56	34.17	31.93	30.13	28.98	29.87	31.09	31.56	34.53	36.50	37.59
9	36.24	36.64	34.17	31.93	30.23	28.92	30.07	31.34	31.56	34.71	36.50	37.81
10	36.06	36.64	34.09	31.93	30.23	28.92	30.07	31.51	31.53	34.87	36.69	37.81
11	36.00	36.41	34.05	31.87	29.96	28.94	30.07	31.64	31.69	34.92	36.74	37.46
12	36.00	36.16	34.01	31.86	29.73	28.94	29.55	31.68	31.96	35.06	36.74	37.28
13	35.98	36.03	33.93	31.86	29.72	28.92	29.37	31.68	32.30	35.10	36.80	37.45
14	35.98	35.94	33.58	31.83	29.80	28.95	29.32	31.71	32.48	35.12	36.86	37.45
15	35.97	35.75	33.58	31.79	29.81	28.95	29.33	31.86	32.64	35.16	36.86	37.27
16	35.97	35.68	33.46	31.79	29.52	28.93	29.26	32.01	32.77	35.31	36.81	36.93
17	35.97	35.55	33.30	31.79	29.46	28.90	29.21	32.01	32.91	35.25	36.90	36.82
18	35.97	35.52	32.82	31.66	29.42	28.90	29.19	31.99	33.09	35.22	36.90	36.89
19	35.87	35.40	32.66	31.66	29.34	28.83	29.29	31.83	33.28	35.32	36.86	36.94
20	35.87	35.37	32.70	31.66	29.41	28.78	29.32	31.16	33.45	35.32	36.93	36.94
21	35.90	35.27	32.70	31.57	29.42	28.84	29.44	31.38	33.52	35.44	36.94	36.94
22	35.93	35.23	32.70	31.57	29.38	28.87	29.59	31.47	33.56	35.44	36.94	36.92
23	36.01	35.16	32.67	31.50	29.37	28.91	29.74	31.47	33.56	35.49	36.98	36.92
24	36.19	35.08	32.47	31.44	29.37	28.91	29.75	31.47	33.56	35.56	36.98	36.86
25	36.55	35.04	32.47	31.44	29.51	28.88	29.71	31.49	33.65	35.69	36.98	36.77
26	36.68	34.98	32.47	31.43	29.51	28.74	29.60	31.49	33.76	35.69	36.98	36.55
27	36.78	34.98	32.40	31.34	29.46	28.71	29.71	31.36	33.88	35.68	37.07	36.50
28	36.80	34.98	32.34	31.34	29.37	28.70	29.73	31.02	33.93	35.65	37.17	36.75
29	36.77	34.91	32.30	31.34	---	28.70	29.72	31.10	34.05	35.49	37.17	36.86
30	36.63	34.77	32.23	31.32	---	28.79	29.86	31.24	34.06	35.49	37.25	36.87
31	36.56	---	32.22	30.94	---	28.80	---	31.24	---	35.57	37.26	---
MAX	38.11	36.76	34.76	32.22	30.54	29.26	30.07	32.01	34.06	35.69	37.26	37.81
CAL YR 2000	LOW 38.52											
WTR YR 2001	LOW 38.11											



GROUND-WATER RECORDS
Montgomery County

394533084113800. LOCAL NUMBER, MT-6

LOCATION.—Latitude 39°45'33", longitude 84°11'38", Hydrologic Unit 05080002, 3rd and Ludlow Street, Dayton, Ohio. Owner: City of Dayton
AQUIFER.—Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.—Drilled unused artesian well, diameter 8 in., depth 60 ft, cased.

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

DATUM.—Elevation of land-surface datum is 740 ft above sea level, from topographic map. Measuring point: Floor of instrument shelter 13.00 ft below land-surface datum.

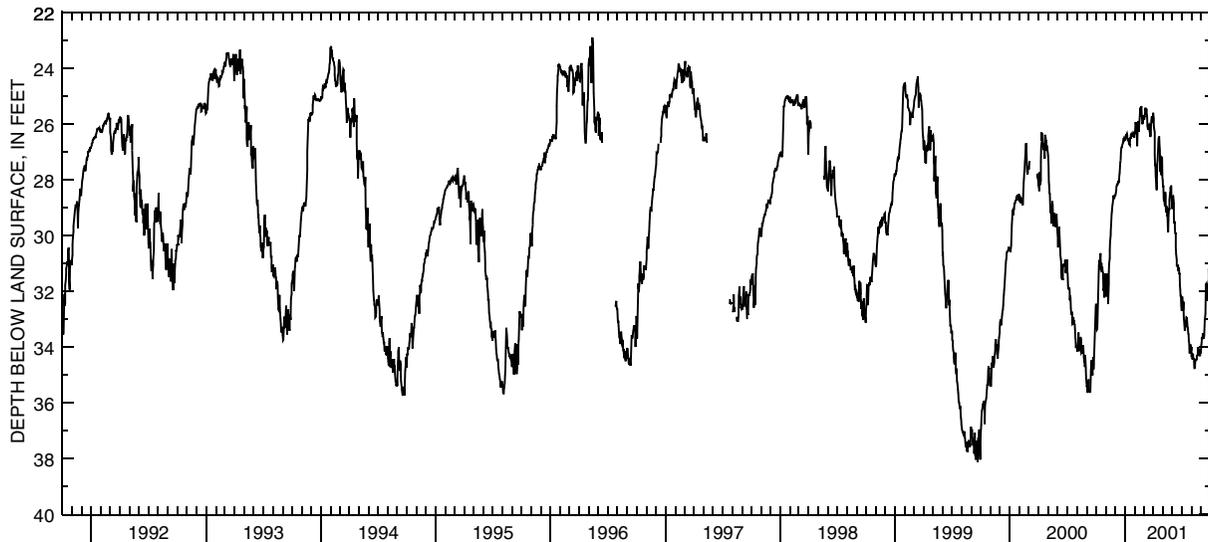
REMARKS.—Station operated by Ohio Department of Natural Resources (ODNR), Division of Water. Some historical records not published by the USGS are available from ODNR.

PERIOD OF RECORD.—February 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 60.20 ft below land-surface datum, Oct. 2, 1970; minimum daily low, 21.23 ft below land-surface datum, Feb. 26, 1982.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32.45	31.52	28.55	26.54	26.34	25.67	25.59	27.99	29.04	32.66	34.28	33.90
2	33.05	31.73	28.52	26.52	26.33	25.76	25.80	28.25	28.63	32.18	34.26	33.84
3	33.23	32.18	28.46	26.46	26.12	25.83	26.04	28.20	28.59	32.34	34.41	33.65
4	33.35	31.79	28.41	26.40	25.92	25.74	26.15	28.65	28.58	32.63	34.44	33.72
5	33.32	31.63	28.22	26.40	26.01	25.73	26.27	28.77	28.83	32.63	34.23	33.62
6	32.69	31.37	28.20	26.40	26.04	25.47	27.11	28.73	29.31	32.37	34.43	33.50
7	32.32	32.06	28.13	26.34	26.06	25.41	27.50	28.85	29.57	32.93	34.40	33.68
8	31.82	31.71	28.18	26.40	26.25	25.50	27.43	28.82	29.49	33.05	34.41	33.63
9	31.38	32.45	28.15	26.49	26.79	25.55	27.86	28.44	29.64	33.20	34.74	33.68
10	31.04	31.71	28.07	26.58	26.34	25.44	27.99	28.58	29.91	33.41	34.75	33.59
11	30.95	31.31	28.04	26.51	26.10	25.52	28.17	29.10	29.91	33.38	34.73	33.30
12	30.87	31.01	28.10	26.61	25.88	25.70	28.37	29.16	30.43	33.05	34.74	33.02
13	31.15	30.80	28.01	26.65	26.04	26.04	27.75	28.93	30.65	33.28	34.47	32.90
14	30.78	30.53	27.83	26.70	26.27	26.06	27.38	29.07	30.86	33.05	34.43	32.79
15	30.63	30.20	27.75	26.72	26.13	26.19	27.29	29.31	31.10	32.93	34.49	31.98
16	31.18	29.97	27.54	26.75	25.97	26.13	27.00	29.28	31.04	32.94	34.46	31.73
17	31.17	29.87	27.36	26.72	25.76	26.03	26.72	29.67	31.11	32.97	34.43	31.70
18	30.98	29.64	27.30	26.49	25.56	26.00	26.48	29.88	31.04	33.13	34.32	31.82
19	31.31	29.40	27.02	26.49	25.40	26.04	26.46	29.43	31.17	33.30	34.32	32.16
20	31.13	29.19	26.87	26.37	25.74	26.18	26.46	29.33	31.15	33.33	34.22	32.34
21	31.14	29.08	26.83	26.34	25.56	26.33	26.76	29.00	31.25	33.50	34.22	32.28
22	31.22	28.95	26.82	26.42	25.35	26.43	26.90	29.07	31.15	33.53	33.99	31.89
23	31.33	28.86	26.76	26.45	25.63	26.46	27.53	28.71	31.38	33.78	34.14	31.88
24	31.88	28.77	26.70	26.42	25.77	26.36	27.71	28.47	31.33	33.84	34.29	31.80
25	31.98	28.67	26.68	26.42	26.00	26.13	27.15	28.43	31.79	34.22	34.20	31.49
26	31.90	28.55	26.61	26.36	25.93	25.88	27.17	28.26	31.93	34.17	34.14	31.17
27	32.22	28.63	26.52	26.33	25.97	25.71	27.83	28.22	32.18	34.03	34.19	31.33
28	31.98	28.68	26.49	26.30	25.82	25.74	27.24	28.23	32.13	33.90	34.32	30.78
29	31.58	28.61	26.55	26.31	---	25.92	27.17	28.46	32.49	34.05	34.07	30.74
30	31.37	28.56	26.55	26.43	---	25.93	27.92	28.88	32.66	34.14	34.23	30.65
31	31.35	---	26.57	26.48	---	25.80	---	28.58	---	33.99	34.13	---
MAX	33.35	32.45	28.55	26.75	26.79	26.46	28.37	29.88	32.66	34.22	34.75	33.90
CAL YR 2000	LOW 35.63											
WTR YR 2001	LOW 34.75											



GROUND-WATER RECORDS
Montgomery County

394811084095000. LOCAL NUMBER, MT-74

LOCATION.—Latitude 39°48'11", longitude 84°09'50", Hydrologic Unit 05080002, Miami Well Field in Dayton, Ohio. Owner: City of Dayton.

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled test water table well, diameter 8 in., depth 100 ft, cased.

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

DATUM.—Elevation of land-surface datum is 750 ft above sea level, from topographic map. Measuring point: Floor of instrument shelter 4.0 ft above land-surface datum.

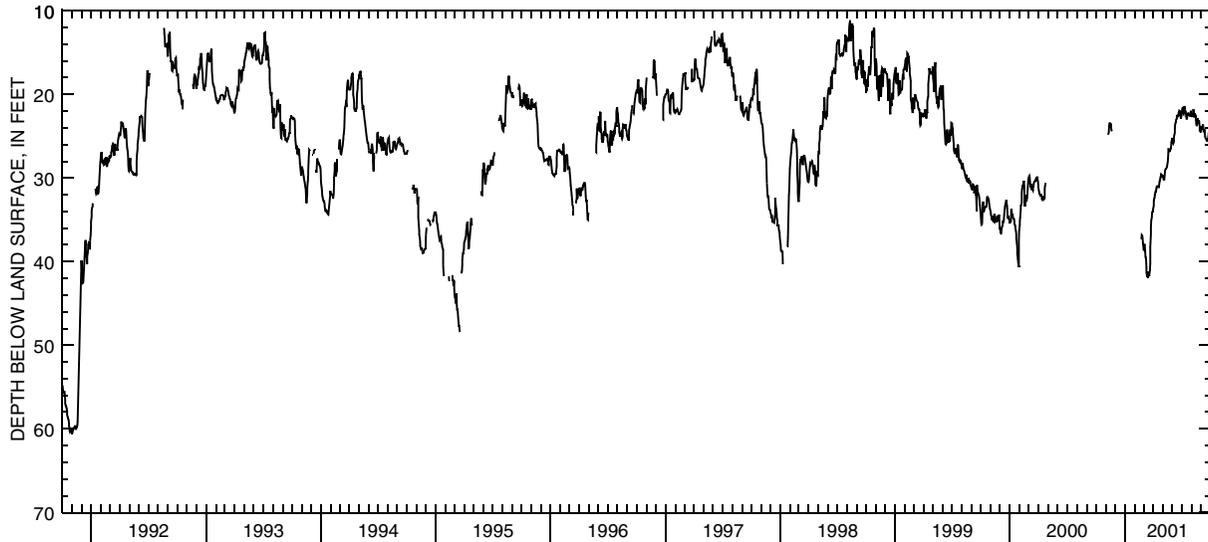
REMARKS.—Station operated by Ohio Department of Natural Resources (ODNR), Division of Water. Some historical records not published by the USGS are available from ODNR.

PERIOD OF RECORD.—April 1990 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 60.50 ft below land-surface datum, Oct. 31 and Nov. 1, 1991; minimum daily low, 11.13 ft below land-surface datum, Aug. 11, 1998.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	38.54	33.66	29.66	25.24	22.08	22.38	23.93
2	---	---	---	---	---	38.60	33.29	29.85	25.60	21.76	22.61	23.90
3	---	---	---	---	---	38.06	32.70	30.07	25.73	21.61	22.61	23.94
4	---	---	---	---	---	37.88	32.51	30.17	25.81	21.62	22.58	24.02
5	---	---	---	---	---	38.27	32.28	30.17	25.63	22.25	22.19	23.87
6	---	---	---	---	---	38.66	32.04	30.17	25.25	22.34	21.95	23.55
7	---	---	---	---	---	39.47	31.86	29.68	24.89	21.92	21.74	23.81
8	---	---	---	---	---	39.51	31.70	29.28	24.55	21.80	22.16	24.42
9	---	24.81	---	---	---	39.83	31.58	28.94	24.02	21.37	22.47	24.42
10	---	24.50	---	---	---	40.71	31.58	28.87	23.58	21.79	22.61	24.38
11	---	24.50	---	---	---	41.27	31.29	28.87	23.24	21.98	22.59	24.17
12	---	23.81	---	---	---	41.70	31.02	28.81	23.33	21.97	22.46	24.60
13	---	23.54	---	---	---	41.85	30.96	28.75	23.02	22.07	22.44	25.02
14	---	23.37	---	---	---	41.55	30.96	28.66	22.94	22.46	22.50	25.23
15	---	23.78	---	---	---	41.93	30.96	28.46	22.76	22.70	23.00	25.31
16	---	23.60	---	---	---	41.73	30.99	28.25	22.45	22.91	23.51	25.38
17	---	23.46	---	---	---	41.21	31.07	27.98	22.58	22.91	23.76	25.44
18	---	23.87	---	---	---	41.51	31.10	27.46	22.61	22.49	23.78	25.52
19	---	24.15	---	---	---	41.70	31.08	26.43	22.63	22.27	23.45	25.56
20	---	24.35	---	---	---	41.49	30.79	26.43	22.48	22.25	23.12	25.52
21	---	24.38	---	---	---	41.03	30.44	26.75	22.19	22.24	22.88	25.41
22	---	---	---	---	---	37.31	40.19	30.34	26.81	22.07	22.46	25.26
23	---	---	---	---	---	36.87	38.21	30.11	26.78	21.93	22.48	25.07
24	---	---	---	---	---	36.98	36.74	29.90	26.66	21.97	22.46	24.71
25	---	---	---	---	---	36.92	35.90	29.80	26.57	22.10	22.44	24.62
26	---	---	---	---	---	37.22	35.06	29.54	26.54	22.51	22.56	24.48
27	---	---	---	---	---	37.77	34.67	29.57	26.39	22.64	22.58	24.36
28	---	---	---	---	---	37.97	34.43	29.65	25.88	22.88	22.44	24.38
29	---	---	---	---	---	---	34.04	29.82	25.70	22.67	22.19	24.45
30	---	---	---	---	---	---	34.08	29.85	25.34	22.46	21.92	24.47
31	---	---	---	---	---	---	34.11	---	25.19	---	22.26	---
MAX	---	24.81	---	---	---	37.97	41.93	33.66	30.17	25.81	24.47	25.56
CAL YR 2000	LOW	40.57										
WTR YR 2001	LOW	41.93										



GROUND-WATER RECORDS

Muskingum County

395804081593200. LOCAL NUMBER, MU-1A

LOCATION.—Latitude 39°58'04", longitude 81°59'32", Hydrologic Unit 05040004, 2.2 mi northeast of the "Y" bridge in Zanesville, Ohio. Owner: Zanesville Water Department.

AQUIFER.—Sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.—Drilled unused water table well, diameter 6 in., depth 109 ft, cased.

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

DATUM.—Elevation of land-surface datum is 700 ft above sea level, from topographic map. Measuring point: Floor of instrument shelter 4.48 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 nearby municipal wells and by stage of the Muskingum River. Prior to water year 1978, well depth reported as 132 ft.

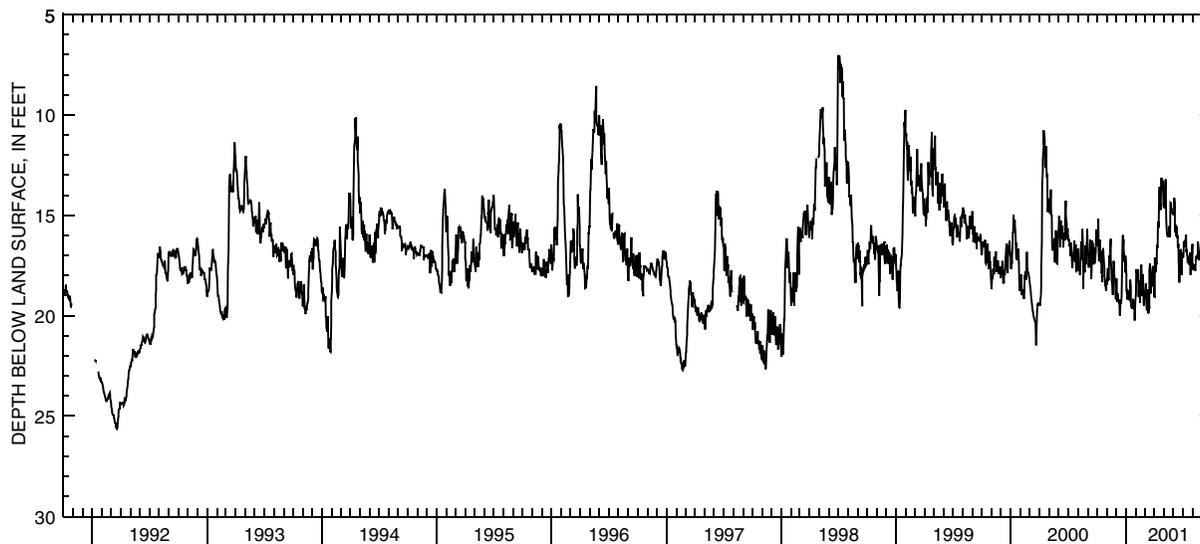
PERIOD OF RECORD.—June 1952 to current year. This well replaced Mu-1, which has continuous record from May 1942 to June 1952.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 37.25 ft below land-surface datum, Aug. 1 and 2, 1954; minimum daily low, 5.85 ft below land-surface datum, June 26, 1981.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.00	18.21	18.68	17.61	19.10	18.72	19.05	14.57	14.84	16.86	17.27	17.01
2	16.53	18.44	18.14	17.93	18.89	19.13	19.06	14.58	14.96	17.11	17.72	16.62
3	16.19	18.35	18.60	18.70	17.73	18.80	17.11	14.45	14.99	16.92	17.55	16.85
4	15.69	17.63	19.32	18.92	17.69	18.68	17.33	14.65	14.12	16.31	17.58	16.58
5	15.18	18.25	19.06	19.04	17.84	18.40	17.58	13.88	14.50	16.41	17.60	16.40
6	16.72	18.09	18.89	19.19	18.14	18.89	17.85	13.41	15.80	16.28	17.69	16.10
7	17.27	18.22	19.15	18.99	18.08	19.45	17.65	13.20	15.85	16.40	17.50	16.08
8	17.06	17.88	19.25	18.90	18.30	19.72	17.39	14.60	15.48	16.58	17.52	16.56
9	16.59	17.01	19.29	18.80	17.69	19.06	17.40	15.25	16.04	16.23	17.76	16.59
10	16.22	17.10	19.40	18.84	19.05	18.90	16.47	15.56	15.89	16.13	17.56	16.50
11	16.70	17.31	19.19	18.83	18.99	18.68	16.61	15.90	15.53	15.96	17.37	16.83
12	17.19	16.70	19.90	19.06	18.27	19.00	16.58	15.95	15.95	16.85	17.03	17.34
13	17.34	16.17	20.00	19.28	18.42	19.44	15.35	16.04	16.13	16.68	17.15	17.15
14	16.77	17.24	19.50	19.10	19.11	19.90	15.35	16.08	15.98	16.91	17.13	16.35
15	17.88	17.39	19.36	18.20	19.35	19.50	15.62	15.93	16.55	17.00	17.04	16.40
16	17.79	18.11	19.36	18.57	18.38	19.64	14.81	16.05	16.59	17.36	16.97	16.17
17	18.33	18.29	19.25	19.31	18.27	17.72	13.88	15.92	16.41	17.25	16.91	16.20
18	17.85	18.33	19.06	19.52	17.52	17.40	13.59	15.53	17.43	17.04	16.32	16.61
19	17.01	18.65	18.66	19.62	17.47	18.35	14.16	15.99	17.55	17.10	16.68	16.67
20	16.64	18.92	17.93	19.65	18.15	18.40	14.39	16.10	18.35	17.25	17.03	16.34
21	16.85	18.96	16.29	19.61	18.89	18.89	14.72	16.00	17.37	17.46	17.11	16.75
22	16.92	17.73	15.99	19.34	19.00	18.24	14.04	14.93	17.09	17.31	17.19	16.98
23	17.39	17.27	16.49	19.20	17.97	18.44	13.56	14.37	16.98	16.86	17.16	17.22
24	17.61	17.40	16.19	19.15	17.94	18.48	13.13	14.40	16.68	17.56	17.07	17.30
25	18.00	17.94	16.97	19.40	18.56	17.91	13.67	14.73	16.75	17.97	17.10	16.45
26	18.36	18.11	16.95	19.49	19.31	17.81	13.73	14.65	17.75	17.52	16.38	16.32
27	18.50	18.24	17.30	19.67	19.49	17.52	13.38	14.90	17.99	17.65	16.64	16.19
28	18.45	18.27	17.01	19.62	19.28	18.25	13.26	14.81	17.13	17.39	17.11	16.79
29	18.69	18.86	17.72	20.24	---	18.29	13.49	14.90	17.09	17.58	17.75	16.92
30	18.75	19.19	17.84	19.70	---	18.05	14.43	14.93	16.97	16.70	17.64	17.27
31	18.30	---	17.01	19.31	---	18.17	---	14.96	---	16.43	18.05	---
MAX	18.75	19.19	20.00	20.24	19.49	19.90	19.06	16.10	18.35	17.97	18.05	17.34

CAL YR 2000 LOW 21.48 WTR YR 2001 LOW 20.24



GROUND-WATER RECORDS
Pickaway County

393327082571600. LOCAL NUMBER, PK-7

LOCATION.—Latitude 39°33'27", longitude 82°57'16", Hydrologic Unit 05060002, 3.1 mi south of Circleville, Ohio. Owner: State of Ohio.

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled test artesian well, diameter 6 in., depth drilled 172 ft, present depth 169 ft, cased to 164 ft.

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

DATUM.—Elevation of land-surface datum is 705 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.

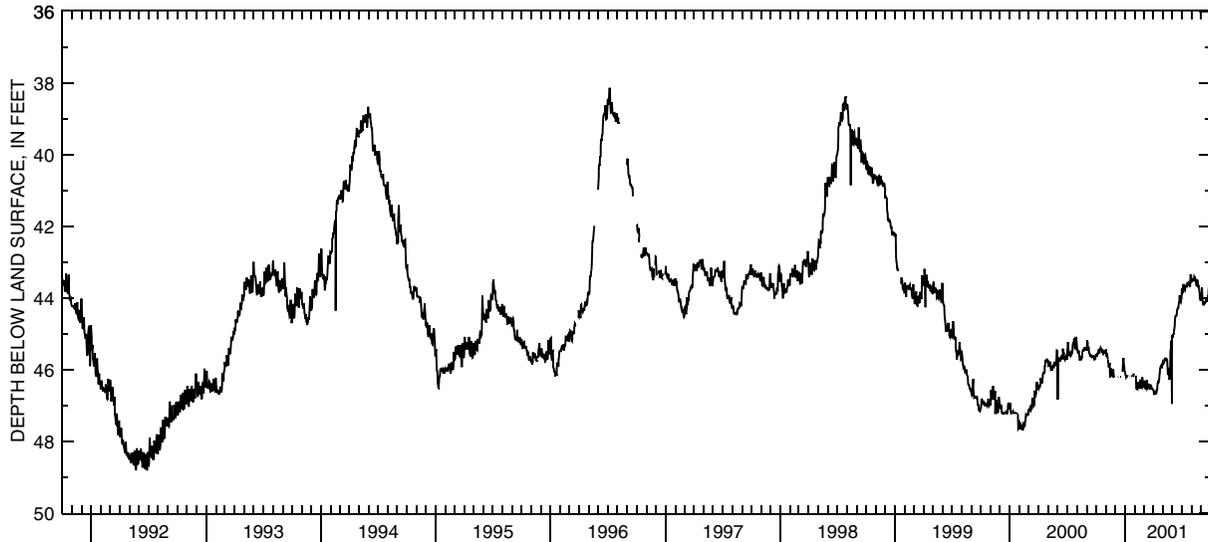
PERIOD OF RECORD.—July 1972 to October 1982 continuous, November 1982 to April 1985 periodic, continuous thereafter.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 54.80 ft below land-surface datum, Sept. 15, 1977; minimum daily low, 38.13 ft below land-surface datum, July 7, 1996.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45.58	45.44	---	46.06	---	46.42	46.56	45.79	45.07	43.73	43.53	44.07
2	45.58	45.45	---	46.15	---	46.44	46.59	45.81	45.07	43.83	43.52	43.85
3	45.59	45.59	---	46.15	---	46.45	46.66	45.83	45.02	43.84	43.44	43.70
4	45.63	45.64	46.21	46.18	46.16	46.30	46.68	45.82	45.01	43.80	43.46	43.91
5	45.52	45.55	---	46.19	46.19	46.37	46.66	45.76	45.00	43.62	43.50	44.03
6	45.55	45.56	---	46.20	46.51	46.51	46.62	45.70	44.94	43.66	43.53	44.15
7	45.54	45.71	---	46.17	46.54	46.51	46.61	45.68	44.88	43.66	43.52	44.18
8	45.54	45.76	---	46.19	46.54	46.49	46.61	45.69	44.73	43.60	43.47	44.18
9	45.44	45.76	---	---	46.50	46.53	46.63	45.71	44.68	43.76	43.42	44.18
10	45.44	45.92	46.21	---	46.52	46.53	46.68	45.70	44.54	43.78	43.40	44.14
11	45.52	45.90	46.20	---	46.46	46.35	46.65	45.73	44.47	43.72	43.43	44.15
12	45.52	45.88	---	---	46.34	46.29	46.56	45.75	44.49	43.72	43.40	44.12
13	45.44	45.81	---	---	46.40	46.41	46.56	45.74	44.49	43.68	43.46	44.08
14	45.42	45.91	---	46.17	46.37	46.52	46.50	45.71	44.47	43.66	43.53	44.12
15	45.39	46.22	---	46.16	46.43	46.49	46.38	45.73	44.41	43.64	43.55	44.08
16	45.42	45.96	---	---	46.49	46.49	46.34	45.91	44.34	43.66	43.64	44.00
17	45.42	46.01	46.19	---	46.53	46.52	46.35	46.12	44.29	43.67	43.66	43.98
18	45.46	46.03	46.19	46.20	46.42	46.46	46.35	46.12	44.27	43.61	43.60	44.06
19	45.48	45.97	---	---	46.27	46.39	46.30	46.07	44.28	43.63	43.48	44.05
20	45.48	46.04	---	---	46.35	46.41	46.25	46.02	44.26	43.63	43.56	44.08
21	45.51	46.15	---	46.17	46.48	46.43	46.13	45.94	44.19	43.58	43.66	44.08
22	45.51	46.17	---	46.17	46.45	46.50	46.07	46.23	44.11	43.56	43.67	43.94
23	45.55	46.18	---	46.17	46.51	46.51	45.94	46.28	44.09	43.62	43.66	43.93
24	45.53	46.07	46.06	46.19	46.51	46.51	45.92	45.99	43.92	43.64	43.70	43.71
25	45.48	45.99	45.91	---	46.21	46.41	45.89	45.66	44.04	43.65	43.74	43.73
26	45.51	46.11	45.75	---	46.37	46.45	45.87	45.49	44.10	43.67	43.88	43.77
27	45.54	46.17	45.67	46.19	46.43	46.53	45.91	45.37	44.12	43.66	43.94	43.88
28	45.52	46.20	45.82	46.17	46.45	46.53	45.93	45.30	44.07	43.41	43.97	43.97
29	45.51	46.21	45.90	46.10	---	46.53	45.93	45.19	44.04	43.34	44.06	43.97
30	45.44	---	45.93	46.14	---	46.54	45.85	46.95	43.99	43.39	44.06	43.96
31	45.46	---	46.03	---	---	46.54	---	45.20	---	43.48	44.05	---
MAX	45.63	46.22	46.21	46.20	46.54	46.54	46.68	46.95	45.07	43.84	44.06	44.18

CAL YR 2000 LOW 47.69
WTR YR 2001 LOW 46.95



GROUND-WATER RECORDS
Pickaway County

393402082572500. LOCAL NUMBER, PK-4

LOCATION.—Latitude 39°34'02", longitude 82°57'25", Hydrologic Unit 05060002, 2 mi south of Circleville, Ohio. Owner: E.I. DuPont DeNemours. AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled test water table well, diameter 6 in., depth 136 ft, cased.

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

DATUM.—Elevation of land-surface datum is 707 ft above sea level, from topographic map. Measuring point: Floor of instrument shelter 3.50 ft above land-surface datum.

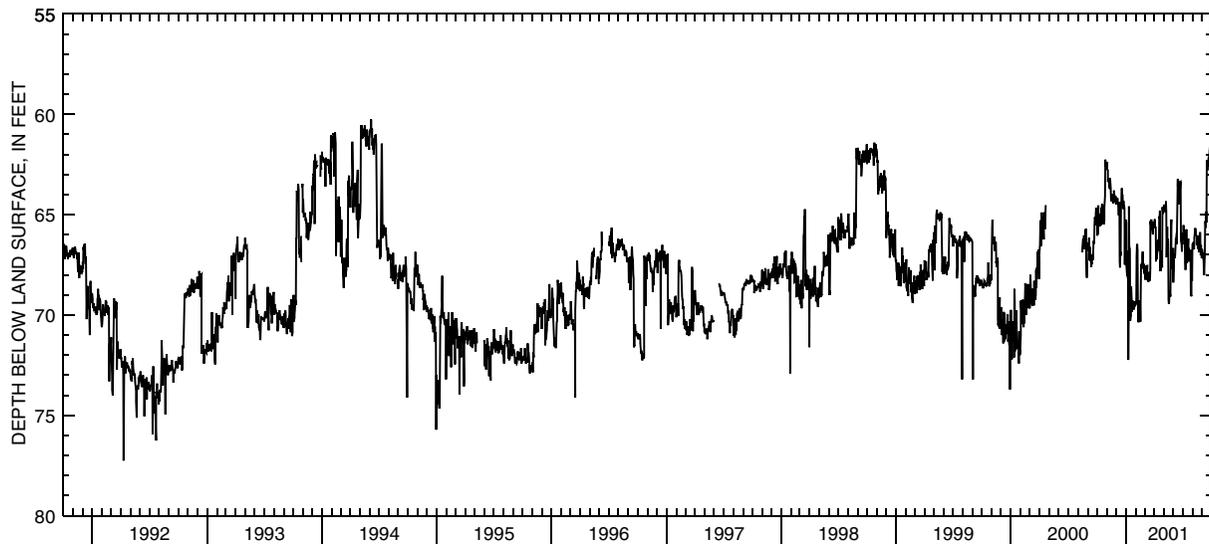
REMARKS.—Station operated by Ohio Department of Natural Resources (ODNR), Division of Water. Some historical records not published by the USGS are available from ODNR.

PERIOD OF RECORD.—January 1960 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 80.15 ft below land-surface datum, Nov. 3, 1972; minimum daily low, 47.40 ft below land-surface datum, Feb. 25, 1960.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64.82	62.49	64.49	65.24	69.45	67.94	65.48	64.71	68.38	65.89	66.47	66.81
2	66.05	62.36	64.29	65.42	69.39	67.52	65.22	64.69	66.94	66.24	66.45	66.92
3	65.34	62.74	64.46	67.53	69.21	68.24	65.21	64.49	66.99	65.51	66.62	66.88
4	65.97	62.79	64.32	68.01	67.07	67.59	65.60	64.56	67.02	65.89	66.35	67.16
5	64.53	63.36	64.17	68.06	66.54	68.04	65.63	64.63	66.96	66.11	66.72	67.27
6	65.27	63.26	64.39	67.91	66.45	67.79	66.41	64.71	67.16	66.48	66.42	67.91
7	65.06	63.17	64.47	68.18	66.77	67.85	67.32	64.88	66.98	66.36	66.13	68.00
8	65.24	63.26	64.73	66.80	69.41	67.73	66.99	64.33	66.19	67.41	65.82	67.35
9	65.52	63.49	65.02	72.24	69.74	68.07	67.20	64.82	66.24	67.74	65.66	67.01
10	65.58	63.71	64.76	64.58	70.35	67.50	66.98	67.11	66.19	67.61	65.70	65.33
11	64.97	63.42	64.37	66.57	69.57	68.19	66.86	66.50	65.89	66.11	65.87	65.30
12	64.94	63.18	67.33	66.57	69.58	68.18	66.47	65.60	66.45	65.72	65.94	65.64
13	65.51	63.68	67.63	66.71	69.94	67.94	66.24	66.52	65.81	66.18	66.02	64.83
14	64.65	63.81	66.83	66.78	69.26	68.34	66.78	66.19	63.21	67.41	66.09	65.38
15	64.76	64.31	67.04	70.29	69.52	67.86	66.35	66.36	63.57	66.63	66.51	62.66
16	64.56	63.96	64.67	70.01	70.32	68.08	66.41	69.21	63.63	66.69	66.09	62.29
17	64.46	64.22	64.44	70.04	69.44	67.88	65.08	69.44	63.56	66.52	66.69	62.78
18	64.61	64.27	63.72	68.57	67.46	68.28	65.19	69.36	64.47	66.18	66.17	62.28
19	64.98	64.07	63.68	69.35	67.69	67.68	64.79	68.96	63.53	67.33	66.58	62.40
20	64.50	64.22	64.05	69.83	67.55	65.31	67.80	68.81	64.17	66.63	66.02	62.27
21	65.49	64.44	64.04	69.48	67.56	65.52	67.26	68.94	63.30	67.10	66.75	62.10
22	64.76	64.32	64.37	69.48	67.04	65.73	67.79	69.08	63.75	67.16	66.86	62.61
23	65.46	64.35	64.71	69.29	66.84	65.24	66.78	69.08	63.38	67.13	66.50	62.07
24	65.27	63.79	64.31	69.56	67.31	65.75	67.33	65.52	63.35	67.10	66.60	61.73
25	64.61	63.99	64.68	69.44	67.53	65.46	67.04	65.24	66.26	66.75	65.87	61.71
26	64.08	64.04	64.52	69.72	67.44	65.63	67.63	67.71	66.36	68.99	67.02	61.59
27	62.25	64.35	64.69	69.41	67.86	65.97	64.61	66.77	66.47	69.03	66.72	61.56
28	62.25	64.39	67.49	69.41	67.77	65.72	64.79	67.63	66.84	69.06	66.51	61.35
29	62.60	64.08	65.52	69.30	---	65.36	64.95	66.77	66.38	68.14	66.84	61.08
30	62.46	64.13	65.37	69.44	---	65.67	64.69	67.91	66.08	68.19	67.16	61.28
31	62.74	---	65.54	69.41	---	65.57	---	66.66	---	66.52	66.71	---
MAX	66.05	64.44	67.63	72.24	70.35	68.34	67.80	69.44	68.38	69.06	67.16	68.00
CAL YR 2000	LOW 72.40											
WTR YR 2001	LOW 72.24											



GROUND-WATER RECORDS
Pickaway County

393638082572300. LOCAL NUMBER, PK-6

LOCATION.—Latitude 39°36'38", longitude 82°57'23", Hydrologic Unit 05060002, water works plant, 1 mi northwest of Circleville, Ohio. Owner: Circleville Water Department

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled unused water table well, diameter 6 in., depth 120 ft, cased.

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

DATUM.—Elevation of land-surface datum is 672 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.

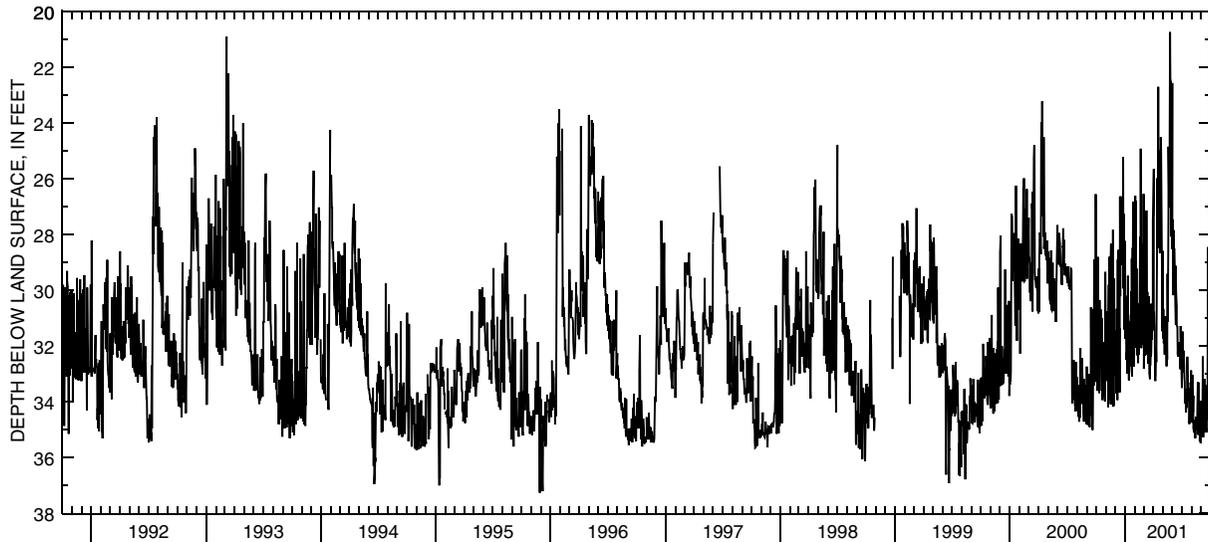
PERIOD OF RECORD.—July 1966 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 37.25 ft below land-surface datum, Nov. 28, 1995; minimum daily low, 14.30 ft below land-surface datum, Apr. 5, 1970.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32.61	32.52	32.50	28.23	28.43	26.54	27.30	28.58	28.14	33.50	34.23	34.74
2	33.28	33.24	31.59	31.73	31.15	32.81	25.65	31.71	28.17	32.19	34.74	34.62
3	30.02	32.85	31.76	30.18	26.61	30.32	31.43	30.66	27.45	31.47	33.03	34.37
4	32.87	30.75	33.20	31.04	32.06	32.28	30.75	31.88	30.17	32.24	33.42	35.18
5	33.60	32.12	33.69	32.40	26.78	27.17	31.40	31.82	27.84	32.72	34.37	34.63
6	31.61	31.22	30.66	32.49	31.70	32.34	32.04	31.50	29.12	32.93	33.77	32.37
7	28.80	31.26	33.20	32.19	29.21	27.50	33.17	32.30	28.49	32.16	34.93	35.27
8	31.86	32.50	33.93	32.99	32.32	27.35	33.24	30.98	29.16	32.52	35.07	34.20
9	32.28	34.19	28.89	32.66	32.27	31.22	33.03	32.13	29.37	33.12	35.10	34.78
10	31.88	29.79	33.33	29.48	32.12	27.13	32.03	30.93	29.79	33.30	34.91	34.83
11	33.68	33.92	28.55	31.74	32.12	29.81	32.57	31.79	31.23	34.05	34.65	33.17
12	30.35	28.80	32.84	30.88	32.60	32.31	29.61	31.97	29.12	33.53	34.83	34.38
13	31.05	33.10	32.52	33.23	30.48	30.05	29.07	32.72	30.05	34.07	35.30	35.10
14	31.88	33.47	31.35	31.65	32.30	32.06	25.97	31.58	30.58	34.38	34.71	34.63
15	30.93	30.58	33.66	32.97	31.01	32.37	28.49	32.48	31.25	33.93	35.01	33.98
16	30.69	34.08	26.63	32.60	31.58	32.04	26.54	29.40	31.28	34.20	34.53	34.26
17	32.50	28.76	30.21	31.28	30.39	32.63	22.70	31.11	31.31	34.16	34.95	33.38
18	33.20	28.33	28.25	32.52	28.08	30.21	26.85	28.04	32.30	32.38	34.92	35.09
19	33.60	32.70	26.63	31.08	31.15	31.90	28.35	27.40	32.04	33.18	34.70	33.93
20	30.99	33.68	29.10	31.86	24.92	32.96	24.96	24.84	32.38	33.54	33.28	34.67
21	33.18	29.37	28.58	30.03	31.40	33.18	27.60	27.03	31.95	33.30	34.46	31.17
22	33.93	34.07	28.49	32.72	32.07	31.40	28.67	26.83	32.28	33.96	35.18	28.44
23	33.57	28.58	27.71	28.86	29.67	32.70	26.52	25.44	31.85	33.50	33.30	31.47
24	32.63	27.83	26.79	33.09	31.35	30.48	25.89	20.73	32.06	34.77	35.15	31.17
25	32.88	34.17	28.08	28.47	31.82	32.37	24.50	22.16	32.16	34.77	34.26	33.10
26	33.72	33.71	25.22	30.35	31.13	32.25	24.96	22.43	32.82	34.22	34.95	33.41
27	31.98	34.14	29.93	26.82	28.33	30.77	27.13	22.52	31.28	33.82	35.42	34.44
28	31.85	29.57	27.26	30.87	31.95	31.77	28.98	28.07	31.85	34.37	35.19	33.41
29	33.99	33.05	30.11	32.73	---	31.15	29.85	23.31	32.30	34.62	35.40	28.70
30	31.08	31.43	28.85	30.96	---	30.27	31.46	28.53	33.12	32.87	35.48	33.18
31	29.34	---	31.41	31.80	---	27.45	---	22.56	---	33.71	34.00	---
MAX	33.99	34.19	33.93	33.23	32.60	33.18	33.24	32.72	33.12	34.77	35.48	35.27

CAL YR 2000 LOW 35.00
WTR YR 2001 LOW 35.48



GROUND-WATER RECORDS
Pickaway County

394742083094800. LOCAL NUMBER, PK-9

LOCATION.—Latitude 39°47'42", longitude 83°09'48", Hydrologic Unit 05060002, at Pickaway Correctional Institute near Orient, Ohio. Owner: State of Ohio.

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled unused water table well, diameter 8 in., depth 45 ft, cased.

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

DATUM.—Elevation of land-surface datum is 770 ft above sea level, from topographic map. Measuring point: Floor of instrument shelter 4.00 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 1986 to current year.

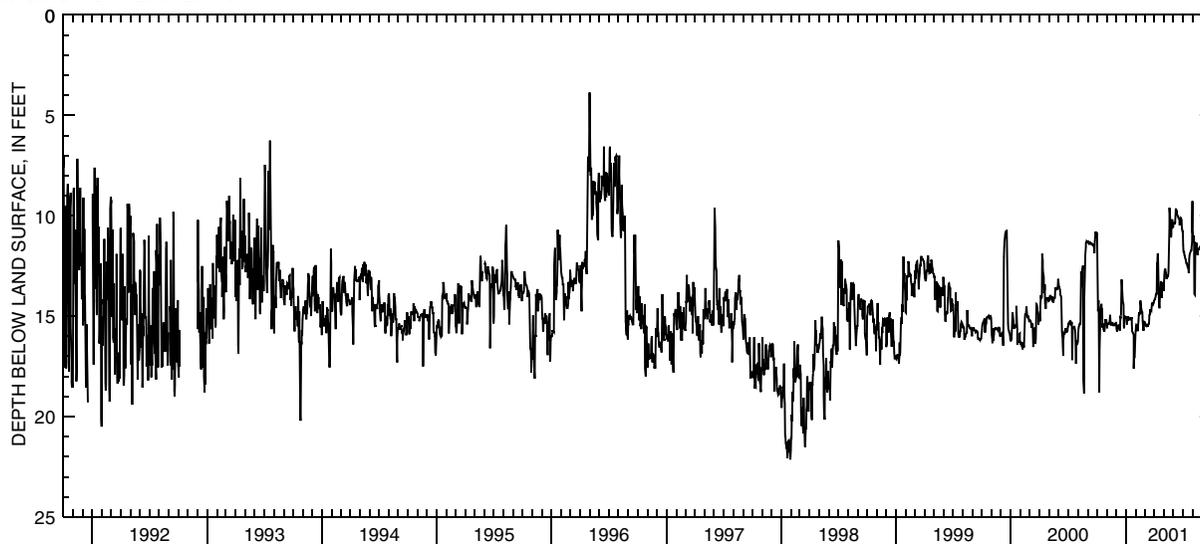
REVISIONS.—Water levels published for the period July 2, 1993, to September 30, 1994, are in error. Depth to water surface values are 1 ft less than reported.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 26.10 ft below land-surface datum, Dec. 23, 1987; minimum daily low, 0.90 ft below land-surface datum, Mar. 17, 1991.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.82	15.48	15.33	15.10	15.74	15.44	14.21	13.74	10.46	10.79	10.73	11.15
2	12.38	15.59	15.62	15.10	15.54	15.39	14.18	13.41	10.28	11.46	11.00	12.45
3	14.00	15.45	15.68	15.17	15.42	15.36	14.13	12.95	10.28	11.79	11.12	13.41
4	14.75	15.35	15.76	15.40	15.44	15.39	14.12	12.74	10.37	11.81	11.00	12.51
5	14.35	15.38	15.68	15.09	15.51	15.47	14.00	12.67	10.38	11.81	11.01	11.76
6	14.22	15.36	15.53	15.05	15.56	15.50	13.94	12.67	10.40	11.97	12.69	11.76
7	17.56	15.35	15.42	15.05	15.74	15.50	13.89	12.75	10.31	11.99	13.90	11.69
8	18.78	15.35	15.47	15.21	15.63	15.48	13.89	12.85	9.63	12.08	13.95	11.69
9	16.62	15.33	15.47	15.20	15.44	15.50	13.88	13.10	9.66	12.14	12.27	11.76
10	16.13	15.23	15.53	15.17	15.21	15.50	12.35	13.13	9.72	12.18	11.69	11.81
11	15.25	15.17	15.53	15.12	14.91	15.47	12.36	13.00	9.74	12.29	11.51	11.84
12	14.70	14.93	15.65	15.08	14.81	15.47	11.87	13.00	9.93	12.35	11.37	11.82
13	14.50	15.45	15.71	15.09	14.90	15.38	11.90	13.04	9.93	12.35	11.39	12.06
14	14.42	15.45	15.06	15.10	14.88	15.38	12.44	13.02	10.01	12.41	11.37	12.15
15	14.42	15.35	15.08	15.15	14.78	15.35	13.65	12.98	10.01	12.48	11.36	12.15
16	14.76	15.33	14.96	15.17	14.22	14.97	14.30	12.77	10.02	12.54	11.90	12.18
17	14.60	15.32	14.06	15.15	14.39	14.91	14.57	11.84	10.08	12.53	11.90	12.17
18	15.57	15.32	13.17	15.10	14.52	14.90	14.57	11.17	10.13	12.45	11.78	12.18
19	15.36	15.35	13.44	15.10	14.65	14.84	14.06	10.49	10.14	12.81	11.64	12.17
20	15.47	15.44	13.75	15.36	14.73	14.72	13.88	9.60	10.14	12.80	11.67	11.92
21	15.57	15.45	14.04	15.75	14.82	14.72	13.65	10.04	10.47	12.11	11.67	11.82
22	15.68	15.45	14.30	15.81	14.82	14.73	13.25	10.35	10.14	11.96	11.66	11.75
23	15.72	15.45	14.33	15.83	15.23	14.72	13.32	10.59	10.11	11.85	11.55	11.73
24	15.74	15.45	14.40	15.87	15.47	14.42	13.79	11.07	10.09	11.82	11.54	11.75
25	15.75	15.40	15.50	15.93	15.68	14.35	14.10	10.91	10.11	11.78	11.52	11.78
26	15.47	15.44	15.59	17.61	15.72	14.34	13.51	10.34	10.14	11.73	11.51	11.76
27	15.21	15.42	15.23	17.07	15.45	14.34	13.34	10.23	10.20	11.73	11.51	11.79
28	15.20	15.42	15.01	17.07	15.24	14.34	13.34	10.17	10.64	11.72	11.52	12.03
29	15.20	15.39	15.01	17.06	---	14.39	13.38	10.40	10.67	11.63	11.55	12.23
30	15.20	15.33	15.03	16.67	---	14.31	13.37	10.56	10.79	11.30	11.54	12.33
31	15.18	---	15.10	16.06	---	14.26	---	10.55	---	9.27	11.17	---
MAX	18.78	15.59	15.76	17.61	15.74	15.50	14.57	13.74	10.79	12.81	13.95	13.41

CAL YR 2000 LOW 18.78
WTR YR 2001 LOW 18.78



GROUND-WATER RECORDS
Pike County

390359083015100. LOCAL NUMBER, PI-2

LOCATION.—Latitude 39°03'59", longitude 83°01'51", Hydrologic Unit 05060002, 1 mi west of Piketon, Ohio. Owner: Goodyear Atomic Corporation.

AQUIFER.—Sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.—Drilled test water table well, diameter 6 in., depth 60 ft, cased.

INSTRUMENTATION.—Digital recorder, 60-minute punch.

DATUM.—Elevation of land-surface datum is 550 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.

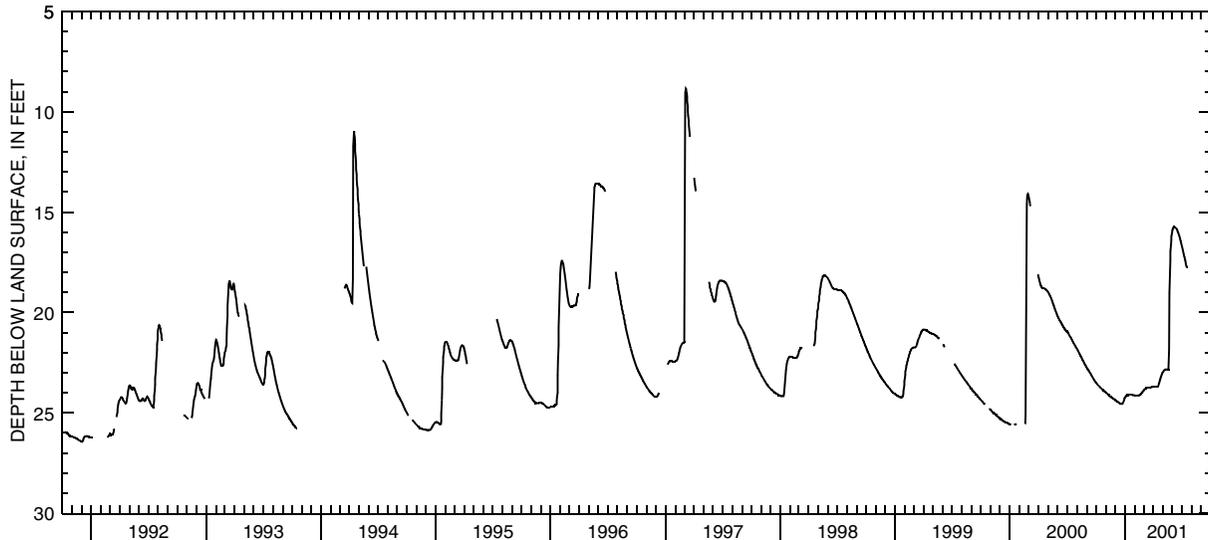
PERIOD OF RECORD.—September 1969 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 27.46 ft below land-surface datum, Feb. 15, 1977; minimum daily low, 8.85 ft below land-surface datum, Mar. 6, 1997.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.50	23.98	24.36	24.24	24.12	23.88	23.69	22.97	15.87	16.68	---	---
2	23.52	23.99	24.37	24.21	24.13	23.86	23.69	22.94	15.82	16.73	---	---
3	23.53	24.00	24.38	24.19	24.13	23.84	23.69	22.92	15.78	16.81	---	---
4	23.56	24.02	24.39	24.17	24.13	23.83	23.69	22.90	15.76	16.87	---	---
5	23.58	24.03	24.41	24.15	24.13	23.82	23.69	22.88	15.75	16.94	---	---
6	23.60	24.05	24.42	24.13	24.13	23.81	23.69	22.87	15.74	17.02	---	---
7	23.62	24.07	24.43	24.12	24.13	23.80	23.69	22.86	15.74	17.09	---	---
8	23.63	24.08	24.44	24.11	24.13	23.79	23.69	22.85	15.75	17.16	---	---
9	23.65	24.09	24.45	24.10	24.13	23.78	23.69	22.85	15.75	17.23	---	---
10	23.67	24.10	24.46	24.09	24.13	23.77	23.69	22.84	15.76	17.29	---	---
11	23.68	24.12	24.48	24.09	24.13	23.76	23.69	22.84	15.78	17.38	---	---
12	23.69	24.13	24.49	24.09	24.13	23.76	23.69	22.84	15.79	17.43	---	---
13	23.71	24.15	24.50	24.09	24.13	23.75	23.69	22.84	15.81	17.51	---	---
14	23.73	24.16	24.51	24.09	24.12	23.74	23.69	22.84	15.83	17.59	---	---
15	23.74	24.18	24.52	24.09	24.12	23.74	23.69	22.84	15.85	17.68	---	---
16	23.75	24.19	24.53	24.09	24.11	23.74	23.67	22.84	15.88	17.72	---	---
17	23.77	24.20	24.54	24.09	24.10	23.74	23.63	22.85	15.91	17.73	---	---
18	23.79	24.21	24.55	24.09	24.09	23.74	23.59	22.85	15.96	17.73	---	---
19	23.80	24.22	24.55	24.09	24.08	23.73	23.55	22.85	16.00	---	---	---
20	23.82	24.24	24.55	24.09	24.07	23.73	23.50	22.77	16.04	---	---	---
21	23.82	24.25	24.55	24.09	24.04	23.73	23.44	21.85	16.09	---	---	---
22	23.84	24.26	24.55	24.09	24.02	23.73	23.39	20.34	16.14	---	---	---
23	23.85	24.27	24.55	24.09	24.00	23.73	23.34	19.03	16.19	---	---	---
24	23.87	24.28	24.53	24.10	24.00	23.72	23.28	18.07	16.24	---	---	---
25	23.90	24.29	24.50	24.11	24.00	23.72	23.23	17.40	16.29	---	---	---
26	23.90	24.30	24.46	24.11	23.93	23.71	23.18	16.95	16.35	---	---	---
27	23.91	24.31	24.42	24.11	23.91	23.71	23.13	16.63	16.42	---	---	---
28	23.92	24.33	24.39	24.11	23.89	23.70	23.09	16.39	16.48	---	---	---
29	23.94	24.33	24.33	24.11	---	23.70	23.04	16.20	16.54	---	---	---
30	23.95	24.35	24.30	24.12	---	23.69	23.00	16.06	16.61	---	---	---
31	23.96	---	24.26	24.12	---	23.69	---	15.95	---	---	---	---
MAX	23.96	24.35	24.55	24.24	24.13	23.88	23.69	22.97	16.61	17.73	---	---

CAL YR 2000 LOW 25.59
WTR YR 2001 LOW 24.55



GROUND-WATER RECORDS
Portage County

411401081025000. LOCAL NUMBER, PO-1

LOCATION.—Latitude 41°14'01", longitude 81°02'50", Hydrologic Unit 05030103. Bauer Street in Windham, Ohio. Owner: Cristopher Minter.

AQUIFER.—Sandstone of Pennsylvanian Age.

WELL CHARACTERISTICS.—Drilled unused artesian well, diameter 6 in., depth 55 ft, cased.

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

DATUM.—Elevation of land-surface datum is 980 ft above sea level, from topographic map. Measuring point: Floor of instrument shelter 0.60 ft above land-surface datum.

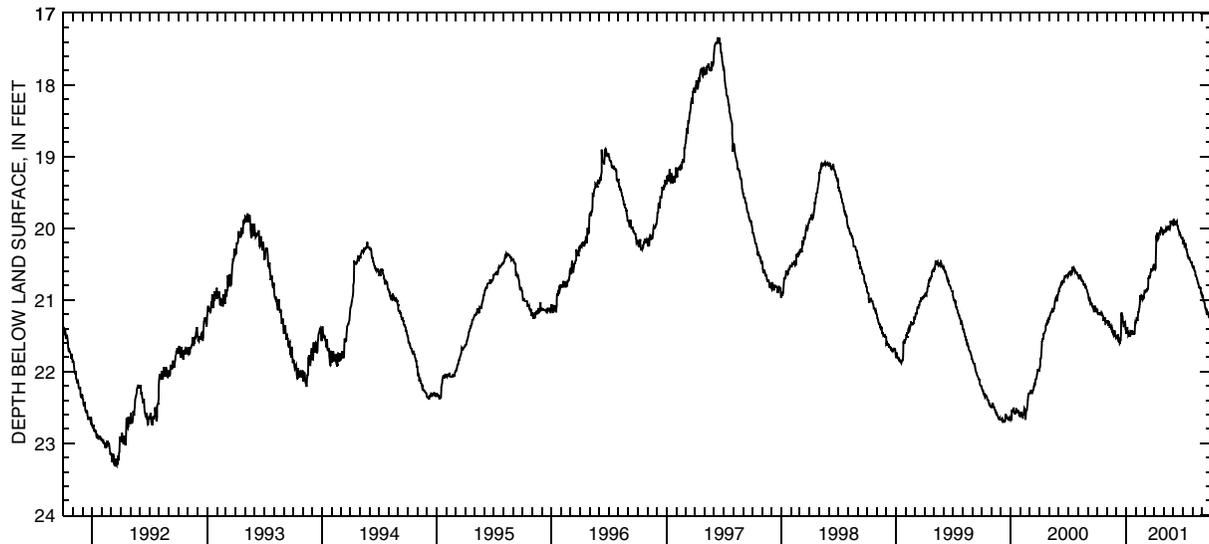
REMARKS.—Station operated by Ohio Department of Natural Resources (ODNR), Division of Water. Some historical records not published by the USGS are available from ODNR.

PERIOD OF RECORD.—May 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 23.32 ft below land-surface datum, Mar. 13, 1992; minimum daily low, 14.59 ft below land-surface datum, June 24, 1947.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.13	21.30	21.51	21.43	21.32	20.87	20.53	20.01	19.89	20.20	20.55	20.96
2	21.13	21.30	21.53	21.47	21.30	20.87	20.54	20.04	19.87	20.22	20.55	20.96
3	21.19	21.30	21.53	21.43	21.29	20.90	20.57	20.06	19.92	20.19	20.52	20.95
4	21.20	21.30	21.50	21.41	21.25	20.88	20.58	20.04	19.95	20.16	20.53	21.00
5	21.20	21.34	21.53	21.38	21.24	20.87	20.55	20.04	19.95	20.21	20.56	21.02
6	21.19	21.34	21.52	21.42	21.27	20.88	20.48	20.04	19.92	20.24	20.58	21.02
7	21.19	21.34	21.48	21.43	21.29	20.88	20.31	20.05	19.91	20.23	20.59	21.02
8	21.19	21.34	21.57	21.46	21.24	20.85	20.09	20.02	19.91	20.21	20.60	21.05
9	21.19	21.30	21.58	21.49	21.17	20.86	20.14	19.99	19.92	20.21	20.60	21.06
10	21.17	21.38	21.54	21.48	21.17	20.86	20.13	20.00	19.91	20.22	20.65	21.10
11	21.20	21.39	21.54	21.48	21.16	20.86	20.06	19.98	19.90	20.28	20.66	21.12
12	21.21	21.36	21.60	21.50	21.11	20.84	20.12	20.00	19.92	20.30	20.67	21.12
13	21.19	21.35	21.59	21.50	21.10	20.69	20.15	20.02	19.95	20.30	20.68	21.14
14	21.18	21.36	21.56	21.48	21.06	20.70	20.14	20.01	19.97	20.33	20.69	21.17
15	21.19	21.39	21.56	21.45	20.97	20.68	20.13	19.97	19.96	20.34	20.71	21.17
16	21.21	21.38	21.47	21.47	20.93	20.66	20.07	19.97	20.00	20.39	20.71	21.16
17	21.20	21.44	21.18	21.46	20.98	20.67	20.06	19.98	20.02	20.37	20.76	21.18
18	21.22	21.44	21.21	21.43	20.97	20.68	20.05	20.01	20.03	20.40	20.76	21.18
19	21.22	21.42	21.18	21.43	20.93	20.66	20.06	20.02	20.04	20.43	20.76	21.18
20	21.23	21.42	21.23	21.44	20.94	20.63	20.07	20.01	20.07	20.41	20.80	21.21
21	21.26	21.46	21.23	21.48	20.99	20.60	20.02	19.99	20.06	20.40	20.82	21.22
22	21.28	21.48	21.30	21.48	20.95	20.57	20.03	19.96	20.06	20.42	20.82	21.24
23	21.28	21.49	21.32	21.45	20.99	20.56	19.98	19.90	20.08	20.44	20.82	21.24
24	21.26	21.48	21.34	21.43	20.98	20.59	20.05	19.93	20.10	20.45	20.84	21.23
25	21.26	21.47	21.38	21.48	20.95	20.59	20.04	19.93	20.12	20.46	20.84	21.25
26	21.26	21.42	21.35	21.46	20.98	20.59	20.03	19.93	20.13	20.47	20.84	21.25
27	21.26	21.47	21.29	21.47	20.94	20.58	20.05	19.89	20.14	20.48	20.86	21.28
28	21.31	21.50	21.32	21.47	20.91	20.57	20.08	19.91	20.14	20.46	20.91	21.30
29	21.30	21.50	21.31	21.46	---	20.53	20.09	19.94	20.13	20.46	20.92	21.32
30	21.30	21.52	21.35	21.35	---	20.51	20.04	19.95	20.13	20.50	20.91	21.32
31	21.31	---	21.41	21.31	---	20.50	---	19.94	---	20.54	20.94	---
MAX	21.31	21.52	21.60	21.50	21.32	20.90	20.58	20.06	20.14	20.54	20.94	21.32
CAL YR 2000		LOW 22.67										
WTR YR 2001		LOW 21.60										



GROUND-WATER RECORDS
Preble County

394438084335900. LOCAL NUMBER, PR-2

LOCATION.—Latitude 39°44'38", longitude 84°33'59", Hydrologic Unit 05080002, Stover Road, 4 mi east of Eaton, Ohio. Owner: Eaton Water Department.

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled unused artesian well, diameter 6 in., depth 78.5 ft, cased.

INSTRUMENTATION.—Digital recorder, 60-minute punch.

DATUM.—Elevation of land-surface datum is 900 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.

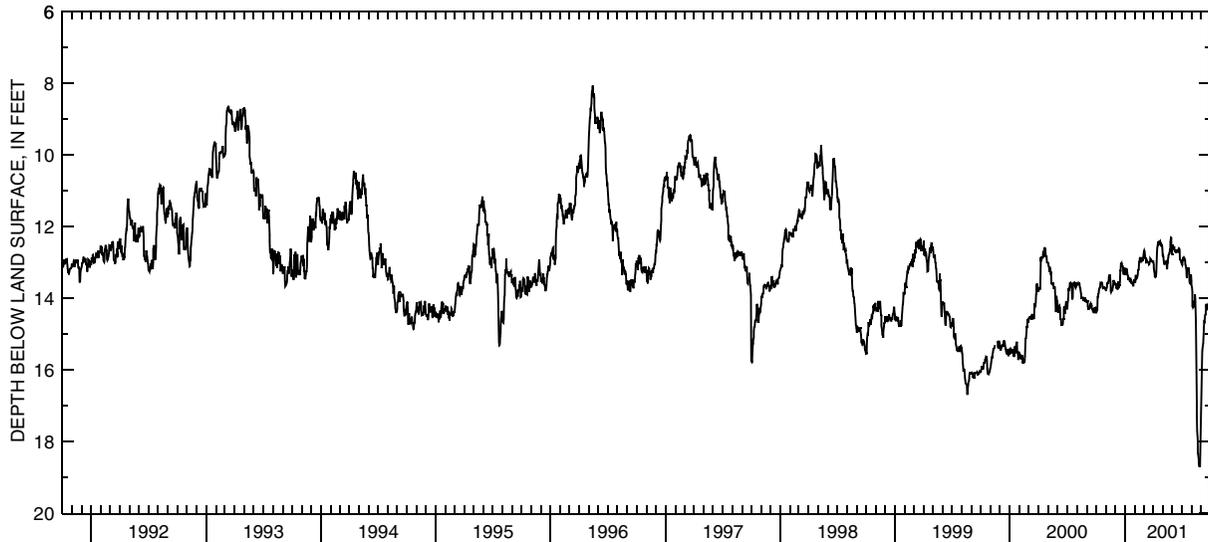
PERIOD OF RECORD.—May 1972 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 18.71 ft below land-surface datum, Aug. 27, 2001; minimum daily low, 7.94 ft below land-surface datum, May 4, 1975.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.27	13.78	13.60	13.28	13.50	12.78	12.95	12.83	12.61	13.05	13.62	16.50
2	14.28	13.78	13.63	13.35	13.55	12.71	13.05	12.81	12.61	13.07	13.70	16.11
3	14.32	13.75	13.65	13.35	13.55	12.67	13.13	12.84	12.51	12.99	13.83	15.72
4	14.34	13.70	13.59	13.26	13.37	12.70	13.22	12.92	12.63	12.91	14.23	15.46
5	14.32	13.66	13.72	13.16	13.37	12.76	13.33	13.01	12.63	12.85	14.24	15.38
6	13.96	13.58	13.72	13.16	13.41	12.88	13.40	13.04	12.58	12.95	14.08	15.32
7	13.96	13.58	13.66	13.22	13.44	12.89	13.41	13.06	12.55	12.92	14.24	15.26
8	13.89	13.57	13.74	13.30	13.42	12.87	13.39	12.97	12.71	12.88	14.21	15.05
9	13.88	13.57	13.74	13.33	13.42	13.01	13.39	13.00	12.71	12.89	14.23	14.87
10	13.79	13.48	13.68	13.37	13.37	13.01	13.39	13.01	12.66	12.94	14.15	14.65
11	13.72	13.42	13.53	13.39	13.32	12.99	13.26	13.02	12.72	12.91	14.11	14.66
12	13.70	13.39	13.69	13.47	13.20	12.96	12.96	13.00	12.72	13.07	13.90	14.57
13	13.70	13.34	13.72	13.47	13.22	12.98	12.73	12.94	12.72	13.09	14.02	14.46
14	13.65	13.36	13.61	13.47	13.16	12.99	12.58	13.17	12.68	13.13	14.60	14.45
15	13.57	13.37	13.66	13.43	12.99	12.99	12.54	13.17	12.66	13.18	15.28	14.45
16	13.58	13.65	13.53	13.53	12.99	12.97	12.47	13.02	12.65	13.39	16.11	14.20
17	13.58	13.80	13.23	13.53	12.90	12.99	12.41	13.01	12.65	13.43	16.93	14.16
18	13.57	13.83	13.23	13.49	12.85	13.06	12.50	12.88	12.68	13.24	17.23	14.28
19	13.56	13.80	13.04	13.53	12.92	13.05	12.49	12.84	12.71	13.23	17.70	14.23
20	13.57	13.73	13.04	13.53	12.96	13.03	12.42	12.79	12.71	13.17	17.98	14.29
21	13.63	13.78	13.02	13.51	12.98	12.97	12.43	12.76	12.71	13.17	18.32	14.31
22	13.67	13.78	13.09	13.57	12.98	12.97	12.43	12.75	12.61	13.13	18.34	14.30
23	13.73	13.71	13.09	13.57	12.95	12.89	12.41	12.74	12.62	13.18	18.49	14.16
24	13.73	13.68	13.10	13.59	12.95	12.92	12.48	12.63	12.65	13.33	18.58	14.15
25	13.72	13.59	13.11	13.60	12.85	12.92	12.49	12.65	12.92	13.56	18.68	14.20
26	13.69	13.49	13.24	13.61	12.94	12.96	12.46	12.42	12.92	13.58	18.68	14.16
27	13.68	13.53	13.32	13.63	12.94	12.96	12.56	12.31	12.93	13.59	18.71	14.08
28	13.71	13.54	13.32	13.67	12.89	12.98	12.51	12.32	12.95	13.53	18.67	14.05
29	13.71	13.55	13.26	13.53	---	12.94	12.52	12.62	13.00	13.34	18.08	14.05
30	13.72	13.60	13.14	13.53	---	13.00	12.62	12.77	13.01	13.37	17.50	14.00
31	13.76	---	13.18	13.47	---	13.00	---	12.77	---	13.52	16.93	---
MAX	14.34	13.83	13.74	13.67	13.55	13.06	13.41	13.17	13.01	13.59	18.71	16.50

CAL YR 2000 LOW 15.82
WTR YR 2001 LOW 18.71



GROUND-WATER RECORDS
Richland County

404625082305100. LOCAL NUMBER, R-4

LOCATION.—Latitude 40°46'25", longitude 82°30'51", Hydrologic Unit 05040002, at Ohio Brass Plant in Mansfield, Ohio. Owner: Ohio Brass Company

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled unused artesian well, diameter 14 in., depth 127 ft, cased.

INSTRUMENTATION.—Digital recorder, 60-minute punch.

DATUM.—Elevation of land-surface datum is 1,150 ft above sea level, from topographic map. Measuring point: Top of platform 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.

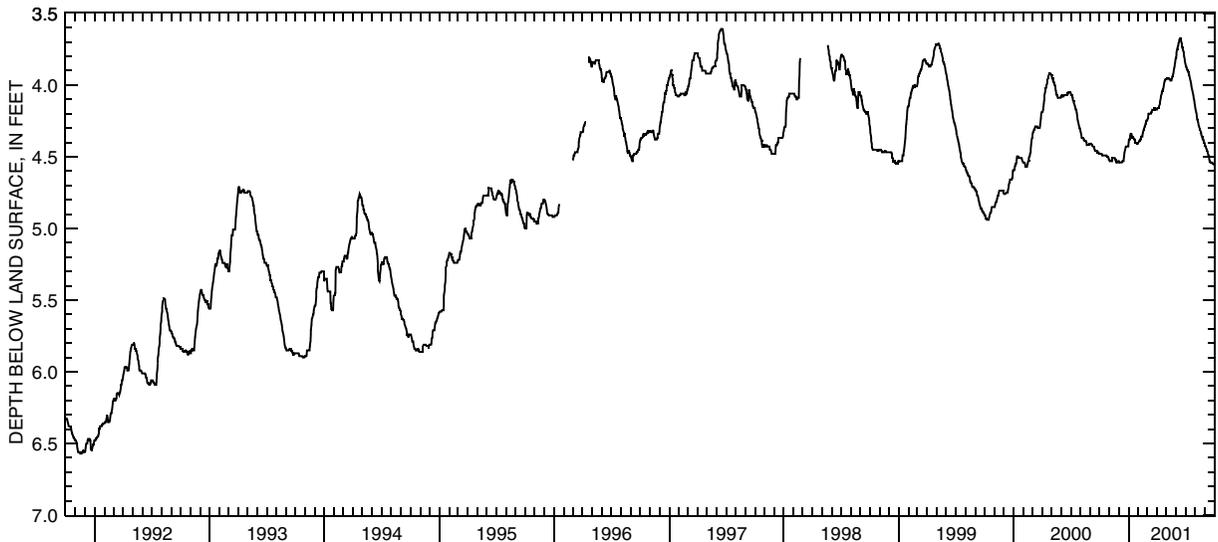
PERIOD OF RECORD.—May 1942 to current year. (No record in 1948.)

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 60.10 ft below land-surface datum, Oct. 12, 13, 19, and 20, 1962; minimum daily low, 3.61 ft below land-surface datum, June 15-20, 1997.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.48	4.52	4.53	4.40	4.40	4.25	4.17	3.96	3.81	3.85	4.16	4.42
2	4.48	4.53	4.53	4.38	4.39	4.24	4.16	3.96	3.79	3.86	4.17	4.42
3	4.48	4.53	4.54	4.38	4.39	4.23	4.16	3.95	3.77	3.87	4.18	4.43
4	4.48	4.53	4.54	4.38	4.39	4.23	4.16	3.95	3.75	3.87	4.19	4.43
5	4.48	4.53	4.54	4.38	4.39	4.20	4.16	3.95	3.75	3.88	4.20	4.44
6	4.48	4.53	4.54	4.35	4.39	4.20	4.16	3.95	3.74	3.89	4.22	4.45
7	4.48	4.53	4.54	4.34	4.38	4.20	4.16	3.95	3.73	3.89	4.24	4.46
8	4.48	4.53	4.54	4.34	4.38	4.20	4.15	3.95	3.72	3.90	4.24	4.46
9	4.49	4.53	4.54	4.34	4.38	4.20	4.14	3.95	3.71	3.90	4.25	4.46
10	4.49	4.52	4.54	4.34	4.36	4.20	4.13	3.96	3.70	3.91	4.26	4.47
11	4.49	4.51	4.54	4.35	4.36	4.20	4.12	3.96	3.69	3.91	4.27	4.48
12	4.49	4.51	4.53	4.36	4.36	4.20	4.11	3.96	3.68	3.93	4.28	4.49
13	4.49	4.51	4.53	4.36	4.36	4.20	4.09	3.96	3.67	3.93	4.29	4.49
14	4.49	4.51	4.53	4.37	4.36	4.19	4.08	3.97	3.67	3.94	4.30	4.50
15	4.49	4.51	4.53	4.37	4.34	4.19	4.07	3.97	3.67	3.95	4.31	4.52
16	4.49	4.51	4.53	4.37	4.33	4.18	4.06	3.97	3.67	3.96	4.31	4.53
17	4.49	4.51	4.51	4.37	4.32	4.17	4.05	3.97	3.68	3.97	4.32	4.53
18	4.49	4.51	4.49	4.38	4.31	4.17	4.04	3.96	3.70	3.98	4.33	4.54
19	4.49	4.51	4.47	4.38	4.31	4.17	4.04	3.95	3.71	3.99	4.33	4.54
20	4.49	4.52	4.46	4.38	4.30	4.17	4.03	3.94	3.73	4.01	4.34	4.54
21	4.49	4.52	4.45	4.38	4.29	4.17	4.03	3.94	3.74	4.02	4.35	4.54
22	4.49	4.53	4.44	4.39	4.29	4.17	4.02	3.93	3.74	4.03	4.36	4.54
23	4.49	4.54	4.43	4.40	4.28	4.17	4.01	3.92	3.75	4.04	4.36	4.54
24	4.50	4.54	4.43	4.40	4.27	4.17	3.99	3.91	3.76	4.05	4.37	4.54
25	4.50	4.54	4.43	4.40	4.27	4.16	3.98	3.89	3.77	4.06	4.38	4.55
26	4.50	4.54	4.43	4.40	4.25	4.16	3.97	3.88	3.78	4.07	4.38	4.55
27	4.50	4.54	4.43	4.40	4.25	4.17	3.97	3.87	3.80	4.09	4.38	4.55
28	4.50	4.54	4.43	4.41	4.25	4.17	3.96	3.85	3.82	4.10	4.39	4.55
29	4.51	4.53	4.43	4.41	---	4.17	3.96	3.84	3.83	4.11	4.40	4.55
30	4.52	4.53	4.43	4.41	---	4.17	3.96	3.82	3.84	4.13	4.40	4.56
31	4.52	---	4.43	4.41	---	4.17	---	3.81	---	4.14	4.41	---
MAX	4.52	4.54	4.54	4.41	4.40	4.25	4.17	3.97	3.84	4.14	4.41	4.56

CAL YR 2000 LOW 4.59
WTR YR 2001 LOW 4.56



GROUND-WATER RECORDS
Richland County

405753082360800. LOCAL NUMBER, R-3

LOCATION.—Latitude 40°57'53", longitude 82°36'08", Hydrologic Unit 05040002, Voisard plant in Shiloh, Ohio. Owner: Voisard Corporation.

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled unused artesian well, diameter 8 in., depth 150 ft, cased.

INSTRUMENTATION.—Digital recorder, 60-minute punch.

DATUM.—Elevation of land-surface datum is 1,080 ft above sea level, from topographic map. Measuring point: Floor of instrument shelter 3.17 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. Published in WDR-OH-2 prior to 1995 water year.

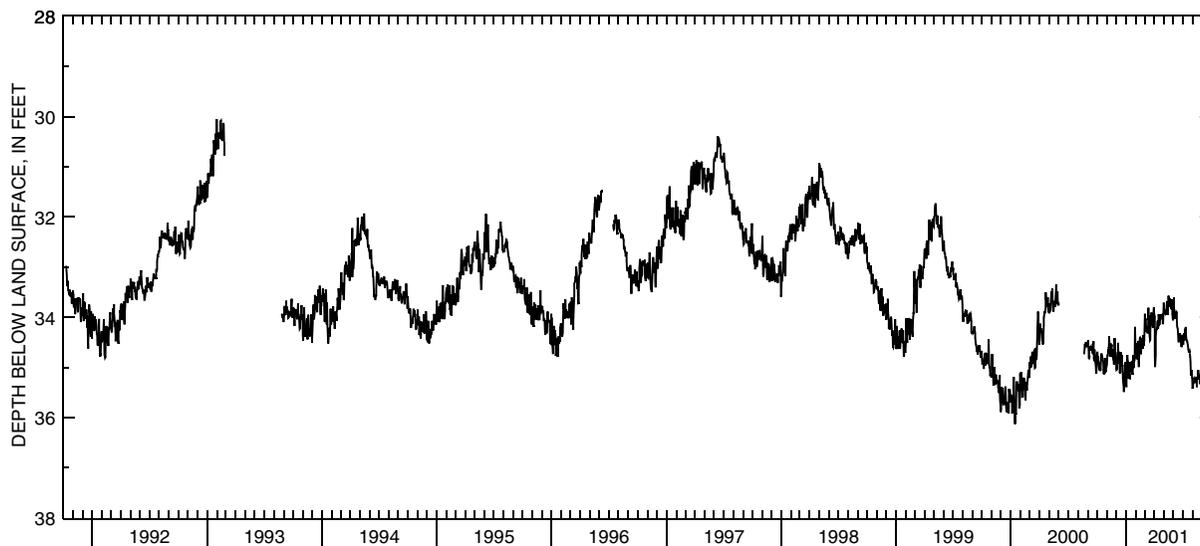
PERIOD OF RECORD.—April 1946 to current year. (No record in 1948.)

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 36.13 ft below land-surface datum, Jan. 14, 2000; minimum daily low, 23.68 ft below land-surface datum, June 15 and 23, 1947.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34.81	34.94	34.92	35.25	34.73	34.19	33.94	33.71	33.74	34.45	35.42	35.29
2	34.69	34.81	35.05	35.39	34.81	33.93	33.98	33.75	33.60	34.55	35.39	35.24
3	34.79	34.75	35.04	35.31	34.81	34.05	34.75	33.92	33.89	34.46	35.25	35.17
4	34.82	34.73	34.93	35.07	34.62	34.02	34.99	33.88	34.00	34.36	35.20	35.42
5	34.81	34.66	34.78	34.75	34.52	34.06	34.76	33.90	34.03	34.32	35.30	35.49
6	34.92	34.66	34.77	34.81	34.72	34.26	34.35	33.89	33.97	34.46	35.26	35.46
7	34.97	34.59	34.51	34.90	34.84	34.29	34.30	33.92	33.92	34.36	35.31	35.08
8	35.04	34.60	34.83	35.07	34.69	34.18	34.24	33.91	33.93	34.23	35.26	35.25
9	35.05	34.38	34.93	35.19	34.47	34.24	34.23	33.91	33.92	34.24	35.24	35.24
10	34.89	34.68	34.71	35.18	34.87	34.25	34.23	33.85	33.89	34.19	35.22	35.30
11	35.01	34.78	34.69	35.16	34.99	34.32	34.15	33.68	33.91	34.37	35.24	35.44
12	35.06	34.72	35.09	35.21	34.80	34.26	34.07	33.91	34.02	34.43	35.19	35.41
13	34.94	34.52	35.12	35.22	34.71	33.81	34.23	33.95	34.18	34.47	35.21	35.40
14	34.79	34.54	35.08	35.06	34.41	34.02	34.19	33.91	34.23	34.45	35.39	35.47
15	34.72	34.61	35.10	34.89	34.40	34.01	33.94	33.72	34.23	34.50	35.34	35.40
16	34.78	34.54	34.70	35.09	34.41	33.96	33.98	33.57	34.34	34.53	35.18	35.29
17	34.78	34.76	34.75	35.08	34.73	34.31	34.15	33.64	34.45	34.56	35.23	35.24
18	34.81	34.79	34.82	34.96	34.72	34.45	34.14	33.74	34.50	34.63	35.21	35.21
19	34.82	34.66	34.75	34.88	34.56	34.44	34.07	33.79	34.39	34.66	35.05	35.13
20	34.87	34.63	34.97	34.93	34.41	34.27	33.99	33.71	34.47	34.70	35.17	35.22
21	34.95	34.81	34.95	35.13	34.63	33.99	33.95	33.62	34.41	34.68	35.23	35.22
22	35.11	34.83	35.21	35.13	34.53	33.95	34.03	33.70	34.32	34.67	35.20	35.37
23	35.14	34.86	35.29	34.93	34.62	33.91	33.94	33.74	34.36	34.72	35.20	35.30
24	35.07	34.94	35.35	34.75	34.59	33.99	34.00	33.75	34.47	34.79	35.33	35.25
25	34.98	34.79	35.49	35.01	34.36	34.00	34.01	33.84	34.50	34.89	35.30	35.23
26	34.88	34.41	35.42	34.91	34.57	34.07	33.99	33.81	34.56	35.12	35.14	35.22
27	34.81	34.57	35.13	34.84	34.49	34.20	33.93	33.64	34.59	35.16	35.14	35.36
28	35.09	34.74	35.11	34.87	34.47	34.16	34.12	33.81	34.52	35.12	35.30	35.63
29	35.07	34.73	35.00	34.80	---	33.96	34.12	33.94	34.44	35.05	35.33	35.67
30	35.00	34.84	34.90	34.19	---	33.83	33.95	34.06	34.35	35.19	35.26	35.53
31	35.00	---	35.16	34.52	---	33.80	---	34.02	---	35.35	35.22	---
MAX	35.14	34.94	35.49	35.39	34.99	34.45	34.99	34.06	34.59	35.35	35.42	35.67

CAL YR 2000 LOW 36.13
WTR YR 2001 LOW 35.67



GROUND-WATER RECORDS

Ross County

391341083172200. LOCAL NUMBER, RO-7

LOCATION.—Latitude 39°13'41", longitude 83°17'22", Hydrologic Unit 05060003, Highland County well field, 1 mi west of Bainbridge, Ohio.

Owner: Highland County Water Company.

AQUIFER.—Sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.—Drilled test water table well, diameter 6 in., depth 67 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 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.

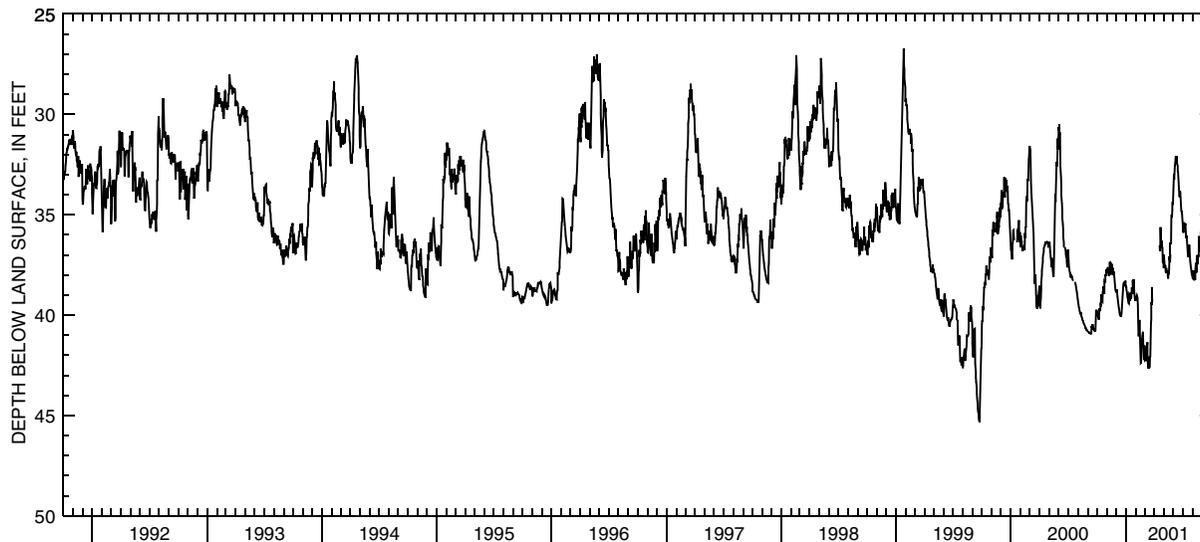
PERIOD OF RECORD.—February 1971 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 45.88 ft below land-surface datum, Dec. 31, 1989; minimum daily low, 20.93 ft below land-surface datum, Feb. 28, 1971.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39.81	37.72	38.83	38.55	39.27	41.95	---	37.66	33.82	35.59	38.11	35.66
2	39.91	37.72	38.88	38.62	39.20	41.71	---	37.05	32.99	35.86	38.20	36.08
3	39.99	37.89	38.72	38.72	39.14	41.53	---	37.33	33.14	35.87	38.21	36.17
4	40.07	37.61	38.86	38.88	39.07	41.73	---	37.50	33.25	35.52	37.77	36.17
5	40.11	37.77	39.07	38.99	39.03	42.29	---	37.61	32.53	35.60	37.98	35.86
6	40.19	37.87	39.22	39.09	39.09	42.22	---	37.51	32.60	35.43	38.07	36.06
7	40.19	38.00	39.33	39.22	39.15	41.89	---	37.82	32.41	35.45	38.14	36.11
8	39.68	38.06	39.49	39.27	39.51	41.66	---	37.91	32.07	35.50	38.21	35.63
9	39.74	37.89	39.61	39.39	40.36	41.47	---	37.66	32.22	35.44	38.25	36.05
10	39.76	37.64	39.69	39.43	41.02	41.35	---	37.79	32.24	35.82	37.78	36.22
11	39.76	37.35	39.81	39.26	41.03	42.02	---	37.82	32.07	36.09	37.40	35.80
12	39.49	37.71	39.94	38.95	40.73	42.62	---	37.86	32.22	36.16	37.66	36.05
13	39.50	37.93	39.99	39.01	40.25	42.62	---	37.87	32.46	36.04	37.82	36.14
14	38.95	37.99	40.04	39.24	40.95	42.34	---	38.09	32.57	36.36	37.88	35.93
15	39.12	37.43	40.06	39.24	41.55	42.07	---	38.18	32.83	36.64	37.02	36.16
16	39.25	37.48	40.06	38.86	42.07	42.59	---	37.89	32.88	36.88	37.41	36.20
17	39.33	37.47	40.01	39.07	42.41	42.63	---	37.97	33.18	37.07	37.42	35.86
18	39.35	37.81	39.88	39.18	42.39	42.10	36.52	37.69	33.50	37.08	37.30	36.22
19	38.80	37.85	39.63	38.69	41.88	42.06	36.73	37.07	33.82	36.83	37.03	36.29
20	38.84	37.65	39.39	38.63	41.50	42.05	36.82	37.26	34.05	36.85	37.04	35.96
21	38.56	37.96	39.09	38.76	41.22	40.46	35.63	37.29	34.12	36.50	36.08	36.03
22	38.69	38.00	38.81	38.93	41.04	40.23	36.17	36.99	33.81	36.81	36.59	35.31
23	38.89	37.85	38.58	38.26	40.91	39.36	36.42	36.43	33.89	37.08	36.85	36.03
24	38.94	37.88	38.40	38.66	40.84	39.49	36.50	36.44	34.19	37.31	36.60	36.08
25	38.31	38.07	38.37	38.84	41.55	38.61	36.30	35.49	34.49	37.43	36.10	35.60
26	38.36	38.27	38.38	38.21	41.55	39.32	36.61	35.07	34.79	37.58	36.21	36.04
27	38.36	38.47	38.43	38.64	42.18	39.33	36.66	35.09	34.85	37.69	36.46	35.62
28	37.98	38.64	38.52	38.91	42.21	---	37.37	34.78	34.82	37.80	35.83	36.20
29	38.05	38.78	38.54	39.10	---	---	37.38	34.44	35.09	37.87	36.23	36.27
30	37.74	38.80	38.29	39.26	---	---	36.98	34.46	35.36	38.00	36.47	36.10
31	37.87	---	38.50	39.27	---	---	---	33.81	---	38.06	36.05	---
MAX	40.19	38.80	40.06	39.43	42.41	42.63	37.38	38.18	35.36	38.06	38.25	36.29

CAL YR 2000 LOW 40.93
WTR YR 2001 LOW 42.63



GROUND-WATER RECORDS
Shelby County

401707084103100. LOCAL NUMBER, SH-5

LOCATION.—Latitude 40°17'07", longitude 84°10'31", Hydrologic Unit 05080001, at Sidney, Ohio. Owner: Stolle Corporation.

AQUIFER.—Limestone of Silurian Age.

WELL CHARACTERISTICS.—Drilled unused artesian well, diameter 8 in., depth 300 ft, cased to 130 ft.

INSTRUMENTATION.—Digital recorder, 60-minute punch.

DATUM.—Elevation of land-surface datum is 1,028 ft above sea level, from topographic map. Measuring point: Top of platform 1.7 ft above land-surface datum.

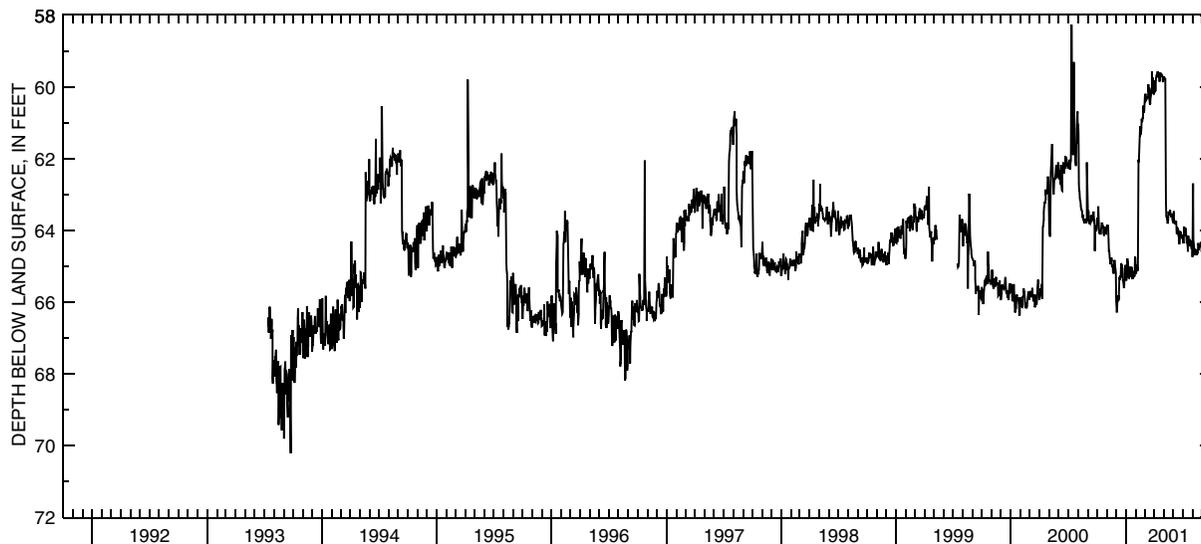
REMARKS.—Station operated by Ohio Department of Natural Resources (ODNR), Division of Water. Some historical records not published by the USGS are available from ODNR.

PERIOD OF RECORD.—July 1993 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 70.22 ft below land-surface datum, Sept. 23, 1993; minimum daily low, 58.26 ft below land-surface datum, July 12, 2000.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63.79	63.96	65.98	65.27	64.99	60.48	59.81	59.80	63.57	64.11	64.74	64.52
2	63.65	63.89	66.09	65.40	65.20	60.25	59.89	59.70	63.46	64.30	62.69	64.55
3	63.69	63.86	66.29	65.37	65.17	60.22	60.00	59.78	63.62	64.36	63.96	64.52
4	63.70	63.86	66.18	65.10	65.11	60.18	60.11	59.74	63.75	64.14	64.26	64.61
5	63.33	63.86	65.93	64.87	64.96	60.25	60.08	59.78	63.83	63.89	64.42	64.77
6	63.70	63.95	65.98	64.78	65.03	60.35	59.89	59.78	63.75	64.15	64.54	64.77
7	63.94	64.53	65.93	64.92	65.11	60.33	59.75	61.22	63.75	64.10	64.69	64.66
8	64.04	64.59	65.82	65.13	65.11	60.30	59.70	63.21	63.77	64.01	64.62	64.61
9	64.09	64.54	65.95	65.31	63.84	60.30	59.65	63.59	63.79	63.95	64.52	64.53
10	63.99	64.80	65.61	65.33	62.02	60.33	59.70	63.64	63.74	63.95	64.55	64.69
11	64.01	64.92	65.29	65.31	62.09	60.30	59.61	63.65	64.10	64.08	64.64	64.77
12	64.11	64.92	65.31	65.22	61.91	60.28	59.56	63.70	63.95	64.19	64.59	64.52
13	64.04	64.75	65.37	65.26	61.69	59.92	59.73	63.81	63.90	64.34	64.60	64.63
14	63.94	64.79	65.26	65.30	61.43	60.12	59.69	63.78	63.97	64.34	64.68	64.78
15	63.85	64.85	65.32	65.01	61.09	60.04	59.62	63.70	63.94	64.34	64.69	64.67
16	63.77	64.82	65.04	65.19	61.27	60.02	59.69	63.47	64.05	64.44	64.61	64.58
17	63.81	64.93	64.91	65.22	61.30	60.33	59.80	63.50	64.13	64.59	64.64	64.57
18	63.82	65.01	65.00	65.16	61.28	60.49	59.84	63.55	64.17	64.15	64.61	64.46
19	63.89	64.95	64.95	65.02	61.13	60.46	59.80	63.57	64.23	64.31	64.35	64.35
20	63.89	64.98	65.05	65.18	60.88	60.37	59.59	63.56	64.39	64.39	64.42	64.29
21	63.92	65.16	65.06	65.34	60.97	60.23	59.64	63.43	64.25	64.44	64.55	64.32
22	64.06	65.19	65.40	65.34	60.95	60.11	59.71	63.50	64.04	64.24	64.48	64.32
23	64.15	65.19	65.40	65.32	60.86	60.10	59.61	63.55	64.05	64.26	64.41	64.33
24	64.10	65.17	65.47	65.13	60.86	60.00	59.65	63.58	64.05	64.31	64.44	64.26
25	64.02	64.86	65.59	65.30	60.52	59.57	59.67	63.63	64.07	64.27	64.44	64.40
26	63.95	64.82	65.59	65.31	60.70	60.05	59.68	63.63	64.15	64.31	64.32	64.43
27	63.89	64.92	65.38	65.19	60.70	60.17	59.69	63.52	64.20	64.45	64.35	64.36
28	64.07	65.04	65.20	65.28	60.65	59.74	59.83	63.59	64.23	64.51	64.40	64.49
29	64.08	65.07	65.11	65.25	---	59.84	59.86	63.67	64.17	64.36	64.50	64.58
30	64.05	65.19	64.96	64.72	---	60.01	59.74	63.77	64.16	64.36	64.59	64.57
31	64.02	---	65.16	64.76	---	60.21	---	63.77	---	64.51	64.39	---
MAX	64.15	65.19	66.29	65.40	65.20	60.49	60.11	63.81	64.39	64.59	64.74	64.78
CAL YR 2000	LOW 66.38											
WTR YR 2001	LOW 66.29											



GROUND-WATER RECORDS
Stark County

404939081203800. LOCAL NUMBER, ST-5A

LOCATION.—Latitude 40°49'39", longitude 81°20'38", Hydrologic Unit 05040001, Northeast well field off Harrisburg Road, Canton, Ohio. Owner: Canton Water Department.

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled unused water table well, diameter 12 in., depth 132 ft, cased.

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

DATUM.—Elevation of land-surface datum is 1,060 ft above sea level, from topographic map. Measuring point: Floor of instrument shelter 1.00 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.

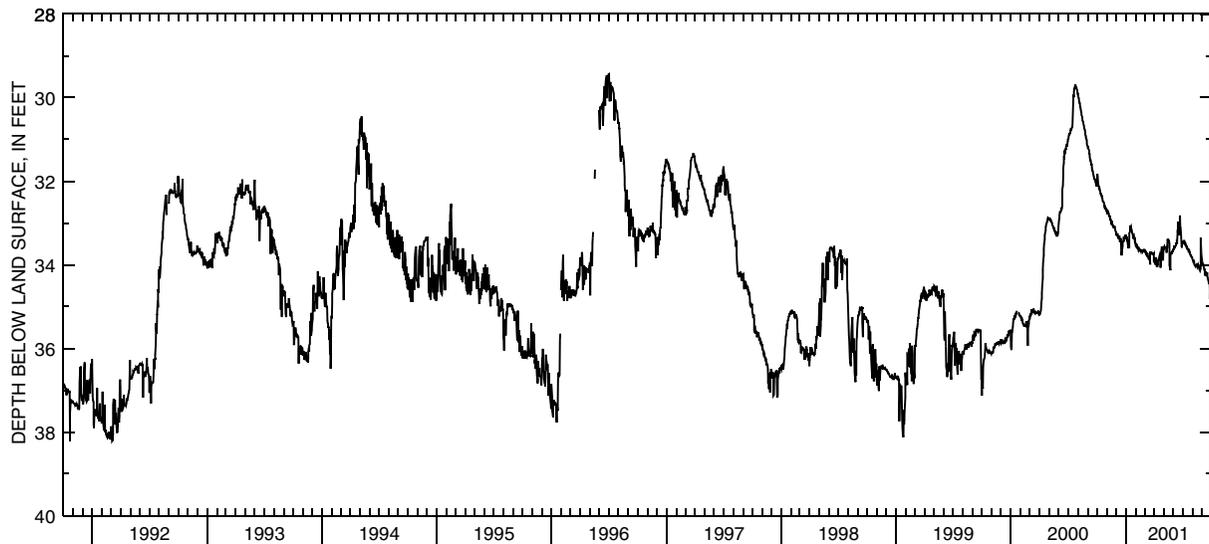
PERIOD OF RECORD.—June 1949 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 54.00 ft below land-surface datum, Feb. 10, 1956; minimum daily low, 26.13 ft below land-surface datum, May 18, 1964.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32.13	32.69	33.25	33.28	33.54	33.68	33.93	33.56	33.63	33.45	33.87	33.95
2	31.82	32.72	33.30	33.35	33.56	33.68	33.88	33.59	33.62	33.45	33.90	33.99
3	31.90	32.75	33.27	33.38	33.48	33.69	33.93	33.57	33.54	33.45	33.92	33.95
4	32.00	32.73	33.28	33.32	33.53	33.68	33.96	33.59	33.60	33.47	33.95	33.99
5	32.09	32.78	33.25	33.44	33.53	33.72	34.00	33.59	33.59	33.41	33.92	34.02
6	32.12	32.73	33.28	33.41	33.54	33.71	33.82	33.59	33.56	33.48	33.98	34.08
7	32.15	32.78	33.35	33.53	33.60	33.75	33.87	33.59	33.56	33.48	34.00	34.10
8	32.13	32.82	33.33	33.48	33.57	33.74	33.95	33.59	33.54	33.50	34.02	34.14
9	32.18	32.84	33.38	33.60	33.62	33.80	34.03	33.59	33.47	33.53	33.99	34.10
10	32.21	32.84	33.36	33.53	33.65	33.72	34.03	33.71	33.50	33.51	34.03	34.26
11	32.25	32.90	33.30	33.59	33.63	33.78	33.98	33.54	33.47	33.54	34.00	34.17
12	32.30	32.90	33.42	33.23	33.62	33.80	33.99	33.60	33.44	33.57	34.03	34.17
13	32.30	32.91	33.45	33.20	33.66	33.78	33.92	33.38	33.45	33.53	34.02	34.25
14	32.32	32.94	33.39	33.10	33.62	33.82	33.88	33.41	33.15	33.60	33.96	34.22
15	32.35	32.97	33.38	33.10	33.68	33.80	33.88	33.41	33.23	33.60	34.02	34.26
16	32.38	32.94	33.38	33.07	33.63	33.81	33.84	33.42	32.96	33.62	34.05	34.17
17	32.37	33.02	33.71	33.07	33.66	33.88	33.84	33.42	33.20	33.65	33.99	34.28
18	32.43	33.05	33.77	33.13	33.68	33.88	33.78	33.45	33.24	33.60	34.03	34.32
19	32.48	33.03	33.69	33.18	33.65	33.99	33.75	33.48	33.21	33.69	34.00	34.34
20	32.49	33.05	33.62	33.21	33.65	33.71	33.77	34.00	33.28	33.66	34.05	34.38
21	32.49	33.06	33.54	33.23	33.65	33.71	34.07	34.08	33.23	33.66	34.05	34.38
22	32.49	33.10	33.44	33.27	33.66	33.72	33.90	34.13	32.82	33.71	34.10	34.43
23	32.52	33.10	33.42	33.28	33.68	33.71	33.71	33.77	33.10	33.71	34.11	34.43
24	32.58	33.06	33.41	33.32	33.66	33.71	33.63	33.72	33.12	33.75	34.10	34.47
25	32.61	33.10	33.32	33.30	33.65	33.71	33.65	33.72	33.23	33.77	34.13	34.46
26	32.60	33.07	33.44	33.35	33.66	33.74	33.57	33.71	33.41	33.77	34.08	34.82
27	32.63	33.12	33.35	33.38	33.68	33.74	33.62	33.68	33.53	33.80	33.35	34.71
28	32.67	33.15	33.38	33.35	33.62	33.74	33.88	33.69	33.59	33.80	33.59	34.59
29	32.63	33.20	33.30	33.41	---	33.74	33.88	33.69	33.45	33.80	33.75	34.59
30	32.67	33.21	33.30	33.39	---	33.72	33.62	33.66	33.47	33.82	33.82	34.63
31	32.70	---	33.33	33.47	---	33.92	---	33.62	---	33.87	33.87	---
MAX	32.70	33.21	33.77	33.60	33.68	33.99	34.07	34.13	33.63	33.87	34.13	34.82

CAL YR 2000 LOW 36.03
WTR YR 2001 LOW 34.82



GROUND-WATER RECORDS
Stark County

405211081253500. LOCAL NUMBER, ST-27

LOCATION.—Latitude 40°52'11", longitude 81°25'35", Hydrologic Unit 05040001, Dresler Road near North Canton, Ohio. Owner: North Canton Water Department

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled unused artesian well, diameter 8 in., depth 55 ft, cased.

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

DATUM.—Elevation of land-surface datum is 1,060 ft above sea level, from topographic map. Measuring point: Floor of instrument shelter 2.50 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.

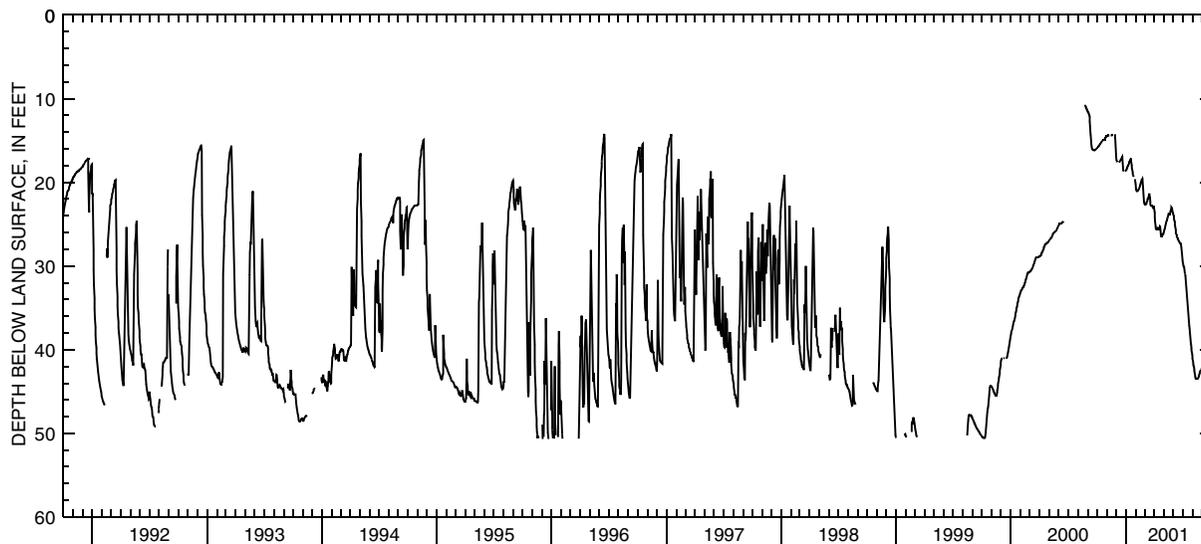
PERIOD OF RECORD.—May 1975 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 51.10 ft below land-surface datum, May 20, 1990; minimum daily low, 7.10 ft below land-surface datum, June 15, 1981.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.90	14.49	17.00	18.57	20.19	22.61	23.16	25.98	23.90	29.57	41.04	---
2	15.85	14.46	17.31	18.50	20.70	22.64	23.61	25.82	24.03	29.78	41.40	---
3	15.78	14.45	17.46	18.42	20.99	22.64	24.15	25.65	24.26	30.03	41.72	---
4	15.72	14.42	17.54	18.33	21.06	22.64	24.71	25.52	24.51	30.06	41.88	---
5	15.69	14.40	17.58	18.25	21.06	22.59	25.32	25.41	24.75	30.11	42.06	---
6	15.68	14.37	---	18.12	21.06	22.53	25.56	25.20	25.02	30.43	42.30	---
7	15.59	14.33	---	18.03	21.06	22.44	25.62	25.04	25.29	30.77	42.59	---
8	15.53	14.34	---	17.93	21.00	22.34	25.62	24.90	25.65	30.90	42.90	---
9	15.47	---	17.56	17.82	20.97	22.22	25.62	24.71	25.98	31.15	43.19	---
10	15.42	---	17.55	17.72	20.85	22.14	25.58	24.60	26.16	31.56	43.38	---
11	15.36	---	17.54	17.63	20.76	21.97	25.49	24.51	26.31	32.04	43.46	---
12	15.30	---	17.49	17.54	20.67	21.93	25.44	24.36	26.52	32.53	43.47	---
13	15.24	---	17.39	17.46	20.55	21.89	25.46	24.26	26.55	33.05	43.50	---
14	15.20	14.39	17.33	17.37	20.46	21.78	25.62	24.09	26.65	33.56	43.50	---
15	15.15	14.37	17.28	17.28	20.34	21.47	25.62	23.94	26.83	34.08	43.50	---
16	15.10	14.34	17.28	17.19	20.22	21.33	25.61	23.79	26.88	34.56	43.49	---
17	15.05	14.31	17.25	17.11	20.09	21.41	25.50	23.84	26.91	35.10	43.44	---
18	15.00	14.30	17.06	17.50	19.97	21.81	25.38	23.85	26.94	35.61	43.40	---
19	14.97	14.37	16.95	17.97	19.85	22.29	25.29	23.85	27.02	36.12	43.37	---
20	14.94	14.39	16.89	18.22	19.71	22.70	25.35	23.79	27.15	36.60	43.20	---
21	14.91	---	17.39	18.42	19.59	22.80	25.71	23.70	27.21	37.08	43.08	---
22	14.90	---	17.97	18.77	19.52	22.80	26.19	23.54	27.30	37.44	43.01	---
23	14.88	---	18.51	18.99	19.90	22.80	26.45	23.39	27.30	37.86	42.81	---
24	14.87	---	18.65	19.14	20.40	22.79	26.46	23.28	27.30	38.28	42.75	---
25	14.85	14.35	18.68	19.32	20.99	22.71	26.46	23.13	27.40	38.75	42.57	---
26	14.70	14.34	---	---	21.62	22.89	26.38	22.98	27.68	39.18	42.50	---
27	14.67	14.35	---	---	22.22	23.01	26.25	23.12	28.07	39.45	42.50	---
28	14.61	14.75	---	---	22.47	23.01	26.19	23.31	28.40	39.77	42.39	---
29	14.58	15.44	18.68	---	---	23.00	26.19	23.47	28.80	40.05	42.32	---
30	14.55	16.20	18.66	19.61	---	22.94	26.12	23.61	29.27	40.43	42.23	---
31	14.52	---	18.65	19.95	---	22.82	---	23.76	---	40.70	---	---
MAX	15.90	16.20	18.68	19.95	22.47	23.01	26.46	25.98	29.27	40.70	43.50	---

CAL YR 2000 LOW 38.18
WTR YR 2001 LOW 43.50



GROUND-WATER RECORDS
Tuscarawas County

403207081293800. LOCAL NUMBER, TU-3

LOCATION.—Latitude 40°32'07", longitude 81°29'38", Hydrologic Unit 05040001, in the northwest part of Dover, Ohio. Owner: Dover City Water Department.

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled unused water table well, diameter 6 in., depth 62 ft, cased.

INSTRUMENTATION.—Monthly measurement with chalked tape by USGS personnel.

DATUM.—Elevation of land-surface datum is 880 ft above sea level, from topographic map. Measuring point: Floor of instrument shelter 3.00 ft above land-surface datum.

PERIOD OF RECORD.—May 1960 to October 1982 continuous, periodic thereafter.

REVISIONS.—The water level reported for Jan. 31, 1993, has been revised to 9.25 ft below land-surface datum.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 19.35 ft below land-surface datum, Nov. 29, 30, and Dec. 6-8, 1962; minimum daily low, 3.20 ft below land-surface datum, July 14-15, 1969.

WATER LEVEL,
IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION,
WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DATE	WATER LEVEL
Oct. 2	11.06
Oct. 31	11.79
Dec. 1	12.58
Jan. 4	11.40
Feb. 1	12.04
Mar. 1	11.82
Apr. 3	11.95
May 1	11.75
June 1	11.00
July 2	11.51
Aug. 1	12.60
Aug. 31	13.32

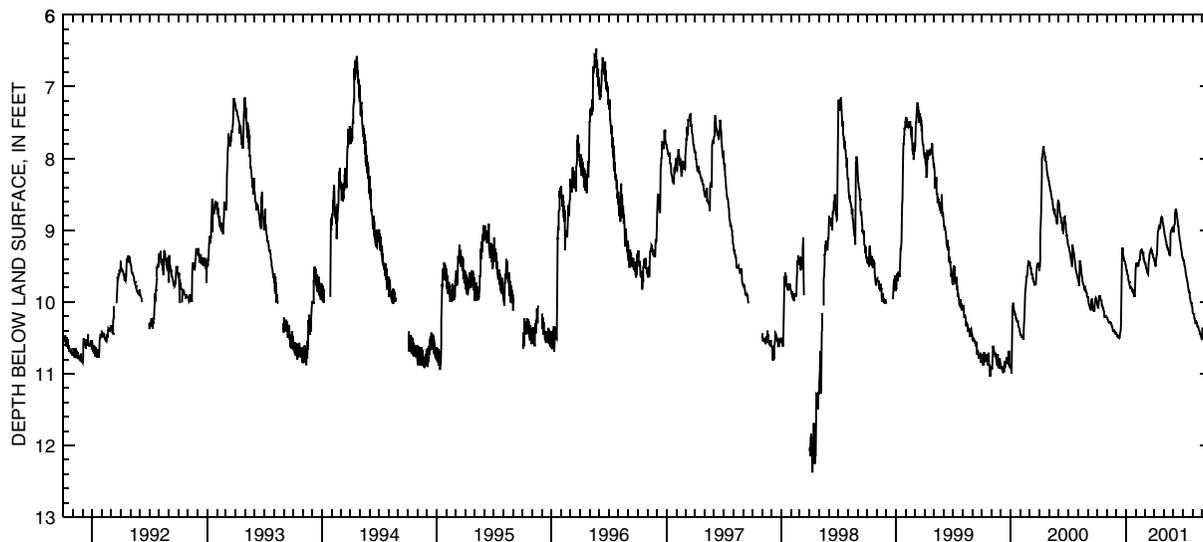
**GROUND-WATER RECORDS
Tuscarawas County**

403557081313600. LOCAL NUMBER, TU-4

LOCATION.—Latitude 40°35'57", longitude 81°31'36", Hydrologic Unit 05040001, near Fire Department building in Strasburg, Ohio. Owner: Strasburg Water Department
 AQUIFER.—Sand and gravel of Pleistocene Age.
 WELL CHARACTERISTICS.—Drilled unused water table well, diameter 6 in., depth 42.5 ft, cased.
 INSTRUMENTATION.—Electronic data logger, 60-minute log interval.
 DATUM.—Elevation of land-surface datum is 920 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. Some historical records not published by the USGS are available from ODNR.
 PERIOD OF RECORD.—June 1960 to current year.
 EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 12.38 ft below land-surface datum, Apr. 10, 1998; minimum daily low, 4.05 ft below land-surface datum, July 13, 1969.

**DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.01	10.22	10.44	9.51	9.53	9.44	9.41	8.96	9.01	9.39	10.13	10.37
2	10.05	10.22	10.46	9.56	9.49	9.45	9.45	8.99	9.03	9.42	10.16	10.37
3	10.06	10.23	10.44	9.56	9.47	9.47	9.45	9.03	8.96	9.42	10.17	10.37
4	10.08	10.25	10.46	9.56	9.45	9.47	9.48	9.06	8.92	9.42	10.17	10.40
5	10.08	10.25	10.49	9.60	9.48	9.51	9.51	9.08	8.91	9.45	10.17	10.42
6	10.02	10.26	10.46	9.62	9.48	9.53	9.45	9.09	8.79	9.49	10.22	10.49
7	9.95	10.29	10.49	9.63	9.51	9.54	9.42	9.14	8.74	9.51	10.23	10.49
8	9.91	10.29	10.50	9.66	9.49	9.56	9.38	9.15	8.70	9.51	10.25	10.52
9	9.93	10.29	10.50	9.69	9.49	9.57	9.34	9.16	8.72	9.56	10.28	10.53
10	9.91	10.29	10.49	9.72	9.49	9.60	9.33	9.21	8.72	9.59	10.29	10.56
11	9.93	10.29	10.50	9.72	9.44	9.60	9.23	9.21	8.76	9.62	10.28	10.56
12	9.96	10.28	10.49	9.75	9.42	9.62	9.08	9.24	8.79	9.65	10.26	10.56
13	9.98	10.29	10.44	9.78	9.41	9.56	9.01	9.24	8.82	9.67	10.28	10.59
14	9.96	10.31	10.42	9.78	9.41	9.49	9.00	9.27	8.88	9.69	10.29	10.61
15	9.98	10.31	10.40	9.81	9.36	9.41	8.99	9.27	8.90	9.71	10.29	10.62
16	10.05	10.32	10.32	9.81	9.30	9.38	8.94	9.29	8.94	9.75	10.34	10.62
17	10.05	10.34	9.75	9.80	9.30	9.34	8.94	9.30	8.94	9.76	10.34	10.64
18	10.06	10.35	9.54	9.78	9.29	9.31	8.94	9.33	9.00	9.80	10.35	10.64
19	10.08	10.35	9.41	9.83	9.27	9.30	8.97	9.33	9.05	9.84	10.35	10.65
20	10.08	10.38	9.33	9.83	9.27	9.29	8.97	9.33	9.08	9.84	10.38	10.68
21	10.09	10.40	9.24	9.81	9.30	9.27	8.90	9.36	9.12	9.87	10.38	10.68
22	10.11	10.40	9.33	9.87	9.30	9.29	8.85	9.18	9.14	9.87	10.40	10.68
23	10.14	10.41	9.36	9.83	9.33	9.27	8.82	9.05	9.16	9.93	10.42	10.68
24	10.20	10.41	9.36	9.86	9.34	9.29	8.81	9.01	9.20	9.95	10.44	10.71
25	10.22	10.41	9.39	9.89	9.30	9.29	8.82	8.99	9.24	9.98	10.44	10.71
26	10.20	10.40	9.42	9.89	9.41	9.33	8.84	8.99	9.26	10.01	10.46	10.71
27	10.20	10.42	9.42	9.93	9.39	9.33	8.84	8.97	9.29	10.02	10.47	10.73
28	10.22	10.44	9.44	9.90	9.44	9.36	8.90	9.00	9.33	10.02	10.49	10.73
29	10.20	10.44	9.45	9.93	---	9.38	8.91	9.01	9.36	10.04	10.50	10.74
30	10.22	10.42	9.47	9.84	---	9.39	8.94	9.01	9.39	10.06	10.52	10.76
31	10.20	---	9.48	9.69	---	9.41	---	9.03	---	10.08	10.53	---
MAX	10.22	10.44	10.50	9.93	9.53	9.62	9.51	9.36	9.39	10.08	10.53	10.76
CAL YR 2000	LOW 11.00											
WTR YR 2001	LOW 10.76											



GROUND-WATER RECORDS
Tuscarawas County

403653081321800. LOCAL NUMBER, TU-1

LOCATION.—Latitude 40°36'53", longitude 81°32'18", Hydrologic Unit 05040001, 1.3 mi north of Strasburg, Ohio. Owner: Ray Libert.

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled unused water table well, diameter 4 in., depth 23 ft, cased.

INSTRUMENTATION.—Type F continuous recorder.

DATUM.—Elevation of land-surface datum is 928.24 ft above sea level. Measuring point: Floor of instrument shelter 0.90 ft above land-surface datum.

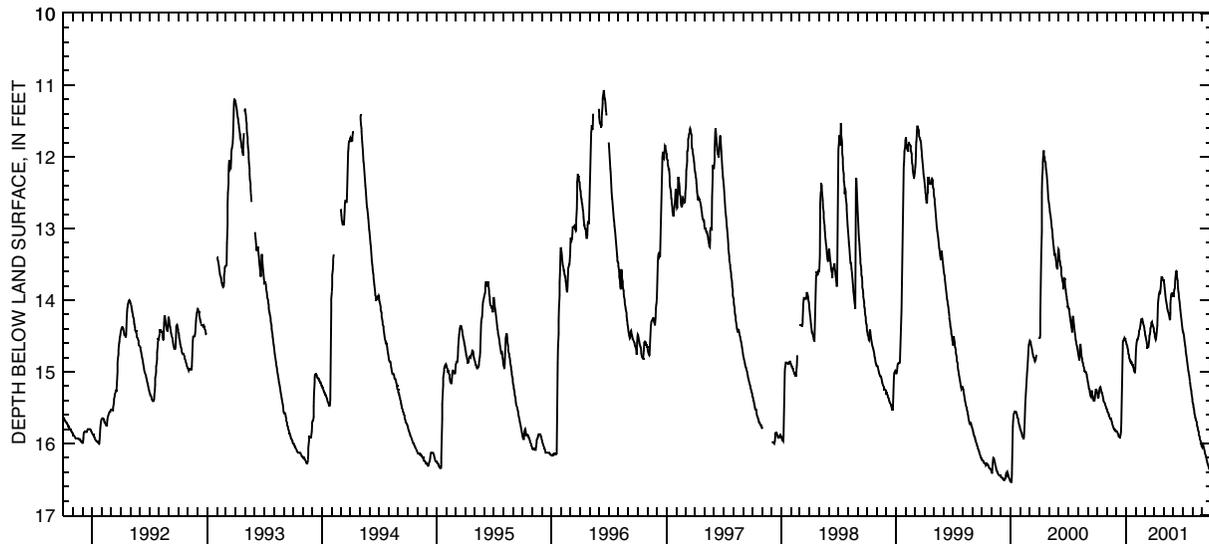
REMARKS.—Station operated by Ohio Department of Natural Resources (ODNR), Division of Water. Some historical records not published by the USGS are available from ODNR.

PERIOD OF RECORD.—July 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 16.54 ft below land-surface datum, Jan. 1-3, 2000; minimum daily low, 6.64 ft below land-surface datum, July 14, 1969.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.29	15.52	15.83	14.58	14.84	14.42	14.45	13.71	13.95	14.44	15.42	16.00
2	15.30	15.53	15.83	14.61	14.70	14.44	14.47	13.75	13.95	14.44	15.44	15.98
3	15.33	15.55	15.83	14.61	14.64	14.49	14.50	13.78	13.90	14.46	15.46	16.00
4	15.36	15.56	15.84	14.63	14.59	14.50	14.52	13.83	13.86	14.48	15.49	16.02
5	15.36	15.57	15.85	14.64	14.57	14.52	14.55	13.87	13.83	14.51	15.52	16.04
6	15.35	15.58	15.86	14.66	14.55	14.55	14.55	13.92	13.82	14.56	15.55	16.06
7	15.30	15.59	15.87	14.69	14.55	14.57	14.54	13.96	13.72	14.59	15.58	16.08
8	15.26	15.61	15.88	14.72	14.53	14.60	14.49	14.00	13.63	14.62	15.61	16.10
9	15.23	15.62	15.90	14.75	14.52	14.62	14.45	14.02	13.60	14.65	15.63	16.12
10	15.22	15.64	15.90	14.76	14.50	14.64	14.40	14.05	13.59	14.70	15.65	16.15
11	15.21	15.65	15.91	14.79	14.48	14.66	14.35	14.07	13.60	14.74	15.66	16.16
12	15.22	15.65	15.92	14.81	14.42	14.66	14.17	14.11	13.63	14.77	15.67	16.17
13	15.24	15.65	15.92	14.83	14.41	14.65	14.05	14.13	13.69	14.80	15.69	16.20
14	15.26	15.66	15.89	14.84	14.40	14.65	14.00	14.15	13.73	14.84	15.70	16.21
15	15.28	15.67	15.87	14.86	14.38	14.58	13.96	14.17	13.77	14.87	15.73	16.23
16	15.30	15.69	15.84	14.87	14.35	14.53	13.92	14.18	13.83	14.91	15.76	16.25
17	15.30	15.70	15.72	14.87	14.31	14.50	13.90	14.20	13.88	14.94	15.78	16.27
18	15.32	15.71	15.35	14.86	14.29	14.47	13.88	14.21	13.90	14.98	15.80	16.29
19	15.34	15.73	15.08	14.87	14.27	14.43	13.88	14.23	13.97	15.00	15.82	16.30
20	15.36	15.75	14.90	14.88	14.26	14.40	13.89	14.25	14.00	15.03	15.84	16.31
21	15.38	15.76	14.75	14.90	14.28	14.37	13.85	14.28	14.03	15.05	15.87	16.33
22	15.40	15.77	14.58	14.90	14.27	14.35	13.80	14.18	14.08	15.09	15.89	16.35
23	15.42	15.79	14.56	14.91	14.30	14.31	13.73	14.05	14.13	15.13	15.91	16.36
24	15.43	15.80	14.55	14.93	14.31	14.30	13.68	13.94	14.17	15.16	15.92	16.37
25	15.43	15.80	14.55	14.95	14.33	14.30	13.68	13.91	14.21	15.20	15.95	16.39
26	15.44	15.81	14.55	14.95	14.35	14.33	13.68	13.91	14.25	15.23	15.97	16.40
27	15.46	15.81	14.53	14.99	14.36	14.35	13.69	13.90	14.29	15.25	15.99	16.41
28	15.47	15.82	14.54	15.00	14.38	14.36	13.71	13.90	14.33	15.27	16.01	16.42
29	15.49	15.82	14.54	15.01	---	14.37	13.72	13.90	14.37	15.30	16.02	16.44
30	15.50	15.83	14.53	15.01	---	14.39	13.73	13.91	14.41	15.35	16.04	16.45
31	15.51	---	14.57	14.95	---	14.40	---	13.94	---	15.38	16.05	---
MAX	15.51	15.83	15.92	15.01	14.84	14.66	14.55	14.28	14.41	15.38	16.05	16.45
CAL YR 2000	LOW 16.54											
WTR YR 2001	LOW 16.45											



**GROUND-WATER RECORDS
Tuscarawas County**

403823081324200. LOCAL NUMBER, TU-5

LOCATION.—Latitude 40°38'23", longitude 81°32'42", Hydrologic Unit 05040001, Sugar Creek well field near Strasburg, Ohio. Owner: Canton Water Department

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled unused water table well, diameter 6 in., depth 100 ft, cased.

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

DATUM.—Elevation of land-surface datum is 937.93 ft above sea level. Measuring point: Floor of instrument shelter 4.00 ft above land-surface datum.

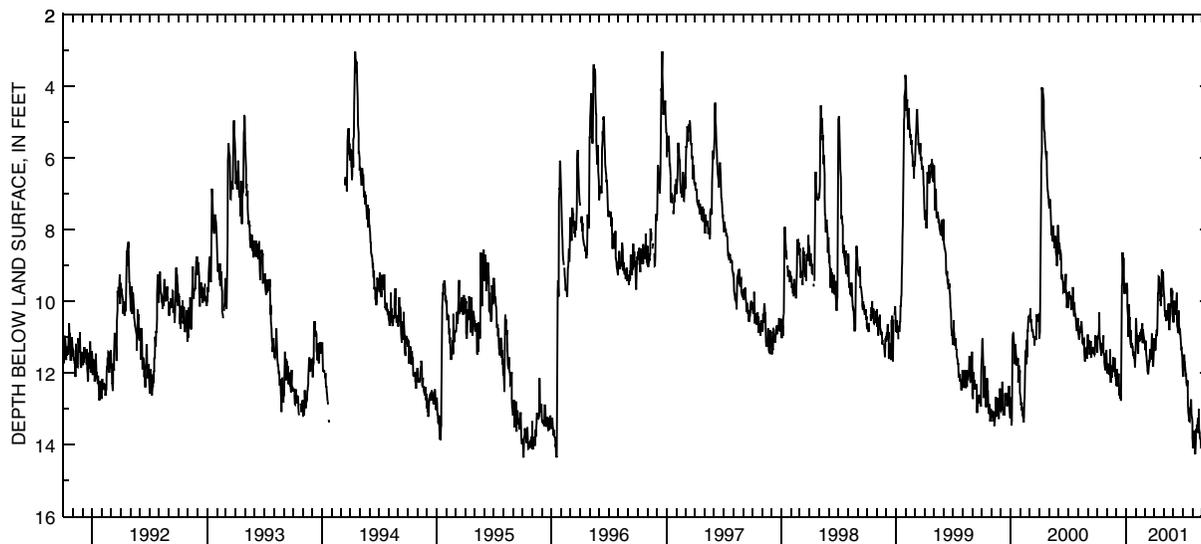
REMARKS.—Station operated by Ohio Department of Natural Resources (ODNR), Division of Water. Some historical records not published by the USGS are available from ODNR.

PERIOD OF RECORD.—June 1960 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 14.67 ft below land-surface datum, Sept. 14, 2001; minimum daily low, 0.20 ft below land-surface datum, Jan. 13, 1991.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.40	11.81	12.29	9.75	11.34	11.15	11.24	9.71	10.58	11.99	13.80	13.94
2	11.43	11.90	12.35	9.71	10.46	11.15	11.06	9.81	10.53	12.09	14.06	13.74
3	10.97	11.99	11.88	9.65	10.56	11.36	11.21	9.91	10.32	11.79	14.09	13.31
4	10.97	12.00	12.14	9.48	10.88	11.09	11.37	10.23	9.98	11.76	13.79	13.44
5	11.03	11.82	12.35	9.69	10.92	11.16	11.33	10.31	10.22	11.48	13.77	13.89
6	10.92	11.73	12.35	10.14	11.03	11.46	11.33	10.42	10.38	11.67	13.88	13.92
7	10.82	11.92	12.24	10.41	11.10	11.52	10.92	10.34	10.13	11.69	13.60	13.85
8	10.31	11.79	12.03	10.73	11.36	11.66	10.97	10.37	10.20	11.82	14.24	14.06
9	11.01	11.91	12.03	10.98	11.45	11.75	10.79	10.55	10.04	11.92	14.25	14.09
10	11.06	11.82	12.27	10.08	10.94	11.82	10.95	10.25	10.17	12.09	14.25	13.88
11	11.21	12.05	12.62	10.29	11.03	11.92	10.77	10.42	9.76	12.00	13.82	14.12
12	11.34	11.34	12.45	10.49	11.01	12.02	10.13	10.44	10.26	12.24	13.56	14.07
13	11.36	12.26	12.71	10.44	11.09	11.99	9.75	10.37	10.67	12.33	13.67	14.13
14	11.51	11.78	12.56	10.65	11.09	11.94	9.78	10.40	10.74	12.35	13.58	14.67
15	11.49	11.88	12.62	11.00	10.85	11.75	9.30	10.28	10.79	12.20	13.44	14.31
16	11.15	11.99	12.77	11.21	11.01	11.63	9.31	10.06	10.85	12.23	13.60	14.25
17	11.24	12.00	11.46	10.80	10.89	11.70	9.36	10.44	10.88	12.89	13.25	14.09
18	11.24	12.12	10.41	11.27	10.83	11.40	9.57	10.76	10.25	13.07	13.56	14.07
19	11.16	11.91	9.54	11.28	10.85	11.33	9.47	10.80	10.65	13.15	13.49	14.13
20	11.15	11.97	9.49	11.15	11.06	11.39	9.98	10.74	10.76	13.25	13.67	14.18
21	10.95	11.75	8.63	11.22	10.71	11.39	9.93	10.42	10.91	13.34	12.99	14.12
22	11.43	11.55	8.94	11.27	10.61	11.52	10.13	10.34	10.76	13.35	13.56	14.03
23	11.45	11.92	9.21	11.33	11.16	11.61	9.78	10.06	10.92	13.04	13.67	13.85
24	11.57	11.72	8.78	11.52	10.77	10.89	9.87	10.16	11.03	12.99	13.75	13.85
25	11.69	11.87	9.16	11.39	10.88	11.34	9.11	9.62	11.17	13.00	13.82	14.04
26	11.85	11.57	9.63	11.51	10.94	11.42	9.31	9.80	11.31	12.75	13.86	14.13
27	11.87	11.88	9.78	11.58	11.00	11.55	9.41	9.90	11.30	12.75	13.92	13.85
28	11.92	12.09	9.51	11.51	11.07	11.79	9.53	9.69	11.43	13.15	14.06	14.33
29	11.48	12.05	9.51	11.66	---	11.81	9.16	10.04	11.51	13.15	14.06	13.77
30	11.40	12.15	9.71	11.84	---	11.39	9.51	10.50	11.81	13.26	14.10	14.16
31	11.36	---	9.72	11.60	---	11.03	---	10.55	---	13.37	14.03	---
MAX	11.92	12.26	12.77	11.84	11.45	12.02	11.37	10.80	11.81	13.37	14.25	14.67
CAL YR 2000	LOW 13.46											
WTR YR 2001	LOW 14.67											



GROUND-WATER RECORDS
Union County

401826083255200. LOCAL NUMBER, U-4

LOCATION.—Latitude 40°18'26", longitude 83°25'52", Hydrologic Unit 05060001, 2.6 mi southeast of Raymond, Ohio. Owner: State of Ohio.

AQUIFER.—Limestone of Silurian Age.

WELL CHARACTERISTICS.—Drilled test artesian well, diameter 12 in., depth 350 ft, cased to 37 ft.

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

DATUM.—Elevation of land-surface datum is 1,040 ft above sea level, from topographic map. Measuring point: Floor of instrument shelter 3.00 ft above land-surface datum.

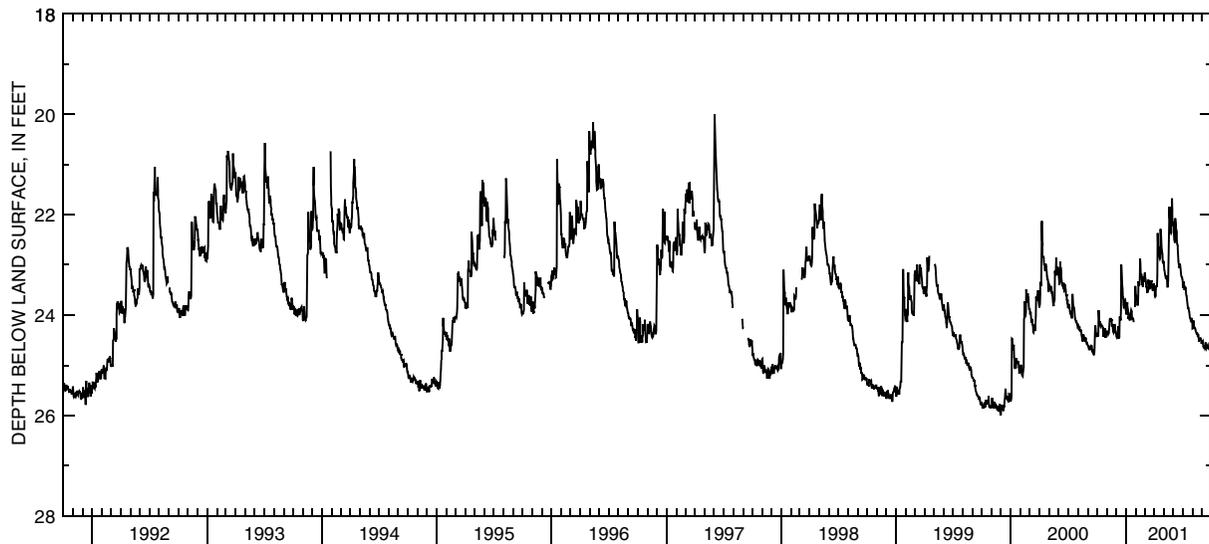
REMARKS.—Station operated by Ohio Department of Natural Resources (ODNR), Division of Water. Some historical records not published by the USGS are available from ODNR.

PERIOD OF RECORD.—February 1973 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 26.00 ft below land-surface datum, Nov. 30, 1999; minimum daily low, 19.32 ft below land-surface datum, Feb. 24, 1975.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.38	24.35	24.39	23.93	23.55	23.18	23.47	22.94	22.14	23.39	24.27	24.53
2	24.35	24.33	24.44	23.99	23.64	23.15	23.51	23.03	22.19	23.46	24.26	24.54
3	24.41	24.33	24.45	23.96	23.64	23.25	23.61	23.12	22.40	23.42	24.18	24.53
4	24.42	24.35	24.44	23.82	23.63	23.28	23.63	23.13	22.49	23.33	24.11	24.62
5	24.41	24.36	24.39	23.75	23.66	23.33	23.61	23.18	22.56	23.40	24.21	24.65
6	23.91	24.38	24.38	23.81	23.78	23.43	23.49	23.21	22.49	23.51	24.24	24.65
7	24.02	24.36	24.22	23.90	23.81	23.45	23.43	23.25	22.07	23.45	24.26	24.60
8	24.14	24.36	24.45	24.02	23.79	23.43	23.43	23.27	22.19	23.42	24.26	24.63
9	24.17	24.26	24.47	24.06	23.66	23.51	23.42	23.27	22.25	23.46	24.26	24.66
10	24.12	24.08	24.44	24.06	23.33	23.51	23.42	23.24	22.29	23.47	24.29	24.65
11	24.20	24.11	24.44	24.05	23.42	23.54	23.21	23.22	22.34	23.57	24.33	24.56
12	24.22	24.11	24.03	24.08	23.39	23.54	22.37	23.39	22.49	23.61	24.33	24.56
13	24.20	24.06	24.05	24.11	23.40	23.30	22.61	23.45	22.58	23.63	24.35	24.59
14	24.17	24.08	24.06	24.05	23.30	23.39	22.65	23.42	22.62	23.69	24.39	24.66
15	24.20	24.11	24.11	23.96	22.88	23.36	22.67	23.31	22.68	23.75	24.38	24.65
16	24.22	24.11	23.90	23.94	22.97	23.31	22.70	22.97	22.80	23.81	24.35	24.65
17	24.22	24.20	23.00	23.93	23.19	23.40	22.79	22.49	22.92	23.87	24.44	24.65
18	24.22	24.22	23.15	23.90	23.22	23.47	22.85	22.13	22.98	23.84	24.42	24.62
19	24.26	24.18	23.28	23.93	23.18	23.46	22.88	21.84	23.01	23.88	24.38	24.60
20	24.26	24.22	23.40	23.99	23.24	23.39	22.86	22.01	23.06	23.91	24.47	24.63
21	24.29	24.30	23.47	24.09	23.34	23.33	22.29	22.14	23.03	23.93	24.53	24.65
22	24.41	24.33	23.66	24.09	23.33	23.33	22.41	22.25	22.98	23.99	24.51	24.68
23	24.41	24.35	23.66	24.08	23.42	23.31	22.43	22.34	23.03	24.05	24.47	24.69
24	24.36	24.33	23.79	24.05	23.42	23.43	22.62	22.37	23.09	24.06	24.50	24.68
25	24.32	24.30	23.85	24.14	23.24	23.45	22.70	22.35	23.16	24.08	24.50	24.69
26	24.29	24.18	23.84	---	23.34	23.47	22.74	22.28	23.21	24.11	24.45	24.68
27	24.29	24.24	23.72	---	23.31	23.52	22.79	21.68	23.24	24.14	24.48	24.74
28	24.44	24.32	23.70	---	23.27	23.51	22.94	21.90	23.25	24.12	24.50	24.80
29	24.44	24.32	23.69	---	---	23.42	22.97	22.07	23.27	24.06	24.56	24.86
30	24.42	24.36	23.72	23.84	---	23.37	22.94	22.19	23.30	24.12	24.56	24.86
31	24.38	---	23.87	23.42	---	23.37	---	22.22	---	24.20	24.50	---
MAX	24.44	24.38	24.47	24.14	23.81	23.54	23.63	23.45	23.30	24.20	24.56	24.86
CAL YR 2000	LOW 25.70											
WTR YR 2001	LOW 24.86											



GROUND-WATER RECORDS
Union County

402010083321900. LOCAL NUMBER, U-5

LOCATION.—Latitude 40°20'10", longitude 83°32'19", Hydrologic Unit 05060001, east of East Liberty, Ohio. Owner: Honda of America.

AQUIFER.—Limestone of Silurian Age.

WELL CHARACTERISTICS.—Drilled observation well, diameter 6 in., depth 145 ft, cased to 98 ft.

INSTRUMENTATION.—Type F continuous recorder.

DATUM.—Elevation of land-surface is 1085 ft above sea level, from topographic map. Measuring point: Floor of instrument shelter 4.00 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.

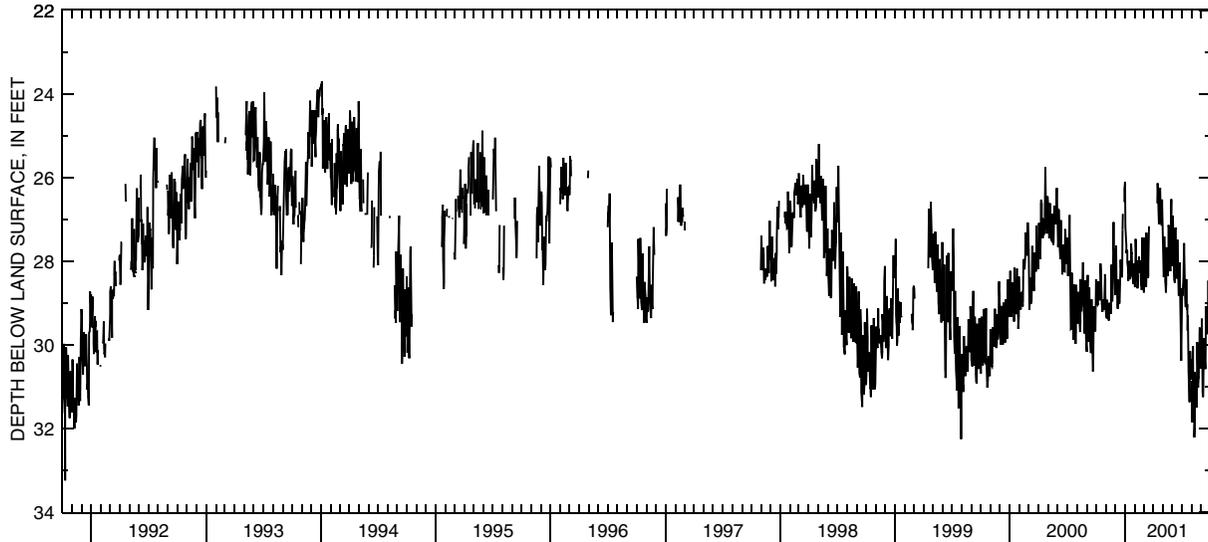
PERIOD OF RECORD.—September 1991 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 33.25 ft below land-surface datum, Oct. 10, 1991; minimum daily low, 23.06 ft below land-surface datum, Apr. 29, 1993.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28.43	29.20	28.81	26.10	28.54	28.55	---	27.53	28.12	29.11	30.86	30.35
2	28.46	29.28	28.60	26.79	28.62	28.75	---	27.81	27.95	28.65	31.66	29.69
3	28.84	29.31	27.78	27.18	28.42	28.38	---	28.01	26.92	28.83	31.86	29.38
4	29.04	29.37	27.63	27.44	27.47	27.44	---	28.38	27.50	28.70	31.05	30.58
5	29.00	29.17	28.38	27.62	27.90	27.92	---	28.31	28.06	28.56	30.04	31.12
6	29.03	28.93	28.64	27.81	28.13	28.23	---	27.41	28.26	28.41	30.80	31.25
7	29.02	29.17	28.75	27.73	28.32	28.36	---	27.75	28.44	27.93	31.17	31.23
8	28.76	29.22	29.04	27.76	28.46	28.38	---	28.20	28.52	27.57	31.52	30.79
9	28.48	29.12	29.14	28.02	28.33	28.62	---	28.49	28.27	28.05	31.87	29.84
10	28.73	29.42	28.95	28.14	28.65	28.37	---	28.59	27.22	28.49	32.22	30.15
11	28.86	29.39	28.44	28.32	28.49	27.32	---	28.75	27.22	28.81	31.76	30.37
12	28.92	29.14	28.82	28.47	27.99	27.74	---	28.55	27.60	29.00	30.65	30.36
13	28.92	29.00	28.80	28.37	28.27	28.03	---	27.67	27.88	29.10	31.18	30.51
14	28.78	29.10	29.02	28.14	28.07	28.35	26.62	27.98	28.42	28.89	31.33	30.58
15	28.06	29.12	28.96	28.00	27.89	28.40	26.14	28.21	28.38	28.43	31.40	30.15
16	28.20	29.07	28.72	28.29	28.20	28.35	26.32	28.33	28.09	28.70	31.41	29.08
17	28.50	29.26	28.39	28.43	28.27	28.07	26.70	28.36	27.49	29.16	31.50	29.32
18	28.77	29.06	27.97	28.41	28.03	27.17	26.92	28.23	27.93	29.03	30.92	29.60
19	29.01	28.09	28.15	28.35	27.99	---	27.10	28.02	28.27	29.66	29.94	29.62
20	29.11	28.46	28.24	28.26	28.35	---	27.10	27.14	28.50	29.30	30.53	29.73
21	29.22	28.80	28.37	27.58	28.59	---	27.08	27.20	28.80	30.13	30.94	29.74
22	29.08	28.96	28.37	27.82	28.47	---	26.36	27.63	28.83	30.65	31.02	29.36
23	28.92	28.82	28.23	27.80	28.69	---	26.25	27.99	28.50	30.87	30.76	28.47
24	29.08	27.96	27.26	28.10	28.47	---	26.62	28.09	28.04	31.17	30.79	29.00
25	29.07	27.51	26.87	28.35	27.43	---	26.82	28.24	28.64	31.37	30.45	29.35
26	29.13	27.07	---	28.33	27.74	---	26.98	28.07	29.14	30.96	29.59	29.49
27	29.17	27.72	---	28.54	28.15	---	27.13	26.98	29.67	30.15	29.79	29.58
28	29.06	27.82	---	28.47	28.36	---	27.13	26.52	30.07	30.36	30.06	29.65
29	28.32	28.38	---	28.05	---	---	26.53	27.02	30.38	30.84	30.28	29.30
30	28.43	28.63	26.59	28.09	---	---	27.00	27.53	29.86	---	30.37	28.46
31	28.79	---	26.27	28.22	---	---	---	27.91	---	---	30.57	---
MAX	29.22	29.42	29.14	28.54	28.69	28.75	27.13	28.75	30.38	31.37	32.22	31.25

CAL YR 2000 LOW 30.63
WTR YR 2001 LOW 32.22



GROUND-WATER RECORDS
Vinton County

391452082282900. LOCAL NUMBER, V-1

LOCATION.—Latitude 39°14'52", longitude 82°28'29", Hydrologic Unit 05090101, State Highway garage in McArthur, Ohio. Owner: Vinton County School Board.

AQUIFER.—Sandstone of Mississippian Age.

WELL CHARACTERISTICS.—Drilled unused artesian well, diameter 6 in., depth 218 ft, cased.

INSTRUMENTATION.—Digital recorder, 60-minute punch.

DATUM.—Elevation of land-surface datum is 730 ft above sea level, from topographic map. Measuring Point: Top of platform 2.50 ft below 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.

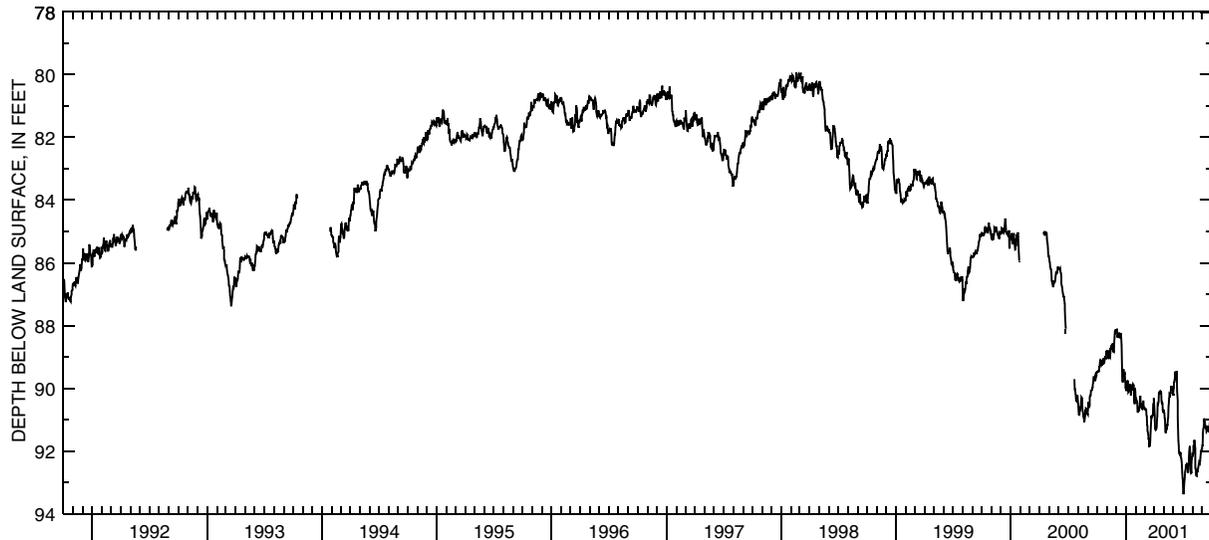
PERIOD OF RECORD.—September 1959 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 93.38 ft below land-surface datum, July 3, 2001; minimum daily low, 49.55 ft below land-surface datum, Mar. 20, 1963.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	89.51	88.82	88.11	90.03	90.31	90.63	90.50	90.68	90.08	92.95	92.05	91.82
2	89.45	88.87	88.14	90.08	90.31	90.63	90.88	90.77	89.99	93.29	92.09	91.82
3	89.49	88.80	88.13	90.08	90.36	90.68	91.02	90.79	89.79	93.38	92.01	91.42
4	89.45	88.85	88.19	89.84	90.38	90.68	91.30	90.95	89.82	93.28	91.83	91.27
5	89.45	89.00	88.36	89.78	90.41	90.66	91.30	90.98	89.66	93.08	91.82	91.25
6	89.45	89.00	88.36	89.75	90.46	90.67	91.23	91.35	89.65	92.93	91.67	91.18
7	89.45	89.07	88.24	89.80	90.72	90.88	91.29	91.43	89.46	92.84	91.65	90.96
8	89.32	89.07	88.27	90.10	90.77	90.89	91.27	91.40	89.69	92.67	91.81	91.07
9	89.32	88.81	88.37	90.12	90.66	91.17	91.24	91.32	89.69	92.64	91.93	91.08
10	89.18	88.82	88.37	90.08	90.68	91.20	91.00	91.30	89.68	92.53	92.54	91.16
11	89.20	88.99	88.22	90.10	90.73	91.34	90.88	91.29	89.45	92.42	92.60	91.20
12	89.10	89.00	88.36	90.02	90.70	91.43	90.50	91.17	89.47	92.45	92.73	91.30
13	89.11	88.71	88.40	90.08	90.59	91.49	90.51	91.17	90.09	92.44	92.79	91.27
14	89.22	88.76	88.29	89.90	90.49	91.64	90.48	90.98	90.40	92.41	92.80	91.36
15	89.25	88.65	88.39	89.90	90.27	91.60	90.41	90.93	90.94	92.42	92.78	91.34
16	89.23	88.66	88.24	90.21	90.27	91.60	90.13	90.58	91.27	92.54	92.62	91.22
17	89.27	88.72	88.46	90.23	90.59	91.83	90.13	90.48	91.68	92.69	92.63	91.22
18	89.11	88.76	88.63	90.18	90.60	91.83	90.12	90.32	91.80	92.65	92.56	91.30
19	89.22	88.57	89.28	89.88	90.46	91.65	90.14	90.24	92.05	92.57	92.54	91.31
20	89.07	88.59	89.71	89.90	90.50	91.59	90.13	90.19	92.10	92.22	92.41	91.35
21	89.07	88.82	89.79	89.91	90.65	91.20	90.14	90.22	92.11	92.01	92.45	91.40
22	89.20	88.82	89.79	90.05	90.66	90.95	90.10	90.13	92.09	91.89	92.36	91.31
23	89.20	88.82	89.48	90.07	90.63	90.90	90.12	90.16	92.05	91.84	92.39	91.30
24	89.16	88.83	89.39	89.87	90.67	90.90	90.39	90.02	92.07	92.06	92.30	91.14
25	89.15	88.51	89.53	89.90	90.40	90.87	90.46	90.04	92.20	92.30	92.32	91.08
26	89.00	88.37	89.55	89.93	90.58	90.89	90.45	89.95	92.23	92.57	92.09	91.06
27	89.00	88.17	89.53	90.10	90.60	90.85	90.46	89.95	92.31	92.70	92.09	91.02
28	89.04	88.19	89.52	90.42	90.66	90.87	90.69	89.96	92.45	92.69	92.00	90.95
29	89.05	88.12	89.74	90.50	---	90.50	90.77	89.98	92.69	92.37	92.00	91.04
30	88.80	88.19	89.81	89.99	---	90.48	90.71	90.20	92.84	92.17	91.94	91.08
31	88.85	---	89.98	90.09	---	90.31	---	90.20	---	92.16	91.95	---
MAX	89.51	89.07	89.98	90.50	90.77	91.83	91.30	91.43	92.84	93.38	92.80	91.82

CAL YR 2000 LOW 91.08
WTR YR 2001 LOW 93.38



GROUND-WATER RECORDS
Warren County

392119084142000. LOCAL NUMBER, W-6

LOCATION.—Latitude 39°21'19", longitude 84°14'20", Hydrologic Unit 05090202, southeast of Kings Mills, Ohio Owner: Ohio Department of Natural Resources.

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled observation well, diameter 6 in., depth 48 ft., cased.

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

DATUM.—Elevation of land-surface datum is 619 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.

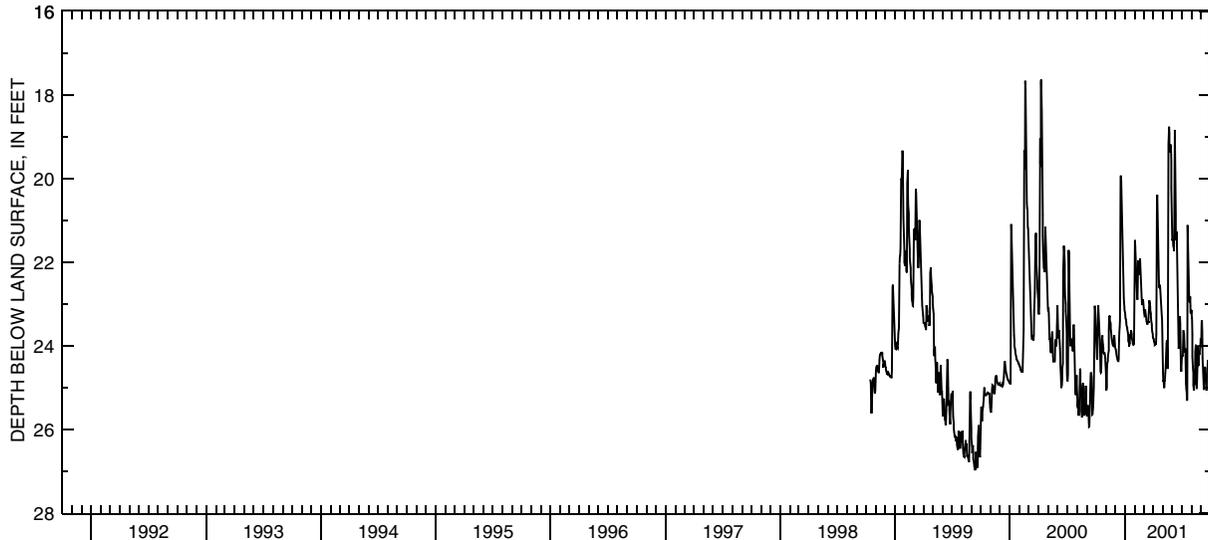
PERIOD OF RECORD.—October 1998 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 26.97 ft below land-surface datum, Sept. 13, 1999; minimum daily low, 17.63 ft below land-surface datum, Apr. 10, 2000.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.78	24.63	24.03	23.21	22.15	23.03	23.82	24.31	21.49	24.29	23.18	23.83
2	24.01	25.06	24.08	23.28	21.47	23.13	23.83	24.67	21.44	24.23	23.35	23.44
3	24.18	25.07	24.09	23.33	21.63	23.21	23.85	24.86	21.44	24.25	23.73	23.39
4	24.31	24.99	24.14	23.38	21.99	23.26	23.90	24.82	21.61	24.21	24.26	23.65
5	24.33	24.65	24.20	23.44	22.25	23.25	23.94	24.99	21.66	23.83	24.56	24.30
6	23.91	24.43	24.24	23.49	22.45	23.13	23.98	25.01	21.73	23.63	24.61	24.47
7	23.25	24.36	24.28	23.55	22.61	23.19	23.97	24.85	21.41	23.70	24.94	24.67
8	23.03	24.31	24.32	23.57	22.74	23.26	23.91	24.81	18.84	23.71	25.07	24.89
9	23.21	24.21	24.35	23.60	22.88	23.32	23.96	24.66	19.15	23.91	24.94	25.05
10	23.41	24.11	24.37	23.69	22.88	23.37	23.96	24.55	20.07	24.15	24.91	24.91
11	23.58	23.64	24.37	23.78	22.35	23.42	23.73	24.34	20.89	24.09	24.90	24.50
12	23.73	23.33	24.31	23.87	21.96	23.45	22.05	24.14	21.44	24.06	24.78	24.57
13	23.83	23.28	23.89	23.93	22.09	23.49	20.44	23.94	21.47	24.57	24.14	24.51
14	24.18	23.35	23.67	23.99	22.23	23.47	20.39	23.87	21.39	24.91	23.97	24.77
15	24.61	23.42	23.56	23.99	22.30	23.43	20.93	24.14	21.27	25.04	24.25	24.71
16	24.63	23.47	23.39	23.94	22.24	23.43	21.38	24.55	21.55	25.08	24.80	24.80
17	24.62	23.57	22.01	23.81	22.06	23.40	21.81	24.47	21.99	25.31	25.01	25.07
18	24.35	23.65	19.97	23.74	21.91	23.14	22.16	23.59	22.41	25.27	25.03	24.99
19	24.01	23.73	19.92	23.75	22.17	22.97	22.43	21.83	23.03	21.11	24.75	24.77
20	23.82	23.81	20.07	23.70	22.36	22.91	22.60	19.18	23.70	21.50	24.15	24.59
21	23.75	23.87	20.30	23.63	22.52	23.01	22.61	18.76	24.07	21.95	23.99	24.43
22	23.83	23.92	20.75	23.72	22.66	23.08	22.54	18.93	24.01	22.22	24.47	24.34
23	23.97	23.96	21.23	23.79	22.86	23.15	22.61	19.20	23.53	22.56	24.46	24.37
24	24.05	23.99	21.58	23.84	22.98	23.23	22.72	19.37	23.34	22.87	24.25	24.37
25	24.16	24.00	21.97	23.89	23.02	23.31	22.85	19.27	23.29	22.94	24.19	24.50
26	24.19	23.98	22.37	23.92	22.93	23.40	23.00	19.18	23.48	22.96	24.19	24.50
27	24.19	23.85	22.64	23.97	22.88	23.49	23.14	19.28	24.07	22.82	24.18	24.44
28	24.15	23.74	22.85	23.98	22.95	23.57	23.27	19.59	24.49	23.05	24.05	24.68
29	24.22	23.82	22.99	23.97	---	23.65	23.37	20.23	24.62	23.19	24.00	24.68
30	24.29	23.95	23.08	23.95	---	23.72	23.75	20.78	24.47	23.23	23.82	24.62
31	24.35	---	23.13	23.30	---	23.77	---	21.26	---	23.14	23.86	---
MAX	24.63	25.07	24.37	23.99	23.02	23.77	23.98	25.01	24.62	25.31	25.07	25.07
MIN	23.03	23.28	19.92	23.21	21.47	22.91	20.39	18.76	18.84	21.11	23.18	23.39

CAL YR 2000 HIGH 17.63 LOW 25.94
WTR YR 2001 HIGH 18.76 LOW 25.31



GROUND-WATER RECORDS
Warren County

392712084191700. LOCAL NUMBER, W-5

LOCATION.—Latitude 39°27'12", longitude 84°19'17", Hydrologic Unit 05080002, Union Road, 2 mi east of Monroe, Ohio. Owner: Bob Proeschel.
AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled unused artesian well, diameter 12 in., depth 121 ft, cased.

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

DATUM.—Elevation of land-surface datum is 660 ft above sea level, from topographic map. Measuring point: Floor of instrument shelter 3.50 ft above land-surface datum.

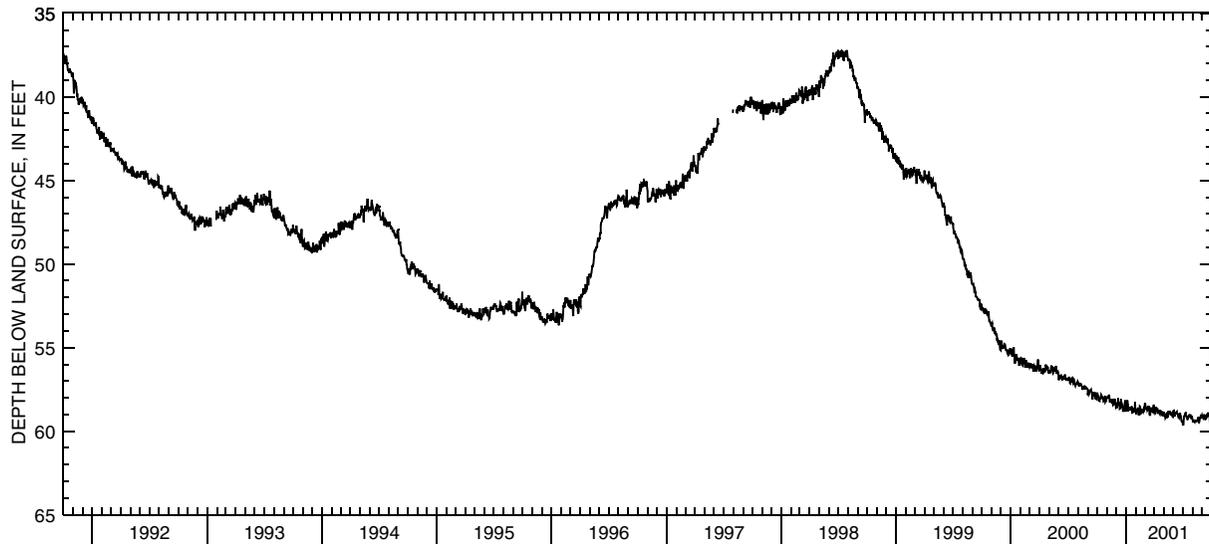
REMARKS.—Station operated by Ohio Department of Natural Resources (ODNR), Division of Water. Some historical records not published by the USGS are available from ODNR.

PERIOD OF RECORD.—March 1972 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 59.64 ft below land-surface datum, July 2, 2001; minimum daily low, 17.55 ft below land-surface datum, May 4, 1975.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57.74	57.96	58.49	58.73	58.74	58.49	58.64	58.82	58.77	59.58	59.40	59.12
2	57.68	57.95	58.58	58.83	58.98	58.32	58.70	58.91	58.74	59.64	59.39	59.12
3	57.83	58.01	58.56	58.73	58.91	58.37	58.85	59.01	58.97	59.55	59.29	59.06
4	57.92	57.96	58.46	58.34	58.70	58.50	58.91	58.99	59.04	59.21	59.29	59.18
5	57.81	58.02	58.31	58.13	58.62	58.58	58.86	59.03	59.03	59.06	59.42	59.24
6	58.13	57.98	58.29	58.18	58.73	58.67	58.62	59.18	58.93	59.12	59.45	59.22
7	58.13	57.96	58.02	58.38	58.85	58.67	58.54	59.14	58.89	59.06	59.43	59.04
8	58.16	57.96	58.38	58.58	58.71	58.56	58.67	59.06	58.89	58.92	59.39	59.06
9	58.17	57.79	58.41	58.73	58.56	58.67	58.65	58.99	58.88	58.88	59.31	59.13
10	57.96	58.24	58.28	58.73	58.99	58.65	58.68	58.91	58.86	58.88	59.37	59.29
11	58.02	58.26	58.28	58.65	58.99	58.73	58.61	58.91	58.83	59.07	59.45	59.29
12	58.02	58.17	58.64	58.65	58.83	58.67	58.76	59.09	58.92	59.12	59.39	59.21
13	57.95	58.07	58.62	58.67	58.74	58.47	58.88	59.14	58.92	59.12	59.39	59.14
14	57.81	58.11	58.61	58.54	58.50	58.61	58.85	59.13	58.95	59.16	59.34	59.21
15	57.86	58.18	58.59	58.58	58.52	58.50	58.73	58.95	58.93	59.29	59.33	59.12
16	57.99	58.08	58.07	58.73	58.64	58.61	58.80	58.76	59.09	59.28	59.31	59.07
17	57.92	58.32	58.43	58.71	58.93	58.99	58.91	58.85	59.16	59.22	59.36	59.06
18	58.04	58.31	58.39	58.58	58.92	59.04	58.95	58.86	59.16	59.09	59.33	58.97
19	58.05	58.20	58.37	58.50	58.76	59.01	58.82	58.93	59.19	59.06	59.14	58.85
20	57.95	58.32	58.46	58.71	58.67	58.79	58.71	58.92	59.14	59.03	59.29	58.95
21	58.02	58.38	58.52	58.88	58.83	58.61	58.83	58.86	59.09	59.03	59.39	58.95
22	58.20	58.35	58.73	58.86	58.67	58.59	58.85	59.01	58.88	59.07	59.42	59.06
23	58.18	58.43	58.71	58.74	58.74	58.56	58.77	58.99	58.99	59.03	59.27	59.04
24	58.07	58.43	58.77	58.61	58.71	58.76	58.91	58.93	59.10	59.04	59.28	59.21
25	57.95	58.17	58.83	58.85	58.67	58.77	58.88	59.01	59.12	59.04	59.21	59.39
26	57.90	58.04	58.70	58.73	58.79	58.82	58.85	58.98	59.31	59.19	59.12	59.45
27	57.90	58.18	58.44	58.80	58.76	58.85	58.85	58.91	59.39	59.21	59.12	59.61
28	58.22	58.28	58.31	58.80	58.68	58.79	59.06	59.06	59.40	59.14	59.14	59.61
29	58.17	58.31	58.13	58.71	---	58.53	59.06	59.10	59.42	59.07	59.16	59.61
30	58.13	58.52	58.34	58.24	---	58.39	58.93	59.14	59.45	59.14	59.09	59.57
31	58.04	---	58.59	58.64	---	58.39	---	59.12	---	59.31	59.04	---
MAX	58.22	58.52	58.83	58.88	58.99	59.04	59.06	59.18	59.45	59.64	59.45	59.61
CAL YR 2000	LOW 58.83											
WTR YR 2001	LOW 59.64											



GROUND-WATER RECORDS
Washington County

392553081281600. LOCAL NUMBER, WA-2

LOCATION.—Latitude 39°25'53", longitude 81°28'16", Hydrologic Unit 05040004, near county fairgrounds north of Marietta, Ohio. Owner: Marietta Water Dept.

AQUIFER.—Sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.—Drilled unused water table well, diameter 8 in., depth, 50 ft, cased.

INSTRUMENTATION.—Type F continuous recorder.

DATUM.—Elevation of land-surface datum is 605 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.

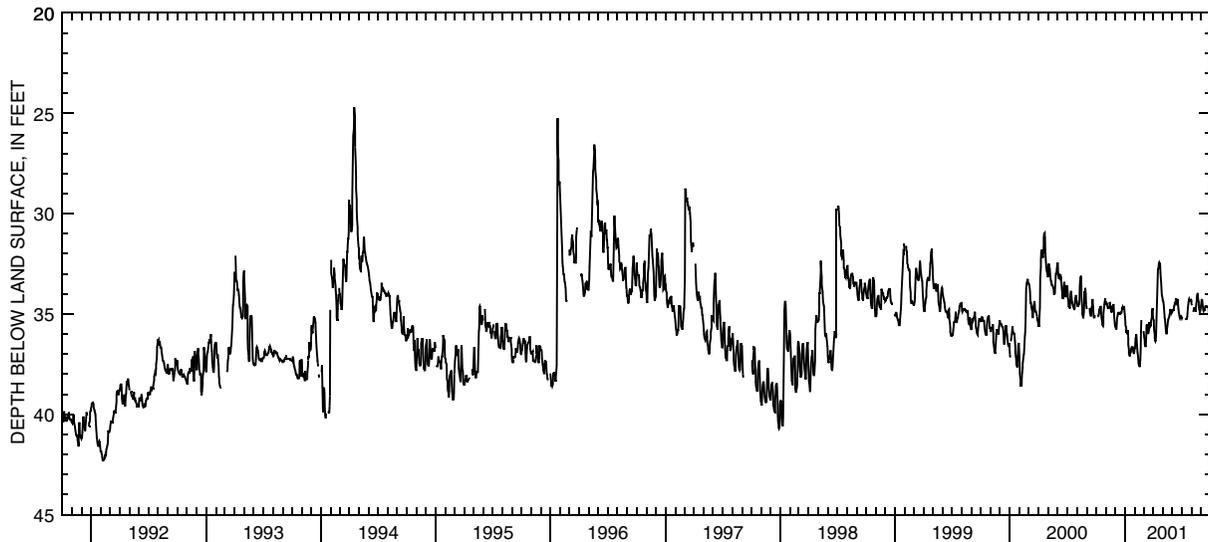
PERIOD OF RECORD.—August 1971 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 42.30 ft below land-surface datum, Feb. 7 and 8, 1992; minimum daily low, 13.35 ft below land-surface datum, Feb. 27, 1979.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	34.40	35.60	35.15	36.75	35.85	35.25	34.30	34.90	35.20	34.50	34.45
2	---	34.45	35.65	35.45	36.70	36.00	35.30	34.35	34.80	35.15	34.55	34.30
3	---	34.50	35.70	35.55	36.45	36.15	35.35	34.40	34.75	---	---	34.25
4	---	34.50	35.75	35.65	36.20	36.20	35.80	34.50	34.80	---	---	34.35
5	---	34.45	35.75	35.80	36.15	36.50	36.00	34.70	34.80	---	---	34.50
6	35.10	34.55	35.45	35.90	36.00	36.60	36.20	34.95	34.70	---	34.90	34.65
7	35.10	34.70	35.20	35.90	36.15	36.60	36.30	35.15	34.60	---	34.90	34.80
8	35.10	34.70	35.10	36.00	36.40	36.60	36.35	35.25	34.50	---	34.70	34.85
9	35.05	34.70	35.05	36.00	36.70	36.20	36.30	35.45	34.45	---	34.70	34.80
10	35.00	34.70	35.00	35.80	36.90	35.85	36.10	35.65	34.40	---	34.80	34.80
11	34.80	34.70	34.95	36.20	37.00	35.60	35.45	35.85	34.35	---	34.85	34.85
12	34.80	34.70	34.90	36.50	37.15	35.50	34.80	35.90	34.30	---	34.85	34.75
13	34.70	34.55	34.95	36.75	37.40	35.60	34.35	36.00	34.20	35.20	34.85	34.65
14	34.70	34.40	35.00	36.95	37.50	35.70	33.70	35.90	34.35	35.25	34.85	34.60
15	34.60	34.55	35.00	37.00	37.55	35.95	33.15	35.65	34.50	35.25	34.70	34.60
16	34.65	34.60	35.00	37.10	37.60	35.95	32.80	35.55	34.55	35.25	34.50	34.60
17	34.95	34.70	35.00	37.05	37.60	35.95	32.75	35.40	34.45	35.20	34.30	34.60
18	35.15	34.80	34.90	36.95	37.50	35.80	32.65	35.30	34.25	35.10	34.15	34.65
19	35.25	34.90	34.95	36.90	37.20	35.65	32.50	35.25	34.50	34.90	34.05	34.65
20	35.40	34.90	34.95	36.85	36.75	35.45	32.45	35.20	34.70	34.70	33.95	34.65
21	35.50	34.80	34.90	36.75	35.80	35.45	32.50	35.15	34.85	34.55	34.05	34.65
22	35.55	34.70	34.80	36.65	35.30	35.60	32.50	35.10	34.95	34.40	34.25	34.65
23	35.60	34.65	34.70	36.65	---	35.60	32.55	35.05	35.05	34.30	34.40	34.60
24	35.50	34.60	34.65	36.65	---	35.55	32.95	34.90	35.15	34.25	34.60	34.75
25	35.00	34.55	34.70	36.65	---	35.40	33.20	34.75	35.20	34.30	34.75	35.00
26	34.65	34.50	34.75	36.65	---	35.30	33.40	34.80	35.15	34.35	34.85	35.20
27	34.65	34.80	34.75	36.80	---	35.15	33.70	34.90	35.05	34.35	34.95	35.40
28	34.50	35.15	34.60	36.90	---	34.85	34.00	34.95	35.10	34.40	34.90	35.60
29	34.30	35.35	34.65	36.95	---	34.75	34.10	34.95	35.15	34.35	34.80	35.80
30	34.20	35.50	34.75	36.95	---	34.75	34.15	34.90	35.15	34.30	34.70	35.95
31	34.35	---	34.85	36.85	---	35.00	---	34.90	---	34.35	34.55	---
MAX	35.60	35.50	35.75	37.10	37.60	36.60	36.35	36.00	35.20	35.25	34.95	35.95

CAL YR 2000 LOW 38.55
WTR YR 2001 LOW 37.60



GROUND-WATER RECORDS
Wayne County

404655081553200. LOCAL NUMBER, WN-3

LOCATION.—Latitude 40°46'55", longitude 81°55'32", Hydrologic Unit 05040003, OARDC-OSU Experiment Station near Wooster, Ohio. Owner: OARDC-OSU.

AQUIFER.—Shale of Mississippian Age.

WELL CHARACTERISTICS.—Drilled test water table well, diameter 8 in., depth 20 ft, cased.

INSTRUMENTATION.—Digital recorder, 60-minute punch.

DATUM.—Elevation of land-surface datum is 1,040 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. Some historical records not published by the USGS are available from ODNR.

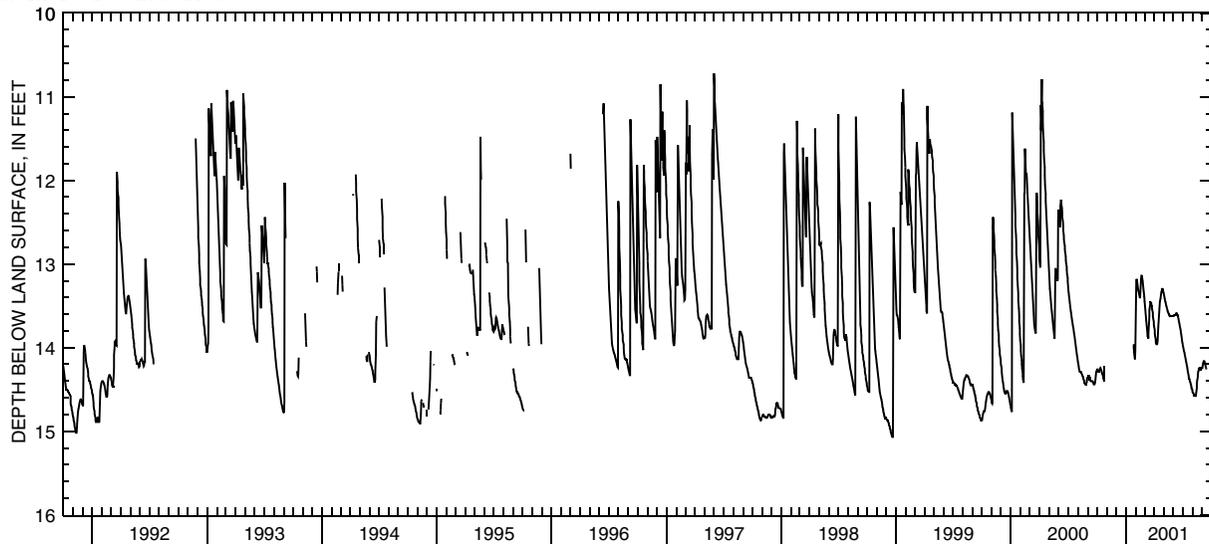
PERIOD OF RECORD.—July 1955 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 16.17 ft below land-surface datum, Jan. 27-29, 1956; minimum daily low, 8.00 ft below land-surface datum, July 6, 1969.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.26	---	---	---	13.56	13.44	13.75	13.35	13.62	13.97	14.53	14.24
2	14.26	---	---	---	13.32	13.48	13.79	13.37	13.62	13.99	14.54	14.22
3	14.27	---	---	---	13.20	13.52	13.83	13.39	13.62	14.01	14.55	14.20
4	14.28	---	---	---	13.18	13.57	13.86	13.41	13.61	14.03	14.55	14.17
5	14.29	---	---	---	13.19	13.62	13.90	13.43	13.61	14.05	14.56	14.16
6	14.29	---	---	---	13.22	13.67	13.93	13.45	13.61	14.06	14.56	14.16
7	14.29	---	---	---	13.25	13.71	13.95	13.46	13.61	14.08	14.57	14.16
8	14.27	---	---	---	13.28	13.75	13.96	13.48	13.61	14.10	14.57	14.17
9	14.26	---	---	---	13.31	13.79	13.96	13.50	13.60	14.12	14.58	14.19
10	14.25	---	---	---	13.33	13.82	13.96	13.51	13.59	14.14	14.58	14.20
11	14.24	---	---	---	13.34	13.86	13.95	13.53	13.59	14.16	14.58	14.22
12	14.25	---	---	---	13.36	13.88	13.91	13.54	13.59	14.18	14.56	14.23
13	14.26	---	---	---	13.38	13.89	13.83	13.56	13.60	14.20	14.53	14.25
14	14.27	---	---	---	13.40	13.83	13.75	13.57	13.61	14.22	14.48	14.26
15	14.28	---	---	---	13.40	13.71	13.70	13.58	13.62	14.24	14.43	---
16	14.29	---	---	---	13.34	13.62	13.64	13.59	13.63	14.27	14.39	---
17	14.31	---	---	---	13.26	13.55	13.56	13.60	13.65	14.29	14.35	---
18	14.32	---	---	---	13.18	13.50	13.50	13.60	13.67	14.31	14.32	---
19	14.33	---	---	---	13.14	13.47	13.45	13.61	13.69	14.33	14.29	---
20	14.34	---	---	---	13.14	13.46	13.43	13.62	13.71	14.37	14.27	---
21	14.36	---	---	---	13.15	13.46	13.41	13.63	13.73	14.37	14.25	---
22	14.37	---	---	---	13.18	13.47	13.38	13.63	13.75	14.38	14.24	---
23	14.39	---	---	---	13.20	13.49	13.35	13.63	13.77	14.40	14.24	---
24	14.40	---	---	---	13.24	13.50	13.33	13.63	13.79	14.41	14.24	---
25	14.22	---	---	13.96	13.28	13.52	13.31	13.63	13.82	14.42	14.24	---
26	---	---	---	14.00	13.32	13.55	13.30	13.63	13.84	14.44	14.25	---
27	---	---	---	14.05	13.35	13.58	13.29	13.63	13.87	14.45	14.26	---
28	---	---	---	14.08	13.39	13.61	13.31	13.63	13.90	14.47	14.26	---
29	---	---	---	14.12	---	13.65	13.32	13.62	13.93	14.48	14.25	---
30	---	---	---	14.14	---	13.69	13.34	13.62	13.95	14.50	14.24	---
31	---	---	---	14.03	---	13.72	---	13.62	---	14.51	14.24	---
MAX	14.40	---	---	14.14	13.56	13.89	13.96	13.63	13.95	14.51	14.58	14.26

CAL YR 2000 LOW 14.76
WTR YR 2001 LOW 14.58



GROUND-WATER RECORDS
Wayne County

404802081583100. LOCAL NUMBER, WN-2A

LOCATION.—Latitude 40°48'02", longitude 81°58'31", Hydrologic Unit 05040003, in well field by Killbuck Creek near Wooster, Ohio. Owner: Wooster Water Department.

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled test water table well, diameter 6 in., depth 65 ft, cased.

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

DATUM.—Elevation of land-surface datum is 855 ft above sea level, from topographic map. Measuring point: Floor of instrument shelter 6.00 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.

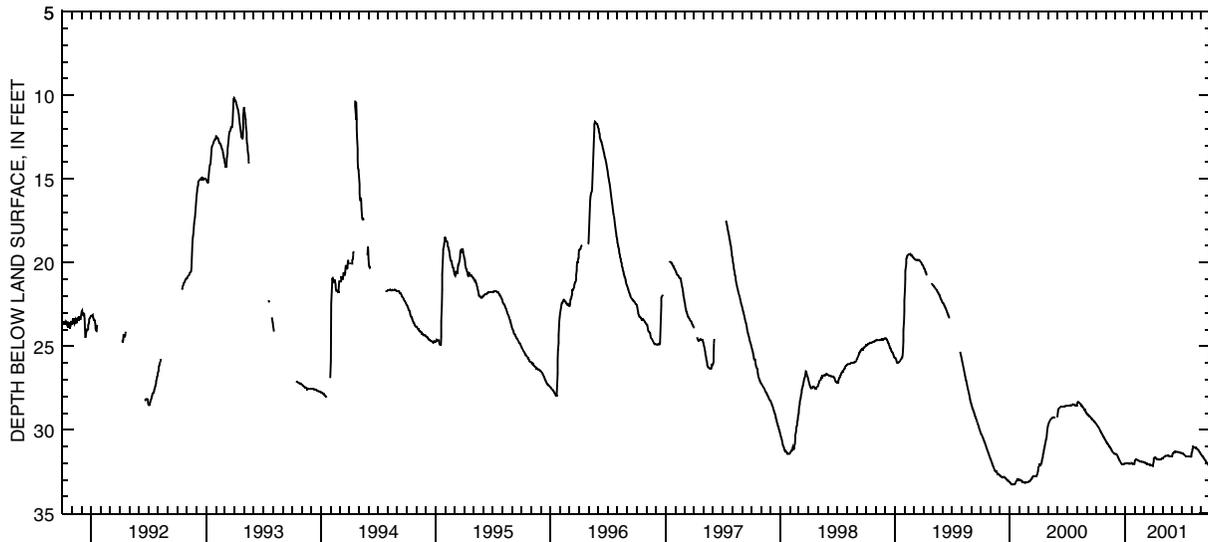
PERIOD OF RECORD.—July 1951 to current year.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 37.95 ft below land-surface datum, June 23, 1988; minimum daily low, 2.35 ft below land-surface datum, Jan. 28, 1952.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29.65	30.66	31.43	32.03	31.94	31.93	32.04	31.70	31.47	31.39	31.45	31.50
2	29.66	30.70	31.43	32.02	31.85	31.94	31.86	31.68	31.43	31.40	31.32	31.53
3	29.69	30.73	31.43	32.01	31.81	31.94	31.73	31.66	31.40	31.42	31.24	31.55
4	29.72	30.76	31.44	32.00	31.79	31.95	31.67	31.64	31.38	31.42	31.13	31.58
5	29.76	30.78	31.46	32.00	31.77	31.96	31.65	31.63	31.36	31.43	31.08	31.60
6	29.79	30.80	31.49	32.00	31.76	31.98	31.64	31.62	31.34	31.45	31.06	31.63
7	29.82	30.83	31.52	32.00	31.77	31.99	31.65	31.59	31.32	31.46	31.05	31.66
8	29.84	30.87	31.56	32.00	31.79	32.00	31.66	31.58	31.32	31.47	31.04	31.68
9	29.86	30.90	31.60	32.00	31.80	32.00	31.68	31.57	31.31	31.49	31.05	31.71
10	29.90	30.93	31.64	32.01	31.81	32.01	31.70	31.56	31.31	31.51	31.05	31.74
11	29.94	30.95	31.67	32.02	31.81	32.01	31.72	31.56	31.31	31.53	31.06	31.77
12	29.97	30.97	31.72	32.02	31.82	32.01	31.73	31.55	31.31	31.56	31.06	31.80
13	30.01	31.00	31.77	32.03	31.83	32.03	31.75	31.55	31.31	31.58	31.07	31.83
14	30.05	31.03	31.81	32.03	31.84	32.04	31.75	31.55	31.32	31.59	31.08	31.85
15	30.08	31.06	31.85	32.03	31.86	32.05	31.75	31.55	31.32	31.59	31.09	31.88
16	30.12	31.09	31.88	32.02	31.88	32.06	31.76	31.55	31.32	31.59	31.10	31.91
17	30.16	31.13	31.92	32.01	31.89	32.06	31.77	31.55	31.32	31.59	31.11	31.94
18	30.19	31.16	31.95	32.02	31.89	32.06	31.78	31.54	31.32	31.58	31.13	31.96
19	30.23	31.19	31.99	32.03	31.89	32.06	31.78	31.55	31.33	31.58	31.15	31.99
20	30.26	31.22	32.01	32.03	31.89	32.07	31.78	31.55	31.33	31.59	31.17	32.02
21	30.29	31.26	32.03	32.03	31.89	32.08	31.78	31.56	31.34	31.59	31.19	32.05
22	30.32	31.30	32.05	32.03	31.91	32.09	31.78	31.57	31.34	31.59	31.21	32.08
23	30.35	31.33	32.05	32.02	31.92	32.10	31.77	31.57	31.35	31.59	31.23	32.11
24	30.38	31.34	32.06	32.03	31.92	32.11	31.76	31.58	31.35	31.59	31.26	32.13
25	30.41	31.36	32.06	32.04	31.92	32.11	31.75	31.58	31.36	31.60	31.29	32.13
26	30.45	31.38	32.06	32.05	31.92	32.11	31.74	31.58	31.37	31.60	31.32	32.10
27	30.49	31.40	32.05	32.05	31.92	32.12	31.74	31.58	31.38	31.60	31.36	32.09
28	30.52	31.43	32.04	32.05	31.92	32.13	31.73	31.58	31.38	31.61	31.39	32.11
29	30.55	31.45	32.03	32.05	---	32.14	31.73	31.59	31.38	31.61	31.42	32.13
30	30.58	31.45	32.03	32.05	---	32.15	31.71	31.59	31.39	31.61	31.45	32.15
31	30.62	---	32.03	32.04	---	32.14	---	31.56	---	31.59	31.47	---
MAX	30.62	31.45	32.06	32.05	31.94	32.15	32.04	31.70	31.47	31.61	31.47	32.15

CAL YR 2000 LOW 33.28
WTR YR 2001 LOW 32.15



GROUND-WATER RECORDS
Wayne County

405745081510200. LOCAL NUMBER, WN-7

LOCATION.—Latitude 40°57'45", longitude 81°51'02", Hydrologic Unit 05040001, in well field along Steele Ditch near Sterling, Ohio. Owner: Rittman Water Department

AQUIFER.—Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.—Drilled unused artesian well, diameter 8 in., depth 123 ft, cased.

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

DATUM.—Elevation of land-surface datum is 965 ft above sea level, from topographic map. Measuring point: Floor of instrument shelter 5.00 ft above land-surface datum.

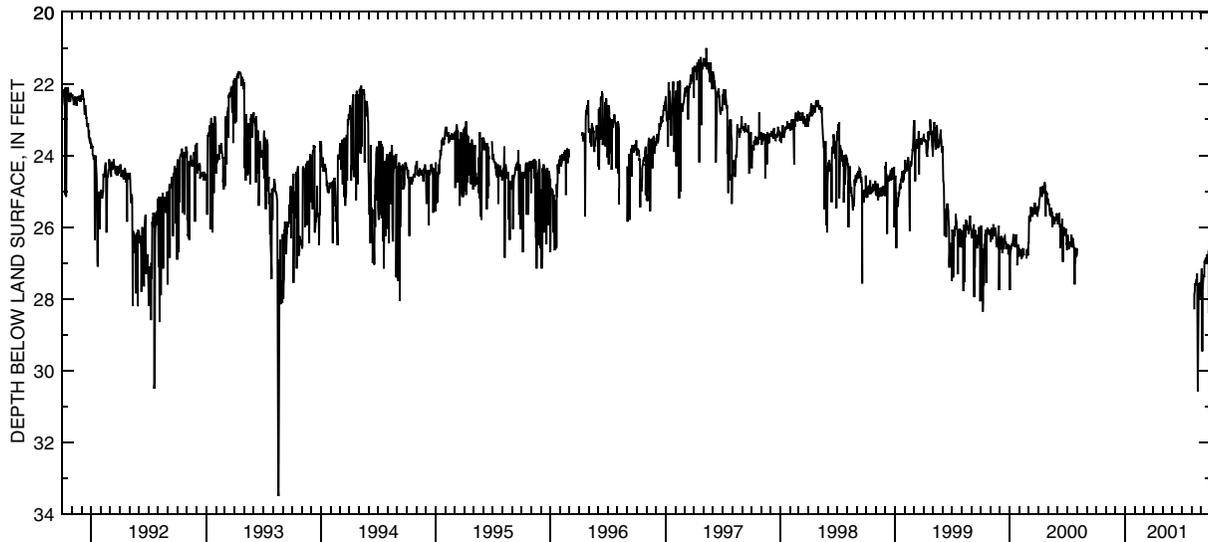
REMARKS.—Station operated by Ohio Department of Natural Resources (ODNR), Division of Water. Some historical records not published by the USGS are available from ODNR.

PERIOD OF RECORD.—November 1978 to March 1979 periodic, continuous thereafter.

EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 33.50 ft below land-surface datum, Aug. 19, 1993; minimum daily low, 5.38 ft below land-surface datum, Jan. 17, 1980.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	28.25	27.38
2	---	---	---	---	---	---	---	---	---	---	---	27.15
3	---	---	---	---	---	---	---	---	---	---	---	27.39
4	---	---	---	---	---	---	---	---	---	---	---	29.46
5	---	---	---	---	---	---	---	---	---	---	---	27.72
6	---	---	---	---	---	---	---	---	---	---	---	27.63
7	---	---	---	---	---	---	---	---	---	---	---	27.47
8	---	---	---	---	---	---	---	---	---	---	28.26	27.36
9	---	---	---	---	---	---	---	---	---	---	28.28	27.33
10	---	---	---	---	---	---	---	---	---	---	27.88	27.39
11	---	---	---	---	---	---	---	---	---	---	27.75	26.94
12	---	---	---	---	---	---	---	---	---	---	27.60	27.02
13	---	---	---	---	---	---	---	---	---	---	27.60	26.93
14	---	---	---	---	---	---	---	---	---	---	27.63	26.90
15	---	---	---	---	---	---	---	---	---	---	27.54	26.85
16	---	---	---	---	---	---	---	---	---	---	27.48	26.93
17	---	---	---	---	---	---	---	---	---	---	27.43	26.97
18	---	---	---	---	---	---	---	---	---	---	27.32	26.79
19	---	---	---	---	---	---	---	---	---	---	27.32	26.76
20	---	---	---	---	---	---	---	---	---	---	30.05	26.96
21	---	---	---	---	---	---	---	---	---	---	30.58	26.75
22	---	---	---	---	---	---	---	---	---	---	29.25	26.81
23	---	---	---	---	---	---	---	---	---	---	27.72	26.79
24	---	---	---	---	---	---	---	---	---	29.38	27.58	26.64
25	---	---	---	---	---	---	---	---	---	---	27.63	27.93
26	---	---	---	---	---	---	---	---	---	---	27.56	28.40
27	---	---	---	---	---	---	---	---	---	---	27.56	27.35
28	---	---	---	---	---	---	---	---	---	---	27.54	27.45
29	---	---	---	---	---	---	---	---	---	---	27.96	27.11
30	---	---	---	---	---	---	---	---	---	---	27.58	27.08
31	---	---	---	---	---	---	---	---	---	---	27.57	---
MAX	---	---	---	---	---	---	---	---	---	29.38	30.58	29.46
CAL YR 2000	LOW 27.76											
WTR YR 2001	LOW 30.58											



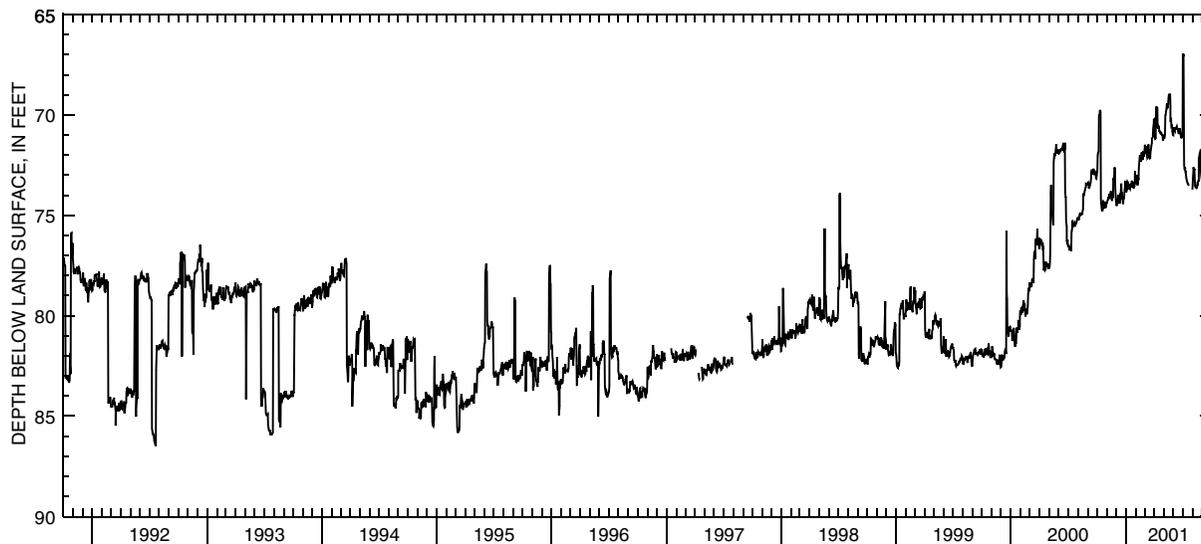
GROUND-WATER RECORDS
Wayne County

405805081462300. LOCAL NUMBER, WN-6

LOCATION.—Latitude 40°58'05", longitude 81°46'23", Hydrologic Unit 05040001, Salt Street, Rittman, Ohio. Owner: Tenneco, Inc.
 AQUIFER.—Sand and gravel of Pleistocene Age.
 WELL CHARACTERISTICS.—Drilled unused artesian well, diameter 8 in., depth 180 ft, cased.
 INSTRUMENTATION.—Digital recorder, 60-minute punch.
 DATUM.—Elevation of land-surface datum is 960 ft above sea level, from topographic map. Measuring point: Floor of instrument shelter 2.30 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 1971 to current year.
 EXTREMES FOR PERIOD OF RECORD.—Maximum daily low, 93.15 ft below land-surface datum, Sept. 3-4, 1971; minimum daily low, 66.94 ft below land-surface datum, July 1, 2001.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	72.87	74.38	74.35	73.69	73.31	71.70	70.20	71.01	70.80	66.94	73.70	73.08
2	72.71	74.31	74.49	73.84	73.37	71.47	70.34	71.09	70.60	67.08	73.03	73.07
3	71.99	74.27	74.49	73.75	73.39	71.62	70.99	71.15	70.66	66.95	72.81	72.92
4	71.88	74.22	74.37	73.56	73.17	71.61	71.18	71.04	70.75	70.49	72.60	73.02
5	71.87	74.16	74.22	73.30	72.98	71.54	71.15	70.97	70.80	72.45	72.70	73.17
6	71.81	74.15	74.22	73.30	73.16	71.81	70.54	70.02	70.76	72.69	72.74	73.12
7	70.03	74.08	73.98	73.36	73.49	71.93	69.70	69.98	70.70	72.70	72.66	72.91
8	70.00	74.12	74.29	73.47	73.40	71.88	69.56	69.86	70.66	72.60	73.47	72.94
9	70.00	73.92	74.41	73.64	73.11	72.08	69.61	69.73	70.69	72.83	73.54	72.93
10	69.73	74.01	74.10	73.62	73.23	72.08	69.66	69.60	70.65	72.84	73.58	73.10
11	69.78	74.16	73.99	73.53	72.64	72.11	69.62	69.41	70.57	73.01	73.62	73.11
12	69.84	74.08	74.35	73.63	72.42	72.07	70.58	69.58	70.57	73.14	73.59	73.12
13	74.13	73.84	74.41	73.68	72.24	71.45	70.67	69.61	70.65	73.24	73.59	72.93
14	74.41	73.78	73.97	73.54	72.00	71.82	70.60	69.58	70.70	73.29	73.60	72.49
15	74.53	73.98	73.99	73.41	72.05	71.79	70.55	69.41	70.67	73.34	73.54	72.43
16	74.71	73.98	73.63	73.60	72.04	71.77	70.57	69.14	70.78	73.41	73.46	72.14
17	74.72	74.20	73.41	73.59	72.31	72.03	70.79	69.01	70.85	73.41	73.52	72.04
18	74.78	74.26	73.95	73.49	72.29	72.15	70.78	69.03	70.92	73.42	73.48	71.93
19	74.31	74.09	73.82	73.28	72.07	72.14	70.86	69.09	70.84	73.52	73.28	71.82
20	74.29	73.99	74.06	73.26	71.85	71.95	70.86	69.07	70.83	---	73.29	71.71
21	74.31	74.12	74.02	73.48	72.23	71.67	70.90	68.93	70.81	---	72.16	71.71
22	74.47	73.21	74.34	73.51	72.18	71.54	70.94	69.52	70.65	---	72.07	71.78
23	74.61	73.23	74.42	73.37	72.17	71.53	70.82	70.25	70.82	---	71.89	71.73
24	74.59	73.14	74.08	73.31	72.16	71.37	70.96	70.22	70.98	---	71.92	71.48
25	74.48	73.01	74.17	73.64	71.79	71.17	70.99	70.53	71.07	---	71.85	71.41
26	74.38	72.59	74.11	73.60	72.07	71.11	70.99	70.57	71.11	---	71.70	71.39
27	74.30	72.67	73.78	73.49	72.03	71.07	70.93	70.53	71.12	---	72.74	71.41
28	74.56	73.57	73.66	73.54	71.92	70.97	71.16	70.66	71.06	---	72.94	71.51
29	74.57	73.86	73.49	73.44	---	70.65	71.26	70.81	70.99	---	73.07	71.54
30	74.46	74.24	73.29	72.79	---	70.36	71.12	70.97	70.84	---	73.04	71.51
31	74.39	---	73.58	73.04	---	70.21	---	70.99	---	---	72.92	---
MAX	74.78	74.38	74.49	73.84	73.49	72.15	71.26	71.15	71.12	73.52	73.70	73.17
CAL YR 2000	LOW 81.53											
WTR YR 2001	LOW 74.78											



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CONVERSION FACTORS AND VERTICAL DATUM

<i>Multiply</i>	<i>By</i>	<i>To obtain</i>
<i>Length</i>		
inch (in.)	2.54×10^1	millimeter
	2.54×10^{-2}	meter
foot (ft)	3.048×10^{-1}	meter
mile (mi)	1.609×10^0	kilometer
<i>Area</i>		
acre	4.047×10^3	square meter
	4.047×10^{-1}	square hectometer
	4.047×10^{-3}	square kilometer
square mile (mi ²)	2.590×10^0	square kilometer
<i>Volume</i>		
gallon (gal)	3.785×10^0	liter
	3.785×10^0	cubic decimeter
	3.785×10^{-3}	cubic meter
million gallons (Mgal)	3.785×10^3	cubic meter
	3.785×10^{-3}	cubic hectometer
cubic foot (ft ³)	2.832×10^1	cubic decimeter
	2.832×10^{-2}	cubic meter
cubic-foot-per-second day [(ft ³ /s) d]	2.447×10^3	cubic meter
	2.447×10^{-3}	cubic hectometer
acre-foot (acre-ft)	1.233×10^3	cubic meter
	1.233×10^{-3}	cubic hectometer
	1.233×10^{-6}	cubic kilometer
<i>Flow</i>		
cubic foot per second (ft ³ /s)	2.832×10^1	liter per second
	2.832×10^1	cubic decimeter per second
	2.832×10^{-2}	cubic meter per second
gallon per minute (gal/min)	6.309×10^{-2}	liter per second
	6.309×10^{-2}	cubic decimeter per second
	6.309×10^{-5}	cubic meter per second
million gallons per day (Mgal/d)	4.381×10^1	cubic decimeter per second
	4.381×10^{-2}	cubic meter per second
<i>Mass</i>		
ton (short)	9.072×10^{-1}	megagram or metric ton

Sea level: In this report "sea level" refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)—a geodetic datum derived from a general adjustment for the first-order level nets of both the United States and Canada, formerly called Sea Level Datum of 1929.

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U.S. Geological Survey
6480 Doubletree Avenue
Columbus, OH 43229-1111**



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