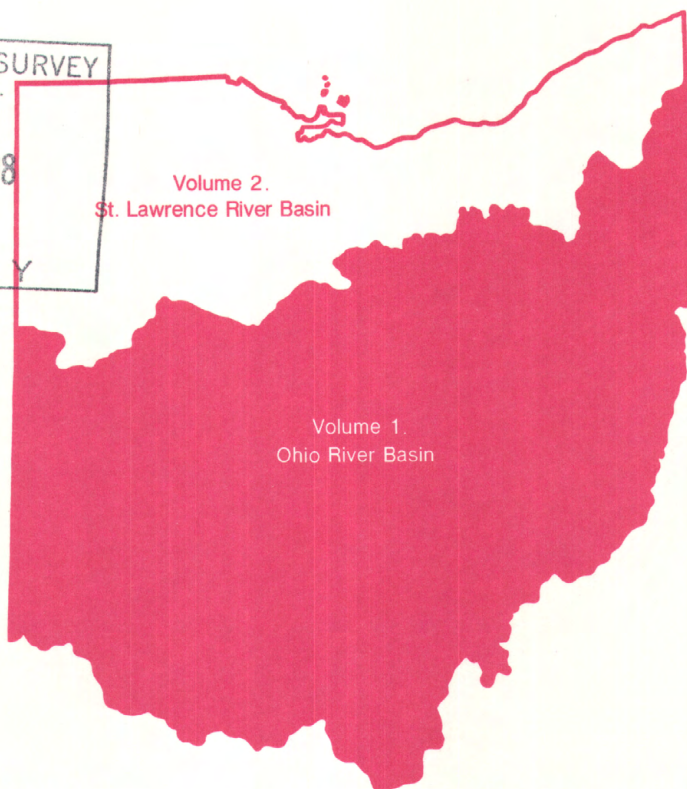
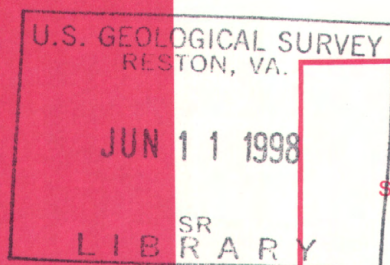


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Water Resources Data Ohio Water Year 1997

Volume 1. Ohio River Basin Excluding
Project Data



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT OH-97-1
Prepared in cooperation with the State of Ohio
and with other agencies



CALENDAR FOR WATER YEAR 1997

1996

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						1	2	1	2	3	4	5	6	7
6	7	8	9	10	11	12	3	4	5	6	7	8	9	8	9	10	11	12	13	14
13	14	15	16	17	18	19	10	11	12	13	14	15	16	15	16	17	18	19	20	21
20	21	22	23	24	25	26	17	18	19	20	21	22	23	22	23	24	25	26	27	28
27	28	29	30	31			24	25	26	27	28	29	30	29	30	31				

1997

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							1							1
5	6	7	8	9	10	11	2	3	4	5	6	7	8	2	3	4	5	6	7	8
12	13	14	15	16	17	18	9	10	11	12	13	14	15	9	10	11	12	13	14	15
19	20	21	22	23	24	25	16	17	18	19	20	21	22	16	17	18	19	20	21	22
26	27	28	29	30	31		23	24	25	26	27	28		23	24	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					1	2	3	1	2	3	4	5	6	7
6	7	8	9	10	11	12	4	5	6	7	8	9	10	8	9	10	11	12	13	14
13	14	15	16	17	18	19	11	12	13	14	15	16	17	15	16	17	18	19	20	21
20	21	22	23	24	25	26	18	19	20	21	22	23	24	22	23	24	25	26	27	28
27	28	29	30				25	26	27	28	29	30	31	29	30					

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Water Resources Data Ohio Water Year 1997

Volume 1. Ohio River Basin Excluding Project Data

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



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT OH-97-1
Prepared in cooperation with the State of Ohio
and with other agencies

**U.S. DEPARTMENT OF THE INTERIOR
BRUCE BABBITT, Secretary**

**U.S. GEOLOGICAL SURVEY
Thomas J. Casadevall, Acting Director**

**For additional information write to
District Chief, Water Resources Division
U.S. Geological Survey
975 West Third Avenue
Columbus, OH 43212-3192**

PREFACE

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

Volume 1. Ohio River Basin Excluding Project Data

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

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

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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 1997 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 122 gaging stations and 57 partial-record sites; water levels at 279 observation wells and 23 crest stage gages; and water quality at 19 gaging stations, 333 observation wells, and 57 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, (HBM) hydrologic bench mark, (M) water-quality monitor, (m) microbiological, (NAWQA) National Water-Quality Assessment Program, (r) radiochemical, (S) daily suspended-sediment data, (s) miscellaneous sediment measurements, (t) temperature]

	Station Number	Page
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Beaver River Basin		
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Short Creek near Dillonvale (d)	03111500	59
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Wheeling Creek below Blaine (d).....	03111548	60
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Captina Creek at Armstrongs Mills (d)	03114000	61
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Little Muskingum River at Bloomfield (d)	03115400	62
Muskingum River Basin		
Tuscarawas River (head of Muskingum River):		
Montrose Run at Montrose (d)	03115969	63
Schocalog Run at Montrose (d)	03115970	64
Schocalog Run at Fairlawn (d)	03115971	65
Schocalog Run at Copley Junction (d)	03115973	66
Tuscarawas River at Massillon (d)	03117000	67
Sandy Creek at Waynesburg (d)	03117500	68
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Middle Branch Nimishillen Creek at Canton (d)	03118000	69
Nimishillen Creek at North Industry (d).....	03118500	70
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Kokosing River at Mount Vernon (d)	03136500	73
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South Fork Licking River near Hebron (d).....	03145000	79
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Snow Fork Monday Creek at Buchtel (d)	03158195	84
Monday Creek at Doanville (dM)	03158200	85
Hocking River at Athens (d)	03159500	89
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Shade River near Chester (d)	03159540	90
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Whetstone Creek at Mt. Gilead (d)	03223425	97
Olentangy River near Delaware (d)	03225500	98
Olentangy River near Worthington (d)	03226800	99
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Big Walnut Creek at Central College (d)	03228500	102
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Alum Creek at Columbus (d)	03229000	104
Big Walnut Creek at Rees (d)	03229500	105
Big Darby Creek (head of Scioto River):		
Little Darby Creek at West Jefferson (dSs)	03230310	106
Hellbranch Run near Harrisburg (dcSs)	03230450	110
Big Darby Creek at Darbyville (dSs)	03230500	115
Deer Creek at Mt. Sterling (d)	03230800	119
Deer Creek near Pancoastburg (d)	03230900	120
Scioto River at Chillicothe (dM)	03231500	121
Paint Creek near Greenfield (d)	03232000	129
Rocky Fork near Barretts Mills (d)	03232500	130
Paint Creek near Bourneville (d)	03234000	131
Paint Creek at Chillicothe (dM)	03234300	132
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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, (HBM) hydrologic bench mark, (M) water-quality monitor, (m) microbiological, (NAWQA) National Water-Quality Assessment Program, (r) radiochemical, (S) daily suspended-sediment data, (s) miscellaneous sediment measurements, (t) temperature]

	Station Number	Page
Whiteoak Creek Basin		
Whiteoak Creek near Georgetown (d)	03238500	152
Little Miami River Basin		
Little Miami River near Oldtown (d)	03240000	153
Massies Creek at Wilberforce (d)	03241500	154
Little Miami River at Milford (d).....	03245500	155
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Stillwater River at Pleasant Hill (d)	03265000	164
Stillwater River at Englewood (d)	03266000	165
Mad River at West Liberty (d)	03266560	166
Mad River near Urbana (d)	03267000	167
Mad River near Springfield (d)	03269500	168
Mad River near Dayton (d)	03270000	169
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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]

	Local Number	Well Number	Page
ASHLAND COUNTY			
Northeast of Ashland (l).....	AS-2	405303082170700	192
Ashland (l).....	AS-3	405425082173000	193
ATHENS COUNTY			
Athens (l).....	AT-2A	392004082071600	194
Athens (l).....	AT-5	392009082072200	195
AUGLAIZE COUNTY			
Southwest of New Hampshire (l).....	AU-3	403233083574500	196
BELMONT COUNTY			
Mount Olivett (cl)	B-3	400118081082200	197
BROWN COUNTY			
Fincastle (l)	BR-20	385932083412400	199
BUTLER COUNTY			
Northwest of Sharonville (l)	BU-9	391805084261800	200
East of Ross (l)	BU-12	391904084371800	201
Fairfield (cl).....	BU-18	391942084345700	202
Fairfield (l)	BU-7	392017084345200	204
East of Hamilton (l).....	BU-8	392048084311400	205
Hamilton (c)	BU-36	392445084333000	206
Middletown (l)	BU-15	393202084241500	207
Southwest of Trenton (cl).....	BU-16	392733084293000	208
Southwest of Trenton (cl).....	BU-17	392743084295500	210
Middletown (l)	BU-3	392939084231700	212
Middletown (l)	BU-2	393103084240900	213
CARROLL COUNTY			
North of Carrollton (cl)	C-1	403709081052800	214
CHAMPAIGN COUNTY			
Urbana (cl)	CH-3	400638083453900	216
CLARK COUNTY			
New Carlisle (l).....	CL-9	395639084012200	218
Northwest of Springfield (l)	CL-7	395840083495200	219
COSHOCTON COUNTY			
North of Conesville (l)	CS-3	401256081525100	220
Coshocton (l)	CS-2	401735081523800	221
DARKE COUNTY			
East of Greenville (l)	D-2	400514084345700	222
DELAWARE COUNTY			
Delaware (l).....	DL-3	402126083040400	223
FAIRFIELD COUNTY			
Southeast of Amanda (l)	F-7	393450082403600	224
Lancaster (l)	F-6	394257082362900	225
West Rushville (l).....	F-1	394544082271000	226
Baltimore (l)	F-5	395053082361900	227

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

	Local Number	Well Number	Page
FAYETTE COUNTY			
West of Washington Court House (l).....	FA-1	393153083322000	228
FRANKLIN COUNTY			
Shadeville (l)	FR-18	394956083002700	229
Southwest of Rees (l)	FR-3	395118082573300	230
Columbus (l).....	FR-10	400101083021800	231
GALLIA COUNTY			
East of Crown City (l).....	G-2	383638082103300	232
GREENE COUNTY			
North of Xenia (l).....	GR-1	394411083561300	233
North of Xenia (l).....	GR-10	394425083551100	234
HAMILTON COUNTY			
Cincinnati (l)	H-11	391039084291500	235
Southeast of Miamiville (c1).....	H-3	391101084172100	236
Cincinnati (l)	H-10	391201084281600	238
Southeast of Harrison (c1)	H-1	391214084470100	239
Cincinnati (l)	H-9	391324084272500	241
Wyoming (l).....	H-8	391341084275300	242
Evendale (l)	H-7	391442084262900	243
Glendale (c1).....	H-6	391608084254400	244
South of Ross (c1)	H-2	391733084392400	246
Southwest of Venice (c)	H-19	391748084393800	248
Southwest of Ross (l)	H-4	391817084393300	249
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Alger (l).....	HN-1	404218083503700	250
HOCKING COUNTY			
Logan (c1)	HK-1	393200082235300	251
KNOX COUNTY			
Mt. Vernon (l).....	K-1	402344082300700	252
Fredericktown (c1).....	K-4	402747082374300	253
LICKING COUNTY			
St. Louisville (c1).....	LI-4	400848082251100	255
LOGAN COUNTY			
West Liberty (c1).....	LO-3	401510083444400	257
MADISON COUNTY			
London (l).....	M-2	395301083272200	259
Northwest of London (l).....	M-5	395352083292100	260
Northwest of London (c1).....	M-4	395357083304400	261
North of London (l).....	M-3	395740083255700	263
MAHONING COUNTY			
Canfield (l)	MA-1	410042080453800	264
MARION COUNTY			
Southeast of New Bloomington (l).....	MN-4	403413083170500	265
LaRue (l)	MN-1	403443083230400	266
West of Marion (l)	MN-2	403601083110400	267

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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]

	Local Number	Well Number	Page
MEDINA COUNTY			
Wadsworth (l).....	MD-3	410120081431800	268
MERCER COUNTY			
Coldwater (cl)	MR-2	402833084375200	269
MIAMI COUNTY			
Northeast of Tipp City (l).....	MI-3	395848084085500	271
Troy (c).....	MI-44	400308084112900	272
MONTGOMERY COUNTY			
Miamisburg (c).....	MT-928	393757084173600	273
West Carrollton (l).....	MT-55	394012084151700	274
West Carrollton (l).....	MT-49	394025084162800	275
Dayton (l)	MT-3	394425084113200	276
Dayton (l)	MT-6	394533084113800	277
Dayton (cl)	MT-74	394811084095000	278
MUSKINGUM COUNTY			
Zanesville (l)	MU-1A	395804081593200	280
PICKAWAY COUNTY			
South of Circleville (l)	PK-7	393327082571600	281
South of Circleville (l)	PK-4	393402082572500	282
Northwest of Circleville (l).....	PK-6	393638082572300	283
South of Williamsport (l)	PK-8	393438083072200	284
Orient (l).....	PK-9	394742083094800	285
PIKE COUNTY			
West of Piketon (l)	PI-2	390359083015100	286
PORTAGE COUNTY			
Windham (l)	PO-1	411401081025000	287
PREBLE COUNTY			
East of Eaton (l)	PR-2	394438084335900	288
RICHLAND COUNTY			
Mansfield (l).....	R-4	404625082305100	289
Shiloh (l)	R-3	405753082360800	290
ROSS COUNTY			
West of Bainbridge (l).....	RO-7	391341083172200	291
SHELBY COUNTY			
Sidney (cl)	SH-5	401707084103100	292
STARK COUNTY			
Canton (cl).....	ST-5A	404939081203800	294
North Canton (l)	ST-27	405211081253500	296
TUSCARAWAS COUNTY			
Dover (l).....	TU-3	403207081293800	297
Strasburg (cl).....	TU-4	403557081313600	298
North of Strasburg (l)	TU-1	403653081321800	300
Strasburg (l).....	TU-5	403823081324200	301

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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]

	Local Number	Well Number	Page
UNION COUNTY			
Southeast of Raymond (l).....	U-4	401826083255200	302
East of East Liberty (l)	U-5	402010083321900	303
VINTON COUNTY			
McArthur (l)	V-1	391452082282900	304
WARREN COUNTY			
East of Monroe (cl)	W-5	392712084191700	305
WASHINGTON COUNTY			
North of Marietta (l).....	WA-2	392553081281600	307
Beverly (cl).....	WA-3	393241081353500	308
WAYNE COUNTY			
Wooster (l).....	WN-3	404655081553200	310
Wooster (l).....	WN-2A	404802081583100	311
Sterling (cl).....	WN-7	405745081510200	312
Rittman (l)	WN-6	405805081462300	314

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DISCONTINUED SURFACE-WATER DISCHARGE STATIONS

The following continuous-record surface-water discharge or stage-only stations (gaging stations) in Ohio have been discontinued. Daily stream-flow 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.

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 Mosquitto 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
Mahoning River at Youngstown	03098000	898	1922-82
Mill Creek at Youngstown	03098500	66.3	1944-71
Mahoning River at Lowellville	03099500	1,073	1943-71
			1973-92
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
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
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

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DISCONTINUED SURFACE-WATER DISCHARGE STATIONS

The following continuous-record surface-water discharge or stage-only stations (gaging stations) in Ohio have been discontinued. Daily stream-flow 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.

Station Name	Station Number	Drainage Area (mi ²)	Period of Record
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
Salt Creek near Chandlersville	03149500	75.7	1936-47
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
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 Glouster	03159000	104	1952-81

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DISCONTINUED SURFACE-WATER DISCHARGE STATIONS

The following continuous-record surface-water discharge or stage-only stations (gaging stations) in Ohio have been discontinued. Daily stream-flow 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.

Station Name	Station Number	Drainage Area (mi ²)	Period of Record
Hocking River below Athens	03159510	957	1977-93
East Branch Shake River near Tappers Plains	03159555	37.5	1980-82
			1983-85
Sandy River 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
Strong's 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
Eagon Run near Warrenburg	03219600	.123	1950-62
Olentangy River near New Winchester	03222500	49.4	1947-49
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
Olentangy River near Worthington	03226800	497	1956-85
			1992
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 Kilbourne	03228750	64.9	1974-83
Scioto River near Circleville	03230000	2,638	1939-56
Scioto River at Circleville	03230700	3,217	1974-79
			1990
Deer Creek at Williamsport	03231000 *	333	1927-35
			1939-56
			1962-92
Rattlesnake Creek at Centerfield	03232300	209	1971-82

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DISCONTINUED SURFACE-WATER DISCHARGE STATIONS

The following continuous-record surface-water discharge or stage-only stations (gaging stations) in Ohio have been discontinued. Daily stream-flow 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.

Station Name	Station Number	Drainage Area (mi ²)	Period of Record
Paint Creek below Paint Creek Dam near Bainbridge	03232470 *	570	1968-92
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 at Williamsburg	03246500	237	1949-53
			1961-74
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	1939-93
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 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

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DISCONTINUED SURFACE-WATER DISCHARGE STATIONS

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Station Name	Station Number	Drainage Area (mi ²)	Period of Record
Stillwater River at Covington	03264500	437	1931-35
Mad River at Zanesfield	03266500	7.31	1947-78
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
Mad River at Eagle City	03267800	307	1966-71
Mad River at Saint Paris Pike at Eagle City	03267900	310	1965-95
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
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

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DISCONTINUED SURFACE-WATER-QUALITY STATIONS

The following continuous-record surface-water-quality stations in Ohio 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. 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.

[Letter designates 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
			sc	1964-65
			s	1956-65
Hocking River below Athens	03159510		do, sc, t	1966-72
			do, pH, sc, t	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
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.	1965-80

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DISCONTINUED SURFACE-WATER-QUALITY STATIONS

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[Letter designates 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
Paint Creek near Greenfield	03232000	249	pH	1971-80
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	1956-74
			sc	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	1975-84
			s	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	1966
			do, sc, t	1968-82
			pH	1975-82
Great Miami River at Elizabethtown	03276600	5,356	t	1956-74
			sc	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 9a through 9d. The data in this report represent that part of the National Water Data 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 to 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-97-1." 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://www-oh.er.usgs.gov>.)

Additional information for ordering specific reports, including current prices, may be obtained by writing the District Chief at the address given on the back of title page or by telephoning (614) 469-5553.

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:

City of Akron, Joseph P. Kidder, Director of Public Service, and David L. Crandell, Manager
City of Canton, Michael L. Miller, Director of Public Service
City of Columbus, Water Division, John R. Douitt, Administrator
City of Cortland, Mark E. Dunsmoor, Director of Public Services
City of Fremont, Terry M. Overmyer, Mayor
City of Lima, David J. Berger, Mayor, and Alice Godsey, City Sanitary Engineer
City of North Olmsted, Ralph Bohlmann, Service Director, and Paul Deichmann, City Engineer
City of Warren, Manuel Michelakis, Director, and Henry J. Angelo, Mayor
Cuyahoga County, Sanitary Engineering Division, Richard G. Hunsinger, Chief Engineer
Cuyahoga County, Board of Health, B. J. Meder, Director
Cuyahoga River Community Planning Organization, Theodore J. Esbom, President
Eastgate Development and Transportation Agency, John R. Getchey, Director, and
James T. Wells, Manager, Transportation Program
Erie County Engineer, John D. Farschman, County Engineer, and
Kenneth E. Fortney, Drainage Superintendent
Federal Emergency Management Agency, Region V, Hazardous Branch,
Frederick Sharrocks, Jr., Chief
Geauga County, David C. Dietrich, Planning Director
Madison County Board of Commissioners, Robert Edwards, President
Miami Conservancy District, P. Michael Robinette, General Manager, and
Douglas N. Johnson, Chief Engineer
Northeast Ohio Regional Sewer District, Erwin J. Odeal, Executive Director
Ohio Biological Survey, Brian J. Armitage, Director
Ohio Department of Agriculture, Larry Berger, Environmental Specialist
Ohio Department of Natural Resources, Donald C. Anderson, Director
Division of Mines and Reclamation, Lisa J. Morris, Chief
Division of Oil and gas, Donald L. Mason, Chief
Division of Real Estate and Land Management, Wayne R. Warren, Chief
Division of Water, Michele Willis, Chief
Ohio Department of Transportation, Jerry H. Wray, Director
Ohio State University Research Foundation, James F. Ball, Associate Director
Ross County, James L. Kennard, Administrative Assistant
State of Ohio, Adjutant General's Department, Major Joseph Knott
Summit County, Jeffrey Lintern, Director, and Gene Esser, Chief Deputy Engineer
U.S. Air Force, Air Force Materiel Command, Aeronautical Systems Center,
Environmental Management Directorate, Restoration Branch, David Lawrence, Chief
U.S. Army Corps of Engineers,
Buffalo District, Commander
Huntington District, Commander
Louisville District, Commander
Pittsburgh District, Commander

U.S. Environmental Protection Agency

Drinking Water Standards Division, Charles A. Job, Project Officer

Great Lakes National Project Office, Kent Fuller, Project Officer

NERL-MICROBIAL and Chemical Exposure Assessment Research Division,

Gerard N. Stelma, Project Officer

Superfund Division, Region V, Luanne Vanderpool, Project Officer

U.S. Forest Service, Wayne National Forest, Eurial Turner, Supervisor

University of Toledo, Ronald Gallagher

Vermilion Township Trustees, Janet Knittle, Trustee, and William Balogh, Clerk

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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. 1) 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 Plains section (fig. 1) 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 Plains Section of the Interior Low Plateau province (fig. 1) 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. 1) 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. 1), successive waves of glaciation have subdued the relief, buried many preglacial valleys, and rerouted many streams.

Precipitation

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

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

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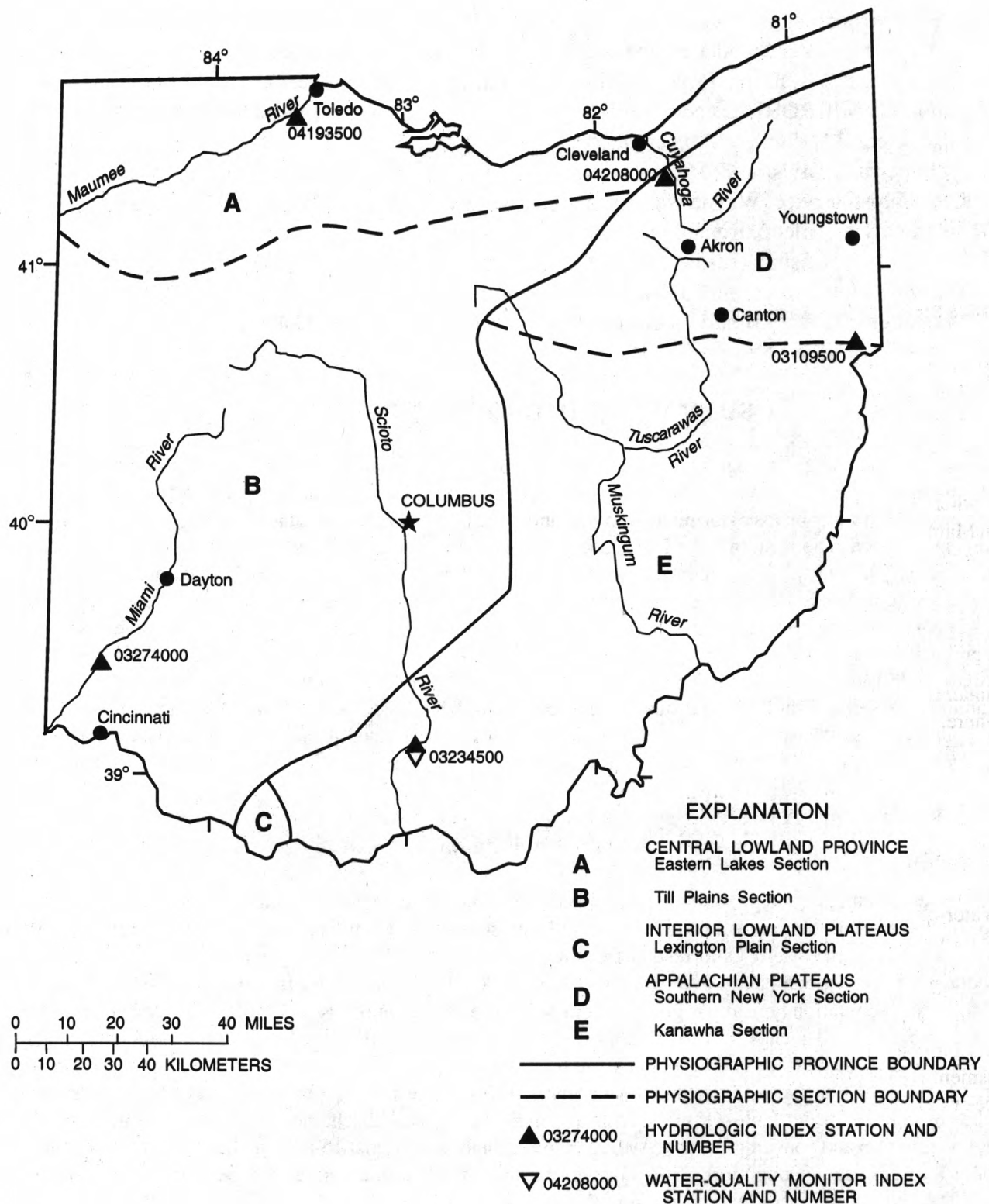


Figure 1. Physiographic divisions and location of Hydrologic Index Stations.

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 12 to 7,420 square miles and represent a wide diversity of topography and other physical characteristics. Streamflow ranges from unregulated to highly regulated.

Statewide Streamflow, Water Year 1997

At the beginning of water year 1997, streamflow was in the above-normal¹ range throughout much of Ohio as a result of above-normal precipitation at the end of the last water year. Flows generally were above normal during October but declined into the normal range for most of the State by November in response to below-normal precipitation. Excessive flows prevailed throughout the State in December because of above-normal precipitation.

Flows returned to the normal range for much of Ohio during January and February except for parts of northern Ohio, where flows remained excessive.

In March, streamflow was above normal throughout the State. In parts of southern Ohio, major flooding occurred early in the month. Stage and streamflow were the highest on record at two streamflow-gaging stations; the peak streamflow at these two locations exceeded the estimate of the 100-year recurrence interval. Eighteen counties were declared Federal and State disaster areas, and five lives were lost as a result of the flood.

Streamflow fell into the deficient range statewide in April in response to below-normal precipitation. Flows returned to the above-normal range in June, and significant flooding occurred in central and southern Ohio. For the remainder of the water year, streamflow remained excessive in northwestern and central Ohio and in the normal range elsewhere.

A comparison of streamflows for 1997 with long-term median flows at four representative stations is shown in figure 2.

Water Quality

Water-quality data in Ohio are collected on a short-term basis in conjunction with local or regional studies. On a long-term basis, water-quality data in Ohio are collected at fixed stations. With the redesign of the National Stream Quality Accounting Network (NASQAN) in 1996 to concentrate on evaluation of large river basins, collection of water-quality data at fixed stations for NASQAN was discontinued in Ohio. Collection of water-quality data at another fixed station, the Hydrologic Benchmark station, located in a small, relatively pristine basin in southern Ohio, was discontinued in 1997. The only active long-term monitoring program in Ohio is the National Water-Quality Assessment (NAWQA) Program, a program designed to assess the status and trends in the quality of ground- and surface-water resources in major hydrologic systems (study units) of the United States. Sampling in NAWQA began in 1991 in the Nation and in March 1996 at some sites in Ohio as part of the Lake Erie-Lake St. Clair (LERI) study unit. One of the LERI fixed stations, the Maumee River at Waterville, was also a fixed station in NASQAN. Whereas water-quality sampling in the NASQAN program was done quarterly, sampling in the NAWQA program is done much more frequently. For example, during 1997 (a high-intensity sampling year for the LERI) 24 samples were

¹For streamflow, "normal" is defined as being between the 25th and 75th percentiles as measured during the base period, water years 1961-90.

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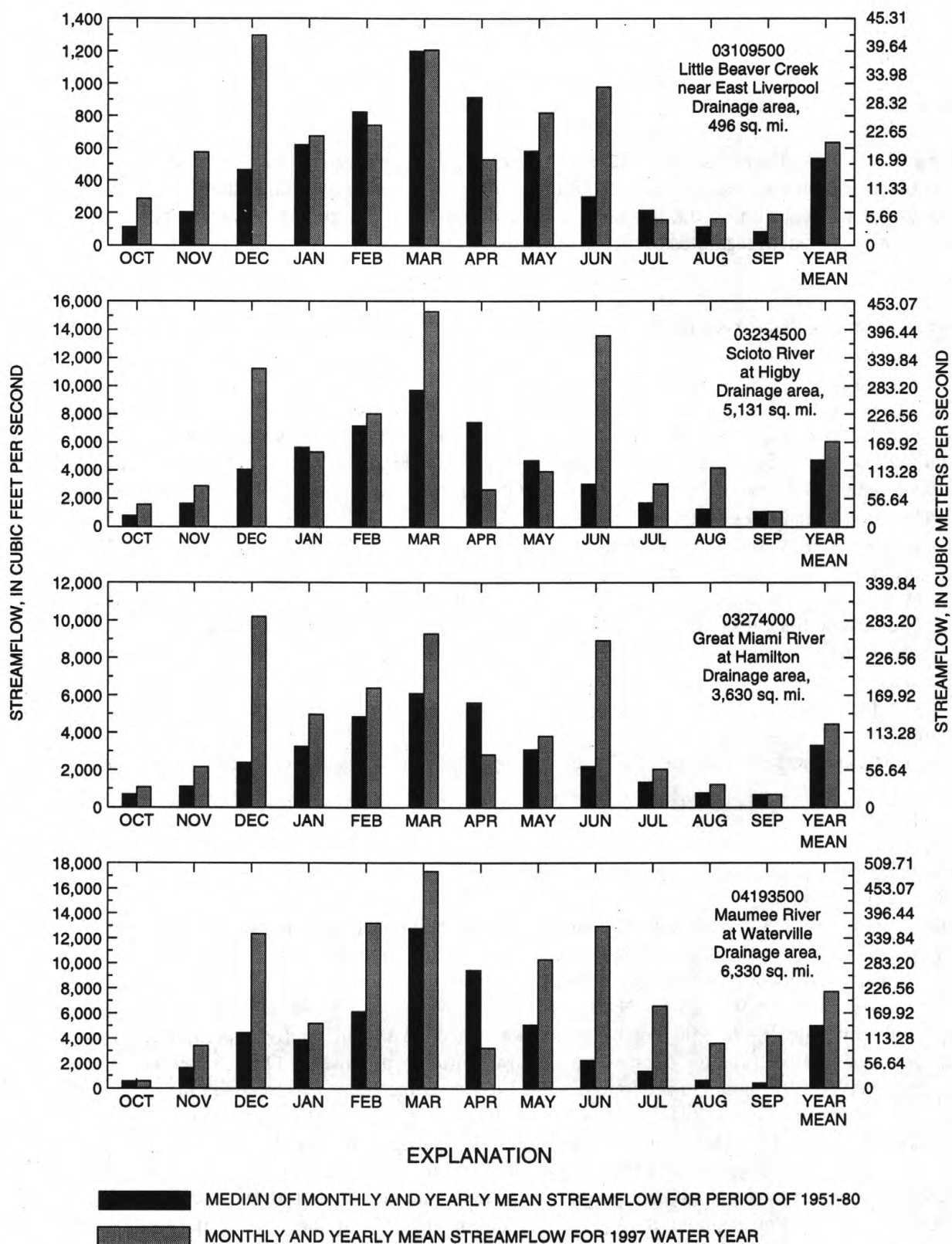


Figure 2. Streamflow during 1997 water year compared with median streamflow for period 1951-80 for four representative gaging stations.

collected at the Maumee River at Waterville. Sampling time was monthly to weekly during 1997, depending on the season, so that samples were collected over a range of streamflows. Samples from this site are analyzed for major anions and cations, nutrients, trace elements, suspended sediment, selected physical properties, and fecal-coliform and *Escherichia coli* bacteria.

Box plots of streamflow and concentrations of selected constituents measured during the previous 10-year period (1987-95 as part of NASQAN and 1996 as part of NAWQA) are shown in figures 3 and 4 for the Maumee River at Waterville. Land use in the basin is mixed and consists of row-crop agriculture upstream and urban and industrial areas downstream. Results of analysis of samples collected in water year 1997 as part of the NAWQA program are superimposed on the box plots and are represented by solid circles.

Because NAWQA puts a greater emphasis on collection of high-flow samples than NASQAN did, 17 of the 24 samples collected during 1997 (71 percent) were above the median instantaneous streamflow for the previous 10-year period for the Maumee River. Ten samples were collected at high flow; these values were above the 75th percentile of data collected during the previous 10-year period, with streamflows ranging from 11,100 to 65,200 cubic feet per second.

Only five samples collected at the Maumee River at Waterville were analyzed for concentrations of fecal-coliform bacteria during 1997. The LERI replaced monitoring for fecal coliforms with another bacterial indicator, *Escherichia coli* (*E. coli*), in February 1997. Of the five samples collected for fecal coliforms, three were above the 75th percentile of samples collected during the previous 10-year period. These three samples exceeded the single-sample primary-contact standard of 1,000 colonies per 100 milliliters and were collected during high flow.

Twenty of the 24 samples collected during 1997 (83 percent) were at or below the median chloride concentration for the previous 10-year period. This is because chloride, commonly associated with municipal or industrial point sources of wastewater, is diluted during high flow. Similarly, dissolved-solids concentrations in 1997 were lower than those concentrations found in previous years.

During 1997, none of nitrate plus nitrite concentrations measured exceeded the U.S. Environmental Protection Agency maximum contaminant level for finished drinking water (10 milligrams per liter, as N). In Ohio, fertilizers are a major source of nitrate. Concentrations in the Maumee River in 1997 were distributed evenly among the distribution of concentrations found during the previous 10-year period and were highly variable, ranging from 0.27 to 9.3 milligrams per liter.

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 1997, total phosphorus concentrations ranged from 0.07 to 1.5 milligrams per liter, and 20 of the 24 samples collected were above the median total phosphorus concentration for the previous 10-year period.

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. 5) 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

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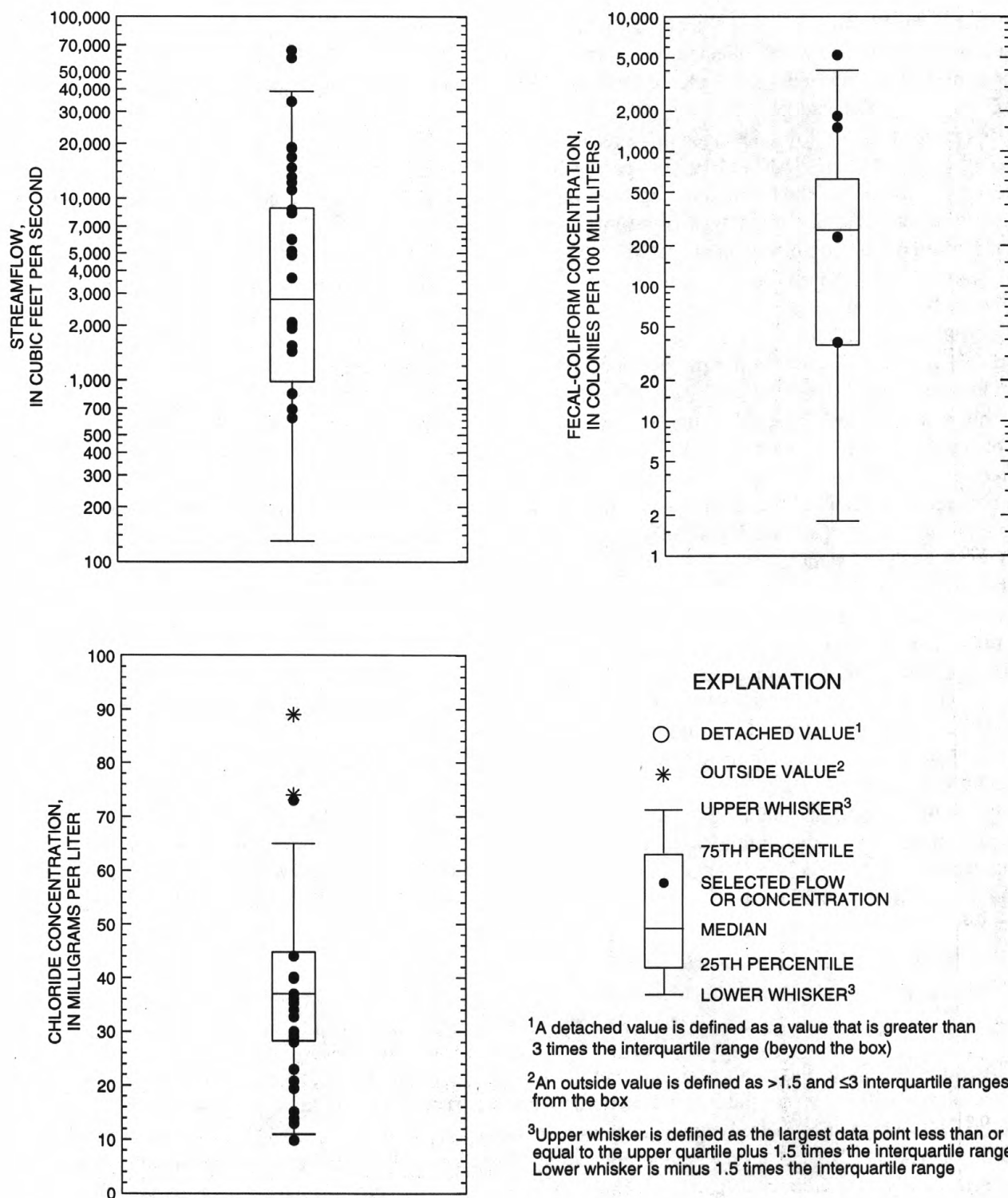


Figure 3. Streamflow and concentrations of fecal-coliform bacteria and chloride measured in water year 1997 and the distribution of those characteristics from measurements made during water years 1987-96 for the Maumee River at Waterville.

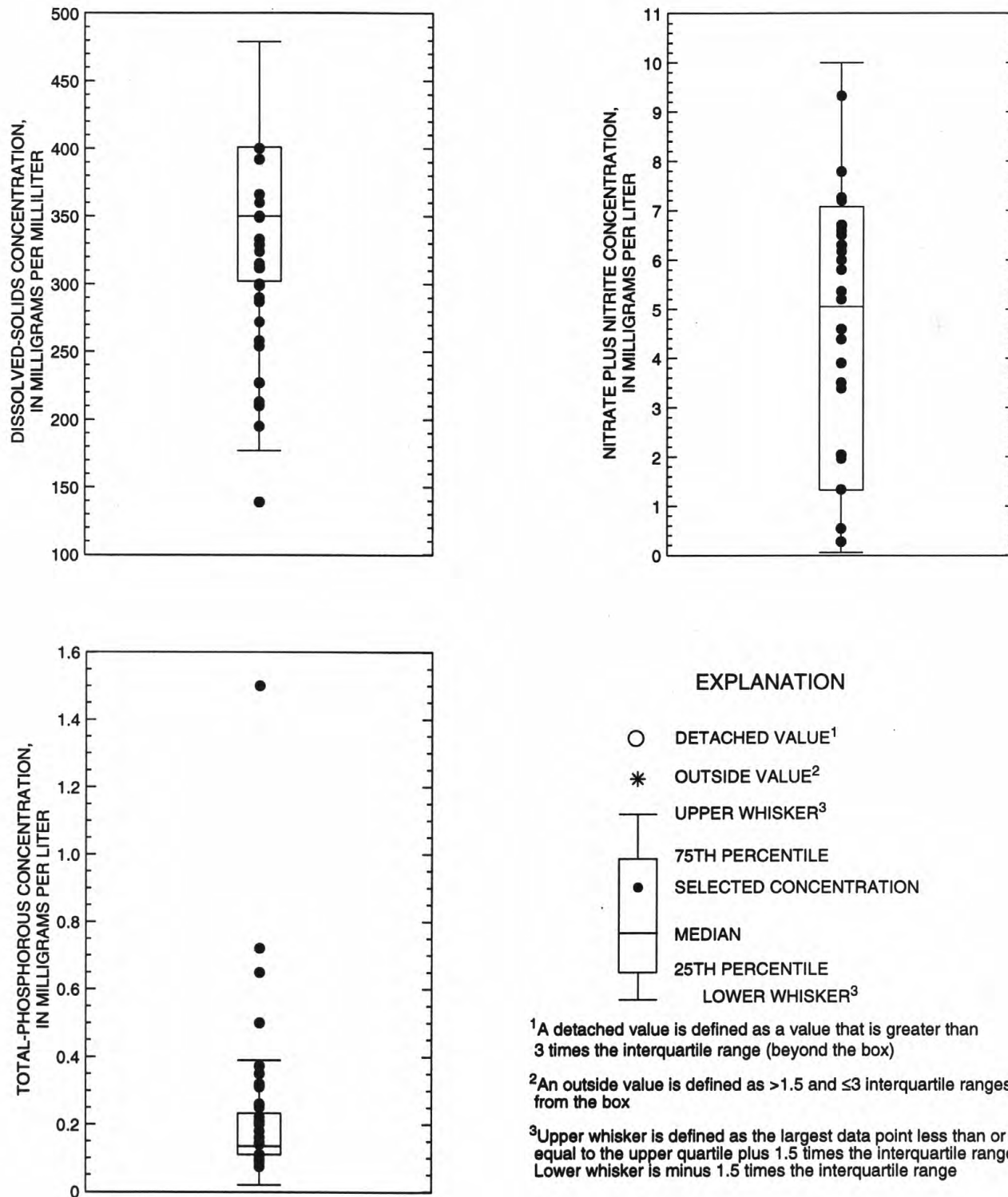


Figure 4. Dissolved-solids, nitrate plus nitrite, and total-phosphorus concentrations measured in the water year 1997 in the distribution of those constituents from measurements made during water years 1987-96 for the Maumee River at Waterville.

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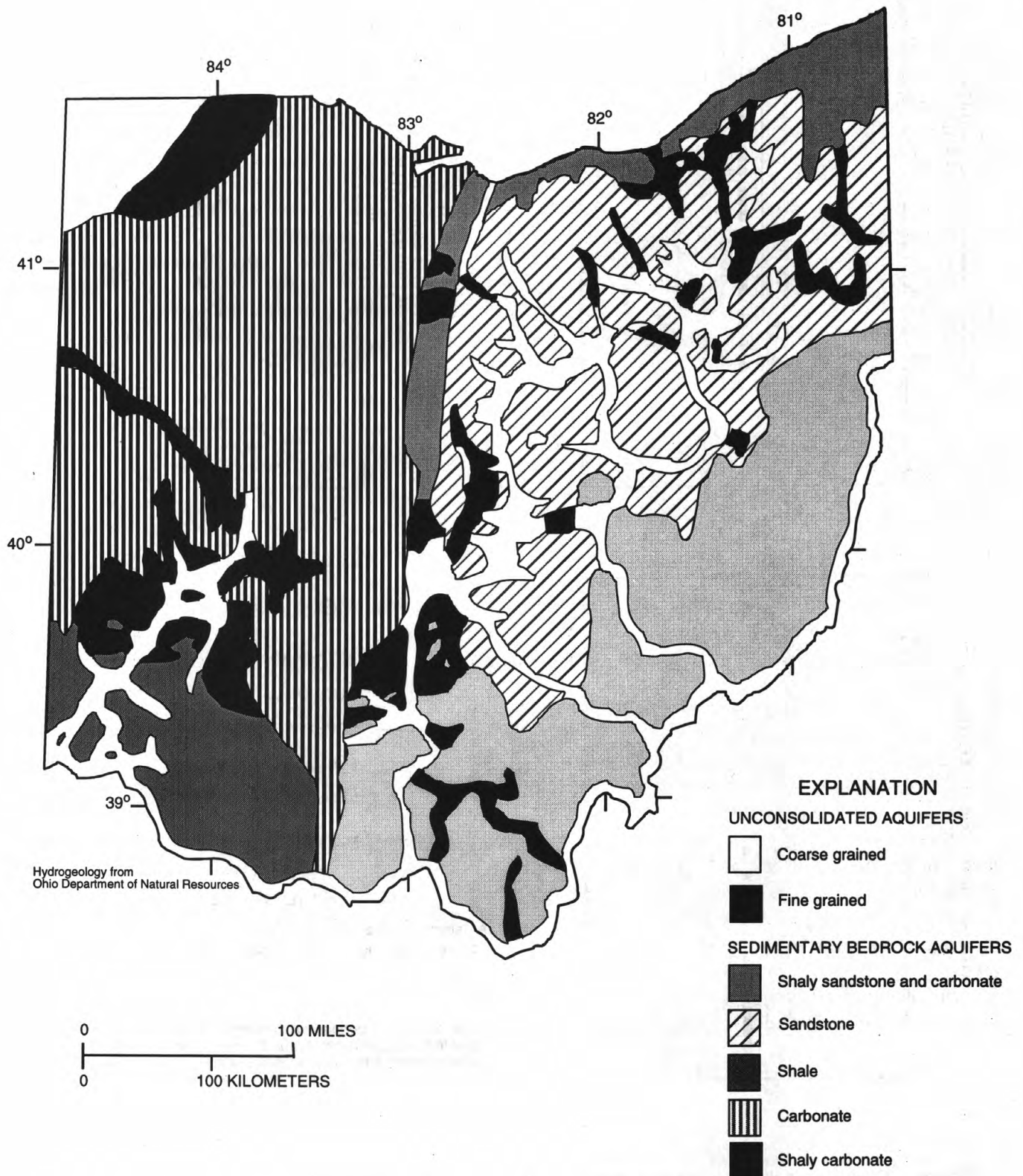


Figure 5. Geographic distribution of principal aquifers in Ohio.

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. 5) that yields only small amounts of water to wells. Silurian-age limestone and dolomite and Devonian limestone comprise the carbonate aquifer system (fig. 5) 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 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 6. 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 7. 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.

At the beginning of water year 1997, ground-water levels were generally above normal² throughout the State except for areas of eastern Ohio, where they were normal and below normal. Levels declined during October and, by month's end, ground-water levels ranged from slightly above to slightly below normal across the State.

Water levels were generally stable until late November, when levels began to rise in response to above-normal precipitation. This upward trend continued, and ground-water levels were at or above normal statewide through March.

In April, below-normal precipitation caused water levels to stabilize or decline. Declines continued into May for most aquifers. Ground-water levels rose into the normal and above-normal range throughout the State in response to above-normal precipitation in May and June.

The remainder of the water year was characterized by seasonal declines in ground-water levels. In most of the State, levels remained above normal except for parts of eastern Ohio, where levels were below normal.

²For ground-water levels, "normal" is defined as being between the 25th and 75th percentiles of the range values recorded during the reference period, 1960--75.

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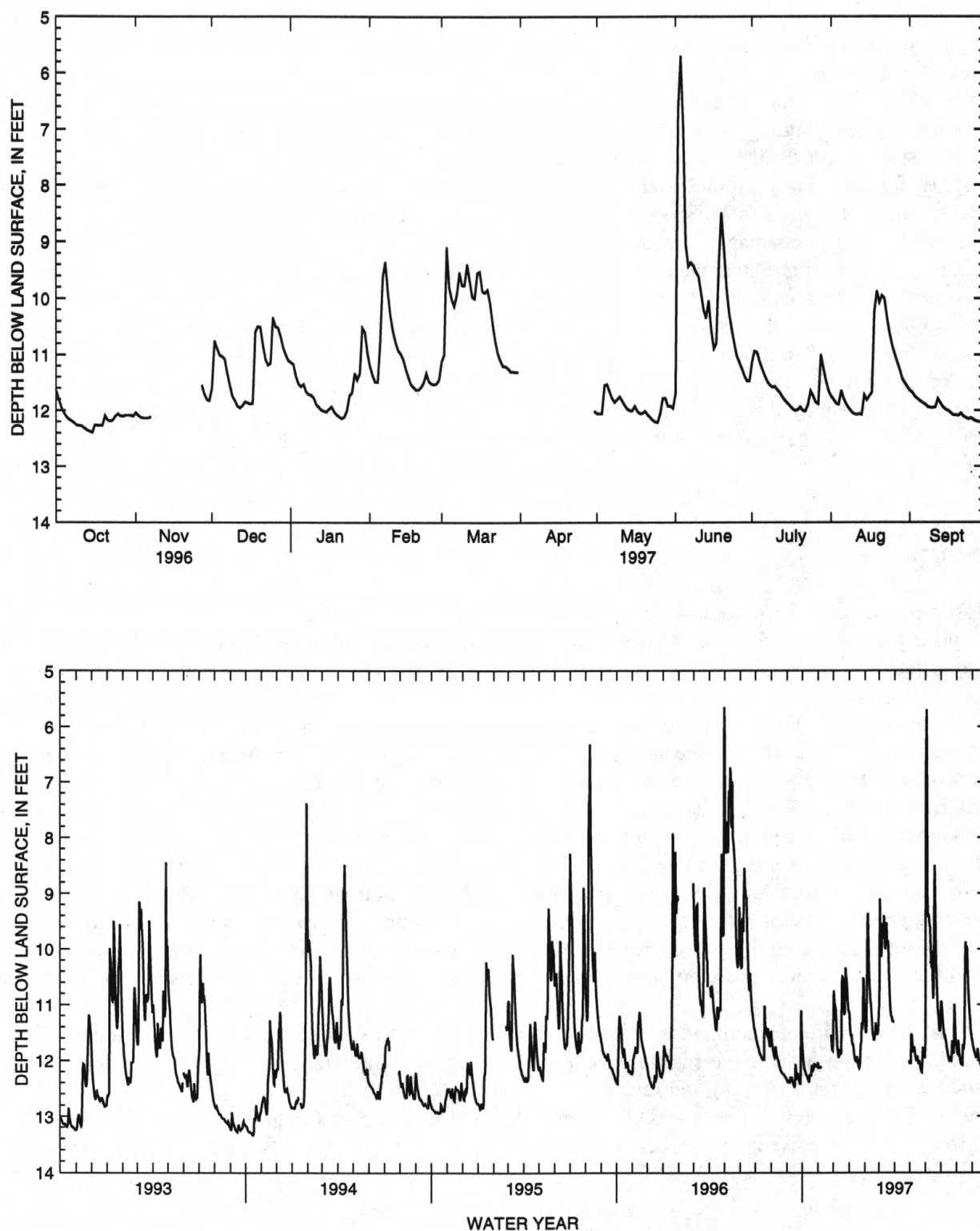


Figure 6. Sample 1-year and 5-year hydrographs of well FR-3 (395118082573300), completed in an unconfined unconsolidated aquifer.

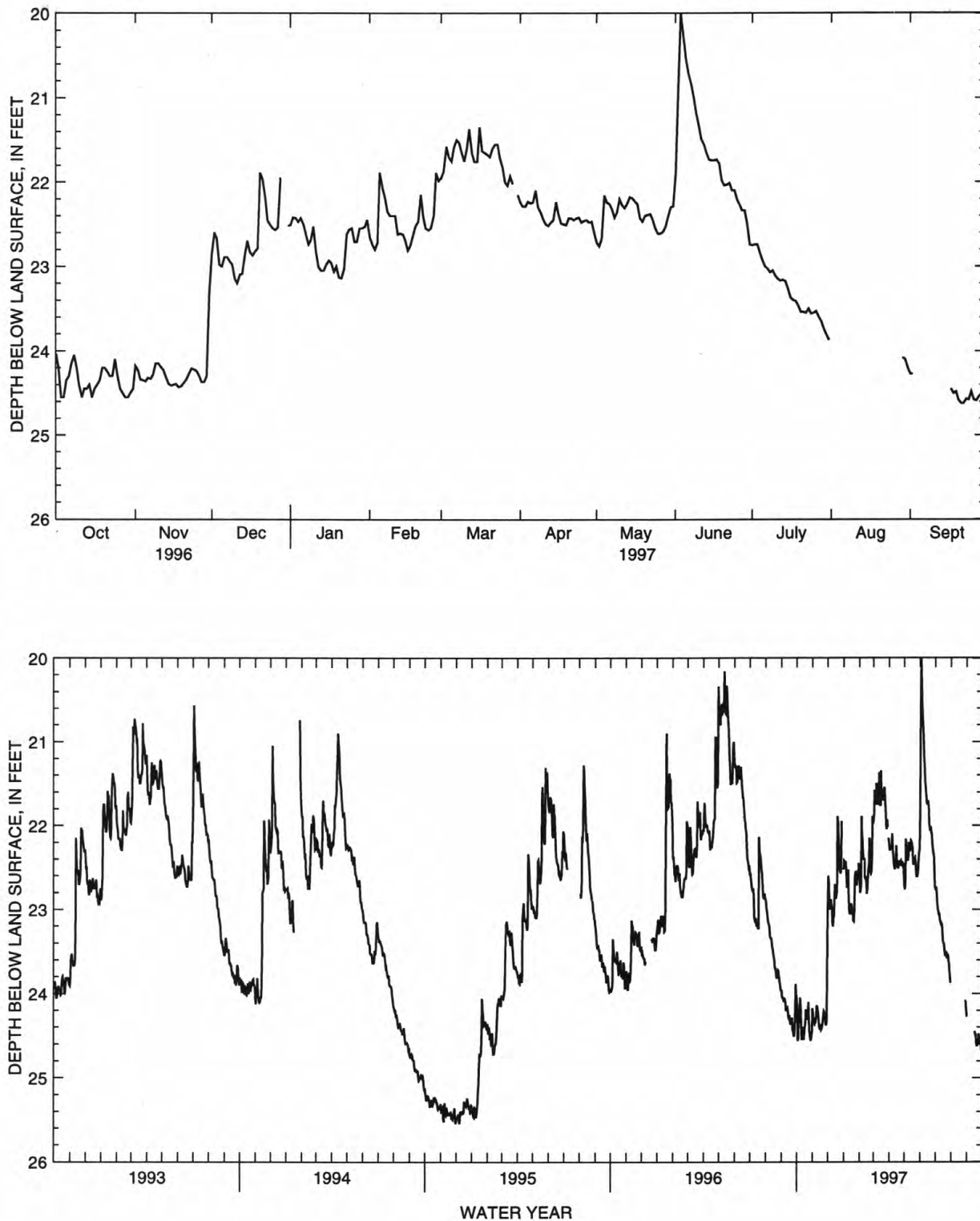


Figure 7. Sample 1-year and 5-year hydrographs of well U-4 (401826083255200), completed in a confined carbonate-rock aquifer.

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. The network consists of 39 stations. 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 accomplish the following objectives: (1) provide a long-term, spatial and temporal record of atmospheric deposition generated from a network of 191 precipitation-chemistry monitoring sites, (2) provide the mechanism to evaluate the effectiveness of the significant reduction in SO₂ emissions that began in 1995 as implementation of the Clean Air Act Amendments (CAAA) occurred, and (3) provide the scientific basis and nationwide evaluation mechanism for implementation of the Phase II CAAA emission reductions for SO₂ and NO_x scheduled to begin in 2000.

Data from the network, as well as information about individual sites, are available through the World Wide Web at

<http://nadp.nrel.colostate.edu/NADP>

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 53 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 will be 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://wwwrvares.er.usgs.gov/nawqa/nawqa_home.html

EXPLANATION OF THE RECORDS

The records in this report are for the 1997 water year that began October 1, 1996, and ended September 30, 1997. 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 8.)

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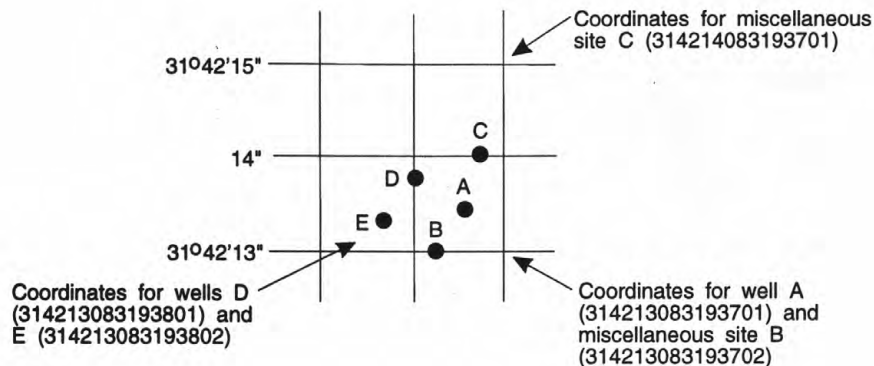


Figure 8. System for numbering wells and miscellaneous sites (latitude and longitude).

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 daily 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 9a through 9d.

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 analog recorders that trace continuous graphs of stage, or with digital recorders that punch stage values on paper tapes or 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, 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 a critical error in published records is discovered, a revision is included in the first report following discovery of the error.

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.

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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 graph or a series of discrete values punched at short intervals on a paper tape or recorded electronically. 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 9a and 9b.

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" (TWRI), Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, and USGS Open-File Report 93-125 "Methods of Analysis by the U.S. Geological Survey National Water Quality Laboratory—Determination of Inorganic and Organic Constituents in Water and Fluvial Sediments." The TWRI references are listed in this report. Also, detailed information on collecting, treating, and shipping samples may be obtained from the USGS District office.

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 TWRI, Book 5, Chap. C1. Methods used by the USGS laboratory are given in TWRI, Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, and USGS Open-File Report 93-125 "Methods of Analysis by the U.S. Geological Survey National Water Quality Laboratory—Determination of Inorganic and Organic Constituents in Water and Fluvial Sediments." Methods used by the USGS laboratory for microbiological analyses are given in TWRI, Book 5, Chap. A4.

Historical and current (1997) dissolved trace-element concentrations are reported herein for water that was collected, processed, and analyzed by using either ultraclean or other than ultraclean techniques. If ultraclean techniques were used, then those concentrations are reported in nanograms per liter. If other than ultraclean techniques were used, then those concentrations are reported in micrograms per liter and could reflect contamination introduced during some phase of the procedure.

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:

PRINTED OUTPUT	REMARK
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.

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 water year 1995 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 Coordination Office, Colorado State University, Fort Collins, CO 80523 (Telephone: 303-491-5643).

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 9a and 9b. 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. 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 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 (WWW). These data may be accessed at:

<http://water.usgs.gov>

Some water-quality and ground-water data also are available through the WWW. In addition, data can be provided in various machine-readable formats on magnetic tape or 3 1/2-inch floppy disk. Information about the availability of specific types of data or products, and user charges, can be obtained locally from each of the Water Resources Division District Offices. (See address on the back of the title page.)

DEFINITION OF TERMS

Terms related to streamflow, water quality, and other hydrologic data, as used in this report, are defined below. See also the table for converting inch-pound units to International System of units (SI) on the inside of the back cover.

Acre-foot (AC-FT, acre-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.

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

Algae are mostly aquatic single-celled, colonial, or multicelled plants, containing chlorophyll and lacking roots, stems, and leaves.

Algal growth potential (AGP) is the maximum 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.

Aquifer is a 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.

Artesian means confined, and is used to describe a well in which the water level stands above the top of the aquifer tapped by the well. A flowing artesian well is one in which the water level is above the land surface.

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

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. 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 the organisms that produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35°C ± 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.

Fecal coliform bacteria are bacteria that 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°C ± 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.

Fecal streptococcal bacteria are bacteria found also in intestine of warm-blooded animals. Their presence in water is considered to verify fecal pollution. 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 ± 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.

Bed material is the unconsolidated material of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

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 the mass per unit area or volume of habitat.

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter (g/m^3) and periphyton and benthic organisms in grams per square meter (g/m^2).

Dry mass refers to the mass of residue present after drying in an oven at 105°C for zooplankton and periphyton, 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.

Organic mass or volatile mass of the living substance is the difference between the dry mass and the ash mass and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash and dry mass.

Wet mass is the mass of living matter plus contained water.

Bottom material: See Bed material.

Cells/volume refers to the number of cells of any organism, which are 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, usually milliliters (mL) or liters (L).

Cfs-day 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, approximately 1.9835 acre-feet, about 646,000 gallons, or 2,447 cubic meters.

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 carbonaceous organic pollution from sewage or industrial wastes.

Chlorophyll refers to the green pigments of plants. Chlorophyll *a* and *b* are the two most common pigments in plants.

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

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.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, 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 during 1 second and is equivalent to approximately 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

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.

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment) that passes a given point within a given period of time.

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period.

Instantaneous discharge is the discharge at a particular instant of time.

Dissolved: 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 agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

Dissolved solids concentration of water is determined either analytically by the "residue-on-evaporation" method, or mathematically by totalling the concentrations of individual constituents reported in a comprehensive chemical analysis. During the analytical determination of dissolved solids, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. Therefore, in the mathematical calculation of dissolved-solids concentration, the bicarbonate value, in milligrams per liter, is multiplied by 0.492 to reflect the change.

Drainage area of a stream at a specific location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the stream above the specified point. Figures of drainage area given herein include all closed basins, or noncontribution areas, within the area unless otherwise noted.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or a body of impounded surface water together with all tributary surface stream and bodies of impounded surface water.

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.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage," although gage height is more appropriate when used with a reading on a gage.

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

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as the equivalent concentration of calcium carbonate (CaCO_3).

Hydrologic bench-mark 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 bench-mark 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 bench-mark basin.

Hydrologic index stations, in this report, refers to four continuous record gaging stations that have been selected as representative of streamflow patterns for their respective regions of Ohio. Station locations are shown in figure 1.

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

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

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.

Methylene blue active substance (MBAS) is a measure of apparent detergents. This determination depends on the formation of a blue color when methylene blue dye reacts with synthetic anionic detergent compounds.

Microgram per kilogram (UG/KG, $\mu\text{g}/\text{kg}$) is a unit expressing the concentration of a chemical element as the mass (micrograms) of the element sorbed per unit mass (kilogram) of bottom material.

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

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

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

National Stream-Quality Accounting Network (NASQAN) is a data-collection network designed by the USGS to meet many of the information demands of agencies or groups involved in national or regional water-quality planning and management. Both accounting and broad-scale monitoring objectives have been incorporated into the network design. Areal configuration of the network is based on river-basin accounting units (identified by 8-digit hydrologic-unit numbers) designated by the Office of Water Data Coordination in consultation with the Water Resources Council. Primary objectives of the network are (1) to depict areal variability of streamflow and water-quality conditions nationwide on a year-by-year basis and (2) to detect and assess long-term changes in streamflow and stream quality.

Organism is any living entity.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per unit area of habitat, usually square meters (m^2), acres, or hectares. 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 milliliters (mL) or liters (L). Numbers of planktonic organisms can be expressed in these terms.

Total organism count is the total number of organisms collected and enumerated in any particular sample.

Parameter code is a 5-digit number used in the U.S. Geological Survey's data system, the National Water Information System (NWIS), to uniquely identify a specific constituent. The codes used in NWIS are the same as those used in the U.S. Environmental Protection Agency's data system, STORET.

Partial-record station is a particular site where limited streamflow and (or) water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimeters (mm), of suspended sediment or bed material determined by either sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) 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 used in this report agrees with recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology.

CLASSIFICATION	SIZE (mm)	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 material 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.

Percent composition 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, number, mass, or volume.

Periphyton is the assemblage of microorganisms attached to and growing upon solid surfaces. While primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms. Periphyton is a useful indicator of water quality.

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Pesticide program is a network of regularly sampled water-quality stations where samples are collected to determine the concentration and distribution of pesticides in streams where potential contamination could result from the application of commonly used insecticides and herbicides. Operation of the network is a Federal interagency activity.

Pesticides are chemical compounds used to control undesirable plants and animals. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides. Insecticides and herbicides, which control insects and plants respectively, are the two categories reported.

Picocurie (PCI, pCi) is one trillionth (1×10^{-12}) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7×10^{10} radioactive disintegrations per second. A picocurie yields 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.

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.

Blue-green algae 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.

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.

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 millimeter (cells/mm) of sample.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movement 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.

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 by the plants (carbon method).

Milligrams of carbon per area or volume per unit time [$\text{mg C}/(\text{m}^2 \text{ or } \text{m}^3/\text{time})$] for periphyton, macrophytes, and phytoplankton are units for expressing primary productivity. They define 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 it is preferred for use in unenriched waters. Unit time may be the hour or day, depending on the incubation period.

Milligrams of oxygen per area or volume per unit time [$\text{mg O}_2/(\text{m}^2 \text{ or } \text{m}^3/\text{time})$] for periphyton, macrophytes, and phytoplankton are units for expressing primary productivity. They define 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.

Radiochemical program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

Recoverable from 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 only readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment; 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.

Return period is the average time interval between occurrences of a hydrological event of a given or greater magnitude, usually expressed in years. May also be called recurrence interval.

Runoff in inches (IN., in.) 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.

Sea level refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)—a geodetic datum derived from a general adjustment of the first-order level nets of both the United States and Canada, formerly called Sea Level Datum of 1929.

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it 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 factors. Some major factors are degree of slope, length of slope, soil characteristics, land use, and quantity and intensity of precipitation.

Bed load is the sediment that is transported in a stream by rolling, sliding, or skipping along the bed and very close to it. In this report, bed load is considered to consist of particles in transit within 0.25 ft of the streambed.

Bed-load discharge (tons per day) is the quantity of bed load measured by dry weight that moves past a section as bed load in a given time.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

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).

Suspended-sediment discharge (ton/day) is the rate at which dry weight of sediment passes a section of a stream or is the quantity of sediment, as measured by dry weight or volume, that passes a section in a given time. It is computed by multiplying discharge times mg/L times 0.0027.

Suspended-sediment load is the quantity of suspended sediment passing a section in a specified period.

Total sediment discharge (ton/day) is the sum of the suspended-sediment discharge and the bed-load discharge. It is the total quantity of sediment, as measured by dry weight or volume, that passes a section during a given time.

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

Seven-day, 10-year low flow ($7Q_{10}$) is the discharge at the 10-year recurrence interval taken from a frequency curve of annual values of the lowest mean discharge for 7 consecutive days (the 7-day low flow).

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. Waters range in respect to sodium hazard from those which can be used for irrigation on almost all soils to those which are generally unsatisfactory for irrigation.

Solute is any substance derived from the atmosphere, vegetation, soil, or rocks that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in microsiemens per centimeter at 25°C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the

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concentration of dissolved solids (in milligrams per liter) is about 65 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

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

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", because 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.

Natural substrate refers to any naturally occurring emerged or submersed solid surface, such as a rock or tree, upon which an organism lives.

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 substrate are basket samplers (made of wire cages filled with clean streamsize rocks) and multiplate samplers (made of hardboard) for benthic organism collection, and plexiglas strips for periphyton.

Surface area of a lake is that area outlined on the latest USGS topographic map as the boundary of the lake and measured by a planimeter or a digitizer in acres. In localities not covered by topographic maps, the areas are computed from the best maps available at the time planimetered or digitized. All areas shown are those for the stage when the planimetered map was made.

Surficial bed material is the part (0.1 to 0.2 ft) of the bed material that is sampled using U.S. Series Bed-material Samplers.

Suspended (as used in tables of chemical analyses) refers to the amount (concentration) of the total concentration in a water-sediment mixture. The water-sediment mixture is associated with (or sorbed on) that material retained on a 0.45-micrometer filter.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45-micrometer 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 would be 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 analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent.

Suspended, total is the total amount of a given constituent in the part of a representative water-suspended 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. A 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 analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

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*

Thermograph is an instrument that continuously records variations of temperature on a chart. The more general term "temperature recorder" is used in the table headings 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 that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the year.

Tons per acre-foot indicates the dry mass of dissolved solids in 1 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) is the quantity of substance in solution or suspension that passes a stream section during a 24-hour day.

Total is the total amount of a given constituent in a representative water-suspended sediment 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 determines all of the constituent in the sample.)

Total in bottom material is the total 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 discharge is the total quantity of any individual constituent, as measured by dry mass or volume, that passes through a stream cross section per unit of time. This term needs to be qualified, such as "total sediment discharge," "total chloride discharge," and so on.

Total load (tons) is the total quantity of any individual constituent, as measured by dry mass or volume, that is dissolved in a specific amount of water (discharge) during a given time. It is computed by multiplying the total discharge, times the concentration of the constituent (in milligrams per liter), times the factor 0.0027, times the number of days.

Total recoverable is the amount of a given constituent that is in solution after a representative water-suspended sediment 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, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

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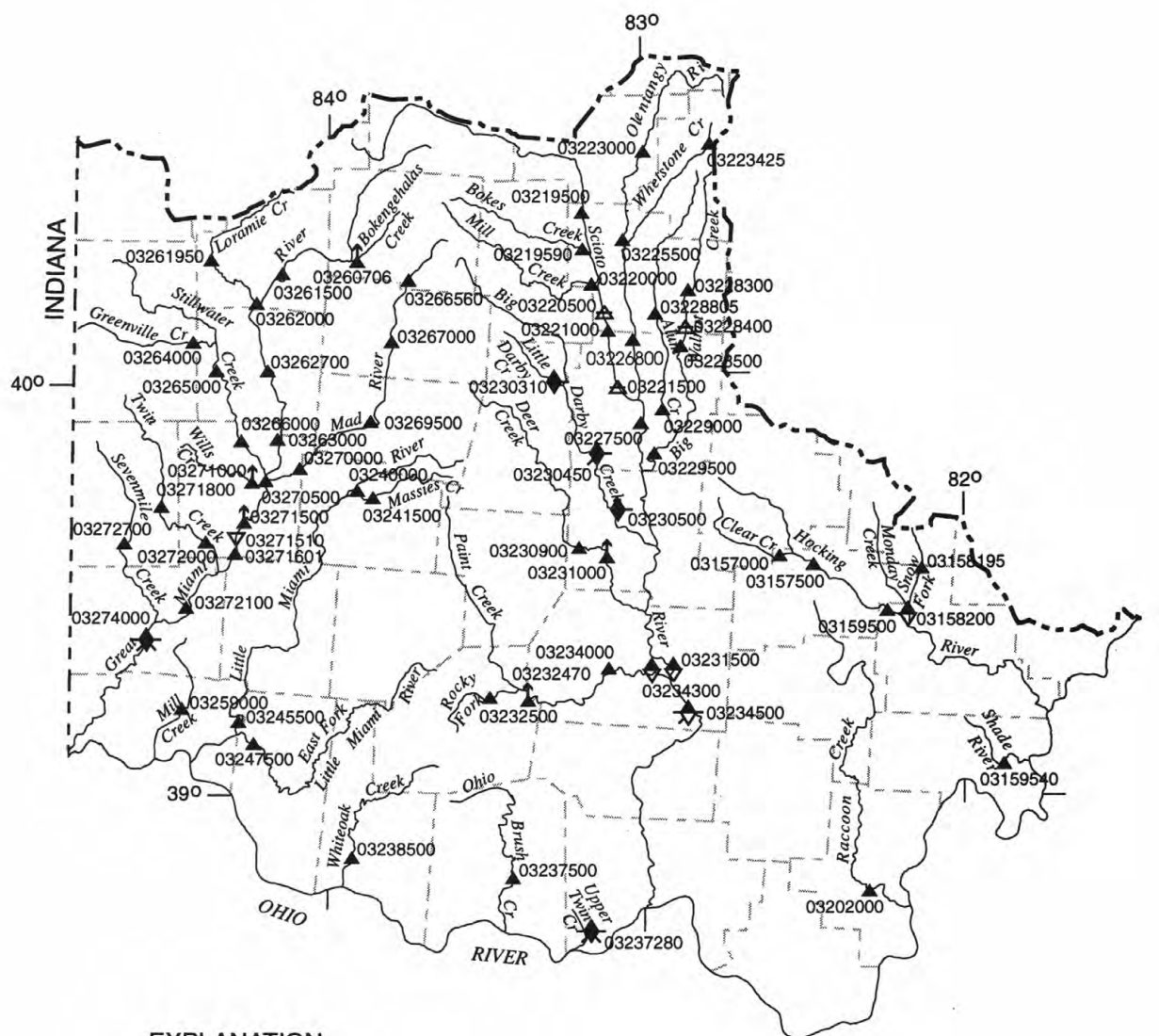
Water year in USGS reports dealing with surface-water supply is the 12-month period, October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1980, is called the 1980 water year.

WDR is used as an abbreviation for "Water-Data Report" in the REVISED RECORDS paragraph to refer to state annual basic-data reports published after 1975.

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.

WRD is used as an abbreviation for "Water-Resources Data" in the REVISED RECORDS paragraph to refer to state annual basic-data reports published before 1975.

WSP is used as an abbreviation for "Water-Supply Paper" in references to previously published reports.



EXPLANATION

SURFACE-WATER GAGING STATION—Eight-digit number is downstream-order number

- ▲ Daily discharge
- △ Stage
- ▼ Water quality
- Chemical measurement
- Temperature measurement
- Biological measurement
- Sediment measurement
- ▽ Monitor
- ⬆ Peak-flow discharge

Study Area

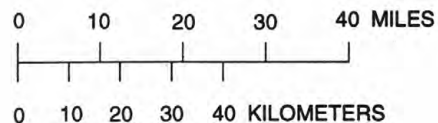
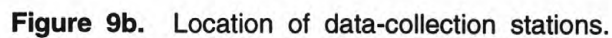
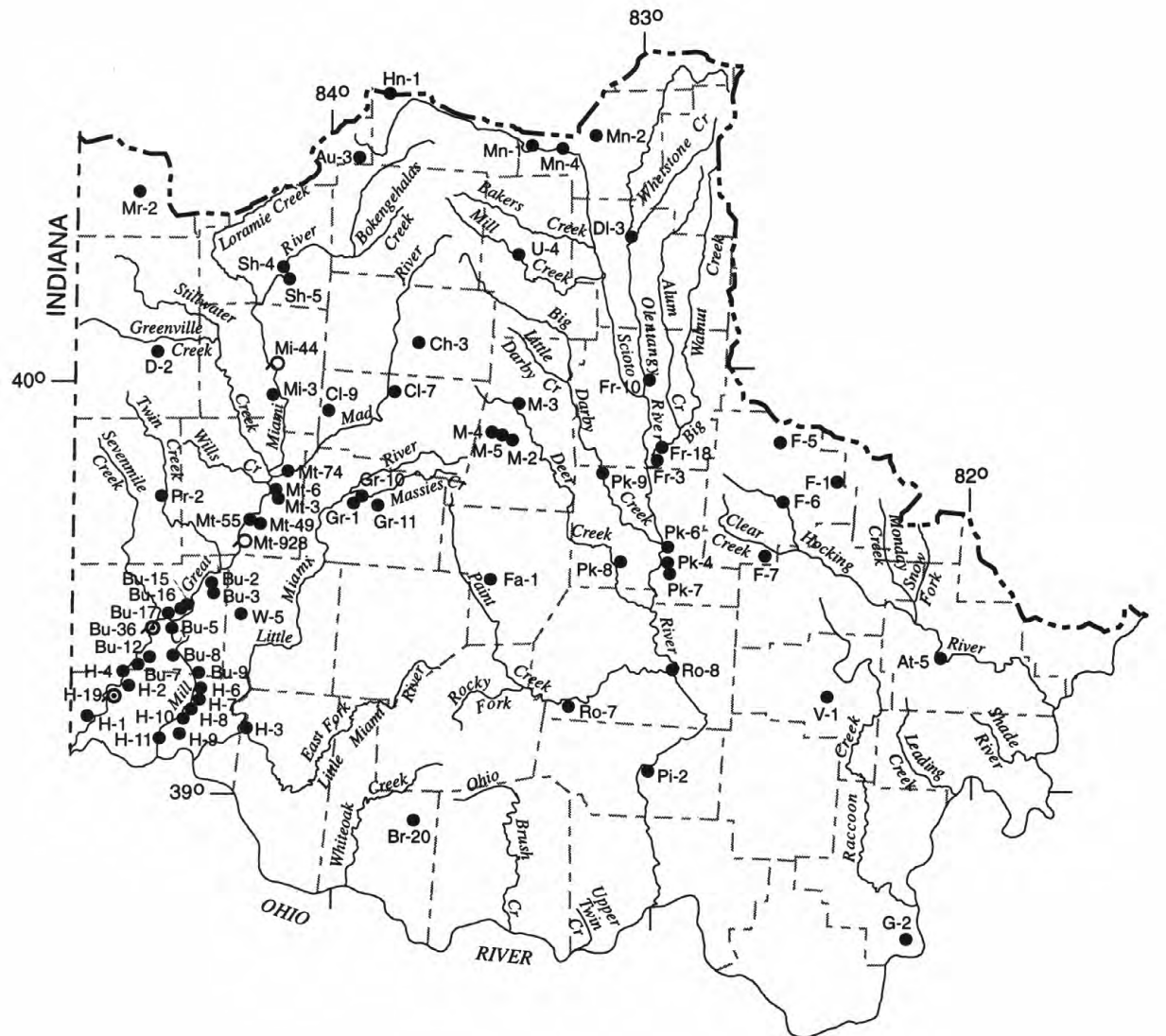


Figure 9a. Location of data-collection stations.





EXPLANATION

WELL AND LOCAL NUMBER--Letter preceding hyphen is county code; number following hyphen is sequence number

- Observation well
- Water supply well, chemical measurement
- ⊗ Industrial supply well, chemical measurement

Study Area

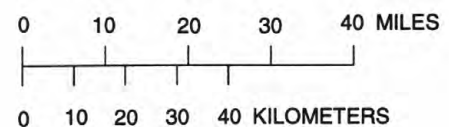


Figure 9c. Location of wells.

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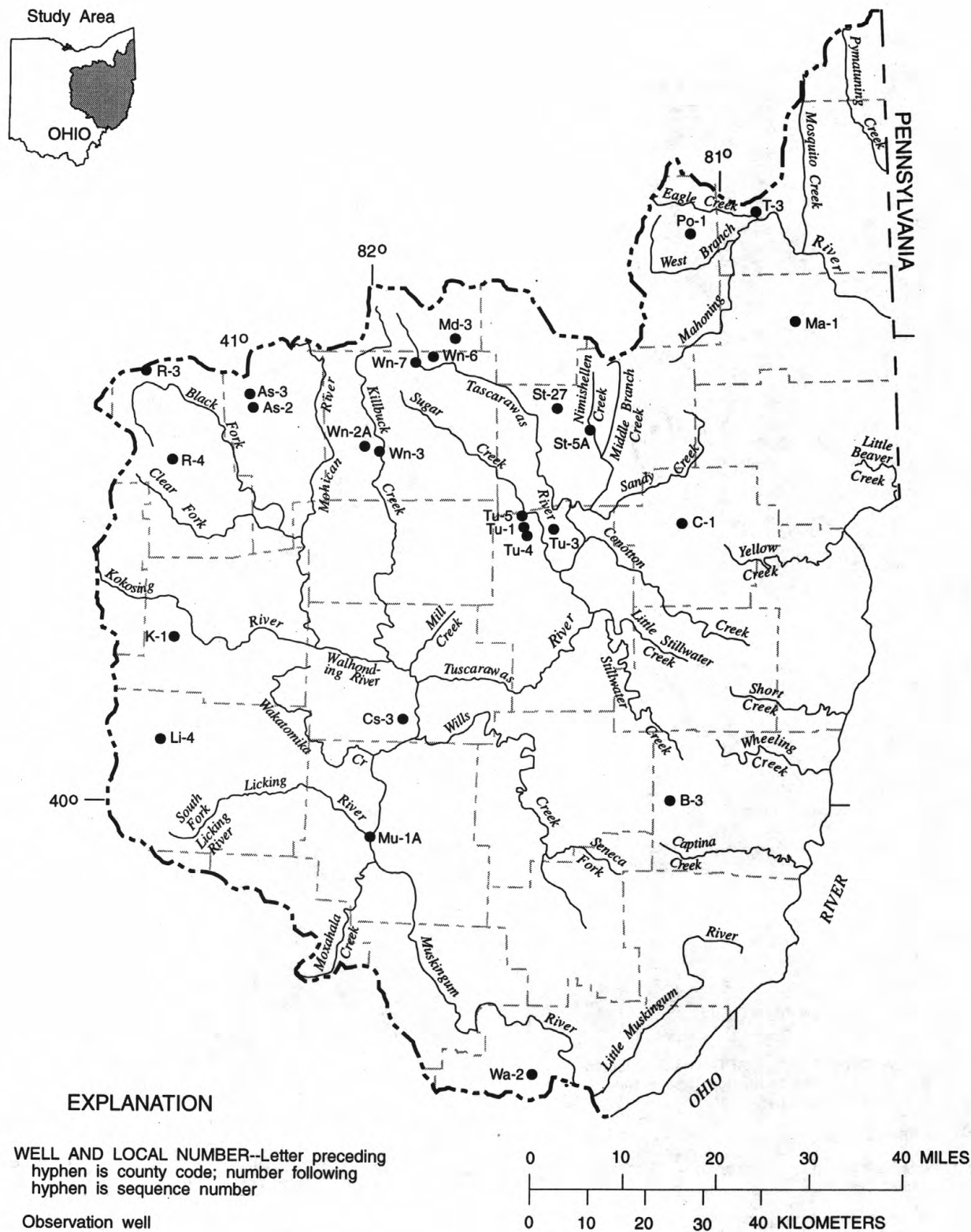


Figure 9d. Location of wells.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

The U.S. Geological Survey 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. Geological Survey, Branch of Information Services, Box 25286, Federal Center, Denver, CO 80225 (authorized agent of the Superintendent of Documents, Government Printing Office). Prepayment is required. 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 "U.S. Geological Survey Techniques of Water-Resources Investigations."

- 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, Chapter D1. 1975. 65 pages.
- 1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W. W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.
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LOCATION.--Lat 41°07'53", long 80°58'17", in T.2 N., R.5 W., Mahoning County, Hydrologic Unit 05030103, on left bank 0.3 mi downstream from Milton Dam, 0.5 mi southwest of Pricetown, and 3 mi upstream from Kale Creek.

PERIOD OF RECORD.--July 1929 to current year

REVISED RECORDS.--WSP 728: 1930(M). WSP 1907: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 905.00 ft above sea level. Prior to Aug. 14, 1929, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Berlin Lake beginning 1942 and Milton Reservoir 1923. Diversion upstream from station from Berlin Lake for part of municipal supply of Mahoning Valley Sanitary District. Water-quality data collected at this site. U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,770 ft³/s Jan. 25, 1937, gage height, 15.01 ft, from rating curve extended above 4,200 ft³/s on basis of velocity-area studies.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	746	520	975	1210	560	499	43	34	862	268	193	203
2	861	298	971	795	560	513	43	34	662	268	193	203
3	689	298	966	393	560	509	42	34	733	253	195	203
4	488	298	842	393	491	596	41	34	1110	242	195	203
5	425	298	767	393	496	702	41	34	1300	242	195	201
6	425	265	767	494	619	351	41	34	1360	242	195	201
7	390	245	767	560	722	598	41	34	1370	240	195	201
8	290	247	767	468	722	746	41	34	1370	241	196	199
9	138	247	767	303	722	606	41	34	1310	240	199	198
10	68	331	702	162	722	594	41	34	1230	237	201	198
11	68	528	466	109	533	952	41	35	1210	236	201	198
12	67	838	349	111	297	1080	45	34	960	231	201	198
13	66	967	521	134	222	949	42	35	685	228	201	198
14	64	966	840	111	178	761	41	55	617	223	201	198
15	64	965	843	111	149	763	41	69	619	219	202	178
16	64	961	978	108	149	763	41	69	625	215	204	153
17	107	951	1060	107	149	1000	42	69	842	209	204	155
18	137	950	1200	107	149	1150	41	71	971	205	203	156
19	139	844	1240	107	374	1150	40	73	1200	201	203	154
20	139	771	1240	107	658	936	40	158	1330	196	203	159
21	376	622	1240	74	844	518	40	214	1150	195	203	158
22	612	375	1240	55	1060	298	40	215	999	195	203	158
23	877	292	1240	54	1170	298	40	175	656	195	203	157
24	1040	292	1240	54	842	191	40	151	300	195	203	156
25	1040	293	1240	55	393	120	35	155	301	195	203	156
26	1020	293	1240	54	213	72	35	152	300	195	203	154
27	1020	638	1230	82	470	44	35	387	301	195	203	156
28	894	976	1230	233	738	44	35	832	301	193	203	170
29	811	974	1220	462	---	44	35	816	300	193	203	168
30	811	971	1220	561	---	44	35	809	280	193	203	153
31	811	---	1220	560	---	44	---	849	---	193	203	---
TOTAL	14747	17514	30588	8527	14762	16935	1199	5763	25254	6773	6213	5343
MEAN	476	584	987	275	527	546	40.0	186	842	218	200	178
MAX	1040	976	1240	1210	1170	1150	45	849	1370	268	204	203
MIN	64	245	349	54	149	44	35	34	280	193	193	153

MEAN	232	239	278	271	323	373	286	279	279	234	252	264
MAX	855	891	987	1059	1211	1098	867	1324	983	582	904	1134
(WY)	1991	1986	1997	1991	1959	1956	1994	1996	1947	1990	1958	1975
MIN	61.8	37.9	28.3	47.0	31.4	11.1	10.0	21.5	37.0	41.6	92.9	77.2
(WY)	1943	1966	1966	1966	1967	1944	1944	1943	1971	1982	1942	1942

WATER YEARS 1942 - 1997

ANNUAL TOTAL	185451		153618				
ANNUAL MEAN	507		421		275		
HIGHEST ANNUAL MEAN					490		1975
LOWEST ANNUAL MEAN					131		1966
HIGHEST DAILY MEAN	2430	May 14	1370	Jun 7	3370		Jun 10 1947
LOWEST DAILY MEAN	18	Jan 20	34	May 1	.40		Nov 9 1941
ANNUAL SEVEN-DAY MINIMUM	26	Jan 5	34	May 1	.94		Feb 24 1945
INSTANTANEOUS PEAK FLOW			1560	Dec 18	4120		Apr 10 1942
INSTANTANEOUS PEAK STAGE			5.85	Dec 18	10.62		Apr 10 1942
INSTANTANEOUS LOW FLOW			34	May 1	.40		Nov 9 1941
10 PERCENT EXCEEDS	1220		1010		676		
50 PERCENT EXCEEDS	292		233		178		
90 PERCENT EXCEEDS	50		41		59		

SURFACE-WATER RECORDS

Beaver River Basin

03093000 EAGLE CREEK AT PHALANX STATION, OHIO

LOCATION.--Lat 41°15'40", long 80°57'16", Trumbull County, Hydrologic Unit 05030103, on right bank 75 ft downstream from county road bridge, 1 mi north of Phalanx Station, 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. Water-quality data collected at this site. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	142	456	88	109	271	133	83	771	30	19	19
2	43	90	832	98	112	435	97	80	2070	33	19	19
3	35	71	247	122	137	551	80	171	1230	31	19	18
4	29	62	151	111	239	228	73	342	597	29	19	18
5	27	56	129	151	1060	204	68	154	191	27	19	18
6	25	53	140	215	732	813	68	157	119	27	19	17
7	24	53	137	120	206	583	64	158	89	26	18	17
8	23	312	108	88	142	261	54	102	73	25	18	17
9	23	701	93	78	116	193	51	124	63	27	17	17
10	39	626	88	e68	102	638	49	119	56	31	17	21
11	45	522	239	e62	92	549	47	104	50	27	17	44
12	34	256	1800	e56	88	199	206	89	49	25	18	28
13	29	162	1090	e50	90	139	1060	83	88	24	20	22
14	27	124	330	e47	82	499	343	73	73	23	24	20
15	26	99	175	e45	81	976	158	103	53	23	21	19
16	25	84	149	e50	82	257	121	127	44	22	22	19
17	24	83	508	e62	70	164	235	117	52	22	52	18
18	47	239	865	e54	83	141	212	86	53	21	50	19
19	537	285	265	e50	432	116	132	183	76	21	30	19
20	687	143	125	e48	681	100	101	351	55	21	22	153
21	604	104	93	e45	370	91	88	157	45	21	21	123
22	273	84	77	e66	244	154	83	99	39	21	22	39
23	168	72	83	409	142	148	122	76	35	22	27	26
24	210	66	540	369	107	109	118	65	33	22	27	23
25	130	101	723	314	86	108	109	261	31	22	28	21
26	88	881	221	e500	77	227	85	878	80	21	29	19
27	69	1080	143	e200	750	172	72	229	60	21	23	18
28	63	266	135	471	1190	118	146	110	39	21	21	17
29	66	158	168	e600	---	101	152	84	33	20	20	17
30	192	143	134	e250	---	98	102	139	30	20	19	16
31	406	---	107	119	---	136	---	123	---	19	19	---
TOTAL	4083	7118	10351	5006	7702	8779	4429	5027	6277	745	716	861
MEAN	132	237	334	161	275	283	148	162	209	24.0	23.1	28.7
MAX	687	1080	1800	600	1190	976	1060	878	2070	33	52	153
MIN	23	53	77	45	70	91	47	65	30	19	17	16
CFSM	1.35	2.43	3.42	1.65	2.82	2.90	1.51	1.66	2.14	.25	.24	.29
IN.	1.56	2.71	3.95	1.91	2.94	3.35	1.69	1.92	2.39	.28	.27	.33

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1926 - 1997, BY WATER YEAR (WY)

	MEAN	46.8	87.4	140	163	202	240	195	121	71.9	49.5	31.2	40.7
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 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1926 - 1997

ANNUAL TOTAL	75265	61094	
ANNUAL MEAN	206	167	115
HIGHEST ANNUAL MEAN			170
LOWEST ANNUAL MEAN			34.3
HIGHEST DAILY MEAN	3470	Jan 19	2070
LOWEST DAILY MEAN	14	Sep 2	16
ANNUAL SEVEN-DAY MINIMUM	14	Aug 31	17
INSTANTANEOUS PEAK FLOW			2630
INSTANTANEOUS PEAK STAGE			11.76
INSTANTANEOUS LOW FLOW			16
ANNUAL RUNOFF (CFSM)	2.11		1.71
ANNUAL RUNOFF (INCHES)	28.69		23.29
10 PERCENT EXCEEDS	547		462
50 PERCENT EXCEEDS	81		84
90 PERCENT EXCEEDS	18		20
			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

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Beaver River Basin

03094000 MAHONING RIVER AT LEAVITTSBURG, OHIO

LOCATION.--Lat 41°14'21", long 80°52'51", in T.4 N., R.4 W., Trumbull County, Hydrologic Unit 05030103, on right bank at upstream side of Leavitt Road Bridge at Leavittsburg, 300 ft downstream from Duck Creek and 1.2 mi downstream from Eagle Creek.

DRAINAGE AREA.--575 mi².

PERIOD OF RECORD.--October 1940 to current year. Prior to June 1941 monthly discharge only, published in WSP 1305. REVISED RECORDS.--WSP 1907: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 871.25 ft above sea level. Prior to July 2, 1941, nonrecording gage, and July 2, 1941, to July 22, 1952, water-stage recorder, at site 50 ft downstream at same datum.

REMARKS.--Records excellent except for periods of estimated record and Aug. 6-Sept. 16, which are fair. Flow regulated by Berlin Lake, 25 mi upstream, beginning in 1942, by Milton Reservoir, 17 mi upstream, and by Michael J. Kirwan Reservoir, 20 mi upstream on West Branch, beginning in 1966. Diversion upstream from station from Berlin Lake for part of municipal supply of Mahoning Valley Sanitary District (see station 03090500). Water-quality data collected at this site. U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,300 ft³/s Jan. 22, 1959, gage height, 19.37 ft; minimum daily, 60 ft³/s July 6, 1952.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 26, 1913 reached a stage of about 24 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	928	1210	1940	1500	e1100	1460	374	246	2750	313	289	292
2	1070	697	2560	1420	e1050	1300	312	226	5140	343	287	289
3	1020	617	1850	802	1010	1780	276	387	3320	321	287	293
4	777	601	1580	712	1110	1020	245	739	2340	315	288	291
5	642	590	1380	786	2110	1220	235	488	1920	314	286	292
6	629	577	1380	957	2100	2260	230	425	1910	314	278	287
7	620	539	1390	904	1530	1950	219	480	1940	309	280	282
8	570	1100	1330	802	1350	1500	203	386	1930	307	283	296
9	415	1940	1290	635	1280	1330	195	406	1890	322	279	307
10	229	1670	1210	476	1240	2090	187	417	1760	321	277	308
11	215	1680	1350	306	1110	2310	195	376	1680	317	276	333
12	194	1520	3910	e270	716	1760	652	348	1620	313	279	312
13	179	1580	3140	e250	492	1560	2440	327	1250	307	287	287
14	171	1440	1820	e230	438	2030	1250	264	1070	302	293	275
15	167	1320	1570	e220	362	2760	545	264	972	301	292	267
16	148	1280	1540	e250	350	1670	391	345	938	300	313	268
17	141	1260	2300	e250	337	1360	689	347	957	299	401	272
18	277	1350	2950	e240	384	1590	747	309	1210	297	402	260
19	943	1450	2380	e230	1000	1570	445	478	1340	294	327	254
20	1340	1160	2080	e220	1790	1470	327	795	1550	293	289	525
21	1170	1030	2010	e215	1640	1110	276	714	1440	294	277	454
22	1070	772	1970	e210	1540	738	250	552	1080	294	278	254
23	1190	578	1830	488	1520	732	279	487	946	291	302	215
24	1540	553	2410	562	1360	627	319	356	391	299	319	198
25	1460	623	2720	630	781	435	297	706	318	298	336	191
26	1360	1820	2150	785	486	645	246	1860	355	298	316	188
27	1290	2150	1910	785	1410	574	217	1030	374	296	294	184
28	1250	1730	1710	917	2650	388	350	1030	328	293	283	184
29	1110	1460	1720	e1300	---	331	454	1390	313	289	279	182
30	1210	1420	1670	e1200	---	315	306	1400	302	287	272	186
31	1500	---	1560	e1150	---	360	---	1480	---	289	285	---
TOTAL	24825	35717	60610	19702	32246	40245	13151	19058	43334	9430	9234	8226
MEAN	801	1191	1955	636	1152	1298	438	615	1444	304	298	274
MAX	1540	2150	3910	1500	2650	2760	2440	1860	5140	343	402	525
MIN	141	539	1210	210	337	315	187	226	302	287	272	182

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 1997, BY WATER YEAR (WY)

	378	480	676	732	850	1023	822	635	504	387	363	392
MEAN	378	480	676	732	850	1023	822	635	504	387	363	392
MAX	1575	2077	2010	2595	2313	2132	2219	2267	2116	1103	1190	1705
(WY)	1991	1986	1978	1952	1959	1955	1957	1996	1989	1958	1958	1975
MIN	128	111	116	125	114	212	217	118	125	152	157	114
(WY)	1963	1964	1964	1961	1963	1969	1946	1941	1941	1941	1942	1942

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1941 - 1997
ANNUAL TOTAL	378899	315778	
ANNUAL MEAN	1035	865	602
HIGHEST ANNUAL MEAN			981
LOWEST ANNUAL MEAN			327
HIGHEST DAILY MEAN	6820	May 12	15500
LOWEST DAILY MEAN	141	Oct 17	60
ANNUAL SEVEN-DAY MINIMUM	174	Oct 11	73
INSTANTANEOUS PEAK FLOW		Jun 2	9300
INSTANTANEOUS PEAK STAGE		12.15 Jun 2	15.91
INSTANTANEOUS LOW FLOW		135 Oct 17	106
10 PERCENT EXCEEDS	2090	1850	1420
50 PERCENT EXCEEDS	813	553	330
90 PERCENT EXCEEDS	287	250	173

e Estimated.

SURFACE-WATER RECORDS

Beaver River Basin

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

LOCATION.--Lat 41°10'21", long 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.

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 fair. 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 Corp of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1090	1700	2860	1820	1310	2360	614	520	3010	499	492	415
2	1160	1360	3730	1800	1290	2070	506	373	5670	553	492	405
3	1160	1140	2900	1300	1300	2650	431	580	5560	494	493	403
4	956	848	2270	1040	1530	1690	388	1030	3180	493	493	396
5	772	814	2080	1160	2980	1720	385	887	2540	509	493	394
6	727	804	2040	1380	3080	4180	393	700	2670	509	497	393
7	719	767	2020	1310	2360	3350	381	734	2710	513	495	393
8	671	1810	1900	1150	2090	2250	333	630	2700	507	492	395
9	571	e2800	1790	981	1940	1880	310	630	2660	552	490	404
10	476	e2700	1690	868	1790	3530	294	652	2450	501	492	462
11	349	e2500	2110	618	1640	3490	297	676	2090	502	493	511
12	320	e2400	5690	434	1190	2580	1130	682	1980	501	491	421
13	288	e2300	5750	438	856	2320	3930	566	1770	498	510	373
14	273	e2200	3020	381	716	3290	2590	440	1360	495	495	359
15	266	e2100	2180	333	587	3830	1140	446	1210	497	513	353
16	250	2000	2010	365	554	2720	841	506	1190	493	627	344
17	235	1950	2920	341	540	1850	1290	507	1340	491	789	366
18	429	2060	3900	347	579	1960	1510	464	1550	506	685	370
19	1250	2180	3490	313	1310	2030	1040	941	2140	514	459	351
20	2010	1770	2960	301	2650	2160	756	1290	1850	514	381	960
21	1760	1550	2790	305	2400	1800	572	1170	1700	502	364	791
22	1500	1270	2670	331	2050	1270	465	934	1310	495	388	466
23	1570	970	2440	553	1880	1090	476	815	1090	492	409	373
24	1890	857	3040	731	1710	947	577	677	676	497	418	341
25	1860	966	3470	928	1190	730	537	1090	433	496	456	333
26	1690	2850	2630	1000	725	963	448	2890	543	483	406	336
27	1590	3360	2310	798	2110	1030	399	1890	562	487	379	325
28	1570	2540	2110	1550	3480	696	600	1260	499	487	371	324
29	1410	2120	2090	1780	---	560	799	1650	493	492	365	333
30	1600	2000	2040	1600	---	506	611	1680	499	490	375	321
31	1910	---	1910	1390	---	580	---	1740	---	493	408	---
TOTAL	32322	54686	84810	27646	45837	62082	24043	29050	57435	15555	14711	12411
MEAN	1043	1823	2736	892	1637	2003	801	937	1915	502	475	414
MAX	2010	3360	5750	1820	3480	4180	3930	2890	5670	553	789	960
MIN	235	767	1690	301	540	506	294	373	433	483	364	321
MED	1090	1980	2440	868	1590	1960	555	700	1740	497	492	383
CFSM	1.22	2.13	3.20	1.04	1.92	2.35	.94	1.10	2.24	.59	.56	.48
IN.	1.41	2.38	3.69	1.20	2.00	2.70	1.05	1.27	2.50	.68	.64	.54

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1997, BY WATER YEAR (WY)

	MEAN	680	891	1058	1260	1275	1326	1023	953	1058	670	582	635
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	493	540	293	293	370	407	326	
(WY)	1989	1992	1992	1992	1992	1992	1990	1988	1992	1992	1988	1988	1994

SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1988 - 1997

ANNUAL TOTAL	548993		460588										
ANNUAL MEAN	1500		1262										
HIGHEST ANNUAL MEAN										949			
LOWEST ANNUAL MEAN										1262			1997
HIGHEST DAILY MEAN	9120	May 12	5750	Dec 13	9120	May 12	1996			546			1992
LOWEST DAILY MEAN	235	Oct 17	235	Oct 17	183	Feb 9	1992			196			Feb 5 1992
ANNUAL SEVEN-DAY MINIMUM	283	Oct 11	283	Oct 11	9760	Apr 13	1994			9.70	Dec 12	13.35	Apr 13 1994
INSTANTANEOUS PEAK FLOW			6630	Dec 12	223	Oct 17	183	Feb 9	1992				
INSTANTANEOUS PEAK STAGE													
INSTANTANEOUS LOW FLOW													
ANNUAL RUNOFF (CFSM)	1.76		1.48							1.11			
ANNUAL RUNOFF (INCHES)	23.91		20.06							15.10			
10 PERCENT EXCEEDS	3030		2670							2250			
50 PERCENT EXCEEDS	1140		848							513			
90 PERCENT EXCEEDS	417		373							301			

e Estimated.

SURFACE-WATER RECORDS

Beaver River Basin

49

03098600 MAHONING RIVER BELOW WEST AVENUE AT YOUNGSTOWN, OHIO

LOCATION.--Lat 41°06'18", long 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.

DRAINAGE AREA.--978 mi².

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 except for periods of estimated record and May 14-July 3, which are fair. 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1140	1720	3610	1930	1410	2710	720	638	3530	544	500	481
2	1150	1110	4460	1910	1390	2620	606	495	7300	634	508	468
3	1150	844	3290	1420	1420	3120	524	727	6990	545	510	458
4	955	796	2410	1100	1790	2010	472	1160	3790	528	516	441
5	774	771	2180	1320	3640	2290	450	1000	2800	544	515	432
6	725	756	2150	1570	3620	5800	455	842	2820	540	504	426
7	720	741	2120	1430	2620	4220	449	835	2840	539	501	423
8	684	2400	1990	1220	2280	2640	382	741	2820	534	503	430
9	771	3570	1860	1030	2100	2190	348	764	2770	621	500	452
10	743	3440	1750	934	1940	4870	318	778	2550	541	503	670
11	408	2890	2740	703	1770	4320	312	777	2150	534	508	804
12	340	2590	7800	506	1300	2960	1790	775	2090	526	516	634
13	293	2470	7950	502	935	2550	5060	673	2040	519	574	470
14	e275	2290	3970	453	802	4280	3210	556	1530	516	520	403
15	e265	2110	2570	390	695	4660	1370	554	1320	518	543	376
16	e260	1990	2270	476	645	3190	967	600	1260	513	818	358
17	e270	1950	3440	414	624	2060	1510	593	1640	509	1200	372
18	566	2100	4580	415	694	2110	1700	559	2080	525	936	391
19	1550	2220	4030	374	1640	2160	1160	1040	2480	534	613	357
20	2540	1820	3240	369	3140	2280	852	1460	2090	529	460	1610
21	2060	1570	2990	360	2800	1950	686	1230	1850	521	432	1030
22	1640	1290	2860	448	2340	1420	587	934	1420	508	452	615
23	1680	970	2650	682	2070	1180	595	802	1150	508	487	450
24	1960	858	3600	850	1850	1020	692	695	741	509	492	391
25	1910	1020	4050	1260	1310	838	649	1530	458	512	579	373
26	1690	3590	2910	1170	846	1190	566	3680	619	489	515	388
27	1570	3930	2480	986	2790	1210	506	2270	580	501	446	358
28	1580	2730	2280	2020	4180	831	780	1370	499	504	416	358
29	1420	2210	2240	2060	---	680	915	1690	483	506	399	448
30	1700	2080	2180	1750	---	615	738	1750	493	501	406	410
31	1940	---	2040	1500	---	709	---	1800	---	504	458	---
TOTAL	34729	58826	98690	31552	52641	74683	29369	33318	65183	16356	16830	15277
MEAN	1120	1961	3184	1018	1880	2409	979	1075	2173	528	543	509
MAX	2540	3930	7950	2060	4180	5800	5060	3680	7300	634	1200	1610
MIN	260	741	1750	360	624	615	312	495	458	489	399	357

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1997, BY WATER YEAR (WY)

	747	981	1216	1467	1464	1564	1240	1116	1246	790	642	727
MEAN												
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	596	684	437	377	430	419	346
(WY)	1992	1992	1992	1992	1992	1990	1995	1992	1988	1988	1991	1991

SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1988 - 1997

ANNUAL TOTAL	635241	527454	
ANNUAL MEAN	1736	1445	1098
HIGHEST ANNUAL MEAN			1445
LOWEST ANNUAL MEAN			643
HIGHEST DAILY MEAN	11100	May 12	11400
LOWEST DAILY MEAN	260	Oct 16	181
ANNUAL SEVEN-DAY MINIMUM	302	Oct 11	202
INSTANTANEOUS PEAK FLOW			11900
INSTANTANEOUS PEAK STAGE		11.84	15.44
INSTANTANEOUS LOW FLOW		260	181
10 PERCENT EXCEEDS	3580	2970	2550
50 PERCENT EXCEEDS	1230	935	593
90 PERCENT EXCEEDS	470	432	354

e Estimated.

SURFACE-WATER RECORDS
Beaver River Basin

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

WATER-QUALITY RECORDS

LOCATION.--Lat 41°06'18", long 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.

DRAINAGE AREA.--978 mi².

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.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 950 microsiemens Jan. 17, 1996; minimum, 189 microsiemens Aug. 1, 1992.

pH: Maximum, 8.8 units May 14, 23, 31, 1994; minimum, 7.0 units Apr. 15, 1994.

WATER TEMPERATURES: Maximum, 32.5°C Jul. 10, 1993 and Jul. 15, 1995; minimum, 1.0°C on several days during winter.

DISSOLVED OXYGEN: Maximum, 14.5 mg/L Apr. 18, 1996; minimum, 4.3 mg/L June 13, 1997.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 711 microsiemens Jan. 23; minimum, 231 microsiemens Dec. 13.

pH: Maximum, 8.1 units Dec. 11; minimum, 7.2 units several days in April-July.

WATER TEMPERATURES: Maximum, 31.0°C Jul. 15-16, 18-19; minimum, 1.0°C Jan. 29.

DISSOLVED OXYGEN: Maximum, 13.5 mg/L Dec. 21; minimum, 4.3 mg/L June 13.

SURFACE-WATER RECORDS

Beaver River Basin

51

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

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	380	315	355	391	378	384	383	355	369	365	344	356
2	403	380	391	416	385	399	356	308	333	367	357	360
3	397	382	387	421	414	416	330	300	307	455	367	402
4	411	385	391	424	411	416	352	329	340	572	408	485
5	442	411	427	426	416	423	366	352	356	---	---	---
6	575	434	461	433	421	426	366	358	360	382	355	368
7	471	454	460	439	420	428	364	358	359	356	347	351
8	471	450	457	436	366	395	372	363	366	376	348	359
9	476	379	455	372	321	351	381	366	370	370	351	359
10	508	416	486	324	295	301	400	381	389	395	370	384
11	507	474	494	311	301	304	417	349	397	430	391	408
12	498	466	476	328	311	318	349	261	313	467	415	438
13	518	498	506	342	328	334	262	231	240	484	455	473
14	539	518	534	351	342	344	300	250	271	470	443	456
15	---	---	---	359	348	351	343	300	328	493	447	471
16	---	---	---	363	349	354	365	343	351	596	493	563
17	580	562	574	357	352	354	363	329	349	620	559	575
18	576	503	554	376	357	364	329	291	310	636	602	619
19	541	411	479	366	357	361	305	282	291	602	572	580
20	421	368	394	370	361	364	324	305	315	576	557	564
21	382	328	342	376	366	369	329	321	325	588	574	580
22	351	330	338	377	368	375	344	326	333	692	579	620
23	361	331	342	394	377	387	389	344	365	711	584	638
24	376	361	369	414	390	405	454	387	424	669	545	590
25	380	365	371	418	397	402	403	335	368	601	506	551
26	380	370	374	415	335	369	---	---	---	540	458	482
27	383	373	376	335	265	301	---	---	---	516	438	462
28	388	375	380	316	256	271	---	---	---	517	411	461
29	389	382	386	355	316	340	---	---	---	411	354	372
30	409	385	395	378	355	365	---	---	---	363	324	337
31	413	391	400	---	---	---	---	---	---	362	332	351
MONTH	580	315	426	439	256	366	454	231	341	711	324	467

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	385	362	374	352	303	319	---	---	---	453	430	439
2	386	375	379	399	351	383	455	431	443	463	452	458
3	400	380	389	387	342	360	481	450	463	479	461	469
4	426	390	405	364	342	352	511	481	501	484	414	443
5	434	341	390	394	364	375	511	502	507	415	390	404
6	341	295	310	392	339	370	523	501	511	409	394	403
7	348	296	320	339	288	304	521	503	512	415	408	412
8	368	348	359	338	296	312	515	506	509	421	405	411
9	385	368	377	387	338	357	533	515	526	432	413	421
10	391	381	385	395	336	359	533	513	519	434	420	428
11	400	386	390	336	294	308	552	524	538	421	396	408
12	432	400	413	---	---	---	569	360	502	396	376	384
13	463	427	442	---	---	---	360	267	318	391	379	387
14	493	445	464	---	---	---	267	240	251	433	391	409
15	563	488	514	---	---	---	301	259	281	440	427	434
16	565	545	554	---	---	---	336	301	315	442	422	431
17	564	529	539	---	---	---	344	331	337	440	421	429
18	627	536	559	---	---	---	341	317	327	449	422	431
19	627	507	572	---	---	---	346	318	335	432	351	397
20	507	386	437	---	---	---	354	345	350	364	344	354
21	386	358	365	---	---	---	367	354	360	350	337	346
22	394	367	380	---	---	---	422	367	395	350	334	342
23	396	379	387	---	---	---	426	421	423	363	350	359
24	398	381	391	---	---	---	430	419	426	386	362	376
25	412	395	401	---	---	---	454	417	433	401	374	386
26	440	411	426	---	---	---	452	434	440	379	310	346
27	493	400	452	---	---	---	465	449	457	316	277	290
28	400	310	342	---	---	---	461	445	453	343	295	319
29	---	---	---	---	---	---	457	414	438	370	316	350
30	---	---	---	---	---	---	436	410	420	377	361	368
31	---	---	---	---	---	---	---	---	---	374	359	364
MONTH	627	295	418	399	288	345	569	240	424	484	277	393

SURFACE-WATER RECORDS

Beaver River Basin

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

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	374	325	357	446	419	429	426	410	420	459	419	440
2	329	250	279	437	415	428	427	408	419	435	419	430
3	305	245	270	442	415	428	430	413	422	450	412	426
4	329	295	307	433	424	429	417	412	415	420	414	417
5	380	325	346	432	398	413	430	410	420	440	412	425
6	380	350	364	415	399	405	423	409	417	429	412	421
7	379	345	363	411	397	402	431	413	418	433	414	422
8	388	342	360	427	404	415	436	408	420	415	408	411
9	383	330	348	433	417	425	427	414	419	435	408	416
10	402	342	374	440	421	429	426	411	418	462	428	441
11	419	381	406	431	423	426	424	406	416	461	423	447
12	432	366	406	426	413	419	425	408	419	461	447	455
13	431	346	383	437	423	427	445	420	430	447	442	445
14	436	376	411	425	408	417	436	421	428	471	442	455
15	422	380	400	432	410	413	432	417	423	481	471	477
16	380	359	365	433	416	424	431	369	419	479	463	472
17	384	358	369	422	415	419	407	344	376	472	456	461
18	388	342	371	438	417	424	396	355	385	476	451	467
19	389	369	376	438	410	419	427	389	414	455	440	450
20	386	369	377	417	402	410	458	427	444	440	351	380
21	391	369	376	419	398	405	489	458	473	411	355	391
22	386	375	380	412	400	405	491	471	482	469	411	444
23	398	381	387	434	410	420	474	452	466	470	433	454
24	408	388	398	420	410	415	469	450	462	467	436	451
25	434	408	422	423	413	418	461	440	449	514	467	491
26	462	432	443	437	411	421	465	440	457	539	502	520
27	461	435	448	427	419	424	473	437	453	505	486	502
28	458	432	440	437	414	422	479	467	473	507	493	500
29	460	442	452	423	406	416	495	468	485	515	490	499
30	456	441	452	418	408	412	493	474	485	515	492	501
31	---	---	---	433	404	418	477	450	466	---	---	---
MONTH	462	245	381	446	397	419	495	344	435	539	351	450
YEAR	711	231	410									

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

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

SURFACE-WATER RECORDS **Beaver River Basin**

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

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997												
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	19.0	16.5	18.0	12.0	11.5	12.0	6.5	5.0	6.0	4.0	3.0	3.5
2	20.5	19.0	20.0	11.5	11.0	11.0	6.5	6.0	6.0	5.0	3.5	4.0
3	20.0	19.0	19.5	11.5	11.0	11.5	6.0	5.0	5.5	6.5	5.0	5.5
4	19.0	18.0	18.5	11.5	10.0	11.0	5.5	5.0	5.5	8.0	6.5	7.0
5	18.5	17.5	18.0	12.0	10.5	11.0	5.5	5.0	5.0	8.5	8.0	8.5
6	18.5	17.0	18.0	13.0	12.0	12.0	5.5	5.0	5.0	8.5	7.0	7.5
7	19.5	18.0	18.5	14.0	12.0	13.0	5.5	5.0	5.0	7.0	5.5	6.0
8	19.5	18.5	19.0	14.0	11.5	12.5	5.0	4.5	5.0	5.5	4.5	5.0
9	19.5	17.5	19.0	11.5	9.0	10.5	5.0	4.5	4.5	4.5	4.5	4.5
10	18.0	16.5	17.0	9.0	8.0	8.5	4.5	4.5	4.5	4.5	4.0	4.5
11	17.0	16.5	17.0	8.0	7.0	7.5	6.0	4.5	5.5	4.0	3.0	3.5
12	18.5	17.0	17.5	7.0	6.5	6.5	5.5	5.0	5.0	3.5	2.5	3.0
13	18.5	18.0	18.5	6.5	5.5	6.0	5.5	5.0	5.0	4.5	3.5	4.0
14	21.0	18.0	19.5	6.0	5.5	6.0	5.5	5.0	5.5	5.0	4.0	4.5
15	---	---	---	6.0	5.5	6.0	5.5	4.5	5.0	6.0	3.5	4.5
16	---	---	---	6.0	5.5	6.0	5.0	4.0	4.5	7.0	5.5	6.5
17	22.0	18.5	20.0	6.5	5.5	6.0	5.5	5.0	5.0	5.5	4.0	4.5
18	22.0	18.5	20.5	7.5	6.5	7.5	5.0	4.5	5.0	4.5	3.5	4.0
19	18.5	14.0	16.5	7.5	7.0	7.0	4.5	3.0	4.0	4.5	3.5	4.0
20	14.0	12.5	13.0	7.0	6.5	7.0	3.0	2.0	2.5	6.5	4.5	5.5
21	12.5	12.0	12.0	7.0	6.5	6.5	2.0	1.5	2.0	7.0	5.5	6.5
22	12.5	12.0	12.5	6.5	5.5	6.5	2.5	2.0	2.0	8.0	7.0	7.5
23	13.0	12.0	12.5	6.5	5.5	6.0	3.0	2.0	2.5	8.5	7.0	8.0
24	13.5	12.5	13.0	7.0	6.0	6.5	3.5	3.0	3.5	7.0	4.0	5.0
25	13.5	13.0	13.5	8.5	7.0	8.0	3.0	2.0	2.0	4.5	3.5	4.0
26	14.0	13.0	13.5	7.5	5.5	6.5	2.0	1.5	2.0	3.5	2.5	3.0
27	15.0	14.0	14.5	5.5	4.0	5.0	2.5	2.0	2.0	3.0	2.0	2.5
28	15.5	14.5	15.0	4.0	3.5	4.0	3.5	2.5	3.0	3.0	1.5	2.5
29	14.5	14.5	14.5	4.5	3.5	4.0	4.5	3.5	4.0	1.5	1.0	1.5
30	15.0	14.0	14.5	5.0	4.0	4.5	4.5	4.0	4.5	2.5	1.5	1.5
31	14.0	12.0	13.0	---	---	---	4.5	4.0	4.0	2.0	2.0	2.0
MONTH	22.0	12.0	16.5	14.0	3.5	8.0	6.5	1.5	4.0	8.5	1.0	4.5

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997												
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	2.5	2.0	2.5	7.5	6.5	6.5	---	---	---	16.0	15.5	16.0
2	3.0	2.0	2.5	8.0	7.5	7.5	11.0	8.5	10.0	16.0	14.5	15.5
3	4.5	3.0	4.0	7.5	7.0	7.0	14.0	10.5	12.0	16.5	15.5	16.0
4	4.5	4.0	4.5	7.0	6.0	6.5	16.5	14.0	15.0	15.5	14.5	15.0
5	4.0	2.5	3.0	6.5	6.0	6.5	17.0	15.5	16.5	15.5	14.0	14.5
6	2.5	2.0	2.0	6.0	4.5	5.0	16.5	15.0	15.5	16.0	14.5	15.0
7	3.0	2.0	2.5	4.5	4.0	4.0	15.0	13.0	13.5	16.5	14.5	15.5
8	3.0	2.5	3.0	5.0	4.0	4.5	14.0	12.0	13.0	16.0	14.5	15.0
9	3.5	2.5	3.0	5.5	5.0	5.0	13.0	11.5	12.5	15.5	14.5	15.0
10	3.5	3.0	3.5	6.0	5.0	5.5	13.0	11.0	12.0	14.5	13.5	14.0
11	3.5	3.0	3.0	6.5	6.0	6.0	12.5	12.0	12.0	14.5	13.0	14.0
12	3.5	3.0	3.0	---	---	---	12.0	8.5	11.0	15.5	14.0	14.5
13	3.0	2.5	3.0	---	---	---	8.5	7.0	8.0	16.5	15.0	15.5
14	4.0	2.5	3.5	---	---	---	8.0	6.5	7.0	17.0	15.5	16.0
15	4.0	4.0	4.0	---	---	---	9.5	7.5	8.5	17.5	16.0	16.5
16	4.5	4.0	4.0	---	---	---	11.0	9.5	10.5	17.0	15.5	16.0
17	4.5	3.5	4.0	---	---	---	11.0	9.0	10.0	17.5	15.5	16.5
18	5.5	4.0	5.0	---	---	---	9.5	8.5	9.0	18.5	15.5	17.0
19	5.5	3.5	4.5	---	---	---	10.0	8.0	9.0	19.0	17.5	18.0
20	4.0	3.0	4.0	---	---	---	11.0	8.5	9.5	18.0	17.5	18.0
21	6.0	4.0	5.0	---	---	---	11.5	9.5	10.5	---	---	---
22	6.5	5.5	6.0	---	---	---	13.0	11.0	12.5	---	---	---
23	6.0	4.5	5.0	---	---	---	13.5	12.5	13.0	---	---	---
24	4.5	4.0	4.0	---	---	---	13.5	12.5	13.0	---	---	---
25	4.5	4.0	4.0	---	---	---	14.5	12.5	13.5	---	---	---
26	6.0	4.5	5.0	---	---	---	15.5	13.0	14.0	---	---	---
27	7.5	6.0	6.5	---	---	---	15.0	14.5	15.0	---	---	---
28	6.5	5.5	6.0	---	---	---	15.5	14.0	15.0	---	---	---
29	---	---	---	---	---	---	15.0	13.5	14.5	---	---	---
30	---	---	---	---	---	---	16.5	14.0	15.0	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	7.5	2.0	4.0	8.0	4.0	6.0	17.0	6.5	12.0	19.0	13.0	15.5

SURFACE-WATER RECORDS

Beaver River Basin

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

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997												
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	---	---	---	24.5	23.5	24.0	28.5	26.0	27.5	25.0	22.5	24.0
2	---	---	---	28.5	24.5	27.0	29.0	26.5	28.0	25.5	23.0	24.5
3	---	---	---	28.5	27.0	27.5	29.0	27.5	28.5	25.0	23.5	24.5
4	---	---	---	28.0	27.0	27.5	29.0	27.0	28.0	24.0	22.0	23.0
5	---	---	---	27.0	25.5	26.0	28.5	27.0	27.5	23.0	21.0	22.0
6	---	---	---	27.0	24.0	25.5	28.0	25.0	26.5	23.5	21.5	22.5
7	---	---	---	26.0	24.5	25.0	25.5	23.0	24.5	23.0	21.0	21.5
8	---	---	---	26.0	24.0	25.0	27.5	24.0	25.5	22.0	21.0	21.5
9	---	---	---	26.5	25.0	26.0	28.5	26.0	27.0	24.0	21.0	22.5
10	20.5	18.5	19.5	27.0	25.0	26.0	28.5	26.5	27.5	23.5	22.5	23.0
11	21.0	20.0	20.0	27.5	25.0	26.0	28.0	27.0	27.5	22.5	22.0	22.5
12	22.5	20.5	21.0	28.5	26.0	27.0	28.5	26.5	27.5	22.0	21.5	22.0
13	23.5	20.5	21.5	29.5	27.0	28.0	28.0	27.0	27.5	22.5	21.5	22.0
14	22.0	20.5	21.0	29.5	26.5	28.5	28.0	26.5	27.0	23.0	22.0	22.5
15	20.5	20.0	20.5	31.0	28.5	29.5	27.0	26.0	26.5	23.0	22.0	22.5
16	20.5	19.5	20.0	31.0	29.5	30.0	28.0	25.5	26.5	24.0	22.5	23.5
17	21.5	20.0	20.5	30.5	29.0	29.5	26.0	24.5	25.0	24.0	23.0	23.5
18	22.0	21.0	21.0	31.0	29.5	30.0	24.5	24.0	24.5	23.5	21.0	22.0
19	21.5	21.0	21.0	31.0	29.5	30.0	26.0	24.0	25.0	21.5	20.5	21.0
20	22.5	21.5	22.0	29.5	28.0	28.5	25.5	24.0	25.0	21.5	20.5	20.5
21	23.5	22.5	23.0	28.5	27.0	28.0	25.5	24.5	25.0	20.5	19.5	20.5
22	24.0	23.5	23.5	28.5	27.0	28.0	25.0	24.0	24.0	20.0	18.5	19.5
23	25.5	23.5	25.0	28.0	27.0	27.5	24.0	22.0	22.5	20.0	19.5	19.5
24	26.5	24.5	25.5	28.0	26.5	27.0	22.5	21.5	21.5	20.5	18.5	19.5
25	28.5	26.0	27.0	28.0	26.5	27.5	22.0	21.0	21.5	20.0	19.0	19.5
26	28.0	26.0	27.5	27.5	26.0	27.0	24.5	21.5	22.5	20.0	19.0	19.5
27	26.5	25.5	26.0	27.5	25.0	26.5	26.5	23.5	25.0	20.0	18.0	19.0
28	25.5	24.0	25.0	28.0	26.0	27.0	27.0	25.0	26.0	20.0	19.5	20.0
29	25.0	23.5	24.0	29.5	28.0	28.5	25.5	23.5	24.0	20.0	18.5	19.5
30	24.5	23.5	24.0	29.0	27.0	28.0	25.0	23.0	24.0	19.5	19.5	19.5
31	---	---	---	28.5	26.0	27.5	24.0	23.0	23.5	---	---	---
MONTH	28.5	18.5	23.0	31.0	23.5	27.5	29.0	21.0	25.5	25.5	18.0	21.5
YEAR	31.0	1.0	14.5									

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997												
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	8.3	6.9	7.5	10.1	7.9	8.5	11.9	10.4	11.1	12.5	11.7	12.2
2	8.4	7.2	7.7	8.6	7.8	8.1	10.7	10.1	10.4	12.7	12.4	12.5
3	7.9	7.3	7.5	9.4	8.0	8.5	11.3	10.2	10.6	12.5	11.8	12.3
4	8.0	7.2	7.5	11.3	7.8	9.1	10.7	10.4	10.5	12.8	11.4	12.0
5	8.3	7.2	7.6	10.9	8.6	9.4	10.9	10.5	10.7	12.3	10.6	11.5
6	8.5	7.2	7.7	11.1	9.2	10.0	11.3	10.5	10.7	11.0	10.6	10.8
7	8.6	7.3	7.7	10.4	9.6	10.0	11.4	10.4	10.8	11.4	10.9	11.1
8	8.2	7.2	7.6	9.6	8.6	8.8	10.9	10.4	10.6	---	---	---
9	7.6	7.3	7.5	9.0	8.5	8.7	11.0	10.5	10.7	---	---	---
10	7.6	7.2	7.3	9.7	8.5	8.9	11.8	10.6	11.1	---	---	---
11	7.7	7.0	7.3	9.6	8.5	8.9	11.1	10.8	11.0	---	---	---
12	7.8	6.6	7.1	9.8	8.3	8.9	11.1	10.7	10.9	---	---	---
13	8.2	7.2	7.5	11.8	8.2	9.7	10.7	10.5	10.6	---	---	---
14	7.5	6.6	7.1	12.1	10.8	11.5	12.5	10.6	11.1	---	---	---
15	---	---	---	12.8	10.7	11.4	12.1	10.5	11.0	---	---	---
16	---	---	---	13.0	10.8	11.5	11.6	11.0	11.3	---	---	---
17	7.8	6.6	7.1	12.1	10.8	11.3	13.2	10.9	12.0	---	---	---
18	6.9	6.5	6.7	11.3	10.6	11.1	12.7	12.1	12.5	---	---	---
19	7.2	6.6	6.8	11.6	10.4	10.8	12.4	11.8	12.1	---	---	---
20	8.0	7.2	7.5	11.4	10.4	10.7	12.4	11.7	12.2	---	---	---
21	8.0	7.6	7.8	10.8	10.4	10.6	13.5	12.3	12.8	---	---	---
22	8.2	7.8	8.0	10.7	10.5	10.6	13.1	12.7	12.9	---	---	---
23	8.4	8.0	8.1	11.6	10.5	10.8	13.4	12.7	13.0	---	---	---
24	8.8	7.8	8.1	11.1	10.6	10.8	12.9	11.7	12.2	---	---	---
25	9.5	7.7	8.4	10.6	10.3	10.5	12.5	11.7	12.1	---	---	---
26	9.3	8.1	8.6	10.9	9.7	10.1	13.1	12.3	12.6	---	---	---
27	8.9	8.5	8.7	10.8	9.7	10.1	13.1	12.5	12.7	---	---	---
28	9.0	7.9	8.5	10.5	9.9	10.3	13.3	12.7	12.9	11.8	11.1	11.4
29	9.0	7.8	8.3	12.0	10.0	10.7	12.9	12.0	12.6	12.2	11.8	12.0
30	9.1	8.2	8.7	11.0	10.6	10.8	12.7	12.0	12.2	12.0	11.7	11.8
31	9.9	7.8	8.4	---	---	---	12.2	11.7	12.0	11.8	11.6	11.7
MONTH	9.9	6.5	7.7	13.0	7.8	10.0	13.5	10.1	11.6	12.8	10.6	11.8

SURFACE-WATER RECORDS

Little Beaver Creek Basin

57

03109500 LITTLE BEAVER CREEK NEAR EAST LIVERPOOL, OHIO

LOCATION.--Lat 40°40'33", long 80°32'27", Columbiana County, Hydrologic Unit 05030101, on right bank at downstream side of Grimms Bridge, 1.5 mi upstream from Island Run, 4 mi upstream from mouth, and 4 mi northeast of East Liverpool.

DRAINAGE AREA.--496 mi².

PERIOD OF RECORD.--May 1915 to current year.

REVISED RECORDS.--WSP 873: 1937(M). WSP 1305: 1916-18(M), 1921-22(M), 1924-30(M), 1933(M), 1936(M). WSP 1907: 1950(P), drainage area.

GAGE.--Water-stage recorder. Datum of gage is 702.77 ft above sea level. Prior to Sept. 22, 1926, nonrecording gage at same site and datum.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	216	296	2050	480	500	698	567	395	1200	303	74	97
2	165	240	2160	476	464	1550	493	375	2760	442	68	90
3	136	214	1160	483	464	1650	457	459	3250	331	67	84
4	119	195	893	467	700	1220	431	546	2050	250	76	77
5	109	185	753	556	1800	1140	416	449	1380	214	93	75
6	102	181	774	730	1130	2940	411	429	1040	193	83	70
7	97	190	739	537	806	2140	385	428	822	177	68	69
8	94	1050	644	444	693	1380	348	393	690	171	60	66
9	94	1980	590	433	623	1090	338	503	587	170	57	70
10	123	1420	544	455	559	2790	326	490	514	197	55	185
11	181	1000	921	584	514	2140	313	453	455	176	56	389
12	129	712	5780	930	487	1350	537	415	452	153	66	437
13	106	550	5260	e780	419	1070	1800	387	1830	140	99	261
14	96	467	2520	e620	460	1920	1100	360	1890	129	137	172
15	89	401	1500	e540	452	2120	731	359	921	122	108	139
16	86	371	1190	e700	413	1280	619	347	623	115	165	124
17	83	361	1380	e600	395	1060	649	318	821	108	777	108
18	104	404	1420	e520	429	966	616	312	969	105	572	102
19	521	432	1020	e490	1110	867	535	749	2010	103	307	94
20	1170	383	827	e460	1500	771	476	697	1070	97	198	328
21	967	343	683	e440	1180	702	437	504	729	90	195	514
22	630	319	692	e520	1080	688	420	418	574	98	177	252
23	525	298	672	965	801	635	419	364	474	114	145	176
24	562	286	1070	789	662	578	418	331	409	114	130	151
25	422	291	1090	1180	579	554	386	3410	363	106	189	139
26	326	1310	746	1190	547	899	351	5310	332	99	243	127
27	280	1370	679	798	903	811	329	2160	321	97	172	114
28	285	787	668	1640	1060	652	546	1290	285	98	158	116
29	364	623	655	936	---	602	561	968	254	105	132	602
30	321	610	608	628	---	570	434	946	233	91	115	394
31	368	---	537	543	---	611	---	793	---	79	104	---
TOTAL	8870	17269	40225	20914	20730	37444	15849	25358	29308	4787	4946	5622
MEAN	286	576	1298	675	740	1208	528	818	977	154	160	187
MAX	1170	1980	5780	1640	1800	2940	1800	5310	3250	442	777	602
MIN	83	181	537	433	395	554	313	312	233	79	55	66
CFSM	.58	1.16	2.62	1.36	1.49	2.44	1.07	1.65	1.97	.31	.32	.38
IN.	.67	1.30	3.02	1.57	1.55	2.81	1.19	1.90	2.20	.36	.37	.42

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 1997, BY WATER YEAR (WY)

	MEAN	179	326	545	711	864	1132	911	658	394	253	174	145
MAX	1380	2102	2012	3993	1957	2493	2187	1876	1784	1554	1567	1453	
(WY)	1955	1986	1991	1937	1956	1945	1940	1929	1989	1990	1980	1926	
MIN	25.7	38.2	50.7	63.9	50.8	241	202	79.9	40.8	29.6	22.0	17.4	
(WY)	1964	1931	1931	1931	1934	1969	1946	1934	1934	1930	1930	1932	

SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1916 - 1997

ANNUAL TOTAL	282201	231322	
ANNUAL MEAN	771	634	523
HIGHEST ANNUAL MEAN			899
LOWEST ANNUAL MEAN			207
HIGHEST DAILY MEAN	7500	5780	18900
LOWEST DAILY MEAN	38	55	12
ANNUAL SEVEN-DAY MINIMUM	41	64	12
INSTANTANEOUS PEAK FLOW		7400	25000
INSTANTANEOUS PEAK STAGE		10.23	17.40
INSTANTANEOUS LOW FLOW		54	12
ANNUAL RUNOFF (CFSM)	1.55	1.28	1.05
ANNUAL RUNOFF (INCHES)	21.17	17.35	14.32
10 PERCENT EXCEEDS	1720	1300	1240
50 PERCENT EXCEEDS	493	457	250
90 PERCENT EXCEEDS	92	99	51

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

SURFACE-WATER RECORDS **Yellow Creek Basin**

03110000 YELLOW CREEK NEAR HAMMONDSVILLE, OHIO

LOCATION.--Lat 40°32'16", long 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.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59	77	773	136	199	185	162	109	314	51	13	15
2	47	69	793	136	163	505	142	105	392	106	11	14
3	39	58	423	133	144	602	132	125	420	81	11	13
4	33	51	313	126	199	510	128	156	408	56	12	12
5	29	45	242	251	581	425	123	125	319	45	12	12
6	26	44	243	229	430	756	121	125	260	39	9.7	11
7	24	44	217	191	335	591	113	118	211	35	8.9	9.6
8	23	479	188	164	280	458	100	108	178	32	7.8	8.9
9	23	634	172	e120	237	362	95	195	148	30	7.6	8.8
10	28	437	150	e92	204	816	89	187	125	30	7.2	9.8
11	38	312	218	e80	183	697	84	177	110	29	7.1	34
12	32	227	1450	e100	171	520	115	162	102	25	7.0	51
13	27	179	1060	169	136	408	338	151	198	23	9.4	30
14	24	151	610	e140	158	511	211	136	188	21	24	21
15	23	128	423	e120	145	520	168	141	123	19	21	16
16	21	112	337	e190	121	405	145	121	99	17	29	13
17	20	107	379	e150	123	353	144	108	151	16	54	12
18	25	125	341	e130	116	315	152	116	139	16	77	11
19	167	119	283	e110	232	284	130	864	629	29	51	10
20	377	104	228	e100	411	248	132	579	278	43	35	11
21	290	95	201	e150	385	223	124	373	178	29	61	12
22	203	88	192	e200	358	207	119	276	134	21	52	14
23	162	82	180	e350	272	181	114	219	108	20	36	14
24	171	79	255	e250	226	164	110	187	91	21	29	13
25	130	77	246	e460	189	153	101	385	82	22	26	12
26	105	314	210	e400	181	266	92	1260	74	22	24	11
27	98	358	200	e350	215	246	85	635	72	20	23	10
28	132	256	189	642	206	218	143	409	63	18	21	9.7
29	125	207	185	551	---	208	140	315	54	17	21	88
30	102	192	161	446	---	192	116	317	49	17	20	68
31	87	---	147	278	---	190	---	254	---	15	17	---
TOTAL	2690	5250	11009	6944	6600	11719	3968	8538	5697	965	744.7	574.8
MEAN	86.8	175	355	224	236	378	132	275	190	31.1	24.0	19.2
MAX	377	634	1450	642	581	816	338	1260	629	106	77	88
MIN	20	44	147	80	116	153	84	105	49	15	7.0	8.8
CFSM	.59	1.19	2.42	1.52	1.60	2.57	.90	1.87	1.29	.21	.16	.13
IN.	.68	1.33	2.79	1.76	1.67	2.97	1.00	2.16	1.44	.24	.19	.15

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 1997, BY WATER YEAR (WY)

	MEAN	47.8	95.8	173	218	277	352	297	212	119	65.7	48.8	37.5
	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	2.33
	(WY)	1954	1992	1964	1977	1954	1969	1941	1988	1988	1965	1962	1963

SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1941 - 1997

ANNUAL TOTAL	78172.0	64699.5	
ANNUAL MEAN	214	177	162
HIGHEST ANNUAL MEAN			266
LOWEST ANNUAL MEAN			73.9
HIGHEST DAILY MEAN	2890	Jan 19	6440
LOWEST DAILY MEAN	7.2	Sep 2	.80
ANNUAL SEVEN-DAY MINIMUM	7.3	Aug 31	.80
INSTANTANEOUS PEAK FLOW			1890
INSTANTANEOUS PEAK STAGE			5.86
INSTANTANEOUS LOW FLOW			6.8
ANNUAL RUNOFF (CFSM)	1.45		1.21
ANNUAL RUNOFF (INCHES)	19.78		16.37
10 PERCENT EXCEEDS	482		408
50 PERCENT EXCEEDS	135		128
90 PERCENT EXCEEDS	20		15
			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

59

03111500 SHORT CREEK NEAR DILLONVALE, OHIO

LOCATION.--Lat 40°11'36", long 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, 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 fair except for periods of estimated record, which are poor. Water-quality and sediment data 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 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71	56	345	103	138	144	133	68	170	84	33	44
2	62	59	260	100	127	608	119	65	167	136	32	40
3	55	51	170	100	122	433	112	76	157	100	35	38
4	48	48	146	107	179	353	107	85	156	78	34	34
5	45	46	130	109	349	287	105	70	141	68	33	33
6	45	45	134	801	234	341	103	69	120	63	29	31
7	42	50	124	270	193	281	98	65	110	58	27	30
8	41	341	116	197	177	242	90	66	102	55	26	30
9	50	261	110	e110	165	214	89	164	95	54	25	29
10	63	180	103	e120	152	394	85	114	88	60	25	60
11	49	142	102	e100	144	312	82	106	83	53	26	87
12	43	121	252	e90	138	249	103	92	80	49	26	63
13	41	109	242	e80	127	217	172	85	202	46	36	54
14	40	97	183	e74	138	241	127	80	227	43	43	41
15	38	88	154	e70	135	245	103	86	140	42	47	36
16	38	85	137	e90	125	205	95	76	107	40	62	34
17	38	80	145	e80	123	190	93	69	226	41	111	33
18	50	100	157	e74	126	184	96	68	215	44	304	36
19	177	100	134	e70	204	198	88	132	318	45	103	33
20	247	89	118	e64	244	182	83	131	232	40	133	38
21	163	85	101	e80	214	171	79	96	164	36	147	43
22	122	82	122	e120	195	162	78	86	131	38	88	33
23	105	78	112	182	162	152	76	76	112	46	70	30
24	104	75	135	127	149	151	76	69	99	42	57	31
25	88	75	202	212	140	143	74	299	90	38	52	29
26	78	132	141	151	135	386	70	660	85	37	52	27
27	75	145	127	138	147	270	68	279	86	37	48	26
28	72	113	125	300	137	196	93	212	78	42	145	30
29	70	101	123	193	---	164	80	176	72	70	70	175
30	67	104	115	164	---	150	71	172	69	46	55	75
31	61	---	107	147	---	148	---	153	---	36	48	---
TOTAL	2288	3138	4672	4623	4619	7613	2848	4045	4122	1667	2022	1323
MEAN	73.8	105	151	149	165	246	94.9	130	137	53.8	65.2	44.1
MAX	247	341	345	801	349	608	172	660	318	136	304	175
MIN	38	45	101	64	122	143	68	65	69	36	25	26
CFSM	.60	.85	1.23	1.21	1.34	2.00	.77	1.06	1.12	.44	.53	.36
IN.	.69	.95	1.41	1.40	1.40	2.30	.86	1.22	1.25	.50	.61	.40

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 1997, BY WATER YEAR (WY)

	MEAN	53.3	75.8	117	157	204	249	225	172	115	77.8	62.6	51.5
MAX	195	515	414	469	459	725	489	391	422	331	610	305	
(WY)	1955	1986	1991	1950	1975	1945	1961	1967	1989	1990	1980	1974	
MIN	13.8	13.8	12.1	20.9	24.8	54.7	69.3	51.4	28.1	17.4	11.5	8.62	
(WY)	1954	1954	1944	1967	1954	1969	1946	1976	1988	1954	1945	1947	

SUMMARY STATISTICS FOR 1996 CALENDAR YEAR FOR 1997 WATER YEAR WATER YEARS 1942 - 1997

ANNUAL TOTAL	61452	42980	
ANNUAL MEAN	168	118	130
HIGHEST ANNUAL MEAN			225
LOWEST ANNUAL MEAN			46.1
HIGHEST DAILY MEAN	1670	801	3620
LOWEST DAILY MEAN	35	25	2.8
ANNUAL SEVEN-DAY MINIMUM	36	26	4.9
INSTANTANEOUS PEAK FLOW		1620	8200
INSTANTANEOUS PEAK STAGE		6.14	12.27
INSTANTANEOUS LOW FLOW		24	2.8
ANNUAL RUNOFF (CFSM)	1.37	.96	1.05
ANNUAL RUNOFF (INCHES)	18.59	13.00	14.32
10 PERCENT EXCEEDS	322	216	269
50 PERCENT EXCEEDS	124	97	79
90 PERCENT EXCEEDS	48	38	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.--Lat 40°04'01", long 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, 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 collected at this site.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68	57	287	74	107	149	142	75	164	64	27	81
2	61	55	173	74	98	1120	134	72	147	76	34	60
3	56	53	112	74	90	447	128	97	138	65	42	53
4	51	51	97	75	186	366	123	90	129	60	54	49
5	49	51	89	349	284	257	117	77	112	56	33	49
6	48	52	98	240	169	347	117	75	102	53	24	47
7	48	60	89	136	141	232	110	71	97	51	24	47
8	48	472	80	115	135	201	103	91	92	49	24	48
9	54	233	76	e86	126	188	101	154	85	54	23	52
10	62	156	71	e96	117	457	96	114	81	56	23	70
11	52	114	72	e76	111	245	94	107	78	48	22	73
12	47	92	91	e66	108	202	140	101	76	46	22	57
13	45	80	108	e58	102	182	153	98	84	45	28	64
14	46	77	85	e53	111	224	114	89	94	45	24	65
15	44	68	78	e50	114	187	103	90	74	44	44	64
16	44	65	75	e64	106	158	98	86	70	44	59	63
17	44	63	97	e58	102	151	95	88	146	43	377	63
18	70	82	93	e52	137	152	94	140	141	44	1240	63
19	159	80	80	e48	205	163	90	408	155	43	156	62
20	195	68	73	e45	187	143	86	430	93	36	315	74
21	123	64	71	e100	162	135	84	182	79	30	219	74
22	98	61	76	e240	156	126	85	141	72	44	125	64
23	89	57	74	e380	133	119	82	124	69	49	102	62
24	86	56	164	351	126	114	83	112	63	59	86	61
25	74	56	140	455	117	117	80	872	62	49	81	59
26	69	104	96	243	119	485	78	770	67	45	76	57
27	67	92	90	144	131	217	76	291	69	43	104	56
28	67	71	91	385	116	177	96	212	60	52	259	65
29	62	66	91	154	---	175	84	184	56	53	99	212
30	61	81	82	129	---	162	77	168	55	43	89	92
31	58	---	77	112	---	161	---	153	---	30	87	---
TOTAL	2145	2737	3076	4582	3796	7559	3063	5762	2810	1519	3922	2006
MEAN	69.2	91.2	99.2	148	136	244	102	186	93.7	49.0	127	66.9
MAX	195	472	287	455	284	1120	153	872	164	76	1240	212
MIN	44	51	71	45	90	114	76	71	55	30	22	47
CFSM	.71	.93	1.02	1.51	1.39	2.50	1.05	1.90	.96	.50	1.29	.68
IN.	.82	1.04	1.17	1.74	1.45	2.88	1.17	2.19	1.07	.58	1.49	.76

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 1997, BY WATER YEAR (WY)

	MEAN	45.9	98.0	118	132	154	186	173	158	103	73.4	46.5	43.1
MAX	138	402	395	294	262	330	298	344	288	230	127	95.2	
(WY)	1991	1986	1991	1991	1986	1993	1983	1996	1989	1990	1997	1990	
MIN	17.9	23.7	44.4	51.5	67.9	72.7	73.9	52.8	34.7	35.8	16.6	9.53	
(WY)	1989	1992	1989	1992	1992	1987	1986	1986	1992	1991	1986	1985	

SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1982 - 1997

ANNUAL TOTAL	55315	42977	
ANNUAL MEAN	151	118	110
HIGHEST ANNUAL MEAN			143
LOWEST ANNUAL MEAN			70.6
HIGHEST DAILY MEAN	1910	May 9	1240
LOWEST DAILY MEAN	30	Sep 2	22
ANNUAL SEVEN-DAY MINIMUM	31	Aug 30	23
INSTANTANEOUS PEAK FLOW			3010
INSTANTANEOUS PEAK STAGE			6.15
INSTANTANEOUS LOW FLOW			13
ANNUAL RUNOFF (CFSM)	1.55	1.21	1.13
ANNUAL RUNOFF (INCHES)	21.06	16.36	15.31
10 PERCENT EXCEEDS	304	203	219
50 PERCENT EXCEEDS	91	85	71
90 PERCENT EXCEEDS	44	47	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

Captina Creek Basin

61

03114000 CAPTINA CREEK AT ARMSTRONGS MILLS, OHIO

LOCATION.--Lat 39°54'31", long 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, 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 poor. Water-quality and sediment data collected at this site.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	77	32	463	169	190	437	186	77	175	42	4.2	9.9
2	60	29	663	158	158	3390	162	73	315	93	3.4	9.5
3	53	27	319	149	144	1190	143	114	1520	44	3.2	9.0
4	42	25	208	138	285	899	139	138	503	28	3.8	8.3
5	34	23	162	630	506	555	131	110	285	22	4.8	7.6
6	30	22	175	482	317	663	125	102	195	19	5.4	7.5
7	27	23	158	285	244	425	112	88	149	16	3.8	7.4
8	25	153	138	212	215	338	99	138	123	14	3.0	7.7
9	26	1130	125	198	186	279	93	345	107	14	2.5	8.2
10	53	485	112	216	164	1010	86	199	96	19	2.2	14
11	37	326	112	152	150	513	83	156	87	15	1.9	44
12	26	228	144	e130	142	352	139	131	84	11	2.0	23
13	19	171	205	e120	126	277	179	118	91	9.5	5.0	14
14	21	141	164	e110	136	331	130	104	88	8.4	7.8	11
15	20	123	143	e100	137	288	111	102	74	7.9	11	9.0
16	18	106	135	e95	125	225	102	88	67	7.4	36	7.7
17	18	99	170	e90	127	206	99	84	112	6.7	97	7.1
18	20	93	169	e86	155	195	94	80	135	6.0	651	7.9
19	198	124	148	e82	369	207	85	90	202	5.6	103	8.0
20	175	121	127	e78	403	180	80	304	110	4.5	116	134
21	204	107	133	e76	301	163	76	147	78	4.4	141	91
22	132	97	134	e94	258	151	74	112	60	7.6	68	41
23	99	88	140	e200	192	138	72	96	49	12	44	28
24	96	81	312	173	165	127	84	87	39	9.6	30	23
25	77	77	322	311	144	121	97	755	33	7.6	27	18
26	63	78	213	204	142	1050	79	1030	31	6.0	24	16
27	59	143	181	197	166	435	72	364	31	5.4	20	15
28	58	140	173	1210	139	302	101	222	25	5.9	21	19
29	56	113	248	415	---	270	91	170	21	7.3	16	297
30	49	116	251	302	---	235	80	163	21	7.8	12	97
31	42	---	196	216	---	224	---	140	---	5.2	11	---
TOTAL	1914	4521	6343	7078	5786	15176	3204	5927	4906	471.8	1481.0	999.8
MEAN	61.7	151	205	228	207	490	107	191	164	15.2	47.8	33.3
MAX	204	1130	663	1210	506	3390	186	1030	1520	93	651	297
MIN	18	22	112	76	125	121	72	73	21	4.4	1.9	7.1
CFSM	.46	1.12	1.53	1.70	1.54	3.65	.80	1.43	1.22	.11	.36	.25
IN.	.53	1.26	1.76	1.96	1.61	4.21	.89	1.65	1.36	.13	.41	.28

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1927 - 1997, BY WATER YEAR (WY)

	MEAN	48.3	109	204	235	288	342	269	193	104	71.5	65.6	51.7
	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 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1927 - 1997

ANNUAL TOTAL	90359.6	57807.6	165
ANNUAL MEAN	247	158	275
HIGHEST ANNUAL MEAN			75.2
LOWEST ANNUAL MEAN			1928
HIGHEST DAILY MEAN	3070	3390	8080
LOWEST DAILY MEAN	1.7	1.9	.00
ANNUAL SEVEN-DAY MINIMUM	2.8	2.9	.00
INSTANTANEOUS PEAK FLOW		7160	21900
INSTANTANEOUS PEAK STAGE		10.51	17.48
INSTANTANEOUS LOW FLOW		1.9	.00
ANNUAL RUNOFF (CFSM)	1.84	1.18	1.23
ANNUAL RUNOFF (INCHES)	25.08	16.05	16.68
10 PERCENT EXCEEDS	556	316	379
50 PERCENT EXCEEDS	134	103	67
90 PERCENT EXCEEDS	17	8.0	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

Little Muskingum River Basin

03115400 LITTLE MUSKINGUM RIVER AT BLOOMFIELD, OHIO

LOCATION.--Lat 39°33'47", long 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, 2.2 mi downstream from Wilson Run.
 DRAINAGE AREA.--210 mi².
 PERIOD OF RECORD.--October 1958 to September 1981, October 1995 to September 1996.
 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 collected at this site.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	210	85	1470	227	270	1500	305	189	203	19	10	14
2	145	77	1100	208	223	10800	255	158	1160	68	7.5	12
3	115	68	494	192	199	4300	225	191	5250	57	5.6	12
4	88	60	322	175	276	1920	203	321	984	36	5.2	12
5	69	55	252	394	1020	884	182	273	390	24	5.5	12
6	59	52	285	812	584	946	168	229	246	17	6.1	10
7	52	57	266	373	366	659	149	188	182	13	5.8	10
8	47	2150	228	265	300	437	125	171	144	11	4.7	9.5
9	44	1400	199	241	259	327	112	594	116	10	3.7	8.9
10	42	600	171	287	227	1860	101	375	94	10	3.2	11
11	39	385	164	212	208	973	93	301	79	10	2.8	25
12	35	277	577	e150	195	498	129	247	70	8.3	2.5	37
13	30	218	1020	e130	174	343	411	212	66	7.3	2.6	28
14	27	184	516	e120	188	340	262	178	69	6.8	4.9	19
15	25	152	333	e110	239	344	202	163	62	6.0	6.1	14
16	23	131	271	e98	242	270	175	139	50	5.2	11	11
17	21	118	278	e88	211	238	165	120	56	4.4	204	8.9
18	24	130	281	e82	219	235	154	112	54	4.1	1410	8.0
19	149	214	238	e78	480	455	136	113	69	3.6	240	7.2
20	145	202	200	e76	569	347	123	117	62	3.5	150	7.7
21	126	172	145	e74	408	281	112	93	44	3.2	278	37
22	111	151	176	e86	327	245	106	75	35	5.3	147	51
23	96	130	176	e140	243	208	100	66	29	13	108	29
24	92	120	471	152	206	186	112	60	25	78	68	19
25	83	113	729	341	181	167	152	173	21	28	50	14
26	72	247	367	263	170	2490	131	2040	19	15	41	11
27	76	350	286	223	203	994	115	483	17	10	33	9.2
28	91	255	259	2230	179	492	286	241	16	38	27	9.1
29	123	212	265	913	---	435	310	174	14	114	23	153
30	123	246	318	431	---	416	222	152	13	31	19	132
31	103	---	261	325	---	372	---	139	---	16	16	---
TOTAL	2485	8611	12118	9496	8366	33962	5321	8087	9639	675.7	2901.2	741.5
MEAN	80.2	287	391	306	299	1096	177	261	321	21.8	93.6	24.7
MAX	210	2150	1470	2230	1020	10800	411	2040	5250	114	1410	153
MIN	21	52	145	74	170	167	93	60	13	3.2	2.5	7.2
CFSM	.38	1.37	1.86	1.46	1.42	5.22	.84	1.24	1.53	.10	.45	.12
IN.	.44	1.53	2.15	1.68	1.48	6.02	.94	1.43	1.71	.12	.51	.13

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1997, BY WATER YEAR (WY)

	MEAN	76.7	160	329	401	483	584	465	310	195	95.2	90.2	87.0
MAX	476	518	918	1008	995	1387	1004	899	966	421	401	719	
(WY)	1980	1971	1979	1979	1979	1963	1964	1968	1981	1996	1979	1975	
MIN	.43	2.28	16.3	28.0	59.0	119	78.8	48.4	12.2	.98	.90	.36	
(WY)	1967	1964	1964	1977	1964	1969	1971	1976	1966	1966	1962	1966	

SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1958 - 1997

ANNUAL TOTAL	152562.8	102403.4	
ANNUAL MEAN	417	281	272
HIGHEST ANNUAL MEAN			461
LOWEST ANNUAL MEAN			170
HIGHEST DAILY MEAN	4200	10800	13300
LOWEST DAILY MEAN	2.0	2.5	.00
ANNUAL SEVEN-DAY MINIMUM	3.3	3.5	.10
INSTANTANEOUS PEAK FLOW		14900	21200
INSTANTANEOUS PEAK STAGE		28.30	28.30
INSTANTANEOUS LOW FLOW		1.9	.00
ANNUAL RUNOFF (CFSM)	1.98	1.34	1.30
ANNUAL RUNOFF (INCHES)	27.03	18.14	17.60
10 PERCENT EXCEEDS	1010	481	640
50 PERCENT EXCEEDS	204	145	97
90 PERCENT EXCEEDS	26	10	5.1

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

SURFACE-WATER RECORDS

Muskingum River Basin

63

03115969 MONTROSE RUN AT MONTROSE, OHIO

LOCATION.--Lat 41°07'51", long 81°38'25", Summit County, Hydrologic Unit 05040001, on left bank of small pond at the Windsong Care Center at 120 Brookmont Dr., 0.25 mi west of Cleveland-Massillon Road, 0.4 mi southwest of intersection of State Route 18 and I-77, 1.6 mi northwest of Akron corporate boundary.

DRAINAGE AREA.--0.263 mi².

PERIOD OF RECORD.--October 1, 1992, to current year.

GAGE.--Water-stage recorder. Datum of gage is 989 ft above sea level, from topographic map.

REMARKS.--Record good except for periods of estimated record, which are fair.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.03	3.3	.04	.07	.16	.08	.09	8.4	.21	.00	.00
2	.00	.01	.23	.16	.05	1.9	.04	.38	1.6	.04	.00	.00
3	.00	.00	.11	.08	.06	.26	.04	1.4	.29	.02	.04	.00
4	.00	.00	.16	.10	3.5	.16	.03	.22	.13	.00	.87	.00
5	.00	.00	.13	.79	.58	1.8	.07	.24	.09	.00	.02	.00
6	.00	.00	.21	.11	.13	.93	.06	.31	.06	.00	.00	.00
7	.00	.51	.10	.04	.09	.21	.02	.07	.04	.00	.00	.00
8	.00	.86	.11	.03	.13	.15	.01	.42	.03	.00	.00	.00
9	.76	.93	.37	.10	.10	1.4	.00	.13	.11	1.4	.00	.00
10	.29	.90	.11	.08	.06	.81	.00	.21	.04	.03	.00	1.2
11	.18	.15	5.1	.03	.05	.16	.00	.09	.02	.00	.00	.03
12	.12	.08	.84	.01	.11	.10	3.3	.10	.04	.00	.00	.00
13	.10	.05	.23	.00	.06	.11	.31	.06	.39	.00	.73	.00
14	e.03	.03	.11	.00	.16	2.6	.14	.61	.06	.00	.02	.00
15	e.03	.02	.08	.05	.11	.20	.09	.31	.02	.00	.06	.00
16	.01	.03	1.0	.39	.08	.11	.21	.08	.02	.00	2.4	.00
17	.00	.38	3.3	.03	.08	.09	.45	.10	.08	.00	1.5	.00
18	4.0	.36	.23	.01	.48	.23	.14	.26	1.9	.00	.14	.00
19	1.7	.08	.11	.00	.75	.13	.07	1.1	.07	.00	.03	.39
20	1.1	.06	.06	.00	.29	.12	.05	.11	.03	.00	.04	4.1
21	.37	.03	.04	.00	.28	.13	.06	.03	.02	.00	.07	.03
22	.21	.02	.08	.60	.12	.35	.18	.02	.01	.00	.30	.00
23	.39	e.01	1.6	.15	.08	.12	.05	.01	.00	.00	.15	.09
24	.07	.10	2.1	.58	.06	.14	.38	.01	.00	.00	.88	.02
25	.03	3.4	.14	.95	.04	1.1	.07	5.8	.16	.00	1.3	.00
26	.02	2.0	.07	.07	.87	.39	.04	.25	.32	.05	.06	.00
27	.01	.15	.07	2.0	2.6	.11	.18	.07	.03	.07	.04	.00
28	.12	.14	.09	.66	.19	.08	.48	.04	.01	.02	.01	.00
29	.14	.09	.08	.10	---	.29	.06	.33	.00	.00	.00	.00
30	2.3	.38	.05	.05	---	.40	.03	.09	.00	.00	.00	.00
31	.07	---	.05	.10	---	.26	---	4.2	---	.00	.00	---
TOTAL	12.06	10.80	20.26	7.31	11.18	15.00	6.64	17.14	13.97	1.84	8.66	5.86
MEAN	.39	.36	.65	.24	.40	.48	.22	.55	.47	.059	.28	.20
MAX	4.0	3.4	5.1	2.0	3.5	2.6	3.3	5.8	8.4	1.4	2.4	4.1
MIN	.00	.00	.04	.00	.04	.08	.00	.01	.00	.00	.00	.00
CFSM	1.50	1.38	2.51	.91	1.54	1.86	.85	2.13	1.79	.23	1.07	.75
IN.	1.73	1.55	2.90	1.05	1.60	2.15	.95	2.45	2.00	.26	1.24	.84

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1997, BY WATER YEAR (WY)

	1993	1994	1995	1996	1997	1993	1994	1995	1996	1997
MEAN	.19	.39	.31	.48	.26	.45	.50	.29	.40	.14
MAX	.39	.63	.65	.62	.40	.66	.74	.55	.52	.26
(WY)	1997	1994	1997	1996	1997	1993	1994	1997	1996	1995
MIN	.006	.16	.066	.24	.069	.25	.22	.082	.29	.009
(WY)	1995	1995	1996	1997	1993	1995	1997	1993	1993	1993

SUMMARY STATISTICS FOR 1996 CALENDAR YEAR FOR 1997 WATER YEAR WATER YEARS 1993 - 1997

	1996	1997	1993-1997
ANNUAL TOTAL	161.32	130.72	
ANNUAL MEAN	.44	.36	.32
HIGHEST ANNUAL MEAN			.39
LOWEST ANNUAL MEAN			.25
HIGHEST DAILY MEAN	6.1 Apr 23	8.4 Jun 1	8.4 Jun 1 1997
LOWEST DAILY MEAN	.00 Feb 3	.00 Oct 2	.00 Oct 1 1992
ANNUAL SEVEN-DAY MINIMUM	.00 Aug 4	.00 Oct 2	.00 Oct 1 1992
INSTANTANEOUS PEAK FLOW		44 Sep 20 a	71 Aug 9 1995
INSTANTANEOUS PEAK STAGE		12.30 Sep 20	12.84 Aug 9 1995
INSTANTANEOUS LOW FLOW		.00 Oct 2	.00 Oct 2 1996
ANNUAL RUNOFF (CFSM)	1.70	1.38	1.23
ANNUAL RUNOFF (INCHES)	23.08	18.70	16.65
10 PERCENT EXCEEDS	1.2	.93	.83
50 PERCENT EXCEEDS	.09	.08	.04
90 PERCENT EXCEEDS	.00	.00	.00

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

03115970 SCHOCALOG RUN AT MONTROSE, OHIO

LOCATION.--Lat 41°07'37", long 81°37'54", Summit County, Hydrologic Unit 05040001, on northeast bank of small pond located at Rosemont Country Club golf course, about 300 feet north of Elgin Drive, about 700 feet east of Cleveland-Massillon Road, 1.2 miles west northwest of Akron corporate boundary, 1.2 miles southeast of intersection of SR-18 and I-77, at Fairlawn.

DRAINAGE AREA.--1.59 mi².

PERIOD OF RECORD.--October 1, 1993, to current year.

GAGE.--Water-stage recorder. Datum of gage is 981 ft above sea level, from topographic map.

REMARKS.--Record fair except for discharges less than 2.0 ft³/s, which are poor. Flow affected by pumping from gage pool to water golf course.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.78	1.7	19	2.2	1.8	2.5	2.0	e1.1	e48	4.0	.27	2.1
2	.84	1.2	4.7	2.5	1.6	13	1.6	e1.3	e15	3.1	.40	2.0
3	.62	.96	2.8	2.2	1.6	3.4	1.6	e8.6	e4.4	.58	.77	2.1
4	.47	.82	2.8	2.2	15	2.8	1.5	e3.0	e3.0	.28	3.7	1.6
5	.33	.74	2.3	5.0	11	8.6	1.7	e1.8	e2.4	.27	.82	1.6
6	.29	.63	2.9	2.7	3.2	8.9	1.7	e3.3	e1.8	.21	.59	1.4
7	.29	1.4	2.2	1.8	2.5	3.6	1.4	e1.3	e1.4	.08	.29	1.0
8	.30	6.2	2.0	1.6	2.3	3.0	1.2	e2.6	1.3	.21	.37	1.5
9	2.1	4.4	2.5	2.0	2.3	4.7	1.2	e2.2	1.3	5.4	.48	1.3
10	2.4	6.7	2.1	2.2	2.1	11	1.2	e2.1	1.1	1.0	.48	5.4
11	.97	2.8	23	1.7	1.9	3.2	1.2	e1.3	.86	.48	.26	2.0
12	.40	1.8	15	1.4	1.9	2.4	18	e1.6	1.0	.38	.57	1.6
13	.40	1.3	4.0	1.3	1.7	2.2	5.8	e1.4	2.4	.40	3.4	1.5
14	.34	1.0	2.8	1.1	2.0	15	e1.8	e1.6	1.2	.20	.97	1.4
15	.31	.86	2.4	1.1	2.0	3.7	e1.3	e3.9	.75	.38	1.0	1.1
16	.30	.85	5.0	3.2	1.7	2.5	e1.7	e1.3	.75	.24	4.8	1.0
17	.29	1.7	21	1.4	1.6	2.6	e4.4	e1.4	1.1	.13	9.7	1.2
18	15	4.3	4.7	.94	4.5	3.2	e1.8	e1.6	7.5	.28	3.3	1.1
19	14	1.9	3.0	.85	5.9	2.6	e1.3	e5.8	1.9	.17	1.3	1.3
20	8.5	1.7	2.3	.74	3.8	2.4	e1.1	e2.5	.84	.22	.96	20
21	3.8	1.4	1.9	.65	3.6	2.2	e.96	e1.1	.70	.33	1.2	2.6
22	3.1	1.3	1.9	4.7	2.7	2.8	e1.6	e.90	.56	.65	1.4	1.6
23	3.1	1.2	5.8	2.8	1.9	2.2	e1.1	e.82	.50	.42	1.3	1.8
24	1.9	1.3	18	2.7	1.7	2.0	e2.5	e.82	.48	.26	2.4	1.2
25	1.2	10	3.6	7.0	1.3	4.9	e1.0	e28	.74	.35	7.2	1.0
26	.96	22	2.6	2.0	3.0	4.1	e.76	e6.0	2.5	.73	.93	1.1
27	.85	3.7	2.5	8.0	18	2.3	e1.0	e1.8	.68	.45	.58	.92
28	1.4	2.5	2.5	8.6	3.5	1.9	e3.9	e1.5	.39	.27	2.2	.93
29	1.3	2.3	2.5	2.3	---	2.7	e1.1	e2.5	.64	.51	3.3	.92
30	13	3.7	2.2	1.8	---	2.9	e.80	e1.6	3.3	1.0	2.8	1.0
31	2.7	---	2.2	1.8	---	3.0	---	e14	---	.61	2.3	---
TOTAL	82.24	92.36	172.2	80.48	106.1	132.3	68.22	108.74	108.49	23.59	60.04	65.27
MEAN	2.65	3.08	5.55	2.60	3.79	4.27	2.27	3.51	3.62	.76	1.94	2.18
MAX	15	22	23	8.6	18	15	18	28	48	5.4	9.7	20
MIN	.29	.63	1.9	.65	1.3	1.9	.76	.82	.39	.08	.26	.92
CFSM	1.67	1.94	3.49	1.63	2.38	2.68	1.43	2.21	2.27	.48	1.22	1.37
IN.	1.92	2.16	4.03	1.88	2.48	3.10	1.60	2.54	2.54	.55	1.40	1.53

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 1997, BY WATER YEAR (WY)

	1994	1995	1996	1997	1994	1995	1996	1997	1994	1995	1996	1997
MEAN	1.56	2.73	2.41	3.52	2.26	2.81	3.72	2.58	3.09	1.25	1.55	1.65
MAX	2.65	4.28	5.55	4.31	3.79	4.27	5.54	4.07	3.85	1.69	2.37	3.35
(WY)	1997	1994	1997	1996	1997	1997	1994	1996	1996	1994	1995	1996
MIN	.33	.81	.84	2.60	.95	1.63	2.07	.98	2.33	.76	.67	.49
(WY)	1995	1995	1996	1997	1995	1995	1995	1994	1995	1997	1996	1994

SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1994 - 1997

ANNUAL TOTAL	1194.80	1100.03	
ANNUAL MEAN	3.26	3.01	2.42
HIGHEST ANNUAL MEAN			3.01
LOWEST ANNUAL MEAN			1.64
HIGHEST DAILY MEAN	36	48	53
LOWEST DAILY MEAN	.00	.08	.00
ANNUAL SEVEN-DAY MINIMUM	.08	.23	.02
INSTANTANEOUS PEAK FLOW		81	101
INSTANTANEOUS PEAK STAGE		13.62	14.30
INSTANTANEOUS LOW FLOW		.00	.00
ANNUAL RUNOFF (CFSM)	2.05	1.90	1.52
ANNUAL RUNOFF (INCHES)	27.95	25.74	20.71
10 PERCENT EXCEEDS	8.4	5.8	4.8
50 PERCENT EXCEEDS	1.4	1.8	1.1
90 PERCENT EXCEEDS	.46	.46	.28

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

65

03115971 SCHOCALOG RUN AT FAIRLAWN, OHIO

LOCATION.--Lat 41°07'28", long 81°37'23", Summit County, Hydrologic Unit 05040001, on right upstream side of triple barrel culvert under Trunko Road, 0.7 mi east of Cleveland-Massillon Road, 0.7 mi west of Akron corporate boundary, 1.6 mi southeast of intersection of State Route 18 and I-77.

DRAINAGE AREA.--2.13 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 978 ft above sea level, from topographic map.

REMARKS.--Record fair except for periods of estimated record and discharges less than 1.0 ft³/s, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.83	1.7	23	1.7	1.6	2.4	2.0	1.5	75	5.0	.35	2.1
2	.84	1.4	5.9	2.7	1.5	17	1.4	1.7	28	3.3	.53	2.0
3	.67	1.1	3.0	2.1	1.6	3.8	1.3	11	6.7	1.1	1.1	2.4
4	.60	.95	3.0	2.1	19	2.9	1.2	4.3	4.1	.52	6.0	1.7
5	.55	.88	2.3	6.8	15	10	1.5	2.4	3.1	.56	1.3	1.6
6	.56	.86	3.0	2.9	3.3	12	1.5	4.3	2.4	.29	.83	1.6
7	.57	1.9	1.9	1.7	2.4	3.6	1.1	1.8	1.9	.28	.55	1.2
8	.56	9.1	1.8	1.5	e2.2	2.6	.90	3.5	1.7	.26	.33	1.6
9	3.3	6.2	2.4	1.9	e2.0	4.9	.83	3.0	1.7	8.1	.73	1.6
10	3.4	10	2.1	2.1	1.8	12	.87	2.8	1.5	1.5	.57	7.3
11	1.5	3.9	27	1.5	1.6	2.6	.88	1.8	1.4	.79	.54	2.2
12	.75	2.3	18	1.2	2.3	1.6	22	2.1	1.5	.69	.70	1.6
13	.71	1.7	4.5	e.92	2.4	1.5	7.2	1.9	3.3	.54	5.3	1.5
14	.63	1.5	2.7	e.86	3.0	18	2.5	2.1	1.7	.47	1.4	1.4
15	.55	1.3	2.1	e.79	2.6	3.2	1.7	5.1	1.3	.63	1.6	1.3
16	.55	1.3	6.1	4.2	2.2	1.7	2.3	1.7	1.4	.47	6.4	1.1
17	.51	2.4	26	1.6	2.1	1.5	5.9	1.8	1.8	.18	14	1.3
18	21	6.1	5.4	e1.2	6.0	2.2	2.7	2.1	11	.45	4.3	1.3
19	20	2.2	2.8	e.86	7.2	1.6	1.7	7.6	2.7	.22	1.1	1.5
20	13	1.5	2.0	e.67	4.0	1.6	1.5	3.2	1.5	.20	1.1	24
21	5.2	1.3	1.6	1.1	3.9	1.8	1.3	1.5	1.3	.40	1.4	2.8
22	3.9	1.1	1.7	7.3	2.7	2.6	2.2	1.2	1.0	.88	1.5	1.6
23	4.7	1.0	7.2	3.4	1.9	1.7	1.5	1.1	.89	.71	1.9	2.0
24	2.5	1.1	22	3.3	1.8	1.6	3.3	1.1	.95	.32	3.2	1.3
25	1.6	14	3.7	10	1.6	6.5	1.5	35	.80	.57	10	1.3
26	1.4	27	2.3	1.8	3.9	5.5	1.0	9.9	3.4	.99	1.1	1.3
27	1.2	4.1	2.2	10	23	2.1	1.4	2.4	1.2	.91	.68	1.3
28	2.2	2.6	2.5	11	3.8	1.7	5.0	2.1	.66	.36	1.9	1.3
29	1.8	2.1	2.4	2.0	---	3.4	1.5	3.3	.81	.44	3.2	1.1
30	20	4.3	1.9	1.5	---	3.8	1.1	2.2	3.6	1.4	2.6	1.3
31	3.1	---	1.7	1.7	---	4.3	---	21	---	1.0	2.3	---
TOTAL	118.68	116.89	194.2	92.40	126.4	141.7	80.78	146.5	168.31	33.53	78.51	75.6
MEAN	3.83	3.90	6.26	2.98	4.51	4.57	2.69	4.73	5.61	1.08	2.53	2.52
MAX	21	27	27	11	23	18	22	35	75	8.1	14	24
MIN	.51	.86	1.6	.67	1.5	1.5	.83	1.1	.66	.18	.33	1.1
CFSM	1.80	1.83	2.94	1.40	2.12	2.15	1.26	2.22	2.63	.51	1.19	1.18
IN.	2.07	2.04	3.39	1.61	2.21	2.47	1.41	2.56	2.94	.59	1.37	1.32

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1997, BY WATER YEAR (WY)

	1992	1993	1994	1995	1996	1997
MEAN	1.90	3.73	3.22	4.95	2.71	4.02
MAX	3.83	5.94	6.26	7.76	4.51	7.05
(WY)	1997	1994	1997	1996	1997	1993
MIN	.29	1.17	1.11	2.18	1.31	2.22
(WY)	1995	1995	1996	1992	1995	1997

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1992 - 1997
ANNUAL TOTAL	1628.40	1373.50	
ANNUAL MEAN	4.45	3.76	3.32
HIGHEST ANNUAL MEAN			3.98
LOWEST ANNUAL MEAN			2.26
HIGHEST DAILY MEAN	59 Jan 19	75 Jun 1	75 Jun 1 1997
LOWEST DAILY MEAN	.01 Aug 30	.18 Jul 17	.00 Oct 14 1994
ANNUAL SEVEN-DAY MINIMUM	.02 Aug 30	.36 Jul 15	.01 Aug 13 1993
INSTANTANEOUS PEAK FLOW		95 Jun 1 a	104 Apr 12 1994
INSTANTANEOUS PEAK STAGE		12.58 Jun 1	12.70 Apr 12 1994
INSTANTANEOUS LOW FLOW		.05 Jul 20	.00 Oct 17 1994
ANNUAL RUNOFF (CFSM)	2.09	1.77	1.56
ANNUAL RUNOFF (INCHES)	28.44	23.99	21.19
10 PERCENT EXCEEDS	11	7.8	7.0
50 PERCENT EXCEEDS	2.0	1.8	1.6
90 PERCENT EXCEEDS	.47	.68	.28

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.--Lat 41°06'11", long 81°36'12", Summit County, Hydrologic Unit 05040001, on right upstream side of six barrel culvert under the Akron Canton and Youngstown Railroad, 150 feet east of Schocalog Road, 0.25 miles west of Copley Junction, 0.3 miles downstream of Schocalog Lake, 0.8 miles 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 969 ft above sea level, from topographic map.

REMARKS.-- No estimated daily discharges. Records good, except for discharges less than 2.0 ft³/s, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	2.9	25	2.5	3.3	4.4	3.1	2.9	121	7.6	.93	2.2
2	1.3	2.4	11	4.3	3.0	26	2.7	4.3	54	5.6	1.4	3.2
3	1.3	2.0	2.9	3.9	3.0	8.3	2.6	12	19	3.5	.84	3.8
4	.81	1.3	3.4	3.3	19	5.7	2.5	8.6	10	1.3	12	3.0
5	.90	1.1	2.7	9.1	27	12	2.3	4.2	6.8	.73	2.1	2.4
6	.99	1.3	4.2	6.5	8.0	22	2.7	5.9	3.4	.72	.62	2.5
7	1.1	2.0	2.7	3.9	5.3	7.9	2.6	6.1	2.5	.93	.38	2.2
8	1.1	15	2.7	3.2	3.8	6.3	2.1	2.8	2.6	.57	.22	1.3
9	2.5	8.4	3.0	3.1	4.1	6.2	1.9	5.7	2.8	11	.62	2.8
10	6.7	13	2.7	3.6	3.9	24	1.8	4.3	2.8	4.4	.73	9.5
11	4.6	7.4	33	3.1	3.6	7.4	1.6	3.9	2.6	.37	.53	4.0
12	2.0	4.1	38	2.8	3.4	4.9	27	3.4	2.8	1.0	.62	1.4
13	1.1	3.3	9.8	2.7	2.7	4.0	16	3.2	4.8	1.3	5.1	1.1
14	.84	1.5	2.8	2.7	2.7	27	4.5	3.0	3.0	.60	2.3	1.2
15	.95	2.4	3.0	2.5	3.2	9.8	3.0	8.6	2.0	.81	1.3	1.2
16	.86	2.0	6.4	5.2	2.7	5.7	3.9	3.8	3.4	.89	5.3	1.3
17	.81	2.9	43	4.4	2.5	3.9	10	3.1	3.0	.54	21	2.5
18	21	7.6	14	3.3	5.3	5.1	5.6	2.6	14	.57	9.3	1.9
19	30	4.4	6.2	3.1	12	4.4	3.6	9.8	6.7	3.3	2.2	1.3
20	19	3.4	4.8	3.4	8.2	3.7	3.0	8.7	2.1	.39	1.3	34
21	8.9	1.5	3.7	2.9	6.6	3.4	2.7	3.3	2.4	.13	1.8	7.0
22	6.0	2.2	3.2	6.3	5.2	4.7	3.7	1.2	2.1	.73	1.9	1.5
23	3.2	1.2	6.3	9.6	2.8	3.4	3.7	5.2	1.8	2.8	3.5	1.4
24	3.9	1.3	37	5.4	2.6	3.3	4.6	1.5	1.5	.49	2.6	2.0
25	2.8	13	10	17	2.0	6.6	3.6	53	1.4	.33	15	1.1
26	1.6	41	5.9	7.5	2.9	9.4	2.4	29	4.9	.81	4.0	.97
27	1.2	7.5	4.8	11	33	4.5	2.6	5.2	2.7	1.6	1.8	1.1
28	2.3	2.9	3.8	26	8.5	3.2	7.9	2.9	1.9	1.1	1.2	1.5
29	2.4	2.7	3.5	5.6	---	4.2	3.6	4.2	1.2	.88	2.9	1.4
30	26	3.1	2.7	3.5	---	4.1	2.5	6.4	2.6	1.1	3.1	1.3
31	7.4	---	2.4	3.2	---	6.0	---	26	---	1.3	2.6	---
TOTAL	164.96	164.8	304.6	174.6	190.3	251.5	139.8	244.8	291.8	57.39	109.19	102.07
MEAN	5.32	5.49	9.83	5.63	6.80	8.11	4.66	7.90	9.73	1.85	3.52	3.40
MAX	30	41	43	26	33	27	27	53	121	11	21	34
MIN	.81	1.1	2.4	2.5	2.0	3.2	1.6	1.2	1.2	.13	.22	.97
CFSM	1.46	1.51	2.69	1.54	1.86	2.22	1.28	2.16	2.66	.51	.97	.93
IN.	1.68	1.68	3.10	1.78	1.94	2.56	1.42	2.49	2.97	.58	1.11	1.04

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1997, BY WATER YEAR (WY)

	1992	1993	1994	1995	1996	1997
MEAN	2.51	5.45	4.83	7.21	4.33	6.80
MAX	5.32	9.51	9.83	10.9	6.80	11.0
(WY)	1997	1993	1997	1993	1997	1993
MIN	.28	2.05	1.81	3.33	1.99	3.34
(WY)	1995	1995	1996	1992	1995	1995

SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1992 - 1997

ANNUAL TOTAL	2535.36	2195.81	
ANNUAL MEAN	6.93	6.02	5.15
HIGHEST ANNUAL MEAN			6.10
LOWEST ANNUAL MEAN			3.27
HIGHEST DAILY MEAN	75	121	121
LOWEST DAILY MEAN	.40	.13	.01
ANNUAL SEVEN-DAY MINIMUM	.56	.53	.03
INSTANTANEOUS PEAK FLOW		151	151
INSTANTANEOUS PEAK STAGE		12.79	12.79
INSTANTANEOUS LOW FLOW		.09	.01
ANNUAL RUNOFF (CFSM)	1.90	1.65	1.41
ANNUAL RUNOFF (INCHES)	25.84	22.38	19.16
10 PERCENT EXCEEDS	16	12	11
50 PERCENT EXCEEDS	3.0	3.1	2.6
90 PERCENT EXCEEDS	1.1	1.1	.57

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

SURFACE-WATER RECORDS Muskingum River Basin

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03117000 TUSCARAWAS RIVER AT MASSILLON, OHIO

LOCATION.--Lat 40°46'13", long 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, 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 collected at this site. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	483	505	1780	544	430	1150	539	361	3040	219	116	117
2	388	380	2360	538	411	1730	449	317	4800	330	113	114
3	292	330	1620	637	422	1850	383	414	5000	248	111	137
4	243	299	950	504	995	1280	365	732	4000	198	141	129
5	222	266	704	734	2430	1540	350	665	2600	171	197	112
6	205	247	664	876	1980	2950	355	561	1470	156	141	105
7	196	269	598	626	1030	2380	348	525	848	149	112	103
8	210	873	537	507	656	1460	314	469	592	153	105	108
9	213	872	495	489	561	1030	285	554	496	200	97	112
10	270	1100	519	502	520	1900	264	515	416	285	93	187
11	266	1070	1280	388	553	1660	280	471	379	222	93	248
12	227	764	4690	341	497	1020	351	459	353	179	117	240
13	198	618	4520	e310	486	736	1050	415	596	149	222	173
14	182	442	3230	e300	487	1380	897	367	595	142	166	147
15	349	386	1870	e280	454	1840	541	382	427	141	162	138
16	306	384	1200	e340	387	1190	430	424	350	138	147	116
17	329	361	2230	e320	375	808	507	364	539	139	399	110
18	673	598	2880	e300	476	707	601	340	652	148	682	113
19	1720	635	2110	e290	1270	645	464	576	997	179	406	114
20	1740	496	1190	e280	1290	572	383	589	581	134	238	344
21	1540	405	725	e270	1220	529	347	455	439	124	175	622
22	1160	350	600	e350	1080	528	335	351	350	168	155	327
23	900	317	619	709	726	487	350	302	301	160	150	182
24	809	302	2280	570	558	449	360	267	298	145	158	162
25	550	417	2350	1080	479	428	408	796	284	142	352	153
26	380	2200	1440	830	463	552	346	2910	295	132	463	150
27	333	2400	860	663	1390	568	307	2620	322	130	298	139
28	351	1520	755	1800	1720	471	401	1360	276	130	249	124
29	411	808	793	1280	---	443	456	705	234	130	166	123
30	545	627	699	691	---	446	403	649	209	127	134	118
31	818	---	609	469	---	516	---	647	---	122	124	---
TOTAL	16509	20241	47157	17818	23346	33245	12869	20562	31739	5190	6282	5067
MEAN	533	675	1521	575	834	1072	429	663	1058	167	203	169
MAX	1740	2400	4690	1800	2430	2950	1050	2910	5000	330	682	622
MIN	182	247	495	270	375	428	264	267	209	122	93	103

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1997, BY WATER YEAR (WY)

	MEAN	208	310	449	544	722	894	731	517	401	304	230	214
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 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1938 - 1997
ANNUAL TOTAL	286357	240025	
ANNUAL MEAN	782	658	459
HIGHEST ANNUAL MEAN			661
LOWEST ANNUAL MEAN			245
HIGHEST DAILY MEAN	5590	May 12	9360
LOWEST DAILY MEAN	94	Sep 3	49
ANNUAL SEVEN-DAY MINIMUM	101	Aug 30	53
INSTANTANEOUS PEAK FLOW			10700
INSTANTANEOUS PEAK STAGE		11.25	16.43
INSTANTANEOUS LOW FLOW		88	49
10 PERCENT EXCEEDS	1860	1530	1070
50 PERCENT EXCEEDS	426	422	232
90 PERCENT EXCEEDS	170	138	102

e Estimated.

SURFACE-WATER RECORDS **Muskingum River Basin**

03117500 SANDY CREEK AT WAYNESBURG, OHIO

LOCATION.--Lat 40°40'21", long 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, 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 fair. Water-quality and sediment data collected at this site. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	134	204	863	294	269	388	273	199	1040	148	56	54
2	107	179	1260	282	252	612	236	190	1190	182	55	52
3	90	166	890	270	242	950	219	239	1150	144	55	51
4	85	155	715	264	288	805	212	336	1480	128	59	47
5	72	147	540	284	823	681	206	260	999	116	56	46
6	66	144	492	373	695	1090	207	230	715	106	52	45
7	63	143	463	295	518	1000	195	222	527	100	50	44
8	60	547	388	239	416	799	179	201	428	98	49	44
9	60	981	345	221	363	632	174	257	344	108	47	44
10	77	797	320	234	325	1210	168	268	293	121	47	54
11	91	661	383	e200	296	1150	165	246	257	102	48	62
12	79	478	2800	e180	276	886	221	224	236	93	52	61
13	72	364	2610	e170	252	669	803	205	717	86	52	55
14	66	311	1850	e160	237	718	562	190	797	82	62	50
15	64	268	1170	e150	237	872	381	220	447	79	60	47
16	89	239	839	e160	222	609	319	212	313	76	95	46
17	92	226	822	e170	210	494	330	192	683	74	129	44
18	98	251	906	e160	210	456	318	184	553	74	110	44
19	340	274	669	e150	507	418	279	528	871	95	84	43
20	575	240	530	e150	726	378	249	661	716	77	74	81
21	619	213	485	e140	671	346	231	451	577	73	78	98
22	430	198	373	e190	651	332	220	337	403	92	70	64
23	385	186	363	e230	518	311	215	280	309	88	67	55
24	372	178	659	217	404	282	210	234	248	82	63	51
25	325	174	727	475	341	265	200	566	218	77	97	47
26	268	541	491	e450	302	352	187	2240	200	73	94	45
27	229	749	412	e380	441	395	173	1770	188	71	74	44
28	204	559	403	721	554	310	255	1110	170	70	78	42
29	204	419	397	e600	---	286	284	748	156	70	71	44
30	204	358	358	e380	---	275	219	594	144	67	62	45
31	229	---	320	e290	---	295	---	503	---	58	58	---
TOTAL	5849	10350	23843	8479	11246	18266	7890	14097	16369	2910	2104	1549
MEAN	189	345	769	274	402	589	263	455	546	93.9	67.9	51.6
MAX	619	981	2800	721	823	1210	803	2240	1480	182	129	98
MIN	60	143	320	140	210	265	165	184	144	58	47	42
CFSM	.75	1.36	3.04	1.08	1.59	2.33	1.04	1.80	2.16	.37	.27	.20
IN.	.86	1.52	3.51	1.25	1.65	2.69	1.16	2.07	2.41	.43	.31	.23

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1997, BY WATER YEAR (WY)

	MEAN	97.7	173	287	347	471	570	465	336	217	137	95.1	81.6
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 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1939 - 1997

ANNUAL TOTAL	158068		122952									
ANNUAL MEAN	432		337									
HIGHEST ANNUAL MEAN										272		
LOWEST ANNUAL MEAN										429		1975
HIGHEST DAILY MEAN	4300	Jan 19	2800	Dec 12						140		1992
LOWEST DAILY MEAN	52	Aug 8	42	Sep 28						11000	Jan 22	1959
ANNUAL SEVEN-DAY MINIMUM	55	Aug 31	45	Sep 24						12	Sep 18	1963
INSTANTANEOUS PEAK FLOW			3630	Dec 12 a						15000	Jan 22	1959
INSTANTANEOUS PEAK STAGE			7.11	Dec 12						10.05	Jan 22	1959
INSTANTANEOUS LOW FLOW			42	Sep 19						6.9	Sep 12	1971
ANNUAL RUNOFF (CFSM)	1.71		1.33							1.08		
ANNUAL RUNOFF (INCHES)	23.24		18.08							14.62		
10 PERCENT EXCEEDS	966		726							636		
50 PERCENT EXCEEDS	273		234							139		
90 PERCENT EXCEEDS	75		56							35		

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

69

LOCATION.--Lat 40°50'29", long 81°21'14" in NE 1/4 sec. 27, T.11 N., R.8 W., Stark County, Hydrologic Unit 05040001, on right bank at downstream side of bridge on Martindale Road, 2.4 mi upstream from mouth, and 0.5 mi northeast of Canton.

GAGE.--Water-stage recorder. Datum of gage is 1,046.60 ft above sea level.

REMARKS.--Records fair except for periods of estimated record, which are poor. Part of municipal water supply for city of Canton is pumped from its northeast well field; a portion of pumpage is believed to be derived from creek as recharge to aquifer supplying well field about 1 mi downstream from gage. Mean pumpage for water year 1997, 12.0 ft³/s. At times low flow regulated by small pools above station. Water-quality data collected at this site.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e76	54	e210	58	45	88	51	37	366	e44	e11	8.9
2	e52	42	e120	56	41	171	46	36	373	e39	e12	8.9
3	e36	34	e70	57	40	160	42	51	252	e36	28	9.6
4	e28	30	e62	55	70	102	40	60	164	e34	23	8.3
5	24	28	e56	73	209	142	39	51	101	e32	21	7.8
6	22	27	e64	93	128	430	38	50	71	e30	19	7.6
7	26	28	e56	66	76	239	36	47	58	e29	18	7.5
8	20	150	e52	54	60	145	33	43	52	e29	16	7.3
9	23	203	e49	50	52	111	32	52	47	49	26	7.3
10	27	152	45	e44	47	272	30	49	44	45	99	10
11	23	120	133	e40	44	206	30	44	43	39	e56	12
12	21	78	702	e36	e41	127	50	39	44	33	e23	23
13	19	56	399	e32	e39	94	110	35	100	27	e80	17
14	18	47	208	e30	e38	139	80	31	113	23	e25	13
15	17	39	138	e28	38	164	58	32	71	20	e15	11
16	16	35	107	e30	37	109	50	29	58	19	e10	9.4
17	16	33	180	e32	36	83	53	27	146	17	e30	8.7
18	32	40	209	e29	39	73	50	29	230	16	e18	8.5
19	112	43	133	e26	134	67	45	44	335	15	e11	8.0
20	201	39	e88	e23	147	63	40	39	196	14	13	27
21	188	35	e62	e22	120	59	38	32	129	14	12	20
22	143	31	e56	e34	107	60	37	28	e70	17	10	15
23	107	28	e54	54	74	57	37	26	e64	16	10	12
24	87	27	193	51	56	54	37	26	e58	15	10	11
25	62	33	189	e96	48	53	36	129	e52	14	25	9.9
26	49	e230	111	e58	46	65	34	290	e47	13	20	9.4
27	41	e100	81	e80	134	64	33	155	e43	14	15	9.0
28	41	e66	73	221	141	56	48	81	e39	13	13	8.6
29	49	e52	81	162	---	55	49	59	e36	13	11	8.0
30	59	e46	72	77	---	53	42	55	e35	12	9.5	7.7
31	74	---	64	51	---	55	---	76	---	12	9.0	---
TOTAL	1709	1926	4117	1818	2087	3616	1344	1782	3437	743	698.5	331.4
MEAN	55.1	64.2	133	58.6	74.5	117	44.8	57.5	115	24.0	22.5	11.0
MAX	201	230	702	221	209	430	110	290	373	49	99	27
MIN	16	27	45	22	36	53	30	26	35	12	9.0	7.5

MEAN	14.0	24.3	39.0	47.4	59.9	73.2	60.3	45.6	35.3	24.2	17.8	15.7
MAX	84.7	103	140	170	153	142	227	138	150	102	108	97.2
(WY)	1991	1986	1991	1952	1971	1951	1994	1996	1989	1972	1958	1990
MIN	.74	1.09	2.78	1.40	1.88	23.7	14.9	10.5	5.17	3.16	2.32	1.25
(WY)	1992	1992	1964	1963	1963	1969	1946	1988	1988	1954	1962	1991

WATER YEARS 1942 - 1997

ANNUAL TOTAL	25816.0		23608.9				
ANNUAL MEAN	70.5		64.7		37.9		
HIGHEST ANNUAL MEAN					67.3		1975
LOWEST ANNUAL MEAN					16.0		1954
HIGHEST DAILY MEAN	702	Dec 12	702	Dec 12	1620		Jan 22 1959
LOWEST DAILY MEAN	7.8	Jan 1	7.3	Sep 8	.30		Sep 19 1962
ANNUAL SEVEN-DAY MINIMUM	8.8	Jan 10	7.9	Sep 3	.30		Dec 28 1962
INSTANTANEOUS PEAK FLOW			807	Dec 12 a	2470		Jan 22 1959
INSTANTANEOUS PEAK STAGE			5.81	Dec 12	6.62		Apr 13 1994
INSTANTANEOUS LOW FLOW			7.3	Sep 6	.20		Nov 9 1944
10 PERCENT EXCEEDS	154		144		84		
50 PERCENT EXCEEDS	43		44		19		
90 PERCENT EXCEEDS	15		12		4.2		

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

LOCATION.--Lat 40°44'03", long 81°21'08", in sec. 35, T.10 N., R.8 W., Stark County, Hydrologic Unit 05040001, on left bank upstream abutment of Baun Rd. bridge, 400 ft northeast of Ridge St. in North Industry, and 2.1 mi downstream from Sherrick Run.

PERIOD OF RECORD.--October 1921 to current year.

REVISED RECORDS.--WSP 1113: 1924-30, 1932-37, 1938(M), 1939-40, 1943(M), 1945(P). WSP 1555: 1929, 1935, 1937(M), 1940(M), 1950(M).

GAGE.--Water-stage recorder. Datum of gage is 976.72 ft above sea level. Prior to Dec. 13, 1923, nonrecording gage at present site at different datum. Prior to Dec. 11, 1990, at site 0.9 mile downstream at datum 5.95 ft lower.

REMARKS.--Records good except for periods of estimated record, which are fair. Low flow slightly regulated by plants at Canton. Records include diversion from Sugar Creek well field. Mean pumpage for the 1997 water year, 16.9 ft³/s. See REMARKS for station 03124500. Water-quality data collected at this site. U.S. Army Corps of Engineers satellite telemeter at station.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	221	205	1090	251	208	309	223	185	1840	197	108	98
2	178	175	600	258	197	981	208	181	1110	165	106	107
3	156	161	370	256	202	505	199	360	822	154	107	120
4	142	154	314	252	643	377	194	265	516	141	136	100
5	133	152	291	411	732	860	201	220	365	134	112	97
6	127	148	330	325	373	1710	188	242	299	131	108	98
7	127	179	286	259	291	648	178	201	257	137	104	97
8	128	1170	255	230	258	447	170	246	231	139	103	98
9	214	659	250	240	233	429	167	263	216	260	100	100
10	193	540	235	232	219	1270	162	220	202	159	97	218
11	147	403	1100	197	207	576	163	202	191	141	101	154
12	129	300	2110	e170	206	404	477	191	266	133	129	162
13	120	253	977	e150	190	339	505	178	621	126	428	120
14	118	224	548	e150	200	712	305	176	402	128	128	105
15	116	206	417	e140	193	508	246	200	246	128	216	104
16	114	191	426	e190	182	357	240	168	362	125	243	101
17	112	188	981	e150	181	321	276	160	880	131	288	98
18	445	263	562	e140	252	302	229	290	1160	135	179	99
19	593	226	401	e130	517	288	206	532	918	137	132	94
20	859	204	315	e120	471	272	190	270	434	112	160	449
21	528	189	281	e150	415	256	185	205	310	112	141	150
22	422	179	268	233	351	276	196	178	254	207	118	118
23	370	169	439	250	265	241	186	167	230	133	125	112
24	309	165	978	320	232	232	193	153	207	124	145	103
25	242	289	481	524	209	246	181	1250	194	118	286	97
26	202	1110	356	264	224	321	168	1040	205	118	152	90
27	185	462	323	479	688	265	182	421	186	115	156	84
28	220	310	328	806	414	235	310	292	169	113	140	82
29	206	258	317	329	---	254	212	273	162	113	114	84
30	293	270	291	248	---	240	187	259	162	109	105	86
31	250	---	270	220	---	264	---	589	---	108	100	---
TOTAL	7599	9402	16190	8074	8753	14445	6727	9577	13417	4283	4667	3625
MEAN	245	313	522	260	313	466	224	309	447	138	151	121
MAX	859	1170	2110	806	732	1710	505	1250	1840	260	428	449
MIN	112	148	235	120	181	232	162	153	162	108	97	82

MEAN	102	141	193	232	272	330	280	218	179	149	126	111
MAX	438	649	733	843	586	569	584	615	689	483	445	452
(WY)	1991	1986	1991	1937	1981	1963	1994	1996	1989	1958	1935	1979
MIN	27.4	30.1	35.5	46.7	33.5	75.5	71.1	37.3	44.9	31.4	28.0	30.0
(WY)	1931	1931	1931	1945	1934	1931	1935	1934	1932	1930	1932	1932

WATER YEARS 1922 - 1997

ANNUAL TOTAL	123876		106759				
ANNUAL MEAN	338		292			194	
HIGHEST ANNUAL MEAN						308	1975
LOWEST ANNUAL MEAN						72.4	1931
HIGHEST DAILY MEAN	2210	Jan 19	2110	Dec 12		5390	Jan 22 1959
LOWEST DAILY MEAN	94	Jan 15	82	Sep 28		14	Aug 20 1923
ANNUAL SEVEN-DAY MINIMUM	101	Jan 9	89	Sep 24		20	Sep 10 1932
INSTANTANEOUS PEAK FLOW			2470	Mar 6 a		8600	Jan 21 1959
INSTANTANEOUS PEAK STAGE			7.05	Mar 6		11.29	Jan 21 1959
INSTANTANEOUS LOW FLOW			64	Sep 26		3.6	Sep 2 1934
10 PERCENT EXCEEDS	687		535			377	
50 PERCENT EXCEEDS	221		212			122	
90 PERCENT EXCEEDS	127		112			54	

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

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03124500 SUGAR CREEK AT STRASBURG, OHIO

LOCATION.--Lat 40°35'15", long 81°31'24", in NW 1/4 sec. 1, T.9 N., R.3 W., Tuscarawas County, Hydrologic Unit 05040001, on left bank 150 ft upstream from bridge on State Highway 21, 0.8 mi upstream from Broad Run, and 0.1 mi southeast of Strasburg.

DRAINAGE AREA.--311 mi².

PERIOD OF RECORD.--August 1931 to March 1933, January 1935 to July 1939, October 1961 to current year.

REVISED RECORDS.--WSP 1305: 1932-33(M). WSP 1907: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 896.24 ft above sea level. July 29, 1931, to Mar. 31, 1933, and Dec. 10, 1934, to July 31, 1939, nonrecording gage, and Oct. 1, 1961, to May 26, 1964, water-stage recorder at datum 2.00 ft higher.

REMARKS.--Records good except for periods of estimated record, which are fair. Flood flow regulated by Beach City Lake 5.0 mi upstream, since August 1937. Part of municipal water supply for city of Canton, starting May 1962, is pumped from well field 4.3 mi upstream; pumpage is returned to Nimishillen Creek. Mean pumpage for water year 1997, 16.9 ft³/s. Water-quality data collected at this site.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	226	125	e760	e307	e249	e445	259	176	1060	141	44	36
2	151	103	e1680	e286	e220	e532	212	173	1830	157	45	36
3	116	93	e1580	e282	e205	e1130	200	232	1920	150	46	33
4	97	84	e744	e273	e316	e903	190	379	1890	126	45	33
5	85	77	e484	e321	e1570	e647	183	306	1490	110	47	31
6	77	76	e454	e514	e1480	e1280	186	253	505	101	43	30
7	72	80	e417	e345	e603	e1620	171	248	326	91	37	29
8	68	315	e343	e258	e392	e1140	151	211	263	110	35	29
9	68	808	e293	e241	e321	e580	143	269	222	110	35	28
10	86	575	e258	e251	e277	e949	110	283	191	132	33	40
11	103	403	e321	e160	e251	e1340	134	242	170	105	32	74
12	83	267	e1480	e140	e233	e790	160	219	159	87	35	59
13	71	229	e1720	e120	e196	e554	439	196	299	78	39	52
14	64	189	e1760	e110	e202	e626	356	183	331	70	45	40
15	62	144	e1710	e100	e222	e1220	258	201	223	67	49	35
16	60	165	e1680	e120	e188	e775	217	208	177	64	82	32
17	57	158	e1510	e150	e147	e526	233	183	487	59	129	31
18	76	189	e1740	e94	e190	e451	256	199	474	59	174	29
19	605	268	e1450	e84	e623	e420	220	771	942	59	102	29
20	671	217	e671	e78	e718	e371	195	890	874	56	69	30
21	437	181	e398	e74	e609	354	173	472	443	51	79	50
22	289	159	e395	e120	e650	329	166	324	304	55	71	49
23	216	142	e345	e371	e466	277	165	257	244	76	54	35
24	210	133	e850	e279	e330	189	174	218	204	77	48	29
25	179	133	e1590	e590	e273	253	193	463	177	88	53	30
26	143	e583	e970	e771	e249	292	168	1520	161	71	73	27
27	122	e1300	e343	e408	e422	308	156	1670	166	63	58	26
28	114	e814	e577	e858	e707	264	197	1000	174	61	49	25
29	120	e428	e469	e1030	---	259	241	493	156	71	43	24
30	123	e335	e414	e469	---	263	192	420	145	62	40	21
31	151	---	e345	e304	---	269	---	386	---	49	38	---
TOTAL	5002	8773	27751	9508	12309	19356	6098	13045	16007	2656	1772	1052
MEAN	161	292	895	307	440	624	203	421	534	85.7	57.2	35.1
MAX	671	1300	1760	1030	1570	1620	439	1670	1920	157	174	74
MIN	57	76	258	74	147	189	110	173	145	49	32	21

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 1997, BY WATER YEAR (WY)

	MEAN	94.1	190	326	404	495	652	494	315	238	191	155	102
MAX	583	929	1001	1001	2025	1174	1297	953	1089	1008	2128	1219	1048
(WY)	1991	1986	1978	1937	1981	1963	1980	1996	1981	1969	1935	1979	
MIN	.000	4.08	7.70	36.9	32.2	151	90.2	72.6	25.3	11.8	11.2	3.34	
(WY)	1964	1964	1964	1977	1964	1987	1935	1986	1988	1965	1962	1966	

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1932 - 1997
ANNUAL TOTAL	170573	123329	
ANNUAL MEAN	466	338	305
HIGHEST ANNUAL MEAN			520
LOWEST ANNUAL MEAN			160
HIGHEST DAILY MEAN	1850	1920	10200
LOWEST DAILY MEAN	32	21	.00
ANNUAL SEVEN-DAY MINIMUM	33	26	.00
INSTANTANEOUS PEAK FLOW		1970	19700
INSTANTANEOUS PEAK STAGE		5.66	14.70
INSTANTANEOUS LOW FLOW		21	.00
10 PERCENT EXCEEDS	1580	853	800
50 PERCENT EXCEEDS	248	196	132
90 PERCENT EXCEEDS	68	44	26

e Estimated.

SURFACE-WATER RECORDS

Muskingum River Basin

03129000 TUSCARAWAS RIVER AT NEWCOMERSTOWN, OHIO

LOCATION.--Lat 40°15'41", long 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, 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 good 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 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 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2940	2030	5810	3940	2840	4770	2850	2250	6470	1380	622	641
2	1800	1800	8530	2940	2380	5130	2750	2100	8470	1450	605	603
3	1410	1670	9300	2970	2190	7630	2500	2190	8610	1620	607	590
4	1180	1540	8550	2930	2410	8170	2340	2900	8440	1440	600	595
5	1020	1450	6820	2900	5680	6870	2240	3260	8520	1240	617	575
6	941	1420	5820	3700	7950	7330	2180	2990	7820	1110	668	545
7	886	1500	4650	4350	6740	8860	2130	2730	6430	1020	617	523
8	846	3090	3900	4020	4420	8870	2030	2580	4810	1010	559	514
9	836	5770	3500	3460	3520	7710	1890	2790	5130	1010	535	505
10	924	6130	3440	3160	3110	8420	1790	3300	5220	1130	522	550
11	1040	5700	3420	2800	2820	9360	1710	3180	4750	1160	510	717
12	984	5030	7080	2140	2720	8870	1720	2920	4010	1020	519	809
13	884	3950	9370	1890	2510	7550	3340	2720	4220	931	598	819
14	813	3580	9380	e1800	2360	6950	5090	2530	4390	862	834	718
15	764	3180	8870	e1700	2380	7380	4260	2480	3980	829	739	632
16	817	2960	8210	e1800	2310	7410	3330	2560	2970	808	779	581
17	902	2880	7680	e1600	2110	5690	3010	2490	3180	792	1170	552
18	973	2850	8980	e1500	2010	4570	3090	2300	4560	775	1570	532
19	2440	3170	8750	e1500	2630	4100	3140	3460	6390	821	2000	513
20	4520	3290	7090	e1450	4750	3790	2810	5280	6330	955	1790	522
21	4920	3020	6130	e1400	5060	3390	2540	4950	5170	790	1630	876
22	4480	2760	5960	e1700	4900	3130	2290	3990	4020	728	1560	1170
23	3520	2580	6080	2460	4430	2990	2200	3450	3100	844	1320	875
24	2980	2470	6800	3040	3460	2780	2160	2900	2640	854	1020	684
25	2710	2420	7940	3620	2930	2590	2130	3170	2310	811	934	597
26	2180	3700	7580	4560	2700	2660	2120	8830	2050	773	1200	564
27	1770	6820	5810	3650	2780	3260	1970	9310	1900	738	1240	532
28	1590	7440	4930	4400	4440	3390	2030	9080	1810	724	980	511
29	1560	5830	4920	6430	---	2990	2500	7730	1630	758	904	483
30	1610	4200	5410	5770	---	2840	2510	6220	1470	708	783	472
31	1730	---	4730	3820	---	2790	---	5940	---	666	701	---
TOTAL	55970	104230	205440	93400	98540	172240	76650	122580	140800	29757	28733	18800
MEAN	1805	3474	6627	3013	3519	5556	2555	3954	4693	960	927	627
MAX	4920	7440	9380	6430	7950	9360	5090	9310	8610	1620	2000	1170
MIN	764	1420	3420	1400	2010	2590	1710	2100	1470	666	510	472

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 1997, BY WATER YEAR (WY)

	MEAN	955	1709	2618	3356	3920	4975	4318	3098	2146	1499	1149	962
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 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1922 - 1997

ANNUAL TOTAL	1460725	1147140	
ANNUAL MEAN	3991	3143	2552
HIGHEST ANNUAL MEAN			4227
LOWEST ANNUAL MEAN			967
HIGHEST DAILY MEAN	12400	Jan 20	45000
LOWEST DAILY MEAN	491	Sep 5	170
ANNUAL SEVEN-DAY MINIMUM	512	Aug 31	197
INSTANTANEOUS PEAK FLOW			46800
INSTANTANEOUS PEAK STAGE			20.65
INSTANTANEOUS LOW FLOW			216
10 PERCENT EXCEEDS	9270	7080	6620
50 PERCENT EXCEEDS	2950	2590	1470
90 PERCENT EXCEEDS	818	678	416

e Estimated.

SURFACE-WATER RECORDS

Muskingum River Basin

73

03136500 KOKOSING RIVER AT MOUNT VERNON, OHIO

LOCATION.--Lat 40°24'20", long 82°30'00", in sec. 2, T.6 N., R.13 W., Knox County, Hydrologic Unit 05040003, on right bank 300 ft downstream from Tilden Avenue Bridge at Mount Vernon, 0.8 mi downstream from North Branch, and 2.7 mi upstream from Dry Creek.

DRAINAGE AREA.--202 mi².

PERIOD OF RECORD.--February 1953 to current year.

REVISED RECORDS.--WSP 2107: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 981.16 ft above sea level.

(Levels by U.S. Army Corps of Engineers.) Prior to May 21, 1991, gage at same site and at datum 3.00 ft higher.

REMARKS.--Records good except for periods of estimated record, which are poor. Some regulation by Knox Lake, capacity, 3,750 acre-ft, 8.2 mi upstream on East Branch of North Branch Kokosing River beginning in 1954 and North Branch Kokosing River Lake, 14,886 acre-ft, 10.0 mi upstream on North Branch Kokosing River, beginning in June 1972.

Water-quality data collected at this site. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	129	57	837	240	241	364	212	120	4870	96	63	46
2	98	55	1010	228	217	1100	190	121	2970	93	57	46
3	82	54	492	222	212	857	179	415	1400	82	55	44
4	70	53	327	214	624	538	173	501	1000	75	58	41
5	63	53	e230	243	1770	703	172	334	601	70	56	39
6	59	53	e200	289	830	1690	180	281	398	68	50	38
7	57	55	e180	228	483	876	165	232	309	64	47	38
8	55	66	e170	e150	364	565	148	223	260	63	47	38
9	54	74	e150	e120	302	453	140	407	226	74	46	38
10	55	97	169	e100	270	1060	134	314	202	85	45	59
11	55	102	462	e80	244	721	132	249	181	78	44	65
12	53	94	1720	e70	229	484	151	212	167	70	45	57
13	51	84	1090	e80	202	386	200	188	169	64	49	49
14	50	78	566	e94	204	1050	190	171	163	60	49	46
15	49	e76	384	e90	195	1090	169	176	142	57	51	44
16	48	70	317	e80	175	587	157	162	137	55	67	42
17	46	68	1340	e70	168	433	161	148	162	55	193	41
18	51	77	1530	e60	175	373	167	149	168	52	185	39
19	74	94	e680	e66	336	365	156	392	162	50	118	38
20	85	94	e400	e80	463	336	144	291	149	48	94	38
21	81	87	303	e100	447	303	137	204	130	46	87	40
22	76	79	267	224	421	275	133	168	118	45	80	38
23	75	74	273	604	318	248	127	148	107	46	72	36
24	71	71	1670	377	258	228	122	137	100	48	66	36
25	71	75	1220	651	224	217	124	641	92	48	64	36
26	70	422	576	409	215	246	129	1600	88	53	61	33
27	67	483	390	357	445	236	123	623	88	195	57	33
28	65	e277	345	1070	493	219	136	360	82	155	54	32
29	62	e200	340	551	---	218	137	280	76	133	51	32
30	61	173	297	362	---	214	125	272	76	93	49	30
31	58	---	264	277	---	222	---	565	---	72	48	---
TOTAL	2041	3395	18199	7786	10525	16657	4613	10084	14793	2293	2108	1232
MEAN	65.8	113	587	251	376	537	154	325	493	74.0	68.0	41.1
MAX	129	483	1720	1070	1770	1690	212	1600	4870	195	193	65
MIN	46	53	150	60	168	214	122	120	76	45	44	30

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 1997, BY WATER YEAR (WY)

	MEAN	64.3	147	244	278	350	425	379	271	188	152	83.1	66.7
MAX	275	635	979	1020	805	1068	845	820	586	636	438	587	
(WY)	1991	1973	1991	1959	1975	1963	1964	1996	1989	1990	1980	1979	
MIN	15.1	20.4	23.0	36.0	31.4	129	122	53.0	29.1	25.0	18.0	16.7	
(WY)	1964	1972	1964	1964	1964	1983	1971	1955	1955	1965	1988	1954	

SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1953 - 1997

ANNUAL TOTAL	123316	93726	
ANNUAL MEAN	337	257	
HIGHEST ANNUAL MEAN			221
LOWEST ANNUAL MEAN			325
HIGHEST DAILY MEAN	3210	May 12	78.7
LOWEST DAILY MEAN	46	Oct 17	1954
ANNUAL SEVEN-DAY MINIMUM	48	Aug 31	14600
INSTANTANEOUS PEAK FLOW			8.6
INSTANTANEOUS PEAK STAGE			11
INSTANTANEOUS LOW FLOW			33
10 PERCENT EXCEEDS	838	565	38000
50 PERCENT EXCEEDS	166	137	18.19
90 PERCENT EXCEEDS	57	48	8.6
			483
			103
			30

e Estimated.

SURFACE-WATER RECORDS **Muskingum River Basin**

03139000 KILLBUCK CREEK AT KILLBUCK, OHIO

LOCATION.--Lat 40°28'53", long 81°59'10", Holmes County, Hydrologic Unit 05040003, on right bank at downstream side of U.S. Highway 62 bridge south of Killbuck, 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 collected at this site. U.S. Army Corps of Engineers Satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	556	434	1400	648	554	841	472	271	2170	235	108	92
2	446	371	1730	602	488	1350	430	260	2640	292	108	84
3	361	325	1580	568	454	1510	398	405	2440	235	112	83
4	306	294	1420	537	839	1410	380	519	2370	200	107	79
5	266	273	1200	592	1700	1320	368	497	2370	186	110	77
6	239	258	978	615	1610	1870	366	468	2270	178	106	75
7	221	252	770	553	1480	2060	335	424	1950	170	97	80
8	204	476	657	483	1220	1900	304	391	1540	174	94	76
9	197	490	590	460	883	1660	289	467	1160	235	92	74
10	227	610	537	454	642	1700	280	443	819	219	87	89
11	214	662	762	e420	553	1620	274	405	637	182	87	125
12	204	613	1940	e390	506	1460	336	369	557	161	91	137
13	193	525	2150	e350	441	1270	502	334	706	152	96	101
14	184	457	2080	e300	439	1380	493	308	603	145	113	87
15	178	394	2100	e270	430	1620	432	338	501	141	112	80
16	170	363	1960	e320	387	1530	384	317	469	134	127	78
17	165	345	1920	e280	358	1400	389	291	924	129	261	78
18	404	393	2110	e260	418	1210	394	285	886	129	324	80
19	777	427	1990	e240	755	1020	366	724	1410	125	297	80
20	652	419	1850	e220	816	842	330	674	957	119	211	84
21	641	384	1560	e210	860	740	304	510	613	114	174	176
22	573	357	1240	e300	880	675	288	e480	471	124	143	137
23	528	336	968	544	801	606	279	e430	384	164	132	100
24	495	319	1520	470	694	547	272	e410	327	140	121	91
25	447	318	1760	1050	581	512	274	e450	292	141	135	91
26	390	1120	1670	665	524	558	286	1630	277	131	149	85
27	349	1120	1530	612	776	527	262	1440	282	162	129	76
28	327	1100	1290	1280	833	497	318	1240	248	141	109	73
29	312	1070	1060	963	---	503	315	1040	223	142	98	72
30	330	929	851	809	---	481	284	832	211	123	96	73
31	403	---	727	665	---	501	---	865	---	112	96	---
TOTAL	10959	15434	43900	16130	20922	35120	10404	17517	30707	5035	4122	2713
MEAN	354	514	1416	520	747	1133	347	565	1024	162	133	90.4
MAX	777	1120	2150	1280	1700	2060	502	1630	2640	292	324	176
MIN	165	252	537	210	358	481	262	260	211	112	87	72
CFSM	.76	1.11	3.05	1.12	1.61	2.44	.75	1.22	2.21	.35	.29	.19
IN.	.88	1.24	3.52	1.29	1.68	2.82	.83	1.40	2.46	.40	.33	.22

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1997, BY WATER YEAR (WY)

	MEAN	MAX	(WY)	MIN	(WY)
1931	136	1015	1991	26.8	1964
1932	229	1286	1986	37.1	1954
1933	386	1509	1991	38.1	1964
1934	551	2416	1937	42.3	1945
1935	672	1648	1975	71.6	1934
1936	872	1685	1978	124	1931
1937	743	1400	1957	170	1935
1938	520	1523	1996	71.8	1934
1939	403	2281	1947	69.9	1988
1940	285	3960	1969	39.6	1954
1941	200	2147	1935	34.7	1932
1942	145	1473	1979	25.6	1954

SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1931 - 1997

ANNUAL TOTAL	272035	212963	
ANNUAL MEAN	743	583	427
HIGHEST ANNUAL MEAN			695
LOWEST ANNUAL MEAN			128
HIGHEST DAILY MEAN	2800	May 12	37200
LOWEST DAILY MEAN	82	Sep 3	23
ANNUAL SEVEN-DAY MINIMUM	85	Aug 31	23
INSTANTANEOUS PEAK FLOW			2680
INSTANTANEOUS PEAK STAGE			16.32
INSTANTANEOUS LOW FLOW			70
ANNUAL RUNOFF (CFSM)	1.60	1.26	.92
ANNUAL RUNOFF (INCHES)	21.81	17.07	12.51
10 PERCENT EXCEEDS	1790	1490	1100
50 PERCENT EXCEEDS	492	398	208
90 PERCENT EXCEEDS	163	104	56

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

75

03140000 MILL CREEK NEAR COSHOCTON, OHIO

LOCATION.--Lat 40°21'46", long 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.

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 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 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.2	4.7	304	27	27	33	24	14	134	11	2.5	2.0
2	4.7	4.5	110	26	23	238	22	13	81	23	2.3	1.9
3	3.7	4.2	62	25	23	105	21	42	56	11	2.6	1.8
4	3.3	4.0	48	24	146	75	20	31	46	8.0	3.3	1.6
5	3.2	4.0	41	41	154	64	20	25	36	7.0	3.7	1.6
6	3.0	4.5	45	33	72	79	19	25	29	6.3	2.8	1.5
7	2.8	6.2	36	27	55	58	16	20	25	5.5	2.2	1.5
8	2.7	98	31	23	47	53	15	25	22	5.5	2.0	1.5
9	3.1	47	27	e18	40	53	14	32	19	9.1	1.9	1.5
10	5.1	48	25	e20	36	181	13	25	16	6.7	1.8	3.8
11	3.3	37	86	e17	33	85	13	23	14	4.7	1.7	3.7
12	2.8	29	211	e16	31	61	37	21	14	4.0	1.6	3.2
13	2.4	23	108	e15	26	52	38	19	19	3.7	1.9	2.5
14	2.4	20	65	e14	28	155	26	18	25	3.5	2.1	1.7
15	2.3	17	51	e13	27	95	23	21	13	3.2	6.4	1.5
16	2.3	15	45	e19	23	65	22	16	24	2.9	7.0	1.4
17	2.2	15	236	e16	23	57	23	15	72	5.0	29	1.4
18	41	19	104	e15	32	53	20	17	164	7.1	7.8	1.3
19	37	15	65	e13	54	50	19	48	83	3.5	4.4	1.3
20	17	14	47	e12	54	44	17	27	53	2.8	9.4	1.3
21	13	12	40	e11	57	39	16	21	35	2.5	7.6	1.3
22	9.8	11	34	e27	50	35	17	18	27	2.3	4.5	1.3
23	9.8	10	44	e24	38	30	15	16	21	2.5	3.8	1.2
24	8.9	9.9	185	46	33	27	16	15	18	3.2	3.1	1.2
25	7.2	11	75	147	29	27	14	183	15	3.6	3.0	1.2
26	6.5	139	54	43	30	36	13	148	14	2.8	3.1	1.1
27	6.4	48	48	58	41	28	13	61	12	3.3	2.9	1.1
28	6.3	34	44	143	32	27	21	43	11	9.9	2.5	1.0
29	6.0	28	39	61	---	29	15	36	9.6	8.5	2.3	.91
30	5.5	34	33	34	---	27	14	33	8.8	3.8	2.1	.79
31	5.7	---	30	30	---	28	---	41	---	3.0	2.0	---
TOTAL	235.6	766.0	2373	1038	1264	1989	576	1092	1116.4	178.9	133.3	49.10
MEAN	7.60	25.5	76.5	33.5	45.1	64.2	19.2	35.2	37.2	5.77	4.30	1.64
MAX	41	139	304	147	154	238	38	183	164	23	29	3.8
MIN	2.2	4.0	25	11	23	27	13	13	8.8	2.3	1.6	.79
CFSM	.28	.94	2.81	1.23	1.66	2.36	.71	1.30	1.37	.21	.16	.06
IN.	.32	1.05	3.25	1.42	1.73	2.72	.79	1.49	1.53	.24	.18	.07

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1937 - 1997, BY WATER YEAR (WY)

	MEAN	6.86	15.3	29.6	41.8	49.6	58.6	53.8	32.8	23.7	15.2	7.59	6.48
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 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1937 - 1997
ANNUAL TOTAL	14150.77	10811.30	
ANNUAL MEAN	38.7	29.6	28.0
HIGHEST ANNUAL MEAN			54.5
LOWEST ANNUAL MEAN			7.66
HIGHEST DAILY MEAN	590	304	2360
LOWEST DAILY MEAN	.78	.79	.00
ANNUAL SEVEN-DAY MINIMUM	.83	1.0	.06
INSTANTANEOUS PEAK FLOW		614	8720
INSTANTANEOUS PEAK STAGE		7.80	15.38
INSTANTANEOUS LOW FLOW		.71	.00
ANNUAL RUNOFF (CFSM)	1.42	1.09	1.03
ANNUAL RUNOFF (INCHES)	19.35	14.79	14.00
10 PERCENT EXCEEDS	96	61	64
50 PERCENT EXCEEDS	19	19	11
90 PERCENT EXCEEDS	2.3	2.2	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

03140500 MUSKINGUM RIVER NEAR COSHOCTON, OHIO

LOCATION.--Lat 40°14'54", long 81°52'23", in T.5 N., R.6 W., Coshocton County, Hydrologic Unit 05040004, on right bank at upstream side of former highway bridge, 1 mi southwest of Coshocton, and 2 mi downstream from confluence of Tuscarawas and Walhonding Rivers.

DRAINAGE AREA.--4,859 mi².

PERIOD OF RECORD.--July 1936 to current year.

REVISED RECORDS.--WSP 1907: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 725.00 ft above sea level. Prior to Sept. 19, 1936, nonrecording gage and Sept. 20, 1936 to Sept. 30, 1977, water-stage recorder at same site at datum 5.00 ft higher.

REMARKS.--Records good except for periods of estimated record, which is fair. Flow regulated by 13 flood-control reservoirs at points 19 mi to 88 mi upstream. Water-quality data collected at this site. U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of about 28.8 ft, discharge, 202,000 ft³/s, computed by U.S. Army Corps of Engineers.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6310	3440	12700	9050	6870	9530	5680	3740	14600	2780	1650	1370
2	4620	3160	17500	7580	5730	11800	5390	3550	18100	2950	1440	1290
3	3640	2960	17500	7060	5150	16200	4960	4020	19900	3090	1370	1230
4	3060	2730	16000	6730	5560	16700	4640	6070	20000	2870	1400	1180
5	2590	2550	13300	6600	13000	14300	4360	6570	19500	2530	1360	1150
6	2280	2450	11500	7160	17400	15300	4320	6080	18800	2310	1350	1120
7	2080	2450	9470	7920	16300	18400	4230	5750	17300	2150	1300	1070
8	1920	3850	7840	7620	12300	18600	3970	5240	14900	2060	1210	1030
9	1750	6710	6900	6930	9980	16600	3710	5650	14400	2050	1140	1010
10	1750	7950	6470	6230	8440	17700	3520	6360	14000	2400	1120	1070
11	1860	7800	6270	5580	6960	19600	3380	6010	13100	2480	1100	1320
12	1850	7350	13000	4570	6180	17600	3530	5470	11700	2250	1080	1670
13	1740	6100	18800	3870	5670	14800	5460	5040	11000	2050	1180	1590
14	1620	5300	19700	e3300	5230	14700	7600	4620	10200	1900	1310	1480
15	1530	4810	18500	e3000	5080	17000	6990	4490	8020	1780	1620	1330
16	1460	4350	16500	e2800	4870	16900	5910	4500	7280	1700	1520	1220
17	1520	4200	17100	e3200	4480	13800	5430	4260	8610	1630	2060	1150
18	1770	4160	19400	e2700	4260	11400	5370	3930	9740	1590	4150	1100
19	3420	4420	19700	e2500	e9000	10200	5390	4870	12400	1550	4540	1050
20	5650	4840	18000	e2350	e9400	9210	5020	8570	11200	1610	4160	1080
21	6300	4480	15500	e2200	e9800	8270	4530	7970	9250	1600	3590	1150
22	6260	4110	13200	e2900	9720	7500	4190	6630	7050	1460	3130	1850
23	5310	3870	12200	4860	9210	6830	3970	5640	5640	1440	2740	1760
24	4570	3730	14600	5960	7770	6190	3920	5020	4810	1730	2210	1440
25	4210	3650	16800	6950	6500	5750	3750	5400	4250	1640	1930	1240
26	3720	5600	17400	9270	5850	5840	3620	16500	3860	1560	1970	1150
27	3150	11700	16100	9750	5950	6310	3470	18300	3680	2470	2210	1090
28	2820	12400	13200	9340	8580	6440	3520	16200	3510	3240	2000	1030
29	2680	10900	11500	12100	---	5950	3970	13800	3160	2500	1770	986
30	2670	8900	10900	13700	---	5760	4080	11700	2910	2180	1610	936
31	2960	---	10200	9350	---	5620	---	11000	---	1860	1470	---
TOTAL	97070	160920	437750	193130	225240	370800	137880	222950	322870	65410	60690	37142
MEAN	3131	5364	14120	6230	8044	11960	4596	7192	10760	2110	1958	1238
MAX	6310	12400	19700	13700	17400	19600	7600	18300	20000	3240	4540	1850
MIN	1460	2450	6270	2200	4260	5620	3380	3550	2910	1440	1080	936

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1936 - 1997, BY WATER YEAR (WY)

	MEAN	1731	3058	4818	6369	7936	9898	8831	6232	4661	3173	2145	1717
MAX	7981	12310	14860	30880	20990	21070	16400	19350	17480	16640	12430	9765	
(WY)	1991	1986	1991	1937	1959	1945	1957	1996	1947	1969	1980	1979	
MIN	636	566	558	923	929	2520	2189	1611	921	637	645	499	
(WY)	1992	1954	1964	1977	1964	1969	1946	1941	1988	1954	1954	1954	

SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1936 - 1997

ANNUAL TOTAL	2955911	2331852	
ANNUAL MEAN	8076	6389	5033
HIGHEST ANNUAL MEAN			7545
LOWEST ANNUAL MEAN			2082
HIGHEST DAILY MEAN	24800	Jan 20	77900
LOWEST DAILY MEAN	991	Sep 5	420
ANNUAL SEVEN-DAY MINIMUM	1040	Aug 31	452
INSTANTANEOUS PEAK FLOW			20300
INSTANTANEOUS PEAK STAGE			14.46
INSTANTANEOUS LOW FLOW			919
10 PERCENT EXCEEDS	19100		15400
50 PERCENT EXCEEDS	5510		4810
90 PERCENT EXCEEDS	1640		1420
			859

(+) Diversion, in cubic feet per second, furnished by City of Cambridge.

SURFACE-WATER RECORDS **Muskingum River Basin**

03144000 WAKATOMIKA CREEK NEAR FRAZEYSBURG, OHIO

LOCATION.--Lat 40°07'57", long 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 Frazeysburg, 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, which are poor. Water-quality and sediment data collected at this site. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55	36	1480	128	e86	152	141	127	2020	73	24	24
2	44	30	687	124	e80	1030	129	122	1170	59	22	22
3	37	28	297	119	73	648	125	285	586	54	22	19
4	30	25	209	112	381	414	123	381	374	47	29	17
5	26	25	e160	140	1100	311	121	261	262	42	31	16
6	23	25	e140	e130	403	369	126	222	203	39	19	15
7	23	34	e120	e100	261	275	108	181	166	35	16	15
8	21	145	e110	e80	247	238	92	162	143	34	14	14
9	22	121	e100	e74	213	209	85	219	126	40	13	14
10	34	85	e96	e66	191	603	80	181	105	44	13	55
11	29	71	104	e60	173	405	78	160	92	35	15	36
12	22	59	200	e58	163	282	119	151	85	29	16	30
13	20	51	237	e56	140	227	250	139	87	28	29	23
14	19	47	169	e60	145	727	177	128	83	26	23	20
15	18	41	145	e70	143	689	153	155	68	24	51	18
16	18	41	136	e60	121	381	142	121	71	22	55	17
17	19	41	950	e54	117	296	150	107	814	20	241	16
18	59	47	629	e50	122	259	146	99	830	20	382	16
19	117	47	316	e46	179	269	133	110	912	27	156	15
20	65	42	211	e50	198	226	125	104	381	19	130	42
21	50	39	e170	e60	207	202	114	81	218	17	166	49
22	45	37	e150	e70	206	186	112	71	162	20	111	27
23	46	33	162	e80	163	160	108	65	130	24	77	21
24	50	32	1100	e100	146	144	103	62	105	28	57	20
25	44	34	516	e120	132	137	100	246	89	23	57	18
26	39	316	291	163	135	181	111	810	83	37	48	16
27	39	230	232	178	170	156	96	290	77	255	42	15
28	39	146	207	e150	152	143	128	187	63	135	38	14
29	37	116	185	e120	---	160	133	153	56	84	32	13
30	36	126	156	e110	---	151	123	145	54	44	29	12
31	35	---	141	e100	---	159	---	230	---	31	26	---
TOTAL	1161	2150	9806	2888	5847	9789	3731	5755	9615	1415	1984	649
MEAN	37.5	71.7	316	93.2	209	316	124	186	321	45.6	64.0	21.6
MAX	117	316	1480	178	1100	1030	250	810	2020	255	382	55
MIN	18	25	96	46	73	137	78	62	54	17	13	12
CFSM	.27	.51	2.26	.67	1.49	2.26	.89	1.33	2.29	.33	.46	.15
IN.	.31	.57	2.61	.77	1.55	2.60	.99	1.53	2.55	.38	.53	.17

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1937 - 1997, BY WATER YEAR (WY)

	MEAN	37.5	86.7	157	220	257	311	298	192	117	81.5	59.1	37.9
MAX	155	396	786	1219	560	883	654	601	492	432	720	617	
(WY)	1987	1986	1991	1937	1990	1963	1940	1968	1937	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 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1937 - 1997

ANNUAL TOTAL	81490.8	54790		
ANNUAL MEAN	223	150		
HIGHEST ANNUAL MEAN			154	
LOWEST ANNUAL MEAN			270	1979
HIGHEST DAILY MEAN	3930	Apr 30	51.9	1954
LOWEST DAILY MEAN	8.0	Sep 3	8910	Aug 11 1980
ANNUAL SEVEN-DAY MINIMUM	8.4	Aug 30	2.6	Oct 3 1963
INSTANTANEOUS PEAK FLOW			2.7	Sep 25 1953
INSTANTANEOUS PEAK STAGE			2400	Sep 14 1979
INSTANTANEOUS LOW FLOW			5.87	Sep 14 1979
ANNUAL RUNOFF (CFSM)	1.59		12	Oct 3 1963
ANNUAL RUNOFF (INCHES)	21.65		1.07	
10 PERCENT EXCEEDS	576		14.56	
50 PERCENT EXCEEDS	103		346	
90 PERCENT EXCEEDS	18		64	
			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

79

03145000 SOUTH FORK LICKING RIVER NEAR HEBRON, OHIO

LOCATION.--Lat 39°59'19", long 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, 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 good except for periods of estimated record, which are fair. 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 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 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	11	1290	166	154	184	92	54	1080	255	323	44
2	27	10	896	155	139	1230	71	42	1180	123	71	40
3	19	10	331	146	134	752	64	357	1050	128	57	33
4	15	9.9	251	137	567	314	58	498	555	57	71	29
5	12	10	267	195	1250	229	57	198	356	42	69	27
6	11	11	294	195	468	361	84	188	289	36	45	26
7	12	19	280	148	323	199	66	149	255	32	36	26
8	15	102	258	e110	266	145	48	148	197	28	32	23
9	18	79	248	e96	231	150	41	205	57	31	29	20
10	18	57	251	e84	212	738	38	163	46	36	26	96
11	13	52	242	e80	194	275	37	124	38	30	66	90
12	11	43	291	e74	180	162	55	84	34	27	47	66
13	12	35	332	e72	159	124	134	66	590	25	98	47
14	13	31	240	e80	157	513	82	57	1160	24	98	35
15	12	82	206	e86	154	522	61	90	267	23	204	32
16	12	189	185	e76	137	187	54	58	266	16	215	26
17	12	186	867	e70	122	141	53	47	1780	15	1500	25
18	21	191	809	e62	128	130	49	58	2000	16	2260	22
19	44	193	402	e66	197	191	44	83	2350	17	1770	20
20	30	185	277	e70	226	147	40	73	1640	14	1110	27
21	21	179	e210	78	215	116	37	47	597	12	885	22
22	18	175	e200	98	174	96	36	39	287	14	649	19
23	20	172	e210	178	131	79	34	34	109	25	368	19
24	22	168	1130	134	111	71	33	31	83	44	243	16
25	15	190	506	552	98	75	32	84	62	58	231	15
26	13	678	210	235	99	143	36	235	72	50	149	14
27	14	426	217	286	148	119	35	102	58	2670	102	12
28	15	287	242	839	129	91	54	60	44	4560	78	12
29	15	248	232	310	---	99	57	47	43	2680	63	14
30	29	356	203	205	---	104	44	49	78	1130	54	18
31	17	---	182	171	---	113	---	85	---	492	49	---
TOTAL	567	4384.9	11759	5254	6503	7800	1626	3555	16623	12710	10998	915
MEAN	18.3	146	379	169	232	252	54.2	115	554	410	355	30.5
MAX	44	678	1290	839	1250	1230	134	498	2350	4560	2260	96
MIN	11	9.9	182	62	98	71	32	31	34	12	26	12

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1997, BY WATER YEAR (WY)

	MEAN	42.0	185	208	192	253	262	238	173	139	104	73.8	49.0
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	4.79	3.50	7.77	12.7	32.7	27.2	25.6	4.07	8.43	4.92	3.48	4.70	
(WY)	1945	1945	1944	1944	1944	1941	1941	1941	1988	1944	1942	1991	

SUMMARY STATISTICS FOR 1996 CALENDAR YEAR FOR 1997 WATER YEAR WATER YEARS 1940 - 1997

ANNUAL TOTAL	92564.3	82694.9	
ANNUAL MEAN	253	227	160
HIGHEST ANNUAL MEAN			273
LOWEST ANNUAL MEAN			56.9
HIGHEST DAILY MEAN	2250	May 10	4560 Jul 28 1997
LOWEST DAILY MEAN	7.0	Sep 2	9.9 Nov 4
ANNUAL SEVEN-DAY MINIMUM	7.3	Aug 30	11 Oct 31
INSTANTANEOUS PEAK FLOW			5050 Jul 28
INSTANTANEOUS PEAK STAGE			12.27 Jul 28
INSTANTANEOUS LOW FLOW			9.6 Nov 3
10 PERCENT EXCEEDS	684	509	428
50 PERCENT EXCEEDS	110	85	48
90 PERCENT EXCEEDS	11	17	8.0

e Estimated.

SURFACE-WATER RECORDS

Muskingum River Basin

03146500 LICKING RIVER NEAR NEWARK, OHIO

LOCATION.--Lat 40°03'33", long 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.

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 fair 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 collected at this site. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	153	93	4560	552	570	717	590	286	7070	795	762	275
2	128	92	2660	518	502	4660	505	272	6590	510	407	259
3	116	90	1190	487	466	2650	460	1190	3820	501	334	235
4	107	89	787	453	1880	1520	430	1750	2270	348	382	190
5	101	91	682	601	5310	1190	423	887	1540	270	337	178
6	97	92	700	811	2010	1470	462	740	1180	236	278	167
7	94	108	675	555	1300	1050	418	599	960	214	240	165
8	95	235	611	e370	1040	830	346	547	821	198	212	157
9	105	258	549	e310	882	836	308	799	540	215	189	156
10	102	204	519	e280	794	2720	286	680	443	211	175	257
11	96	172	534	e260	e680	1410	274	550	373	193	265	312
12	92	156	862	e240	e620	941	378	441	326	181	210	277
13	91	143	1150	e230	e560	762	700	376	1270	171	285	222
14	91	132	728	e220	e500	3030	531	328	1810	163	297	182
15	92	126	583	e210	e470	2370	422	397	757	158	473	164
16	90	273	520	e250	e450	1190	373	320	697	154	532	153
17	87	276	3490	e240	419	922	387	270	4050	144	3560	145
18	127	300	2770	e220	454	839	368	357	5880	141	5210	138
19	132	300	1330	e210	739	1030	329	395	4840	143	2630	130
20	125	296	854	e190	983	875	299	460	3450	139	2130	147
21	112	294	646	191	981	741	276	317	1860	134	1880	137
22	106	283	602	337	899	658	263	256	1210	140	1570	127
23	108	275	658	1020	653	575	248	225	746	159	1070	127
24	106	268	4830	676	530	524	239	205	594	151	758	123
25	100	296	2230	2200	465	515	241	564	499	182	694	117
26	97	1700	1040	1030	452	758	278	1660	446	658	559	115
27	98	1440	835	1010	649	691	258	794	396	e9000	450	110
28	98	805	800	3130	792	580	325	507	326	e7000	392	107
29	97	633	791	1220	---	641	346	407	295	3620	352	105
30	98	754	691	836	---	671	285	409	353	1830	318	106
31	104	---	613	669	---	665	---	590	---	969	295	---
TOTAL	3245	10274	39490	19526	26050	38031	11048	17578	55412	28928	27246	5083
MEAN	105	342	1274	630	930	1227	368	567	1847	933	879	169
MAX	153	1700	4830	3130	5310	4660	700	1750	7070	9000	5210	312
MIN	87	89	519	190	419	515	239	205	295	134	175	100

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1997, BY WATER YEAR (WY)

MEAN	169	434	680	853	1037	1183	1037	708	556	382	265	174
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 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1940 - 1997

ANNUAL TOTAL	354974		281911			
ANNUAL MEAN	970		772		621	
HIGHEST ANNUAL MEAN					1138	1990
LOWEST ANNUAL MEAN					156	1954
HIGHEST DAILY MEAN	12700	Apr 30	9000	Jul 27	25600	Jan 22 1959
LOWEST DAILY MEAN	66	Sep 15	87	Oct 17	28	Sep 27 1954
ANNUAL SEVEN-DAY MINIMUM	73	Sep 9	91	Oct 11	31	Sep 26 1954
INSTANTANEOUS PEAK FLOW			11300	Jul 27 a	45000	Jan 21 1959
INSTANTANEOUS PEAK STAGE			11.94	Jul 27	20.30	Jan 21 1959
INSTANTANEOUS LOW FLOW			87	Oct 17	28	Sep 27 1954
10 PERCENT EXCEEDS	2400		1720		1450	
50 PERCENT EXCEEDS	510		419		257	
90 PERCENT EXCEEDS	92		114		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

Muskingum River Basin

81

03150300 MUSKINGUM RIVER NEAR BEVERLY, OHIO

LOCATION.--Lat 39°34'50", long 81°40'17", Washington County, Hydrologic Unit 05040004, on right bank, 400 ft upstream from Olive Green Creek, 2.0 mi downstream from Meigs Creek and 2.5 mi northwest of Beverly, OH.

DRAINAGE AREA.--7,627 mi².

PERIOD OF RECORD.--April 1993 to current year.

GAGE.--Water-stage recorder. Datum of gage is 614.92 ft above sea level. Water-quality sampling site previously located 0.8 mi upstream.

REMARKS.--Records good except for periods of estimated record and discharges below 2,500 ft³/s, which are fair.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7770	3380	16300	e12500	12300	15200	9340	5580	15700	4360	5540	2560
2	6700	3950	e21000	e11000	10000	40600	8960	5210	25500	4640	2980	2200
3	5340	3610	23800	e10500	8760	23000	8520	5750	30200	4730	2400	2140
4	4290	3370	21900	9710	8880	27500	7730	7640	28400	4190	2210	2040
5	3970	3160	18300	11800	17300	26700	6870	10900	26600	3810	2160	1970
6	3200	3010	15800	11000	23400	25200	6590	10100	25900	3520	2090	1840
7	2910	3030	13900	11000	24400	25000	6310	8700	25100	3250	2030	1690
8	2670	7520	12000	11300	22100	25700	5950	8080	22900	3320	1970	1650
9	2480	7580	10300	10800	16400	23500	5750	9060	20300	3100	1700	1670
10	2300	9040	9580	10200	13600	30300	5440	9540	18300	3020	1610	1980
11	2240	10200	9180	9160	11700	28600	5200	9330	15900	3090	1600	2230
12	2260	9840	10500	7830	10400	26100	5220	8730	e15000	2980	1760	2440
13	2200	e9200	17800	e5000	9600	23000	6530	8210	e14500	2750	1930	2440
14	2090	e7400	20100	e4400	8510	20600	8660	7130	e15000	2570	2070	2220
15	1960	e6600	20000	e3800	8250	23000	10600	6870	e14000	2510	2380	2100
16	1870	e6100	19000	e3600	7830	23600	9440	6780	e12000	2400	3190	1950
17	1790	e5850	19700	e3400	7250	22300	8240	6710	10800	2310	5840	1860
18	1980	5690	23100	e3300	6450	18500	7740	6280	14900	2150	18000	1790
19	3210	5900	25000	e3300	7110	17100	7700	6110	18700	2040	11900	1720
20	4700	6160	22300	e3500	9240	15200	7510	8540	19000	1940	11500	1760
21	6050	6490	20200	e4000	12200	13700	6670	10800	17100	1980	12200	1890
22	6510	e6200	17100	e4500	12600	12200	5900	9650	14800	2120	9680	1920
23	6330	e5800	15000	5520	12500	11200	5440	8360	12500	2130	6030	2530
24	5500	e5400	16000	7380	11900	10300	5290	7340	8230	2120	5140	2430
25	4970	e5200	20900	e11000	10200	9460	5330	7230	6820	2180	4950	2100
26	4870	e6400	21700	11600	8640	11700	5490	13000	5870	2030	5040	1880
27	4300	11100	21300	13900	8510	10700	5160	20800	5350	2210	3490	1760
28	3810	14600	18000	17900	9270	11000	5190	21600	5120	7360	3340	1690
29	3410	12900	15600	16100	---	10700	5540	18000	4800	7530	3150	1610
30	3190	12400	14100	18100	---	10100	5870	15700	4420	6870	3030	1550
31	3080	---	e13500	16800	---	9720	---	14200	---	6350	2860	---
TOTAL	117950	207080	542960	283900	329300	601480	204180	301930	473710	105560	143770	59610
MEAN	3805	6903	17510	9158	11760	19400	6806	9740	15790	3405	4638	1987
MAX	7770	14600	25000	18100	24400	40600	10600	21600	30200	7530	18000	2560
MIN	1790	3010	9180	3300	6450	9460	5160	5210	4420	1940	1600	1550
MED	3210	6180	18000	10200	10100	20600	6420	8540	15000	2980	3030	1940
CFSM	.50	.91	2.30	1.20	1.54	2.54	.89	1.28	2.07	.45	.61	.26
IN.	.58	1.01	2.65	1.38	1.61	2.93	1.00	1.47	2.31	.51	.70	.29

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1997, BY WATER YEAR (WY)

MEAN	2266	5928	9131	12020	13760	17400	13280	14140	9849	4005	3583	1981
MAX	3805	8783	17510	16690	20870	22380	22910	33480	16980	4955	5779	2780
(WY)	1997	1994	1997	1996	1994	1996	1994	1996	1996	1993	1995	1996
MIN	1275	3101	3895	8396	7624	10840	6806	5745	2900	3405	1865	1255
(WY)	1995	1995	1996	1994	1995	1995	1997	1994	1994	1997	1993	1995

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1993 - 1997
ANNUAL TOTAL	4728280	3371430	
ANNUAL MEAN	12920	9237	9099
HIGHEST ANNUAL MEAN			11480
LOWEST ANNUAL MEAN			6900
HIGHEST DAILY MEAN	47900	May 9	54200
LOWEST DAILY MEAN	1370	Sep 5	945
ANNUAL SEVEN-DAY MINIMUM	1480	Aug 31	975
INSTANTANEOUS PEAK FLOW			66900
INSTANTANEOUS PEAK STAGE			14.71
INSTANTANEOUS LOW FLOW			945
ANNUAL RUNOFF (CFSM)	1.69	1.21	1.19
ANNUAL RUNOFF (INCHES)	23.06	16.44	16.21
10 PERCENT EXCEEDS	32700	20700	22300
50 PERCENT EXCEEDS	8540	7250	5340
90 PERCENT EXCEEDS	2420	2090	1790

e Estimated.

SURFACE-WATER RECORDS

Hocking River Basin

03157000 CLEAR CREEK NEAR ROCKBRIDGE, OHIO

LOCATION.--Lat 39°35'18", long 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.

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. Datum of gage is 760.13 ft above sea level. Prior to May 2, 1940, nonrecording gage at same site and datum.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	25	401	59	86	589	115	51	193	34	21	40
2	28	25	200	59	77	2010	104	46	174	50	20	37
3	25	24	121	58	74	522	96	119	148	151	19	39
4	23	24	87	55	280	338	90	139	131	e60	80	34
5	23	24	73	85	524	257	92	95	95	e40	43	32
6	23	25	72	78	214	334	89	84	71	e30	28	30
7	22	43	65	62	160	208	76	73	59	e26	23	28
8	21	128	58	54	141	176	68	93	e53	e23	21	27
9	27	75	54	58	118	189	64	132	e48	e21	20	27
10	28	61	52	59	107	642	59	96	e45	e24	19	46
11	24	52	52	45	98	261	60	81	e42	e21	56	39
12	22	45	100	e40	89	188	81	77	42	e19	32	31
13	22	47	116	e38	77	160	80	70	53	e18	131	27
14	22	40	79	e35	79	294	63	65	51	e17	86	26
15	21	35	68	e34	78	221	59	62	41	e16	188	26
16	21	33	64	e32	70	164	59	56	38	e15	145	25
17	21	33	531	e31	63	149	61	57	63	e14	739	25
18	31	43	246	e30	67	204	57	55	103	e14	e1300	25
19	42	42	151	e29	76	295	56	52	116	e13	e800	24
20	31	39	103	e28	79	193	53	54	68	e13	686	48
21	28	38	85	e27	79	162	52	46	54	e12	352	42
22	27	38	77	e40	74	143	51	43	46	e15	258	29
23	27	35	76	e88	62	122	50	41	40	e23	167	26
24	27	36	178	75	58	106	51	42	37	e30	124	26
25	26	39	123	273	55	105	48	59	34	24	101	25
26	26	164	90	100	60	167	45	114	33	20	81	23
27	30	110	80	182	77	132	44	68	31	170	68	22
28	30	74	77	451	68	117	54	54	29	73	61	22
29	30	61	76	155	---	136	48	50	27	38	51	21
30	27	82	67	114	---	122	45	49	31	27	46	20
31	25	---	64	98	---	142	---	54	---	23	43	---
TOTAL	810	1540	3686	2572	3090	8848	1970	2177	1996	1074	5809	892
MEAN	26.1	51.3	119	83.0	110	285	65.7	70.2	66.5	34.6	187	29.7
MAX	42	164	531	451	524	2010	115	139	193	170	1300	48
MIN	21	24	52	27	55	105	44	41	27	12	19	20
CFSM	.29	.58	1.34	.93	1.24	3.21	.74	.79	.75	.39	2.11	.33
IN.	.34	.64	1.54	1.08	1.29	3.70	.82	.91	.83	.45	2.43	.37

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1997, BY WATER YEAR (WY)

	MEAN	29.1	53.7	88.7	116	145	173	155	124	74.1	54.8	45.1	29.9
MAX	126	327	351	324	321	585	365	554	287	280	292	213	
(WY)	1976	1986	1991	1949	1979	1945	1940	1968	1941	1948	1979	1979	
MIN	11.5	13.1	12.8	20.5	18.8	39.1	41.3	31.1	14.9	13.3	11.7	11.2	
(WY)	1964	1965	1964	1977	1954	1941	1941	1988	1988	1944	1988	1955	

SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1940 - 1997

ANNUAL TOTAL	49225	34464	90.5	1979
ANNUAL MEAN	134	94.4	164	1954
HIGHEST ANNUAL MEAN			28.8	1954
LOWEST ANNUAL MEAN			4690	May 24 1968
HIGHEST DAILY MEAN	1240	Apr 30	2010	Mar 2
LOWEST DAILY MEAN	17	Aug 31	12	Jul 21
ANNUAL SEVEN-DAY MINIMUM	18	Aug 30	14	Jul 16
INSTANTANEOUS PEAK FLOW			3590	Mar 2 a
INSTANTANEOUS PEAK STAGE			10.22	Mar 2
INSTANTANEOUS LOW FLOW			12	Jul 21
ANNUAL RUNOFF (CFSM)	1.51	1.06	1.02	1.02
ANNUAL RUNOFF (INCHES)	20.57	14.41	13.81	13.81
10 PERCENT EXCEEDS	314	175	184	184
50 PERCENT EXCEEDS	71	55	44	44
90 PERCENT EXCEEDS	21	23	16	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

83

03157500 HOCKING RIVER AT ENTERPRISE, OHIO

LOCATION.--Lat 39°33'54", long 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, 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 fair 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 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 floodmark; discharge, 36,000 ft³/s, from reports of U.S. Army Corps of Engineers.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	126	98	1940	331	549	2020	681	271	746	441	172	211
2	110	97	1500	323	483	7650	604	257	953	318	150	194
3	100	93	1080	317	452	5840	561	477	887	526	138	187
4	89	90	822	303	1020	2780	523	646	777	277	303	172
5	83	91	477	454	3330	1870	515	496	564	203	239	154
6	81	99	447	532	1700	2080	524	440	430	170	161	146
7	79	172	399	396	1140	1500	458	384	344	150	133	137
8	78	711	356	340	866	1180	410	405	301	134	118	134
9	96	509	332	344	710	1010	387	689	272	134	109	134
10	121	342	312	366	628	3510	363	549	241	144	102	213
11	106	283	313	265	569	2090	354	461	227	123	162	185
12	88	234	412	e240	528	1370	417	413	206	108	130	153
13	82	206	522	e220	472	1040	611	380	233	98	301	138
14	79	184	400	e200	474	1420	491	347	325	91	318	127
15	78	166	345	e190	479	1540	428	383	225	85	572	119
16	78	161	324	e190	437	1050	400	317	193	79	755	115
17	77	157	1850	e180	391	874	397	285	380	75	3970	113
18	111	194	1560	e170	402	895	373	270	412	69	9510	110
19	217	214	831	e170	440	1720	352	258	843	69	3900	107
20	155	187	584	e160	484	1230	331	276	446	64	2350	230
21	126	179	459	e160	495	991	316	240	321	59	2310	234
22	117	179	455	e200	492	833	308	213	256	64	1430	152
23	114	167	425	e400	427	698	297	198	217	93	1010	129
24	111	163	792	341	390	614	294	190	191	158	685	124
25	107	164	725	1190	362	574	279	251	171	167	537	118
26	103	523	517	776	365	1020	268	552	158	108	438	110
27	118	505	465	693	465	846	258	371	156	2070	371	103
28	126	406	441	2650	434	716	304	283	135	704	332	99
29	125	354	420	1250	---	767	287	244	122	425	284	97
30	115	409	378	792	---	736	259	241	227	284	253	88
31	104	---	352	629	---	798	---	251	---	211	231	---
TOTAL	3300	7337	20235	14772	18984	51262	12050	11038	10959	7701	31474	4333
MEAN	106	245	653	477	678	1654	402	356	365	248	1015	144
MAX	217	711	1940	2650	3330	7650	681	689	953	2070	9510	234
MIN	77	90	312	160	362	574	258	190	122	59	102	88
CFSM	.23	.53	1.42	1.04	1.48	3.60	.88	.78	.80	.54	2.21	.31
IN.	.27	.59	1.64	1.20	1.54	4.15	.98	.89	.89	.62	2.55	.35

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1997, BY WATER YEAR (WY)

	124	251	426	636	781	953	850	616	367	284	237	158
MEAN	124	251	426	636	781	953	850	616	367	284	237	158
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	61.0	39.9	30.4
(WY)	1954	1954	1964	1977	1954	1941	1941	1934	1936	1988	1932	1953

SUMMARY STATISTICS FOR 1996 CALENDAR YEAR FOR 1997 WATER YEAR WATER YEARS 1931 - 1997

	270036	193445	
ANNUAL TOTAL	270036	193445	
ANNUAL MEAN	738	530	
HIGHEST ANNUAL MEAN			471
LOWEST ANNUAL MEAN			860
HIGHEST DAILY MEAN	5500	Apr 30	110
LOWEST DAILY MEAN	65	Sep 15	21600
ANNUAL SEVEN-DAY MINIMUM	76	Sep 21	23
INSTANTANEOUS PEAK FLOW			27
INSTANTANEOUS PEAK STAGE			Aug 12 1944
INSTANTANEOUS LOW FLOW			Aug 7 1944
ANNUAL RUNOFF (CFSM)	1.61		26000
ANNUAL RUNOFF (INCHES)	21.89		Mar 10 1964
10 PERCENT EXCEEDS	1880		Mar 10 1964
50 PERCENT EXCEEDS	401		Aug 12 1944
90 PERCENT EXCEEDS	95		21.31
			23
			1.03
			13.95
			1060
			212
			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.--Lat 39°27'51", long 82°10'16", Ahtens 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, 0.3 mi east of State Route 78.

DRAINAGE AREA.--24.4 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1981 to September 1981. May 1997 to September 1997.

GAGE.--Water-stage recorder. Datum of gage is 670 ft (204 mi) from topographic map.

REMARKS.--Record fair except for periods of estimated record, which are poor.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period May to September, 1340 ft³/s, Aug. 18 gage height 11.54 ft; minimum daily, 3.2 ft³/s Aug. 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	e90	e25	e4.5	14
2	---	---	---	---	---	---	---	---	e120	e50	e4.0	13
3	---	---	---	---	---	---	---	---	e80	e22	e3.2	15
4	---	---	---	---	---	---	---	---	e50	e30	e6.0	12
5	---	---	---	---	---	---	---	---	e30	e20	e20	11
6	---	---	---	---	---	---	---	---	e22	e14	e15	11
7	---	---	---	---	---	---	---	---	e20	e11	e6.0	11
8	---	---	---	---	---	---	---	---	e23	e10	5.4	12
9	---	---	---	---	---	---	---	---	e21	e8.2	6.1	11
10	---	---	---	---	---	---	---	---	e18	e8.0	7.1	15
11	---	---	---	---	---	---	---	---	e16	e7.8	5.5	11
12	---	---	---	---	---	---	---	---	20	e7.4	5.7	10
13	---	---	---	---	---	---	---	---	33	e6.8	19	10
14	---	---	---	---	---	---	---	---	25	e6.2	9.3	9.3
15	---	---	---	---	---	---	---	e40	19	e5.8	17	9.2
16	---	---	---	---	---	---	---	e45	18	e5.2	11	9.1
17	---	---	---	---	---	---	---	e50	42	e5.0	263	8.9
18	---	---	---	---	---	---	---	e50	37	e4.5	608	9.0
19	---	---	---	---	---	---	---	e40	32	e4.5	93	8.8
20	---	---	---	---	---	---	---	e30	e21	e4.3	81	12
21	---	---	---	---	---	---	---	e25	e17	e3.7	65	9.4
22	---	---	---	---	---	---	---	e20	e15	e3.5	46	8.6
23	---	---	---	---	---	---	---	e16	e13	e3.3	35	8.4
24	---	---	---	---	---	---	---	e18	e11	e5.0	28	8.6
25	---	---	---	---	---	---	---	e25	e10	e15	25	8.2
26	---	---	---	---	---	---	---	e80	e9.0	e10	22	8.3
27	---	---	---	---	---	---	---	e50	e8.8	e60	21	8.3
28	---	---	---	---	---	---	---	e30	e8.4	e30	20	8.1
29	---	---	---	---	---	---	---	e25	e8.0	e15	17	7.7
30	---	---	---	---	---	---	---	e24	e10	e8.0	16	7.5
31	---	---	---	---	---	---	---	e45	---	e6.0	15	---
TOTAL	---	---	---	---	---	---	---	---	847.2	415.2	1499.8	305.4
MEAN	---	---	---	---	---	---	---	---	28.2	13.4	48.4	10.2
MAX	---	---	---	---	---	---	---	---	120	60	608	15
MIN	---	---	---	---	---	---	---	---	8.0	3.3	3.2	7.5
MED	---	---	---	---	---	---	---	---	20	8.0	17	9.4
AC-FT	---	---	---	---	---	---	---	---	1680	824	2970	606
CFSM	---	---	---	---	---	---	---	---	1.16	.55	1.98	.42
IN.	---	---	---	---	---	---	---	---	1.29	.63	2.29	.47

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 1997, BY WATER YEAR (WY)

	MEAN	---	---	---	---	---	65.7	71.4	57.9	13.3	27.1	7.25
MAX	---	---	---	---	---	---	65.7	71.4	87.6	13.4	48.4	10.2
(WY)	---	---	---	---	---	---	1981	1981	1981	1997	1997	1997
MIN	---	---	---	---	---	---	65.7	71.4	28.2	13.3	5.91	4.32
(WY)	---	---	---	---	---	---	1981	1981	1997	1981	1981	1981

SUMMARY STATISTICS

WATER YEARS 1981 - 1997

HIGHEST DAILY MEAN	620	Jun 6 1981
LOWEST DAILY MEAN	3.2	Aug 3 1997
ANNUAL SEVEN-DAY MINIMUM	3.6	Sep 8 1981
INSTANTANEOUS PEAK FLOW	1340	Aug 18 1997
INSTANTANEOUS PEAK STAGE	11.54	Aug 18 1997
INSTANTANEOUS LOW FLOW	3.2	Aug 3 1997
10 PERCENT EXCEEDS	70	
50 PERCENT EXCEEDS	15	
90 PERCENT EXCEEDS	4.4	

e Estimated.

SURFACE-WATER RECORDS

Hocking River Basin

85

03158200 MONDAY CREEK AT DOANVILLE, OHIO

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

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1997 to september 1997. Low flow site 1961-71.
GAGE.--Water stage recorder. Datum of gage is 650 ft above sea level (from topographic map).
REMARKS.--Records fair. Four parameter monitor at site. Saltellite transmitter at site.
EXTREMES FOR CURRENT YEAR.--Maximum discharge during period May to September, 5300 ft³/s, Aug. 18 gage height 19.60 ft; minimum daily dishcharge, 15 ft³/s Aug. 11.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	361	189	19	57
2	---	---	---	---	---	---	---	---	622	85	17	53
3	---	---	---	---	---	---	---	---	357	118	16	56
4	---	---	---	---	---	---	---	---	232	79	43	50
5	---	---	---	---	---	---	---	---	157	55	68	45
6	---	---	---	---	---	---	---	---	118	45	29	43
7	---	---	---	---	---	---	---	---	97	40	21	41
8	---	---	---	---	---	---	---	---	86	36	18	41
9	---	---	---	---	---	---	---	---	79	34	17	46
10	---	---	---	---	---	---	---	---	70	35	18	47
11	---	---	---	---	---	---	---	---	64	35	15	45
12	---	---	---	---	---	---	---	---	60	29	15	42
13	---	---	---	---	---	---	---	---	91	27	43	38
14	---	---	---	---	---	---	---	---	97	25	91	37
15	---	---	---	---	---	---	---	---	68	24	59	35
16	---	---	---	---	---	---	---	85	57	22	200	34
17	---	---	---	---	---	---	---	78	174	21	e1700	33
18	---	---	---	---	---	---	---	73	147	19	e4200	33
19	---	---	---	---	---	---	---	75	230	19	e1900	32
20	---	---	---	---	---	---	---	118	111	17	617	36
21	---	---	---	---	---	---	---	88	78	16	549	43
22	---	---	---	---	---	---	---	71	63	16	244	38
23	---	---	---	---	---	---	---	64	54	17	170	32
24	---	---	---	---	---	---	---	61	47	61	124	e30
25	---	---	---	---	---	---	---	86	42	49	106	e28
26	---	---	---	---	---	---	---	471	38	24	94	e26
27	---	---	---	---	---	---	---	180	37	163	83	24
28	---	---	---	---	---	---	---	113	35	67	79	23
29	---	---	---	---	---	---	---	92	32	43	73	20
30	---	---	---	---	---	---	---	86	76	33	66	19
31	---	---	---	---	---	---	---	100	---	23	61	---
TOTAL	---	---	---	---	---	---	---	---	3780	1466	10755	1127
MEAN	---	---	---	---	---	---	---	---	126	47.3	347	37.6
MAX	---	---	---	---	---	---	---	---	622	189	4200	57
MIN	---	---	---	---	---	---	---	---	32	16	15	19
MED	---	---	---	---	---	---	---	---	79	34	68	38
CFSM	---	---	---	---	---	---	---	---	1.11	.41	3.04	.33
IN.	---	---	---	---	---	---	---	---	1.23	.48	3.51	.37

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

MEAN	---	---	---	---	---	---	---	---	126	47.3	347	37.6
MAX	---	---	---	---	---	---	---	---	126	47.3	347	37.6
(WY)	---	---	---	---	---	---	---	---	1997	1997	1997	1997
MIN	---	---	---	---	---	---	---	---	126	47.3	347	37.6
(WY)	---	---	---	---	---	---	---	---	1997	1997	1997	1997

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.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 944 microsiemens Sept. 18, 1997; minimum 285 microsiemens June 2, 1997.

pH: Maximum, 7.2 units Aug. 16, 1997; minimum, 3.9 units Aug. 13, 1997.

WATER TEMPERATURES: Maximum, 23.0°C July 3, 1997; minimum, 13.0°C Sept. 27, 1997.

DISSOLVED OXYGEN: Maximum, 11.0 mg/L July 10, 1997; minimum, 6.7 mg/L Aug. 16, 1997.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 944 microsiemens Sept. 18; minimum 285 microsiemens June 2.

pH: Maximum, 7.2 units Aug. 16; minimum, 3.9 units Aug. 13.

WATER TEMPERATURES: Maximum, 23.0°C July 3; minimum, 13.0°C Sept. 27.

DISSOLVED OXYGEN: Maximum, 11.0 mg/L July 10; minimum, 6.7 mg/L Aug. 16.

SURFACE-WATER RECORDS

Hocking River Basin

03158200 MONDAY CREEK AT DOANVILLE, OHIO—Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997												
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	20.5	18.5	19.5
2	17.5	16.5	17.0	---	---	---	---	---	---	21.0	19.5	20.5
3	17.5	16.0	17.0	23.0	22.0	22.5	---	---	---	21.0	19.0	20.0
4	16.5	15.0	15.5	22.5	21.0	22.0	---	---	---	19.0	17.0	17.5
5	17.0	15.0	16.0	21.0	20.0	20.5	21.5	20.5	21.0	17.5	16.0	16.5
6	17.5	15.5	16.5	20.5	18.5	19.5	20.5	18.5	19.5	17.5	16.0	17.0
7	17.0	16.0	16.5	21.0	18.5	20.0	20.0	17.5	19.0	18.5	16.5	17.5
8	16.5	15.5	16.0	21.5	19.5	20.5	19.5	17.0	18.5	19.5	18.0	18.5
9	17.5	15.5	16.5	21.5	20.5	21.0	---	---	---	19.0	18.0	18.5
10	18.5	16.0	17.5	---	---	---	---	---	---	19.0	18.5	18.5
11	18.5	17.0	18.0	---	---	---	21.5	20.5	21.5	19.0	18.0	18.5
12	19.0	17.5	18.0	---	---	---	23.0	21.0	22.0	18.5	17.5	18.0
13	---	---	---	---	---	---	22.5	22.0	22.0	18.0	16.5	17.5
14	---	---	---	---	---	---	22.5	21.0	22.0	18.0	16.5	17.0
15	---	---	---	---	---	---	22.5	21.0	21.5	18.5	17.5	18.0
16	---	---	---	---	---	---	22.5	21.0	22.0	19.0	18.0	18.5
17	---	---	---	---	---	---	---	---	---	19.0	18.0	18.5
18	---	---	---	---	---	---	---	---	---	19.0	17.5	18.5
19	---	---	---	---	---	---	---	---	---	18.5	17.0	18.0
20	21.5	19.0	20.5	---	---	---	20.5	20.0	20.0	19.0	18.0	18.5
21	22.5	20.5	21.5	---	---	---	20.0	19.0	19.5	18.0	16.0	17.0
22	---	---	---	---	---	---	19.0	18.0	18.5	16.0	14.5	15.5
23	---	---	---	---	---	---	18.0	17.5	18.0	15.5	14.5	14.5
24	---	---	---	---	---	---	18.0	17.0	17.5	---	---	---
25	---	---	---	---	---	---	18.5	17.0	17.5	---	---	---
26	---	---	---	---	---	---	19.0	18.0	18.5	15.0	14.0	14.5
27	---	---	---	---	---	---	20.0	18.5	19.5	15.5	13.0	14.5
28	---	---	---	---	---	---	22.5	19.5	21.0	15.0	14.0	14.5
29	---	---	---	---	---	---	20.0	19.0	20.0	16.0	14.5	15.0
30	---	---	---	---	---	---	19.5	18.5	19.0	16.0	15.5	15.5
31	---	---	---	---	---	---	19.5	18.0	19.0	---	---	---
MONTH	22.5	15.0	17.5	23.0	18.5	21.0	23.0	17.0	20.0	21.0	13.0	17.5
YEAR	23.0	13.0	18.5									

[illegible]

SURFACE-WATER RECORDS Hocking River Basin

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03159500 HOCKING RIVER AT ATHENS, OHIO

LOCATION.--Lat 39°19'44", long 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, 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 Jun. 19, 1970, at present site at datum 3.55 ft. higher. Jun. 19, 1970 to Sep. 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 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, site and datum then in use, from flood marks; discharge 50,000 ft³/s, estimated by U.S. Army Corps of Engineers.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	267	209	3050	856	1460	4770	1800	527	1530	772	331	507
2	264	198	4170	759	1280	e15000	1540	533	3540	702	297	461
3	213	200	2210	743	1140	e17100	1320	914	2480	646	275	475
4	194	199	1700	720	1390	e11100	1210	1600	1960	772	338	417
5	182	188	1340	1720	6710	5860	1130	1370	1640	490	513	385
6	172	198	1080	2830	6020	4680	1130	1170	1170	398	370	369
7	164	e350	992	1740	3130	4140	1050	1030	878	350	282	340
8	158	e900	886	1360	2240	3080	921	972	729	326	249	325
9	157	e1700	806	e900	1820	2550	840	1710	648	312	263	324
10	176	e1200	671	e1000	1560	5630	783	1570	578	305	240	333
11	195	e940	615	e700	1420	7010	743	1200	520	307	235	372
12	194	e740	1670	e600	1310	3940	797	1020	488	283	275	334
13	170	632	2780	e540	1200	2910	1320	1010	506	262	288	289
14	154	591	1730	e500	1150	2640	1240	912	748	249	695	274
15	141	545	1320	e450	1230	3330	1120	790	630	231	530	260
16	135	429	1110	e420	1170	2440	1020	760	491	222	1140	254
17	126	384	2150	e400	1050	1920	971	650	740	213	3060	255
18	150	427	4540	e380	991	1950	829	598	1160	205	8260	250
19	244	503	2450	e360	1020	3660	764	573	1870	200	14800	236
20	e470	506	1720	e350	1120	3300	718	725	1330	196	11000	234
21	e380	468	1150	e340	1150	2540	679	677	873	191	4930	316
22	e330	455	991	e450	1170	1980	653	550	675	182	3440	323
23	293	442	970	e600	1070	1610	631	493	564	174	2490	265
24	263	431	1570	808	938	1400	609	455	477	199	1840	239
25	231	426	2310	2040	865	1290	588	507	422	317	1490	227
26	225	597	1520	2480	905	2680	558	1880	394	267	1210	221
27	233	1070	1410	1690	1100	2740	539	1430	371	1210	1000	214
28	255	865	1150	5370	1110	2060	588	1010	351	2120	903	194
29	257	737	1060	4810	---	1750	618	925	318	871	723	192
30	220	846	1050	2580	---	2000	556	799	324	585	604	184
31	216	---	947	1800	---	1850	---	700	---	420	548	---
TOTAL	6829	17376	51118	40296	46719	128910	27265	29060	28405	13977	62619	9069
MEAN	220	579	1649	1300	1669	4158	909	937	947	451	2020	302
MAX	470	1700	4540	5370	6710	17100	1800	1880	3540	2120	14800	507
MIN	126	188	615	340	865	1290	539	455	318	174	235	184

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 1997, BY WATER YEAR (WY)

	MEAN	245	544	1010	1438	1735	2136	1819	1365	767	505	425	300
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 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1916 - 1997

ANNUAL TOTAL	605884		461643									
ANNUAL MEAN	1655		1265							1021		
HIGHEST ANNUAL MEAN										1794		1989
LOWEST ANNUAL MEAN										233		1954
HIGHEST DAILY MEAN	10200	Jan 25	17100	Mar 3	31200	Mar 11	1964					
LOWEST DAILY MEAN	126	Oct 17	126	Oct 17	10	Oct 11	1930					
ANNUAL SEVEN-DAY MINIMUM	153	Oct 12	153	Oct 12	24	Oct 11	1930					
INSTANTANEOUS PEAK FLOW			17400	Mar 3	32900	Mar 11	1964					
INSTANTANEOUS PEAK STAGE			22.95	Mar 3	24.18	Mar 11	1964					
INSTANTANEOUS LOW FLOW			118	Oct 17	10	Oct 11	1930					
10 PERCENT EXCEEDS	4490		2560		2440							
50 PERCENT EXCEEDS	912		737		430							
90 PERCENT EXCEEDS	198		221		89							

e Estimated.

SURFACE-WATER RECORDS **Shade River Basin**

03159540 SHADE RIVER NEAR CHESTER, OHIO

LOCATION.--Lat 39°03'49", long 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, and 8.5 mi northeast of Pomeroy.

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. Datum of gage is 576.91 ft above sea level.

REMARKS.--Records poor. Water-quality and sediment data collected at this site.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64	19	1530	172	163	2070	220	72	242	82	2.6	4.8
2	43	19	803	154	142	e10300	164	64	962	95	2.3	4.8
3	35	18	253	143	136	e6620	141	283	488	42	2.2	4.4
4	28	18	172	129	201	e3500	126	442	203	29	2.1	3.5
5	23	18	136	164	1400	e1170	115	236	138	17	2.0	2.7
6	21	18	140	367	584	e633	110	160	92	12	2.0	2.3
7	20	18	138	218	277	375	96	120	67	9.5	2.0	2.1
8	19	893	117	159	197	256	77	104	57	7.9	1.9	1.9
9	18	921	99	134	176	203	68	358	55	7.7	1.9	1.8
10	17	216	85	159	159	977	63	288	47	12	1.9	41
11	16	142	81	168	150	533	60	200	40	12	1.7	50
12	16	103	347	132	142	267	81	143	37	9.0	1.7	30
13	15	78	1480	e120	129	193	237	114	37	7.5	1.7	19
14	15	65	368	e90	150	192	150	95	60	6.1	1.7	13
15	15	57	214	e66	340	246	103	82	41	4.9	1.7	7.4
16	14	49	169	e70	260	177	85	72	33	4.2	1.7	5.3
17	13	45	365	e80	179	145	89	64	29	3.8	143	4.5
18	13	48	499	e66	150	215	83	60	32	3.3	227	3.7
19	22	82	249	e60	148	1360	72	58	36	2.9	105	3.2
20	39	81	175	e56	142	490	65	98	31	2.6	47	2.9
21	35	69	111	e54	134	298	63	100	25	2.3	47	3.0
22	30	67	132	e56	137	272	72	69	21	2.0	59	4.1
23	24	67	131	70	116	244	63	56	18	2.0	34	4.6
24	20	74	383	87	92	223	61	47	15	3.5	20	4.6
25	20	90	665	136	78	218	63	44	13	4.0	14	3.9
26	19	420	250	291	81	912	54	118	12	3.4	11	3.1
27	19	451	190	211	153	439	51	111	13	3.1	9.1	2.8
28	19	227	179	1650	142	240	119	65	13	3.0	7.9	2.9
29	19	170	176	888	---	290	128	51	12	2.9	6.9	2.7
30	19	191	221	369	---	375	87	45	9.7	2.9	6.5	2.7
31	20	---	206	249	---	298	---	50	---	2.9	5.4	---
TOTAL	710	4734	10064	6768	6158	33731	2966	3869	2878.7	402.4	773.9	242.7
MEAN	22.9	158	325	218	220	1088	98.9	125	96.0	13.0	25.0	8.09
MAX	64	921	1530	1650	1400	10300	237	442	962	95	227	50
MIN	13	18	81	54	78	145	51	44	9.7	2.0	1.7	1.8
CFSM	.15	1.01	2.08	1.40	1.41	6.97	.63	.80	.62	.08	.16	.05
IN.	.17	1.13	2.40	1.61	1.47	8.04	.71	.92	.69	.10	.18	.06

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1997, BY WATER YEAR (WY)

	MEAN	56.2	111	213	250	314	361	275	241	86.7	68.1	65.1	37.5
	MAX	259	386	765	755	884	1088	634	912	423	384	406	262
	(WY)	1976	1974	1991	1994	1994	1997	1972	1968	1981	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 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1965 - 1997

ANNUAL TOTAL	91900.2	73297.7	174
ANNUAL MEAN	251	201	272
HIGHEST ANNUAL MEAN			1994
LOWEST ANNUAL MEAN			1988
HIGHEST DAILY MEAN	3620 May 5	10300 Mar 2	10300 Mar 2 1997
LOWEST DAILY MEAN	6.4 Jul 12	1.7 Aug 11	.18 Sep 29 1987
ANNUAL SEVEN-DAY MINIMUM	8.3 Jul 8	1.7 Aug 10	.21 Sep 23 1987
INSTANTANEOUS PEAK FLOW		15600 Mar 2 a	15600 Mar 2 1997
INSTANTANEOUS PEAK STAGE		31.44 Mar 2 b	31.44 Mar 2 1997
INSTANTANEOUS LOW FLOW		1.7 Aug 11	.17 Sep 28 1987
ANNUAL RUNOFF (CFSM)	1.61	1.29	1.12
ANNUAL RUNOFF (INCHES)	21.91	17.48	15.16
10 PERCENT EXCEEDS	624	351	381
50 PERCENT EXCEEDS	117	68	58
90 PERCENT EXCEEDS	18	3.1	4.0

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

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**

03219500 SCIOTO RIVER NEAR PROSPECT, OHIO

LOCATION.--Lat 40°25'10", long 83°11'50", Delaware County, Hydrologic Unit 05060001, on right bank at downstream side of Hoskins Bridge, 1.5 mi upstream from Ottawa Creek, 2.0 mi south of Prospect, and 2.5 mi downstream from Patton Run.

DRAINAGE AREA.--567 mi².

PERIOD OF RECORD.--July 1925 to October 1932, October 1939 to current year. Published as "at Prospect" 1925-32.

Gage-height records collected in this vicinity since 1915 are contained in reports of National Weather Service.

REVISED RECORDS.--WSP 1908: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 886.9 ft above sea level (levels by U.S. Army Corps of Engineers).

July 24, 1925, to Oct. 31, 1932, nonrecording gage at site 2.5 mi upstream at datum 4.8 ft higher. Oct. 16 to

Dec. 5, 1939, nonrecording gage at present site and datum.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 25, 1913, reached a stage of 21.1 ft, discharge; 27,000 ft³/s, computed by Franklin County Conservancy District, at site and datum used 1925-32.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	227	45	1650	615	401	3480	584	144	3270	114	48	38
2	115	48	2200	516	359	3300	442	139	5080	432	37	32
3	65	46	2700	466	359	2970	359	333	6340	577	32	29
4	43	39	2140	425	785	2950	316	905	6300	450	42	26
5	34	35	1010	655	2240	2350	295	1010	5150	310	53	24
6	29	32	593	1150	3570	3030	302	653	3320	204	47	25
7	25	31	486	944	3660	3640	315	441	1620	140	51	25
8	24	40	416	521	2040	3240	287	349	712	105	42	23
9	22	50	358	e300	915	1910	240	381	482	126	32	23
10	24	66	307	e240	609	1560	209	398	371	216	28	25
11	24	72	508	e220	e400	1720	190	339	304	226	26	39
12	22	70	1910	e200	e300	1470	208	284	264	173	e25	45
13	21	63	3060	e180	e250	845	419	252	240	119	e24	36
14	21	e60	4030	e170	e230	1100	543	227	223	90	24	30
15	20	e56	3810	e160	e220	1790	404	210	199	80	25	27
16	20	e52	2550	e150	e210	2120	317	184	171	82	32	23
17	20	e50	2790	e150	e200	1260	278	166	148	67	155	21
18	24	e45	3570	e150	234	698	255	148	137	52	633	20
19	45	e43	4610	e140	354	603	236	234	156	50	836	19
20	43	e40	3390	e140	686	577	218	511	435	47	545	19
21	47	40	2330	e200	972	537	200	532	330	40	352	20
22	46	40	899	298	1280	462	182	342	227	37	294	19
23	41	38	602	e580	1330	392	167	251	167	41	218	19
24	40	37	1800	e1100	960	327	158	203	134	43	183	21
25	36	66	2550	e1300	600	296	147	328	112	57	157	21
26	35	1420	3080	1220	499	283	137	1150	99	53	126	19
27	36	1950	2110	700	1370	278	128	1410	93	66	111	17
28	39	2260	983	950	2450	272	131	981	96	69	92	16
29	35	1630	952	e900	---	338	132	499	110	62	70	15
30	38	896	1030	e600	---	831	131	359	114	88	55	14
31	50	---	816	549	---	853	---	628	---	68	45	---
TOTAL	1311	9360	59240	15889	27483	45482	7930	13991	36404	4284	4440	730
MEAN	42.3	312	1911	513	982	1467	264	451	1213	138	143	24.3
MAX	227	2260	4610	1300	3660	3640	584	1410	6340	577	836	45
MIN	20	31	307	140	200	272	128	139	93	37	24	14
CFSM	.07	.55	3.37	.90	1.73	2.59	.47	.80	2.14	.24	.25	.04
IN.	.09	.61	3.89	1.04	1.80	2.98	.52	.92	2.39	.28	.29	.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1926 - 1997, BY WATER YEAR (WY)

	MEAN	119	265	495	707	783	1017	873	495	405	270	123	97.0
MAX	1643	2023	2451	3305	2166	3008	2771	1788	1915	2049	778	1651	
(WY)	1927	1973	1991	1950	1975	1978	1957	1996	1947	1992	1995	1926	
MIN	10.9	13.8	14.9	15.1	30.8	135	97.0	78.3	32.5	19.4	11.7	7.98	
(WY)	1945	1931	1964	1945	1964	1941	1946	1955	1988	1952	1932	1941	

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1926 - 1997
ANNUAL TOTAL	284243	226544	
ANNUAL MEAN	777	621	469
HIGHEST ANNUAL MEAN			833
LOWEST ANNUAL MEAN			127
HIGHEST DAILY MEAN	7080	Jan 21	6340 Jun 3
LOWEST DAILY MEAN	16	Sep 2	14 Sep 30
ANNUAL SEVEN-DAY MINIMUM	17	Sep 1	18 Sep 24
INSTANTANEOUS PEAK FLOW			6510 Jun 3 a
INSTANTANEOUS PEAK STAGE			12.34 Jun 3
INSTANTANEOUS LOW FLOW			14 Sep 30
ANNUAL RUNOFF (CFSM)	1.37	1.09	.83
ANNUAL RUNOFF (INCHES)	18.65	14.86	11.24
10 PERCENT EXCEEDS	2450	1990	1300
50 PERCENT EXCEEDS	237	218	129
90 PERCENT EXCEEDS	25	25	19

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

93

03219590 BOKES CREEK NEAR WARRENSBURG, OHIO

LOCATION.--Lat 40°19'20", long 83°10'30", Delaware County, Hydrologic Unit 05060001, on right bank at downstream side of bridge on State Highway 257, 0.7 mi upstream from Moors Run, 1.2 mi north of Warrensburg, and 3.4 mi downstream from Fulton Creek.

DRAINAGE AREA.--83.2 mi².

PERIOD OF RECORD.--May 1982 to current year (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 870 ft above sea level from topographic map.

REMARKS.--Records fair except for periods of estimated record and those below 10 ft³/s, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	6.7	583	67	97	185	57	19	1450	12	1.1	1.9
2	16	16	746	58	90	516	44	20	3030	7.0	1.1	1.6
3	9.6	13	306	53	93	556	34	131	2020	7.6	1.1	1.5
4	5.7	9.6	128	50	256	192	30	483	747	8.2	1.4	1.5
5	4.1	8.0	83	102	860	210	28	212	190	7.5	1.4	1.5
6	3.3	6.9	71	199	814	759	30	113	99	6.7	1.3	1.4
7	2.8	6.4	64	86	180	678	33	81	67	5.8	1.1	1.3
8	2.8	7.1	57	50	110	179	28	64	51	4.5	.99	1.2
9	2.7	6.8	47	e35	74	126	21	73	41	3.6	.81	1.2
10	3.0	6.8	38	e31	58	340	18	71	33	18	.70	1.4
11	3.2	8.0	60	e27	50	254	16	54	28	7.4	.62	1.3
12	3.2	11	504	e24	45	117	17	44	24	9.2	.60	1.2
13	3.2	12	768	e23	37	79	38	37	22	7.2	.74	1.2
14	3.4	11	263	e21	35	271	51	31	19	4.9	.77	1.1
15	3.5	9.9	138	e20	32	490	34	28	17	3.8	1.1	.97
16	3.4	9.0	114	e19	34	151	26	23	16	2.9	1.3	.84
17	2.9	8.2	744	e18	42	91	22	20	15	2.3	4.9	.73
18	4.3	8.2	1180	e17	30	77	21	18	14	2.0	25	.70
19	5.8	7.7	640	e17	74	102	19	22	13	2.1	48	.59
20	5.4	7.1	158	e16	141	87	17	23	13	2.0	24	.62
21	6.0	6.8	114	e22	216	73	16	21	12	1.7	16	.60
22	9.8	7.6	68	e60	227	59	14	19	10	1.8	19	.52
23	8.5	7.6	61	409	120	48	15	17	8.0	2.2	19	.48
24	7.2	7.6	532	443	70	39	15	16	6.9	2.2	11	.48
25	7.3	13	811	254	53	34	15	59	6.0	1.9	8.6	.44
26	7.6	417	251	171	47	32	14	372	5.4	1.7	5.9	.36
27	7.3	778	103	175	321	31	14	437	5.1	1.7	4.3	.29
28	6.4	280	97	382	548	29	14	139	4.6	1.8	3.3	.22
29	5.9	113	137	408	---	32	14	81	5.0	1.6	2.7	.16
30	6.1	142	124	197	---	147	16	57	9.2	1.4	2.4	.10
31	6.7	---	84	129	---	76	---	201	---	1.2	2.1	---
TOTAL	196.1	1952.0	9074	3583	4754	6060	731	2986	7981.2	143.9	212.33	27.40
MEAN	6.33	65.1	293	116	170	195	24.4	96.3	266	4.64	6.85	.91
MAX	29	778	1180	443	860	759	57	483	3030	18	48	1.9
MIN	2.7	6.4	38	16	30	29	14	16	4.6	1.2	.60	.10
CFSM	.08	.78	3.52	1.39	2.04	2.35	.29	1.16	3.20	.06	.08	.01
IN.	.09	.87	4.06	1.60	2.13	2.71	.33	1.34	3.57	.06	.09	.01

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 1997, BY WATER YEAR (WY)

	MEAN	16.3	59.4	105	82.2	111	101	110	108	70.3	89.7	8.99	7.96
	MAX	129	195	469	270	226	270	236	348	266	448	83.7	98.5
	(WY)	1987	1984	1991	1996	1990	1984	1996	1996	1997	1992	1995	1986
	MIN	.000	.000	.26	2.25	7.87	20.4	24.4	9.90	.81	1.27	.002	.000
	(WY)	1983	1992	1992	1992	1992	1983	1997	1988	1988	1991	1991	1982

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1982 - 1997
ANNUAL TOTAL	46970.70	37700.93	
ANNUAL MEAN	128	103	73.1
HIGHEST ANNUAL MEAN			107
LOWEST ANNUAL MEAN			28.7
HIGHEST DAILY MEAN	2700	3030	3030
LOWEST DAILY MEAN	.00	.10	.00
ANNUAL SEVEN-DAY MINIMUM	.01	.29	.00
INSTANTANEOUS PEAK FLOW		3640	4420
INSTANTANEOUS PEAK STAGE		12.48	13.54
INSTANTANEOUS LOW FLOW		.07	.00
ANNUAL RUNOFF (CFSM)	1.54	1.24	.88
ANNUAL RUNOFF (INCHES)	21.00	16.86	11.94
10 PERCENT EXCEEDS	396	259	161
50 PERCENT EXCEEDS	30	19	17
90 PERCENT EXCEEDS	1.3	1.3	.00

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

03220000 MILL CREEK NEAR BELLEPOINT, OHIO

LOCATION.--Lat 40°14'54", long 83°10'26", Delaware County, Hydrologic Unit 05060001, on left bank at upstream side of county road bridge, 1.2 mi west of Bellepoint, 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 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 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	17	1570	99	91	270	94	52	4860	20	8.0	7.1
2	29	29	1220	90	87	1530	74	59	11900	17	7.7	6.5
3	20	22	337	85	105	935	63	593	3310	17	7.1	6.7
4	17	19	173	81	830	377	57	899	544	16	8.1	6.8
5	15	17	121	144	1880	378	58	305	271	14	16	7.2
6	15	16	115	347	806	1330	71	160	151	13	12	7.1
7	14	18	110	128	261	549	79	135	103	11	10	7.3
8	13	27	100	82	167	240	59	97	77	9.6	9.1	7.2
9	13	33	80	70	121	199	48	189	60	12	8.4	6.8
10	15	28	68	e60	101	924	43	145	49	13	7.6	6.8
11	15	29	67	e52	e88	461	40	89	41	15	6.7	7.9
12	14	26	661	e48	e76	207	46	69	36	12	7.3	7.7
13	14	26	793	e44	e68	137	133	59	38	11	8.7	7.8
14	13	23	304	e42	e64	850	107	53	45	9.5	15	6.9
15	12	21	157	e39	e60	895	68	50	30	8.0	15	6.9
16	13	20	156	e36	e56	264	56	46	38	8.0	25	6.7
17	15	19	2060	e33	e52	160	51	42	187	8.0	275	6.5
18	19	20	1960	e31	e62	164	47	44	55	8.3	124	7.1
19	40	22	478	e30	224	421	44	103	39	9.4	57	7.0
20	24	21	168	e28	348	243	40	120	33	7.8	44	7.3
21	21	21	109	e45	516	163	36	79	27	7.7	71	6.9
22	20	21	94	e200	418	125	36	54	21	7.1	36	7.6
23	19	22	86	747	198	99	36	45	17	14	27	6.7
24	19	20	1360	486	119	82	36	40	16	28	19	6.6
25	20	27	1150	405	96	75	36	53	15	15	14	7.2
26	17	1070	241	173	86	74	35	514	14	11	14	7.1
27	17	1160	141	211	617	72	35	245	13	12	12	6.4
28	16	257	135	719	726	69	39	93	13	12	10	6.5
29	16	125	212	445	---	74	45	67	12	10	9.0	6.8
30	15	302	173	163	---	273	48	63	13	11	8.6	5.9
31	16	---	122	119	---	116	---	607	---	9.1	7.9	---
TOTAL	574	3478	14521	5282	8323	11756	1660	5169	22028	376.5	900.2	209.0
MEAN	18.5	116	468	170	297	379	55.3	167	734	12.1	29.0	6.97
MAX	48	1160	2060	747	1880	1530	133	899	11900	28	275	7.9
MIN	12	16	67	28	52	69	35	40	12	7.1	6.7	5.9
CFSM	.10	.65	2.63	.96	1.67	2.13	.31	.94	4.13	.07	.16	.04
IN.	.12	.73	3.03	1.10	1.74	2.46	.35	1.08	4.60	.08	.19	.04

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1997, BY WATER YEAR (WY)

	MEAN	26.7	100	176	258	285	335	289	177	148	80.5	40.0	24.5
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 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1944 - 1997

ANNUAL TOTAL	106834.3	74276.7	
ANNUAL MEAN	292	203	161
HIGHEST ANNUAL MEAN			258
LOWEST ANNUAL MEAN			51.4
HIGHEST DAILY MEAN	6500	Jan 19	12600
LOWEST DAILY MEAN	5.9	Sep 4	.00
ANNUAL SEVEN-DAY MINIMUM	6.6	Aug 31	.13
INSTANTANEOUS PEAK FLOW			21800
INSTANTANEOUS PEAK STAGE			14.45
INSTANTANEOUS LOW FLOW			5.9
ANNUAL RUNOFF (CFSM)	1.64		1.14
ANNUAL RUNOFF (INCHES)	22.33		15.52
10 PERCENT EXCEEDS	821		451
50 PERCENT EXCEEDS	67		44
90 PERCENT EXCEEDS	9.4		7.8

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

95

03221000 SCIOTO RIVER BELOW O'SHAUGHNESSY DAM NEAR DUBLIN, OHIO

LOCATION.--Lat 40°08'36", long 83°07'14", Delaware County, Hydrologic Unit 05060001, on left bank, 0.2 mi north of county line, 0.8 mi downstream from O'Shaughnessy Dam, and 3.0 mi north of Dublin.

DRAINAGE AREA.--980 mi².

PERIOD OF RECORD.--April 1921 to current year.

REVISED RECORDS.--WSP 803: 1924-35. WSP 1725: 1924. WSP 1908: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 775.00 ft above sea level. Prior to Aug. 26, 1921, nonrecording gage at site 0.8 mi upstream at same datum. Aug. 26, 1921, to Oct. 13, 1924, nonrecording gage at site 100 ft downstream at same datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since 1924 by O'Shaughnessy Reservoir 0.8 mi upstream (see station 03220500). Water-quality data collected at this site. U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 25, 1913 reached a stage of 24.6 ft, discharge; 74,500 ft³/s at Griggs Dam, 9 mi downstream from gage, computed by C.E. Sherman, The Ohio State University.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	662	73	4620	1030	781	4320	975	66	12500	244	128	84
2	357	89	5160	871	680	6930	822	91	24900	293	113	72
3	343	90	3840	722	726	5600	352	918	13600	716	102	72
4	130	87	3030	691	2160	4270	719	2390	8520	645	116	45
5	28	81	1730	891	6480	3530	520	1850	6440	524	111	42
6	29	75	1090	1890	5970	6180	469	1250	4540	372	95	41
7	82	94	840	1520	4800	5610	464	859	2620	271	95	41
8	56	98	745	950	3250	4420	489	704	1310	192	95	39
9	28	98	717	742	1620	3040	473	776	776	208	91	39
10	28	112	501	550	899	3630	457	779	678	222	85	40
11	28	129	590	397	792	3080	133	656	624	327	81	40
12	29	136	3050	375	716	2330	280	547	555	312	80	41
13	29	131	5080	490	652	1510	561	515	599	238	100	45
14	48	134	4870	490	579	2490	839	522	121	169	82	45
15	108	92	4560	480	440	4060	710	375	299	141	99	45
16	84	90	3500	191	450	3040	579	288	525	123	109	45
17	45	89	7010	108	437	2130	492	289	657	120	792	44
18	34	104	8070	304	428	1290	480	290	528	116	745	44
19	38	92	6340	315	436	1370	458	338	93	120	1110	41
20	41	87	4860	295	1280	1150	450	614	336	77	971	69
21	47	108	3130	289	1860	1160	224	810	585	75	685	100
22	72	78	1660	648	2290	970	263	631	447	72	521	93
23	94	69	1030	1660	1970	799	219	493	331	79	441	90
24	112	77	4210	2040	1520	468	261	471	256	100	338	86
25	115	146	5340	2180	1040	456	236	88	224	90	294	84
26	41	2720	4130	1540	581	487	267	1800	199	83	240	49
27	58	4700	3110	1210	2140	489	266	2450	159	184	193	48
28	77	3220	1760	2240	4290	480	468	1600	151	262	175	23
29	59	2270	1600	2070	---	500	197	951	153	166	134	28
30	67	1710	1650	1570	---	1100	154	685	195	128	112	124
31	62	---	1370	1120	---	1340	---	1480	---	133	97	---
TOTAL	3031	17079	99193	29869	49267	78229	13277	25576	82921	6802	8430	1699
MEAN	97.8	569	3200	964	1760	2524	443	825	2764	219	272	56.6
MAX	662	4700	8070	2240	6480	6930	975	2450	24900	716	1110	124
MIN	28	69	501	108	428	456	133	66	93	72	80	23

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 1997, BY WATER YEAR (WY)

	MEAN	182	437	839	1289	1420	1804	1513	888	705	441	236	152
MAX	2626	3426	4794	6397	4073	5231	4706	3865	3407	3599	1584	2285	
(WY)	1927	1973	1991	1937	1975	1963	1957	1996	1947	1992	1995	1926	
MIN	28.2	15.1	13.0	29.3	30.9	249	152	46.4	57.8	37.2	29.4	25.6	
(WY)	1922	1954	1953	1992	1964	1941	1946	1925	1955	1921	1921	1965	

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1921 - 1997	
ANNUAL TOTAL	570775		415373		824	
ANNUAL MEAN	1559		1138		1458	
HIGHEST ANNUAL MEAN					190	
LOWEST ANNUAL MEAN					1973	
HIGHEST DAILY MEAN	18100	Jan 19	24900	Jun 2	42900	Jan 22 1959
LOWEST DAILY MEAN	25	Sep 18	23	Sep 28	.40	Nov 8 1924
ANNUAL SEVEN-DAY MINIMUM	30	Sep 16	35	Oct 8	1.1	Nov 14 1953
INSTANTANEOUS PEAK FLOW			31900	Jun 2	42900	Jan 22 1959
INSTANTANEOUS PEAK STAGE			17.03	Jun 2	22.04	Jan 22 1959
INSTANTANEOUS LOW FLOW			23	Sep 28	14	Nov 13 1991
10 PERCENT EXCEEDS	4860		3230		2260	
50 PERCENT EXCEEDS	526		447		204	
90 PERCENT EXCEEDS	54		59		41	

SURFACE-WATER RECORDS

03223000 OLENTANGY RIVER AT CLARIDON, OHIO

LOCATION.--Lat 40°34'58", long 82°59'20", in NW 1/4 sec. 26, T.5 S., R.16 E., Marion County, Hydrologic Unit 05060001, on left bank 900 ft downstream from bridge on State Highway 95, 0.5 mi east of Claridon, 0.8 mi downstream from Otter Creek, and 1.4 mi upstream from Beaver Run.

DRAINAGE AREA.--157 mi².

PERIOD OF RECORD.--October 1946 to current year.

REVISED RECORDS.--WSP 1235: 1947, 1948(P). WSP 1908: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 961.72 ft above sea level. (Levels by U.S. Army Corps of Engineers.)

Prior to Aug. 18, 1969, water-stage recorder at site 1,000 ft upstream at same datum.

REMARKS.--Records fair except for periods of estimated record, which are poor. Small diversion at gage for irrigation of golf course. Water-quality and sediment data collected at this site. Water year 1986 stream flow records published in water year 1987 data report. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	62	923	140	102	e625	103	53	1890	20	12	9.0
2	28	39	1140	127	88	e943	89	63	2830	19	10	9.3
3	19	27	599	121	101	e955	77	191	2030	19	9.9	11
4	14	21	219	118	352	442	73	399	798	18	9.4	11
5	12	19	163	239	1330	562	71	238	315	16	10	11
6	10	17	143	333	959	1460	80	147	206	15	8.9	12
7	9.7	16	134	171	303	1110	80	129	150	14	7.8	12
8	9.2	25	122	e94	182	414	65	107	114	13	7.2	12
9	8.4	41	101	e80	e120	270	59	220	92	80	6.1	12
10	8.7	48	87	e64	e100	760	54	196	77	101	5.5	13
11	10	46	298	e58	e86	677	53	126	68	50	6.0	37
12	12	47	1690	e52	e74	291	82	101	61	32	6.9	46
13	12	40	1820	e50	e64	194	283	85	60	25	7.3	26
14	9.5	32	1010	e48	e60	507	195	71	67	21	12	19
15	7.9	27	333	e46	e56	742	127	68	50	20	19	15
16	7.3	24	267	e45	e52	e432	101	70	43	17	20	13
17	6.7	23	1210	e42	e50	e280	86	60	41	15	65	11
18	9.9	23	1790	e40	e66	e200	80	54	40	13	89	9.8
19	27	23	1280	e39	248	e160	75	404	42	13	64	8.7
20	46	24	320	e38	334	135	69	629	41	15	33	8.4
21	37	25	180	e50	487	120	65	257	36	13	25	9.3
22	25	24	151	130	521	112	60	118	32	12	21	20
23	20	21	160	543	262	98	56	83	28	18	18	16
24	22	19	1310	383	148	87	54	72	27	28	15	13
25	22	39	1480	258	e115	85	48	154	25	23	14	10
26	24	953	691	e210	e116	88	44	979	24	17	13	7.8
27	22	1020	226	e180	e1080	93	41	841	26	15	12	7.2
28	18	514	217	756	e1300	88	46	249	29	72	12	6.1
29	16	190	299	598	---	93	49	138	25	37	10	5.1
30	32	238	226	311	---	96	48	115	21	22	9.5	4.2
31	62	---	170	135	---	99	---	339	---	15	8.8	---
TOTAL	617.3	3667	18759	5499	8756	12218	2413	6756	9288	808	567.3	404.9
MEAN	19.9	122	605	177	313	394	80.4	218	310	26.1	18.3	13.5
MAX	62	1020	1820	756	1330	1460	283	979	2830	101	89	46
MIN	6.7	16	87	38	50	85	41	53	21	12	5.5	4.2
CFSM	.13	.78	3.85	1.13	1.99	2.51	.51	1.39	1.97	.17	.12	.09
IN.	.15	.87	4.44	1.30	2.07	2.89	.57	1.60	2.20	.19	.13	.11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 1997, BY WATER YEAR (WY)

MEAN	29.9	108	180	255	283	316	263	166	137	92.6	45.4	29.4
MAX	295	526	741	1145	625	964	745	482	854	1011	580	241
(WY)	1991	1973	1991	1950	1982	1963	1957	1996	1947	1987	1995	1981
MIN	.019	2.44	2.29	9.01	8.02	55.7	43.3	17.8	5.80	5.27	1.35	.70
(WY)	1954	1964	1964	1977	1964	1983	1971	1955	1962	1962	1952	1953

SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1947 - 1997

ANNUAL TOTAL	93589.6		69753.5				
ANNUAL MEAN	256		191			158	
HIGHEST ANNUAL MEAN						237	1947
LOWEST ANNUAL MEAN						72.7	1954
HIGHEST DAILY MEAN	3840	Jan 19	2830	Jun 2	11900		Jan 22 1959
LOWEST DAILY MEAN	3.8	Sep 6	4.2	Sep 30		.00	Oct 2 1953
ANNUAL SEVEN-DAY MINIMUM	4.3	Aug 16	6.7	Aug 7		.00	Oct 2 1953
INSTANTANEOUS PEAK FLOW			2980	Jun 2 a	14900		Jan 22 1959
INSTANTANEOUS PEAK STAGE			10.98	Jun 2		16.77	Jan 22 1959
INSTANTANEOUS LOW FLOW			4.2	Sep 30		.00	Oct 2 1953
ANNUAL RUNOFF (CFSM)	1.63		1.22			1.01	
ANNUAL RUNOFF (INCHES)	22.18		16.53			13.68	
10 PERCENT EXCEEDS	786		551			396	
50 PERCENT EXCEEDS	70		59			43	
90 PERCENT EXCEEDS	7.9		10			4.5	

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

SURFACE-WATER RECORDS

Scioto River Basin

97

03223425 WHETSTONE CREEK AT MOUNT GILEAD, OHIO

LOCATION.--Lat 40°32'56", long 82°49'17", Morrow County, Hydrologic Unit 05060001, on left upstream bank at State Route 95 bridge on east side of city, 0.3 mi downstream from Mount Gilead Lakes in Mount Gilead State Park.
 DRAINAGE AREA.--37.9 mi².
 PERIOD OF RECORD.--October 1996 to September 1997.
 GAGE.--Water-stage recorder. 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 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e20	e15	e150	e37	e27	52	25	24	1030	6.4	2.2	2.3
2	e12	e11	e250	e33	e22	375	21	24	360	6.0	2.1	2.0
3	e7.0	e8.0	e64	e30	e28	119	19	89	128	5.6	2.2	1.8
4	e5.0	e7.0	48	e28	e100	62	18	96	75	4.8	3.6	1.4
5	e4.5	e6.0	40	e45	e250	388	20	54	49	4.2	3.4	1.4
6	e4.0	e5.4	38	e80	e300	386	23	48	37	4.0	2.8	1.8
7	e3.7	e6.0	37	e40	e150	123	18	37	28	3.8	2.1	1.6
8	e3.6	e10	34	e25	e50	76	15	42	24	3.4	1.6	1.4
9	e3.2	e12	30	e19	e30	76	14	80	20	3.2	1.4	1.7
10	e3.5	e15	e25	e16	e22	275	13	51	17	1.8	1.4	8.1
11	e4.0	e15	e100	e14	e20	93	13	37	15	9.1	1.6	5.2
12	e4.5	e13	e400	e13	e18	53	25	32	14	6.3	2.1	3.6
13	e4.5	e11	e450	e13	e17	40	42	27	14	4.9	3.4	2.7
14	e3.5	e10	e250	e12	16	262	30	24	13	4.7	3.4	2.2
15	e3.0	e8.4	e80	e12	16	131	23	24	11	9.0	6.4	1.9
16	e2.8	e7.6	e66	e11	13	57	20	21	11	6.0	14	1.8
17	e2.7	e7.2	e200	e11	15	43	21	19	12	4.2	96	1.7
18	e6.0	e7.2	e400	e10	23	38	20	19	14	3.1	45	1.4
19	e8.0	e7.4	e250	e10	96	38	18	35	13	3.1	19	1.4
20	e12	e7.8	e100	e9.6	86	34	18	38	11	2.8	14	2.3
21	e13	e8.0	e50	e20	119	30	22	25	9.8	2.1	16	2.0
22	e7.4	e7.0	e38	e45	79	27	21	20	8.6	2.3	11	1.6
23	e6.6	e6.4	e45	e130	38	24	20	16	7.8	2.8	7.7	1.7
24	e7.0	e6.0	e200	e100	26	21	19	15	6.9	2.9	6.1	1.7
25	e7.4	e5.8	e350	e70	21	21	18	218	6.2	2.0	6.0	1.4
26	e7.8	e80	e150	e56	25	26	17	287	6.6	2.2	5.1	1.2
27	e6.0	e250	e54	e45	330	24	17	71	6.9	5.0	4.2	1.1
28	e5.6	e150	e56	e170	109	22	22	39	6.0	9.9	3.8	1.0
29	e8.0	e50	e72	e120	---	25	21	33	5.4	11	2.9	1.1
30	e12	e90	e60	e60	---	25	18	35	5.1	5.2	2.6	1.0
31	e20	---	e45	e35	---	30	---	261	---	3.0	2.4	---
TOTAL	218.3	843.2	4132	1319.6	2046	2996	611	1841	1965.3	189.8	295.5	61.5
MEAN	7.04	28.1	133	42.6	73.1	96.6	20.4	59.4	65.5	6.12	9.53	2.05
MAX	20	250	450	170	330	388	42	287	1030	32	96	8.1
MIN	2.7	5.4	25	9.6	13	21	13	15	5.1	2.0	1.4	1.0

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

MEAN	7.04	28.1	133	42.6	73.1	96.6	20.4	59.4	65.5	6.12	9.53	2.05
MAX	7.04	28.1	133	42.6	73.1	96.6	20.4	59.4	65.5	6.12	9.53	2.05
(WY)	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997
MIN	7.04	28.1	133	42.6	73.1	96.6	20.4	59.4	65.5	6.12	9.53	2.05
(WY)	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997

SUMMARY STATISTICS

FOR 1997 WATER YEAR

ANNUAL TOTAL	16519.2
ANNUAL MEAN	45.3
HIGHEST DAILY MEAN	1030 Jun 1
LOWEST DAILY MEAN	1.0 Sep 28
ANNUAL SEVEN-DAY MINIMUM	1.2 Sep 24
INSTANTANEOUS PEAK FLOW	1460 Jun 1
INSTANTANEOUS PEAK STAGE	8.00 Jun 1
INSTANTANEOUS LOW FLOW	1.0 Sep 28
10 PERCENT EXCEEDS	104
50 PERCENT EXCEEDS	17
90 PERCENT EXCEEDS	2.3

SURFACE-WATER RECORDS

Scioto River Basin

03225500 OLENTANGY RIVER NEAR DELAWARE, OHIO

LOCATION.--Lat 40°21'18", long 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.

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.--No estimated daily discharges. Records fair. Flow completely regulated by Delaware Lake since 1951. Water-quality data 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 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	381	19	742	962	383	1480	20	202	203	27	31	23
2	125	19	731	469	253	736	20	119	110	33	31	19
3	68	19	1460	234	63	31	20	72	55	44	30	19
4	43	50	1890	232	697	25	20	454	39	35	66	19
5	433	202	706	236	2080	45	20	1020	833	35	104	19
6	425	328	125	471	2830	1860	20	500	3280	34	56	19
7	28	178	123	707	1760	4180	20	262	4180	34	29	20
8	302	180	121	394	405	4000	20	335	4130	34	36	20
9	310	179	122	315	402	3620	14	193	4170	61	32	20
10	28	179	1020	298	402	2860	5.7	144	3140	162	34	20
11	24	179	2710	232	318	2150	5.9	238	897	158	34	20
12	19	289	1590	229	162	1060	6.9	189	131	125	35	19
13	19	281	2480	92	195	610	8.2	76	131	53	35	19
14	19	74	2900	23	208	561	7.1	43	131	25	35	19
15	19	74	2770	23	208	714	6.7	35	131	21	36	19
16	19	437	1270	83	208	1100	6.7	27	93	14	35	19
17	19	423	838	111	104	1270	6.5	471	48	23	78	19
18	20	116	2760	109	76	815	16	679	164	29	606	20
19	22	115	3600	108	223	291	32	438	130	25	514	20
20	21	114	1760	108	865	46	32	386	51	25	293	20
21	20	115	704	108	1150	46	39	732	36	25	149	20
22	20	115	695	211	1150	437	53	383	36	30	111	18
23	21	114	972	696	1120	561	68	125	36	32	110	19
24	21	114	1240	812	386	435	72	67	36	32	73	20
25	21	165	1240	641	12	140	73	106	36	32	41	20
26	426	1080	1940	626	12	181	464	1200	79	31	38	19
27	423	1850	1910	460	757	219	505	1940	90	30	38	17
28	76	1830	1030	749	1870	162	175	1530	52	30	32	18
29	20	1630	1020	1300	---	162	108	769	27	30	31	19
30	21	801	1000	795	---	162	268	250	27	31	31	19
31	21	---	986	387	---	112	---	334	---	31	31	---
TOTAL	3434	11269	42455	12221	18299	30071	2132.7	13319	22502	1331	2835	581
MEAN	111	376	1370	394	654	970	71.1	430	750	42.9	91.5	19.4
MAX	433	1850	3600	1300	2830	4180	505	1940	4180	162	606	23
MIN	19	19	121	23	12	25	5.7	27	27	14	29	11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1997. BY WATER YEAR (WY)

MEAN	79.3	289	454	480	658	771	542	408	303	246	122	68.4
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	117	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 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1951 - 1997

ANNUAL TOTAL	224294		160449.7				
ANNUAL MEAN	613		440		367		
HIGHEST ANNUAL MEAN					609		1973
LOWEST ANNUAL MEAN					137		1954
HIGHEST DAILY MEAN	4270	Jan 26	4180	Mar 7	5940		Feb 1 1959
LOWEST DAILY MEAN	15	Sep 12	5.7	Apr 10	1.0		Apr 15 1986
ANNUAL SEVEN-DAY MINIMUM	17	Sep 7	6.7	Apr 10	3.4		Apr 15 1986
INSTANTANEOUS PEAK FLOW			4380	Dec 11	6000		Jan 31 1959
INSTANTANEOUS PEAK STAGE			8.73	Dec 11	88.13		Jan 26 1952
INSTANTANEOUS LOW FLOW			5.7	Apr 10	1.0		Apr 15 1986
10 PERCENT EXCEEDS	1840		1250		1030		
50 PERCENT EXCEEDS	179		112		94		
90 PERCENT EXCEEDS	21		19		19		

SURFACE-WATER RECORDS

Scioto River Basin

99

03226800 OLENTANGY RIVER NEAR WORTHINGTON, OHIO

LOCATION.--Lat 40°06'37", long 83°01'55", Franklin County, Hydrologic Unit 05060001, on left bank 350 ft downstream from Interstate Highway 270 bridge, 1.5 mi northwest of Worthington and 2.8 mi upstream from Rush Run.

DRAINAGE AREA.--497 mi².

PERIOD OF RECORD.--October 1955 to September 1984, October 1996 to September 1997.

REVISED RECORDS.--WSP 1625: 1952(M). WSP 1908. Drainage area. WRD Ohio 1972: 1971(M). WRD-OH-80-1: 1976(M), 1978(M). GAGE.--Water-stage recorder. Datum of gage is 743.20 ft above sea level.

REMARKS.--Records fair except for periods of estimated record, which are poor. Flow regulated by Delaware Lake 21 mi upstream. Water-quality data collected at this site. Daily suspended sediment data collected at this site.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in Jan. 1952 reached a stage of 15.3 ft, discharge 15,000 ft³/s, from information by Corps of Engineers.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	757	36	1860	1080	445	1710	90	300	3640	145	43	43
2	156	34	1130	807	434	2400	52	196	2630	85	43	40
3	141	32	1360	294	157	414	49	484	581	123	43	29
4	60	31	2040	287	1230	256	55	360	337	78	118	25
5	313	131	1330	376	2520	275	71	1200	378	65	112	23
6	442	390	235	391	3030	1330	81	947	2810	60	124	23
7	179	216	214	791	2470	4300	61	243	4230	58	57	23
8	65	239	192	623	546	4100	51	455	4180	55	37	24
9	520	209	180	311	503	3890	47	434	4170	69	43	24
10	98	207	305	e240	488	3460	41	213	3810	126	38	36
11	31	201	3160	e190	478	2550	32	265	1620	192	41	30
12	27	247	1750	e150	256	1510	64	300	226	173	50	28
13	20	399	2440	e130	238	796	84	186	223	128	115	25
14	22	105	2970	e110	304	1470	54	100	185	59	56	23
15	21	86	2860	98	301	1040	42	97	172	38	164	23
16	23	326	2020	146	286	1130	36	69	331	31	113	22
17	24	464	2040	185	269	1490	38	334	367	22	1020	22
18	97	261	2650	204	96	1260	35	595	175	22	556	23
19	89	142	3960	213	256	692	36	908	275	69	804	23
20	45	138	2390	240	795	220	57	403	193	37	476	28
21	35	137	808	224	1480	152	56	681	108	33	319	32
22	31	139	789	483	1380	425	60	696	77	34	185	24
23	39	134	994	1180	1270	541	77	244	74	59	172	27
24	44	135	2270	2650	880	595	89	88	63	51	154	24
25	29	195	1590	982	96	403	92	173	58	41	97	21
26	305	1390	1820	728	79	144	379	1060	61	38	72	19
27	439	2070	2360	766	420	313	537	2160	133	109	61	16
28	248	1980	1220	1070	2060	249	377	1980	115	222	57	18
29	42	1910	1220	1330	---	259	98	1060	76	57	49	16
30	45	1140	1160	1230	---	240	245	438	178	42	43	17
31	38	---	1120	451	---	247	---	963	---	41	44	---
TOTAL	4425	13124	50437	17960	22767	37861	3086	17632	31476	2362	5306	751
MEAN	143	437	1627	579	813	1221	103	569	1049	76.2	171	25.0
MAX	757	2070	3960	2650	3030	4300	537	2160	4230	222	1020	43
MIN	20	31	180	98	79	144	32	69	58	22	37	16

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 1997, BY WATER YEAR (WY)

	MEAN	118	350	560	577	751	980	700	492	390	258	149	101
MAX	697	1797	1772	2352	2368	2517	2033	1219	1297	1672	801	809	
(WY)	1987	1973	1978	1992	1959	1963	1964	1967	1981	1992	1980	1979	
MIN	11.9	25.7	12.1	17.7	27.2	139	40.0	53.9	15.6	30.7	32.0	17.6	
(WY)	1965	1964	1964	1977	1964	1983	1971	1988	1962	1962	1986	1964	

SUMMARY STATISTICS

FOR 1997 WATER YEAR

WATER YEARS 1956 - 1997

ANNUAL TOTAL	207187		
ANNUAL MEAN	568	454	
HIGHEST ANNUAL MEAN		778	1973
LOWEST ANNUAL MEAN		269	1977
HIGHEST DAILY MEAN	4300	10800	Jan 21 1959
LOWEST DAILY MEAN	16	6.5	Dec 28 1991
ANNUAL SEVEN-DAY MINIMUM	19	8.0	Jan 7 1992
INSTANTANEOUS PEAK FLOW	5860	16500	Jan 21 1959
INSTANTANEOUS PEAK STAGE	8.55	15.68	Jan 21 1959
INSTANTANEOUS LOW FLOW	16	8.5	Sep 26 1967
10 PERCENT EXCEEDS	1840	1310	
50 PERCENT EXCEEDS	192	138	
90 PERCENT EXCEEDS	31	26	

e Estimated.

SURFACE-WATER RECORDS **Scioto River Basin**

03227500 SCIOTO RIVER AT COLUMBUS, OHIO

LOCATION.--Lat 39°54'34", long 83°00'33", Franklin County, Hydrologic Unit 05060001, on right bank at Jackson Pike Wastewater Treatment Plant, City of Columbus, 0.4 mi downstream from bridge on Frank Road, 2.8 mi upstream from Scioto Big Run, and 5 mi downstream from Olentangy River.

DRAINAGE AREA.--1,629 mi².

PERIOD OF RECORD.--October 1920 to current year. Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.--WSP 743: 1927(M). WSP 803: 1922-24, 1926-30, 1932-33. WSP 1908: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 680.00 ft above sea level. Prior to Oct. 1, 1924, nonrecording gage at site 200 ft upstream at same datum.

REMARKS.--Records fair except for periods of estimated record, which are poor. Flow regulated by Griggs Reservoir 10.4 mi upstream (see station 03221500), O'Shaughnessy Reservoir 20.4 mi upstream (see station 03220500), and Delaware Lake 35 mi upstream from station. Records include sewage return flow from Jackson Pike Wastewater Treatment Plant. Shadeville Treatment Plant flow enters downstream. Water supply for city of Columbus is obtained from Scioto River downstream from Griggs Dam and Big Walnut Creek downstream from Central College. For statement on diversions from Big Walnut Creek, see REMARKS for station 03229500. 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. 25, 1913, reached a stage of 25.9 ft; discharge, 138,000 ft³/s, estimated by Franklin County Conservancy District.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1690	166	5990	2350	1560	5790	1430	649	16900	1300	233	300
2	861	170	6830	2090	1270	9840	1080	388	32600	636	227	272
3	540	170	5150	1290	1130	6900	896	1690	16700	1050	252	220
4	465	180	5180	1130	2890	4880	531	2520	10200	920	959	197
5	236	198	4100	1430	8770	3970	922	3150	7290	766	389	180
6	589	449	1910	2120	9180	6100	802	2770	7010	599	349	166
7	608	519	1450	1370	7690	9720	606	1470	7280	461	287	175
8	212	698	1120	2170	4510	8760	587	1380	5900	392	226	187
9	502	423	1020	3460	2780	7500	571	1440	5170	401	209	187
10	483	405	862	1280	1820	7390	512	1180	4860	395	228	226
11	183	394	3080	e800	1510	6130	459	1030	2750	508	209	271
12	170	385	3890	e600	1280	4390	380	981	1090	529	283	203
13	157	590	6750	e500	e1000	2940	755	835	2230	495	518	190
14	154	470	7600	e420	e840	4050	962	843	1150	404	318	186
15	147	274	7230	e400	e740	5440	979	835	582	294	484	182
16	161	233	6070	e360	e660	4340	791	514	1190	223	573	187
17	142	615	8570	e340	e620	4100	647	475	2550	217	4010	199
18	394	743	10300	e330	e600	3270	515	949	1540	294	2330	197
19	400	331	10600	e320	709	2570	495	1400	1130	478	2170	191
20	207	319	7910	e400	1580	1950	493	1070	664	281	2110	244
21	184	297	4500	525	3120	1530	423	1350	815	224	1770	205
22	182	322	3060	909	3680	1520	330	1680	733	313	1330	192
23	214	279	2290	2160	3410	1560	345	916	571	727	892	182
24	230	240	5680	3410	2950	1500	355	712	448	586	709	175
25	275	356	7040	3710	1560	1120	390	804	394	295	611	176
26	192	3130	5720	2740	1180	936	380	1580	381	207	441	180
27	592	6430	5760	2550	1380	873	864	4480	375	1540	401	169
28	651	5400	3580	e3500	5550	886	1160	3850	379	593	370	187
29	242	4420	2920	3560	---	1060	672	2580	391	395	334	187
30	223	3610	2940	3300	---	1170	380	1630	496	281	328	176
31	215	---	2750	2030	---	1840	---	2080	---	233	325	---
TOTAL	11501	32216	151852	51554	73969	124025	19712	47231	133769	16037	23875	5989
MEAN	371	1074	4898	1663	2642	4001	657	1524	4459	517	770	200
MAX	1690	6430	10600	3710	9180	9840	1430	4480	32600	1540	4010	300
MIN	142	166	862	320	600	873	330	388	375	207	209	166

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 1997, BY WATER YEAR (WY)

	MEAN	369	859	1513	2164	2393	3048	2470	1576	1279	828	485	340
MAX	4633	5490	6978	10510	5993	8373	6865	6175	5866	5804	3287	3883	
(WY)	1927	1973	1991	1937	1975	1963	1964	1996	1947	1992	1995	1926	
MIN	60.5	71.7	71.1	96.1	110	493	322	132	97.6	85.5	82.0	66.4	
(WY)	1922	1923	1935	1945	1934	1941	1946	1934	1925	1921	1930	1924	

SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1921 - 1997

ANNUAL TOTAL	907168		691730									
ANNUAL MEAN	2479		1895							1439		
HIGHEST ANNUAL MEAN										2514		1973
LOWEST ANNUAL MEAN										305		1934
HIGHEST DAILY MEAN	21300	Jan 19	32600	Jun 2	48200	Jan 22	1959					
LOWEST DAILY MEAN	137	Jul 11	142	Oct 17	47	Sep 6	1930					
ANNUAL SEVEN-DAY MINIMUM	153	Jul 8	159	Oct 11	53	Sep 5	1930					
INSTANTANEOUS PEAK FLOW			43800	Jun 2	68200	Jan 22	1959					
INSTANTANEOUS PEAK STAGE			24.78	Jun 2	27.22	Jan 22	1959					
INSTANTANEOUS LOW FLOW			142	Oct 17	47	Sep 6	1930					
10 PERCENT EXCEEDS	7250		5480		3950							
50 PERCENT EXCEEDS	1000		743		470							
90 PERCENT EXCEEDS	196		199		117							

e Estimated.

SURFACE-WATER RECORDS

Scioto River Basin

101

03228300 BIG WALNUT CREEK AT SUNBURY, OHIO

LOCATION.--Lat 40°14'10", long 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, and 0.9 mi upstream from Prairie Run.
 DRAINAGE AREA.--101 mi².
 PERIOD OF RECORD.--October 1988 to current year.
 GAGE.--Water-stage recorder. Datum of gage is 945 ft above sea level, from topographic map.
 REMARKS.--Records good except for periods of estimated record, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	3.1	979	64	68	129	63	34	4790	33	7.9	4.8
2	5.7	2.2	455	60	57	1220	48	34	2360	28	4.7	3.9
3	2.4	2.2	157	57	60	361	42	331	443	57	3.5	2.6
4	1.4	3.0	99	54	796	197	38	250	242	20	4.9	1.9
5	.90	3.0	76	161	1270	166	38	120	149	12	7.1	1.7
6	.68	3.0	74	137	300	719	46	96	97	8.3	3.1	1.5
7	.38	3.7	77	76	160	219	39	72	70	6.4	2.8	1.3
8	.18	8.6	67	52	118	138	31	76	56	5.3	2.8	1.1
9	.98	12	53	e41	92	123	27	217	46	4.9	2.2	1.1
10	1.4	14	43	e34	83	720	25	110	37	4.7	1.8	28
11	1.2	19	136	e27	71	224	26	76	30	4.4	1.6	41
12	1.1	15	665	e22	63	126	35	61	26	3.4	1.8	26
13	1.1	12	269	e20	53	94	74	49	25	2.8	4.8	15
14	1.0	9.5	138	e18	56	923	55	42	25	2.6	4.5	7.5
15	.89	8.0	97	e17	49	409	42	46	20	2.8	8.9	4.8
16	.89	7.2	83	e16	44	153	37	41	119	2.1	30	3.4
17	.89	7.2	1350	e15	59	112	41	34	485	1.7	988	2.4
18	1.7	9.0	604	e14	41	103	40	35	143	1.5	385	1.5
19	2.8	16	194	e13	122	149	35	201	122	4.5	128	.46
20	4.1	19	111	e12	198	114	31	131	206	3.0	91	.34
21	7.4	15	114	e30	256	92	28	65	71	1.6	105	.22
22	5.7	12	68	e100	189	77	27	46	41	1.2	168	.31
23	4.3	10	85	376	107	62	25	36	29	1.3	80	.37
24	2.6	9.2	1480	153	77	52	23	30	21	1.3	43	.25
25	3.1	14	378	546	61	49	23	211	16	1.5	33	.18
26	5.6	448	145	200	62	71	26	896	13	1.4	26	.17
27	4.7	190	106	233	293	69	27	172	10	609	17	.10
28	3.6	81	106	840	190	57	35	91	7.0	461	13	.08
29	2.7	51	119	261	---	75	40	65	5.5	95	10	.29
30	2.8	94	92	178	---	67	34	72	7.5	37	7.5	.82
31	2.8	---	75	98	---	75	---	539	---	16	6.1	---
TOTAL	86.99	1100.9	8495	3925	4995	7145	1101	4279	9712.0	1434.7	2193.0	153.09
MEAN	2.81	36.7	274	127	178	230	36.7	138	324	46.3	70.7	5.10
MAX	12	448	1480	840	1270	1220	74	896	4790	609	988	41
MIN	.18	2.2	43	12	41	49	23	30	5.5	1.2	1.6	.08
CFSM	.03	.36	2.71	1.25	1.77	2.28	.36	1.37	3.21	.46	.70	.05
IN.	.03	.41	3.13	1.45	1.84	2.63	.41	1.58	3.58	.53	.81	.06

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1997, BY WATER YEAR (WY)

	1989	1990	1991	1992	1993	1994	1995	1996	1997
MEAN	17.0	85.6	147	204	173	186	188	165	165
MAX	81.2	256	585	426	424	354	334	398	338
(WY)	1991	1993	1991	1996	1990	1993	1996	1996	1989
MIN	.002	.051	.72	16.4	46.0	46.0	36.7	21.8	2.88
(WY)	1992	1992	1992	1992	1992	1990	1997	1991	1991

SUMMARY STATISTICS FOR 1996 CALENDAR YEAR FOR 1997 WATER YEAR WATER YEARS 1989 - 1997

	1996	1997	1989-1997
ANNUAL TOTAL	62026.59	44620.68	
ANNUAL MEAN	169	122	124
HIGHEST ANNUAL MEAN			159
LOWEST ANNUAL MEAN			67.4
HIGHEST DAILY MEAN	2300	4790	4790
LOWEST DAILY MEAN	.00	.08	.00
ANNUAL SEVEN-DAY MINIMUM	.00	.21	.00
INSTANTANEOUS PEAK FLOW		6700	6700
INSTANTANEOUS PEAK STAGE		11.20	11.86
INSTANTANEOUS LOW FLOW		.08	.00
ANNUAL RUNOFF (CFSM)	1.68	1.21	1.23
ANNUAL RUNOFF (INCHES)	22.85	16.43	16.71
10 PERCENT EXCEEDS	402	245	300
50 PERCENT EXCEEDS	44	37	33
90 PERCENT EXCEEDS	.67	1.5	.45

e Estimated.

Scioto River Basin

03228500 BIG WALNUT CREEK AT CENTRAL COLLEGE, OHIO

LOCATION.--Lat 40°06'13", long 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.

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 for periods of estimated record, which are fair. Flow completely regulated by Hoover Reservoir since September 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 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	112	140	107	99	140	220	125	104	4530	131	130	104
2	112	130	107	103	139	2210	118	105	6650	122	130	131
3	112	132	117	116	118	1280	118	140	4650	119	130	128
4	112	138	107	95	650	325	118	153	1280	116	130	113
5	109	138	96	106	1590	404	129	148	147	104	114	111
6	108	138	101	103	1650	1230	126	118	148	114	131	114
7	109	123	93	111	1010	461	126	111	148	131	135	125
8	110	116	86	119	112	296	122	123	146	142	124	111
9	130	125	108	107	118	246	121	126	133	133	111	119
10	111	121	109	e108	121	1560	121	111	132	120	115	123
11	120	122	92	e100	100	247	128	108	131	113	142	117
12	115	120	89	e90	e210	371	123	138	130	138	128	113
13	116	125	97	e80	e138	325	111	135	132	136	113	104
14	150	130	104	e109	e108	1250	120	126	127	141	110	102
15	163	118	93	e110	e106	1520	131	120	107	143	116	110
16	136	115	94	e110	e107	558	129	129	120	162	114	126
17	116	112	120	e100	100	453	104	135	346	171	176	130
18	119	123	e106	e93	109	239	92	129	407	167	177	126
19	114	122	e100	98	92	128	108	122	340	127	162	113
20	110	125	90	127	105	125	111	111	246	122	132	114
21	139	140	85	138	488	116	136	127	180	140	131	111
22	153	121	96	137	411	117	114	118	179	138	130	118
23	154	117	114	129	209	110	105	126	152	107	129	129
24	157	107	147	112	165	98	93	130	143	105	121	122
25	133	112	103	114	133	122	128	139	159	116	121	108
26	120	127	112	123	100	127	111	1160	178	124	121	122
27	132	120	99	149	334	134	107	135	140	130	121	126
28	132	113	108	123	398	127	116	122	130	125	119	126
29	157	93	89	120	---	110	122	119	137	127	114	137
30	166	80	115	134	---	97	103	124	138	126	102	124
31	158	---	101	154	---	130	---	754	---	130	102	---
TOTAL	3985	3643	3185	3517	9061	14736	3516	5546	21586	4020	3931	3557
MEAN	129	121	103	113	324	475	117	179	720	130	127	119
MAX	166	140	147	154	1650	2210	136	1160	6650	171	177	137
MIN	108	80	85	80	92	97	92	104	107	104	102	107

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1955 - 1997, BY WATER YEAR (WY)

MEAN	107	122	157	199	250	347	321	262	221	163	143	117
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 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1955 - 1997
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ANNUAL TOTAL	114317		80283				
ANNUAL MEAN	312		220		200		
HIGHEST ANNUAL MEAN					337		1973
LOWEST ANNUAL MEAN					111		1966
HIGHEST DAILY MEAN	3620	Apr 30	6650	Jun 2	10600		Jan 22 1959
LOWEST DAILY MEAN	80	Nov 30	80	Nov 30	.00		May 20 1955
ANNUAL SEVEN-DAY MINIMUM	96	Dec 7	96	Dec 7	.00		May 31 1955
INSTANTANEOUS PEAK FLOW			8050	Jun 1 a	23800		Jan 21 1959
INSTANTANEOUS PEAK STAGE			13.29	Jun 1	19.75		Jan 21 1959
INSTANTANEOUS LOW FLOW			80	Nov 30	.00		May 20 1955
10 PERCENT EXCEEDS	589		214		311		
50 PERCENT EXCEEDS	130		122		118		
90 PERCENT EXCEEDS	104		102		63		

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

103

03228805 ALUM CREEK AT AFRICA, OHIO

LOCATION.--Lat 40°10'56", long 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, 2.8 mi upstream from Westerville Reservoir outlet, and 4.2 mi northwest of Westerville.

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 good except for periods of estimated daily discharge, which are poor. Flow regulated by Alum Creek Lake since August 1973. Water-quality and sediment data 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 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	115	24	300	52	296	14	14	e1100	29	11	11
2	14	110	271	150	52	161	15	14	e500	30	12	10
3	14	110	427	21	52	25	15	17	e160	59	11	11
4	14	110	429	22	99	25	16	14	e70	76	12	11
5	14	108	427	23	486	26	18	13	e90	63	12	13
6	14	98	244	23	885	623	18	13	e250	41	11	13
7	16	89	19	e22	648	1540	19	13	e1000	43	11	14
8	16	89	19	e22	215	1180	20	13	e960	42	10	15
9	16	89	19	e23	213	474	17	13	e900	42	9.8	16
10	16	88	19	e24	213	600	12	12	e840	42	8.9	15
11	16	87	18	e25	213	621	12	12	e800	32	8.1	14
12	16	87	46	e28	213	418	14	13	e400	14	8.2	14
13	16	87	118	e31	152	123	13	e16	e200	13	8.4	14
14	198	87	124	e34	54	54	13	e19	e100	11	8.2	14
15	86	87	124	e38	33	70	13	e18	e40	11	9.1	14
16	45	87	228	e34	33	70	12	e15	e20	11	8.3	14
17	45	87	371	e31	33	425	12	e13	e15	11	122	14
18	45	87	658	29	32	658	9.6	e14	e12	11	259	15
19	45	87	913	28	32	514	9.5	e17	e10	12	259	17
20	45	87	636	28	35	158	8.2	e21	9.4	12	258	22
21	95	87	179	28	40	13	8.6	e14	9.2	11	100	22
22	122	62	180	30	42	14	11	9.4	9.4	12	12	22
23	122	16	181	37	42	13	12	9.3	8.9	11	11	22
24	122	15	344	41	99	13	13	8.9	8.6	10	18	22
25	122	16	471	45	127	13	12	11	8.7	10	17	23
26	122	18	670	45	127	13	12	9.3	9.2	10	14	22
27	122	41	617	440	227	13	13	9.2	9.0	11	15	23
28	122	51	300	717	291	14	13	9.4	9.5	11	15	23
29	122	39	300	713	---	14	14	9.1	13	11	16	23
30	122	20	300	307	---	14	13	9.5	18	11	15	24
31	122	---	300	53	---	14	---	34	---	11	14	---
TOTAL	2021	2241	8976	3392	4740	8209	401.9	427.1	7579.9	724	1304.0	507
MEAN	65.2	74.7	290	109	169	265	13.4	13.8	253	23.4	42.1	16.9
MAX	198	115	913	717	885	1540	20	34	1100	76	259	24
MIN	14	15	18	21	32	13	8.2	8.9	8.6	10	8.1	10

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 1997, BY WATER YEAR (WY)

	MEAN	56.1	125	155	135	187	179	104	119	97.6	75.6	43.8	58.8
MAX	309	375	460	437	464	514	358	651	293	364	570	618	
(WY)	1987	1980	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 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1974 - 1997

ANNUAL TOTAL	69130.1	40522.9	
ANNUAL MEAN	189	111	
HIGHEST ANNUAL MEAN			111
LOWEST ANNUAL MEAN			243
HIGHEST DAILY MEAN	1750	May 14	8.54
LOWEST DAILY MEAN	5.7	Apr 11	.00
ANNUAL SEVEN-DAY MINIMUM	8.6	Apr 9	1.5
INSTANTANEOUS PEAK FLOW		1600	2310
INSTANTANEOUS PEAK STAGE		5.14	27.74
INSTANTANEOUS LOW FLOW		8.1	.00
10 PERCENT EXCEEDS	616	303	319
50 PERCENT EXCEEDS	27	22	17
90 PERCENT EXCEEDS	13	11	5.5

e Estimated.

SURFACE-WATER RECORDS

Scioto River Basin

03229000 ALUM CREEK AT COLUMBUS, OHIO

LOCATION.--Lat 39°56'42", long 82°56'28", in NW 1/4 sec. 24, T.5 N., R.22 W., Franklin County, Hydrologic Unit 05060001, on left bank 0.2 mi downstream from Livingston Avenue bridge in Columbus, and 6 mi upstream from mouth.
 DRAINAGE AREA.--189 mi².
 PERIOD OF RECORD.--July 1923 to December 1935, January 1938 to current year.
 REVISED RECORDS.--WSP 758: 1933. WSP 1305: 1928(M). WSP 1908: Drainage area.
 GAGE.--Water-stage recorder. Datum of gage is 733.69 ft above sea level.
 REMARKS.--Records fair. Flow regulated by Alum Creek Lake 19 mi upstream, since Aug. 1973. Water-quality and sediment data collected at this site. U.S. Army Corps of Engineers satellite telemeter at station.
 EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,400 ft³/s Jan. 22, 1959, gage height, 19.59 ft (from high-water mark in well), from rating curve extended above 17,000 ft³/s on basis of contracted-opening measurement of peak flow; no flow Sept. 21-29, 1959.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	135	812	354	87	412	51	62	3520	474	20	20
2	23	131	255	309	81	1080	44	64	1180	159	16	18
3	19	130	501	82	80	220	38	342	262	205	15	16
4	19	131	481	64	680	135	37	105	113	126	279	14
5	18	130	485	191	836	101	82	58	126	115	52	13
6	17	131	489	93	951	258	64	57	1170	78	26	14
7	15	150	76	e63	998	1610	51	47	1620	66	19	14
8	15	252	52	e60	315	1590	43	112	1600	66	15	14
9	21	116	45	e59	e270	710	38	91	1570	106	14	14
10	32	122	41	e59	e250	920	34	52	1490	78	14	64
11	22	104	39	e58	e240	821	30	42	798	68	13	54
12	18	98	80	e58	e235	649	129	34	534	55	138	34
13	17	94	128	e57	e222	273	72	30	911	31	220	20
14	95	91	144	e58	e120	756	52	46	255	23	47	15
15	139	87	134	e60	e70	288	42	79	77	23	165	14
16	59	86	210	e64	e66	161	35	46	360	19	96	14
17	45	91	1310	e62	e62	303	32	35	600	16	1420	19
18	248	134	676	e58	62	839	30	58	354	30	702	16
19	99	92	1050	e54	66	741	27	71	169	91	454	15
20	59	87	983	55	80	414	25	86	95	39	583	27
21	60	94	264	51	92	69	23	47	64	24	463	16
22	138	95	241	201	87	60	22	34	41	114	207	15
23	183	60	325	198	74	53	21	26	32	177	86	14
24	145	34	957	e160	83	49	21	21	28	77	51	18
25	140	128	599	e360	152	55	20	191	26	40	75	17
26	144	762	632	e122	181	95	21	126	24	25	45	15
27	156	112	903	e410	295	56	24	54	23	509	33	14
28	141	82	395	1050	366	56	75	42	22	87	27	14
29	138	68	377	784	---	105	46	74	89	45	22	14
30	177	198	367	599	---	65	31	60	377	28	21	15
31	141	---	360	99	---	71	---	601	---	30	20	---
TOTAL	2573	4025	13411	5952	7101	13015	1260	2793	17530	3024	5358	581
MEAN	83.0	134	433	192	254	420	42.0	90.1	584	97.5	173	19.4
MAX	248	762	1310	1050	998	1610	129	601	3520	509	1420	64
MIN	15	34	39	51	62	49	20	21	22	16	13	13

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 1997, BY WATER YEAR (WY)

	101	197	246	225	300	300	220	215	202	156	110	107
MEAN	101	197	246	225	300	300	220	215	202	156	110	107
MAX	536	637	780	556	784	662	550	863	602	532	808	738
(WY)	1987	1986	1991	1993	1990	1984	1979	1996	1990	1990	1980	1980
MIN	15.7	25.8	32.8	27.2	24.9	38.5	29.9	28.7	18.8	11.4	11.2	14.8
(WY)	1988	1976	1988	1981	1992	1983	1976	1976	1988	1982	1982	1985

SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1974 - 1997

ANNUAL TOTAL	106776	76623	198
ANNUAL MEAN	292	210	359
HIGHEST ANNUAL MEAN			1980
LOWEST ANNUAL MEAN			1992
HIGHEST DAILY MEAN	2350	Apr 29	6840
LOWEST DAILY MEAN	13	Sep 1	1.5
ANNUAL SEVEN-DAY MINIMUM	14	Aug 28	2.4
INSTANTANEOUS PEAK FLOW			8600
INSTANTANEOUS PEAK STAGE			12.50
INSTANTANEOUS LOW FLOW			1.5
10 PERCENT EXCEEDS	941	613	552
50 PERCENT EXCEEDS	100	78	64
90 PERCENT EXCEEDS	19	19	15

e Estimated.

SURFACE-WATER RECORDS

Scioto River Basin

105

03229500 BIG WALNUT CREEK AT REES, OHIO

LOCATION.--Lat 39°51'24", long 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 Rees, 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 fair. 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 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 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	123	223	2410	443	269	803	258	175	7480	1070	100	113
2	99	205	806	434	233	3920	208	139	7840	461	95	108
3	81	183	716	221	222	2520	187	1050	6110	606	92	95
4	75	182	615	147	1220	819	179	720	3190	269	582	89
5	75	181	582	408	3460	761	239	327	467	209	221	88
6	74	185	655	350	2530	1340	275	253	1100	174	114	88
7	68	238	283	195	2570	2180	193	176	1660	138	90	82
8	67	598	164	166	e700	1890	183	250	1630	136	78	77
9	84	240	140	171	e517	1200	160	451	1580	222	73	79
10	110	241	125	190	e460	2460	148	226	1530	208	74	119
11	78	197	118	120	e435	1760	146	168	963	140	150	271
12	65	175	235	e122	e410	1160	385	140	650	123	162	162
13	60	162	355	e118	e555	792	380	129	2080	95	725	94
14	62	161	282	e117	e330	2150	222	155	1090	90	208	76
15	214	150	235	e116	e247	2330	170	389	349	104	391	70
16	138	147	240	e288	e190	1250	161	196	483	85	332	68
17	102	152	2680	e208	184	826	170	129	3200	76	3240	61
18	360	234	1290	e200	190	1360	147	146	2750	88	2660	64
19	334	183	1230	178	238	1140	133	228	1810	167	964	66
20	135	166	1130	97	285	758	127	218	854	120	1290	131
21	121	164	462	109	465	331	123	136	468	89	1070	71
22	170	186	333	274	683	265	119	114	348	187	918	59
23	253	140	466	621	448	226	120	99	295	515	443	53
24	257	85	2340	e390	287	211	123	93	214	362	303	58
25	208	155	1080	e1130	302	198	130	394	173	152	292	69
26	194	1830	797	e400	320	385	118	890	182	99	229	60
27	214	547	1050	e640	487	264	115	803	189	1900	183	51
28	197	266	592	2140	918	227	267	170	141	593	159	61
29	192	198	519	1090	---	431	162	177	133	272	137	54
30	212	473	482	892	---	301	120	230	737	149	126	49
31	245	---	456	288	---	334	---	495	---	112	120	---
TOTAL	4667	8247	22868	12263	19155	34592	5468	9266	49696	9011	15621	2586
MEAN	151	275	738	396	684	1116	182	299	1657	291	504	86.2
MAX	360	1830	2680	2140	3460	3920	385	1050	7840	1900	3240	271
MIN	60	85	118	97	184	198	115	93	133	76	73	49
(+)	110	105	95.6	99.7	82.5	86.2	95.4	99.9	113	121	113	113

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 1997, 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
MEAN	215	413	540	566	731	802	663	551	522	392	298	233												
MAX	951	1398	2110	1458	1747	1688	1467	2057	1657	1313	1566	1814												
(WY)	1987	1986	1991	1993	1990	1984	1979	1996	1997	1990	1980	1979												
MIN	57.4	47.8	111	115	110	121	130	63.3	64.0	84.7	52.8	57.3												
(WY)	1995	1992	1988	1977	1992	1983	1976	1976	1988	1991	1993	1985												

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1974 - 1997
ANNUAL TOTAL	275585	193440	
ANNUAL MEAN	753	530	539 #
HIGHEST ANNUAL MEAN			740
LOWEST ANNUAL MEAN			221
HIGHEST DAILY MEAN	7850	Apr 30	7840 Jun 2
LOWEST DAILY MEAN	51	Sep 15	49 Sep 30
ANNUAL SEVEN-DAY MINIMUM	61	Aug 29	57 Sep 24
INSTANTANEOUS PEAK FLOW			9440 Jun 1
INSTANTANEOUS PEAK STAGE			13.30 Jun 1
INSTANTANEOUS LOW FLOW			49 Sep 30
10 PERCENT EXCEEDS	2120	1240	1240
50 PERCENT EXCEEDS	263	221	191
90 PERCENT EXCEEDS	78	87	58

(+) Average diversion by City of Columbus Municipal Water Supply.
Adjusted for diversion.
e Estimated.

SURFACE-WATER RECORDS

Scioto River Basin

03230310 LITTLE DARBY CREEK AT WEST JEFFERSON, OHIO

LOCATION.--Lat 39°57'04", long 83°16'10", Madison County, Hydrologic Unit 05060001, at bridge on Middle Pike, 0.4 mi north of West Jefferson, and 7.2 mi upstream from Big Darby Creek.
DRAINAGE AREA.--162 mi².

WATER-DISCHARGE RECORDS

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 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	18	818	153	e115	181	103	53	1760	68	16	19
2	26	17	1010	145	e105	848	93	55	4530	68	15	17
3	22	18	468	135	e96	1030	90	438	4910	94	14	15
4	22	17	285	122	e450	591	89	660	1800	102	20	14
5	17	16	214	140	1440	406	91	368	856	68	20	13
6	16	18	193	182	912	386	95	246	563	55	21	12
7	15	18	165	141	474	322	89	175	382	48	17	11
8	14	24	142	115	328	256	74	147	291	42	14	11
9	14	27	119	112	246	223	68	160	236	42	13	10
10	14	30	102	119	200	561	64	146	194	44	13	10
11	14	26	102	e58	176	491	63	120	164	45	12	12
12	14	23	105	e54	160	297	75	110	143	37	13	12
13	13	21	133	e52	138	229	93	100	215	33	17	11
14	12	20	144	e50	e115	586	85	94	489	31	15	10
15	12	20	122	e58	e100	788	72	91	283	28	19	9.1
16	12	19	119	e75	e88	392	67	75	216	26	18	8.3
17	12	20	802	e64	e74	284	67	68	886	25	135	7.8
18	16	22	1340	e56	e78	262	65	69	608	23	362	7.5
19	22	23	705	e52	e110	369	63	74	358	21	182	7.3
20	28	27	361	e49	e190	316	65	75	253	20	119	9.5
21	23	23	e220	e46	302	250	61	66	193	19	200	7.6
22	20	22	e170	e100	315	212	59	59	158	20	213	6.3
23	18	21	e150	e450	209	168	58	54	131	28	185	6.6
24	18	21	609	e400	159	145	53	52	113	60	97	6.8
25	18	39	793	e300	136	137	51	62	101	44	64	6.5
26	18	463	352	e260	131	137	47	67	91	29	51	6.6
27	17	455	246	e270	162	123	46	59	81	25	39	6.1
28	17	222	222	e550	200	117	57	48	70	22	31	5.7
29	18	155	239	e330	---	135	54	48	64	20	26	5.0
30	18	192	202	e200	---	128	49	52	61	18	22	4.4
31	20	---	174	e140	---	117	---	127	---	17	20	---
TOTAL	554	2037	10826	4978	7209	10487	2106	4018	20200	1222	2003	288.1
MEAN	17.9	67.9	349	161	257	338	70.2	130	673	39.4	64.6	9.60
MAX	34	463	1340	550	1440	1030	103	660	4910	102	362	19
MIN	12	16	102	46	74	117	46	48	61	17	12	4.4
CFSM	.11	.42	2.16	.99	1.59	2.09	.43	.80	4.16	.24	.40	.06
IN.	.13	.47	2.49	1.14	1.66	2.41	.48	.92	4.64	.28	.46	.07

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1997, BY WATER YEAR (WY)

	MEAN	27.6	140	154	308	202	301	265	325	306	221	93.4	15.2
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	4.67	8.59	22.7	160	91.7	190	70.2	86.4	89.2	39.4	12.4	7.83	
(WY)	1995	1995	1995	1995	1995	1994	1997	1993	1993	1997	1994	1994	

SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1993 - 1997

ANNUAL TOTAL	100053.7	65928.1	
ANNUAL MEAN	273	181	197
HIGHEST ANNUAL MEAN			256
LOWEST ANNUAL MEAN			160
HIGHEST DAILY MEAN	3360	Apr 30	4910
LOWEST DAILY MEAN	9.3	Sep 8	4.4
ANNUAL SEVEN-DAY MINIMUM	9.8	Sep 2	5.9
INSTANTANEOUS PEAK FLOW			6240
INSTANTANEOUS PEAK STAGE			15.53
INSTANTANEOUS LOW FLOW			4.4
ANNUAL RUNOFF (CFSM)	1.69		1.11
ANNUAL RUNOFF (INCHES)	22.98		15.14
10 PERCENT EXCEEDS	744		395
50 PERCENT EXCEEDS	119		70
90 PERCENT EXCEEDS	14		14
			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 Scioto River Basin

107

03230310 LITTLE DARBY CREEK AT WEST JEFFERSON, OHIO—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--August 19, 1992, to current year.

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: November 12, 1992, to current year.

INSTRUMENTATION.--Refrigerated water-quality pumping sampler since November 12, 1992.

REMARKS.--Suspended-sediment samples were collected by pumping sampler. Pumped samples were collected for every 1-ft rise and 2-ft drop in stage. Sediment samples were also collected by a technician intermittently throughout the year. 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, 708 mg/L, May 9, 1996; minimum daily mean, 3 mg/L, Feb. 14, 20, 21, 1995.

SEDIMENT LOADS: Maximum daily, 5,740 tons, June 3, 1997; minimum daily, 0.22 ton, Sep. 25, 1994.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 453 mg/L, June 2; minimum daily mean, 10 mg/L, Mar. 31.

SEDIMENT LOADS: Maximum daily, 5,740 tons, June 3; minimum daily, 0.25 ton, Sept. 30.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	SAM- PLING METHOD, CODES* (82398)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDED (MG/L) (80154)
OCT							
07...	1315	10	16	690	24.0	14.0	47
DEC							
17...	1015	10	815	488	5.0	6.0	133
MAY							
14...	1235	10	90	646	16.5	13.0	14
JUN							
03...	1350	10	4720	249	15.0	17.0	400
03...	1425	10	4650	--	--	--	391

* 10 - STREAM CROSS-SECTION SAMPLE OBTAINED BY EQUAL-WIDTH-INCREMENT (EWI) SAMPLING METHOD.

SURFACE-WATER RECORDS

Scioto River Basin

03230310 LITTLE DARBY CREEK AT WEST JEFFERSON, OHIO—Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

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)
OCTOBER			NOVEMBER			DECEMBER			
1	34	38	3.5	18	16	.75	818	147	341
2	26	41	2.8	17	15	.70	1010	145	406
3	22	43	2.6	18	15	.75	468	74	95
4	22	44	2.6	17	15	.67	285	59	46
5	17	36	1.7	16	15	.62	214	51	30
6	16	28	1.2	18	14	.70	193	48	25
7	15	29	1.2	18	14	.70	165	45	20
8	14	31	1.2	24	21	1.4	142	43	17
9	14	30	1.1	27	34	2.6	119	41	13
10	14	29	1.1	30	37	3.0	102	39	11
11	14	29	1.1	26	34	2.4	102	35	9.7
12	14	28	1.1	23	31	1.9	105	32	9.0
13	13	28	1.0	21	29	1.7	133	29	10
14	12	27	.90	20	29	1.6	144	26	10
15	12	27	.89	20	28	1.5	122	23	7.7
16	12	25	.86	19	27	1.4	119	21	6.9
17	12	24	.79	20	27	1.4	802	125	324
18	16	29	1.3	22	26	1.6	1340	114	414
19	22	31	1.8	23	25	1.6	705	67	132
20	28	37	2.8	27	32	2.4	361	48	47
21	23	29	1.8	23	29	1.8	e220	37	22
22	20	27	1.4	22	28	1.7	e170	28	13
23	18	25	1.2	21	27	1.5	e150	23	9.3
24	18	23	1.1	21	26	1.4	609	87	168
25	18	21	1.0	39	38	6.0	793	79	176
26	18	20	.93	463	99	128	352	49	47
27	17	18	.86	455	86	113	246	43	29
28	17	17	.80	222	46	28	222	40	24
29	18	17	.80	155	32	13	239	36	23
30	18	16	.81	192	38	21	202	33	18
31	20	16	.86	---	---	---	174	30	14
TOTAL	554	---	43.10	2037	---	344.79	10826	---	2517.6

e Estimated

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

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)
JANUARY			FEBRUARY			MARCH			
1	153	28	11	e115	28	8.6	181	30	15
2	145	25	9.9	e105	26	7.5	848	295	716
3	135	23	8.4	e96	25	6.5	1030	196	573
4	122	21	7.0	e450	206	250	591	71	116
5	140	24	9.0	1440	232	896	406	44	49
6	182	29	14	912	114	293	386	35	36
7	141	25	9.6	474	75	97	322	29	26
8	115	23	7.3	328	55	49	256	25	17
9	112	22	6.5	246	41	27	223	23	14
10	119	20	6.4	200	31	17	561	116	194
11	e58	18	2.9	176	28	13	491	75	105
12	e54	17	2.5	160	26	11	297	40	32
13	e52	16	2.2	138	24	9.1	229	26	16
14	e50	15	2.0	e115	23	7.0	586	116	226
15	e58	17	2.7	e100	21	5.7	788	105	233
16	e75	23	4.7	e88	20	4.7	392	51	55
17	e64	20	3.5	e74	18	3.7	284	34	26
18	e56	16	2.5	e78	17	3.6	262	33	24
19	e52	15	2.1	e110	18	5.2	369	59	60
20	e49	14	1.8	e190	30	15	316	45	39
21	e46	13	1.6	302	52	43	250	33	22
22	e100	22	5.8	315	43	37	212	29	17
23	e450	51	62	209	33	18	168	26	12
24	e400	43	46	159	28	12	145	23	9.1
25	e300	31	25	136	25	9.1	137	21	7.6
26	e260	28	20	131	22	7.6	137	18	6.8
27	e270	26	19	162	26	12	123	16	5.4
28	e550	54	81	200	36	19	117	14	4.6
29	e330	50	45	---	---	---	135	13	4.7
30	e200	36	19	---	---	---	128	11	4.0
31	e140	29	11	---	---	---	117	10	3.3
TOTAL	4978	---	451.4	7209	---	1887.3	10487	---	2668.5

e Estimated

SURFACE-WATER RECORDS

Scioto River Basin

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03230310 LITTLE DARBY CREEK AT WEST JEFFERSON, OHIO—Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

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			MAY			JUNE			
1	103	11	2.9	53	32	4.6	1760	225	1090
2	93	11	2.8	55	31	4.7	4530	453	5670
3	90	12	2.9	438	75	104	4910	414	5740
4	89	13	3.0	660	74	134	1800	122	646
5	91	13	3.3	368	45	46	856	71	164
6	95	14	3.7	246	34	23	563	63	96
7	89	15	3.7	175	29	14	382	57	59
8	74	16	3.2	147	24	9.7	291	54	42
9	68	17	3.1	160	23	9.7	236	52	33
10	64	18	3.2	146	21	8.2	194	50	26
11	63	19	3.3	120	19	6.2	164	48	21
12	75	21	4.2	110	18	5.3	143	47	18
13	93	22	5.5	100	16	4.4	215	63	42
14	85	23	5.4	94	14	3.6	489	103	139
15	72	25	4.8	91	13	3.2	283	60	47
16	67	26	4.8	75	13	2.6	216	52	31
17	67	28	5.1	68	13	2.3	886	194	477
18	65	30	5.2	69	13	2.3	608	144	242
19	63	32	5.5	74	13	2.5	358	123	120
20	65	34	5.9	75	12	2.5	253	111	76
21	61	36	6.0	66	12	2.2	193	99	52
22	59	38	6.0	59	12	1.9	158	89	38
23	58	38	5.9	54	12	1.8	131	80	28
24	53	37	5.4	52	12	1.7	113	72	22
25	51	37	5.1	62	33	5.8	101	70	19
26	47	37	4.6	67	64	11	91	69	17
27	46	37	4.5	59	55	8.8	81	67	15
28	57	36	5.5	48	47	6.1	70	66	12
29	54	36	5.2	48	36	4.6	64	64	11
30	49	34	4.5	52	27	3.7	61	63	10
31	---	---	---	127	61	54	---	---	---
TOTAL	2106	---	134.2	4018	---	494.4	20200	---	15003

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

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)
JULY			AUGUST			SEPTEMBER			
1	68	62	11	16	28	1.2	19	17	.89
2	68	64	12	15	27	1.1	17	16	.76
3	94	84	22	14	26	.99	15	17	.72
4	102	79	22	20	32	1.8	14	19	.71
5	68	62	11	20	31	1.7	13	21	.74
6	55	57	8.4	21	31	1.8	12	23	.78
7	48	52	6.7	17	25	1.1	11	26	.78
8	42	48	5.5	14	24	.94	11	29	.83
9	42	44	4.9	13	23	.83	10	32	.87
10	44	50	6.0	13	22	.76	10	35	.97
11	45	52	6.4	12	21	.71	12	38	1.2
12	37	45	4.4	13	21	.75	12	42	1.4
13	33	44	3.9	17	32	1.5	11	42	1.3
14	31	44	3.6	15	29	1.1	10	43	1.2
15	28	43	3.3	19	36	1.9	9.1	43	1.1
16	26	43	3.0	18	33	1.6	8.3	43	.97
17	25	42	2.8	135	72	33	7.8	44	.93
18	23	42	2.6	362	78	78	7.5	44	.90
19	21	41	2.3	182	59	29	7.3	45	.87
20	20	41	2.2	119	49	16	9.5	45	1.2
21	19	40	2.0	200	69	39	7.6	45	.92
22	20	52	2.9	213	61	36	6.3	46	.77
23	28	62	4.9	185	51	26	6.6	45	.80
24	60	76	13	97	39	10	6.8	41	.75
25	44	59	7.1	64	33	5.8	6.5	36	.64
26	29	40	3.2	51	29	3.9	6.6	32	.57
27	25	34	2.3	39	26	2.7	6.1	28	.47
28	22	33	2.0	31	24	2.0	5.7	25	.39
29	20	31	1.7	26	22	1.6	5.0	22	.31
30	18	30	1.5	22	20	1.2	4.4	21	.25
31	17	29	1.3	20	19	1.0	---	---	---
TOTAL	1222	---	185.9	2003	---	304.98	288.1	---	24.99
YEAR	65928.1		24060.16						

SURFACE-WATER RECORDS **Scioto River Basin**

03230450 HELLBRANCH RUN NEAR HARRISBURG, OHIO

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

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1992 to current year.

GAGE.--Water-stage recorder. Datum of gage is 785 ft above mean sea level (from topographic map).

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.3	4.2	404	29	30	47	24	9.8	892	33	1.8	2.3
2	3.5	3.1	190	27	28	362	21	9.9	e1000	38	1.2	1.9
3	2.5	2.3	106	25	31	169	19	78	e500	48	.86	1.4
4	1.7	1.7	73	23	269	115	18	64	233	23	14	1.2
5	1.3	1.4	56	45	326	86	19	37	134	14	13	.89
6	.71	1.2	60	39	158	91	23	28	90	10	5.0	.71
7	.48	2.0	48	28	103	62	18	19	63	7.8	3.0	.68
8	.35	9.1	38	22	77	49	15	19	49	6.3	2.2	.54
9	.53	8.8	30	23	59	57	13	27	37	7.8	1.4	.45
10	.95	8.1	26	23	49	159	12	19	30	7.8	.84	.51
11	1.7	6.5	25	e20	42	82	11	14	25	5.6	.66	1.1
12	1.6	3.9	26	e17	37	54	16	13	22	4.6	.60	1.4
13	1.2	2.6	32	e16	30	42	20	11	83	3.9	1.4	.84
14	.71	2.1	27	e15	e25	224	14	11	102	3.5	4.0	.64
15	.48	1.8	24	e21	e21	133	12	25	50	3.3	4.5	.41
16	.38	1.4	24	e30	e19	74	11	14	77	2.8	8.6	.28
17	.31	1.3	351	e25	e17	57	11	11	200	2.1	225	.30
18	2.5	1.6	197	e23	e19	72	10	9.1	232	1.9	138	.29
19	13	2.2	104	e20	30	104	9.3	27	147	1.4	61	.21
20	4.7	2.2	e55	e18	36	68	8.3	16	81	1.0	89	2.8
21	2.4	1.9	e42	e17	47	51	7.8	10	54	.88	82	1.8
22	1.4	1.8	32	e50	40	41	7.7	7.9	36	.95	59	.96
23	1.2	1.8	38	e90	28	32	7.4	6.8	26	11	35	.74
24	1.3	2.1	192	e64	24	27	7.4	6.4	20	40	23	.54
25	1.4	20	88	e130	22	26	7.1	10	16	20	17	.40
26	1.2	276	53	e88	23	30	6.5	19	14	8.9	12	.33
27	.90	109	41	e150	39	26	6.8	12	12	15	8.9	.19
28	.86	64	45	e145	35	24	9.6	8.0	9.9	10	6.6	.15
29	1.1	44	46	e60	---	34	8.8	8.5	11	5.4	5.0	.05
30	1.4	101	37	40	---	30	7.6	12	9.8	3.6	3.7	.08
31	1.4	---	32	32	---	30	---	93	---	2.6	2.8	---
TOTAL	58.46	689.1	2542	1355	1664	2458	381.3	655.4	4255.7	344.13	831.06	24.09
MEAN	1.89	23.0	82.0	43.7	59.4	79.3	12.7	21.1	142	11.1	26.8	.80
MAX	13	276	404	150	326	362	24	93	1000	48	225	2.8
MIN	.31	1.2	24	15	17	24	6.5	6.4	9.8	.88	.60	.05
CFSM	.05	.62	2.22	1.18	1.61	2.14	.34	.57	3.83	.30	.72	.02
IN.	.06	.69	2.56	1.36	1.67	2.47	.38	.66	4.28	.35	.84	.02

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1997, BY WATER YEAR (WY)

	1993	1994	1995	1996	1997
MEAN	3.79	23.1	30.8	88.6	43.0
MAX	16.0	46.2	82.0	143	59.4
(WY)	1996	1993	1997	1996	1993
MIN	.000	1.34	5.86	43.7	23.6
(WY)	1995	1995	1995	1997	1995

SUMMARY STATISTICS

	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1993 - 1997
ANNUAL TOTAL	26008.79	15258.24	
ANNUAL MEAN	71.1	41.8	42.3
HIGHEST ANNUAL MEAN			66.8
LOWEST ANNUAL MEAN			28.6
HIGHEST DAILY MEAN	1000	1000	1000
LOWEST DAILY MEAN	.00	.05	.00
ANNUAL SEVEN-DAY MINIMUM	.02	.25	.00
INSTANTANEOUS PEAK FLOW		1140	1300
INSTANTANEOUS PEAK STAGE		9.62	9.80
INSTANTANEOUS LOW FLOW		.05	.00
ANNUAL RUNOFF (CFSM)	1.92	1.13	1.14
ANNUAL RUNOFF (INCHES)	26.15	15.34	15.55
10 PERCENT EXCEEDS	200	92	102
50 PERCENT EXCEEDS	27	17	14
90 PERCENT EXCEEDS	.65	.93	.18

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

SURFACE-WATER RECORDS
Scioto River Basin

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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 approximately once per day. 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, 601 mg/L, Jan. 26, 1994; minimum daily mean, 1 mg/L, Oct. 11, Nov. 3, 4, 1995, Aug. 7, and Oct. 25, 1996.

SEDIMENT LOADS: Maximum daily, 1,610 tons, Jan. 26, 1994; minimum daily, 0.00 ton, on many days during 1993, 1994, and 1995 and on several days during 1996 and 1997.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 543 mg/L, Mar. 2; minimum daily mean, 1 mg/L, Oct. 25.

SEDIMENT LOADS: Maximum daily, 948 tons, June 2; minimum daily, 0.00 ton, on several days during the year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	SAM- PLING METHOD, CODES*	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
OCT										
08...	1010	10	0.32	--	--	--	--	--	--	--
08...	1130	10	0.32	810	7.7	15.5	12.0	9.8	51	74
NOV										
19...	1140	10	2.2	990	8.0	5.0	4.5	14.9	66	110
DEC										
01...	0200	50	168	--	--	--	--	--	28	41
01...	0315	50	334	--	--	--	--	--	22	33
01...	0430	50	469	--	--	--	--	--	16	28
02...	1115	50	183	--	--	--	--	--	20	28
17...	1220	10	507	318	7.5	2.5	6.0	10.5	15	20
FEB										
04...	0900	50	121	--	--	--	--	--	25	38
04...	1035	10	232	380	7.5	8.5	3.0	12.0	12	35
04...	1100	50	248	--	--	--	--	--	<3.0	36
04...	1445	50	393	--	--	--	--	--	<3.0	29
04...	1930	50	525	--	--	--	--	--	<3.0	27
05...	1745	50	248	--	--	--	--	--	<3.0	26
MAR										
13...	1140	10	40	641	8.3	4.5	5.5	15.3	34	46
APR										
29...	1026	10	8.9	720	8.0	16.0	11.5	12.0	52	76
MAY										
14...	1025	10	9.9	723	--	13.5	12.0	--	--	--
28...	1120	10	7.9	720	8.2	20.0	15.5	12.5	41	63
31...	1930	50	152	--	--	--	--	--	32	49
31...	2130	50	319	--	--	--	--	--	27	39
31...	2230	50	478	--	--	--	--	--	22	32
31...	2315	50	603	--	--	--	--	--	19	27
JUN										
01...	0045	50	744	--	--	--	--	--	15	19
01...	0300	50	902	--	--	--	--	--	15	15
02...	1930	50	1000#	--	--	--	--	--	16	16
02...	2115	50	1000#	--	--	--	--	--	17	16
02...	2300	50	1000#	--	--	--	--	--	18	17
03...	0315	50	500#	--	--	--	--	--	17	16
03...	1115	50	500#	--	--	--	--	--	16	13
03...	1515	50	500#	--	--	--	--	--	18	14
03...	1915	50	500#	--	--	--	--	--	18	15
03...	2315	50	500#	--	--	--	--	--	20	16
04...	0945	10	228	448	--	16.0	14.0	--	--	--
04...	1005	10	230	--	--	--	--	--	--	--
24...	1135	10	21	668	7.9	31.0	21.5	7.9	25	42
JUL										
22...	1100	10	0.88	811	7.7	23.0	20.5	7.7	38	72
SEP										
02...	1301	10	2.0	806	8.2	29.0	21.0	11.5	55	76
29...	1415	10	0.13	820	8.0	24.0	18.0	9.9	62	81

* 10 - STREAM CROSS-SECTION SAMPLE OBTAINED BY EQUAL-WIDTH-INCREMENT (EWI) SAMPLING METHOD.

50 - POINT SAMPLE OBTAINED FROM REFRIGERATED-PUMPING SAMPLER.

ESTIMATED DAILY DISCHARGE, INSTANTANEOUS DISCHARGE IS NOT AVAILABLE.

SURFACE-WATER RECORDS Scioto River Basin

03230450 HELLBRANCH RUN NEAR HARRISBURG, OHIO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	SILICA, DIS- SOLVED (MG/L SIO2) (00955)	RESIDUE TOTAL AT 105 DEG. C, PENDEED (MG/L) (00530)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	SEDI- MENT, SUS- PENDEED (MG/L) (80154)
OCT									
08...	--	--	--	--	--	--	--	--	10
08...	4.6	2	<0.02	0.40	<0.03	0.2	<0.02	<0.01	--
NOV									
19...	1.3	2	<0.02	0.29	0.03	0.1	<0.02	<0.01	--
DEC									
01...	7.5	129	0.02	4.0	0.04	1.2	0.28	0.04	--
01...	6.8	426	0.02	3.4	0.03	2.1	0.57	0.06	--
01...	6.2	521	0.02	2.7	0.04	2.5	0.62	0.07	--
02...	7.1	64	0.02	3.2	0.05	1.2	0.33	0.10	--
17...	5.5	216	<0.02	2.4	<0.03	1.9	0.53	0.12	276
FEB									
04...	4.3	746	0.02	2.7	<0.03	2.5	0.56	<0.01	--
04...	3.9	851	0.04	2.8	0.12	4.1	0.86	0.04	--
04...	6.1	640	<0.02	2.6	0.03	2.7	0.66	0.01	--
04...	6.3	408	0.04	2.4	<0.03	2.3	0.62	0.04	--
04...	6.3	528	0.03	2.5	<0.03	2.8	0.78	0.04	--
05...	6.9	126	0.02	3.4	<0.03	1.6	0.31	0.06	--
MAR									
13...	3.6	<2	0.05	3.3	0.06	0.3	<0.02	<0.01	--
APR									
29...	0.9	3	<0.02	0.65	<0.03	0.4	0.02	<0.01	--
MAY									
14...	--	--	--	--	--	--	--	--	2
28...	3.3	<2	0.05	3.0	0.04	0.4	0.06	0.02	--
31...	5.7	267	0.15	14	0.48	2.8	0.48	0.10	--
31...	6.3	606	0.18	16	0.59	3.7	0.74	0.06	--
31...	6.1	663	0.13	16	0.49	4.0	0.77	0.04	--
31...	5.7	822	0.11	16	0.58	4.5	0.97	0.05	--
JUN									
01...	5.5	667	0.09	15	0.76	4.2	0.81	0.08	--
01...	5.4	521	0.06	13	0.63	3.9	0.64	0.07	--
02...	6.3	1640	0.12	9.3	0.29	4.5	0.99	0.07	--
02...	6.5	305	0.13	9.8	0.36	2.3	0.41	0.09	--
02...	6.7	158	0.13	10	0.40	1.9	0.33	0.17	--
03...	6.5	226	0.10	8.2	0.28	2.3	0.40	0.09	--
03...	5.9	183	0.09	6.3	0.28	2.1	0.36	0.08	--
03...	6.1	140	0.10	6.4	0.27	1.7	0.32	0.10	--
03...	6.6	112	0.11	6.9	0.28	1.6	0.28	0.10	--
03...	6.6	98	0.12	7.3	0.27	1.4	0.27	0.09	--
04...	--	--	--	--	--	--	--	--	72
04...	--	--	--	--	--	--	--	--	71
24...	6.7	5	0.11	4.0	0.04	0.4	0.08	0.04	--
JUL									
22...	3.5	3	0.03	0.38	0.08	0.2	0.03	<0.01	--
SEP									
02...	4.1	2	<0.02	0.56	0.04	0.2	0.04	0.02	--
29...	4.6	<2	<0.02	<0.18	<0.03	0.1	0.02	<0.01	--

SURFACE-WATER RECORDS

Scioto River Basin

03230450 HELLBRANCH RUN NEAR HARRISBURG, OHIO—Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

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			MAY			JUNE			
1	24	5	.31	9.8	8	.21	892	301	713
2	21	6	.34	9.9	9	.24	e1000	351	948
3	19	4	.19	78	58	13	e500	168	227
4	18	3	.13	64	37	6.6	233	66	43
5	19	6	.29	37	24	2.4	134	45	16
6	23	7	.43	28	8	.66	90	25	6.2
7	18	8	.40	19	5	.24	63	15	2.5
8	15	5	.22	19	8	.49	49	10	1.3
9	13	6	.22	27	17	1.3	37	9	.90
10	12	7	.21	19	8	.42	30	6	.46
11	11	7	.21	14	8	.30	25	4	.29
12	16	11	.47	13	10	.35	22	6	.37
13	20	9	.51	11	6	.19	83	154	71
14	14	9	.33	11	5	.19	102	164	53
15	12	12	.38	25	17	1.2	50	36	5.0
16	11	10	.30	14	9	.34	77	153	128
17	11	7	.21	11	9	.26	200	242	170
18	10	6	.17	9.1	7	.18	232	380	401
19	9.3	5	.13	27	28	2.1	147	90	38
20	8.3	4	.10	16	22	.95	81	41	9.1
21	7.8	6	.13	10	13	.36	54	27	4.0
22	7.7	5	.11	7.9	18	.37	36	15	1.5
23	7.4	5	.10	6.8	12	.22	26	8	.55
24	7.4	5	.11	6.4	7	.12	20	5	.25
25	7.1	5	.10	10	10	.31	16	6	.24
26	6.5	6	.10	19	9	.46	14	6	.24
27	6.8	7	.13	12	6	.19	12	5	.16
28	9.6	7	.19	8.0	5	.12	9.9	3	.09
29	8.8	6	.15	8.5	6	.13	11	392	21
30	7.6	7	.15	12	5	.14	9.8	267	7.7
31	---	---	---	93	146	148	---	---	---
TOTAL	381.3	---	6.82	655.4	---	182.04	4255.7	---	2869.85
e Estimated									

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

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)
JULY			AUGUST			SEPTEMBER			
1	33	171	20	1.8	3	.01	2.3	8	.05
2	38	181	35	1.2	4	.01	1.9	8	.04
3	48	120	18	.86	7	.02	1.4	9	.03
4	23	22	1.4	14	36	2.3	1.2	10	.03
5	14	10	.41	13	22	.97	.89	10	.02
6	10	9	.25	5.0	6	.08	.71	8	.02
7	7.8	8	.18	3.0	4	.03	.68	8	.01
8	6.3	9	.15	2.2	3	.02	.54	9	.01
9	7.8	10	.20	1.4	3	.01	.45	8	.01
10	7.8	9	.18	.84	6	.01	.51	11	.02
11	5.6	6	.09	.66	9	.02	1.1	13	.04
12	4.6	11	.14	.60	15	.02	1.4	14	.05
13	3.9	9	.10	1.4	20	.08	.84	14	.03
14	3.5	5	.05	4.0	15	.17	.64	12	.02
15	3.3	3	.03	4.5	9	.11	.41	10	.01
16	2.8	4	.03	8.6	6	.15	.28	14	.01
17	2.1	4	.03	225	353	250	.30	13	.01
18	1.9	5	.02	138	136	56	.29	16	.01
19	1.4	4	.02	61	39	6.8	.21	15	.01
20	1.0	7	.02	89	64	19	2.8	15	.12
21	.88	13	.03	82	48	11	1.8	13	.06
22	.95	14	.04	59	26	4.2	.96	14	.04
23	11	26	1.2	35	13	1.2	.74	14	.03
24	40	112	17	23	5	.33	.54	13	.02
25	20	44	2.8	17	4	.16	.40	9	.01
26	8.9	8	.19	12	3	.10	.33	8	.01
27	15	23	1.1	8.9	3	.07	.19	8	.00
28	10	11	.32	6.6	2	.04	.15	6	.00
29	5.4	6	.08	5.0	2	.03	.05	8	.00
30	3.6	4	.04	3.7	2	.02	.08	9	.00
31	2.6	3	.02	2.8	6	.04	---	---	---
TOTAL	344.13	---	99.12	831.06	---	353.00	24.09	---	0.72
YEAR	15258.24		6327.42						

SURFACE-WATER RECORDS

Scioto River Basin

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03230500 BIG DARBY CREEK AT DARBYVILLE, OHIO

LOCATION.--Lat 39°42'02", long 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.

WATER-DISCHARGE RECORDS

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 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	188	61	2410	487	e400	806	358	186	4870	360	63	84
2	135	59	3360	443	e350	2590	319	184	9230	285	61	81
3	107	58	1680	415	e320	3400	295	555	19500	377	58	76
4	84	64	980	379	e2000	1790	284	1880	8560	290	87	69
5	76	59	712	447	e4000	1240	288	1140	2750	252	99	67
6	67	55	647	609	e3500	1350	301	721	1860	196	73	64
7	58	61	574	531	e2000	1350	300	540	1400	168	72	61
8	52	74	489	382	e1100	882	269	446	1050	152	76	59
9	52	84	410	338	e840	748	241	448	827	149	61	58
10	53	90	341	344	e680	1440	225	518	663	147	57	59
11	52	112	312	e250	e600	1630	214	396	546	143	55	60
12	49	99	310	e180	e520	949	e250	336	467	150	49	62
13	47	87	434	e170	e450	708	e300	308	484	136	83	61
14	47	85	618	e160	e390	1430	e350	278	1380	121	74	56
15	45	79	440	e150	e340	2560	e310	295	945	104	98	52
16	44	72	372	e200	e300	1260	e290	257	700	86	100	55
17	45	70	1970	e190	e270	856	e240	228	2220	78	1000	52
18	50	71	4210	e175	e250	835	226	214	2940	73	1600	48
19	68	72	2700	e165	e330	1090	214	243	1840	75	796	44
20	77	75	1190	e155	e540	1050	210	252	1080	71	696	57
21	69	83	783	e150	784	787	204	299	729	68	598	60
22	81	83	625	e200	986	653	197	225	547	68	581	47
23	77	76	525	e800	720	536	194	201	431	118	532	44
24	69	74	1360	e1500	513	446	189	187	354	140	326	45
25	65	80	2790	e1100	421	391	182	212	301	165	225	42
26	62	1100	1230	e860	387	400	178	242	268	137	179	41
27	62	2000	795	e800	446	363	170	376	244	114	153	45
28	65	959	665	e1800	925	337	184	261	218	97	135	42
29	61	581	697	e1400	---	420	190	211	205	81	117	38
30	59	619	677	e800	---	423	187	211	235	72	103	36
31	60	---	563	e540	---	419	---	331	---	65	93	---
TOTAL	2126	7142	34869	16120	24362	33139	7359	12181	66844	4538	8300	1665
MEAN	68.6	238	1125	520	870	1069	245	393	2228	146	268	55.5
MAX	188	2000	4210	1800	4000	3400	358	1880	19500	377	1600	84
MIN	44	55	310	150	250	337	170	184	205	65	49	36
CFSM	.13	.45	2.11	.97	1.63	2.00	.46	.74	4.17	.27	.50	.10
IN.	.15	.50	2.43	1.12	1.70	2.31	.51	.85	4.66	.32	.58	.12

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 1997, BY WATER YEAR (WY)

	MEAN	107	265	479	715	787	946	825	580	449	256	159	95.0
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 1996 CALENDAR YEAR			FOR 1997 WATER YEAR			WATER YEARS 1922 - 1997		
ANNUAL TOTAL	328162			218645					
ANNUAL MEAN	897			599			470		
HIGHEST ANNUAL MEAN							840		
LOWEST ANNUAL MEAN							79.1		
HIGHEST DAILY MEAN	10600			19500			38400		
LOWEST DAILY MEAN	37			36			1.4		
ANNUAL SEVEN-DAY MINIMUM	39			41			2.0		
INSTANTANEOUS PEAK FLOW				23700			49000		
INSTANTANEOUS PEAK STAGE				16.06			17.94		
INSTANTANEOUS LOW FLOW				36			1.4		
ANNUAL RUNOFF (CFSM)	1.68			1.12			.88		
ANNUAL RUNOFF (INCHES)	22.86			15.23			11.97		
10 PERCENT EXCEEDS	2330			1350			1130		
50 PERCENT EXCEEDS	404			252			157		
90 PERCENT EXCEEDS	55			59			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

03230500 BIG DARBY CREEK AT DARBYVILLE, OHIO—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--1965-1977, 1988, May 6, 1992, to current year.

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: November 12, 1992, to current year.

REMARKS.--Suspended-sediment samples were collected by a local observer approximately once per day. Sediment samples were also collected by a pumping sampler until January 27. Pumped samples were collected for every 1-ft rise and 2-ft drop in stage. 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, 844 mg/L, June 3, 1997; minimum daily mean, 1 mg/L, Oct. 25-27, 1995.

SEDIMENT LOADS: Maximum daily, 45,500 tons, June 3, 1997; minimum daily, 0.25 ton, Oct. 11, 1993.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 844 mg/L, June 3; minimum daily mean, 3 mg/L, Nov. 9.

SEDIMENT LOADS: Maximum daily, 45,500 tons, June 3; minimum daily, 0.59 ton, Nov. 6.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	SAM- PLING METHOD, CODES*	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDED (MG/L) (80154)
OCT							
07...	1035	10	55	718	19.0	13.0	18
DEC							
17...	1520	10	2670	450	2.0	6.0	249
MAY							
15...	1240	10	306	672	15.0	13.5	11
JUN							
03...	1740	10	20700	210	15.5	17.0	795
03...	1815	10	20200	--	--	--	793

* 10 - STREAM CROSS-SECTION SAMPLE OBTAINED BY EQUAL-WIDTH-INCREMENT (EWI) SAMPLING METHOD.

SURFACE-WATER RECORDS

Scioto River Basin

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03230500 BIG DARBY CREEK AT DARBYVILLE, OHIO—Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

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)
OCTOBER			NOVEMBER			DECEMBER			
1	188	60	30	61	37	6.1	2410	364	2520
2	135	51	19	59	34	5.4	3360	307	2810
3	107	36	11	58	32	5.0	1680	115	551
4	84	22	5.1	64	29	5.1	980	58	156
5	76	15	3.2	59	9	1.5	712	34	66
6	67	13	2.3	55	4	.59	647	32	55
7	58	12	1.9	61	4	.70	574	52	80
8	52	10	1.4	74	4	.79	489	50	66
9	52	7	1.1	84	3	.75	410	39	43
10	53	28	4.0	90	6	1.4	341	40	36
11	52	18	2.6	112	10	3.1	312	44	37
12	49	24	3.1	99	11	2.9	310	29	25
13	47	18	2.3	87	11	2.5	434	36	44
14	47	12	1.6	85	11	2.4	618	40	67
15	45	18	2.2	79	10	2.2	440	34	40
16	44	10	1.2	72	10	2.0	372	34	34
17	45	20	2.4	70	10	1.9	1970	199	1240
18	50	21	2.8	71	10	1.9	4210	247	2810
19	68	20	3.6	72	8	1.6	2700	139	1090
20	77	18	3.8	75	6	1.2	1190	74	243
21	69	17	3.2	83	8	1.8	783	50	106
22	81	16	3.5	83	19	4.3	625	34	58
23	77	15	3.2	76	11	2.3	525	27	39
24	69	14	2.7	74	7	1.4	1360	66	275
25	65	13	2.4	80	14	3.2	2790	207	1580
26	62	13	2.1	1100	215	747	1230	99	344
27	62	12	2.0	2000	173	952	795	65	141
28	65	16	2.8	959	79	211	665	54	98
29	61	40	6.6	581	47	75	697	45	85
30	59	41	6.6	619	39	68	677	38	69
31	60	48	7.7	---	---	---	563	32	48
TOTAL	2126	---	147.4	7142	---	2115.03	34869	---	14856

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

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)
JANUARY			FEBRUARY			MARCH			
1	487	27	35	e400	45	49	806	118	260
2	443	28	34	e350	28	27	2590	524	3710
3	415	35	39	e320	28	24	3400	418	3910
4	379	44	45	e2000	487	2630	1790	144	724
5	447	38	46	e4000	477	5150	1240	69	232
6	609	30	49	e3500	270	2550	1350	90	351
7	531	30	43	e2000	94	506	1350	96	353
8	382	33	34	e1100	48	142	882	52	125
9	338	41	38	e840	37	84	748	42	88
10	344	46	43	e680	32	59	1440	117	467
11	e250	45	31	e600	27	44	1630	165	765
12	e180	40	19	e520	19	27	949	70	184
13	e170	35	16	e450	18	22	708	47	89
14	e160	30	13	e390	17	18	1430	122	565
15	e150	26	11	e340	20	19	2560	155	1080
16	e200	24	13	e300	23	18	1260	93	322
17	e190	23	12	e270	11	7.8	856	69	160
18	e175	22	10	e250	12	7.9	835	58	133
19	e165	21	9.1	e330	21	19	1090	51	151
20	e155	19	8.1	e540	33	47	1050	48	137
21	e150	18	7.5	784	44	93	787	37	79
22	e200	29	16	986	68	182	653	28	50
23	e800	69	149	720	51	101	536	24	35
24	e1500	180	729	513	35	49	446	17	20
25	e1100	149	441	421	24	27	391	15	16
26	e860	84	196	387	17	17	400	15	16
27	e800	113	243	446	17	21	363	14	14
28	e1800	147	716	925	65	167	337	13	12
29	e1400	80	301	---	---	---	420	27	30
30	e800	63	136	---	---	---	423	23	27
31	e540	52	76	---	---	---	419	9	10
TOTAL	16120	---	3558.7	24362	---	12107.7	33139	---	14115

e Estimated

SURFACE-WATER RECORDS

Scioto River Basin

03230500 BIG DARBY CREEK AT DARBYVILLE, OHIO—Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

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			MAY			JUNE			
1	358	7	6.7	186	13	6.6	4870	298	3910
2	319	7	5.9	184	7	3.7	9230	334	8780
3	295	9	7.4	555	46	98	19500	844	45500
4	284	9	6.5	1880	213	1100	8560	319	8530
5	288	12	9.0	1140	90	290	2750	107	814
6	301	16	13	721	44	85	1860	70	354
7	300	18	15	540	43	63	1400	61	231
8	269	12	8.8	446	41	50	1050	54	152
9	241	10	6.6	448	35	43	827	46	104
10	225	14	8.4	518	31	44	663	35	63
11	214	13	7.7	396	28	30	546	40	59
12	e250	15	9.9	336	25	23	467	36	46
13	e300	20	16	308	27	23	484	49	67
14	e350	15	14	278	24	18	1380	164	612
15	e310	12	9.9	295	17	13	945	81	211
16	e290	15	12	257	21	14	700	62	138
17	e240	15	9.7	228	6	3.5	2220	338	2090
18	226	10	6.0	214	4	2.4	2940	499	4290
19	214	6	3.4	243	6	4.0	1840	160	855
20	210	11	6.1	252	11	7.6	1080	75	219
21	204	12	6.7	299	11	9.4	729	54	107
22	197	7	3.8	225	5	3.2	547	42	62
23	194	8	4.4	201	6	3.2	431	33	39
24	189	11	5.7	187	7	3.7	354	25	24
25	182	7	3.6	212	19	13	301	25	20
26	178	8	3.7	242	14	9.3	268	27	19
27	170	13	5.7	376	27	31	244	36	24
28	184	19	9.4	261	10	7.1	218	30	18
29	190	10	5.1	211	9	4.9	205	23	13
30	187	17	8.6	211	8	4.8	235	46	31
31	---	---	---	331	25	44	---	---	---
TOTAL	7359	---	238.7	12181	---	2055.4	66844	---	77382
e Estimated									

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

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)
JULY			AUGUST			SEPTEMBER			
1	360	86	89	63	50	8.6	84	43	10
2	285	61	47	61	43	7.1	81	36	7.9
3	377	114	120	58	39	6.1	76	38	7.8
4	290	59	46	87	39	9.3	69	31	5.8
5	252	51	35	99	37	10	67	29	5.3
6	196	44	24	73	35	7.0	64	29	5.0
7	168	36	16	72	55	11	61	23	3.8
8	152	32	13	76	63	13	59	26	4.2
9	149	27	11	61	54	9.0	58	28	4.4
10	147	25	9.9	57	44	6.8	59	33	5.3
11	143	24	9.4	55	36	5.3	60	33	5.4
12	150	24	9.6	49	29	3.9	62	36	6.1
13	136	22	8.1	83	48	12	61	30	4.9
14	121	22	7.3	74	40	8.0	56	24	3.6
15	104	24	6.7	98	51	14	52	20	2.8
16	86	20	4.7	100	39	11	55	33	5.0
17	78	17	3.7	1000	145	479	52	43	6.0
18	73	15	3.0	1600	176	776	48	38	4.9
19	75	22	4.4	796	96	210	44	39	4.6
20	71	32	6.0	696	103	205	57	42	6.6
21	68	36	6.7	598	73	118	60	39	6.4
22	68	33	6.1	581	65	102	47	31	4.0
23	118	63	25	532	71	102	44	24	2.9
24	140	53	20	326	64	57	45	26	3.2
25	165	38	17	225	57	34	42	26	3.0
26	137	35	13	179	47	23	41	21	2.4
27	114	30	9.2	153	51	21	45	20	2.4
28	97	28	7.3	135	43	16	42	20	2.3
29	81	39	8.5	117	39	12	38	22	2.3
30	72	49	9.4	103	31	8.7	36	21	2.0
31	65	45	8.0	93	29	7.3	---	---	---
TOTAL	4538	---	604.0	8300	---	2313.1	1665	---	140.3
YEAR	218645		129633.33						

SURFACE-WATER RECORDS

Scioto River Basin

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03230800 DEER CREEK AT MT. STERLING, OHIO

LOCATION.--Lat 39°42'54", long 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 Duffs Fork.

DRAINAGE AREA.--228 mi².

PERIOD OF RECORD.--October 1966 to September 1981; October 1995 to September 1996.

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 collected at this site.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64	e60	2270	242	211	371	177	86	4540	551	24	37
2	50	e45	1840	235	213	2160	158	86	4590	383	22	35
3	44	e42	832	221	244	1230	151	574	2980	220	22	34
4	38	e40	568	203	1370	893	145	672	2310	150	32	33
5	35	e40	445	314	2970	651	148	420	714	118	38	30
6	34	e54	428	334	1040	622	162	289	488	96	26	30
7	33	e90	376	234	636	480	142	199	351	83	21	31
8	33	e120	316	e160	487	386	124	181	278	74	18	33
9	36	e160	264	e130	368	347	115	195	229	75	16	38
10	36	e90	231	e110	305	1220	107	161	190	81	14	e34
11	35	e110	227	e96	266	737	106	137	168	63	14	e36
12	33	e80	219	e90	239	484	124	129	156	56	14	e38
13	34	e64	249	e84	202	369	142	118	159	52	54	e32
14	35	e50	228	e78	198	1260	120	108	156	49	50	e28
15	36	e46	209	e74	183	1130	109	127	129	47	49	e26
16	41	e45	207	e72	164	604	107	113	211	43	66	e25
17	50	e52	1850	e72	146	452	110	97	773	39	825	e32
18	72	e60	1840	e70	149	516	103	92	1590	38	634	e38
19	99	e66	807	e68	197	940	100	100	940	e34	224	e32
20	76	e58	491	e68	258	600	97	110	481	e30	423	e44
21	62	e56	381	e80	353	455	94	88	315	e28	402	e68
22	e46	e56	282	e150	347	361	94	79	233	e45	196	e52
23	e48	e49	272	624	239	274	92	75	180	71	136	e42
24	e52	e48	993	310	192	231	90	72	149	131	102	e38
25	e58	e60	733	585	173	217	85	92	129	66	83	e33
26	e62	e1440	446	276	172	231	80	107	117	48	70	e30
27	e68	955	341	414	231	206	80	87	104	42	60	e26
28	e76	564	331	1640	242	188	94	74	92	39	52	e24
29	e66	437	364	511	---	251	86	76	87	37	46	e22
30	e50	591	306	306	---	242	80	84	91	32	42	e20
31	e64	---	272	224	---	214	---	203	---	27	38	---
TOTAL	1566	5628	18618	8075	11795	18322	3422	5031	22930	2848	3813	1021
MEAN	50.5	188	601	260	421	591	114	162	764	91.9	123	34.0
MAX	99	1440	2270	1640	2970	2160	177	672	4590	551	825	68
MIN	33	40	207	68	146	188	80	72	87	27	14	20
CFSM	.22	.82	2.63	1.14	1.85	2.59	.50	.71	3.35	.40	.54	.15
IN.	.26	.92	3.04	1.32	1.92	2.99	.56	.82	3.74	.46	.62	.17

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1997, BY WATER YEAR (WY)

	MEAN	60.2	175	302	319	366	460	376	359	272	122	118	79.3
	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	12.8	35.3	15.7	10.0	111	113	58.5	29.2	23.9	12.9	14.9	11.7
	(WY)	1968	1979	1977	1977	1978	1969	1976	1976	1977	1977	1977	1968

SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1967 - 1997

ANNUAL TOTAL	157625	103069	
ANNUAL MEAN	431	282	250
HIGHEST ANNUAL MEAN			394
LOWEST ANNUAL MEAN			82.7
HIGHEST DAILY MEAN	7640	Jan 19	4590 Jun 2
LOWEST DAILY MEAN	22	Sep 2	14 Aug 10
ANNUAL SEVEN-DAY MINIMUM	24	Aug 28	18 Aug 6
INSTANTANEOUS PEAK FLOW			7080 Jun 1 a
INSTANTANEOUS PEAK STAGE			10.86 Jun 1
INSTANTANEOUS LOW FLOW			13 Aug 11
ANNUAL RUNOFF (CFSM)	1.89		1.24
ANNUAL RUNOFF (INCHES)	25.72		16.82
10 PERCENT EXCEEDS	994		623
50 PERCENT EXCEEDS	160		110
90 PERCENT EXCEEDS	35		34
			20
			19500
			80.93
			.00
			1.10
			14.90
			575
			100
			20
			May 25 1968
			Mar 10 1964
			Jul 28 1977
			Sep 14 1967
			May 24 1968

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

03230900 DEER CREEK NEAR PANCOASTBURG, OHIO

LOCATION.--Lat 39°37'14", long 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.

DRAINAGE AREA.--277 mi².

PERIOD OF RECORD.--Water years 1964-66 (occasional low-flow measurements and annual maximums), July 1966 to current year. (Station discontinued).

REVISED RECORDS.--WRD Ohio 1972: 1971.

GAGE.--Water-stage recorder. Datum of gage is 768.00 ft above sea level, U.S. Army Corps of Engineers benchmark.

Oct. 23, 1963, to June 30, 1966, crest-stage gage at site 200 ft upstream at datum 8.16 ft lower. July 1, 1966, to Sept. 30, 1983, at datum 68.00 ft lower.

REMARKS.--No estimated daily discharge. Records fair. Flow completely regulated by Deer Creek Lake (capacity 26,440 acre-ft) since April 1, 1968. Water-quality data collected at this site. U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,500 ft³/s (estimated) Mar. 10, 1964; gage height, 12.93 ft, present datum.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	178	249	760	368	226	256	12	13	11	531	13	16
2	115	170	1900	276	228	109	13	14	14	744	13	16
3	85	169	2190	213	339	11	13	15	16	407	13	16
4	49	169	1160	191	444	11	13	15	16	212	42	17
5	20	169	608	191	1460	11	13	16	16	123	54	16
6	20	169	435	282	2280	980	13	16	1060	85	54	16
7	20	169	411	328	1520	2550	13	16	2010	85	29	17
8	21	221	409	265	545	2510	13	17	2040	63	13	17
9	41	270	230	228	543	1650	14	45	2060	54	11	17
10	54	266	165	212	830	1320	14	57	2060	77	11	17
11	36	262	215	189	849	1350	13	58	2070	73	11	34
12	22	260	239	187	454	974	13	58	2040	54	11	37
13	22	228	220	187	253	532	13	58	1980	54	49	18
14	22	200	183	89	215	718	13	83	2090	54	90	17
15	49	199	183	41	196	1280	13	121	1630	53	138	17
16	118	197	222	179	197	1210	13	114	713	44	173	18
17	192	195	751	140	197	530	13	91	673	40	441	18
18	242	194	1680	63	196	528	13	92	333	40	794	18
19	270	194	2160	65	247	769	12	93	1140	40	940	17
20	268	192	985	64	357	889	13	93	1850	35	597	18
21	268	204	242	123	383	683	13	69	995	20	678	18
22	266	232	242	157	382	398	13	60	342	30	577	28
23	266	228	435	399	382	399	14	60	563	46	208	33
24	264	225	536	397	278	367	14	61	163	81	113	33
25	230	224	547	332	216	325	14	95	79	92	81	21
26	181	731	835	342	226	324	14	169	122	91	79	14
27	181	1130	587	383	280	285	14	189	119	91	79	14
28	181	1080	321	1050	270	209	14	187	87	91	84	14
29	181	540	324	1410	---	175	15	188	89	39	38	14
30	321	141	355	755	---	177	15	187	101	15	16	15
31	367	---	370	275	---	134	---	176	---	14	16	---
TOTAL	4550	8877	19900	9381	13993	21664	400	2526	26482	3478	5466	581
MEAN	147	296	642	303	500	699	13.3	81.5	883	112	176	19.4
MAX	367	1130	2190	1410	2280	2550	15	189	2090	744	940	37
MIN	20	141	165	41	196	11	12	13	11	14	11	14

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 1997, BY WATER YEAR (WY)

	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
MEAN	137	285	355	317	433	444	260	315	323	161	112	74.8																		
MAX	538	1152	1108	903	1133	1262	764	1198	1346	713	754	856																		
(WY)	1980	1973	1974	1991	1982	1979	1973	1996	1996	1990	1980	1979																		
MIN	12.3	37.7	27.0	20.4	37.4	59.1	9.83	7.75	7.69	9.98	11.8	6.31																		
(WY)	1969	1978	1988	1977	1992	1983	1971	1976	1976	1988	1988	1968																		

SUMMARY STATISTICS

	FOR 1996 CALENDAR YEAR				FOR 1997 WATER YEAR				WATER YEARS 1968 - 1997			
ANNUAL TOTAL	189994.1				117298							
ANNUAL MEAN	519				321				267			
HIGHEST ANNUAL MEAN									484			
LOWEST ANNUAL MEAN									102			
HIGHEST DAILY MEAN	2880				2550				2930			
LOWEST DAILY MEAN	8.0				11				.00			
ANNUAL SEVEN-DAY MINIMUM	16				13				2.4			
INSTANTANEOUS PEAK FLOW					2590				3000			
INSTANTANEOUS PEAK STAGE					6.34				7.06			
INSTANTANEOUS LOW FLOW					11				.00			
10 PERCENT EXCEEDS	1900				909				722			
50 PERCENT EXCEEDS	212				169				117			
90 PERCENT EXCEEDS	22				14				13			

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03231500 SCIOTO RIVER AT CHILLICOTHE, OHIO

WATER-DISCHARGE RECORDS

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).

ANNUAL TOTAL	2357769		1666604				
ANNUAL MEAN	6442		4566			3567	
HIGHEST ANNUAL MEAN						6217	1973
LOWEST ANNUAL MEAN						883	1934
HIGHEST DAILY MEAN	36800	May 2	39200	Jun 4		127000	Jan 23 1959
LOWEST DAILY MEAN	539	Oct 15	539	Oct 15		166	Sep 27 1944
ANNUAL SEVEN-DAY MINIMUM	636	Aug 30	644	Oct 12		174	Sep 21 1944
INSTANTANEOUS PEAK FLOW			42100	Jun 4		144000	Jan 23 1959
INSTANTANEOUS PEAK STAGE			16.23	Jun 4		32.50	Jan 23 1959
INSTANTANEOUS LOW FLOW			539	Oct 15		166	Sep 27 1944
10 PERCENT EXCEEDS	18200		11600			9230	
50 PERCENT EXCEEDS	3310		2300			1480	
90 PERCENT EXCEEDS	815		871			370	

e Estimated.

SURFACE-WATER RECORDS
Scioto River Basin

03231500 SCIOTO RIVER AT CHILLCOTHE, 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.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 1,210 microsiemens Jan. 13, 1976; 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, 927 microsiemens Sept. 12; minimum, 230 microsiemens Aug. 18.

pH: Maximum recorded, 8.6 units May 22 and 23; minimum recorded, 7.2 units Aug. 8.

WATER TEMPERATURES: Maximum, 29.0°C July 17 and 18; minimum, 0.0°C on several days during winter.

DISSOLVED OXYGEN: Maximum, 18.1 mg/L July 21; minimum, 4.6 mg/L July 28.

SURFACE-WATER RECORDS

Scioto River Basin

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03231500 SCIOTO RIVER AT CHILLICOTHE, OHIO—Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	548	481	510	644	615	624	481	400	463	494	485	489
2	595	548	576	666	644	656	418	341	386	514	493	505
3	616	579	601	696	666	684	450	413	429	535	514	523
4	618	611	614	692	680	686	484	450	470	595	535	568
5	657	613	633	693	676	682	472	458	462	---	---	---
6	701	657	683	696	679	691	475	459	464	---	---	---
7	736	701	719	709	679	698	525	475	506	---	---	---
8	788	736	752	702	685	692	535	524	529	603	570	592
9	813	744	786	717	645	677	564	535	550	584	575	581
10	744	721	732	645	581	602	607	564	583	581	573	576
11	738	709	719	605	586	599	633	607	619	595	569	578
12	789	731	762	623	605	616	643	519	605	624	595	614
13	786	722	752	619	607	614	519	467	495	656	623	637
14	722	712	715	636	606	618	568	509	541	692	656	675
15	738	716	726	669	636	654	568	502	542	704	688	695
16	765	738	754	670	656	664	502	408	438	699	687	696
17	777	765	773	665	655	659	408	361	391	703	686	696
18	774	719	745	710	655	685	389	366	377	725	701	712
19	719	684	699	741	705	722	384	362	374	745	725	737
20	720	702	715	705	652	666	383	352	367	782	745	762
21	711	599	646	665	628	640	367	345	351	---	---	---
22	599	584	590	667	629	647	415	367	393	---	---	---
23	619	598	609	692	667	683	461	415	436	---	---	---
24	657	619	640	699	686	691	502	461	485	---	---	---
25	673	657	666	713	699	705	494	396	426	---	---	---
26	691	668	676	703	659	684	450	396	408	---	---	---
27	700	684	696	659	439	492	464	446	460	---	---	---
28	737	679	703	556	483	531	446	425	431	---	---	---
29	761	713	733	573	556	564	474	433	454	---	---	---
30	758	657	696	570	474	519	489	474	485	---	---	---
31	674	624	660	---	---	---	492	485	489	---	---	---
MONTH	813	481	686	741	439	645	643	341	465	782	485	626

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	651	455	551	605	584	594	693	669	681
2	---	---	---	455	369	406	623	592	607	691	669	677
3	---	---	---	455	408	435	655	615	634	730	691	714
4	---	---	---	455	408	425	690	655	671	701	557	637
5	412	381	392	510	447	482	694	683	689	562	529	541
6	401	360	372	510	494	504	768	694	728	621	562	598
7	386	355	377	510	445	471	744	679	713	642	621	634
8	355	343	347	447	434	441	680	664	671	652	639	647
9	418	354	377	438	408	421	680	657	668	670	649	658
10	484	418	455	409	394	403	697	661	678	671	625	645
11	502	484	493	417	397	407	718	688	702	634	604	620
12	525	502	513	460	414	433	724	703	714	650	630	638
13	533	510	521	509	460	486	720	698	709	660	643	651
14	557	525	543	527	509	521	711	695	702	664	652	658
15	580	557	565	511	440	469	695	650	672	666	659	662
16	612	549	579	451	431	440	700	688	694	679	653	668
17	659	604	625	508	451	476	710	692	697	663	646	653
18	698	651	672	531	508	523	708	694	701	670	658	663
19	722	698	712	521	476	490	713	703	709	736	670	701
20	737	706	721	533	482	509	724	707	714	736	669	706
21	745	698	725	570	533	550	729	717	723	673	660	667
22	698	612	652	585	570	579	721	714	719	674	649	661
23	612	573	590	595	581	585	726	713	720	670	651	661
24	635	588	612	592	578	585	718	698	707	673	654	662
25	612	580	594	638	590	616	720	699	710	685	669	677
26	612	573	589	621	598	608	739	717	725	688	639	674
27	674	612	649	636	600	616	759	739	749	639	560	613
28	698	651	674	655	630	641	775	747	757	591	540	564
29	---	---	---	653	642	649	779	730	749	598	591	596
30	---	---	---	655	635	645	732	693	712	619	591	601
31	---	---	---	635	600	614	---	---	---	624	592	616
MONTH	745	343	556	655	369	516	779	584	698	736	529	647

SURFACE-WATER RECORDS **Scioto River Basin**

03231500 SCIOTO RIVER AT CHILLICOTHE, OHIO—Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	604	346	494	774	504	660	647	558	589	833	753	782
2	372	341	353	642	537	586	661	610	637	813	767	787
3	375	288	340	---	---	---	711	653	676	818	787	801
4	288	258	266	---	---	---	729	632	691	809	762	793
5	347	267	306	---	---	---	763	698	723	832	786	798
6	393	347	375	---	---	---	731	618	663	834	780	789
7	430	392	410	---	---	---	641	593	606	814	778	798
8	410	396	401	742	728	738	674	614	643	826	780	791
9	419	408	414	772	723	748	739	664	699	846	779	822
10	428	415	420	767	747	755	772	729	753	878	828	851
11	430	410	420	773	749	761	767	751	761	880	835	854
12	468	429	451	769	725	740	799	740	759	927	804	840
13	503	468	483	773	733	754	793	755	774	885	804	827
14	540	404	482	777	755	767	758	643	687	912	814	841
15	472	409	447	779	761	773	643	541	589	821	780	807
16	541	472	505	792	771	781	544	369	448	789	754	767
17	635	392	546	788	742	766	510	400	479	788	766	779
18	415	351	383	761	722	745	400	230	285	849	788	802
19	415	274	328	742	715	730	430	328	367	851	803	819
20	494	335	425	761	742	752	476	397	444	851	782	822
21	540	493	517	779	755	770	461	387	428	816	799	806
22	639	540	599	770	675	727	507	457	479	872	799	826
23	663	628	643	695	673	682	536	505	517	863	801	831
24	694	663	679	789	660	740	583	520	555	830	781	801
25	730	693	710	660	525	567	638	574	603	792	763	776
26	739	726	730	563	512	531	669	625	644	786	771	778
27	762	739	747	626	556	590	723	665	683	820	777	806
28	771	747	755	600	294	395	743	684	704	830	789	814
29	778	758	773	360	292	326	725	701	710	839	789	814
30	781	767	774	496	354	425	771	707	723	844	797	829
31	---	---	---	577	496	527	768	732	747	---	---	---
MONTH	781	258	506	792	292	667	799	230	615	927	753	808
YEAR	927	230	619									

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	7.8	7.8	7.8	8.0	7.9	7.9	7.7	7.6	7.7	7.9	7.9	7.9
2	7.8	7.8	7.8	8.0	7.9	7.9	7.7	7.6	7.7	7.9	7.9	7.9
3	7.9	7.8	7.8	8.0	7.9	8.0	7.8	7.7	7.8	7.9	7.9	7.9
4	8.0	7.8	7.9	8.1	8.0	8.0	7.9	7.8	7.9	7.9	7.9	7.9
5	8.0	7.9	8.0	8.1	8.0	8.0	7.9	7.9	7.9	7.9	7.9	7.9
6	8.0	7.9	8.0	8.0	7.9	8.0	7.9	7.9	7.9	7.9	7.9	7.9
7	8.1	7.9	8.0	7.9	7.9	7.9	7.9	7.9	7.9	8.0	7.9	8.0
8	8.1	7.9	8.0	7.9	7.8	7.8	7.9	7.9	7.9	8.0	8.0	8.0
9	8.0	7.9	7.9	7.9	7.8	7.8	8.0	7.9	8.0	8.0	8.0	8.0
10	8.0	7.8	7.9	7.9	7.8	7.8	8.0	8.0	8.0	8.0	8.0	8.0
11	8.0	7.9	8.0	7.9	7.8	7.9	8.0	7.9	8.0	8.0	8.0	8.0
12	8.0	7.9	8.0	8.1	7.9	8.0	8.0	7.9	7.9	8.0	8.0	8.0
13	8.1	8.0	8.0	8.1	7.9	8.0	7.9	7.8	7.9	8.0	7.9	8.0
14	8.1	8.0	8.1	8.1	8.0	8.0	8.0	7.9	7.9	8.0	7.9	8.0
15	8.2	8.0	8.1	8.1	8.0	8.1	8.0	7.9	8.0	8.0	8.0	8.0
16	8.1	8.0	8.1	8.2	8.0	8.1	7.9	7.8	7.8	8.0	8.0	8.0
17	8.1	8.0	8.0	8.2	8.1	8.2	7.8	7.8	7.8	8.1	8.0	8.0
18	8.0	7.8	7.9	8.1	8.0	8.1	7.8	7.7	7.7	8.0	8.0	8.0
19	7.9	7.8	7.8	8.1	8.0	8.0	7.8	7.8	7.8	8.0	7.9	8.0
20	7.9	7.7	7.8	8.2	8.0	8.1	7.9	7.8	7.8	8.0	8.0	8.0
21	7.8	7.7	7.7	8.2	8.0	8.1	7.9	7.8	7.8	---	---	---
22	7.8	7.8	7.8	8.2	8.1	8.2	7.9	7.9	7.9	---	---	---
23	7.8	7.8	7.8	8.3	8.1	8.2	7.9	7.9	7.9	---	---	---
24	7.9	7.8	7.9	8.3	8.1	8.2	7.9	7.9	7.9	---	---	---
25	7.9	7.9	7.9	8.1	8.0	8.0	7.9	7.8	7.9	---	---	---
26	7.9	7.8	7.9	8.0	7.8	7.9	7.9	7.9	7.9	---	---	---
27	7.8	7.8	7.8	7.8	7.7	7.7	8.0	7.9	8.0	---	---	---
28	7.9	7.7	7.8	8.0	7.8	7.9	7.9	7.9	7.9	---	---	---
29	7.9	7.8	7.9	8.0	8.0	8.0	7.9	7.9	7.9	---	---	---
30	8.0	7.9	7.9	8.0	7.7	7.9	7.9	7.9	7.9	---	---	---
31	8.0	7.9	7.9	---	---	---	7.9	7.9	7.9	---	---	---
MONTH	8.2	7.7	7.9	8.3	7.7	8.0	8.0	7.6	7.9	8.1	7.9	8.0

SURFACE-WATER RECORDS

Scioto River Basin

03231500 SCIOTO RIVER AT CHILLICOTHE, OHIO—Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	18.5	17.0	17.5	13.5	11.5	12.5	9.5	7.0	8.5	6.0	6.0	6.0
2	20.0	18.5	19.0	11.5	10.0	10.5	8.0	6.5	7.0	7.5	6.0	6.5
3	19.5	18.0	18.5	10.0	9.0	9.5	6.5	5.5	6.0	8.5	7.5	8.0
4	18.0	16.0	17.0	9.5	8.0	9.0	6.0	5.0	5.5	10.5	8.5	9.0
5	16.5	15.0	16.0	10.0	9.5	9.5	5.5	5.0	5.0	10.5	10.0	10.5
6	16.5	15.0	16.0	11.0	10.0	10.5	5.0	5.0	5.0	10.0	7.0	8.5
7	17.0	15.5	16.0	13.0	11.0	12.0	6.0	5.0	5.5	7.0	5.0	6.0
8	17.0	15.5	16.5	13.0	12.5	12.5	5.5	4.5	5.0	5.0	4.0	4.5
9	17.0	15.5	16.5	12.5	10.0	11.5	4.5	4.0	4.5	4.0	3.5	3.5
10	15.5	14.5	14.5	10.0	8.5	9.0	6.0	4.0	4.5	3.5	2.0	3.0
11	15.0	14.0	14.5	8.5	7.0	7.5	8.0	6.0	7.0	2.0	.5	1.0
12	15.0	13.5	14.0	7.0	6.0	6.5	9.0	7.5	8.0	.5	.0	.0
13	15.5	14.0	15.0	6.0	5.5	6.0	8.0	6.5	7.5	.0	.0	.0
14	17.0	15.0	16.0	6.0	5.5	6.0	6.5	5.5	6.0	.5	.0	.5
15	17.0	15.5	16.5	6.0	5.0	5.5	6.0	5.0	5.5	1.0	.5	.5
16	17.5	16.0	16.5	6.0	5.0	5.5	6.5	6.0	6.5	1.0	.5	1.0
17	18.0	16.0	17.0	7.0	5.5	6.0	6.5	6.5	6.5	.5	.0	.0
18	17.5	15.5	17.0	7.5	7.0	7.5	6.5	5.0	6.0	.5	.0	.5
19	15.5	13.5	14.5	8.0	7.0	7.5	5.0	3.0	4.0	.5	.5	.5
20	13.5	13.0	13.5	7.5	7.0	7.5	3.0	2.0	2.5	1.0	.5	.5
21	14.5	13.5	14.0	7.5	6.0	6.5	2.0	1.0	1.5	---	---	---
22	15.0	14.5	14.5	6.0	5.5	6.0	2.5	1.5	2.0	---	---	---
23	15.0	14.0	14.5	6.5	5.5	6.0	4.0	2.5	3.0	---	---	---
24	14.5	13.5	14.0	7.0	6.5	6.5	4.5	4.0	4.5	---	---	---
25	14.0	13.0	13.5	7.5	7.0	7.5	4.5	2.5	3.5	---	---	---
26	14.0	13.5	13.5	8.0	7.0	7.0	2.5	1.5	2.0	---	---	---
27	15.5	14.0	15.0	8.0	5.0	6.0	3.0	1.5	2.5	---	---	---
28	16.5	15.5	16.0	5.0	4.0	4.5	5.5	3.0	4.0	---	---	---
29	16.0	15.0	15.5	4.5	3.5	4.0	6.5	5.5	6.0	---	---	---
30	16.0	15.0	16.0	7.0	4.5	5.5	6.5	6.0	6.0	---	---	---
31	15.0	13.5	14.0	---	---	---	6.5	6.0	6.0	---	---	---
MONTH	20.0	13.0	15.5	13.5	3.5	7.5	9.5	1.0	5.0	10.5	0.0	3.5

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

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

SURFACE-WATER RECORDS

Scioto River Basin

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03231500 SCIOTO RIVER AT CHILLICOTHE, OHIO—Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	18.0	17.5	17.5	25.0	24.0	24.5	26.0	23.5	24.5	24.0	22.0	23.0
2	18.0	17.5	17.5	25.5	24.0	24.5	25.0	24.0	24.5	25.0	23.0	24.0
3	18.0	17.5	18.0	---	---	---	26.5	23.5	25.0	24.5	22.5	23.5
4	18.0	17.0	17.5	---	---	---	26.5	24.5	25.5	22.5	20.5	21.5
5	19.0	17.5	18.0	---	---	---	26.0	24.5	25.5	22.0	20.0	21.0
6	18.5	18.0	18.5	---	---	---	25.0	22.5	24.0	21.5	20.5	21.0
7	18.5	17.5	18.0	---	---	---	24.5	22.0	23.0	22.5	20.0	21.0
8	17.5	17.0	17.5	---	---	---	24.5	22.0	23.5	23.0	21.5	22.0
9	18.5	17.0	17.5	25.0	23.5	24.5	24.5	23.0	24.0	22.5	21.5	22.0
10	19.5	18.0	18.5	24.0	22.0	23.0	25.0	23.5	24.0	22.0	21.5	21.5
11	19.5	19.0	19.0	24.5	22.0	23.5	25.0	24.0	24.5	22.0	21.0	21.5
12	20.0	19.0	19.5	25.5	23.0	24.0	26.0	24.5	25.0	22.0	20.5	21.0
13	20.5	19.5	20.0	26.5	24.0	25.0	25.5	25.0	25.0	22.0	20.0	21.0
14	21.0	20.0	20.5	27.5	25.0	26.0	26.0	24.0	24.5	22.0	20.5	21.0
15	21.0	19.5	20.5	28.0	26.0	27.0	25.5	24.0	25.0	23.0	21.5	22.0
16	21.0	20.0	20.5	28.5	26.0	27.0	25.5	24.0	25.0	23.0	21.5	22.0
17	21.0	20.0	20.5	29.0	26.5	27.5	25.5	23.5	24.5	22.5	22.0	22.0
18	21.0	20.0	20.5	29.0	27.0	28.0	23.5	22.5	23.0	23.0	20.5	21.5
19	21.5	20.0	20.5	28.5	27.0	27.5	23.0	22.5	23.0	22.5	20.5	21.5
20	23.0	21.0	21.5	28.0	25.5	27.0	23.0	22.0	22.5	22.5	21.5	22.0
21	24.0	22.0	23.0	28.0	25.5	27.0	22.0	21.5	21.5	21.5	20.0	20.5
22	24.5	23.0	23.5	27.0	26.0	26.5	21.5	21.0	21.0	20.5	19.0	20.0
23	25.5	23.0	24.0	26.5	25.5	26.0	21.5	20.0	20.5	20.0	18.5	19.0
24	26.0	23.5	25.0	26.0	25.0	25.5	21.0	20.0	20.5	19.0	17.5	18.0
25	27.0	24.5	26.0	26.5	24.5	25.5	21.5	20.0	20.5	19.0	17.0	18.0
26	26.5	25.5	25.5	27.0	25.0	26.0	22.5	20.5	21.5	19.0	17.5	18.5
27	26.0	24.0	25.0	28.5	25.5	27.0	23.0	21.5	22.5	19.5	17.5	18.5
28	26.0	24.0	25.0	27.5	25.0	25.5	24.0	22.5	23.0	19.5	18.0	18.5
29	25.5	24.0	25.0	26.5	25.0	25.5	23.5	22.5	23.0	19.5	18.0	18.5
30	25.0	24.0	24.5	26.0	24.0	25.0	23.0	21.5	22.0	19.0	18.0	18.5
31	---	---	---	25.5	23.5	24.5	23.0	21.0	22.0	---	---	---
MONTH	27.0	17.0	21.0	29.0	22.0	25.5	26.5	20.0	23.5	25.0	17.0	21.0
YEAR	29.0	0.0	14.0									

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

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

SURFACE-WATER RECORDS

Scioto River Basin

129

03232000 PAINT CREEK NEAR GREENFIELD, OHIO

LOCATION.--Lat 39°22'45", long 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, 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 collected at this site.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	67	16	1420	249	257	1500	255	84	3190	841	26	43
2	40	15	1750	232	245	3670	217	82	4620	549	22	37
3	24	14	1150	217	252	2490	194	349	3180	626	20	32
4	19	14	639	198	1370	1540	178	613	1420	268	40	30
5	17	14	413	268	2370	999	175	422	762	174	60	27
6	14	15	367	293	1800	843	178	296	492	129	37	26
7	12	20	319	265	950	614	158	218	361	105	34	25
8	11	72	271	199	571	474	139	226	284	87	26	30
9	11	53	226	e120	432	459	125	306	234	93	20	30
10	12	48	189	e94	352	1160	115	227	195	93	19	24
11	14	48	178	e84	307	986	110	182	169	75	17	26
12	15	44	255	e76	271	592	127	162	156	65	16	23
13	13	36	242	e74	228	412	148	147	158	55	28	23
14	13	32	209	e68	202	882	128	131	156	48	123	20
15	12	29	183	e66	193	1130	112	131	128	43	204	18
16	11	27	171	e64	176	704	106	107	119	38	208	17
17	11	25	1780	e62	154	451	108	95	266	34	206	16
18	12	27	1990	e62	146	636	104	91	761	31	1660	14
19	35	33	1250	e60	170	1320	98	89	1940	29	1020	12
20	16	30	627	e60	220	889	94	87	1300	24	888	17
21	15	29	399	e66	270	574	91	78	482	23	1240	32
22	18	30	309	e100	284	421	88	70	328	51	676	24
23	19	31	264	e140	226	312	85	65	247	52	386	21
24	20	30	715	424	182	250	82	64	199	39	255	16
25	18	43	797	695	159	224	79	94	163	72	194	14
26	17	457	486	386	158	242	74	418	146	77	145	12
27	18	668	350	628	197	218	69	321	130	50	114	11
28	23	506	316	1890	198	201	80	228	108	41	93	9.8
29	21	298	335	968	---	316	81	183	99	81	72	8.7
30	25	349	317	543	---	355	76	164	100	56	60	7.1
31	18	---	279	301	---	311	---	358	---	37	49	---
TOTAL	591	3053	18196	8952	12340	25175	3674	6088	21893	3986	7958	645.6
MEAN	19.1	102	587	289	441	812	122	196	730	129	257	21.5
MAX	67	668	1990	1890	2370	3670	255	613	4620	841	1660	43
MIN	11	14	171	60	146	201	69	64	99	23	16	7.1
CFSM	.08	.41	2.36	1.16	1.77	3.26	.49	.79	2.93	.52	1.03	.09
IN.	.09	.46	2.72	1.34	1.84	3.76	.55	.91	3.27	.60	1.19	.10

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1927 - 1997, BY WATER YEAR (WY)

	MEAN	50.2	115	254	388	423	501	388	326	221	104	78.0	62.7
MAX	606	827	784	1510	1078	1712	1190	1731	791	519	633	831	
(WY)	1927	1973	1951	1949	1951	1945	1940	1968	1981	1973	1980	1979	
MIN	.59	1.11	2.09	5.06	8.06	28.9	57.3	20.6	7.42	.82	.47	.16	
(WY)	1931	1954	1954	1931	1954	1931	1941	1941	1934	1930	1930	1953	

SUMMARY STATISTICS FOR 1996 CALENDAR YEAR FOR 1997 WATER YEAR WATER YEARS 1927 - 1997

ANNUAL TOTAL	170775.3	112551.6	
ANNUAL MEAN	467	308	242
HIGHEST ANNUAL MEAN			442
LOWEST ANNUAL MEAN			56.1
HIGHEST DAILY MEAN	5210	Apr 30	4400
LOWEST DAILY MEAN	2.7	Sep 10	.00
ANNUAL SEVEN-DAY MINIMUM	2.9	Sep 6	.04
INSTANTANEOUS PEAK FLOW			5150
INSTANTANEOUS PEAK STAGE			9.52
INSTANTANEOUS LOW FLOW			6.2
ANNUAL RUNOFF (CFSM)	1.87		1.24
ANNUAL RUNOFF (INCHES)	25.51		16.81
10 PERCENT EXCEEDS	1440		776
50 PERCENT EXCEEDS	185		129
90 PERCENT EXCEEDS	12		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

03232500 ROCKY FORK NEAR BARRETTS MILLS, OHIO

LOCATION.--Lat 39°13'06", long 83°23'08", Highland County, Hydrologic Unit 05060003, on left bank at downstream side of highway bridge, 1.1 mi north of Barretts Mills, 2 mi east of Rainsboro, 2.8 mi upstream from mouth, and 6 mi downstream from Rocky Fork Lake.

DRAINAGE AREA.--140 mi².

PERIOD OF RECORD.--October 1939 to current year.

REVISED RECORDS.--WSP 1908: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 770.8 ft above sea level (levels by U.S. Army Corps of Engineers.)

Prior to Feb. 15, 1940, nonrecording gage at same site and datum.

REMARKS.--Records fair except for periods of estimated record, which are poor. Flow regulated by Rocky Fork Lake 6 mi upstream, since 1952, capacity, 34,100 acre-ft. Water-quality data collected at this site. U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 15.56 ft Mar. 6, 1945.

REVISIONS.--The maximum discharge for the water year 1995 has been revised to 3,700 ft³/s, May 18, 1995, gage height 9.01 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	127	18	e960	89	e56	3070	184	34	2570	1550	6.8	11
2	85	17	319	83	e50	e5980	174	30	1670	758	6.7	10
3	58	16	77	79	e72	2470	157	154	387	1010	6.9	12
4	47	15	92	75	1290	1180	136	182	131	52	7.2	11
5	32	15	49	168	1870	730	131	132	132	e60	7.2	9.8
6	25	15	61	152	411	600	137	104	122	e49	6.6	9.0
7	22	22	61	118	267	128	112	81	108	e43	6.3	9.7
8	19	127	41	92	167	172	89	110	114	e39	6.3	9.3
9	18	177	27	94	e130	210	76	224	111	e36	6.4	9.7
10	22	160	29	93	e100	515	65	179	98	e33	6.5	11
11	18	83	91	e41	e82	403	61	134	89	32	6.8	11
12	69	50	134	e30	e68	262	129	96	81	28	7.0	11
13	98	42	185	e25	e56	409	69	78	74	25	11	9.8
14	50	37	160	e22	e50	573	62	65	54	23	12	9.9
15	9.6	31	132	e20	e45	227	58	57	35	20	14	7.2
16	10	27	124	e19	e41	e170	56	43	35	17	16	6.9
17	12	26	1940	e18	e37	e230	55	37	414	15	32	6.2
18	17	39	1210	e17	e35	e307	50	35	568	13	87	3.6
19	27	56	189	e16	e56	820	45	61	465	12	77	4.0
20	62	53	154	e16	e80	444	42	93	291	10	70	6.5
21	52	45	107	e15	237	150	47	72	53	8.9	57	e16
22	11	42	109	e20	57	165	52	53	46	9.3	38	e13
23	13	39	104	e50	51	155	48	42	39	9.9	27	e11
24	14	42	501	318	51	128	45	36	34	20	21	e9.0
25	13	40	361	837	50	144	42	45	35	22	18	e7.2
26	14	153	95	341	56	291	73	61	24	18	16	e6.0
27	17	e340	103	526	87	251	96	55	18	16	14	e5.2
28	17	e250	110	1300	79	219	23	44	16	15	14	e4.7
29	16	e140	115	229	---	635	23	41	39	13	14	4.3
30	16	e190	102	80	---	369	25	37	47	9.9	12	3.5
31	21	---	94	e64	---	193	---	148	---	7.6	11	---
TOTAL	1031.6	2307	7836	5047	5631	21600	2362	2563	7900	3974.6	641.7	258.5
MEAN	33.3	76.9	253	163	201	697	78.7	82.7	263	128	20.7	8.62
MAX	127	340	1940	1300	1870	5980	184	224	2570	1550	87	16
MIN	9.6	15	27	15	35	128	23	30	16	7.6	6.3	3.5

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 1997, BY WATER YEAR (WY)

	MEAN	55.5	104	171	184	245	299	260	210	108	78.1	58.4	62.1
MAX	263	514	631	535	663	1024	627	810	365	379	307	542	
(WY)	1991	1973	1991	1952	1956	1963	1970	1968	1957	1954	1958	1965	
MIN	1.95	3.97	6.16	13.4	11.3	17.2	24.2	33.2	6.22	3.69	4.95	1.88	
(WY)	1965	1964	1954	1977	1954	1983	1971	1976	1988	1964	1986	1964	

SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1952 - 1997

ANNUAL TOTAL	87225.8	61152.4	
ANNUAL MEAN	238	168	
HIGHEST ANNUAL MEAN			154
LOWEST ANNUAL MEAN			259
HIGHEST DAILY MEAN	3040	May 5	5980
LOWEST DAILY MEAN	9.0	Sep 10	3.5
ANNUAL SEVEN-DAY MINIMUM	9.5	Sep 6	5.7
INSTANTANEOUS PEAK FLOW			7320
INSTANTANEOUS PEAK STAGE			12.59
INSTANTANEOUS LOW FLOW			3.5
10 PERCENT EXCEEDS	516		327
50 PERCENT EXCEEDS	91		51
90 PERCENT EXCEEDS	14		9.9
			154
			259
			56.5
			9520
			.50
			.69
			13400
			15.56
			.40
			350
			61
			8.7

e Estimated.

SURFACE-WATER RECORDS

Scioto River Basin

131

03234000 PAINT CREEK NEAR BOURNEVILLE, OHIO

LOCATION.--Lat 39°15'49", long 83°10'01", Ross County, Hydrologic Unit 05060003, on upstream side of left abutment of highway bridge, 0.2 mi downstream from Sulfur Lick, 1.2 mi southwest of Bourneville, and 1.2 mi upstream from Upper Twin Creek.

DRAINAGE AREA.--807 mi².

PERIOD OF RECORD.--October 1921 to January 1937, January 1938 to current year. Monthly discharge only for some periods, published in WSP 1305. Published as "at Bainbridge" October 1921 to September 1923 and as "near Bainbridge" January 1938 to May 1939.

REVISED RECORDS.--WRD OH-72-1: 1971. WRD OH-76-1: 1993, 1994-95(M).

GAGE.--Water-stage recorder. Datum of gage is 665.56 ft above sea level. See WSP 1725 for history of changes prior to May 3, 1939.

REMARKS.--Records fair except for periods of estimated record, which are poor. Flow regulated by Paint Creek Lake 17 mi upstream since 1971, capacity 145,000 acre-ft and Rocky Fork Lake 23 mi upstream since 1952, capacity, 34,100 acre-ft. Water-quality and sediment data collected at this site. U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 56,900 ft³/s Mar. 10, 1964, gage height, 20.50 ft, from rating curve extended above 30,000 ft³/s on basis of contracted-opening measurement at gage height 20.08 ft; minimum daily, 5 ft³/s Oct. 29, 1965.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	498	209	1970	929	1280	4860	453	e320	3510	3660	e130	171
2	733	207	2670	913	802	9710	402	e400	2350	3250	e110	166
3	635	205	4920	897	789	3970	371	e1000	1270	5860	e90	136
4	436	192	4180	878	3050	2050	343	e1600	422	4450	e80	77
5	407	127	2220	1050	5540	1260	616	e1400	335	1870	e70	56
6	196	119	1540	1060	5370	2670	701	e1300	681	674	e68	51
7	86	126	1200	985	4460	6040	385	e1200	3220	601	e66	47
8	74	234	1150	913	2350	5930	293	1190	5020	551	e66	45
9	72	866	997	e700	2280	5910	271	1320	4910	478	e70	45
10	71	828	726	e500	2220	6170	251	1200	4790	339	e76	45
11	67	311	700	e350	1990	6320	258	627	4790	311	e82	45
12	66	211	681	e300	1290	5940	372	634	4850	293	e86	46
13	120	240	810	e280	1290	5590	375	706	4540	280	98	47
14	115	232	1140	e270	1150	4280	398	611	2350	270	101	44
15	58	238	971	e270	1090	3940	458	354	425	261	101	44
16	53	278	578	e350	878	2570	416	328	371	249	112	44
17	50	278	3700	e500	821	1860	505	309	1190	239	196	43
18	61	298	4960	e600	773	1530	485	295	2280	231	1450	44
19	278	311	4280	e330	623	3040	308	300	2600	224	2850	45
20	464	306	4110	292	905	3210	292	475	3650	211	2150	50
21	e400	307	3710	331	1180	2520	347	506	3700	153	1120	52
22	e300	290	873	501	1150	1550	e310	348	3420	144	1780	52
23	e280	186	598	638	1020	1490	e300	323	1370	144	1640	54
24	266	175	1540	1130	779	1000	e290	309	901	146	817	54
25	185	195	2840	2620	616	1020	e290	326	813	157	502	55
26	141	871	2010	2150	586	1340	e450	634	526	149	424	57
27	141	1280	1340	2140	746	1180	e580	1120	502	e140	323	57
28	148	1210	1050	3890	803	1050	e450	895	481	e140	277	58
29	206	1160	814	3580	---	1390	e310	641	508	e150	198	60
30	203	1210	911	2960	---	1370	e280	574	756	189	185	57
31	209	---	1090	2700	---	918	---	517	---	e160	177	---
TOTAL	7019	12700	60279	35007	45831	101678	11560	21762	66531	25974	15495	1847
MEAN	226	423	1944	1129	1637	3280	385	702	2218	838	500	61.6
MAX	733	1280	4960	3890	5540	9710	701	1600	5020	5860	2850	171
MIN	50	119	578	270	586	918	251	295	335	140	66	43

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1997, BY WATER YEAR (WY)

	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
MEAN	322	696	1140	1190	1462	1750	1425	1335	836	436	305	250															
MAX	1446	2628	3159	2744	2982	4070	3087	4175	3103	1490	1827	2838															
(WY)	1991	1986	1991	1991	1990	1975	1989	1996	1996	1980	1980	1979															
MIN	40.0	75.0	41.9	37.8	211	213	151	95.7	59.9	55.0	40.7	34.6															
(WY)	1988	1992	1988	1977	1987	1983	1976	1976	1988	1988	1991	1983															

SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1971 - 1997

ANNUAL TOTAL	552388		405683																									
ANNUAL MEAN	1509		1111																									
HIGHEST ANNUAL MEAN																												
LOWEST ANNUAL MEAN																												
HIGHEST DAILY MEAN	6690	Jan 28				9710	Mar 2		10100	May 29	1990																	
LOWEST DAILY MEAN	48	Sep 25				43	Sep 17		24	Oct 8	1993																	
ANNUAL SEVEN-DAY MINIMUM	50	Sep 20				44	Sep 13		25	Jan 11	1988																	
INSTANTANEOUS PEAK FLOW						13300	Mar 2		20300	Apr 10	1994																	
INSTANTANEOUS PEAK STAGE						13.77	Mar 2		16.08	Dec 30	1990																	
INSTANTANEOUS LOW FLOW						43	Sep 17		24	Oct 8	1993																	
10 PERCENT EXCEEDS	4850					3460			2590																			
50 PERCENT EXCEEDS	794					501			398																			
90 PERCENT EXCEEDS	61					70			61																			

e Estimated.

SURFACE-WATER RECORDS **Scioto River Basin**

03234300 PAINT CREEK AT CHILLICOTHE, OHIO

LOCATION.--Lat 39°19'13", long 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. Datum 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	498	253	3380	1010	e1400	9380	1240	653	7760	3520	322	379
2	781	251	3000	977	e1000	23600	1100	633	5680	3430	313	367
3	777	249	5190	961	e1500	8210	1030	880	2810	6430	285	338
4	568	245	4900	931	e3200	4580	983	1340	1880	5010	289	280
5	518	188	2420	1170	e8200	2790	1010	1540	1910	2680	271	219
6	408	150	1710	1210	e6600	3410	1270	1470	757	868	227	195
7	137	164	1200	1090	e4500	7230	1140	1390	2660	739	194	182
8	90	395	1100	1010	e3300	7190	851	1430	4930	687	174	171
9	79	611	1010	e800	e2500	7040	786	1810	4940	652	210	168
10	72	883	742	e600	e2000	8410	746	1620	4780	538	301	166
11	66	739	704	e450	e1600	8050	728	1080	4790	492	289	162
12	60	299	888	e380	e1400	7200	796	945	4830	468	268	154
13	111	290	910	e330	e1200	7160	889	996	4880	452	239	147
14	125	284	1100	e540	e1100	6000	825	956	3180	438	329	142
15	74	266	1030	e450	e1000	5960	913	726	762	423	356	137
16	50	297	682	e400	e900	3780	805	659	618	410	466	133
17	42	310	5730	e700	e860	2990	929	623	1170	397	408	127
18	45	344	6920	e540	e840	2610	934	607	3030	386	3360	121
19	66	349	5010	e430	984	5180	809	607	4110	377	3720	115
20	397	346	4510	e330	1050	4490	743	703	4180	368	3380	130
21	628	339	4080	e400	1330	3870	723	756	3820	324	2230	129
22	418	336	1660	e560	1450	2480	772	645	4110	288	2140	129
23	402	255	849	e900	1230	2260	648	587	1860	309	2170	119
24	400	205	1560	e1600	1080	1760	597	568	985	312	1160	115
25	298	213	3420	e2800	926	1600	598	579	962	317	798	104
26	219	1160	2400	e2600	829	2340	659	819	721	312	698	99
27	198	1560	1530	e2500	1030	1970	897	1350	654	323	574	96
28	192	1250	1220	e4500	1060	1710	1030	1160	626	385	521	93
29	225	1130	1000	e4000	---	2160	884	883	613	368	447	92
30	268	1200	968	e3500	---	2330	762	846	861	362	407	85
31	258	---	1140	e2000	---	1850	---	743	---	335	390	---
TOTAL	8470	14561	71963	39669	54069	159590	26097	29604	84869	32400	26936	4894
MEAN	273	485	2321	1280	1931	5148	870	955	2829	1045	869	163
MAX	781	1560	6920	4500	8200	23600	1270	1810	7760	6430	3720	379
MIN	42	150	682	330	829	1600	597	568	613	288	174	85

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 1997, BY WATER YEAR (WY)

	MEAN	364	812	1390	1715	2222	2480	2071	2308	1307	650	367	151
MAX	2106	3368	5202	3533	3781	5148	4375	6366	4266	1687	1156	463	
(WY)	1991	1986	1991	1996	1994	1997	1994	1996	1996	1990	1990	1990	
MIN	48.2	90.7	62.8	298	310	458	376	239	94.4	83.7	61.5	67.3	
(WY)	1988	1988	1988	1988	1987	1987	1986	1988	1988	1988	1986	1993	

SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1986 - 1997

ANNUAL TOTAL	826627	553122	
ANNUAL MEAN	2259	1515	1315
HIGHEST ANNUAL MEAN			2178
LOWEST ANNUAL MEAN			483
HIGHEST DAILY MEAN	12600	May 5	25300
LOWEST DAILY MEAN	39	Sep 26	39
ANNUAL SEVEN-DAY MINIMUM	43	Sep 21	43
INSTANTANEOUS PEAK FLOW			30100
INSTANTANEOUS PEAK STAGE			23.66
INSTANTANEOUS LOW FLOW			42
10 PERCENT EXCEEDS	6360	4140	3750
50 PERCENT EXCEEDS	1140	798	547
90 PERCENT EXCEEDS	71	167	75

e Estimated.

SURFACE-WATER RECORDS
Scioto River Basin

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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 replaced digital recorder since March 19, 1991. Set for 1-hour intervals.

REMARKS.--Interruptions in the water-quality record were due to malfunction of the instrument.

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, 31.5°C July 17, Aug. 18, 1988; minimum 0.0°C on many days during winters.

DISSOLVED OXYGEN: Maximum, 19.2 mg/L Feb. 11, 13, 1987; minimum recorded, 3.8 mg/L Aug. 16, 1986.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 612 microsiemens Sept. 30; minimum, 180 microsiemens Mar. 2.

pH: Maximum, 8.5 units Nov. 3, 4 and Mar. 2; minimum 7.3 units June 2 and July 28.

WATER TEMPERATURE: Maximum, 30.0°C July 27; minimum, 1.5°C Feb. 17.

DISSOLVED OXYGEN: Maximum, 13.7 mg/L Nov. 23 and Mar. 5; minimum, 4.5 mg/L July 14.

SURFACE-WATER RECORDS

Scioto River Basin

03234300 PAINT CREEK AT CHILLICOTHE, OHIO—Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	382	356	372	464	454	460	518	363	431	514	496	508
2	392	376	384	455	443	449	421	351	372	532	514	524
3	396	390	393	443	438	441	463	421	451	554	532	547
4	394	390	391	444	435	439	---	---	---	567	554	560
5	401	388	395	457	443	449	---	---	---	567	517	540
6	425	401	412	473	424	463	---	---	---	519	505	509
7	453	425	441	493	421	470	---	---	---	---	---	---
8	480	452	468	493	416	459	---	---	---	---	---	---
9	479	466	476	470	412	448	---	---	---	---	---	---
10	492	477	485	430	405	422	---	---	---	---	---	---
11	506	491	498	434	399	419	544	532	535	---	---	---
12	513	499	504	448	433	440	547	448	519	---	---	---
13	511	493	503	470	447	461	546	471	496	---	---	---
14	509	470	494	473	460	464	521	479	501	---	---	---
15	481	465	472	477	459	467	544	519	528	---	---	---
16	483	475	478	488	470	479	563	544	557	---	---	---
17	502	483	492	492	477	487	555	253	364	---	---	---
18	499	455	475	498	487	494	420	335	388	---	---	---
19	500	460	476	500	493	497	362	320	335	---	---	---
20	514	427	453	500	494	497	340	322	328	---	---	---
21	443	422	435	504	487	493	393	330	357	---	---	---
22	438	436	436	521	489	508	459	384	423	---	---	---
23	---	---	---	515	503	510	495	459	477	---	---	---
24	---	---	---	534	514	526	506	436	484	---	---	---
25	---	---	---	542	532	540	449	431	438	---	---	---
26	---	---	---	560	437	515	477	449	469	---	---	---
27	---	---	---	467	441	457	485	473	478	---	---	---
28	496	491	494	561	461	527	495	477	484	---	---	---
29	497	483	489	523	507	513	515	495	507	---	---	---
30	483	471	477	516	497	504	506	494	502	---	---	---
31	474	464	469	---	---	---	501	486	493	---	---	---
MONTH	514	356	456	561	399	477	563	253	455	567	496	531

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	588	212	359	529	518	525	527	518	524
2	---	---	---	251	180	197	533	499	518	554	523	533
3	---	---	---	337	251	311	504	498	500	531	454	507
4	---	---	---	376	329	353	502	489	493	455	436	448
5	---	---	---	431	376	411	495	461	491	486	436	467
6	---	---	---	431	337	392	527	425	472	499	486	493
7	---	---	---	349	321	335	538	472	514	506	499	501
8	---	---	---	347	335	342	551	538	547	532	506	512
9	---	---	---	339	327	332	545	505	525	506	499	500
10	---	---	---	355	322	331	511	505	509	506	490	494
11	---	---	---	392	328	359	523	510	516	509	495	502
12	471	447	460	452	378	413	517	495	508	509	490	496
13	486	455	470	459	445	451	516	481	494	506	485	494
14	533	486	517	470	409	445	519	501	510	517	505	510
15	533	518	527	495	411	464	514	501	508	521	517	518
16	518	494	507	---	---	---	540	511	533	524	509	519
17	478	494	505	478	453	458	540	511	525	511	500	506
18	549	510	527	489	384	471	532	520	529	536	504	520
19	565	549	556	405	353	369	544	530	539	547	514	528
20	565	533	548	451	405	436	554	537	548	532	489	515
21	580	541	560	467	437	454	537	523	531	500	474	491
22	588	525	552	485	465	479	523	507	510	532	500	521
23	588	525	565	496	483	486	544	510	533	541	523	534
24	596	573	582	527	496	515	557	542	552	533	509	524
25	588	573	582	522	502	510	565	546	555	526	505	516
26	588	573	579	510	435	453	546	489	528	542	507	525
27	596	573	582	478	453	466	540	483	511	530	494	513
28	596	580	584	490	478	485	525	499	510	544	529	537
29	---	---	---	501	451	481	522	501	511	548	542	544
30	---	---	---	452	437	446	524	515	520	558	542	549
31	---	---	---	518	452	480	---	---	---	560	517	553
MONTH	596	447	541	588	180	416	565	425	519	560	436	513

SURFACE-WATER RECORDS

Scioto River Basin

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03234300 PAINT CREEK AT CHILLICOTHE, OHIO—Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	533	292	377	407	183	314	535	527	532	520	506	515
2	331	213	278	350	219	288	534	525	530	519	497	511
3	400	285	368	384	309	349	539	528	534	513	496	506
4	459	400	429	346	326	336	539	450	505	511	496	505
5	488	459	477	347	325	331	530	478	521	525	504	515
6	507	487	500	398	347	381	533	522	525	537	523	531
7	510	397	431	405	398	403	546	533	540	547	526	538
8	401	360	375	436	403	413	558	544	551	554	533	547
9	369	355	360	461	436	454	561	550	556	577	545	559
10	372	358	364	494	460	479	561	517	545	588	577	583
11	378	370	373	504	476	494	517	486	498	589	576	584
12	390	375	382	491	474	484	509	484	495	587	581	585
13	407	376	394	505	471	491	505	485	490	587	576	582
14	414	389	400	497	468	483	521	444	486	596	583	589
15	455	414	440	494	452	477	504	474	496	588	575	584
16	477	446	467	500	452	477	476	357	407	589	568	581
17	464	427	452	544	469	509	469	432	457	582	574	579
18	427	292	345	532	518	525	432	197	285	587	579	584
19	356	250	303	536	521	529	402	331	380	594	577	586
20	361	340	352	537	523	530	400	319	372	587	556	573
21	352	336	344	539	527	534	351	300	324	589	569	578
22	339	326	332	551	533	545	397	351	374	604	589	595
23	365	338	354	574	545	559	407	397	401	604	597	601
24	408	365	394	554	542	550	427	407	421	606	586	598
25	404	401	402	565	550	555	452	427	440	599	578	591
26	439	404	425	564	547	557	465	452	457	591	576	584
27	450	439	444	552	473	534	486	463	476	589	570	581
28	449	442	446	518	377	478	503	486	494	589	566	578
29	457	437	451	529	493	510	512	498	505	584	572	579
30	447	365	416	531	526	529	524	512	520	612	575	583
31	---	---	---	533	527	531	521	510	517	---	---	---
MONTH	533	213	396	574	183	472	561	197	472	612	496	567
YEAR	612	180	480									

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

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

Scioto River Basin

03234300 PAINT CREEK AT CHILLICOTHE, OHIO—Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997												
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	8.3	7.8	8.0	8.1	8.0	8.1	8.2	7.9	8.1
2	---	---	---	8.5	7.6	7.9	8.1	8.0	8.0	8.1	8.0	8.1
3	---	---	---	8.2	7.9	8.0	8.1	8.0	8.0	8.1	7.9	8.0
4	---	---	---	7.9	7.8	7.8	8.1	8.0	8.0	8.1	7.9	8.0
5	---	---	---	7.8	7.8	7.8	8.1	7.9	8.0	8.2	8.0	8.1
6	---	---	---	8.0	7.8	7.9	8.2	8.0	8.1	8.3	8.1	8.2
7	---	---	---	8.0	7.9	7.9	8.2	8.1	8.1	8.3	8.2	8.2
8	---	---	---	7.9	7.9	7.9	8.1	8.0	8.1	8.2	8.1	8.1
9	---	---	---	7.9	7.8	7.8	8.2	8.0	8.1	8.1	8.0	8.1
10	---	---	---	7.9	7.8	7.9	8.2	8.0	8.1	8.2	8.0	8.1
11	---	---	---	7.9	7.8	7.9	8.2	8.0	8.1	8.1	8.1	8.1
12	8.1	8.0	8.0	8.0	7.9	7.9	8.2	7.9	8.1	8.1	8.0	8.0
13	8.2	8.1	8.1	8.0	8.0	8.0	8.3	8.0	8.1	8.1	8.0	8.1
14	8.2	8.1	8.1	8.0	7.9	8.0	8.2	8.0	8.1	8.1	8.0	8.0
15	8.2	8.1	8.2	8.0	8.0	8.0	8.3	8.0	8.2	8.1	7.9	8.0
16	8.2	8.1	8.2	8.0	8.0	8.0	8.2	8.1	8.2	8.2	7.9	8.1
17	8.2	8.1	8.2	8.0	7.9	8.0	8.3	8.0	8.2	8.2	8.0	8.1
18	8.2	8.1	8.2	8.0	7.9	7.9	8.3	8.1	8.2	8.2	7.9	8.1
19	8.2	8.2	8.2	8.0	7.9	8.0	8.3	8.1	8.2	8.1	7.9	8.0
20	8.2	8.1	8.2	8.0	8.0	8.0	8.2	8.0	8.1	8.1	7.9	8.0
21	8.3	8.2	8.2	8.0	8.0	8.0	8.2	8.0	8.1	8.1	7.9	8.0
22	8.3	8.2	8.3	8.0	7.9	8.0	8.3	8.0	8.1	8.1	8.0	8.0
23	8.3	8.2	8.3	8.0	8.0	8.0	8.2	8.0	8.1	8.1	8.0	8.1
24	8.3	8.2	8.3	8.0	8.0	8.0	8.1	7.9	8.1	8.1	8.0	8.0
25	8.3	8.2	8.2	8.0	8.0	8.0	8.1	7.9	8.0	8.0	7.9	7.9
26	8.2	8.2	8.2	8.0	8.0	8.0	8.1	8.0	8.0	8.0	7.8	7.9
27	8.3	8.2	8.2	8.0	8.0	8.0	8.1	8.0	8.1	8.0	7.9	8.0
28	8.4	8.2	8.3	8.0	8.0	8.0	8.2	7.9	8.1	8.1	8.0	8.0
29	---	---	---	8.1	8.0	8.1	8.2	8.0	8.1	8.0	7.9	8.0
30	---	---	---	8.1	8.1	8.1	8.2	8.0	8.1	8.1	7.9	8.0
31	---	---	---	8.1	8.0	8.1	---	---	---	8.0	7.9	7.9
MONTH	8.4	8.0	8.2	8.5	7.6	8.0	8.3	7.9	8.1	8.3	7.8	8.0

[illegible]

SURFACE-WATER RECORDS
Scioto River Basin

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03234300 PAINT CREEK AT CHILLICOTHE, OHIO—Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

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

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

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

SURFACE-WATER RECORDS

Scioto River Basin

03234300 PAINT CREEK AT CHILLICOTHE, OHIO—Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997												
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	18.5	17.0	17.5	23.5	22.5	23.0	26.5	22.0	24.5	25.0	21.5	23.0
2	22.5	18.0	20.0	25.0	22.5	23.5	26.0	23.0	24.0	26.0	22.5	24.0
3	20.5	17.5	18.5	24.5	22.5	23.5	27.0	23.0	25.0	25.5	22.5	23.5
4	19.0	16.5	17.5	24.0	23.5	24.0	26.5	23.5	25.5	22.5	19.0	21.0
5	20.5	16.5	18.5	24.0	22.5	23.0	25.5	23.0	24.5	22.0	18.5	20.5
6	20.5	18.0	19.5	24.0	21.5	23.0	24.0	21.0	23.0	21.0	19.5	20.0
7	19.5	17.5	18.5	24.0	21.5	23.0	24.5	20.5	22.5	22.5	19.0	20.5
8	18.5	17.5	18.0	25.0	22.5	24.0	25.5	20.5	23.0	23.5	20.5	22.0
9	19.0	17.5	18.0	24.5	22.5	24.0	25.0	22.5	23.5	22.5	21.0	21.5
10	19.5	17.5	18.5	24.0	21.0	22.5	25.0	22.5	24.0	22.0	20.5	21.0
11	19.5	18.0	19.0	25.0	21.0	23.0	26.0	23.0	24.5	22.5	20.0	21.0
12	20.0	19.0	19.5	26.0	22.5	24.0	27.0	24.0	25.5	22.0	19.5	21.0
13	20.5	19.0	20.0	26.5	23.0	25.0	26.0	25.0	25.5	22.0	19.0	20.5
14	21.0	20.0	20.5	28.0	24.0	26.0	26.5	23.5	25.0	22.5	19.5	21.0
15	22.5	19.0	21.0	28.0	25.0	26.5	26.0	23.5	25.0	23.5	20.5	22.0
16	22.0	20.5	21.0	28.5	24.5	26.5	28.0	24.0	25.5	24.5	21.0	22.5
17	22.5	20.0	21.0	29.0	25.0	27.0	27.5	25.5	26.0	23.5	21.5	22.5
18	21.5	20.5	21.0	29.0	25.0	27.0	25.5	22.5	23.5	23.5	19.5	21.5
19	23.5	20.0	21.5	28.0	25.5	27.0	24.5	23.5	24.0	22.5	19.5	21.0
20	23.0	21.0	22.0	28.0	24.0	26.0	24.5	22.0	23.5	22.5	21.0	21.5
21	23.5	21.5	22.5	28.0	23.5	26.0	23.0	21.5	22.0	21.0	18.5	20.0
22	23.5	22.0	23.0	27.0	25.0	26.0	22.0	21.5	22.0	20.0	16.5	18.5
23	24.5	22.5	23.5	26.5	24.5	25.5	22.5	21.0	22.0	19.0	16.5	17.5
24	26.0	23.0	24.5	27.0	23.5	25.5	22.0	20.5	21.5	19.0	16.0	17.5
25	26.0	23.5	25.0	28.0	24.0	26.0	22.5	20.5	21.5	20.0	15.5	17.5
26	25.5	24.0	24.5	28.0	24.5	26.5	23.5	21.5	22.5	19.0	16.5	18.0
27	25.0	22.5	24.0	30.0	25.5	27.5	24.0	22.5	23.0	20.5	16.0	18.0
28	25.5	23.0	24.0	29.0	25.5	27.5	25.5	22.5	24.0	19.0	17.0	18.5
29	25.5	23.5	24.0	28.0	25.5	27.0	24.0	22.0	22.5	20.0	17.0	18.5
30	24.0	23.0	23.5	27.0	23.5	25.5	23.0	20.5	22.0	18.5	17.5	18.0
31	---	---	---	26.5	22.0	24.5	23.5	20.5	22.0	---	---	---
MONTH	26.0	16.5	21.0	30.0	21.0	25.0	28.0	20.5	23.5	26.0	15.5	20.5
YEAR	30.0	1.5	15.0									

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997												
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	10.3	7.8	8.8	12.3	10.2	11.7	11.5	11.4	11.4
2	---	---	---	11.2	8.2	9.4	10.2	8.9	9.6	11.4	11.2	11.3
3	8.3	7.4	7.9	11.5	8.6	9.8	9.6	7.9	8.2	11.2	11.0	11.1
4	9.0	7.4	8.0	11.7	8.8	9.9	---	---	---	11.3	11.0	11.1
5	9.3	7.7	8.3	11.2	8.5	9.5	---	---	---	11.1	10.8	10.9
6	9.6	7.7	8.3	9.4	8.0	8.7	---	---	---	11.8	11.0	11.4
7	10.1	7.4	8.5	10.6	7.6	8.6	---	---	---	---	---	---
8	10.0	7.0	8.1	8.8	7.4	7.9	---	---	---	---	---	---
9	7.6	6.5	6.9	9.1	7.8	8.4	---	---	---	---	---	---
10	8.5	6.5	7.4	9.2	8.3	8.7	---	---	---	---	---	---
11	9.5	7.3	8.1	9.7	8.7	9.1	10.6	10.2	10.5	---	---	---
12	10.6	7.6	8.6	10.3	9.1	9.7	10.3	10.0	10.1	---	---	---
13	11.2	7.0	8.8	10.9	9.4	10.3	10.7	10.0	10.3	---	---	---
14	10.9	7.3	8.9	11.2	10.0	10.5	11.1	10.6	10.9	---	---	---
15	9.2	7.0	8.1	11.7	10.2	10.8	11.2	10.9	11.1	---	---	---
16	8.5	6.0	7.2	11.8	10.4	11.0	10.9	10.5	10.7	---	---	---
17	8.7	5.6	6.6	11.4	10.3	10.8	11.0	10.4	10.7	---	---	---
18	6.0	5.2	5.6	11.0	9.9	10.3	11.3	11.0	11.2	---	---	---
19	6.6	5.2	5.7	11.8	10.0	10.8	11.4	11.2	11.3	---	---	---
20	7.9	6.1	7.3	12.5	10.4	11.2	11.7	11.4	11.6	---	---	---
21	8.8	7.0	7.8	12.5	10.7	11.4	12.0	11.7	11.8	---	---	---
22	8.8	7.2	7.8	12.6	11.1	11.8	11.9	11.2	11.5	---	---	---
23	---	---	---	13.7	11.3	12.3	11.2	11.1	11.2	---	---	---
24	---	---	---	12.5	11.3	11.8	11.4	10.9	11.0	---	---	---
25	---	---	---	12.1	11.0	11.3	12.0	11.4	11.9	---	---	---
26	---	---	---	12.9	11.0	11.9	12.0	11.7	11.9	---	---	---
27	---	---	---	13.1	12.7	12.9	11.7	11.4	11.5	---	---	---
28	10.8	7.7	8.7	12.9	12.2	12.5	11.5	11.2	11.4	---	---	---
29	10.3	7.3	8.5	12.3	11.7	12.0	11.2	11.0	11.0	---	---	---
30	10.2	7.2	8.3	12.3	11.3	11.5	11.4	11.0	11.2	---	---	---
31	10.5	7.2	8.5	---	---	---	11.5	11.4	11.5	---	---	---
MONTH	11.2	5.2	7.8	13.7	7.4	10.5	12.3	7.9	11.0	11.8	10.8	11.2

SURFACE-WATER RECORDS

03234500 SCIOTO RIVER AT HIGBY, OHIO

LOCATION.--Lat 39°12'44", long 82°51'50", in sec. 6, T.7 N., R.20 W., Ross County, Hydrologic Unit 05060002, on left bank at downstream side of highway bridge, 0.8 mi downstream from Walnut Creek, 1.2 mi north of Higby, 3 mi northwest of Richmondale 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 periods of estimated records, which are poor. U.S. Army Corps of Engineers satellite telemeter at station.
EXTREMES OUTSIDE PERIOD OF RECORD.--A stage of 31.6 ft occurred Mar. 26, 1913.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2710	1610	10900	6090	6230	19600	4990	1880	15100	5740	1460	1570
2	3200	1470	18400	5610	4840	45100	4090	2090	28400	8270	1330	1480
3	2560	1370	20100	5160	4240	38500	3500	2510	31900	9680	1260	1400
4	1920	1350	15400	4230	7630	26800	3180	6170	37900	8240	1380	1260
5	1740	1320	11100	4360	23300	15100	2760	7570	40600	5650	2440	1140
6	1500	1310	8440	5090	26900	12400	3410	6810	24800	3220	1910	1090
7	1390	1470	5940	5590	25900	19600	3290	5840	17400	2690	1420	1050
8	1440	2100	4920	5520	19200	23000	2650	4590	19600	2370	1260	1030
9	1240	2680	4240	4740	12000	22600	2440	5310	17700	2210	1140	1040
10	1150	2660	3520	e3500	8840	23100	2300	5270	16200	2140	1140	1040
11	1480	2400	3200	e2900	e7000	24000	2160	4190	15200	2090	1120	1070
12	1180	1930	5380	e2500	e5600	20600	2330	3480	12300	1940	1260	1350
13	1050	1860	6910	e2000	e5000	16000	2620	3310	10200	1910	1300	1230
14	1030	1870	9640	e1800	e4500	13300	2990	3070	11600	1810	2860	1090
15	987	1840	10300	e1600	e4000	19000	3010	2840	7630	1690	2030	1010
16	984	1660	9540	e2000	e3500	17900	2820	3030	5000	1600	4170	970
17	1080	1600	14900	e2400	e3200	12700	2680	2500	6650	1430	4470	955
18	1170	1880	23800	e1900	e2700	10300	2560	2090	14000	1330	20200	959
19	1390	2100	24900	e1700	e2600	15300	2340	2600	17800	1280	17600	937
20	2080	1840	22500	e1500	e3100	12900	2150	3330	14200	1540	10600	982
21	1800	1780	16900	e1800	5190	10200	2110	2940	9510	1390	11500	1140
22	1550	1750	9500	2350	7060	7380	2110	2960	8100	1210	8760	1140
23	1500	1740	6370	3230	7500	6420	1850	3050	5340	1210	7320	980
24	1550	1650	7230	5720	6680	5670	1780	2350	3870	2440	4860	962
25	1600	1590	16300	10900	5580	5100	1750	2100	3390	2440	3590	915
26	1530	3120	15700	10500	4170	5760	1800	3380	2860	1810	3060	904
27	1430	10400	11500	7580	4060	5350	2060	5360	2630	1720	2650	894
28	1610	11600	10200	16000	4660	4700	2560	7230	2510	6460	2320	872
29	1720	9020	7430	15900	---	5000	2800	5790	2310	4230	2090	857
30	1530	7270	6580	11600	---	5740	2350	4590	2620	2430	1850	848
31	1510	---	6550	9390	---	5250	---	3690	---	1750	1670	---
TOTAL	48611	86240	348290	165160	225180	474370	79440	121920	407320	93920	130020	32165
MEAN	1568	2875	11240	5328	8042	15300	2648	3933	13580	3030	4194	1072
MAX	3200	11600	24900	16000	26900	45100	4990	7570	40600	9680	20200	1570
MIN	984	1310	3200	1500	2600	4700	1750	1880	2310	1210	1120	848

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1997, BY WATER YEAR (WY)

MEAN	1198	2431	4358	6741	7813	9772	8339	6006	4219	2864	2002	1351
MAX	6524	15460	17190	39500	18620	28220	19610	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 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1931 - 1997

ANNUAL TOTAL	3215466		2212636			
ANNUAL MEAN	8785		6062		4742	
HIGHEST ANNUAL MEAN					8178	1996
LOWEST ANNUAL MEAN					1364	1954
HIGHEST DAILY MEAN	41200	May 2	45100	Mar 2	127000	Jan 23 1959
LOWEST DAILY MEAN	909	Sep 15	848	Sep 30	244	Oct 23 1930
ANNUAL SEVEN-DAY MINIMUM	954	Aug 31	893	Sep 24	255	Oct 19 1930
INSTANTANEOUS PEAK FLOW			48300	Mar 2	177000	Jan 23 1937
INSTANTANEOUS PEAK STAGE			19.54	Mar 2	26.40	Jan 23 1937
INSTANTANEOUS LOW FLOW			848	Sep 30	244	Oct 23 1930
10 PERCENT EXCEEDS	23800		16000		12200	
50 PERCENT EXCEEDS	4940		3030		2080	
90 PERCENT EXCEEDS	1140		1210		530	

e Estimated.

SURFACE-WATER RECORDS
Scioto River Basin

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03234500 SCIOTO RIVER AT HIGBY, OHIO—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1954 to 1993, 1996.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: March 1967 to September 1993, October 1995 to September 1996.

pH: March 1967 to September 1993, October 1995 to September 1996.

WATER TEMPERATURES: March 1967 to September 1993, October 1995 to September 1996.

DISSOLVED OXYGEN: March 1967 to September 1993, October 1995 to September 1996.

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.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 1,070 microsiemens Sept. 29, 1984; 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, 34.0°C June 29, 1966; minimum, 0.0°C on many days during winter.

DISSOLVED OXYGEN: Maximum, >20.0 mg/L on several days from 1982 to 1989; minimum, 0.0 mg/L on many days during 1968, Sept. 13, 1969.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 950 microsiemens Sept. 11; minimum, 121 microsiemens Mar. 2.

pH: Maximum, 9.1 units Nov. 30, Dec. 1, and Mar. 20; minimum 7.4 units June 3, 4 and Aug. 18.

WATER TEMPERATURE: Maximum, 29.0°C Jul. 18; minimum, 0.0°C on many days during winter.

DISSOLVED OXYGEN: Maximum, 18.1 mg/L Apr. 26; minimum, 4.6 mg/L Aug. 16.

SURFACE-WATER RECORDS

Scioto River Basin

03234500 SCIOTO RIVER AT HIGBY, OHIO—Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	540	476	510	701	656	683	537	470	494	---	---	---
2	604	540	572	682	656	669	472	412	428	---	---	---
3	610	579	594	693	679	686	446	428	436	---	---	---
4	630	597	610	706	689	697	462	433	447	---	---	---
5	637	616	629	703	696	699	461	447	455	---	---	---
6	676	636	655	718	693	703	462	448	455	---	---	---
7	749	676	716	713	685	700	509	462	486	---	---	---
8	791	749	773	685	624	650	529	509	520	614	604	607
9	832	788	811	674	645	659	564	527	539	630	614	622
10	836	792	818	649	561	591	565	402	510	633	625	628
11	792	759	779	606	526	552	630	479	540	662	633	647
12	771	740	755	628	565	585	639	546	619	708	662	684
13	826	771	801	649	590	623	546	490	515	749	708	730
14	827	775	794	646	615	628	559	514	532	775	742	761
15	783	756	767	791	630	673	564	538	556	775	757	768
16	804	763	777	788	656	693	538	430	487	762	751	755
17	837	803	816	704	671	689	435	327	377	793	750	773
18	845	820	831	713	688	703	407	327	382	795	778	787
19	831	748	781	769	708	734	377	357	368	825	795	811
20	751	711	727	786	740	760	378	353	365	834	823	828
21	750	683	716	741	717	723	359	342	348	852	822	838
22	684	644	664	717	692	698	414	351	382	837	761	799
23	647	641	643	737	695	717	460	414	435	798	753	768
24	680	647	665	758	737	749	484	457	467	809	685	760
25	712	678	694	758	751	754	477	387	431	685	539	583
26	725	712	720	782	654	711	431	385	401	598	549	580
27	767	725	747	685	495	585	477	431	459	600	501	586
28	772	749	763	581	495	553	471	447	456	501	395	432
29	793	750	774	607	581	594	494	449	474	533	433	489
30	803	772	788	609	537	578	---	---	---	479	455	466
31	781	693	732	---	---	---	---	---	---	458	455	457
MONTH	845	476	723	791	495	668	639	327	461	852	395	673

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	520	455	488	669	261	423	---	---	---	706	686	694
2	567	519	544	293	121	200	---	---	---	711	688	699
3	585	567	576	357	286	332	---	---	---	691	632	675
4	585	334	478	382	357	367	690	627	657	639	568	611
5	423	324	366	422	382	402	651	643	645	568	540	548
6	425	391	403	445	422	431	675	604	631	596	545	575
7	417	398	410	446	419	431	698	667	677	618	596	612
8	398	390	393	422	407	412	698	682	692	616	550	607
9	428	393	409	411	393	404	722	698	712	605	510	552
10	501	428	468	393	366	375	729	690	710	628	599	613
11	524	501	514	398	376	386	714	698	704	619	601	610
12	551	522	538	435	398	415	705	672	693	622	609	615
13	564	547	554	480	435	466	694	671	678	616	599	607
14	588	561	577	---	---	---	703	683	692	622	604	614
15	597	582	589	---	---	---	694	643	672	649	611	625
16	612	583	594	---	---	---	672	644	664	666	648	658
17	646	612	634	---	---	---	677	668	672	708	652	679
18	668	643	661	---	---	---	680	656	669	666	640	650
19	683	668	672	---	---	---	673	657	666	676	490	652
20	692	677	687	---	---	---	686	666	674	665	491	617
21	685	677	681	---	---	---	687	674	681	670	647	658
22	685	624	653	---	---	---	697	664	679	651	628	638
23	624	593	611	---	---	---	690	673	682	658	646	652
24	649	601	625	792	588	672	704	686	695	665	648	656
25	649	627	640	682	463	523	713	695	703	668	651	665
26	628	627	627	596	478	535	732	702	715	651	579	614
27	643	620	625	---	---	---	724	654	688	627	588	605
28	668	643	657	---	---	---	728	686	700	606	559	575
29	---	---	---	---	---	---	747	704	731	602	588	598
30	---	---	---	---	---	---	722	706	714	606	593	598
31	---	---	---	---	---	---	---	---	---	618	573	609
MONTH	692	324	560	792	121	423	747	604	685	711	490	625

SURFACE-WATER RECORDS

Scioto River Basin

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03234500 SCIOTO RIVER AT HIGBY, OHIO—Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	573	347	459	652	328	570	643	594	620	742	639	698
2	386	345	361	512	328	471	672	643	662	712	553	627
3	395	341	379	471	374	412	705	672	693	771	572	721
4	341	292	306	453	421	434	724	656	698	783	755	775
5	355	299	316	500	448	471	765	667	724	810	781	799
6	418	355	387	592	500	558	772	734	759	821	806	816
7	444	418	429	627	592	614	734	658	691	829	816	823
8	419	402	408	643	627	635	679	661	672	828	801	818
9	418	405	410	662	643	656	718	678	702	820	809	816
10	419	405	412	683	660	672	757	718	742	830	820	826
11	423	412	416	696	683	689	778	749	766	950	830	842
12	470	423	457	698	671	687	767	740	757	858	848	853
13	482	468	476	673	656	668	767	746	759	857	844	851
14	523	451	496	676	654	668	770	535	716	853	845	850
15	495	437	464	669	638	658	707	641	679	851	827	839
16	541	495	514	664	628	652	641	407	547	830	813	825
17	609	534	561	639	611	627	541	406	488	813	797	802
18	534	383	409	612	555	592	494	233	326	831	806	820
19	417	315	368	564	501	538	419	293	370	843	831	836
20	454	342	402	581	540	564	489	419	457	846	827	836
21	485	454	472	575	530	562	485	402	435	835	821	826
22	505	472	483	579	553	571	488	465	476	848	834	842
23	558	505	544	604	562	581	529	488	514	867	847	860
24	611	558	598	665	546	586	578	517	547	857	844	847
25	619	611	614	689	563	638	614	578	596	849	819	836
26	647	619	636	566	559	562	646	614	629	835	822	826
27	664	646	656	604	558	582	679	646	663	847	833	838
28	668	663	666	604	409	538	686	679	684	850	843	846
29	675	667	671	421	367	384	708	685	694	854	845	851
30	674	627	656	510	421	459	713	674	704	863	853	858
31	---	---	---	594	510	563	720	658	702	---	---	---
MONTH	675	292	481	698	328	576	778	233	628	950	553	817
YEAR	950	121	617									

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	8.3	8.0	8.1	8.4	8.3	8.4	9.1	8.1	8.8	8.0	7.9	7.9
2	8.3	8.1	8.2	8.4	8.2	8.3	8.3	7.9	8.0	7.9	7.9	7.9
3	8.2	8.0	8.1	8.6	8.2	8.4	---	---	---	7.9	7.9	7.9
4	8.3	8.0	8.1	8.8	8.3	8.5	---	---	---	7.9	7.8	7.9
5	8.5	8.1	8.2	8.8	8.5	8.6	---	---	---	7.9	7.7	7.8
6	8.6	8.2	8.3	8.7	8.5	8.6	---	---	---	8.0	7.7	7.8
7	8.6	8.2	8.4	8.8	8.4	8.6	---	---	---	8.2	7.8	8.0
8	8.7	8.2	8.4	8.4	8.2	8.3	---	---	---	8.2	8.0	8.2
9	8.5	8.2	8.3	8.3	8.2	8.2	---	---	---	8.3	8.2	8.2
10	8.4	8.1	8.2	8.3	8.2	8.2	---	---	---	8.2	8.0	8.1
11	8.7	8.3	8.4	8.3	8.2	8.2	---	---	---	8.3	8.0	8.1
12	8.8	8.3	8.5	8.5	8.2	8.3	---	---	---	8.2	8.1	8.1
13	8.8	8.4	8.6	8.4	8.1	8.3	8.0	7.8	7.9	8.2	8.1	8.1
14	8.9	8.5	8.6	8.2	8.0	8.1	8.1	7.9	8.0	8.3	8.1	8.2
15	8.9	8.4	8.6	8.4	8.0	8.1	8.1	7.9	8.1	8.5	8.2	8.2
16	8.8	8.4	8.6	8.7	8.1	8.3	8.1	8.0	8.0	8.2	8.1	8.1
17	8.8	8.4	8.6	8.8	8.2	8.4	8.0	7.8	7.9	8.3	8.1	8.2
18	8.7	8.3	8.4	8.6	8.1	8.3	8.0	7.8	7.9	8.2	8.1	8.2
19	8.4	8.1	8.3	8.4	8.0	8.2	8.0	7.8	7.9	8.2	8.1	8.2
20	8.5	8.3	8.4	8.3	8.0	8.2	8.1	7.8	7.9	8.2	8.1	8.2
21	8.6	8.3	8.4	8.3	8.1	8.2	8.1	8.0	8.0	8.2	8.1	8.1
22	8.6	8.3	8.4	8.3	8.1	8.2	8.1	8.0	8.0	8.2	8.1	8.2
23	8.5	8.3	8.4	8.7	8.1	8.4	8.1	8.0	8.1	8.3	8.1	8.2
24	8.6	8.3	8.4	8.6	8.3	8.5	8.1	7.9	7.9	8.3	8.2	8.3
25	8.6	8.3	8.4	8.4	8.1	8.3	8.1	7.8	8.0	8.2	8.1	8.1
26	8.5	8.4	8.4	8.4	8.0	8.1	8.1	8.0	8.0	8.2	8.1	8.1
27	8.7	8.4	8.5	8.1	7.9	8.0	8.2	8.0	8.0	8.3	8.2	8.2
28	8.5	8.3	8.4	8.6	8.0	8.2	8.1	8.1	8.1	8.2	8.0	8.1
29	8.6	8.1	8.4	8.8	8.2	8.5	8.1	7.9	8.0	8.1	8.0	8.1
30	8.6	8.4	8.5	9.1	8.7	8.9	8.0	7.8	7.9	8.1	8.1	8.1
31	8.6	8.2	8.4	---	---	---	7.9	7.8	7.9	8.1	8.0	8.1
MONTH	8.9	8.0	8.4	9.1	7.9	8.3	9.1	7.8	8.0	8.5	7.7	8.1

SURFACE-WATER RECORDS

Scioto River Basin

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03234500 SCIOTO RIVER AT HIGBY, OHIO—Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	18.5	17.0	18.0	14.0	11.5	13.0	7.5	5.0	6.5	6.5	6.0	6.5
2	20.0	18.0	19.0	11.5	10.0	11.0	7.5	6.5	7.0	7.5	6.5	7.0
3	19.5	18.0	18.5	10.5	9.0	10.0	6.5	5.5	6.0	8.5	7.5	8.0
4	18.0	16.0	17.0	10.0	8.5	9.5	6.0	5.5	5.5	10.5	8.5	9.5
5	17.0	15.0	16.0	10.5	9.5	10.0	5.5	5.0	5.0	11.0	10.0	11.0
6	17.0	15.0	16.0	11.0	10.5	10.5	5.0	5.0	5.0	10.0	7.0	8.5
7	17.5	15.0	16.5	13.0	11.0	12.0	5.5	5.0	5.0	7.0	4.5	6.0
8	17.5	15.5	16.5	13.0	11.5	12.0	5.5	4.5	5.0	4.5	3.5	4.0
9	17.0	15.5	16.5	11.5	10.0	11.0	4.5	4.0	4.0	4.0	3.5	3.5
10	15.5	14.5	15.0	10.0	8.5	9.0	4.5	1.5	3.5	3.5	2.0	3.0
11	15.5	14.0	14.5	8.5	7.0	7.5	8.0	3.5	5.5	2.0	.5	1.0
12	15.5	13.0	14.5	7.0	5.5	6.5	9.0	8.0	8.5	.5	.0	.0
13	16.5	14.0	15.0	6.0	5.5	6.0	8.5	7.0	7.5	.5	.0	.0
14	17.5	15.5	16.5	6.0	5.5	5.5	7.0	5.5	6.5	.5	.0	.0
15	18.0	16.0	17.0	6.0	4.5	5.0	6.0	5.0	5.5	1.0	.0	.5
16	18.5	16.5	17.5	6.5	5.0	5.5	6.5	6.0	6.0	1.5	.0	1.0
17	18.5	16.5	17.5	7.0	5.5	6.0	6.5	6.5	6.5	.0	.0	.0
18	18.0	15.5	17.0	7.5	7.0	7.5	6.5	5.5	6.0	.0	.0	.0
19	15.5	14.0	14.5	7.5	7.0	7.5	5.5	3.5	4.5	.5	.0	.0
20	14.0	13.0	13.0	8.0	7.5	7.5	3.5	2.0	3.0	2.0	.5	1.0
21	15.0	13.0	14.0	7.5	6.5	6.5	2.0	1.5	2.0	2.5	.0	1.0
22	15.5	14.5	15.0	6.5	5.5	6.0	2.5	1.5	2.0	2.5	1.5	2.0
23	15.5	14.0	15.0	6.5	5.0	6.0	4.5	2.5	3.5	3.0	2.0	2.5
24	15.0	13.5	14.5	7.0	6.0	6.5	5.0	4.5	5.0	3.0	2.0	2.5
25	14.5	13.0	13.5	7.5	6.5	7.0	4.5	2.5	3.5	2.0	1.0	1.5
26	14.0	13.5	14.0	7.5	6.0	7.0	2.5	1.5	2.0	1.0	.0	.5
27	15.5	14.0	15.0	6.5	4.5	5.5	3.0	1.5	2.5	1.0	.5	1.0
28	17.0	15.5	16.0	4.5	3.5	4.0	5.0	3.0	4.0	1.0	.5	1.0
29	16.0	14.5	15.5	4.0	3.0	3.5	7.0	5.0	6.5	.5	.0	.5
30	17.5	16.0	16.5	5.0	4.0	4.5	6.5	6.5	6.5	1.0	.0	.5
31	16.0	14.0	14.5	---	---	---	6.5	6.5	6.5	2.0	1.0	1.5
MONTH	20.0	13.0	16.0	14.0	3.0	7.5	9.0	1.5	5.0	11.0	.0	2.5

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

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

SURFACE-WATER RECORDS

Scioto River Basin

03234500 SCIOTO RIVER AT HIGBY, OHIO—Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	18.5	17.5	17.5	25.0	23.5	24.0	26.5	23.5	25.0	24.5	22.0	23.5
2	18.5	17.5	18.0	25.5	23.5	24.5	25.5	24.0	24.5	25.5	23.0	24.5
3	18.0	17.5	18.0	25.0	23.0	24.0	26.5	24.0	25.0	25.0	23.0	24.0
4	18.5	17.0	17.5	24.5	23.5	24.0	26.5	24.5	25.5	23.0	20.5	22.0
5	19.0	17.5	18.0	24.0	22.5	23.5	26.5	24.5	25.5	22.5	20.0	21.5
6	19.0	18.0	18.5	24.5	22.0	23.0	25.5	23.0	24.0	22.0	20.5	21.0
7	18.5	17.5	18.0	25.0	22.0	23.5	25.0	22.0	23.5	22.5	20.0	21.0
8	17.5	17.5	17.5	25.5	23.0	24.0	25.0	22.0	23.5	23.5	21.0	22.0
9	19.0	17.0	18.0	25.5	24.0	24.5	24.5	23.5	24.0	22.5	21.5	22.0
10	20.0	18.0	18.5	24.5	22.0	23.0	25.0	24.0	24.5	22.0	21.0	21.5
11	19.5	19.0	19.0	25.5	22.0	23.5	25.5	24.0	24.5	22.0	21.0	21.5
12	20.0	19.0	19.5	25.5	23.0	24.5	26.5	24.5	25.5	22.5	20.5	21.5
13	20.5	19.5	20.0	26.5	24.0	25.0	26.0	25.0	25.5	22.5	20.0	21.5
14	21.0	20.0	20.5	28.0	24.5	26.0	26.5	24.0	25.0	23.0	20.5	21.5
15	22.0	19.5	20.5	28.0	26.0	27.0	26.0	24.0	25.0	23.5	21.5	22.5
16	21.0	20.0	20.5	28.5	25.5	27.0	26.5	25.0	25.5	24.0	21.5	22.5
17	21.5	20.0	21.0	29.0	26.5	27.5	25.5	24.5	25.0	23.0	22.0	22.5
18	21.0	20.5	21.0	29.0	26.5	27.5	24.5	23.0	23.0	23.5	21.0	22.0
19	21.5	20.0	20.5	28.5	26.5	27.5	23.5	23.0	23.0	22.5	21.0	22.0
20	23.0	21.0	21.5	28.5	25.5	27.0	23.5	22.5	23.0	22.5	21.5	22.0
21	24.0	22.0	23.0	28.0	25.5	27.0	22.5	21.0	22.0	21.5	20.0	20.5
22	24.0	22.5	23.0	27.5	26.5	26.5	21.5	21.0	21.0	21.0	18.5	20.0
23	25.0	22.5	24.0	26.5	25.5	26.0	22.0	20.0	21.0	20.0	18.5	19.0
24	26.0	23.5	24.5	27.0	25.5	26.0	21.5	20.0	20.5	20.0	18.0	18.5
25	27.0	24.5	25.5	27.0	25.0	26.0	22.0	20.0	21.0	20.0	17.5	18.5
26	26.5	25.0	25.5	27.5	25.0	26.0	23.0	21.0	22.0	20.0	18.0	19.0
27	26.0	23.5	24.5	29.0	26.0	27.0	23.5	22.0	22.5	20.5	17.5	19.0
28	26.0	23.5	25.0	28.5	26.0	26.5	24.5	22.5	23.5	19.5	18.5	19.0
29	25.5	24.0	25.0	27.0	25.0	26.0	24.0	22.5	23.0	20.0	17.5	19.0
30	25.0	24.0	24.5	26.5	24.0	25.5	23.5	21.5	22.5	19.5	18.0	19.0
31	---	---	---	26.5	23.5	25.0	23.5	21.5	22.5	---	---	---
MONTH	27.0	17.0	21.0	29.0	22.0	25.5	26.5	20.0	23.5	25.5	17.5	21.0
YEAR	29.0	.0	14.0									

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.7	7.3	7.5	10.1	8.9	9.5	11.3	10.4	10.8	11.5	11.2	11.4
2	7.6	7.3	7.5	10.9	9.4	10.1	10.5	10.0	10.2	11.2	10.9	11.1
3	8.0	7.2	7.5	11.5	10.0	10.8	11.3	10.5	11.0	10.9	10.3	10.6
4	8.6	7.2	8.0	12.0	10.5	11.3	11.4	11.3	11.3	10.3	9.7	10.1
5	9.1	7.9	8.4	11.8	10.3	11.0	11.4	11.2	11.3	9.9	9.4	9.6
6	9.3	8.0	8.6	11.2	9.9	10.3	11.2	11.0	11.1	10.6	9.9	10.2
7	9.9	8.1	8.9	10.1	9.1	9.7	11.0	10.6	10.8	10.8	10.3	10.6
8	10.6	8.2	9.3	9.8	9.0	9.4	10.7	10.6	10.7	11.0	10.7	10.9
9	9.7	7.7	8.2	10.0	9.1	9.5	11.1	10.7	10.9	11.0	10.7	10.8
10	9.2	7.4	8.3	10.6	9.8	10.2	11.1	10.6	10.9	11.1	10.7	10.9
11	10.6	8.5	9.5	11.0	10.3	10.7	10.6	10.0	10.3	11.5	11.1	11.3
12	10.9	8.8	9.9	12.1	10.8	11.4	10.1	9.7	9.9	11.6	11.5	11.5
13	11.0	8.9	10.0	12.2	11.1	11.8	10.5	10.0	10.2	11.7	11.5	11.6
14	12.2	9.0	10.5	12.3	11.3	11.9	11.2	10.5	11.0	11.7	11.6	11.7
15	12.4	9.1	10.8	12.6	11.4	12.1	11.5	11.2	11.4	11.8	11.5	11.6
16	11.5	9.0	10.5	12.9	11.5	12.3	11.2	10.8	10.9	11.7	11.3	11.4
17	11.2	8.6	10.1	12.8	11.5	12.1	10.9	10.4	10.7	11.9	11.7	11.8
18	11.0	7.7	8.5	12.0	10.6	11.2	11.0	10.4	10.8	11.8	11.5	11.6
19	9.3	7.3	8.3	12.0	10.6	11.3	11.7	11.0	11.3	11.5	11.2	11.4
20	9.1	8.3	8.5	12.4	10.4	11.4	12.3	11.7	12.0	11.4	11.3	11.3
21	9.0	7.9	8.5	12.2	10.7	11.6	12.6	12.3	12.4	11.5	11.1	11.3
22	8.9	7.9	8.4	12.9	11.2	12.1	12.5	12.1	12.3	11.1	10.9	11.0
23	8.9	7.9	8.4	13.6	11.3	12.5	12.1	11.6	11.9	11.3	10.9	11.1
24	9.5	7.9	8.7	13.1	11.3	11.9	11.8	11.5	11.6	11.6	11.3	11.4
25	9.4	8.4	9.0	11.3	10.2	10.6	12.5	11.8	12.0	12.1	11.6	11.9
26	9.1	8.1	8.5	10.8	9.8	10.2	13.1	12.5	12.8	12.4	12.1	12.3
27	8.8	7.8	8.3	10.8	9.5	10.0	13.1	12.5	12.8	12.5	12.2	12.4
28	8.9	7.7	8.3	11.9	10.8	11.5	12.5	11.7	12.1	12.6	12.2	12.4
29	9.2	7.7	8.5	12.0	11.8	11.9	11.7	10.9	11.2	12.9	12.5	12.7
30	9.7	8.1	8.9	11.9	11.3	11.6	11.4	10.9	11.2	12.9	12.8	12.8
31	10.5	8.5	9.6	---	---	---	11.4	11.3	11.4	12.8	12.3	12.6
MONTH	12.4	7.2	8.8	13.6	8.9	11.1	13.1	9.7	11.3	12.9	9.4	11.4

SURFACE-WATER RECORDS Scioto River Basin

RESERVOIRS IN SCIOTO RIVER BASIN

03220500 O'Shaughnessy Reservoir near Dublin.--Lat 40°09'14", long 83°07'33", Delaware County, Hydrologic

Unit 0506001, in gate house of dam on Scioto River, 4.0 mi north of Dublin.

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, 43 acre-ft Feb. 11, 1945, elevation, 791.97 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 22,400 acre-ft Jun. 2, elevation, 852.90 ft; minimum, 16,520 acre-ft Sept. 30, elevation, 847.41 ft.

03221500 Griggs Reservoir near Columbus.--Lat 40°00'54", long 83°05'38", Franklin County, Hydrologic Unit 05060001, on left abutment of dam on Scioto River, 6.2 mi northwest of State Capitol building in Columbus, 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, 6,970 acre-ft Jun. 2, elevation 762.50 ft; minimum, 4,350 acre-ft Sept. 30, elevation 755.33.

03228400 Hoover Reservoir at Central College.--Lat 40°06'30", long 82°52'59", in T.2 N., R.17 W., Franklin County, Hydrologic Unit 05060001, in gate house of dam on Big Walnut Creek, 0.5 mi northeast of Central College, and 12 mi northeast of Columbus.

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, 83,260 acre-ft, Feb. 24, 1975, elevation, 897.26 ft; minimum, 19,010 acre-ft Mar. 1, 1964, elevation, 868.58 ft.

EXTREMES FOR CURRENT YEAR: 87,480 acre-ft Jun. 2, elevation, 898.45 ft; minimum, 36,510 acre-ft Nov. 25, elevation, 880.18 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

Date	03220500 O'SHAUGHNESSY RESERVOIR			03221500 GRIGGS RESERVOIR			03228400 HOOVER RESERVOIR		
	Elevation (ft)	Contents (acre-ft)	Change in contents (acre-ft)	Elevation (feet)	Content (acre-ft)	Change in contents (acre-ft)	Elevatio (ft)	Contents (acre-ft)	Change in contents (acre-ft)
Sept. 30	848.69	17,750		756.74	4,820		885.22	47,650	
Oct. 31	848.53	17,590	-160	756.31	4,690	-130	882.48	41,230	-6,420
Nov. 30	849.21	18,270	+680	758.28	5,400	+710	882.30	40,830	-400
Dec. 31	848.86	17,920	-350	757.03	4,940	-460	892.38	66,800	+25,970
Calendar year 1996			+160			+1,305			+9,730
Jan. 31	848.64	17,770	-220	756.93	4,910	-30	894.40	73,250	+6,450
Feb. 28	849.48	18,550	+850	757.94	5,280	+370	894.58	73,860	+650
Mar. 31	848.71	17,700	-780	757.02	4,940	-340	894.57	73,820	-40
Apr. 30	848.05	17,110	-660	756.46	4,740	-200	893.53	70,370	-3,450
May. 31	849.78	18,870	+1,760	758.37	5,440	+700	895.26	76,200	+5,830
June 30	848.65	17,710	-1,160	756.57	4,780	-660	893.82	71,300	-4,900
July 31	848.52	17,580	-130	756.49	4,750	-30	892.58	67,400	-3,900
Aug. 31	848.48	17,540	-40	756.40	4,720	-30	892.76	67,940	+540
Sept. 30	847.43	16,540	-1,000	755.52	4,420	-300	890.10	60,400	-7,540
Water year 1997			-1,210			-400			+12,790

LOCATION.--Lat 38°38'37", long 83°12'57", Scioto County, Hydrologic Unit 05090201, on right bank, 0.3 mi downstream from Brown Run, 0.3 mi upstream from Tucker Run, 0.7 mi upstream from bridge on U.S. Highway 52 at McGaw, 2.7 mi northeast of Buena Vista, and 3.2 mi upstream from mouth.

DRAINAGE AREA.--12.2 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 538.41 ft above sea level (revised). Ohio Department of Highways benchmark. Prior to July 21, 1972, at site 0.7 mi downstream at datum 18.41 ft lower. July 21, 1972, to September 30, 1984, at same site at datum 5.00 ft higher.

REMARKS.--Records poor, Periods of no flow occur most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 3, 1960, reached a stage of 11.62 ft; discharge, 7,230 ft³/s, on basis of contracted-opening and flow-over-road measurement of peak flow.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.71	1.8	125	9.7	20	e180	34	20	129	100	e.01	e.05
2	.59	1.4	32	9.1	16	e780	24	15	85	19	e.02	e.04
3	.60	1.0	19	8.3	14	e150	19	74	129	8.2	e.04	e.05
4	.42	.83	11	7.2	118	e38	15	80	57	4.7	e.05	e.05
5	.26	.62	7.4	58	92	e31	13	47	30	2.7	e.06	e.06
6	.18	.52	8.8	40	39	e39	12	30	17	1.4	e.07	e.05
7	.14	.97	7.3	26	27	e31	9.8	19	12	1.0	e.08	e.05
8	.10	51	5.9	19	22	e24	8.2	33	12	e.80	e.08	e.06
9	.09	27	4.4	e15	18	e19	7.2	64	55	e.62	e.08	e.06
10	.08	19	3.3	e11	16	e74	6.4	38	32	e.48	e.08	e.07
11	.06	14	3.3	e9.0	14	e50	6.0	25	17	e.39	e.08	e.06
12	.04	9.8	110	e7.0	13	e26	8.1	19	15	e.32	e.08	e.06
13	.03	6.2	51	e6.0	11	e25	8.6	15	16	e.25	e.10	e.06
14	.02	4.0	26	e5.4	14	54	7.2	12	14	e.20	e.12	e.05
15	.02	2.6	18	e4.8	19	50	6.8	10	11	e.17	e.15	e.05
16	.02	1.8	14	e4.3	20	32	7.0	8.1	15	e.14	e.13	e.05
17	.02	1.7	150	e4.0	18	24	7.9	7.3	103	e.12	e.25	e.05
18	.10	7.3	52	e3.7	17	54	7.4	6.5	44	e.10	e.50	e.05
19	.06	9.9	28	e3.3	16	97	7.3	6.1	25	e.09	e.33	e.04
20	.17	8.8	17	e3.1	15	59	7.0	15	17	e.08	e.20	e.04
21	.47	8.3	e9.0	e2.9	16	38	9.5	11	11	e.07	e.15	e.04
22	.59	7.4	e8.0	e6.0	14	25	11	8.7	7.6	e.06	e.11	e.04
23	.58	6.2	8.1	15	11	17	11	7.4	5.2	e.06	e.09	e.04
24	.48	5.3	82	159	10	13	10	6.9	3.4	11	e.07	e.04
25	.41	8.9	44	177	9.8	14	8.9	8.0	2.2	2.2	e.06	e.04
26	.49	37	28	40	11	92	7.8	21	2.6	1.0	e.06	e.04
27	1.8	28	21	49	14	50	11	19	1.5	1.2	e.05	e.04
28	3.5	21	18	139	12	34	46	14	e.90	1.0	e.04	e.03
29	2.7	16	15	46	---	162	32	11	e.80	e.52	e.06	e.03
30	2.5	38	12	31	---	70	22	10	4.8	e.20	e.05	e.03
31	2.3	---	11	24	---	51	---	104	---	e.06	e.05	---
TOTAL	19.53	346.34	949.5	942.8	636.8	2403	391.1	765.0	875.00	158.13	3.30	1.42
MEAN	.63	11.5	30.6	30.4	22.7	77.5	13.0	24.7	29.2	5.10	.11	.047
MAX	3.5	51	150	177	118	780	46	104	129	100	.50	.07
MIN	.02	.52	3.3	2.9	9.8	13	6.0	6.1	.80	.06	.01	.03
CFSM	.05	1.95	2.51	2.49	1.86	6.35	1.07	2.02	2.39	.42	.01	.00
IN.	.06	1.06	2.90	2.87	1.94	7.33	1.19	2.33	2.67	.48	.01	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1997, BY WATER YEAR (WY)

MEAN	2.45	6.45	17.1	18.0	23.6	31.4	29.2	21.6	7.24	3.90	3.21	3.04
MAX	16.8	29.0	81.6	46.3	60.9	90.7	66.7	93.1	35.3	30.8	38.0	32.5
(WY)	1990	1986	1979	1996	1975	1964	1965	1996	1979	1986	1979	1979
MIN	.000	.000	.000	.44	4.42	4.39	4.41	1.63	.043	.071	.009	.010
(WY)	1964	1964	1964	1981	1978	1969	1971	1991	1988	1964	1993	1983

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1963 - 1997
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ANNUAL TOTAL	9374.24		7491.92				
ANNUAL MEAN	25.6		20.5			13.9	
HIGHEST ANNUAL MEAN						31.9	1979
LOWEST ANNUAL MEAN						5.15	1969
HIGHEST DAILY MEAN	850	May 15	780	Mar 2		850	May 15 1996
LOWEST DAILY MEAN	.00	Jul 3	.01	Aug 1		.00	Jul 12 1963
ANNUAL SEVEN-DAY MINIMUM	.00	Jul 3	.03	Oct 11		.00	Sep 21 1963
INSTANTANEOUS PEAK FLOW			4430	Mar 2 a		4430	Mar 2 1997
INSTANTANEOUS PEAK STAGE			10.01	Mar 2		10.20	Mar 4 1964
INSTANTANEOUS LOW FLOW			.01	Aug 1		.00	Jul 12 1963
ANNUAL RUNOFF (CFSM)	2.10		1.68			1.14	
ANNUAL RUNOFF (INCHES)	28.58		22.84			15.47	
10 PERCENT EXCEEDS	54		50			32	
50 PERCENT EXCEEDS	7.4		8.1			3.2	
90 PERCENT EXCEEDS	.04		.05			.08	

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

SURFACE-WATER RECORDS

Upper Twin Creek Basin

03237280 UPPER TWIN CREEK AT MCGAW, OHIO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

		DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCHI, FECAL, KF AGAR (COLS. PER 100 ML) (31673)	
NOV 27...	1130	1.8	118	5.5	17.0	7.5	0.40	11.1	96	23	75	
FEB 21...	1100	32	70	6.8	9.5	4.0	2.3	12.5	98	K11	113	
DATE		HARD-NESS TOTAL (MG/L AS CAC03) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	CAR-BONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	ALKA-LINITY WAT WH TOT FET (MG/L AS CAC03) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
NOV 27...	42	7.1	5.8	3.2	1.8	23	0	18	25	2.7	<0.10	
FEB 21...	26	4.2	3.8	2.1	1.5	16	0	14	19	1.5	<0.10	
DATE		SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)
NOV 27...	8.3	67	--	--	--	--	--	--	--	<10	18	<3
FEB 21...	9.1	54	0.470	0.020	<0.20	<0.010	<0.010	<0.010	<0.010	20	15	<3
DATE		IRON, DIS-SOLVED (UG/L AS FE) (01046)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	
NOV 27...	22	<4	<4	<1	<10	<1	<1	<1.0	50	<6	5	
FEB 21...	29	<4	<4	1	<10	<1	<1	<1.0	31	<6	3	

K Results based on colony count outside the ideal range

SURFACE-WATER RECORDS

Ohio Brush Creek Basin

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03237500 OHIO BRUSH NEAR WEST UNION, OHIO

LOCATION.--Lat 38°48'13", long 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, 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 fair except for periods of estimated records, which are poor. Water-quality and sediment data collected at this site.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	120	42	5100	262	353	22000	610	123	9050	1210	.60	1.1
2	73	35	1210	242	321	49400	432	128	1780	714	.33	.96
3	49	31	518	225	324	5400	360	1310	1720	691	.91	1.1
4	35	27	335	212	6680	4170	309	1130	835	346	1.4	1.3
5	27	26	260	1790	4830	4240	273	478	516	157	2.0	1.3
6	22	26	611	944	1240	4030	275	308	360	96	2.5	1.5
7	19	198	443	459	770	1530	242	240	273	67	3.2	1.4
8	17	2190	296	324	605	762	196	240	243	51	3.3	1.3
9	17	571	235	e260	517	589	167	1630	420	39	3.3	1.6
10	16	317	195	e220	460	2340	150	525	276	32	3.3	1.6
11	16	241	182	e180	410	994	140	319	187	26	3.3	1.1
12	17	181	1290	e160	362	607	144	241	148	21	3.1	.83
13	21	141	1110	e140	314	450	271	201	139	18	5.0	.64
14	18	119	464	e130	366	2610	227	167	127	14	6.7	.35
15	16	106	320	e110	712	1380	163	143	110	11	9.1	.19
16	15	95	275	e96	554	692	139	123	197	7.7	6.9	.18
17	14	87	8900	e88	380	509	133	107	1600	6.0	20	e1.0
18	16	117	1730	e86	323	2120	128	98	3830	4.6	266	e.98
19	38	288	752	e84	314	2690	118	1890	2010	3.6	215	e.90
20	133	185	427	e82	296	1090	109	1560	616	2.6	82	e.80
21	75	144	e280	e80	288	692	141	332	357	1.9	60	e.86
22	51	146	e230	e100	310	514	234	191	247	1.9	60	e.96
23	38	153	e200	720	249	385	179	139	179	1.5	32	e.96
24	32	126	2000	647	209	314	132	114	138	1.7	15	e.80
25	30	262	947	4400	193	313	112	110	108	67	6.6	e.78
26	33	2600	479	721	196	1900	100	1080	92	31	2.4	e.78
27	81	850	378	1450	448	765	93	471	192	12	1.4	e.76
28	130	385	356	5010	387	493	114	235	115	4.6	1.4	e.70
29	105	274	355	890	---	2020	133	168	81	2.3	1.6	e.66
30	73	1640	360	502	---	1090	109	146	62	1.3	1.6	e.64
31	54	---	292	429	---	977	---	1080	---	.96	1.4	---
TOTAL	1401	11603	30530	21043	22411	117066	5933	15027	26008	3643.66	821.34	28.03
MEAN	45.2	387	985	679	800	3776	198	485	867	118	26.5	.93
MAX	133	2600	8900	5010	6680	49400	610	1890	9050	1210	266	1.6
MIN	14	26	182	80	193	313	93	98	62	.96	.33	.18
CFSM	.12	1.00	2.54	1.75	2.07	9.76	.51	1.25	2.24	.30	.07	.00
IN.	.13	1.12	2.93	2.02	2.15	11.25	.57	1.44	2.50	.35	.08	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1927 - 1997, BY WATER YEAR (WY)

	MEAN	97.5	265	538	745	823	1030	740	553	255	186	150	130
MAX	651	1447	2252	2637	1989	3909	2030	2230	936	1222	1000	2053	
(WY)	1976	1986	1991	1950	1951	1964	1948	1996	1928	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 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1927 - 1997

ANNUAL TOTAL	260899.9	255515.03	
ANNUAL MEAN	713	700	458
HIGHEST ANNUAL MEAN			951
LOWEST ANNUAL MEAN			158
HIGHEST DAILY MEAN	14100	49400	49400
LOWEST DAILY MEAN	3.7	.18	.00
ANNUAL SEVEN-DAY MINIMUM	4.0	.60	.00
INSTANTANEOUS PEAK FLOW		77700	77700
INSTANTANEOUS PEAK STAGE		31.15	31.15
INSTANTANEOUS LOW FLOW		.18	.00
ANNUAL RUNOFF (CFSM)	1.84	1.81	1.18
ANNUAL RUNOFF (INCHES)	25.08	24.56	16.07
10 PERCENT EXCEEDS	1860	1340	1000
50 PERCENT EXCEEDS	231	167	109
90 PERCENT EXCEEDS	14	1.5	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 **Whiteoak Creek Basin**

03238500 WHITEOAK CREEK NEAR GEORGETOWN, OHIO

LOCATION.--Lat 38°51'29", long 83°55'43", Brown County, Hydrologic Unit 05090201, on left bank 150 ft upstream from diversion dam for Georgetown water treatment plant, 0.7 mi upstream from Town Run, 1.4 mi southwest of Georgetown, and 7.2 mi upstream from mouth.

DRAINAGE AREA.--218 mi².

PERIOD OF RECORD.--October 1923 to November 1935, October 1939 to current year.

REVISED RECORDS.--WSP 728: 1924-31. WSP 758: 1933. WSP 1908: Drainage area. WRD OH-74-1: 1973 (P)

GAGE.--Water-stage recorder. Datum of gage is 604.20 ft above sea level. Prior to Oct. 12, 1972, nonrecording gage at a site 1.0 mi downstream at datum 35.24 ft lower. See WSP 2108 for history of changes prior to Dec. 8, 1940.

REMARKS.--Records good except for periods of estimated record and those below 30 ft³/s, which are poor. Water-quality and sediment data collected at this site. Satellite telemeter at this station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59	23	3540	103	93	8730	260	42	11000	676	5.1	4.0
2	33	19	738	91	93	15300	165	52	1830	273	3.9	5.1
3	24	15	253	80	100	3180	129	1050	381	111	3.9	5.1
4	19	14	162	67	3990	1280	113	730	226	57	3.8	5.1
5	15	14	123	1050	4020	523	105	254	142	41	2.9	4.5
6	13	14	271	489	551	1190	105	151	107	34	2.8	2.3
7	10	31	252	163	304	366	99	114	85	30	1.8	.03
8	9.5	693	149	98	245	232	79	376	137	28	2.2	1.5
9	9.5	289	105	e60	239	188	59	1250	343	38	2.2	2.5
10	10	173	79	e40	223	1460	54	284	153	64	1.6	2.6
11	10	148	68	e30	192	451	51	157	92	30	3.6	2.2
12	9.5	93	328	e28	164	235	56	111	64	24	8.1	2.2
13	9.5	60	729	e25	134	169	67	89	54	21	16	2.2
14	9.5	46	236	e23	132	2020	72	71	45	18	23	2.5
15	9.5	39	143	e22	278	880	63	54	39	195	29	2.9
16	9.5	35	128	e20	278	268	54	47	468	54	26	2.9
17	9.5	32	5170	e19	158	191	49	42	2160	27	106	2.9
18	21	47	1940	e18	116	967	47	39	2690	21	547	2.0
19	39	158	319	e18	116	1850	45	38	2000	17	142	.00
20	50	103	154	e17	118	462	42	82	286	13	71	.00
21	36	73	e88	e17	122	253	46	60	147	11	54	.00
22	25	62	e66	e30	124	189	59	43	102	11	34	.00
23	22	62	e50	423	110	145	67	33	71	77	22	.00
24	21	59	1560	424	87	120	55	29	54	43	16	.00
25	21	212	554	3170	80	110	44	125	45	21	13	.00
26	21	2140	187	283	75	893	37	636	82	17	11	.00
27	21	487	133	942	137	349	36	210	53	17	9.6	.00
28	35	196	125	3890	197	202	38	99	43	14	8.8	.00
29	42	131	139	334	---	724	42	63	95	11	7.3	.00
30	37	960	197	155	---	600	39	51	338	7.1	5.6	.00
31	27	---	128	115	---	449	---	901	---	6.9	5.1	---
TOTAL	687.0	6428	18114	12244	12476	43976	2177	7283	23332	2008.0	1188.3	52.53
MEAN	22.2	214	584	395	446	1419	72.6	235	778	64.8	38.3	1.75
MAX	59	2140	5170	3890	4020	15300	260	1250	11000	676	547	5.1
MIN	9.5	14	50	17	75	110	36	29	39	6.9	1.6	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 1997, BY WATER YEAR (WY)

	MEAN	63.0	164	298	438	487	565	434	292	157	96.4	88.3	81.1
MAX	580	1103	1427	1487	1281	1822	1134	1646	778	598	531	1220	
(WY)	1984	1986	1991	1950	1955	1963	1973	1996	1997	1980	1926	1979	
MIN	.071	.17	1.64	1.67	12.2	41.5	31.6	10.9	4.55	1.02	1.28	.17	
(WY)	1941	1931	1964	1977	1934	1941	1971	1934	1988	1930	1993	1985	

SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1925 - 1997

ANNUAL TOTAL	196784.85	129965.83	
ANNUAL MEAN	538	356	263
HIGHEST ANNUAL MEAN			583
LOWEST ANNUAL MEAN			82.4
HIGHEST DAILY MEAN	13000	May 16	15300
LOWEST DAILY MEAN	.00	Aug 26	.00
ANNUAL SEVEN-DAY MINIMUM	.00	Sep 7	.00
INSTANTANEOUS PEAK FLOW			18100
INSTANTANEOUS PEAK STAGE			9.36
INSTANTANEOUS LOW FLOW			.00
10 PERCENT EXCEEDS	1380	683	538
50 PERCENT EXCEEDS	83	63	43
90 PERCENT EXCEEDS	6.1	4.3	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

Little Miami River Basin

153

03240000 LITTLE MIAMI RIVER NEAR OLDTOWN, OHIO

LOCATION.--Lat 39°44'54", long 83°55'53", in sec. 34, R.7, T.4, Greene County, Hydrologic Unit 05090202, on right bank at downstream side of bridge on U.S. Highway 68, 0.8 mi downstream from Conner Branch, 0.9 mi upstream from Massies Creek, 1.3 mi northeast of Oldtown, and at mile 82.25.

DRAINAGE AREA.--129 mi².

PERIOD OF RECORD.--July 1952 to current year.

GAGE.--Water-stage recorder. Datum of gage is 816.56 ft above sea level.

REMARKS.--Records good except for periods of estimated daily discharges, which are fair. Water-quality and sediment data collected at this site.

REVISIONS.--The peak discharge and annual maximum (*) for water years 1991, 1993, and 1994 have been revised to 1,880 ft³/s, Dec. 19, 1990, gage height, 7.38 ft.; *1,620 ft³/s, Mar. 5, 1993, gage height, *6.87 ft.; and *2,320 ft³/s, Jan. 28, 1994, gage height, *8.14 ft. These revisions supersede figures published in reports for 1991, 1993, and 1994.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52	39	784	116	118	146	124	77	2280	250	48	30
2	44	36	512	113	114	874	117	75	2790	178	47	29
3	39	33	257	108	125	551	114	477	1570	153	48	30
4	36	32	180	103	510	388	112	382	773	106	49	28
5	34	31	148	127	863	297	116	238	371	89	50	27
6	33	32	138	136	354	289	118	183	273	80	42	27
7	30	36	126	112	237	232	105	145	218	73	40	26
8	29	48	115	100	190	198	97	136	189	69	38	26
9	29	51	103	e96	158	209	92	138	169	135	36	25
10	29	48	95	e84	141	601	90	122	150	109	35	28
11	29	44	93	e76	132	368	89	109	138	81	38	34
12	28	41	91	e72	125	251	102	104	131	71	42	30
13	27	38	95	e68	111	206	106	97	127	65	49	27
14	27	37	92	e64	111	522	94	93	119	72	46	25
15	26	35	87	e62	104	451	87	122	108	71	48	24
16	26	34	94	e58	97	278	86	105	119	57	46	23
17	26	35	750	e56	89	228	86	94	310	51	75	23
18	41	41	659	e54	91	266	83	88	225	49	95	23
19	50	42	296	e52	108	395	81	86	210	46	76	23
20	43	42	194	e50	130	287	79	80	161	44	76	22
21	38	43	167	e50	152	233	77	74	136	44	84	23
22	34	41	132	e250	157	201	76	70	121	46	65	22
23	35	40	129	445	126	170	74	68	109	231	53	21
24	35	40	362	168	110	152	73	67	101	265	49	22
25	33	57	274	e120	101	148	72	74	95	160	46	21
26	37	532	178	e90	103	153	67	78	90	98	43	21
27	39	303	150	e200	131	141	68	73	86	79	40	20
28	36	183	146	642	135	136	74	65	80	75	38	20
29	34	140	148	225	---	147	69	66	77	64	35	19
30	40	210	133	147	---	141	66	68	79	56	34	17
31	43	---	124	126	---	136	---	111	---	51	32	---
TOTAL	1082	2364	6852	4170	4923	8795	2694	3765	11405	3018	1543	736
MEAN	34.9	78.8	221	135	176	284	89.8	121	380	97.4	49.8	24.5
MAX	52	532	784	642	863	874	124	477	2790	265	95	34
MIN	26	31	87	50	89	136	66	65	77	44	32	17
CFSM	.27	.61	1.71	1.04	1.36	2.20	.70	.94	2.95	.75	.39	.19
IN.	.31	.68	1.98	1.20	1.42	2.54	.78	1.09	3.29	.87	.44	.21

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 1997, BY WATER YEAR (WY)

	MEAN	35.7	71.7	113	142	182	216	198	172	132	88.5	64.4	38.1
MAX	163	315	513	497	485	655	446	637	469	406	413	378	
(WY)	1991	1986	1991	1959	1975	1963	1996	1996	1981	1990	1980	1979	
MIN	9.46	11.0	11.3	10.4	20.9	35.1	54.9	35.2	22.1	10.6	11.3	9.09	
(WY)	1954	1954	1954	1977	1954	1954	1971	1954	1988	1954	1955	1964	

SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1952 - 1997

ANNUAL TOTAL	82789	51347	
ANNUAL MEAN	226	141	121
HIGHEST ANNUAL MEAN			228
LOWEST ANNUAL MEAN			28.6
HIGHEST DAILY MEAN	2950	Apr 30	6140
LOWEST DAILY MEAN	24	Sep 15	3.5
ANNUAL SEVEN-DAY MINIMUM	27	Sep 10	7.4
INSTANTANEOUS PEAK FLOW		3450	Jun 2 a
INSTANTANEOUS PEAK STAGE		8.83	Jun 2
INSTANTANEOUS LOW FLOW		17	Sep 30
ANNUAL RUNOFF (CFSM)	1.75	1.09	.94
ANNUAL RUNOFF (INCHES)	23.87	14.81	12.74
10 PERCENT EXCEEDS	521	265	257
50 PERCENT EXCEEDS	130	87	62
90 PERCENT EXCEEDS	32	30	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

Little Miami River Basin

03241500 MASSIES CREEK AT WILBERFORCE, OHIO

LOCATION.--Lat 39°43'22", long 83°52'58", Greene County, Hydrologic Unit 05090202, on left bank at bridge on Wilberforce-Clifton Road, 0.5 mi northwest of Wilberforce, 0.6 mi downstream from unnamed right bank tributary, and 1.7 mi upstream from Clark Run.

DRAINAGE AREA.--63.2 mi².

PERIOD OF RECORD.--September 1952 to current year. Prior to October 1962, published as Massie Creek at Wilberforce.

REVISED RECORDS.--WSP 1908: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 865.15 ft above sea level. Aug. 4, 1972, to Sept. 30, 1979, at site 150 ft downstream at same datum.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	15	592	66	76	115	e51	35	1270	24	21	16
2	21	15	417	65	74	608	e50	33	1300	21	18	15
3	16	14	202	61	84	368	e47	325	573	37	18	14
4	13	13	142	57	424	274	e47	235	267	27	18	11
5	12	13	120	97	e500	212	e49	137	172	21	19	10
6	12	12	110	97	e250	203	e48	95	126	17	15	9.9
7	11	15	99	72	174	156	e43	70	99	16	13	9.4
8	10	26	84	e58	138	133	e39	64	84	15	12	8.8
9	11	28	72	e46	110	157	37	62	72	29	11	8.4
10	11	27	65	e44	93	418	36	55	62	34	11	10
11	10	24	65	e42	84	242	35	48	53	24	11	11
12	10	21	61	e40	77	166	40	46	48	19	12	9.9
13	10	19	65	e38	66	125	41	43	44	16	86	8.4
14	10	18	62	e36	66	384	37	40	40	17	60	7.9
15	10	16	57	e35	61	281	35	39	35	15	54	7.8
16	9.3	16	61	e34	56	175	34	37	34	14	63	6.8
17	10	17	559	e33	53	139	34	36	45	13	169	6.3
18	25	20	422	e32	56	185	33	35	47	12	177	6.6
19	22	20	203	e31	73	292	33	35	63	11	131	6.5
20	18	20	127	e31	93	198	32	33	44	10	160	7.7
21	16	21	94	e30	113	150	31	31	37	11	165	7.2
22	13	19	77	e60	107	119	31	31	32	11	93	6.8
23	15	18	79	228	78	93	30	31	28	159	64	6.8
24	15	18	245	100	67	80	30	30	25	145	48	6.8
25	13	39	166	e75	62	76	29	34	23	64	40	7.0
26	13	446	107	e56	63	75	27	35	21	40	35	7.0
27	15	291	87	227	77	69	27	33	19	32	31	6.7
28	17	154	88	456	76	64	30	29	17	104	27	6.4
29	15	107	94	159	---	71	29	30	16	54	22	6.3
30	19	187	78	96	---	61	28	30	15	34	20	6.3
31	17	---	72	80	---	e56	---	66	---	27	18	---
TOTAL	446.3	1669	4772	2582	3251	5745	1093	1883	4711	1073	1642	258.7
MEAN	14.4	55.6	154	83.3	116	185	36.4	60.7	157	34.6	53.0	8.62
MAX	27	446	592	456	500	608	51	325	1300	159	177	16
MIN	9.3	12	57	30	53	56	27	29	15	10	11	6.3
CFSM	.23	.88	2.44	1.32	1.84	2.93	.58	.96	2.48	.55	.84	.14
IN.	.26	.98	2.81	1.52	1.91	3.38	.64	1.11	2.77	.63	.97	.15

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 1997, BY WATER YEAR (WY)

	MEAN	15.5	42.3	65.9	79.3	102	122	107	93.1	63.2	40.9	28.7	15.0
MAX	99.7	248	290	273	236	372	254	335	253	199	196	186	
(WY)	1991	1986	1991	1959	1975	1963	1996	1968	1981	1990	1958	1979	
MIN	1.55	1.95	2.35	4.59	6.41	13.1	19.8	12.8	6.90	1.75	1.49	1.05	
(WY)	1954	1954	1954	1977	1954	1954	1971	1954	1988	1954	1953	1953	

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1952 - 1997	
ANNUAL TOTAL	43092.6		29126.0		64.4	
ANNUAL MEAN	118		79.8		113	
HIGHEST ANNUAL MEAN					8.68	
LOWEST ANNUAL MEAN					1973	
HIGHEST DAILY MEAN	1310	Apr 29	1300	Jun 2	3620	Jan 21 1959
LOWEST DAILY MEAN	5.2	Sep 15	6.3	Sep 17	.30	Sep 3 1954
ANNUAL SEVEN-DAY MINIMUM	6.2	Sep 9	6.6	Sep 24	.33	Sep 1 1954
INSTANTANEOUS PEAK FLOW			1540	Jun 2 a	7300	Jan 21 1959
INSTANTANEOUS PEAK STAGE			7.74	Jun 2	11.25	Jan 21 1959
INSTANTANEOUS LOW FLOW			6.3	Sep 17	.30	Sep 3 1954
ANNUAL RUNOFF (CFSM)	1.86		1.26		1.02	
ANNUAL RUNOFF (INCHES)	25.36		17.14		13.85	
10 PERCENT EXCEEDS	308		174		148	
50 PERCENT EXCEEDS	58		37		28	
90 PERCENT EXCEEDS	10		11		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

Little Miami River Basin

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03245500 LITTLE MIAMI RIVER AT MILFORD, OHIO

LOCATION.--Lat 39°10'17", long 84°17'53", Clermont County, Hydrologic Unit 05090202, on right bank 500 ft downstream from Wooster Pike Bridge on U.S. Highway 50 in Milford, 1.2 mi upstream from East Fork, 6.4 mi downstream from North Branch Creek, and at mile 12.9.

DRAINAGE AREA.--1,203 mi².

PERIOD OF RECORD.--July 1915 to September 1917, October 1917 to May 1920 (gage heights only), March 1925 to September 1936, October 1938 to current year. Monthly discharge only for some periods, published in WSP 1305, published as "at Miamiville" 1915-20.

REVISED RECORDS.--WSP 728: 1931. WSP 743: 1932. WSP 873: 1925-36. WSP 1908: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 494.35 ft above sea level. June 22, 1915, to May 14, 1920, nonrecording gage at site 4 mi upstream at different datum. Mar. 11, 1925, to Aug. 16, 1928, nonrecording gage at bridge 500 ft upstream at datum 5.72 ft higher. Aug. 17, 1928, to Sept. 30, 1977, water-stage recorder at same site at datum 5.00 ft higher.

REMARKS.--Records good except for periods of estimated discharge, which are fair. Some regulation since 1948 by Cowan Lake, capacity 12,000 acre-ft, 45 mi upstream on Cowan Creek, tributary to Todd Fork, and Caesar Creek Lake capacity 242,200 acre-ft 41.3 mi upstream on Caesar Creek. U.S. Army Corps of Engineers satellite telemeter at station. Water-quality and sediment data collected at this site.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 30.5 ft, present datum, from information by U.S. Army Corps of Engineers.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	671	491	10900	900	1460	6570	1500	588	28300	1290	260	233
2	558	492	5750	880	1370	14300	1040	873	9410	1600	242	229
3	499	653	5150	866	1360	6600	763	8420	6940	3960	233	234
4	471	549	2590	1000	8240	5020	620	4350	6340	2660	230	249
5	373	427	2130	1530	8380	3080	669	2600	5350	878	220	221
6	284	440	2620	1410	5760	2680	778	1970	4600	585	220	208
7	255	471	2140	885	4450	2060	e740	1650	3020	485	212	201
8	240	676	1830	666	2830	1530	e640	2250	3160	438	202	227
9	238	769	1320	e540	2820	1870	e610	3190	5880	396	202	283
10	243	754	1090	e450	2290	6400	545	1760	4160	461	215	365
11	239	722	981	e380	1530	3880	519	1100	3690	470	210	308
12	231	506	1230	e360	1240	4710	711	862	1680	385	258	261
13	224	442	1600	e350	1080	4120	973	769	1470	352	366	243
14	219	371	1140	e330	1040	5390	734	692	1420	461	947	222
15	216	333	1000	e320	1060	5560	615	602	983	529	911	245
16	216	316	1140	e310	910	5000	560	596	1300	393	809	263
17	209	309	12300	e310	807	4120	539	560	2350	334	928	257
18	476	344	6110	e300	858	2580	523	529	9440	300	4220	255
19	588	351	4890	e300	844	5120	499	498	5440	282	2330	222
20	443	360	3860	e300	883	4000	479	508	3850	261	1960	201
21	356	363	3370	e290	988	3220	527	490	1890	242	2420	230
22	336	375	1880	e1500	1060	1900	560	450	1300	285	2390	234
23	406	371	1880	e3000	960	1280	495	418	1080	1380	1030	199
24	372	338	6400	e1500	763	1160	467	401	811	1670	622	197
25	331	603	4260	3580	636	1030	456	1170	578	822	485	194
26	291	6000	3150	1450	613	985	438	3170	548	541	369	192
27	292	4210	2130	4290	922	1040	426	1730	552	376	322	181
28	300	2930	1470	10400	1030	829	477	1700	501	354	298	167
29	376	1420	1570	4750	---	2610	490	858	552	341	278	165
30	478	2320	1460	3530	---	1750	444	679	676	359	260	161
31	478	---	1240	2160	---	1910	---	3420	---	293	245	---
TOTAL	10909	28706	98581	48837	56184	112304	18837	48853	117271	23183	23894	6847
MEAN	352	957	3180	1575	2007	3623	628	1576	3909	748	771	228
MAX	671	6000	12300	10400	8380	14300	1500	8420	28300	3960	4220	365
MIN	209	309	981	290	613	829	426	401	501	242	202	161
CFSM	.29	.80	2.64	1.31	1.67	3.01	.52	1.31	3.25	.62	.64	.19
IN.	.34	.89	3.05	1.51	1.74	3.47	.58	1.51	3.63	.72	.74	.21

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 1997, BY WATER YEAR (WY)

	MEAN	353	806	1318	1900	2111	2461	2114	1667	1025	702	481	362
MAX	2775	4189	5494	7131	4951	8212	5396	7594	4686	3542	3014	3711	
(WY)	1927	1986	1991	1949	1950	1945	1940	1996	1973	1958	1926	1979	
MIN	47.0	60.2	73.4	88.6	145	218	369	138	117	78.0	77.6	43.0	
(WY)	1954	1954	1935	1977	1954	1941	1941	1934	1925	1930	1930	1953	

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1916 - 1997	
ANNUAL TOTAL	930395		594406		1276	
ANNUAL MEAN	2542		1629		2364	
HIGHEST ANNUAL MEAN					301	
LOWEST ANNUAL MEAN					1954	
HIGHEST DAILY MEAN	26400	Apr 29	28300	Jun 1	72400	Jan 22 1959
LOWEST DAILY MEAN	196	Sep 15	161	Sep 30	27	Sep 18 1954
ANNUAL SEVEN-DAY MINIMUM	212	Sep 2	180	Sep 24	37	Sep 12 1964
INSTANTANEOUS PEAK FLOW			39700	Jun 1 a	84100	Jan 22 1959
INSTANTANEOUS PEAK STAGE			19.34	Jun 1	27.30	Jan 22 1959
INSTANTANEOUS LOW FLOW			161	Sep 30	27	Sep 18 1954
ANNUAL RUNOFF (CFSM)	2.11		1.35		1.06	
ANNUAL RUNOFF (INCHES)	28.77		18.38		14.42	
10 PERCENT EXCEEDS	6680		4270		3010	
50 PERCENT EXCEEDS	1000		679		495	
90 PERCENT EXCEEDS	267		239		112	

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.--Lat 39°08'13", long 84°14'17", Clermont County, Hydrologic Unit 05090202, on right bank at upstream wingwall of highway bridge at Perintown, 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. 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. 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 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 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	935	70	2510	283	372	3980	1410	80	5880	590	42	43
2	812	68	1760	215	342	5690	956	105	1810	443	42	38
3	518	67	3030	205	350	1520	233	1250	3770	220	42	39
4	511	67	2060	227	3040	1130	215	556	4090	256	42	37
5	509	69	746	647	2560	1020	243	193	3770	453	42	36
6	505	72	637	775	3950	1010	275	142	2090	360	41	36
7	508	135	380	813	3680	739	245	108	467	122	41	37
8	505	353	355	371	2530	684	218	484	756	72	42	41
9	507	251	312	e120	925	940	175	639	2470	60	45	47
10	501	353	183	e110	605	1530	154	200	1550	55	43	48
11	497	264	185	e94	296	2280	101	131	1150	54	44	47
12	495	140	316	e86	312	4240	351	107	392	53	45	44
13	496	152	387	e78	330	2990	168	92	313	52	143	37
14	494	123	482	e70	360	2680	126	84	217	52	75	44
15	417	112	565	e68	380	4320	108	79	154	52	80	43
16	220	111	511	e67	389	4170	101	71	2650	51	73	43
17	100	113	4390	e66	402	3910	92	69	3120	49	113	42
18	271	127	4500	e66	331	2650	83	68	6360	49	418	202
19	257	124	4320	e65	271	2400	80	67	2390	48	84	45
20	147	119	2540	e64	213	4040	78	69	3880	49	90	44
21	130	116	814	e64	294	4020	96	62	3760	49	73	42
22	130	128	298	e150	245	3940	103	58	3690	49	55	42
23	136	118	452	342	279	3610	87	56	3500	51	49	42
24	137	114	2600	716	260	2930	81	55	2800	52	47	43
25	132	281	2430	1460	212	1930	75	137	1990	55	48	43
26	135	1350	1660	1320	200	1340	72	369	735	49	49	43
27	143	1730	502	2460	246	1270	71	137	349	49	49	42
28	95	883	418	3880	278	807	83	88	137	49	54	42
29	86	519	436	3660	---	1330	77	93	343	52	51	42
30	86	896	383	2250	---	987	72	101	378	44	48	42
31	74	---	356	1130	---	1310	---	1850	---	42	48	---
TOTAL	10489	9025	40518	21922	23652	75397	6229	7600	64961	3681	2158	1416
MEAN	338	301	1307	707	845	2432	208	245	2165	119	69.6	47.2
MAX	935	1730	4500	3880	3950	5690	1410	1850	6360	590	418	202
MIN	74	67	183	64	200	684	71	55	137	42	41	36

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 1997, BY WATER YEAR (WY)

	MEAN	262	421	736	783	1005	1132	909	969	499	243	192	215
MAX	980	1446	2108	1637	2162	2432	1738	3657	2165	947	1220	1869	
(WY)	1984	1986	1991	1991	1990	1997	1989	1996	1997	1980	1979	1979	
MIN	18.5	49.3	54.1	15.3	168	138	73.5	48.4	35.6	32.4	38.6	30.1	
(WY)	1983	1988	1977	1977	1987	1983	1986	1988	1988	1984	1987	1983	

SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1977 - 1997

ANNUAL TOTAL	414112	267048	
ANNUAL MEAN	1131	732	612
HIGHEST ANNUAL MEAN			1058
LOWEST ANNUAL MEAN			266
HIGHEST DAILY MEAN	9750	May 15	10800
LOWEST DAILY MEAN	42	Sep 2	14
ANNUAL SEVEN-DAY MINIMUM	42	Sep 2	14
INSTANTANEOUS PEAK FLOW			29000
INSTANTANEOUS PEAK STAGE		15800	Jun 18
INSTANTANEOUS LOW FLOW		16.31	Jun 18
10 PERCENT EXCEEDS	3800	36	Sep 5
50 PERCENT EXCEEDS	418	202	2060
90 PERCENT EXCEEDS	51	44	159
			37

e Estimated.

SURFACE-WATER RECORDS

Mill Creek Basin

157

03259000 MILL CREEK AT CARTHAGE, OHIO

LOCATION.--Lat 39°12'07", long 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, 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. 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 good 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 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, 5,740 ft³/s June 9, gage height, 16.30 ft; minimum daily, 18.0 ft³/s Sept. 1, 21, 23, 28.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	119	33	1400	72	101	1170	92	223	2950	166	24	18
2	77	29	456	94	107	1820	89	320	832	47	23	25
3	52	26	300	69	95	456	66	1300	741	41	22	26
4	49	26	241	67	1090	257	63	424	694	34	22	24
5	42	26	250	173	622	166	137	358	618	32	23	23
6	33	44	249	108	444	144	114	210	274	31	21	21
7	33	137	153	90	218	261	71	152	103	32	22	21
8	34	162	115	65	201	430	50	414	494	32	22	39
9	41	106	82	81	154	598	45	236	1900	31	20	127
10	34	89	77	78	141	669	45	153	764	29	24	162
11	29	49	92	e54	121	591	46	104	540	30	25	80
12	26	45	158	e47	106	416	229	77	202	28	38	35
13	26	38	114	e44	97	336	110	53	109	27	204	24
14	27	36	116	e42	112	654	141	59	71	32	69	21
15	27	32	87	e40	102	343	89	45	53	35	420	22
16	27	31	263	e39	92	193	71	53	412	41	106	29
17	27	47	1660	e39	95	127	60	42	273	26	505	25
18	485	65	450	e38	93	241	45	43	1260	26	624	21
19	161	41	398	e38	73	350	45	38	416	24	300	22
20	104	36	269	e40	72	190	53	41	286	22	162	21
21	65	73	180	e45	90	146	100	36	112	23	102	e18
22	69	52	133	504	88	105	80	35	162	39	59	e20
23	149	40	220	173	58	80	46	34	76	72	45	e18
24	56	39	737	202	56	80	56	34	70	135	33	e23
25	44	334	251	210	53	97	43	483	48	37	30	e20
26	64	1000	172	126	111	135	44	480	60	28	30	e23
27	80	307	128	1010	173	87	50	156	47	47	31	e19
28	65	199	109	895	118	90	72	86	41	63	30	e18
29	58	146	91	454	---	381	50	199	108	30	27	e19
30	39	345	101	141	---	198	59	155	106	25	26	e20
31	39	---	76	114	---	145	---	1170	---	25	24	---
TOTAL	2181	3633	9128	5192	4883	10956	2261	7213	13822	1290	3113	984
MEAN	70.4	121	294	167	174	353	75.4	233	461	41.6	100	32.8
MAX	485	1000	1660	1010	1090	1820	229	1300	2950	166	624	162
MIN	26	26	76	38	53	80	43	34	41	22	20	18

LOCATION.--Lat 40°17'13", long 84°09'00", Shelby County, Hydrologic Unit 05080001, on right bank 50 ft upstream from North Street Bridge in Sidney, and 0.5 mi downstream from Tawawa Creek.

PERIOD OF RECORD.--February 1914 to current year. Prior to October 1962, published as Miami River at Sidney.

REVISED RECORDS.--WSP 1305: 1914(M), 1922(M). WSP 1908: Drainage area.

GAGE.--Water-stage recorder. Datum of gage 924.70 ft above sea level. Prior to Sept. 18, 1919, nonrecording gage at site 50 ft downstream at datum 1.76 ft higher. September 18, 1919 to August, 1925, nonrecording gage at site 50 ft downstream at present datum.

REMARKS.--Records good except those for periods of estimated record, which are poor. Water supply for city of Sidney is pumped from the Great Miami River 1,200 ft upstream and from wells adjacent to Great Miami River upstream from station. The pumpage averaged 4.86 ft³/s in 1997 and is returned as sewage 1.2 mi downstream from the station. Some regulation by Indian Lake, 28 mi upstream, capacity, 45,900 acre-ft; water diverted into Miami and Erie Canal at Port Jefferson, 2.8 mi upstream, prior to 1926; amount of diversion not published. Sediment data collected at this site.

COOPERATION.--Gage-height tapes, and 8 discharge measurements furnished by Miami Conservancy District.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 25, 1913, reached a stage of 19.6 ft, present datum; discharge, 44,000 ft³/s, computed by Miami Conservancy District.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	129	101	2270	651	456	1990	942	191	5490	895	79	82
2	103	84	2370	559	400	3370	635	226	6670	1040	71	79
3	87	78	1590	514	418	2640	540	858	5550	1430	69	71
4	113	74	1070	493	1830	1860	479	1450	4030	977	105	93
5	85	71	748	936	4010	2220	471	907	2770	521	117	74
6	72	70	553	1130	2970	3300	509	637	1930	328	96	63
7	69	79	479	727	2100	2430	474	557	1330	239	82	58
8	67	110	428	e400	1490	1830	410	433	857	201	69	57
9	68	150	385	e300	1030	1440	406	452	567	188	65	63
10	74	131	314	e250	689	1880	327	483	448	308	63	67
11	74	122	804	e220	e500	1520	268	402	388	215	63	70
12	70	112	3010	e200	e400	1120	335	285	341	168	64	71
13	67	98	3460	e190	e350	820	530	279	434	153	68	65
14	62	90	2820	e180	e300	1660	466	242	468	142	71	61
15	61	87	2090	e240	e280	1850	366	235	377	125	75	59
16	62	91	1730	e200	e250	1270	330	280	284	121	73	57
17	60	84	5000	e170	e240	860	346	177	246	112	284	56
18	73	86	e4000	e150	288	770	360	206	283	105	425	55
19	108	84	e2300	e140	399	999	288	238	542	89	277	54
20	94	85	e1800	e130	555	767	249	335	415	101	208	53
21	96	89	e1000	e200	919	640	236	277	290	98	246	56
22	80	89	e900	900	1370	577	230	244	244	102	213	64
23	76	97	e800	1950	1030	517	258	202	234	129	197	55
24	80	93	3990	1540	670	459	257	177	193	186	148	55
25	75	237	3050	1100	538	374	218	199	175	136	135	55
26	76	1950	2030	731	492	398	214	717	180	112	136	52
27	76	1570	1440	659	2460	373	198	511	250	111	116	53
28	73	900	1210	1710	2500	364	218	299	195	135	98	50
29	70	539	1220	1150	---	1660	236	227	163	121	93	48
30	86	621	975	744	---	1470	189	218	155	102	90	44
31	117	---	760	550	---	1220	---	691	---	89	79	---
TOTAL	2503	8072	54596	19014	28934	42648	10985	12635	35499	8779	3975	1840
MEAN	80.7	269	1761	613	1033	1376	366	408	1183	283	128	61.3
MAX	129	1950	5000	1950	4010	3370	942	1450	6670	1430	425	93
MIN	60	70	314	130	240	364	189	177	155	89	63	44

MEAN	154	321	511	735	774	969	874	544	434	309	173	131
MAX	1717	1876	2373	3846	2187	2507	2500	2010	2073	2181	1173	2365
(WY)	1927	1973	1991	1930	1950	1927	1957	1996	1958	1992	1973	1926
MIN	21.9	36.3	41.3	42.1	49.5	106	164	70.6	36.1	24.6	28.5	21.2
(WY)	1964	1935	1935	1977	1964	1941	1946	1934	1988	1934	1963	1963

ANNUAL TOTAL	296731		229480				
ANNUAL MEAN	811		629			493	
HIGHEST ANNUAL MEAN						963	1927
LOWEST ANNUAL MEAN						141	1931
HIGHEST DAILY MEAN	6820	Jan 19	6670	Jun 2		17400	Mar 21 1927
LOWEST DAILY MEAN	54	Sep 6	44	Sep 30		8.0	Sep 23 1935
ANNUAL SEVEN-DAY MINIMUM	56	Sep 1	51	Sep 24		15	Sep 19 1935
INSTANTANEOUS PEAK FLOW			7100	Jun 1 a		20700	Mar 20 1927
INSTANTANEOUS PEAK STAGE			10.50	Jun 1		15.91	Jan 21 1959
INSTANTANEOUS LOW FLOW			44	Sep 30		1.5	Aug 13 1963
10 PERCENT EXCEEDS	2370		1810			1260	
50 PERCENT EXCEEDS	319		250			181	
90 PERCENT EXCEEDS	72		69			45	

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

159

03261950 LORAMIE CREEK NEAR NEWPORT, OHIO

LOCATION.--Lat 40°18'25", long 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, 3 mi south of Fort Loramie, 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 periods of estimated record, which are poor. Some regulation by Lake Loramie 5 mi upstream, capacity, 13,000 acre-ft. Sediment data collected at this site.

COOPERATION.--Gage-height tapes 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 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	3.7	765	e90	33	702	153	30	3020	132	2.3	1.9
2	3.2	2.6	639	e70	26	1180	102	31	4060	201	2.1	1.8
3	3.8	2.1	259	e58	66	860	64	403	2430	953	2.1	1.8
4	2.8	2.0	135	51	636	410	64	467	1110	485	7.3	1.8
5	2.8	2.1	92	343	1500	656	73	239	476	186	7.0	1.8
6	3.0	2.3	72	296	839	1170	88	180	242	90	3.9	1.8
7	3.0	6.4	61	172	392	678	68	108	153	54	2.8	1.7
8	3.4	46	50	e90	229	374	66	90	107	35	2.1	1.8
9	3.9	29	38	e60	169	290	54	97	76	41	1.9	10
10	4.1	22	34	e32	120	649	44	74	56	41	1.8	23
11	3.9	16	299	e10	55	398	42	27	46	24	1.8	12
12	3.3	7.3	1130	e5.6	31	231	120	24	41	17	2.1	6.8
13	2.9	4.1	1190	e5.4	46	151	196	24	88	12	5.4	4.4
14	3.0	2.7	677	e5.2	103	758	127	24	95	8.5	3.7	3.3
15	3.5	2.2	307	e6.0	44	637	96	28	55	7.1	3.8	2.3
16	4.4	1.8	240	e8.0	12	307	87	21	38	5.4	7.1	1.9
17	4.4	3.1	1490	e10	10	190	70	17	34	4.2	15	1.9
18	13	13	1740	e8.0	19	201	27	22	530	3.9	74	2.3
19	17	8.8	821	e6.0	50	298	24	33	887	7.7	55	1.9
20	5.2	5.1	298	e10	63	217	23	47	368	4.7	50	2.4
21	3.4	3.8	179	e15	257	160	23	35	167	2.9	53	2.2
22	2.7	3.8	101	220	553	126	27	24	166	6.1	58	1.7
23	3.5	2.9	124	e450	280	94	28	19	92	43	32	1.7
24	6.1	3.2	1470	e400	149	83	26	16	57	93	18	2.0
25	3.7	126	1160	e300	98	86	24	23	41	54	17	1.8
26	2.7	685	434	e230	143	84	20	52	157	29	13	1.6
27	2.5	302	214	e250	1520	72	20	37	143	19	8.6	1.4
28	2.6	130	212	e600	1430	32	28	22	83	14	6.0	1.3
29	2.8	76	319	e250	---	144	25	22	50	9.8	4.7	1.3
30	7.3	131	234	152	---	182	21	32	36	5.8	3.5	2.4
31	6.9	---	163	116	---	207	---	349	---	3.3	2.6	---
TOTAL	138.6	1646.0	14947	4319.2	8873	11627	1830	2617	14904	2592.4	467.6	104.0
MEAN	4.47	54.9	482	139	317	375	61.0	84.4	497	83.6	15.1	3.47
MAX	17	685	1740	600	1520	1180	196	467	4060	953	74	23
MIN	2.5	1.8	34	5.2	10	32	20	16	34	2.9	1.8	1.3

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1997, BY WATER YEAR (WY)

	MEAN	36.0	115	191	167	220	280	238	133	114	110	44.3	24.4
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	38.9	23.1	7.14	1.47	.51	.22	.53	
(WY)	1965	1981	1977	1977	1978	1981	1971	1988	1988	1965	1965	1966	

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR			FOR 1997 WATER YEAR			WATER YEARS 1965 - 1997		
ANNUAL TOTAL	74986.4			64065.8					
ANNUAL MEAN	205			176			139		
HIGHEST ANNUAL MEAN							249		
LOWEST ANNUAL MEAN							39.6		
HIGHEST DAILY MEAN	4260			4060			5100		
LOWEST DAILY MEAN	1.8			1.3			.10		
ANNUAL SEVEN-DAY MINIMUM	3.0			1.6			.13		
INSTANTANEOUS PEAK FLOW				4370			6500		
INSTANTANEOUS PEAK STAGE				13.41			14.31		
INSTANTANEOUS LOW FLOW				1.3			.10		
10 PERCENT EXCEEDS	610			471			358		
50 PERCENT EXCEEDS	41			36			23		
90 PERCENT EXCEEDS	3.3			2.4			1.6		

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**

03262000 LORAMIE CREEK AT LOCKINGTON, OHIO

LOCATION.--Lat 40°12'35", long 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, 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 and Oct 1-24, 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 tapes 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 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	10	1520	e360	e250	966	265	47	3800	152	18	19
2	20	10	961	e300	e220	2140	192	62	4510	182	20	19
3	24	9.3	407	e270	e210	1270	140	504	4010	949	20	21
4	15	9.0	200	e300	e1000	594	127	721	1880	573	18	19
5	12	7.6	135	e400	e2100	1310	137	341	648	248	24	13
6	16	3.8	110	e580	e1500	2000	165	254	349	147	21	14
7	29	4.8	91	e350	e1000	926	126	165	240	104	17	12
8	28	26	77	e280	e600	505	116	131	200	82	14	9.9
9	27	39	61	e200	e350	387	104	147	164	67	13	17
10	23	32	50	e150	e250	905	90	120	135	86	12	42
11	23	e28	487	e130	e150	535	83	86	117	68	13	33
12	27	e25	2030	e110	e90	313	156	60	107	50	10	23
13	15	e23	1900	e100	e66	212	290	55	312	40	17	18
14	19	e21	859	e94	136	1250	188	51	240	37	24	15
15	31	e20	415	e110	106	890	146	53	149	34	20	15
16	24	e19	404	e130	62	411	129	48	112	29	18	13
17	18	e18	2980	e100	45	255	124	42	97	29	50	11
18	45	e17	2520	e90	51	319	84	43	491	24	78	11
19	37	e17	e400	e82	88	502	71	55	1010	27	85	11
20	29	e16	e300	e74	122	318	73	74	469	36	72	13
21	24	e16	e210	e100	452	232	68	63	238	28	87	12
22	17	e16	e180	e400	795	185	70	49	201	25	77	11
23	12	16	166	e1100	399	142	70	41	162	31	61	10
24	9.6	16	2620	e700	229	123	67	36	116	101	43	12
25	9.6	192	1630	e500	163	122	63	39	94	87	32	11
26	10	1230	e1000	e450	179	126	58	69	133	54	32	10
27	10	459	e700	e350	2170	118	54	69	180	40	31	11
28	9.5	183	e640	e900	1980	106	60	51	130	46	28	9.6
29	9.2	111	e600	e600	---	1160	62	41	101	35	29	7.2
30	8.6	218	e500	e400	---	433	47	49	82	31	24	7.4
31	8.7	---	e420	e300	---	399	---	803	---	22	20	---
TOTAL	619.2	2812.5	24573	10010	14763	19154	3425	4369	20477	3464	1028	450.1
MEAN	20.0	93.8	793	323	527	618	114	141	683	112	33.2	15.0
MAX	45	1230	2980	1100	2170	2140	290	803	4510	949	87	42
MIN	8.6	3.8	50	74	45	106	47	36	82	22	10	7.2

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 1997, BY WATER YEAR (WY)

	MEAN	49.1	128	231	336	350	458	389	210	182	127	63.6	48.4
MAX	540	1025	1203	1728	1119	1235	1301	1017	1754	1088	682	1093	
(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 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1921 - 1997

ANNUAL TOTAL	122189.3	105144.8	
ANNUAL MEAN	334	288	214
HIGHEST ANNUAL MEAN			413
LOWEST ANNUAL MEAN			53.0
HIGHEST DAILY MEAN	4920	4510	6400
LOWEST DAILY MEAN	3.8	3.8	1.85
ANNUAL SEVEN-DAY MINIMUM	7.8	7.8	1.6
INSTANTANEOUS PEAK FLOW		4610	6590
INSTANTANEOUS PEAK STAGE		83.46	85.00
INSTANTANEOUS LOW FLOW		3.8	1.85
10 PERCENT EXCEEDS	873	798	544
50 PERCENT EXCEEDS	80	86	43
90 PERCENT EXCEEDS	14	13	7.1

e Estimated.

SURFACE-WATER RECORDS

Great Miami River Basin

161

03262700 GREAT MIAMI RIVER AT TROY, OHIO

LOCATION.--Lat 40°02'25", long 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, 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 good except for periods of estimated record, which are fair. Flood flow regulated by retarding basin on Loramie 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 8.6 ft³/s in 1997 and is returned as sewage 1 mi downstream from the station. Water-quality and sediment data collected at this site.

COOPERATION.--Gage-height tapes 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 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	203	125	3900	1030	784	3370	1480	360	11000	774	146	109
2	154	117	4200	891	646	6040	1080	413	13100	1440	140	109
3	123	103	2490	823	620	4660	865	1330	11400	2290	135	107
4	123	97	1590	787	2730	2920	767	2360	7560	1990	141	103
5	135	87	1110	1590	7820	3160	767	1700	4120	1070	167	119
6	116	80	840	1890	4910	6180	839	1210	2770	662	161	93
7	111	83	730	1250	3060	3940	763	1030	1980	483	136	86
8	112	117	672	883	2130	2700	707	841	1430	399	127	81
9	109	172	605	757	1520	2060	623	809	1010	385	113	149
10	114	196	516	691	1140	2950	606	791	811	382	108	205
11	110	162	700	e360	852	2420	513	708	693	411	106	209
12	108	145	5120	e340	726	1720	579	541	620	303	96	132
13	106	129	6650	e330	623	1280	936	433	903	249	119	123
14	98	116	4360	e320	626	2770	874	466	1100	264	111	107
15	96	108	2960	e350	606	3150	699	440	755	223	115	101
16	98	104	e2400	e400	506	1980	635	438	598	192	124	99
17	94	114	e7000	e350	430	1390	591	446	502	190	252	92
18	122	117	8720	e320	452	1180	626	336	653	173	522	90
19	115	115	5290	e310	530	1730	515	443	1730	139	459	87
20	129	112	3040	e300	750	1360	458	489	1200	153	367	104
21	119	110	2060	377	1220	1100	449	514	729	203	318	91
22	120	112	1510	1280	2450	941	426	412	583	136	329	88
23	114	114	1210	3630	1740	850	423	379	561	202	284	98
24	107	121	7280	2680	1120	732	448	342	433	302	240	88
25	106	224	5630	1910	865	646	426	349	368	303	192	78
26	102	3350	3100	1180	786	628	386	662	349	230	177	89
27	101	2610	2060	1100	4400	622	385	829	474	273	177	88
28	98	1400	1730	3070	4940	578	394	530	439	218	155	90
29	94	817	1950	1950	---	2850	427	414	349	225	124	86
30	111	856	1600	1310	---	2300	378	370	308	184	133	78
31	110	---	1240	965	---	1870	---	1330	---	168	122	---
TOTAL	3558	12113	92263	33424	48982	70077	19065	21715	68528	14616	5896	3179
MEAN	115	404	2976	1078	1749	2261	636	700	2284	471	190	106
MAX	203	3350	8720	3630	7820	6180	1480	2360	13100	2290	522	209
MIN	94	80	516	300	430	578	378	336	308	136	96	78

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1997, BY WATER YEAR (WY)

MEAN	249	666	1057	925	1242	1675	1528	976	766	642	333	177
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 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1963 - 1997
ANNUAL TOTAL	502105	393416	
ANNUAL MEAN	1372	1078	851
HIGHEST ANNUAL MEAN			1662
LOWEST ANNUAL MEAN			300
HIGHEST DAILY MEAN	13400	13100	18900
LOWEST DAILY MEAN	80	78	4.3
ANNUAL SEVEN-DAY MINIMUM	98	85	19
INSTANTANEOUS PEAK FLOW		13700	21700
INSTANTANEOUS PEAK STAGE		12.58	16.02
INSTANTANEOUS LOW FLOW		78	4.3
10 PERCENT EXCEEDS	3750	2800	2200
50 PERCENT EXCEEDS	542	458	308
90 PERCENT EXCEEDS	111	106	71

e Estimated.

SURFACE-WATER RECORDS

Great Miami River Basin

03263000 GREAT MIAMI RIVER AT TAYLORSVILLE, OHIO

LOCATION.--Lat 39°52'27", long 84°09'45", in SW 1/4 sec. 36, R.8, T.2, Montgomery County, Hydrologic Unit 05080001, on right upstream face of Taylorsville Dam, 0.8 mi north of Taylorsville, 2.1 mi east of Vandalia, 9.5 mi upstream from Stillwater River, and at mile 90.9.

DRAINAGE AREA.--1,149 mi².

PERIOD OF RECORD.--January 1914 to September 1917 (published as Miami River at Tadmor), October 1921 to current year (published as Miami River at Taylorsville 1921-62). Monthly discharge only for some periods, published in WSP 1305. Gage-height records collected at site at Tadmor, January 1914 to July 1920, are contained in reports of the National Weather Service.

REVISED RECORDS.--WSP 743: 1924(M). WSP 853: 1930, 1937. WSP 923: 1922-24. WSP 1385: 1916. WSP 1908: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 760.11 ft above sea level, levels by Miami Conservancy District. Prior to October 1921, nonrecording gage at site 1.7 mi upstream at different datum. Jan. 1, 1922, to Nov. 11, 1925, nonrecording gage at site 50 ft downstream at outlet works of Taylorsville Dam at datum 60.03 ft lower, October 1921 to September 1978 at site 650 ft downstream at datum 60.03 ft lower.

REMARKS.--Records good except those for periods of estimated record, which are fair. Flood flow regulated by retarding basins on Great Miami River just downstream from station and on Loramie Creek 28 mi upstream from station beginning in 1921. Low and medium flow slightly regulated by Indian Lake, 64 mi upstream from station, and by Lake Loramie 47 mi upstream from station on Loramie Creek; combined capacity, 58,900 acre-ft.

COOPERATION.--Base data furnished by Miami Conservancy District.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 25.4 ft at site at Tadmor; discharge, 127,000 ft³/s computed by Miami Conservancy District.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	369	211	4980	1420	983	4320	1900	453	9540	1080	199	168
2	291	209	5530	1270	800	7350	1450	480	16000	1780	186	165
3	230	197	3140	1150	771	6840	1150	1820	14100	2090	189	144
4	207	186	2030	1060	2800	4050	1020	3130	10600	2240	192	149
5	215	180	1510	1750	9530	3150	999	2160	5380	1300	199	159
6	203	169	1230	2370	6930	7220	1070	1510	3390	837	200	158
7	190	176	1050	1680	4050	5360	994	1210	2390	629	181	142
8	191	232	927	1210	2740	3500	896	1040	1810	518	169	139
9	187	265	827	1050	1980	2620	783	972	1350	580	157	146
10	189	327	728	974	1530	3710	768	930	1060	464	151	253
11	193	277	662	697	1200	3270	659	886	908	542	150	340
12	187	247	4120	e580	1020	2280	723	715	824	402	138	190
13	189	228	7310	e530	876	1730	1040	593	908	346	181	169
14	179	210	5170	e470	841	3140	1060	566	1390	332	169	161
15	175	201	3460	e450	838	4330	870	554	961	294	162	151
16	176	194	2710	e680	712	2700	771	532	818	264	171	141
17	180	201	8680	e540	611	1920	726	565	793	241	357	137
18	223	216	12200	e470	619	1630	762	460	697	232	585	133
19	229	211	7490	e420	696	2240	656	537	1730	193	576	129
20	219	208	4000	e390	939	1910	575	600	1460	215	490	134
21	216	205	2540	e800	1310	1540	532	647	934	269	419	144
22	212	207	1980	1860	2710	1320	517	537	715	207	424	131
23	217	205	1590	4320	2140	1160	497	488	663	343	359	130
24	208	212	7540	3240	1460	1010	521	445	564	424	322	136
25	198	293	8260	2240	1120	935	514	430	477	415	267	108
26	197	4220	4230	1510	1010	895	458	632	466	310	230	117
27	197	3440	2690	1260	4100	874	441	1060	537	266	228	111
28	193	1850	2230	3320	6000	817	462	696	565	410	212	117
29	183	1190	2420	2400	---	2740	481	555	476	272	188	115
30	198	1340	2100	1630	---	2970	471	479	436	243	176	106
31	203	---	1700	1180	---	2300	---	1150	---	216	184	---
TOTAL	6444	17507	115034	42921	60316	89831	23766	26832	81942	17954	7811	4523
MEAN	208	584	3711	1385	2154	2898	792	866	2731	579	252	151
MAX	369	4220	12200	4320	9530	7350	1900	3130	16000	2240	585	340
MIN	175	169	662	390	611	817	441	430	436	193	138	106
CFSM	.18	.51	3.23	1.21	1.87	2.52	.69	.75	2.38	.50	.22	.13
IN.	.21	.57	3.72	1.39	1.95	2.91	.77	.87	2.65	.58	.25	.15

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 1997, BY WATER YEAR (WY)

	MEAN	301	622	1040	1520	1586	1974	1823	1155	972	647	372	257
MAX	3089	4228	4587	8024	4473	5158	5525	4603	5567	4591	2786	3608	
(WY)	1927	1973	1991	1937	1950	1963	1922	1996	1958	1993	1995	1926	
MIN	45.8	63.9	65.3	46.8	94.4	205	361	137	91.2	70.8	68.3	46.5	
(WY)	1964	1935	1977	1977	1964	1941	1971	1941	1988	1936	1965	1963	

SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1922 - 1997

ANNUAL TOTAL	662852	494881											
ANNUAL MEAN	1811	1356								1019			
HIGHEST ANNUAL MEAN										2005		1973	
LOWEST ANNUAL MEAN										292		1931	
HIGHEST DAILY MEAN	15400	Jan 19	16000	Jun 2	30200	Jan 22	1959						
LOWEST DAILY MEAN	131	Sep 15	106	Sep 30	25	Jul 18	1977						
ANNUAL SEVEN-DAY MINIMUM	144	Sep 2	116	Sep 24	31	Feb 4	1977						
INSTANTANEOUS PEAK FLOW			16500	Jun 2	31400	Jan 22	1959						
INSTANTANEOUS PEAK STAGE			20.21	Jun 2	75.44	Jan 22	1959						
INSTANTANEOUS LOW FLOW			106	Sep 30	25	Jul 18	1977						
ANNUAL RUNOFF (CFSM)	1.58		1.18							.89			
ANNUAL RUNOFF (INCHES)	21.46		16.02							12.05			
10 PERCENT EXCEEDS	4960		3350		2460								
50 PERCENT EXCEEDS	752		600		395								
90 PERCENT EXCEEDS	187		173		94								

e Estimated.

SURFACE-WATER RECORDS

Great Miami River Basin

163

03264000 GREENVILLE CREEK NEAR BRADFORD, OHIO

LOCATION.--Lat 40°06'08", Long 84°25'48", in NW 1/4 sec. 34, T.9 N., R.4 E., Miami County, Hydrologic Unit 05080001, on left bank at downstream side of bridge on State Highway 721, 0.8 mi downstream from small left bank tributary, 1.8 mi south of Bradford, and 6 mi upstream from mouth.

DRAINAGE AREA.--193 mi².

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

REVISED RECORDS.--WSP 803: 1933(M). WSP 1235: 1936, 1937(M). WSP 1908: Drainage area. WRD-OH-82-1: 1980.

GAGE.--Water-stage recorder. Datum of gage is 948.9 ft above sea level. Prior to Oct. 1, 1942, nonrecording gage at same site and datum. Apr. 6, 1962 to Nov. 13, 1963, water-stage recorder at site 200 ft downstream at same datum.

REMARKS.--Records good except for periods of estimated record, which are poor. Some diurnal fluctuation caused by mill 8 mi upstream from station; daily flows are not affected appreciably. Sediment data collected at this site.

COOPERATION.--Gage-height tapes and 11 discharge measurements furnished by Miami Conservancy District.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a stage of 12.1 ft; discharge, 18,200 ft³/s, at site with drainage area of 213 mi², computed by Miami Conservancy District.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	36	993	260	183	494	e300	124	4590	365	50	34
2	35	33	864	243	168	1500	e250	126	4850	344	47	31
3	30	30	386	225	172	1240	227	505	3440	197	46	29
4	29	29	239	209	742	623	210	713	1440	147	45	28
5	27	29	182	442	1840	757	219	419	765	123	42	28
6	26	28	168	501	840	1430	233	302	552	107	39	28
7	25	29	151	296	491	713	195	222	440	116	36	28
8	25	71	141	e180	369	487	166	186	388	106	34	28
9	25	89	122	e130	e250	418	152	180	372	144	34	27
10	25	75	107	e100	e210	708	144	157	334	163	34	30
11	25	69	117	e90	e190	513	138	139	286	121	33	38
12	27	59	543	e80	e170	376	209	133	255	102	33	38
13	26	52	700	e76	e160	325	411	125	259	94	37	32
14	25	46	382	e72	e150	959	273	122	245	86	40	29
15	24	42	252	e70	e140	882	209	115	203	81	41	28
16	24	36	275	e70	138	449	183	105	182	74	42	27
17	24	36	1580	e80	133	364	169	100	174	67	64	27
18	37	43	1610	e100	133	360	157	99	287	63	71	25
19	51	44	669	e90	163	e600	145	121	298	61	55	25
20	44	e42	388	e70	200	e450	139	153	211	58	60	25
21	36	e40	290	e100	356	e300	133	115	180	55	66	28
22	36	e38	229	540	678	e220	133	104	175	60	55	26
23	35	e37	247	1540	395	e200	130	100	171	62	48	25
24	35	e40	1810	622	278	e180	126	96	150	60	44	27
25	30	94	1760	427	219	e160	131	138	138	93	42	27
26	28	835	628	288	213	e150	126	441	137	70	39	25
27	29	522	417	275	941	e140	113	304	134	64	38	24
28	29	264	400	648	853	e250	116	213	121	63	38	24
29	29	179	479	365	---	e700	142	178	113	58	38	23
30	32	225	368	243	---	e500	138	169	109	56	36	23
31	36	---	303	200	---	e350	---	1000	---	53	36	---
TOTAL	948	3192	16800	8632	10775	16798	5417	7004	20999	3313	1363	837
MEAN	30.6	106	542	278	385	542	181	226	700	107	44.0	27.9
MAX	51	835	1810	1540	1840	1500	411	1000	4850	365	71	38
MIN	24	28	107	70	133	140	113	96	109	53	33	23
CFSM	.16	.55	2.81	1.44	1.99	2.81	.94	1.17	3.63	.55	.23	.14
IN.	.18	.62	3.24	1.66	2.08	3.24	1.04	1.35	4.05	.64	.26	.16

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1997, BY WATER YEAR (WY)

	MEAN	56.2	112	179	248	278	331	320	219	184	109	69.5	48.6
MAX	496	724	772	1430	844	826	783	935	1142	502	723	425	
(WY)	1987	1994	1991	1937	1950	1963	1964	1933	1958	1987	1979	1989	
MIN	10.7	14.9	13.5	14.9	15.9	48.2	58.7	27.7	21.6	13.9	8.93	10.7	
(WY)	1964	1935	1964	1945	1935	1941	1935	1941	1934	1934	1988	1941	

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1931 - 1997
ANNUAL TOTAL	114321	96078	
ANNUAL MEAN	312	263	179
HIGHEST ANNUAL MEAN			302
LOWEST ANNUAL MEAN			52.8
HIGHEST DAILY MEAN	3940	Jan 19	7920
LOWEST DAILY MEAN	24	Oct 15	5.3
ANNUAL SEVEN-DAY MINIMUM	25	Oct 11	6.4
INSTANTANEOUS PEAK FLOW			9320
INSTANTANEOUS PEAK STAGE			10.31
INSTANTANEOUS LOW FLOW			4.8
ANNUAL RUNOFF (CFSM)	1.62	1.36	.93
ANNUAL RUNOFF (INCHES)	22.03	18.52	12.59
10 PERCENT EXCEEDS	798	609	395
50 PERCENT EXCEEDS	140	133	74
90 PERCENT EXCEEDS	30	28	21

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

LOCATION.--Lat 40°03'28", long 84°21'22", in SW 1/4 sec. 18, T.7 N., R.5 E., Miami County, Hydrologic Unit 05080001, on left bank at downstream side of bridge on Laurer Road, 0.8 mi northwest of Pleasant Hill, 2 mi downstream from Painter Creek, 2 mi upstream from Canyon Run, and at mile 28.35.

PERIOD OF RECORD.--October 1916 to September 1928, October 1934 to current year. Monthly discharge only for some periods, published in WSP 1305. Gage-height records collected at same site March 1922 to December 1963 are contained in reports of the National Weather Service.

GAGE.--Water-stage recorder. Datum of gage is 846.73 ft above sea level. Prior to Dec. 23, 1934, nonrecording gage at same site and datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Sediment data collected at this site. COOPERATION.--Gage-height tapes and 8 discharge measurements furnished by Miami Conservancy District.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 25, 1913, reached a stage of 17.5 ft. Discharge at site about 3 mi upstream, 51,400 ft³/s, computed by Miami Conservancy District. This stage is not comparable with present gage heights because of failure of levee in 1913.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	89	62	3040	507	e320	1120	e560	202	13100	570	e74	61
2	72	60	2210	474	340	4140	482	216	12000	588	e68	59
3	65	58	871	435	387	2620	425	1220	6180	332	e66	56
4	60	55	543	402	2130	1250	387	1750	2530	249	e62	48
5	57	55	429	1210	4900	1880	376	795	1320	202	e60	48
6	54	55	394	1120	1870	3620	407	543	904	175	e56	50
7	52	62	353	550	975	1570	356	409	686	177	e54	50
8	51	94	333	e340	675	939	300	356	578	170	61	47
9	50	197	287	e250	502	771	276	340	545	194	63	57
10	51	132	250	e200	e400	1670	261	294	e520	239	63	68
11	51	124	315	e190	e350	1050	253	261	e500	184	65	105
12	52	102	2290	e170	e320	677	338	251	480	155	e70	65
13	48	78	2340	e160	e290	544	753	238	602	141	e76	55
14	46	e66	985	e150	e270	2330	477	221	834	130	82	47
15	47	e62	614	e180	e250	1880	371	207	429	121	86	46
16	44	e60	709	e200	e240	833	324	190	340	113	80	45
17	44	e66	5500	e170	237	627	305	182	312	100	113	42
18	57	e68	4310	e150	248	626	286	181	686	91	142	38
19	87	e66	1550	e140	305	1320	270	204	1060	90	112	36
20	81	e64	766	e150	416	874	256	271	473	86	109	41
21	70	60	e500	e210	896	656	244	217	348	e86	124	38
22	63	57	e370	e1400	1840	546	237	184	325	e88	104	36
23	61	57	e450	e3400	810	430	228	171	340	e92	85	36
24	59	57	5530	1260	520	377	221	165	266	e94	75	37
25	56	157	3700	813	420	363	218	187	240	e90	72	38
26	51	2620	1240	535	417	353	207	622	239	e94	69	33
27	54	1220	761	529	3320	316	192	484	224	e100	70	31
28	55	548	778	1780	2280	310	213	345	201	e180	70	30
29	55	373	1100	730	---	2110	214	290	186	e150	65	32
30	63	543	768	e400	---	1210	202	305	185	e100	63	28
31	63	---	600	e350	---	e800	---	2260	---	e80	63	---
TOTAL	1808	7278	43886	18555	25928	37812	9639	13561	46633	5261	2422	1403
MEAN	58.3	243	1416	599	926	1220	321	437	1554	170	78.1	46.8
MAX	89	2620	5530	3400	4900	4140	753	2260	13100	588	142	105
MIN	44	55	250	140	237	310	192	165	185	80	54	28
CFSM	.12	.48	2.81	1.19	1.84	2.42	.64	.87	3.09	.34	.16	.09
IN.	.13	.54	3.25	1.37	1.92	2.80	.71	1.00	3.45	.39	.18	.11

MEAN	133	295	455	620	723	929	841	480	462	269	148	118
MAX	1313	1909	2437	3961	2177	2433	2513	1700	3334	1295	1823	2127
(WY)	1927	1994	1991	1937	1950	1963	1922	1996	1958	1993	1979	1926
MIN	11.7	19.3	16.0	21.5	44.0	79.8	131	44.6	33.7	22.2	14.1	14.9
(WY)	1964	1964	1964	1977	1964	1941	1971	1941	1988	1977	1988	1954

WATER YEARS 1917 - 1997

ANNUAL TOTAL	277083		214186				
ANNUAL MEAN	757		587			454	
HIGHEST ANNUAL MEAN						775	1973
LOWEST ANNUAL MEAN						99.3	1941
HIGHEST DAILY MEAN	12900	Jan 19	13100	Jun 1		17400	Jan 15 1937
LOWEST DAILY MEAN	35	Sep 8	28	Sep 30		4.0	Oct 17 1920
ANNUAL SEVEN-DAY MINIMUM	39	Sep 2	33	Sep 24		8.1	Oct 11 1920
INSTANTANEOUS PEAK FLOW			15500	Jun 1 a		26400	Jan 14 1937
INSTANTANEOUS PEAK STAGE			16.02	Jun 1		18.46	Jun 29 1980
INSTANTANEOUS LOW FLOW			28	Sep 30		4.0	Oct 17 1920
ANNUAL RUNOFF (CFSM)	1.51		1.17			.90	
ANNUAL RUNOFF (INCHES)	20.49		15.84			12.27	
10 PERCENT EXCEEDS	2090		1280			1020	
50 PERCENT EXCEEDS	269		238			144	
90 PERCENT EXCEEDS	55		54			32	

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

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LOCATION.--Lat 39°52'10", long 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, 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 fair. Flood flow regulated by Englewood retarding basin.
COOPERATION.--Gage-height tapes and 9 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.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	162	75	2660	e840	489	2040	e800	265	4810	820	107	67
2	124	75	3870	e740	433	3580	e660	276	7450	1080	98	64
3	91	72	1900	677	456	4480	e600	1300	7880	566	96	62
4	79	70	950	612	1490	2730	553	2630	7610	370	94	57
5	74	69	643	566	4410	1850	542	1500	6930	285	90	56
6	71	69	560	1610	4560	3800	572	914	5990	247	81	55
7	69	73	491	1600	2520	2950	531	644	4570	227	77	52
8	67	97	445	799	1200	1510	436	528	1480	227	73	52
9	66	152	387	e450	854	1280	378	498	863	315	70	54
10	65	206	326	e320	e550	2370	350	432	742	356	67	76
11	64	165	303	e260	e500	1720	333	367	647	285	68	153
12	63	154	1430	e240	e450	1100	386	339	564	234	68	117
13	62	130	3420	e220	e400	894	876	322	542	209	78	85
14	60	112	2040	e200	e380	2580	777	301	1130	197	79	73
15	57	100	1060	e210	e350	2950	532	282	663	189	90	64
16	58	93	873	e270	e320	e2000	455	256	485	177	85	60
17	55	89	3670	e250	e300	e1000	420	239	457	163	128	58
18	78	96	5420	e210	e280	e800	385	232	432	149	150	54
19	77	98	5110	e190	e400	e720	354	236	1560	138	145	52
20	90	95	2860	e180	526	e1500	336	268	759	134	141	52
21	92	93	e700	e220	808	e1000	317	287	480	132	133	53
22	82	91	e540	330	2260	e740	306	238	383	135	131	53
23	85	88	e460	2720	1440	e600	297	217	404	141	112	55
24	78	88	3440	3400	809	e500	287	208	337	145	97	55
25	74	110	5120	1550	602	e450	279	216	293	133	90	55
26	75	2290	4280	987	549	e420	265	454	297	145	83	55
27	75	2600	1600	644	2290	e400	254	732	282	140	79	57
28	72	957	1160	1710	3690	e380	270	468	259	261	76	52
29	69	564	1620	1570	---	e600	269	370	242	183	72	48
30	76	621	1510	739	---	e2500	257	342	232	138	69	43
31	74	---	1050	585	---	e1200	---	917	---	118	69	---
TOTAL	2384	9592	59898	24899	33316	50644	13077	16278	58773	8039	2896	1889
MEAN	76.9	320	1932	803	1190	1634	436	525	1959	259	93.4	63.0
MAX	162	2600	5420	3400	4560	4480	876	2630	7880	1080	150	153
MIN	55	69	303	180	280	380	254	208	232	118	67	43
CFSM	.12	.49	2.97	1.24	1.83	2.51	.67	.81	3.01	.40	.14	.10
IN.	.14	.55	3.43	1.42	1.91	2.90	.75	.93	3.36	.46	.17	.11

MEAN	171	355	577	891	944	1153	1077	688	571	360	206	144
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

ANNUAL TOTAL	386063		281685			
ANNUAL MEAN	1055		772			
HIGHEST ANNUAL MEAN					593	
LOWEST ANNUAL MEAN					1027	1958
HIGHEST DAILY MEAN	7880	Jan 20	7880	Jun 3	130	1941
LOWEST DAILY MEAN	55	Oct 17	43	Sep 30	4.8	Sep 30 1944
ANNUAL SEVEN-DAY MINIMUM	60	Oct 11	52	Sep 24	9.7	Sep 24 1941
INSTANTANEOUS PEAK FLOW			7950	Jun 3	9980	Jun 15 1958
INSTANTANEOUS PEAK STAGE			79.74	Jun 3	80.88	Jun 15 1958
INSTANTANEOUS LOW FLOW			43	Sep 30	3.7	Sep 30 1944
ANNUAL RUNOFF (CFSM)	1.62		1.19		.91	
ANNUAL RUNOFF (INCHES)	22.09		16.12		12.39	
10 PERCENT EXCEEDS	3430		2270		1420	
50 PERCENT EXCEEDS	361		301		200	
90 PERCENT EXCEEDS	75		68		43	

e Estimated.

SURFACE-WATER RECORDS

Great Miami River Basin

03266560 MAD RIVER AT WEST LIBERTY, OHIO

LOCATION.--Lat 40°15'08", long 83°44'59", Logan County, on left bank upstream from the SR 245 bridge, on east side of West Liberty, 0.4 mi east of intersection of SR 245 and SR 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 fair except for periods of estimated record, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	34	184	51	45	69	65	47	580	57	35	20
2	31	33	84	50	44	210	62	46	704	52	35	20
3	30	32	60	48	43	90	60	222	188	68	33	19
4	30	32	51	47	230	76	58	105	144	51	41	18
5	29	31	42	66	151	139	65	74	110	48	29	18
6	29	31	38	53	80	133	63	72	90	44	27	18
7	29	32	37	e44	65	85	57	60	81	36	26	18
8	29	36	34	e40	59	76	54	63	77	36	27	18
9	29	34	32	e35	54	80	52	65	70	39	27	17
10	29	34	31	e33	51	123	52	57	66	36	26	18
11	29	33	123	e31	49	82	52	53	64	33	26	18
12	28	32	111	e30	48	72	67	52	60	32	26	18
13	28	32	78	e29	44	68	64	50	65	33	27	17
14	28	31	53	e29	45	154	56	49	57	35	25	16
15	28	31	46	e30	44	93	52	49	53	34	22	16
16	28	31	56	e32	42	77	53	46	51	33	23	16
17	28	31	335	e30	41	72	52	46	50	32	47	16
18	34	31	105	e28	48	77	50	49	52	32	33	16
19	32	31	70	e26	60	80	48	60	49	34	27	15
20	30	31	56	e25	59	73	45	50	45	31	30	15
21	30	32	51	e33	67	69	47	46	43	31	29	15
22	30	31	51	99	61	65	47	44	41	35	27	16
23	32	31	69	78	52	62	46	43	40	40	25	16
24	31	31	277	e50	48	59	45	43	39	35	26	14
25	30	60	82	e40	45	60	45	61	37	33	25	14
26	30	170	65	e40	51	62	42	69	37	32	24	15
27	30	65	61	58	160	58	43	53	36	35	23	14
28	30	49	65	109	80	56	46	48	34	40	22	15
29	31	45	61	52	---	113	43	48	34	43	22	14
30	40	71	56	47	---	79	42	47	36	43	21	14
31	36	---	53	46	---	74	---	101	---	36	21	---
TOTAL	942	1228	2517	1409	1866	2686	1573	1918	3033	1199	857	494
MEAN	30.4	40.9	81.2	45.5	66.6	86.6	52.4	61.9	101	38.7	27.6	16.5
MAX	40	170	335	109	230	210	67	222	704	68	47	20
MIN	28	31	31	25	41	56	42	43	34	31	21	14
CFSM	.83	1.12	2.22	1.24	1.82	2.37	1.43	1.69	2.76	1.06	.76	.45
IN.	.96	1.25	2.56	1.43	1.90	2.73	1.60	1.95	3.08	1.22	.87	.50

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 1997, BY WATER YEAR (WY)

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
MEAN	23.0	27.9	42.6	47.5	47.5	55.9	63.6	79.6	66.5	36.8	29.2	22.1
MAX	30.4	40.9	81.2	70.8	66.6	86.6	96.5	140	101	50.2	41.3	33.4
(WY)	1997	1997	1997	1996	1997	1997	1996	1996	1997	1996	1995	1996
MIN	13.3	14.0	14.6	15.9	17.1	31.4	45.4	36.8	25.5	20.6	16.6	14.6
(WY)	1995	1995	1995	1995	1995	1995	1995	1994	1994	1994	1994	1994

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1994 - 1997
ANNUAL TOTAL	23191	19722	
ANNUAL MEAN	63.4	54.0	47.8
HIGHEST ANNUAL MEAN			56.6
LOWEST ANNUAL MEAN			32.9
HIGHEST DAILY MEAN	422	704	704
LOWEST DAILY MEAN	16	14	7.2
ANNUAL SEVEN-DAY MINIMUM	16	14	7.7
INSTANTANEOUS PEAK FLOW		1200	1200
INSTANTANEOUS PEAK STAGE		8.43	8.43
INSTANTANEOUS LOW FLOW		14	5.0
ANNUAL RUNOFF (CFSM)	1.73	1.48	1.31
ANNUAL RUNOFF (INCHES)	23.57	20.05	17.76
10 PERCENT EXCEEDS	124	80	
50 PERCENT EXCEEDS	45	44	34
90 PERCENT EXCEEDS	27	23	15

e Estimated.

SURFACE-WATER RECORDS

Great Miami River Basin

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03267000 MAD RIVER NEAR URBANA, OHIO

LOCATION.--Lat 40°06'27", long 83°47'57", on west line of sec. 35, T.5 E., R. 11 N., 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, and at mile 39.7.

DRAINAGE AREA.--162 mi².

PERIOD OF RECORD.--September 1925 to September 1931, August 1939 to current year.

REVISED RECORDS.--WSP 1305: 1930(M), WSP 1505: 1956. WSP 1625: 1929. WSP 1908: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 985.22 ft above sea level. Prior to May 18, 1930, nonrecording gage at same site and datum. May 18, 1930, to Sept. 30, 1931, nonrecording gage at site 600 ft downstream at datum 0.36 ft lower. Aug. 1 to Sept. 25, 1939, nonrecording gage at present site and datum.

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

COOPERATION.--Gage-height tapes and 8 discharge measurements furnished by Miami Conservancy District.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	130	104	518	220	177	256	223	162	1660	181	124	113
2	123	97	299	209	170	695	214	153	2550	172	123	109
3	112	96	225	202	168	373	209	541	708	202	124	105
4	108	95	195	197	642	312	205	381	506	166	134	106
5	106	101	180	239	712	366	211	268	420	159	124	106
6	105	99	175	216	342	484	217	247	363	157	119	106
7	104	99	166	e180	282	327	199	219	328	152	117	104
8	104	104	159	e170	252	292	192	218	302	149	116	104
9	102	102	153	e160	229	276	186	235	286	153	115	104
10	101	101	147	e150	220	436	184	210	269	150	113	104
11	101	99	194	e140	211	314	183	194	260	151	e110	106
12	102	98	239	e140	205	276	204	191	e250	151	e115	104
13	101	98	229	e135	191	259	214	182	e250	149	e120	99
14	100	98	181	e130	192	506	196	178	e240	145	122	98
15	98	96	165	e130	186	366	190	175	e230	142	121	98
16	98	95	170	e130	181	295	188	166	e220	139	119	97
17	98	95	992	e130	174	285	184	165	e230	136	161	93
18	103	95	445	e160	178	284	180	172	225	134	137	90
19	105	95	300	e130	209	316	178	196	216	133	126	90
20	99	95	244	e130	213	286	173	186	207	127	129	87
21	98	96	220	148	243	270	170	171	202	127	136	85
22	97	101	211	310	234	254	174	168	193	128	137	84
23	97	104	218	304	204	242	168	161	189	142	129	87
24	98	101	928	e190	191	230	165	158	185	138	125	85
25	96	109	370	e170	183	228	160	173	180	132	125	85
26	95	442	285	e160	183	228	158	217	174	128	123	85
27	95	219	261	e150	434	221	159	174	168	132	122	81
28	95	169	258	371	294	216	162	162	164	141	120	78
29	97	151	254	207	---	298	157	157	162	129	118	77
30	104	193	234	192	---	252	156	154	158	129	118	e75
31	106	---	225	185	---	241	---	223	---	125	118	---
TOTAL	3178	3647	8840	5685	7100	9684	5559	6357	11495	4499	3840	2845
MEAN	103	122	285	183	254	312	185	205	383	145	124	94.8
MAX	130	442	992	371	712	695	223	541	2550	202	161	113
MIN	95	95	147	130	168	216	156	153	158	125	110	75
CFSM	.63	.75	1.76	1.13	1.57	1.93	1.14	1.27	2.37	.90	.76	.59
IN.	.73	.84	2.03	1.31	1.63	2.22	1.28	1.46	2.64	1.03	.88	.65

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1926 - 1997, BY WATER YEAR (WY)

	MEAN	85.1	102	132	174	202	225	222	189	164	135	103	86.2
MAX	355	315	473	730	523	567	486	620	507	454	302	250	
(WY)	1987	1973	1991	1950	1950	1963	1948	1996	1947	1993	1995	1926	
MIN	29.3	29.7	27.8	36.7	33.8	65.3	90.7	61.7	59.3	41.8	35.8	30.3	
(WY)	1964	1964	1964	1964	1964	1992	1953	1941	1962	1954	1963	1963	

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR			FOR 1997 WATER YEAR			WATER YEARS 1926 - 1997		
ANNUAL TOTAL	94305			72729					
ANNUAL MEAN	258			199			151		
HIGHEST ANNUAL MEAN							245		
LOWEST ANNUAL MEAN							58.1		
HIGHEST DAILY MEAN	1560			May 11			2550		
LOWEST DAILY MEAN	77			Jan 14			Jun 2		
ANNUAL SEVEN-DAY MINIMUM	78			Jan 9			75		
INSTANTANEOUS PEAK FLOW							81		
INSTANTANEOUS PEAK STAGE							3890		
INSTANTANEOUS LOW FLOW							8.69		
ANNUAL RUNOFF (CFSM)	1.59			1.23			Jun 2		
ANNUAL RUNOFF (INCHES)	21.66			16.70			Sep 30		
10 PERCENT EXCEEDS	512			298			24		
50 PERCENT EXCEEDS	189			166			25		
90 PERCENT EXCEEDS	98			98			8000		

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.--Lat 39°55'23", long 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, 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 those for periods of estimated record, which are 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 collected at this site.

COOPERATION.--Gage-height charts, tapes, 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 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	420	299	2160	635	509	734	502	382	6060	848	278	270
2	419	293	1220	583	488	2530	478	433	4950	544	264	269
3	383	290	915	511	490	1320	466	1620	2320	595	256	268
4	389	289	772	507	1900	1060	455	1100	1820	497	370	263
5	384	290	726	814	2240	964	504	798	1640	465	293	253
6	378	289	674	674	1350	1230	498	705	1350	449	289	249
7	376	340	533	570	946	927	451	615	1020	442	282	241
8	350	322	507	530	807	834	429	649	960	433	267	232
9	320	314	471	539	720	909	418	655	909	533	260	232
10	319	304	448	521	663	1470	435	588	911	448	258	246
11	315	305	443	447	601	1020	429	537	1020	412	258	250
12	310	322	563	487	578	855	520	502	834	380	274	233
13	306	320	615	454	539	790	504	476	707	369	366	230
14	303	318	524	415	542	1570	454	476	670	367	279	237
15	275	303	469	438	518	1170	430	453	575	355	311	235
16	246	287	490	e430	495	912	422	419	776	344	274	237
17	296	310	2620	e380	479	843	418	399	985	334	863	246
18	432	301	1910	e500	495	913	407	404	797	325	655	242
19	380	310	1050	e420	598	1010	397	456	855	324	487	239
20	362	337	919	373	633	885	387	439	866	309	640	272
21	359	358	1040	367	732	806	385	412	649	340	556	281
22	354	323	962	1120	705	744	383	404	542	323	390	283
23	387	293	568	1160	601	684	376	401	523	468	357	287
24	339	293	2330	856	559	647	370	380	507	364	332	284
25	265	677	1230	656	538	635	362	394	493	334	326	280
26	275	1520	929	540	556	592	342	459	502	318	315	277
27	273	760	816	820	978	512	346	401	468	337	302	277
28	276	595	806	1340	777	497	367	379	443	413	294	279
29	299	549	791	765	---	642	346	394	430	340	286	279
30	300	882	715	691	---	578	339	382	471	320	281	282
31	299	---	669	538	---	546	---	719	---	307	274	---
TOTAL	10389	12393	28885	19081	21037	28829	12620	16831	35053	12637	10937	7753
MEAN	335	413	932	616	751	930	421	543	1168	408	353	258
MAX	432	1520	2620	1340	2240	2530	520	1620	6060	848	863	287
MIN	246	287	443	367	479	497	339	379	430	307	256	230
CFSM	.68	.84	1.90	1.26	1.53	1.90	.86	1.11	2.38	.83	.72	.53
IN.	.79	.94	2.19	1.45	1.60	2.19	.96	1.28	2.66	.96	.83	.59

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 1997, BY WATER YEAR (WY)

	MEAN	362	440	564	593	696	732	714	679	604	507	366	333
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	204	188	189	235	251	312	240	174	189	162	177	
(WY)	1989	1978	1977	1977	1992	1983	1976	1988	1988	1988	1988	1977	

SUMMARY STATISTICS FOR 1996 CALENDAR YEAR FOR 1997 WATER YEAR WATER YEARS 1974 - 1997

ANNUAL TOTAL	305800	216445	
ANNUAL MEAN	836	593	548
HIGHEST ANNUAL MEAN			792
LOWEST ANNUAL MEAN			279
HIGHEST DAILY MEAN	6050	Apr 29	8200 Jan 31 1982
LOWEST DAILY MEAN	230	Jan 13	100 Jan 26 1977
ANNUAL SEVEN-DAY MINIMUM	239	Jan 9	103 Jan 24 1977
INSTANTANEOUS PEAK FLOW			12200 Jun 29 1980
INSTANTANEOUS PEAK STAGE			11.88 Jun 29 1980
INSTANTANEOUS LOW FLOW			100 Jan 26 1977
ANNUAL RUNOFF (CFSM)	1.71	1.21	1.12
ANNUAL RUNOFF (INCHES)	23.22	16.43	15.20
10 PERCENT EXCEEDS	1840	970	1010
50 PERCENT EXCEEDS	555	451	397
90 PERCENT EXCEEDS	285	277	221

e Estimated.

SURFACE-WATER RECORDS

Great Miami River Basin

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03270000 MAD RIVER NEAR DAYTON, OHIO

LOCATION.--Lat 39°47'50", long 84°05'19", in SW 1/4 sec. 7, R. 8, T.2, Green 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 and at mile 6.1. Water-quality sampling site was on left bank 900 ft downstream.

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 record, 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. Also see REMARKS for station 03269500.

COOPERATION.--Gage-height tapes 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 period 1921-24.

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 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	574	334	2900	835	669	942	680	541	4760	1190	366	322
2	525	331	1950	801	630	3550	644	585	7120	820	338	331
3	498	325	1290	700	621	2070	625	2290	3900	815	334	331
4	459	325	1050	669	1940	1570	611	1790	2500	701	405	309
5	465	325	954	976	3630	1310	665	1200	2130	642	377	299
6	456	327	935	957	1930	1550	681	1030	1840	608	342	290
7	449	357	753	777	e1350	1270	612	883	1360	591	342	282
8	436	436	689	e680	1120	1110	573	874	1240	580	334	273
9	385	380	639	e610	999	1060	557	919	1170	742	325	280
10	375	370	594	e580	929	1660	551	821	1090	658	315	364
11	370	350	582	e560	842	1470	552	753	1220	570	311	325
12	363	346	697	e540	805	1180	685	691	1140	529	329	294
13	357	362	773	e530	751	1050	694	657	891	503	470	283
14	352	361	679	e520	741	1880	618	654	919	488	365	281
15	352	358	608	e510	722	1760	577	663	796	490	367	285
16	318	338	691	e500	683	1250	562	588	838	468	344	284
17	340	331	3630	e540	657	1120	561	556	1440	453	702	281
18	499	364	2730	e1000	657	1230	552	533	1060	440	1320	293
19	471	337	1440	e740	756	1460	536	592	1000	423	631	285
20	428	341	1170	e560	826	1230	527	598	1110	417	788	288
21	417	375	1240	e490	892	1100	520	559	886	411	784	303
22	407	384	1180	1230	920	1010	516	534	740	459	541	316
23	440	346	815	1710	795	914	505	533	696	672	469	316
24	418	333	3100	e1000	738	859	501	506	678	568	426	320
25	341	435	e1800	e600	705	824	496	504	656	466	411	320
26	318	2260	e1300	e620	709	821	471	584	666	431	397	314
27	334	1350	1090	892	1010	700	465	552	635	423	382	308
28	317	910	1040	1950	1050	670	501	498	595	524	364	307
29	330	754	1050	1020	---	787	479	502	578	457	353	302
30	335	1010	958	e800	---	795	462	507	583	408	342	298
31	333	---	899	723	---	744	---	823	---	393	333	---
TOTAL	12462	15155	39226	24620	28077	38946	16979	23320	44237	17340	13907	9084
MEAN	402	505	1265	794	1003	1256	566	752	1475	559	449	303
MAX	574	2260	3630	1950	3630	3550	694	2290	7120	1190	1320	364
MIN	317	325	582	490	621	670	462	498	578	393	311	273
CFSM	.63	.80	1.99	1.25	1.58	1.98	.89	1.18	2.32	.88	.71	.48
IN.	.73	.89	2.30	1.44	1.64	2.28	.99	1.37	2.59	1.02	.81	.53

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 1997, BY WATER YEAR (WY)

	MEAN	438	549	730	769	908	969	939	893	760	634	457	404
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	216	235	236	239	287	344	444	268	192	211	172	217	
(WY)	1989	1995	1977	1977	1992	1983	1976	1988	1988	1988	1988	1987	

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1974 - 1997
ANNUAL TOTAL	402974	283353	
ANNUAL MEAN	1101	776	703
HIGHEST ANNUAL MEAN			1029
LOWEST ANNUAL MEAN			336
HIGHEST DAILY MEAN	8510	Apr 30	7120 Jun 2
LOWEST DAILY MEAN	298	Sep 13	273 Sep 8
ANNUAL SEVEN-DAY MINIMUM	305	Sep 8	285 Sep 13
INSTANTANEOUS PEAK FLOW			7450 Jun 2
INSTANTANEOUS PEAK STAGE			14.55 Jun 2
INSTANTANEOUS LOW FLOW			273 Sep 8
ANNUAL RUNOFF (CFSM)	1.73	1.22	1.11
ANNUAL RUNOFF (INCHES)	23.61	16.60	15.04
10 PERCENT EXCEEDS	2540	1300	1310
50 PERCENT EXCEEDS	707	592	501
90 PERCENT EXCEEDS	334	326	259

e Estimated.

SURFACE-WATER RECORDS

Great Miami River Basin

03270500 GREAT MIAMI RIVER AT DAYTON, OHIO

LOCATION.--Lat 39°45'55", long 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, 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 good except for periods of estimated record, which 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 collected at this site. U.S. Army Corps of Engineers satellite telemeter at station.

COOPERATION.--Gage-height charts, tapes, and 7 discharge measurements furnished by Miami Conservancy District.

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 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1080	549	10400	3150	2280	8320	3750	1340	18900	3030	736	543
2	897	557	12300	2840	2010	14600	2960	1500	30500	3910	652	567
3	778	535	6950	2540	1930	14900	2470	5350	27200	3540	643	574
4	699	529	4360	2350	5780	9760	2250	7840	22300	3700	671	483
5	680	521	3290	3490	17800	6350	2250	5180	16300	2400	674	467
6	669	506	2850	5550	14700	12900	2310	3500	12800	1820	625	467
7	645	586	2370	3690	8710	11100	2170	2720	9600	1550	585	439
8	627	743	2140	2610	5450	6750	1950	2410	5110	1410	520	425
9	578	706	1920	2290	4120	5530	1790	2300	3530	1740	501	432
10	560	876	1740	2200	3330	8280	1740	2120	2950	1580	467	683
11	558	761	1610	1620	2730	7270	1640	1980	2760	1460	462	830
12	545	684	5450	1350	2400	5080	1870	1770	2510	1260	471	596
13	547	657	12000	e1200	2140	3970	2420	1620	2220	1120	762	479
14	530	640	8650	e1150	2050	6950	2500	1540	3320	1060	570	463
15	499	625	5600	e1100	2020	10400	2020	1490	2480	1040	566	492
16	472	590	4670	e1500	1820	6160	1810	1370	2330	943	532	472
17	493	589	15700	e1200	1660	4380	1720	1350	2810	882	1250	440
18	768	641	21200	e1100	1640	4100	1690	1230	2250	837	2000	454
19	725	616	15500	e1000	1830	5660	1660	1300	4100	769	1330	454
20	656	626	8560	e940	2240	4980	1530	1370	3670	726	1450	447
21	655	653	5110	e1200	2880	3950	1460	1430	2440	761	1290	460
22	630	659	4210	3050	5970	3370	1410	1300	1940	836	1060	463
23	687	628	3260	9760	4660	2850	1370	1220	1820	1090	918	457
24	642	620	13500	8410	3150	2470	1380	1140	1690	1200	839	465
25	559	885	16600	5040	2490	2310	1360	1110	1520	1060	777	450
26	545	8320	11100	3330	2300	2270	1290	1410	1510	906	702	425
27	554	7970	6030	3100	6920	2100	1250	2250	1480	873	668	406
28	523	4040	4670	7190	11800	1990	1300	1690	1460	1210	638	404
29	539	2630	5290	5320	---	4710	1270	1460	1330	967	599	401
30	527	2870	4700	3520	---	6380	1270	1360	1270	844	565	386
31	543	---	3760	2660	---	4570	---	2530	---	789	568	---
TOTAL	19410	41812	225490	95450	126810	194410	55860	66180	194100	45313	24091	14524
MEAN	626	1394	7274	3079	4529	6271	1862	2135	6470	1462	777	484
MAX	1080	8320	21200	9760	17800	14900	3750	7840	30500	3910	2000	830
MIN	472	506	1610	940	1640	1990	1250	1110	1270	726	462	386

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1930 - 1997, BY WATER YEAR (WY)

	MEAN	707	1357	2190	3299	3447	4156	3910	2717	2195	1488	941	606
MAX	5792	8047	9210	17060	9842	11060	9727	11030	12150	7510	5727	2862	
(WY)	1987	1973	1991	1937	1950	1963	1964	1996	1958	1993	1979	1979	
MIN	148	195	239	263	314	557	852	373	259	216	196	165	
(WY)	1964	1964	1964	1945	1964	1941	1971	1941	1988	1954	1988	1963	

SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1930 - 1997

ANNUAL TOTAL	1520328			1103450								
ANNUAL MEAN	4154			3023								
HIGHEST ANNUAL MEAN										2245		
LOWEST ANNUAL MEAN										4156		1973
HIGHEST DAILY MEAN	29800	Apr 30		30500	Jun 2					634		1954
LOWEST DAILY MEAN	426	Sep 3		386	Sep 30					57100	Jan 22	1959
ANNUAL SEVEN-DAY MINIMUM	451	Sep 2		420	Sep 24					109	Aug 8	1934
INSTANTANEOUS PEAK FLOW				32000	Jun 2					118	Sep 25	1941
INSTANTANEOUS PEAK STAGE				31.79	Jun 2					60900	Jan 22	1959
INSTANTANEOUS LOW FLOW				386	Sep 30					36.00	Jan 22	1959
10 PERCENT EXCEEDS	11900			7220						109	Aug 8	1934
50 PERCENT EXCEEDS	1940			1550						5140		
90 PERCENT EXCEEDS	553			528						1020		
										313		

e Estimated.

SURFACE-WATER RECORDS
Great Miami River Basin

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03271510 GREAT MIAMI RIVER NEAR LINDEN AVENUE AT MIAMISBURG, OHIO

WATER QUALITY RECORDS

LOCATION.--Lat 39°38'14", long 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).

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 1,620 microsiemens June 13, 1992; 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 year 1978-1994; minimum, 0.4 mg/L Aug. 27, 1981, Aug. 2, 1982.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 1,020 microsiemens Jan. 16; minimum, 305 microsiemens Dec. 18

pH: Maximum, 8.9 units Nov. 23, Apr. 19, Aug. 7-9; minimum, 7.4 units Jul. 4-5.

WATER TEMPERATURES: Maximum, 30.0°C Jul. 27-28; minimum, 0.5°C Dec. 20-21, Jan. 10-14, 16-18, 23, 29.

DISSOLVED OXYGEN: Maximum, 19.9 mg/L Aug. 1; minimum, 5.7 mg/L Aug. 11-12.

SURFACE-WATER RECORDS Great Miami River Basin

03271510 GREAT MIAMI RIVER NEAR LINDEN AVENUE AT MIAMISBURG, OHIO—Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	749	696	729	953	919	933	662	473	517	662	616	628
2	798	746	783	942	924	934	473	434	451	693	662	673
3	827	787	810	938	889	919	550	470	510	720	693	703
4	841	821	828	931	888	911	616	550	581	737	718	724
5	842	826	833	940	905	922	655	616	635	737	676	702
6	842	829	838	951	921	936	683	644	659	681	586	642
7	853	839	846	953	859	923	708	683	694	613	577	593
8	874	846	857	904	806	868	733	708	720	625	603	613
9	879	852	868	869	790	830	756	733	741	736	629	695
10	886	866	875	868	788	832	771	750	761	825	741	772
11	896	872	881	853	786	828	786	771	776	786	719	757
12	898	874	886	873	831	853	791	561	737	812	772	802
13	897	856	877	901	862	880	561	394	456	828	795	810
14	894	858	876	908	883	897	475	413	450	829	796	815
15	914	879	891	905	876	892	524	474	497	980	803	852
16	925	884	903	908	875	891	563	511	541	1020	871	977
17	934	890	912	912	883	901	511	342	421	954	909	928
18	934	770	850	917	888	902	342	305	316	953	898	933
19	799	744	773	926	892	904	403	330	363	921	865	898
20	819	790	805	942	918	927	501	409	451	900	841	880
21	847	790	814	939	907	916	565	504	538	858	824	843
22	880	839	852	942	902	915	608	565	589	855	674	792
23	905	840	872	894	863	874	666	573	627	674	453	577
24	880	849	860	892	861	879	643	363	575	662	434	515
25	904	866	883	898	661	830	358	324	340	564	535	547
26	907	882	893	665	495	547	448	358	394	578	559	568
27	907	876	892	541	507	519	554	454	492	807	500	647
28	910	864	885	593	536	559	609	554	583	690	552	621
29	930	895	909	667	593	617	615	609	613	554	428	469
30	941	913	925	671	645	659	618	610	614	577	458	524
31	952	919	933	---	---	---	643	622	627	643	577	610
MONTH	952	696	859	953	495	840	791	305	557	1020	428	713

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	700	643	673	553	377	477	727	570	610	740	639	709
2	735	693	712	479	377	436	664	618	639	775	439	714
3	762	716	737	443	376	407	680	654	662	554	425	484
4	779	565	689	525	437	476	698	665	678	590	512	557
5	569	350	411	593	518	559	696	665	678	611	570	586
6	430	345	382	596	430	513	683	661	672	665	605	632
7	509	420	465	476	413	445	695	665	674	696	644	668
8	735	502	619	565	474	519	706	672	686	856	667	700
9	722	629	647	575	525	555	727	694	706	772	679	711
10	663	627	647	578	539	560	744	700	720	701	674	686
11	702	653	674	570	520	549	775	699	727	718	681	696
12	752	679	702	610	562	586	786	657	697	757	693	711
13	751	699	729	647	595	619	697	650	673	756	701	719
14	798	721	757	629	572	604	704	657	675	748	719	731
15	814	761	792	588	469	512	790	679	706	742	701	723
16	813	772	787	567	482	524	788	682	707	734	714	725
17	803	763	787	621	550	583	719	670	692	740	724	732
18	804	769	786	648	531	610	711	677	694	747	727	737
19	817	765	786	662	608	631	765	674	701	755	733	744
20	798	761	773	651	614	633	719	693	704	765	735	750
21	770	736	748	707	621	640	734	703	715	758	715	738
22	754	605	691	675	636	655	739	701	724	745	721	735
23	605	559	577	686	653	669	753	707	734	759	736	753
24	621	566	594	719	670	691	765	726	746	775	752	765
25	673	612	638	726	684	702	773	726	749	777	720	758
26	706	644	679	745	697	710	838	722	749	765	713	748
27	718	597	688	722	703	711	772	727	752	744	684	710
28	597	419	468	722	682	709	762	734	749	730	699	710
29	---	---	---	726	608	689	789	737	754	748	730	740
30	---	---	---	608	461	503	843	668	752	738	723	729
31	---	---	---	754	522	569	---	---	---	763	516	662
MONTH	817	345	666	754	376	582	843	570	704	856	425	702

SURFACE-WATER RECORDS

Great Miami River Basin

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03271510 GREAT MIAMI RIVER NEAR LINDEN AVENUE AT MIAMISBURG, OHIO—Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	530	377	430	722	504	628	799	770	785	870	835	849
2	377	343	352	588	386	532	832	770	794	853	778	834
3	378	348	367	588	520	558	826	798	814	857	829	842
4	400	371	385	577	517	545	842	813	822	831	803	814
5	437	400	418	576	537	555	842	815	826	887	828	853
6	483	437	456	625	570	605	848	809	823	911	884	895
7	562	483	519	684	623	657	848	807	820	917	825	882
8	617	562	587	728	684	718	842	809	822	930	879	904
9	652	617	636	748	686	731	859	814	837	918	851	893
10	685	652	667	710	667	685	883	808	837	888	708	841
11	696	685	690	712	693	699	882	811	847	860	781	808
12	702	689	695	740	712	733	884	831	855	805	743	765
13	720	701	706	762	739	755	884	474	727	847	800	816
14	725	679	705	779	758	770	723	586	640	863	832	843
15	682	654	670	798	776	788	800	723	765	861	832	845
16	689	564	664	792	778	785	800	773	780	890	859	872
17	691	603	634	804	771	787	825	712	775	928	890	906
18	716	620	647	813	770	797	712	420	550	947	909	923
19	718	676	689	829	783	807	641	455	532	946	905	924
20	693	573	640	820	789	807	686	604	645	952	917	935
21	705	579	638	828	786	811	724	638	688	957	917	941
22	695	531	679	840	801	824	739	721	729	954	896	926
23	717	656	702	843	786	821	750	723	736	937	910	920
24	733	716	724	786	684	715	785	740	764	940	909	928
25	746	719	729	761	743	752	800	769	785	937	882	909
26	758	729	742	775	755	763	831	786	806	944	914	929
27	842	739	762	828	769	797	863	831	845	946	916	932
28	759	732	749	841	783	818	864	844	853	947	920	937
29	769	732	742	786	762	776	871	850	858	948	909	932
30	748	541	729	786	759	774	871	848	857	949	915	934
31	---	---	---	802	767	788	878	863	869	---	---	---
MONTH	842	343	625	843	386	728	884	420	777	957	708	884
YEAR	1020	305	720									

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	8.4	8.3	8.3	8.6	8.4	8.5	8.4	8.2	8.3	8.1	7.9	8.1
2	8.5	8.3	8.4	8.6	8.4	8.5	8.2	8.1	8.1	8.1	8.0	8.1
3	8.6	8.3	8.4	8.7	8.4	8.6	8.2	8.1	8.2	8.1	8.0	8.1
4	8.6	8.3	8.5	8.8	8.5	8.6	8.3	8.2	8.2	8.1	7.8	8.1
5	8.6	8.4	8.5	8.8	8.5	8.6	8.3	8.3	8.3	8.2	8.0	8.1
6	8.7	8.4	8.5	8.6	8.5	8.5	8.4	8.3	8.3	8.2	8.0	8.1
7	8.8	8.5	8.6	8.6	8.4	8.5	8.4	8.4	8.4	8.1	7.9	8.0
8	8.7	8.5	8.6	8.5	8.3	8.4	8.4	8.4	8.4	8.1	8.0	8.1
9	8.6	8.5	8.6	8.4	8.2	8.3	8.4	8.4	8.4	8.2	8.0	8.1
10	8.6	8.5	8.5	8.4	8.3	8.3	8.5	8.4	8.4	8.2	8.0	8.2
11	8.7	8.4	8.5	8.6	8.3	8.4	8.4	8.4	8.4	8.3	8.2	8.2
12	8.7	8.5	8.5	8.6	8.4	8.5	8.4	8.3	8.4	8.2	8.1	8.2
13	8.7	8.5	8.6	8.6	8.4	8.5	8.3	8.1	8.1	8.2	8.0	8.1
14	8.8	8.5	8.6	8.7	8.4	8.6	8.1	8.0	8.1	8.1	7.9	8.0
15	8.8	8.5	8.6	8.7	8.5	8.6	8.2	8.1	8.1	8.2	8.0	8.1
16	8.8	8.5	8.6	8.8	8.5	8.6	8.2	8.2	8.2	8.2	8.1	8.2
17	8.8	8.4	8.6	8.7	8.5	8.6	8.2	8.0	8.1	8.2	8.2	8.2
18	8.6	8.4	8.5	8.7	8.5	8.6	8.0	8.0	8.0	8.2	8.1	8.2
19	8.4	8.2	8.3	8.7	8.4	8.5	8.1	8.0	8.0	8.2	8.1	8.1
20	8.4	8.3	8.3	8.7	8.4	8.5	8.1	7.8	8.0	8.2	8.0	8.1
21	8.5	8.3	8.4	8.8	8.4	8.6	8.2	7.8	8.1	8.2	8.0	8.1
22	8.5	8.3	8.4	8.8	8.5	8.6	8.2	8.1	8.1	8.2	8.1	8.2
23	8.5	8.4	8.4	8.9	8.5	8.7	8.2	8.1	8.0	8.1	8.0	8.1
24	8.5	8.3	8.4	8.7	8.5	8.6	8.1	7.9	8.1	8.0	8.0	8.0
25	8.5	8.3	8.4	8.6	8.4	8.5	7.9	7.8	7.9	8.1	8.0	8.1
26	8.5	8.3	8.4	8.5	8.1	8.2	7.9	7.8	7.9	8.1	8.1	8.1
27	8.5	8.3	8.4	8.2	8.1	8.1	7.9	7.8	7.9	8.1	8.1	8.1
28	8.5	8.3	8.3	8.3	8.2	8.3	7.9	7.9	7.9	8.2	8.1	8.1
29	8.5	8.3	8.4	8.4	8.3	8.3	7.9	7.9	7.9	8.1	8.1	8.1
30	8.5	8.3	8.4	8.4	8.3	8.4	8.0	7.9	7.9	8.2	8.1	8.1
31	8.6	8.4	8.5	---	---	---	8.0	7.9	8.0	8.1	8.1	8.1
MONTH	8.8	8.2	8.5	8.9	8.1	8.5	8.5	7.8	8.1	8.3	7.8	8.1

SURFACE-WATER RECORDS

Great Miami River Basin

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03271510 GREAT MIAMI RIVER NEAR LINDEN AVENUE AT MIAMISBURG, OHIO—Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

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

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

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

SURFACE-WATER RECORDS Great Miami River Basin

03271510 GREAT MIAMI RIVER NEAR LINDEN AVENUE AT MIAMISBURG, OHIO—Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	16.5	15.0	15.5	25.5	24.0	24.5	26.5	23.0	25.0	25.5	23.0	24.0
2	16.0	15.0	15.5	25.5	24.0	24.5	25.5	23.5	24.5	26.5	24.0	25.0
3	16.0	15.5	15.5	25.5	24.0	24.5	27.0	23.5	25.0	25.5	23.0	24.0
4	16.0	15.0	15.5	24.5	23.0	23.5	27.5	23.5	25.5	23.5	21.0	22.5
5	17.5	15.5	16.5	23.5	22.0	22.5	27.0	25.0	26.0	23.0	20.0	21.5
6	17.5	16.5	17.0	23.5	22.0	22.5	25.5	23.0	24.5	23.5	21.0	22.0
7	17.0	16.5	16.5	24.0	22.0	23.0	26.0	22.0	24.0	23.5	21.5	22.5
8	17.0	16.5	16.5	25.5	22.0	24.0	26.5	22.0	24.5	24.0	22.0	23.0
9	18.0	16.5	17.0	24.0	22.5	23.5	25.5	23.5	25.0	24.0	22.5	23.0
10	19.5	18.0	18.5	23.5	21.5	22.5	25.0	23.5	24.0	23.0	22.0	22.5
11	20.5	19.5	20.0	24.5	22.0	23.0	26.0	23.5	24.5	22.0	21.0	21.5
12	21.0	20.0	20.5	25.5	23.0	24.0	26.0	24.0	25.5	22.5	19.5	21.0
13	22.0	20.5	21.0	27.0	23.5	25.0	26.5	25.0	23.5	22.5	19.5	21.0
14	21.5	21.0	21.5	27.0	24.5	25.5	26.5	24.0	25.0	23.0	20.5	22.0
15	22.0	20.5	21.0	27.0	24.5	25.5	26.5	24.0	25.0	24.0	21.5	22.5
16	21.0	20.5	21.0	28.0	24.5	26.0	28.5	25.0	26.5	24.5	22.0	23.0
17	21.0	20.5	20.5	29.0	25.0	27.0	27.5	26.0	26.5	23.5	22.5	23.0
18	22.0	18.0	21.0	29.0	26.0	27.5	26.0	24.0	25.0	24.0	21.0	22.5
19	23.5	20.0	21.0	28.5	26.0	27.0	24.5	23.5	24.0	23.0	20.5	22.0
20	25.0	21.5	23.0	28.5	24.5	26.5	23.5	22.0	23.0	23.5	22.0	22.5
21	27.0	23.0	24.5	28.0	25.0	26.5	23.0	21.5	22.0	22.5	20.5	21.5
22	28.0	23.5	25.5	27.0	25.5	26.0	22.5	20.5	21.5	21.5	17.5	20.0
23	28.0	25.0	26.0	26.0	24.5	25.5	23.0	20.0	21.0	19.5	16.5	18.0
24	28.5	25.5	26.5	26.0	24.5	25.0	22.0	20.5	21.0	24.0	17.0	19.5
25	29.5	26.0	27.0	27.0	24.0	25.5	22.5	20.5	21.5	25.0	14.5	20.0
26	28.0	26.0	26.5	29.0	25.0	26.5	23.5	20.5	22.0	26.5	17.5	22.0
27	27.5	24.5	26.0	30.0	26.5	28.0	25.0	22.0	23.5	26.5	18.0	22.0
28	27.5	25.0	26.0	30.0	27.0	28.0	26.0	23.0	24.5	26.0	19.0	22.0
29	27.5	25.0	26.0	28.0	26.0	27.5	25.0	23.0	24.0	24.0	15.5	19.5
30	---	---	---	26.5	24.0	25.5	24.5	22.0	23.5	20.0	18.0	19.0
31	---	---	---	26.5	23.0	24.5	25.0	22.0	23.5	---	---	---
MONTH	29.5	15.0	21.0	30.0	21.5	25.0	28.5	20.0	24.0	26.5	14.5	22.0
YEAR	30.0	.5	14.0									

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	9.9	8.7	9.1	12.5	9.4	10.7	11.2	10.5	10.7	12.4	12.1	12.2
2	10.0	8.4	9.1	13.0	9.7	11.3	11.0	10.4	10.7	12.4	11.9	12.2
3	10.8	8.5	9.4	13.7	10.2	11.8	11.3	10.9	11.1	12.0	11.4	11.7
4	11.6	8.7	9.9	13.9	10.3	11.9	11.6	11.3	11.5	11.5	11.1	11.3
5	12.0	8.9	10.2	13.9	10.0	11.6	11.6	11.4	11.5	11.6	10.9	11.1
6	12.1	9.0	10.3	11.4	9.2	10.2	11.7	11.3	11.5	12.0	11.6	11.9
7	12.5	8.7	10.3	12.1	9.0	9.8	11.7	11.2	11.4	12.4	12.0	12.2
8	12.1	8.4	10.0	10.9	8.9	9.6	11.4	11.1	11.2	12.6	12.1	12.3
9	10.3	8.3	9.2	10.7	8.8	9.7	12.3	11.3	11.8	12.6	11.9	12.2
10	10.6	8.4	9.5	11.9	10.0	10.8	12.0	11.5	11.7	13.2	12.6	12.8
11	11.8	8.7	10.0	13.3	10.6	11.8	11.5	10.8	11.3	13.4	12.8	13.2
12	11.7	8.8	10.1	14.3	11.3	12.5	11.1	10.5	10.8	13.7	12.9	13.4
13	11.7	8.8	10.1	13.8	11.1	12.2	11.2	10.7	10.9	13.2	12.9	13.1
14	12.4	8.5	10.2	14.9	11.1	12.6	11.6	11.1	11.4	13.1	12.6	12.9
15	12.3	8.3	10.0	15.1	11.2	12.9	11.8	11.5	11.6	12.7	12.2	12.5
16	12.2	8.1	10.0	15.2	10.9	12.8	11.8	11.1	11.3	13.2	12.2	12.5
17	12.0	8.1	9.8	12.9	10.5	11.6	12.1	11.2	11.7	13.6	13.2	13.4
18	9.6	8.1	8.7	13.7	10.0	11.3	12.9	12.1	12.5	13.4	13.0	13.2
19	10.1	8.1	8.9	13.2	9.5	11.2	13.8	12.8	13.3	13.1	12.0	12.5
20	10.0	8.5	9.2	14.3	9.9	11.6	14.2	13.6	13.9	12.4	11.9	12.1
21	10.7	8.8	9.5	14.5	10.1	11.8	13.9	13.4	13.7	12.3	11.8	12.0
22	10.1	8.5	9.2	---	---	---	13.9	13.2	13.6	12.3	11.5	11.9
23	9.2	8.1	8.7	16.0	10.7	13.1	13.3	12.7	13.0	12.6	11.5	12.1
24	10.4	8.9	9.6	13.0	10.7	11.7	13.3	12.6	12.9	12.9	12.4	12.6
25	10.7	8.8	9.7	11.5	10.2	10.8	13.9	13.2	13.6	13.3	12.4	12.8
26	9.9	8.4	9.1	11.2	10.7	10.9	13.8	13.6	13.7	13.0	12.5	12.8
27	10.1	8.4	9.0	11.6	11.2	11.4	13.7	13.3	13.5	12.8	12.1	12.5
28	10.4	8.1	9.1	11.9	11.5	11.6	13.5	12.5	13.2	12.7	11.9	12.3
29	10.2	8.6	9.2	11.8	11.4	11.6	12.5	12.2	12.3	12.4	11.2	11.7
30	11.0	8.2	9.4	11.6	11.2	11.5	12.5	12.2	12.3	11.9	10.7	11.5
31	11.9	9.0	10.3	---	---	---	---	---	---	11.9	11.3	11.7
MONTH	12.5	8.1	9.6	16.0	8.8	11.5	14.2	10.4	12.1	13.7	10.7	12.3

SURFACE-WATER RECORDS

Great Miami River Basin

03271601 GREAT MIAMI RIVER BELOW MIAMISBURG, OHIO

LOCATION.--Lat 39°36'24", long 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 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.--Seven discharge measurements furnished by Miami Conservancy District.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1450	753	10900	3540	2700	9060	4150	1690	20400	3180	817	654
2	1230	769	12800	3230	2360	15700	3390	1630	30100	4080	760	646
3	1090	758	7720	2910	2270	15400	2860	7560	28600	4000	744	794
4	974	746	4900	2680	6390	10400	2590	8200	23500	3990	699	571
5	927	753	3830	3750	17600	6680	2620	5940	16600	2710	773	571
6	914	748	3490	5860	15400	11500	2670	4080	12700	1980	715	573
7	892	815	2860	4170	9800	11400	2530	3160	9880	1610	700	548
8	867	1110	2530	2990	6130	7260	2260	2840	5920	1440	654	546
9	807	958	2260	2610	4730	6170	2070	2740	4000	1680	679	563
10	785	1130	2040	2520	3850	8880	1970	2470	3370	1750	629	800
11	781	1050	1870	1950	3260	7930	1880	2270	3090	1530	642	1080
12	769	940	4670	1560	2870	5640	2250	2090	2870	1370	639	774
13	754	913	11200	e1400	2560	4450	2600	1870	2510	1190	1270	615
14	755	880	9240	e1300	2380	7260	2890	1750	3380	1060	790	597
15	744	858	6090	e1300	2350	10700	2340	1790	2870	1040	785	579
16	719	811	5390	e1800	2140	6910	2060	1600	2580	995	721	586
17	705	802	16900	e1400	1960	4870	1960	1550	3180	939	1080	552
18	1170	880	22000	e1300	1890	5010	1890	1450	2640	899	2710	554
19	1050	843	16300	e1200	2060	6230	1880	1470	3800	864	1550	518
20	881	844	9520	e1200	2450	5660	1730	1560	3940	816	1890	553
21	889	868	5630	e1500	3030	4500	1650	1620	2660	797	1530	567
22	869	876	4670	4170	5600	3860	1600	1510	2060	922	1250	570
23	969	851	3800	9200	5250	3320	1550	1390	1840	1060	1070	569
24	907	830	12600	9040	3680	2930	1550	1290	1750	1290	965	573
25	829	1160	17000	5700	2860	2730	1540	1310	1560	1110	918	565
26	786	8720	11600	3920	2600	2690	1450	1520	1550	982	832	542
27	819	8960	6800	4390	5400	2460	1390	2420	1500	930	780	504
28	773	4780	5040	7500	11400	2330	1500	1930	1540	1160	731	496
29	745	3220	5450	6200	---	4330	1450	1670	1390	1060	678	493
30	773	3440	5130	4040	---	6820	1450	1540	1310	890	674	488
31	768	---	4160	3130	---	4960	---	2970	---	832	670	---
TOTAL	27391	51066	238390	107460	134970	208040	63720	76880	203090	48156	29345	18041
MEAN	884	1702	7690	3466	4820	6711	2124	2480	6770	1553	947	601
MAX	1450	8960	22000	9200	17600	15700	4150	8200	30100	4080	2710	1080
MIN	705	746	1870	1200	1890	2330	1390	1290	1310	797	629	488
CFSM	.33	.63	2.83	1.28	1.78	2.47	.78	.91	2.49	.57	.35	.22
IN.	.38	.70	3.27	1.47	1.85	2.85	.87	1.05	2.78	.66	.40	.25

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1997, BY WATER YEAR (WY)

	904	2868	2647	3871	2751	4160	4554	4341	3792	3605	1834	814
MEAN	904	2868	2647	3871	2751	4160	4554	4341	3792	3605	1834	814
MAX	1814	6603	7690	7884	4820	6894	7343	11920	6770	7539	5404	1162
(WY)	1996	1994	1997	1996	1997	1993	1996	1996	1997	1993	1995	1996
MIN	434	475	613	867	842	1143	2124	1239	1530	1012	615	433
(WY)	1992	1992	1992	1992	1992	1992	1997	1992	1994	1994	1994	1994

SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1992 - 1997

ANNUAL TOTAL	1709488	1206549	3014
ANNUAL MEAN	4671	3306	4283
HIGHEST ANNUAL MEAN			1795
LOWEST ANNUAL MEAN			32000
HIGHEST DAILY MEAN	32000	Apr 30	30100
LOWEST DAILY MEAN	633	Sep 14	488
ANNUAL SEVEN-DAY MINIMUM	668	Sep 2	523
INSTANTANEOUS PEAK FLOW			32400
INSTANTANEOUS PEAK STAGE			16.99
INSTANTANEOUS LOW FLOW			488
ANNUAL RUNOFF (CFSM)	1.72	1.22	1.11
ANNUAL RUNOFF (INCHES)	23.42	16.53	15.08
10 PERCENT EXCEEDS	12100	7800	7050
50 PERCENT EXCEEDS	2420	1750	1530
90 PERCENT EXCEEDS	786	703	576

SURFACE-WATER RECORDS Great Miami River Basin

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03271800 TWIN CREEK NEAR INGOMAR, OHIO

LOCATION.--Lat 39°42'28", long 84°31'30", in sec. 15, T.5 N., R.3 E., Preble County, Hydrologic Unit 05080002, on left bank at downstream side of bridge on Halderman Road, 0.5 mi downstream from Bantas Fork, 1.4 mi west of Ingomar, and 4.8 mi upstream from Aukerman Creek.

DRAINAGE AREA.--197 mi².

PERIOD OF RECORD.--October 1962 to current year. Occasional low-flow measurements water years 1959, 1961-62.

GAGE.--Water-stage recorder. Datum of gage is 815.42 ft above sea level.

REMARKS.--Records good except for periods of estimated record which are fair. Sediment data collected at this site.

COOPERATION.--Gage-height tapes and 8 discharge measurements furnished by Miami Conservancy District.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 21, 1959, reached a stage of 18.8 ft; discharge, 30,300 ft³/s, computed by Miami Conservancy District. Flood of Mar. 25, 1913, reached a stage of 28.0 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	19	1960	204	136	442	199	78	6800	281	18	e6.6
2	22	20	772	191	128	2720	163	114	2750	242	17	e6.4
3	17	19	372	176	148	782	147	1210	860	420	17	e6.6
4	16	18	235	159	1930	474	136	626	509	153	16	e6.4
5	15	17	188	436	1570	368	145	324	343	97	15	e5.8
6	14	17	194	302	595	549	161	234	252	74	14	e5.6
7	14	19	174	191	372	334	129	167	204	63	14	e5.6
8	13	27	151	e130	280	260	108	154	172	56	13	e6.0
9	13	33	120	e100	e200	451	98	151	157	88	e12	e5.8
10	13	34	99	e80	e170	1080	91	124	134	176	e12	e6.6
11	13	32	99	e76	e150	460	89	106	115	87	e12	e6.8
12	13	29	360	e70	e130	290	118	102	109	64	e12	e6.6
13	13	26	609	e74	e120	232	181	95	105	54	e21	e6.2
14	12	24	299	e80	e110	1260	124	89	94	50	e19	e6.0
15	11	22	209	e94	e100	567	104	88	80	46	e18	e5.4
16	11	21	516	e84	e90	325	98	75	80	41	e18	e5.2
17	12	22	3960	e74	e86	259	96	71	117	36	e25	e5.0
18	18	27	1200	e70	100	437	89	70	280	34	e56	e4.9
19	26	28	e500	e68	145	700	86	69	266	34	e48	e4.9
20	26	28	e200	e66	201	395	82	64	155	28	e76	e4.9
21	25	27	e150	e80	341	295	79	58	116	26	e50	e4.9
22	19	26	e130	1050	434	235	78	55	101	31	e25	e4.9
23	19	24	e200	867	227	180	74	53	93	30	e17	e4.9
24	18	23	3220	358	167	152	73	54	78	29	e13	e4.9
25	18	62	787	285	144	145	72	61	71	26	e12	e4.9
26	18	1440	388	175	147	140	64	98	87	24	e11	e4.9
27	20	435	275	333	912	124	64	112	86	25	e11	e4.9
28	19	216	357	590	505	122	75	96	67	25	e10	e5.0
29	18	153	436	229	---	510	69	83	85	25	e8.0	e5.2
30	18	470	298	172	---	325	65	77	141	23	e7.0	e5.0
31	17	---	242	148	---	260	---	1320	---	20	e6.8	---
TOTAL	529	3358	18700	7012	9638	14873	3157	6078	14507	2408	623.8	166.8
MEAN	17.1	112	603	226	344	480	105	196	484	77.7	20.1	5.56
MAX	28	1440	3960	1050	1930	2720	199	1320	6800	420	76	6.8
MIN	11	17	99	66	86	122	64	53	67	20	6.8	4.9
CFSM	.09	.57	3.06	1.15	1.75	2.44	.53	1.00	2.45	.39	.10	.03
IN.	.10	.63	3.53	1.32	1.82	2.81	.60	1.15	2.74	.45	.12	.03

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1997, BY WATER YEAR (WY)

	MEAN	50.8	147	267	234	298	401	357	293	165	106	60.0	22.8
MAX	758	699	1170	685	886	990	837	938	539	499	531	137	
(WY)	1987	1986	1991	1996	1975	1963	1996	1996	1996	1979	1979	1989	
MIN	4.00	6.35	6.14	6.45	18.5	70.3	59.4	34.0	10.9	5.20	4.13	3.57	
(WY)	1964	1964	1964	1977	1964	1992	1971	1976	1988	1988	1988	1964	

SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1963 - 1997

ANNUAL TOTAL	134690.8	81050.6	
ANNUAL MEAN	368	222	200
HIGHEST ANNUAL MEAN			324
LOWEST ANNUAL MEAN			78.4
HIGHEST DAILY MEAN	8680	Apr 29	11000
LOWEST DAILY MEAN	8.8	Sep 15	2.5
ANNUAL SEVEN-DAY MINIMUM	9.5	Sep 9	2.8
INSTANTANEOUS PEAK FLOW			19300
INSTANTANEOUS PEAK STAGE			14.40
INSTANTANEOUS LOW FLOW			2.5
ANNUAL RUNOFF (CFSM)	1.87		1.01
ANNUAL RUNOFF (INCHES)	25.43		13.77
10 PERCENT EXCEEDS	860		442
50 PERCENT EXCEEDS	104		63
90 PERCENT EXCEEDS	15		9.8

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

SURFACE-WATER RECORDS **Great Miami River Basin**

03272000 TWIN CREEK NEAR GERMANTOWN, OHIO

LOCATION.--Lat 39°38'10", long 84°23'48", in NW 1/4 sec. 11, T.3 N., R.4 E., Montgomery County, Hydrologic Unit 05080002, on right bank 0.3 mi downstream from Germantown Dam, 1.5 mi northwest of Germantown, and 3 mi upstream from Little Twin Creek.

DRAINAGE AREA.--275 mi².

PERIOD OF RECORD.--April 1914 to December 1923, December 1926 to current year.

REVISED RECORDS.--WSP 403: 1914(M). WSP 1385: 1915(M).

GAGE.--Water-stage recorder. Datum of gage is 700.24 ft above sea level. Prior to Dec. 18, 1926, nonrecording gage at site 1 mi downstream at datum 12.49 ft higher.

REMARKS.--Records good except for periods of estimated record, which are fair. Flood flow regulated by Germantown retarding basin, 0.3 mi upstream, beginning in 1920.

COOPERATION.--Gage-height tapes and 8 discharge measurements furnished by Miami Conservancy District.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,390 ft³/s July 8, 1915, gage height 11.7 ft, from graph based on gage readings, site and datum then in use.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 25, 1913, reached a stage of 18.3 ft, original site and datum; discharge, 66,000 ft³/s, computed by Miami Conservancy District.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e33	28	1730	287	246	708	283	107	4750	334	26	9.6
2	e27	28	1430	268	228	3890	239	150	6490	357	24	9.2
3	e22	29	691	246	e250	1780	215	1180	3170	829	25	9.6
4	e21	29	414	225	1250	1080	201	1050	962	271	23	9.2
5	e20	28	301	742	3160	778	205	529	606	168	21	8.6
6	e19	27	309	498	1230	891	229	356	420	129	20	8.3
7	e19	32	261	296	761	658	194	256	312	108	19	7.9
8	e19	44	224	e200	558	487	165	228	260	95	18	8.8
9	e19	45	189	e150	416	538	150	230	234	92	17	8.3
10	e19	49	163	e120	e300	1590	139	191	182	202	17	9.8
11	e18	47	158	e110	e250	913	134	166	159	134	17	10
12	e18	44	490	e100	e220	563	164	154	146	98	17	9.8
13	e18	41	938	e120	e210	442	229	145	140	82	30	9.0
14	e16	38	479	e140	e180	1510	185	133	127	74	28	8.4
15	e15	36	310	e150	e160	1150	155	129	109	69	25	8.0
16	e16	33	618	e120	e150	657	144	116	100	61	25	7.5
17	e19	34	4680	e110	e140	515	140	108	133	55	25	7.1
18	e31	36	3350	e110	157	735	132	105	242	52	80	7.0
19	e36	39	961	e100	196	1260	125	102	351	49	67	7.0
20	e35	38	525	e100	264	704	120	95	198	44	111	7.0
21	e33	38	e350	e420	358	524	118	88	146	40	72	7.0
22	e28	37	e250	e1200	622	413	115	83	121	42	41	6.9
23	29	35	e200	e1000	336	312	107	80	112	44	27	7.0
24	28	33	3780	e400	241	265	105	78	95	45	19	7.0
25	27	57	1510	e300	206	243	104	86	84	40	17	7.0
26	27	1270	644	e260	201	234	94	110	85	36	16	7.0
27	30	717	434	644	798	207	90	136	99	34	16	7.0
28	33	331	460	1040	788	198	104	135	80	50	15	7.1
29	31	228	634	521	---	546	100	116	73	33	11	7.5
30	28	556	443	372	---	474	92	109	163	33	10	7.2
31	29	---	344	289	---	351	---	617	---	28	9.9	---
TOTAL	763	4027	27270	10638	13876	24616	4577	7168	20149	3728	888.9	240.8
MEAN	24.6	134	880	343	496	794	153	231	672	120	28.7	8.03
MAX	36	1270	4680	1200	3160	3890	283	1180	6490	829	111	10
MIN	15	27	158	100	140	198	90	78	73	28	9.9	6.9
CFSM	.09	.49	3.20	1.25	1.80	2.89	.55	.84	2.44	.44	.10	.03
IN.	.10	.54	3.69	1.44	1.88	3.33	.62	.97	2.73	.50	.12	.03

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 1997, BY WATER YEAR (WY)

	MEAN	56.4	159	300	450	455	528	479	342	230	132	73.2	42.0
MAX	718	978	1398	2669	1214	1304	1421	1723	1237	882	636	509	
(WY)	1987	1986	1991	1937	1950	1978	1922	1996	1958	1929	1979	1950	
MIN	4.07	5.24	5.19	9.23	20.1	54.7	69.5	26.4	14.1	8.46	5.77	3.79	
(WY)	1945	1945	1945	1945	1935	1954	1941	1934	1934	1930	1988	1953	

SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1921 - 1997

ANNUAL TOTAL	201365	117941.7	
ANNUAL MEAN	550	323	268
HIGHEST ANNUAL MEAN			493
LOWEST ANNUAL MEAN			43.3
HIGHEST DAILY MEAN	7550	Apr 30	8450
LOWEST DAILY MEAN	15	Oct 15	2.0
ANNUAL SEVEN-DAY MINIMUM	17	Sep 8	7.0
INSTANTANEOUS PEAK FLOW			6780
INSTANTANEOUS PEAK STAGE			27.10
INSTANTANEOUS LOW FLOW			6.9
ANNUAL RUNOFF (CFSM)	2.00		1.18
ANNUAL RUNOFF (INCHES)	27.24		15.95
10 PERCENT EXCEEDS	1440		738
50 PERCENT EXCEEDS	169		120
90 PERCENT EXCEEDS	23		16

e Estimated.

SURFACE-WATER RECORDS Great Miami River Basin

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03272100 GREAT MIAMI RIVER AT MIDDLETOWN, OHIO

LOCATION.--Lat 39°31'12", long 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.
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 good except for period of estimated records, 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 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 1996 TO SEPTEMBER 1997 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1500	760	13600	3840	2940	10200	4440	1940	25300	3350	907	735
2	1240	760	14600	3520	2610	20500	3660	1760	33500	4400	816	744
3	1080	752	8790	3190	2480	17800	3100	10500	30700	5360	820	843
4	978	744	5440	2930	7840	11900	2820	9200	23700	4300	786	678
5	933	735	4110	4110	19900	7600	2820	6800	17700	3040	807	632
6	921	736	3980	6150	16500	11200	2940	4600	13300	2230	771	635
7	893	740	3180	4640	10800	12300	2750	3530	10400	1860	752	612
8	876	1110	2780	3370	6710	7930	2450	3130	6700	1670	721	613
9	843	956	2490	2900	5150	6560	2260	3100	4420	1750	688	621
10	802	1090	2230	2810	4200	11100	2120	2750	3690	2000	658	865
11	802	1070	2040	2260	3600	9010	2040	2540	3330	1720	664	1070
12	771	960	4090	1850	3170	6330	2380	2330	3110	1550	654	903
13	750	920	11400	e1600	2830	4920	2740	2100	2760	1360	1320	693
14	760	e880	9880	e1500	2630	8810	3100	1950	3350	1270	953	660
15	741	e840	6470	e1400	2590	11700	2560	1990	3150	1240	893	684
16	717	e780	5610	e1900	2370	7790	2250	1800	2590	1160	876	656
17	683	e760	21000	e1600	2170	5430	2130	1720	3460	1090	912	627
18	1120	e780	24500	e1500	2100	5760	2050	1660	3280	1030	2890	621
19	1120	e820	17400	e1400	2220	7670	2040	1600	4010	963	1790	616
20	908	e820	10400	e1300	2610	6510	1880	1680	4350	900	2040	605
21	896	845	6050	e1600	3220	5080	1830	1710	3100	919	1760	622
22	880	869	4960	5520	5520	4290	1760	1640	2410	1040	1400	618
23	917	829	4110	10300	5620	3670	1700	1510	2140	1280	1180	614
24	905	810	14500	9560	3910	3250	1690	1440	2040	1770	1060	615
25	841	991	18700	6330	3100	3030	1700	1440	1820	1230	1010	621
26	785	9940	12500	4240	2810	2960	1610	1630	1780	1100	939	590
27	833	10000	7590	5510	5140	2730	1530	2430	1730	1020	889	550
28	786	5230	5450	8930	11800	2590	1630	2150	1710	1180	861	537
29	744	3430	5820	6860	---	4010	1600	1830	1590	1240	790	542
30	754	3750	5560	4440	---	7360	1600	1690	1610	1010	736	532
31	773	---	4510	3490	---	5310	---	3490	---	911	740	---
TOTAL	27552	53707	263740	120550	146540	235300	69180	87640	222730	54943	32083	19954
MEAN	889	1790	8508	3889	5234	7590	2306	2827	7424	1772	1035	665
MAX	1500	10000	24500	10300	19900	20500	4440	10500	33500	5360	2890	1070
MIN	683	735	2040	1300	2100	2590	1530	1440	1590	900	654	532
CFSM	.28	.57	2.71	1.24	1.67	2.42	.74	.90	2.37	.57	.33	.21
IN.	.33	.64	3.13	1.43	1.74	2.79	.82	1.04	2.64	.65	.38	.24

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 1997, BY WATER YEAR (WY)

	1994	1995	1996	1997
MEAN	1035	1653	3587	4679
MAX	1759	2585	8508	8581
(WY)	1996	1996	1997	1997
MIN	458	583	932	1567
(WY)	1995	1995	1995	1995

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR	FOR 1997 WATER YEAR	WATER YEARS 1994 - 1997
ANNUAL TOTAL	1900950	1333919	
ANNUAL MEAN	5194	3655	3723
HIGHEST ANNUAL MEAN			4724
LOWEST ANNUAL MEAN			2786
HIGHEST DAILY MEAN	36900	33500	36900
LOWEST DAILY MEAN	602	532	392
ANNUAL SEVEN-DAY MINIMUM	639	570	419
INSTANTANEOUS PEAK FLOW		35200	38500
INSTANTANEOUS PEAK STAGE		12.08	12.72
INSTANTANEOUS LOW FLOW		532	392
ANNUAL RUNOFF (CFSM)	1.66	1.17	1.19
ANNUAL RUNOFF (INCHES)	22.56	15.83	16.14
10 PERCENT EXCEEDS	14300	9090	9020
50 PERCENT EXCEEDS	2500	1990	1730
90 PERCENT EXCEEDS	776	740	603

e Estimated.

SURFACE-WATER RECORDS

Great Miami River Basin

03272700 SEVENMILE CREEK AT CAMDEN, OHIO

LOCATION.--Lat 39°37'45", long 84°38'40", Preble County, Hydrologic Unit 05080002, on right bank at downstream side of bridge on State Highway 725 in Camden, 0.3 mi downstream from Beasley Run and at mile 16.2.

DRAINAGE AREA.--69.0 mi².

PERIOD OF RECORD.--December 1970 to current year.

GAGE.--Water-stage recorder. Datum of gage is 818.57 ft above sea level. (Levels by Miami Conservancy District.)

Prior to Oct. 1, 1975, at same site at datum 3.02 ft higher.

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

COOPERATION.--Gage-height tapes and 9 discharge measurements furnished by Miami Conservancy District.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.4	e6.2	662	73	62	200	64	38	2110	274	8.1	5.4
2	6.3	e6.0	241	69	57	1090	58	123	601	253	8.1	5.1
3	5.3	6.0	141	64	62	348	55	495	283	339	8.1	9.5
4	4.9	5.5	94	60	797	204	53	206	168	105	7.8	5.4
5	4.9	5.4	78	185	492	146	63	115	113	58	7.5	4.5
6	4.7	5.4	77	102	228	133	62	86	85	42	7.2	4.4
7	4.5	6.0	66	72	142	105	50	66	74	35	7.0	4.6
8	4.5	12	55	e54	108	91	46	66	65	31	7.0	4.4
9	4.5	9.0	46	e45	e80	240	43	60	79	44	6.7	4.2
10	4.7	8.8	42	e37	e66	470	43	52	59	36	6.3	6.5
11	4.5	8.2	41	e34	e60	202	42	47	51	28	6.3	5.4
12	4.5	7.4	117	e33	e54	126	56	46	45	24	6.5	4.5
13	4.3	7.3	111	e35	e50	105	53	45	42	23	13	4.1
14	4.3	6.7	76	e37	e47	531	46	43	37	21	10	3.8
15	4.4	7.0	61	40	e45	221	43	42	31	20	9.6	3.4
16	4.6	7.0	205	48	e42	131	42	38	31	18	10	3.3
17	4.3	7.3	1240	e35	e40	106	40	36	38	16	15	3.1
18	17	12	391	e32	e50	221	39	36	109	14	58	3.1
19	11	9.7	205	e30	60	225	38	35	91	14	23	2.9
20	7.2	8.3	123	e27	68	144	37	33	54	12	57	2.9
21	5.9	8.1	69	38	105	111	37	31	42	12	39	2.8
22	5.5	8.1	59	505	124	88	35	30	35	12	24	2.7
23	6.0	7.4	104	277	77	71	33	30	30	12	24	2.8
24	8.5	7.3	1010	139	65	62	32	30	27	22	31	2.8
25	6.4	44	273	108	62	61	31	32	25	14	24	2.7
26	6.3	417	140	70	64	58	31	37	27	12	9.6	2.6
27	7.7	154	100	280	228	53	31	34	29	17	8.6	2.5
28	e8.0	84	129	263	149	52	35	31	24	15	7.3	2.5
29	e8.0	53	131	98	---	135	32	32	102	11	6.5	2.3
30	e7.0	150	94	76	---	93	31	33	85	9.5	6.3	2.4
31	e6.4	---	82	69	---	76	---	372	---	8.1	5.8	---
TOTAL	193.5	1084.1	6263	3035	3484	5899	1301	2400	4592	1551.6	468.3	116.6
MEAN	6.24	36.1	202	97.9	124	190	43.4	77.4	153	50.1	15.1	3.89
MAX	17	417	1240	505	797	1090	64	495	2110	339	58	9.5
MIN	4.3	5.4	41	27	40	52	31	30	24	8.1	5.8	2.3
CFSM	.09	.52	2.93	1.42	1.80	2.76	.63	1.12	2.22	.73	.22	.06
IN.	.10	.58	3.38	1.64	1.88	3.18	.70	1.29	2.48	.84	.25	.06

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1997, BY WATER YEAR (WY)

	MEAN	19.2	59.3	91.9	87.8	113	141	127	113	54.1	35.0	19.2	9.49
MAX	126	266	281	265	276	344	323	421	166	138	91.6	40.9	
(WY)	1987	1986	1991	1982	1975	1978	1996	1989	1996	1992	1979	1979	
MIN	3.31	3.90	4.58	3.46	19.2	24.9	25.2	11.3	3.84	4.27	2.95	1.68	
(WY)	1972	1972	1977	1977	1978	1992	1976	1976	1988	1975	1975	1991	

SUMMARY STATISTICS

FOR 1996 CALENDAR YEAR

FOR 1997 WATER YEAR

WATER YEARS 1971 - 1997

ANNUAL TOTAL	48379.1	30388.1	73.0
ANNUAL MEAN	132	83.3	117
HIGHEST ANNUAL MEAN			28.0
LOWEST ANNUAL MEAN			1996
HIGHEST DAILY MEAN	3970	2110	5520
LOWEST DAILY MEAN	3.2	2.3	.81
ANNUAL SEVEN-DAY MINIMUM	3.6	2.5	1.1
INSTANTANEOUS PEAK FLOW		3520	20200
INSTANTANEOUS PEAK STAGE		10.09	18.67
INSTANTANEOUS LOW FLOW		2.3	.81
ANNUAL RUNOFF (CFSM)	1.92	1.21	1.06
ANNUAL RUNOFF (INCHES)	26.08	16.38	14.37
10 PERCENT EXCEEDS	301	201	162
50 PERCENT EXCEEDS	41	38	26
90 PERCENT EXCEEDS	4.9	4.8	4.0

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

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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 Geological Survey 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 and for special studies are given in separate tables.

CREST-STAGE PARTIAL-RECORD STATIONS

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

Station name and number	Location and drainage area	Period of record	Water year 1997 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft ³ /s)	Date	Gage height (ft)	Dis- charge (ft ³ /s)
OHIO RIVER BASIN								
BEAVER RIVER BASIN								
Mahoning River at Alliance, OH (03086500)	Lat 40°55'58", long 81°05'41", in E 1/2 sec. 36, T.13 N., R.6 W., 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. Drainage area is 89.2 mi ² .	1941-93 * 1994-97	5-26-97	3.72	1,300	1-21-59	9.11	9,740
West Branch Mahoning River nr Ravenna, OH (03092090)	Lat 41°09'41", long 81°11'50", in T.9 N., R.2 W., Portage County, Hydrologic Unit 05030103, on left bank at downstream side of bridge on Newton Falls Road, 2.5 mi east of Ravenna. Drainage area is 21.8 mi ² .	1965-93 * 1994-97	6-1-97	5.52	847	9-14-79	8.63	2,810
Pymatuning Creek at Kinsman, OH (03102950)	Lat 41°26'34", long 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. Drainage area is 96.7 mi ² .	1966-94 * 1995-97	6-3-97	10.97	1,130	11-6-85	12.40	2,740
MUSKINGUM RIVER BASIN								
McGuire Creek below Leesville dam near Leesville, OH (03120500)	Lat 40°28'13", long 81°11'48", in E 1/2 sec. 36, T.13 N., R.6 W., 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. Drainage area is 48.3 mi ² .	1938-91 * 1992-97	12-11-96	4.52	268	3-4-40	7.88	740

* Operated as a continuous-record gaging station.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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Maximum discharge at crest-stage partial-record stations—Continued.

Station name and number	Location and drainage area	Period of record	Water year 1997 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft ³ /s)	Date	Gage height (ft)	Dis- charge (ft ³ /s)
MUSKINGUM RIVER BASIN (cont'd)								
Tuscarawas River below Dover dam, near Dover, OH (03122500)	Lat 40°31'47", long 81°25'48", in T.9 N., R.2 W., 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. Drainage area is 1,405 mi ² .	1923-91 ≠ 1992-97	12-12-96	7.45	6,000	1-26-37	15.51	26,400
Sugar Creek below Beach City dam, near Beach City, OH (03124000)	Lat 40°38'08", long 81°33'11", in T.10, N., R.3 W., 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. Drainage area is 300 mi ² .	1938-91 ≠ 1992-97	12-18-96	6.27	1,880	7-6-69	11.26	7,520
Stillwater Creek at Piedmont, OH (03126000)	Lat 40°11'41", long 81°12'56", in sec. 35, T.10 N., R.6 W., 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. Drainage area is 122 mi ² .	1938-91 ≠ 1992-97	3-12-97	7.03	689	12-4-50	11.44	1,470
Stillwater Creek at Tippecanoe, OH (03127000)	Lat 40°16'13", long 81°17'26" in NW 1/4 sec, 22, T.12 N., R.7 W. 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. Drainage area is 282 mi ² .	1938-91 ≠ 1992-97	3-11-97	12.04	1,370	3-5-63	17.29	4,410
Stillwater Creek at Uhrichsville, OH (03127500)	Lat 40°23'10", long 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. Drainage area is 367 mi ² .	1922-91 ≠ 1992-97	3-11-97 5-26-97	2.81 b3.23	e1,530 ----	8-8-35	12.80	7,650
Little Stillwater Creek below Tappan Dam at Tappan, OH (03128500)	Lat 40°21'25", long 81°13'49", in NW 1/4 sec. 4, T.13 N., R.7 W., 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. Drainage area is 71.1 mi ² .	1938-91 ≠ 1992-97	12-4-96	6.72	408	3-13-39	10.00	1,050
Black Fork Below Charles Mill Dam, near Mifflin, OH (03130000)	Lat 40°44'16", long 82°21'48", in NE 1/4 sec. 35, T.23 N., R.17 W., 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. Drainage area is 217 mi ² .	1938-91 ≠ 1992-97	12-18-96	5.96	1,440	3-13-64	8.45	2,800

≠ Operated as a continuous-record gaging station.
b Backwater from Tuscarawas River.
e Estimated.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Maximum discharge at crest-stage partial-record stations—Continued.

Station name and number	Location and drainage area	Period of record	Water year 1997 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft ³ /s)	Date	Gage height (ft)	Dis- charge (ft ³ /s)
MUSKINGUM RIVER BASIN (cont'd)								
Black Fork at Loudonville, OH (03131500)	Lat 40°38'09", long 82°14'22", in NW 1/4 sec. 1, T.19 N., R.16 W., 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. Drainage area is 349 mi ² .	1931-91 ≠ 1992-97	6-1-97	10.63	3,710	7-5-69	14.11	8,460
Clear Fork below Pleasant Hill Dam near Perrysville, OH (03133500)	Lat 40°37'13", long 82°19'28", in NE 1/4 sec. 7, T.19 N., R.16 W., Ashland County, Hydrologic Unit 05040002, on right bank 0.2 mi downstream from Pleasant Hill Dam, 2.8 mi south of Perrysville, and 4.7 mi upstream from the confluence of Clear Fork and Black Fork. Drainage area is 198 mi ² .	1938-91 ≠ 1992-97	6-3-97	3.63	1,200	1-23-59	4.89	2,340
Lake Fork below Mohicanville Dam near Mohicanville, OH (03135000)	Lat 40°43'24", long 82°09'18", in NE 1/4 sec. 7, T.19 N., R.16 W., 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. Drainage area is 271 mi ² .	1938-93 ≠ 1994-97	6-15-97	10.01	1,270	7-5-69	14.32	5,490
Walhonding River below Mohawk, dam at Nellie, OH (03138500)	Lat 40°20'29", long 82°03'56", in T.6 N., R.8 W., 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. Drainage area is 1,505 mi ² .	1910-13 1921-91 ≠ 1992-97	6-10-97	11.16	7,070	1-25-37	18.80	43,800
Seneca Fork below Senecaville Dam, near Senecaville, OH (03141500)	Lat 39°55'28", long 81°26'17", Guernsey County, Hydrologic Unit 05040005, on left bank 650 ft downstream from Senecaville Dam and 1.5 mi southeast of Senecaville. Drainage area is 118 mi ² .	1938-91 ≠ 1992-97	6-9-97	8.05	719	8-24-80	9.69	985
Wills Creek below Wills Creek Dam at Wills Creek, OH (03143500)	Lat 40°09'34", long 81°50'51", in sec. 22, T.4 N., R.6 W., 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. Drainage area is 842 mi ² .	1938-91 ≠ 1992-97	3-3-97	14.20	5,180	3-7-40	17.40	6,930
Licking River below Dillon Dam, near Dillon Falls, OH (03147500)	Lat 39°59'18", long 82°04'50", in T.1 N., R.8 W., 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. Drainage area is 742 mi ² .	1939-91 ≠ 1992-97	6-20-97	9.70	5,290	1-22-59	32.46	47,000

≠ Operated as a continuous-record gaging station.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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Maximum discharge at crest-stage partial-record stations—Continued.

Station name and number	Location and drainage area	Period of record	Water year 1997 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft ³ /s)	Date	Gage height (ft)	Dis- charge (ft ³ /s)
SCIOTO RIVER BASIN								
Deer Creek at Williamsport, OH (03231000)	Lat 39°35'09", long 83°07'22", Pickaway County, Hydrologic Unit 05060002, on left bank at downstream side of bridge on U.S. Highway 22 at west edge of Williamsport, 2.0 mi downstream from Dry Run, and 7.6 mi upstream from Hay Run. Drainage area is 333 mi ² .	1926-35 ≠ 1938-56 ≠ 1959-61 1962-91 ≠ 1992-97	8-18-97	9.56	3,420	1-22-59	17.60	39,600
Paint Creek below Paint Creek Dam, near Bainbridge, OH (03232470)	Lat 39°15'08", long 83°20'58", Highland County, Hydrologic Unit 05060003, on right bank, 400 ft downstream from Paint Creek dam, 700 ft upstream from Cliff Creek, and 4.5 mi northwest of Bainbridge. Drainage area is 570 mi ² .	1962-63 1963-67 1967-91 ≠ 1992-97	3-6-97	8.59	7,400	3-10-64	27.30	45,000
GREAT MIAMI RIVER BASIN								
Bokengahalas Creek at DeGraff, OH (03260706)	Lat 40°18'40", long 83°54'45", Logan County, Hydrologic Unit 05080001, at DeGraff on right bank 100 ft downstream from bridge on Co. Rd. 11 and 1.1 mi upstream from mouth. Drainage area is 40.4 mi ² .	1993-96 ≠ 1997	6-2-97	5.68	753	7-02-93	5.58	550
Wolf Creek at Dayton, OH (03271000)	Lat 39°46'00", long 84°14'10", Montgomery County, Hydrologic Unit 05080002, on right bank, at West Riverview Avenue Bridge, in Dayton, 1.8 mi upstream from mouth. Drainage area is 68.7 mi ² .	1938-50 ≠ 1986-96 ≠ 1997	6-1-97	6.89	3,200	3-19-43	13.50	9,950
Great Miami River at Miamisburg, OH (03271500)	Lat 39°38'40", long 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. Drainage area is 2,711 mi ² .	1916-20 ≠ 1924-35 ≠ 1952-95 ≠ 1996-97	6-2-97	14.49	31,100	1-21-59	21.30	61,800

≠ Operated as a continuous-record gaging station.

PEAK DISCHARGES AND STAGES 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. The maximum peak discharge and gage height for the water year are flagged with an asterisk (*). Note: a = from highwater mark, b = ice jam, c = observed, e = estimated.

Peak discharges equal to or greater than base discharges, water year October 1996 to September 1997

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
OHIO RIVER BASIN							
BEAVER RIVER BASIN							
03093000 EAGLE CREEK AT PHALANX STATION, OH (Base discharge: 1,300 ft ³ /s)							
Nov. 27	0200	1,600	10.41	Feb. 28	0300	1,820	10.80
Dec. 12	1600	*2,630	11.68	Apr. 13	1200	1,400	10.26
Feb. 5	2000	1,450	10.13	Jun. 2	1000	2,460	*11.76
LITTLE BEAVER CREEK BASIN							
03109500 LITTLE BEAVER CREEK NEAR EAST LIVERPOOL, OH (Base discharge: 5,000 ft ³ /s)							
Dec. 13	0300	7,080	10.04	May 26	0100	*7,400	*10.23
YELLOW CREEK BASIN							
03110000 YELLOW CREEK NEAR HAMMONDSVILLE, OH (Base discharge: 2,000 ft ³ /s)							
Dec. 12	0800	*1,890	*5.86				
SHORT CREEK BASIN							
03111500 SHORT CREEK NEAR DILLONVALE, OH (Base discharge: 1,200 ft ³ /s)							
Jan. 5	1500	*1,620	*6.14				
WHEELING CREEK BASIN							
03111548 WHEELING CREEK BELOW BLAINE, OH (Base discharge: 1,500 ft ³ /s)							
Mar. 2	0800	1,930	5.01	Aug. 18	0300	*3,010	*6.15
May 25	2100	2,200	5.32				
CAPTINA CREEK BASIN							
03114000 CAPTINA CREEK AT ARMSTRONGS MILLS, OH (Base discharge: 3,000 ft ³ /s)							
Mar. 2	0600	*7,160	*10.51	Jun. 3	0130	3,250	7.49
LITTLE MUSKINGUM RIVER BASIN							
03115400 LITTLE MUSKINGUM RIVER AT BLOOMFIELD, OH (Base discharge: 3,000 ft ³ /s)							
Nov. 8	1745	3,680	16.77	Mar. 26	1200	3,710	16.85
Jan. 28	1245	3,260	15.77	May 26	0715	3,050	15.26
Mar. 2	1530	14,900	*28.30	Jun. 3	1245	6,840	22.15
MUSKINGUM RIVER BASIN							
03115969 MONTROSE RUN AT MONTROSE, OH (Base discharge: 30 ft ³ /s revised)							
May 25	1035	33	12.04	Sep. 20	0235	*44	*12.30
Aug. 16	1925	35	12.09				
03115970 SCHOCALOG RUN AT MONTROSE, OH (Base discharge: 50 ft ³ /s revised)							
Dec. 11	1945	51	13.03	Jun. 1	e0530	*e81	*e13.62
03115971 SCHOCALOG RUN AT FAIRLAWN, OH (Base discharge: 70 ft ³ /s revised)							
Jun. 1	0300	*95	*12.58				
03115973 SCHOCALOG RUN AT COPLEY JUNCTION, OH (Base discharge: 90 ft ³ /s revised)							
Dec. 11	2155	92	12.29	Jun. 1	1330	*151	*12.79
May 25	1355	104	12.39				
03117500 SANDY CREEK AT WAYNESBURG, OH (Base discharge: 1,800 ft ³ /s)							
Dec. 12	1600	*3,630	*7.11	Jun. 4	0400	1,900	4.82
May 26	1500	2,630	5.90				

PEAK DISCHARGES AND STAGES AT CONTINUOUS-RECORD SURFACE DISCHARGE STATIONS

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Peak discharges equal to or greater than base discharges, water year October 1996 to September 1997—Continued.

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
MUSKINGUM RIVER BASIN (cont'd)							
03118000 MIDDLE BRANCH NIMISHILLEN CREEK AT CANTON, OH (Base discharge: 400 ft ³ /s)							
Dec. 12	1300	*807	*5.81	Jun. 1	2300	451	4.67
Mar. 6	0900	495	4.87				
03118500 NIMISHILLEN CREEK AT NORTH INDUSTRY, OH (Base discharge: 2,000 ft ³ /s)							
Dec. 12	0200	2,380	6.90	May 25	1930	2,300	6.76
Mar. 6	0330	2,470	*7.05	Jun. 18	1600	2,360	6.86
03139000 KILLBUCK CREEK AT KILLBUCK, OH (Base discharge: 2,000 ft ³ /s)							
Dec. 13	0300	2,200	15.75	Jun. 2	0200	*2,680	*16.32
Mar. 7	0400	2,100	15.56				
03140000 MILL CREEK NEAR COSHOCTON, OH (Base discharge: 700 ft ³ /s)							
Dec. 1	0815	*614	*7.80				
03144000 WAKATOMIKA CREEK NEAR FRAZEYSBURG, OH (Base discharge: 1,600 ft ³ /s)							
Dec. 1	1730	2,310	5.76	Jun. 1	1530	*2,400	*5.87
Dec. 17	1730	1,640	4.85	Jun. 18	1930	2,040	5.41
Dec. 24	1330	1,650	4.87				
03146500 LICKING RIVER NEAR NEWARK, OH (Base discharge: 6,500 ft ³ /s)							
Dec. 24	1230	6,680	9.72	Jun. 18	2000	9,600	11.19
Feb. 5	0330	7,320	10.07	Jul. 27	0430	*11,300	*11.94
Mar. 2	1430	6,950	9.87	Aug. 18	0300	8,390	10.62
Jun. 2	0300	8,870	10.85				
HOCKING RIVER BASIN							
03157000 CLEAR CREEK NEAR ROCKBRIDGE, OH (Base discharge: 1,900 ft ³ /s)							
Mar. 2	0745	*3,590	*10.22				
03157500 HOCKING RIVER AT ENTERPRISE, OH (Base discharge: 3,500 ft ³ /s)							
Feb. 5	0630	4,070	9.57	Aug. 18	1300	*10,600	*16.27
Mar. 2	1600	9,040	15.15	Aug. 20	2000	3,810	9.16
Mar. 10	0900	4,230	9.82				
SHADE RIVER BASIN							
03159540 SHADE RIVER NEAR CHESTER, OH (Base discharge: 2,400 ft ³ /s)							
Mar. 2	----	*15,600	*a31.44				
RACoon CREEK BASIN							
03202000 RACoon CREEK NEAR ADAMSVILLE, OH (Base discharge: 3,000 ft ³ /s)							
Feb. 28	----	e4,200	----	Mar. 19	----	e3,200	----
Mar. 3	----	*16,500	*a29.11	Jun. 3	1600	3,120	12.45
Mar. 10	----	e6,200	----				
SCIOTO RIVER BASIN							
03219500 SCIOTO RIVER NEAR PROSPECT, OH (Base discharge: 3,600 ft ³ /s)							
Dec. 14	2000	4,190	9.70	Mar. 7	1700	3,770	9.16
Dec. 19	1500	4,760	10.40	Jun. 3	2100	*6,510	*12.34
Feb. 6	2400	4,030	9.50				
03219590 BOKES CREEK NEAR WARRENSBURG, OH (Base discharge: 800 ft ³ /s)							
Nov. 27	1930	829	9.10	Feb. 6	0845	1,160	9.62
Dec. 13	1100	870	9.17	Mar. 7	0630	1,030	9.43
Dec. 18	2215	1,340	9.86	Jun. 2	0830	*3,640	*12.48
Dec. 25	1930	912	9.24				
03220000 MILL CREEK NEAR BELLEPOINT, OH (Base discharge: 2,500 ft ³ /s)							
Dec. 17	1330	2,610	7.12	Jun. 2	0345	*21,800	*14.45
03223000 OLENTANGY RIVER AT CLARIDON, OH (Base discharge: 1,500 ft ³ /s)							
Dec. 12	1730	1,950	9.36	Mar. 6	1130	1,560	8.23
Dec. 18	0430	1,910	9.26	Jun. 2	0830	*2,980	*10.98
Dec. 24	2200	1,700	8.65				

PEAK DISCHARGES AND STAGES AT CONTINUOUS-RECORD SURFACE DISCHARGE STATIONS

Peak discharges equal to or greater than base discharges, water year October 1996 to September 1997—Continued.

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
SCIOTO RIVER BASIN (cont'd)							
03228300 BIG WALNUT CREEK AT SUNBURY, OH (Base discharge: 2,200 ft ³ /s)							
Dec. 24	0930	2,240	8.65	Jun. 1	0800	*6,700	*11.20
Feb. 5	0200	2,340	8.73				
03230310 LITTLE DARBY CREEK AT WEST JEFFERSON, OH (Base discharge: 1000 ft ³ /s)							
Dec. 2	0500	1,190	9.15	Mar. 3	0045	1,260	9.33
Dec. 18	0722	1,460	9.79	Jun. 3	0245	*6,240	*15.53
Dec. 25	0207	1,010	8.70	Jun. 17	1830	1,060	8.84
Feb. 5	1452	1,550	10.01				
03230450 HELLBRANCH RUN NEAR HARRISBURG, OH (Base discharge: 300 ft ³ /s)							
Nov. 26	0645	385	6.82	Jun. 1	0815	957	9.01
Dec. 1	0915	530	7.40	Jun. 2	unknown	*e1,140	*e9.62
Dec. 17	1115	511	7.32	Jun. 16	2,245	401	6.88
Feb. 4	1945	530	7.40	Jun. 18	1,230	573	7.58
Mar. 2	0730	506	7.30	Aug. 17	0430	343	6.66
Mar. 14	1430	356	6.71	Aug. 17	0945	325	6.60
03230500 BIG DARBY CREEK AT DARBYVILLE, OH (Base discharge: 4,500 ft ³ /s)							
Feb. 5	2315	e4,530	e8.74	Jun. 3	0930	*23,700	*15.62
03230800 DEER CREEK AT MOUNT STERLING, OH (Base discharge: 1,900 ft ³ /s)							
Nov. 26	1530	2,170	7.93	Mar. 2	1600	2,960	8.65
Dec. 1	2200	3,270	8.90	Mar. 14	1930	2,090	7.85
Dec. 17	2300	3,220	8.86	Jun. 1	2230	*7,080	*10.86
Jan. 28	0730	2,680	8.41	Jun. 18	1730	2,950	8.64
Feb. 5	0430	4,320	9.59				
03232000 PAINT CREEK NEAR GREENFIELD, OH (Base discharge: 2,000 ft ³ /s)							
Dec. 17	1000	2,450	6.88	Jun. 2	1230	*5,150	*9.52
Jan. 28	0130	2,260	6.63	Jun. 19	2330	2,550	7.00
Feb. 5	2130	2,510	6.95	Jul. 1	1030	2,270	6.64
Mar. 2	0330	4,880	9.31	Aug. 18	0800	2,010	6.28
UPPER TWIN CREEK BASIN							
03237280 UPPER TWIN CREEK AT MCGAW, OH (Base discharge: 450 ft ³ /s)							
Jan. 24	2245	1,500	7.54	Mar. 2	----	*4,430	*a10.01
OHIO BRUSH CREEK BASIN							
03237500 OHIO BRUSH CREEK NEAR WEST UNION, OH (Base discharge: 11,000 ft ³ /s)							
Dec. 17	1415	16,100	16.77	Mar. 2	----	*77,700	*31.15
Feb. 4	1915	14,200	15.74	Jun. 1	0930	17,800	17.14
WHITEOAK CREEK BASIN							
03238500 WHITEOAK CREEK NEAR GEORGETOWN, OH (Base discharge: 5,500 ft ³ /s)							
Dec. 18	0030	7,610	6.82	Mar. 1	2330	*18,100	*9.36
Jan. 28	0730	6,510	6.46	Jun. 1	1700	12,700	8.17
Feb. 4	2000	8,860	7.19	Jun. 18	2000	6,250	6.37
LITTLE MIAMI RIVER BASIN							
03240000 LITTLE MIAMI RIVER NEAR OLDTOWN, OH (Base discharge: 800 ft ³ /s)							
Dec. 1	2200	1,030	4.81	Feb. 5	0400	1,100	5.20
Dec. 17	1110	1,110	5.22	Mar. 2	1745	1,120	5.25
Jan. 28	0245	851	4.59	Jun. 2	0600	*3,450	*8.83
03241500 MASSIES CREEK AT WILBERFORCE, OH (Base discharge: 600 ft ³ /s)							
Dec. 1	1230	667	5.40	Feb. 4	2030	765	5.71
Dec. 17	1030	725	5.58	Mar. 2	1000	658	5.37
Jan. 28	0130	687	5.46	Jun. 2	0800	*1,540	*7.74
03245500 LITTLE MIAMI RIVER AT MILFORD, OH (Base discharge: 15,000 ft ³ /s)							
Dec. 1	1000	16,000	13.22	Mar. 2	0700	21,300	14.88
Dec. 17	1100	18,000	13.88	Jun. 1	0600	*39,700	*19.34
Jan. 28	0045	17,800	13.81	Jun. 18	1730	17,800	13.81
Feb. 4	1915	15,500	13.06				

**PEAK DISCHARGES AND STAGES
AT CONTINUOUS-RECORD SURFACE DISCHARGE STATIONS**

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Peak discharges equal to or greater than base discharges, water year October 1996 to September 1997—Continued.

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
GREAT MIAMI RIVER BASIN							
03261500 GREAT MIAMI RIVER AT SIDNEY, OH (Base discharge: 4,000 ft ³ /s)							
Dec. 12	2030	4,020	7.62	Feb. 4	2400	4,570	8.19
Dec. 17	1400	5,900	9.46	Jun. 1	2400	*7,100	*10.50
Dec. 24	0930	4,500	8.12				
03261950 LORAMIE CREEK NEAR NEWPORT, OH (Base discharge: 1,500 ft ³ /s)							
Dec. 18	0030	2,030	11.05	Feb. 27	2000	1,850	10.77
Dec. 24	1700	1,700	10.50	Jun. 2	0500	*4,370	*13.41
Feb. 5	0800	1,630	10.32				
03264000 GREENVILLE CREEK NEAR BRADFORD, OH (Base discharge: 1,500 ft ³ /s)							
Dec. 17	2200	1,970	5.63	Mar. 2	2230	1,930	5.57
Dec. 25	0500	2,270	6.05	Mar. 6	1000	1,640	5.12
Jan. 23	1430	1,990	5.66	Jun. 1	2030	*5,470	*9.56
Feb. 5	1200	1,970	5.62				
03265000 STILLWATER RIVER AT PLEASANT HILL, OH (Base discharge: 5,000 ft ³ /s)							
Dec. 17	1730	6,730	10.21	Feb. 5	0430	5,880	9.42
Dec. 24	1530	6,530	10.03	Mar. 2	1300	5,080	8.62
Jan. 22	2300	----	9.60	Jun. 1	1800	*15,500	*16.02
03267000 MAD RIVER NEAR URBANA, OH (Base discharge: 1,400 ft ³ /s)							
Dec. 17	1330	1,590	5.81	Feb. 4	2400	1,630	5.87
Dec. 24	0700	1,720	6.01	Jun. 2	0730	*3,890	*8.69
03271800 TWIN CREEK NEAR INGOMAR, OH (Base discharge: 4,700 ft ³ /s)							
Dec. 17	0845	5,780	8.21	Mar. 2	0415	4,810	7.47
Dec. 24	0430	5,350	7.89	Jun. 1	1030	*7,790	*9.58
03272700 SEVENMILE CREEK AT CAMDEN, OH (Base discharge: 1,500 ft ³ /s)							
Dec. 17	0830	2,050	8.16	Mar. 2	0115	2,570	8.96
Dec. 24	0215	1,630	7.51	Jun. 1	0600	*3,520	*10.09
Jan. 22	1145	1,620	7.50				

GROUND-WATER RECORDS

Ashland County

405303082170700. LOCAL NUMBER, AS-2

LOCATION.--Lat 40°53'03", long 82°17'07", Hydrologic Unit 05040002, Jerome Fork well field 2 mi northeast of Ashland.

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, Division of Water.

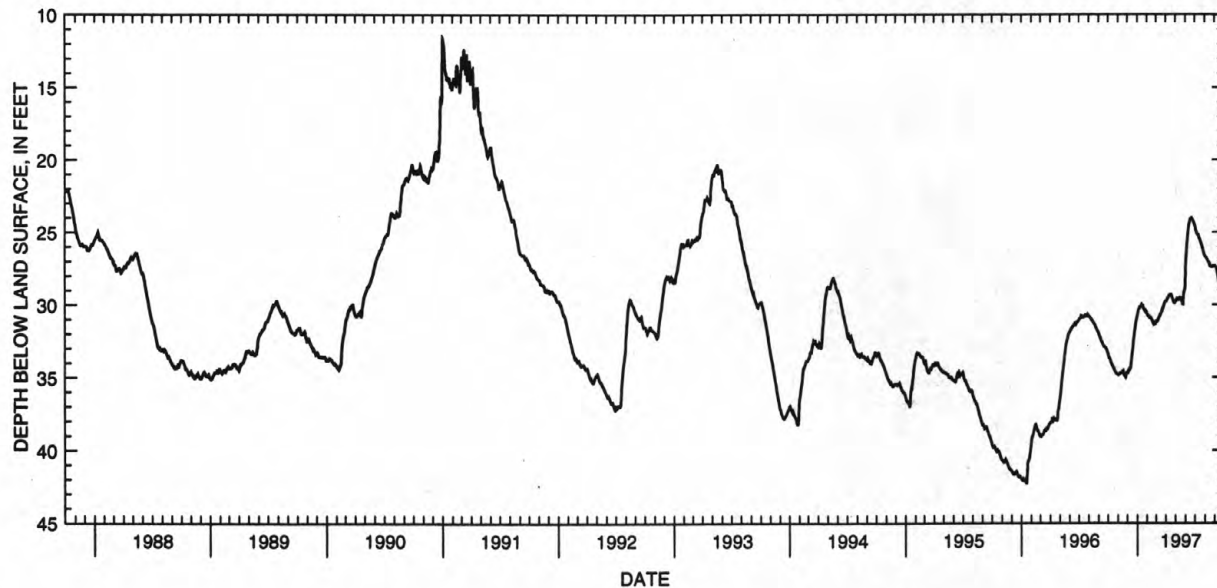
PERIOD OF RECORD.--March 1964 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 42.25 ft below land-surface datum, Jan. 17-18, 1996;
minimum daily low, 11.56 ft below land-surface datum, Jan. 1, 1991.DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33.37	34.79	34.67	30.77	30.61	31.17	29.79	29.79	28.54	24.51	26.58	27.32
2	33.50	34.82	34.67	30.64	30.67	31.19	29.77	29.79	27.53	24.57	26.64	27.32
3	33.56	34.84	34.62	30.53	30.72	31.15	29.73	29.68	26.96	24.70	26.67	27.34
4	33.64	34.83	34.64	30.47	30.72	31.13	29.68	29.68	26.58	24.83	26.69	27.37
5	33.65	34.79	34.52	30.32	30.76	31.12	29.62	29.62	26.22	24.90	26.70	27.39
6	33.67	34.79	34.49	30.30	30.79	31.08	29.56	29.58	25.93	24.95	26.74	27.42
7	33.72	34.75	34.44	30.25	30.82	31.09	29.56	29.61	25.70	25.06	26.79	27.46
8	33.77	34.74	34.39	30.24	30.87	31.00	29.51	29.58	25.43	25.09	26.83	27.55
9	33.86	34.69	34.44	30.14	30.88	30.97	29.49	29.62	25.17	25.13	26.87	27.63
10	33.94	34.69	34.40	30.14	30.89	30.88	29.45	29.66	24.95	25.16	26.92	27.79
11	34.00	34.69	34.34	30.15	30.87	30.83	29.40	29.65	24.73	25.17	26.98	27.91
12	34.06	34.69	34.26	30.14	30.91	30.81	29.33	29.55	24.58	25.18	26.99	28.06
13	34.09	34.68	33.97	30.09	30.91	30.76	29.34	29.55	24.42	25.25	27.06	28.17
14	34.16	34.63	33.72	30.06	30.86	30.69	29.35	29.52	24.34	25.33	27.08	28.30
15	34.19	34.64	33.58	30.00	30.97	30.70	29.33	29.53	24.28	25.43	27.13	28.44
16	34.24	34.61	33.38	30.07	31.04	30.64	29.28	29.57	24.15	25.46	27.23	28.54
17	34.28	34.59	33.17	30.07	31.04	30.56	29.28	29.52	24.16	25.47	27.22	28.67
18	34.34	34.56	33.04	30.09	31.08	30.52	29.28	29.52	24.09	25.56	27.30	28.80
19	34.35	34.68	32.71	30.08	31.20	30.44	29.33	29.65	24.08	25.64	27.34	28.93
20	34.41	34.77	32.50	30.20	31.19	30.31	29.42	29.67	24.04	25.69	27.36	29.10
21	34.49	34.85	32.34	30.22	31.19	30.25	29.49	29.74	24.02	25.76	27.36	29.19
22	34.51	34.87	32.13	30.26	31.34	30.29	29.56	29.83	24.05	25.83	27.38	29.27
23	34.58	34.87	31.97	30.35	31.32	30.24	29.62	29.90	24.10	25.89	27.39	29.33
24	34.62	34.89	31.73	30.34	31.35	30.21	29.71	29.95	24.14	25.98	27.39	29.37
25	34.67	34.95	31.68	30.42	31.34	30.08	29.78	29.96	24.17	26.05	27.37	29.40
26	34.70	35.00	31.48	30.44	31.25	30.03	29.81	29.69	24.18	26.15	27.37	29.45
27	34.72	34.92	31.29	30.42	31.27	29.95	29.81	29.22	24.26	26.23	27.33	29.44
28	34.74	34.74	31.13	30.50	31.28	29.89	29.86	29.13	24.36	26.32	27.29	29.41
29	34.74	34.75	31.05	30.51	---	29.80	29.86	29.05	24.40	26.41	27.30	29.40
30	34.79	34.71	30.99	30.43	---	29.77	29.81	29.00	24.46	26.49	27.29	29.48
31	34.79	---	30.85	30.50	---	29.78	---	28.84	---	26.54	27.31	---
MAX	34.79	35.00	34.67	30.77	31.35	31.19	29.86	29.96	28.54	26.54	27.39	29.48

CAL YR 1996 LOW 42.25

WTR YR 1997 LOW 35.00



GROUND-WATER RECORDS

Ashland County

193

405425082173000. Local number. AS-3

LOCATION.--Lat 40°54'25", long 82°17'30", Hydrologic Unit 05040002, Ashland Bates well field along Jerome Fork near Ashland.

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.

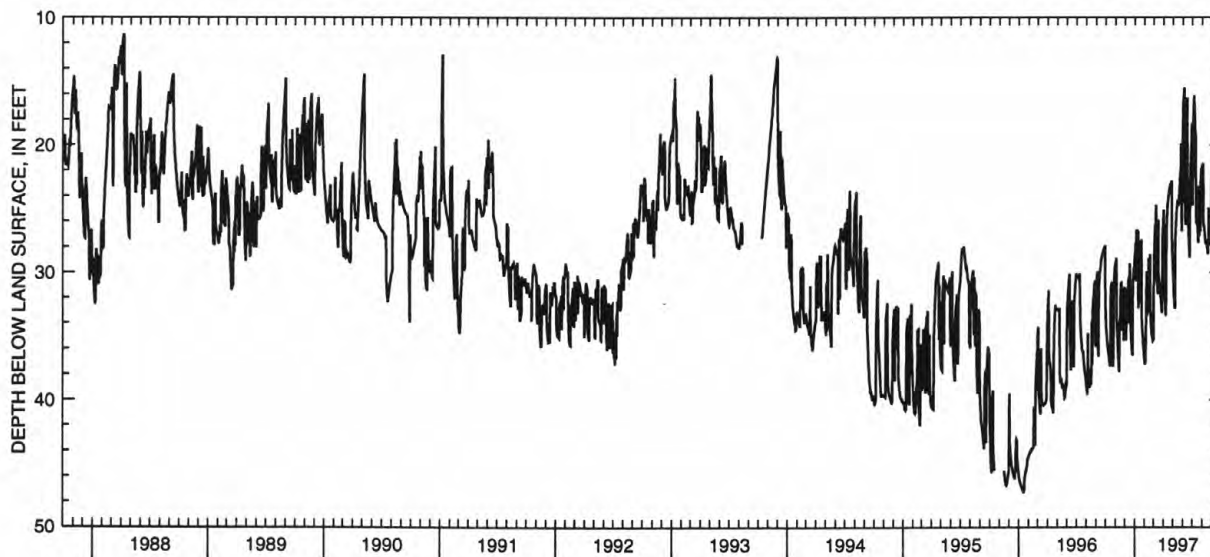
REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

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, 3.10 ft, above land-surface, Feb. 23, 1978.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33.23	29.26	31.36	28.85	37.00	35.30	25.46	29.78	18.67	24.48	21.70	22.63
2	33.88	29.11	31.44	28.41	37.16	30.26	25.09	30.24	16.76	24.73	21.83	22.30
3	34.38	29.01	31.42	27.99	37.16	28.65	30.32	31.08	16.37	18.99	21.70	22.41
4	34.80	28.87	31.37	27.66	37.02	27.64	31.07	31.75	16.06	17.66	21.45	22.33
5	35.16	33.34	35.32	30.67	34.89	26.89	31.56	32.03	15.64	16.86	26.07	22.15
6	35.41	34.33	34.36	26.67	33.84	26.24	31.98	32.53	15.50	16.13	26.42	21.75
7	35.64	34.94	31.71	30.22	29.95	28.09	32.52	32.70	23.90	16.68	26.27	21.19
8	35.85	35.44	31.65	30.52	33.04	24.83	33.06	32.79	25.70	17.51	26.67	20.67
9	36.17	36.07	31.59	26.63	32.97	24.67	33.37	27.20	26.14	18.32	27.03	20.10
10	36.30	36.66	31.24	30.55	33.18	29.05	31.83	26.38	26.25	18.84	27.32	19.50
11	36.50	37.13	30.96	26.75	33.19	30.31	26.81	25.86	18.98	19.24	27.63	19.16
12	36.77	37.53	30.63	31.97	32.86	30.82	25.86	25.41	16.91	24.18	27.74	18.77
13	36.99	37.80	30.40	32.78	32.68	31.00	25.10	25.02	16.44	25.74	27.65	18.44
14	37.14	33.84	34.00	31.55	28.86	31.44	24.76	24.72	16.48	26.17	27.59	18.04
15	37.28	34.29	33.68	31.17	32.57	31.70	24.44	24.46	16.46	26.18	27.66	17.61
16	37.35	31.96	29.45	31.14	32.63	25.86	24.18	24.51	23.18	24.82	27.95	17.95
17	31.90	31.51	29.29	27.58	32.56	29.90	23.97	24.72	24.63	26.09	28.05	22.78
18	31.04	31.07	33.47	27.80	28.56	30.54	23.75	24.76	26.00	26.77	28.32	23.56
19	30.86	30.83	31.16	31.49	32.06	30.82	23.54	24.56	26.78	27.36	28.46	23.76
20	30.83	30.81	34.61	27.60	33.11	31.07	23.42	24.16	27.37	27.65	28.51	24.17
21	30.86	31.36	35.30	31.45	34.01	31.19	23.24	23.63	27.93	23.24	24.92	24.32
22	30.87	34.55	35.63	27.38	34.57	31.60	23.11	23.18	28.52	26.88	27.07	24.53
23	36.06	31.50	36.02	33.33	34.82	31.80	23.06	22.80	28.82	27.11	27.65	25.10
24	37.06	31.31	36.40	34.07	34.91	31.92	23.01	22.26	23.10	26.05	27.72	25.46
25	37.38	31.39	36.43	34.65	35.00	32.21	22.98	21.76	22.07	26.68	27.77	25.91
26	35.65	31.58	31.97	34.83	35.07	32.62	22.92	19.90	21.21	26.75	27.77	26.14
27	31.52	35.35	30.56	35.27	35.33	33.04	22.79	19.99	20.19	22.75	27.73	22.91
28	30.54	31.40	30.01	35.70	35.30	33.16	27.46	26.04	19.19	22.20	27.72	22.30
29	29.95	31.39	29.67	36.01	---	27.24	28.59	26.75	18.26	21.93	27.72	21.94
30	29.54	31.19	29.57	36.32	---	26.63	29.20	20.34	23.03	21.94	23.92	21.44
31	29.44	---	29.19	36.68	---	26.02	---	19.54	---	21.57	23.16	---
MAX	37.38	37.80	36.43	36.68	37.16	35.30	33.37	32.79	28.82	27.65	28.51	26.14
CAL YR 1996	LOW 47.29											
WTR YR 1997	LOW 37.80											



GROUND-WATER RECORDS
Athens County**32004082071600. LOCAL NUMBER, AT-2A**

LOCATION.--Lat 39°20'04", long 82°07'16", Hydrologic Unit 05030204, 1.1 mi west of city hall in Athens.

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, Division of Water. Prior to water year 1978, well depth reported as 43 ft.

PERIOD OF RECORD.--March 1954 to September 1982 continuous, periodic thereafter.

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 OBSERVATIONS

DATE	WATER LEVEL
Oct. 7, 1996	18.37
Apr. 2, 1997	15.14

GROUND-WATER RECORDS

Athens County

195

392009082072200. LOCAL NUMBER, AT-5

LOCATION.--Lat 39°20'09", long 82°07'22", Hydrologic Unit 05030204, in Athens well field along Hocking River.

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, Division of Water.

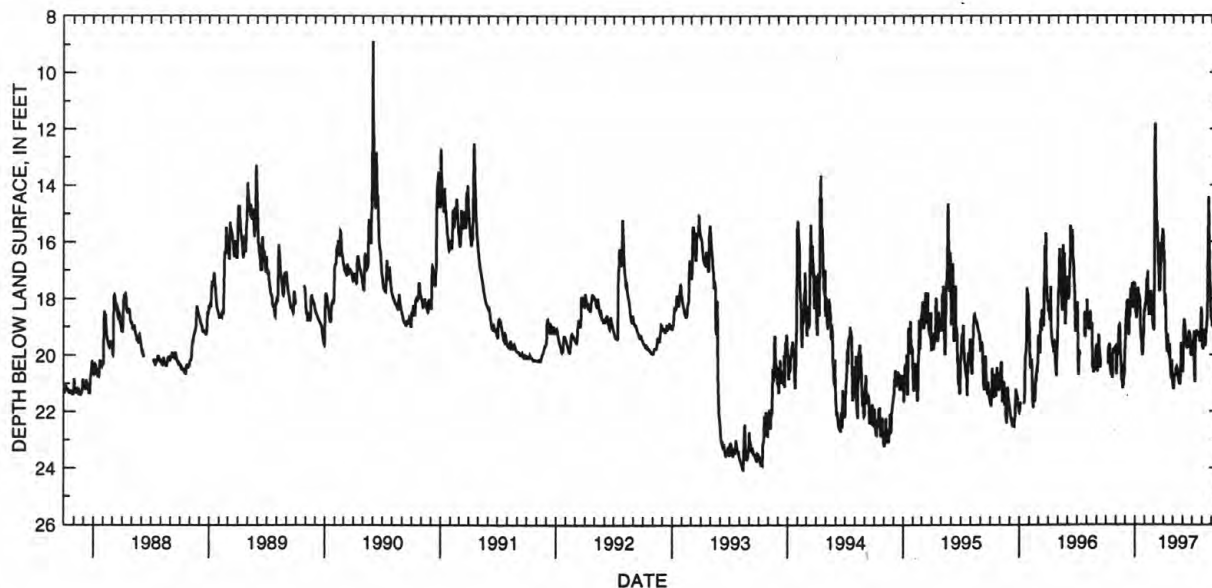
PERIOD OF RECORD.--July 1982 to current year.

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 1996 TO SEPTEMBER 1997 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	19.77	19.41	18.12	18.15	19.09	16.75	21.10	20.59	20.00	19.71	18.83
2	---	20.59	18.68	18.49	18.30	17.42	16.29	21.18	19.92	19.81	19.68	19.01
3	---	20.69	18.78	18.02	18.19	12.41	17.53	21.18	19.11	19.75	19.19	18.92
4	---	20.08	18.39	18.58	17.85	11.80	18.19	21.01	18.82	19.48	19.81	18.90
5	---	19.99	18.63	18.68	17.64	13.16	18.23	20.76	18.73	19.57	19.27	18.91
6	---	19.96	18.08	18.52	17.30	13.77	17.84	20.65	18.83	19.16	19.11	18.37
7	20.32	19.99	18.12	18.40	17.45	14.37	18.32	20.72	19.00	20.24	19.25	19.05
8	19.88	19.80	18.03	17.97	17.55	14.82	18.93	20.72	19.11	20.80	19.24	18.74
9	19.70	19.32	18.41	17.62	17.02	15.45	19.30	20.67	19.30	20.96	19.64	18.57
10	19.65	19.02	18.66	17.66	17.78	15.46	19.57	20.48	19.44	19.86	19.48	18.78
11	19.63	18.93	19.26	17.86	17.98	15.30	19.71	20.45	19.57	19.49	19.70	18.93
12	19.60	18.92	19.26	17.87	18.16	15.84	19.87	20.44	19.73	19.30	19.32	19.28
13	20.24	19.03	18.39	17.93	18.59	16.24	19.87	20.51	19.74	19.21	19.20	19.36
14	20.41	19.27	18.43	17.92	18.51	16.64	19.27	20.47	19.64	19.16	19.09	19.41
15	20.55	19.84	18.63	18.04	18.52	16.81	19.60	20.54	19.64	19.16	18.85	20.01
16	20.71	20.10	18.04	18.09	17.90	17.17	19.82	20.60	19.65	19.18	18.78	19.89
17	20.07	20.31	17.84	18.84	18.18	17.50	19.91	20.79	19.76	19.20	18.44	20.54
18	19.95	20.47	17.64	19.17	18.33	17.74	20.02	20.78	19.67	19.23	17.43	20.59
19	20.46	20.90	17.68	19.41	17.72	17.69	20.05	20.93	19.46	19.28	15.92	19.57
20	20.64	20.35	17.79	19.43	17.88	17.59	19.60	20.94	19.15	19.30	14.52	19.32
21	20.81	20.72	17.68	19.46	18.42	17.17	19.96	21.01	19.32	19.33	14.41	19.76
22	20.02	21.14	17.44	19.80	18.50	16.04	20.24	21.03	19.30	19.35	15.54	19.81
23	19.81	21.18	18.20	19.96	18.24	16.06	20.47	21.05	19.43	19.37	16.21	19.09
24	19.77	20.75	18.33	20.01	18.66	16.06	20.66	20.90	19.41	19.54	16.53	19.03
25	19.81	21.07	18.29	19.81	18.81	16.12	20.80	20.35	19.97	19.26	17.54	19.03
26	19.89	20.76	17.67	19.43	18.96	15.97	20.82	19.57	19.74	19.14	17.59	19.21
27	19.88	20.75	17.44	19.34	19.06	15.84	20.18	19.72	20.04	19.15	17.47	19.48
28	19.84	20.61	17.44	19.20	19.08	15.54	20.71	19.99	19.75	18.56	17.89	19.94
29	19.73	19.95	17.45	18.38	---	15.69	20.89	20.30	19.84	18.32	18.71	20.12
30	19.71	19.56	17.46	18.44	---	15.60	21.01	20.48	20.00	18.46	18.73	19.52
31	19.84	---	17.53	18.44	---	16.30	---	20.59	---	19.18	18.62	---
MAX	20.81	21.18	19.41	20.01	19.08	19.09	21.01	21.18	20.59	20.96	19.81	20.59

CAL YR 1996 LOW 22.02
WTR YR 1997 LOW 21.18



GROUND-WATER RECORDS
Auglaize County**403233083574500. LOCAL NUMBER, AU-3**

LOCATION.--Lat 40°32'33", long 83°57'45", Hydrologic Unit 05080001, 1.0 mi Southwest of New Hampshire.

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, Division of Water.

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 OBSERVATIONS

DATE	WATER LEVEL
Oct. 31, 1996	7.23
Apr. 30, 1997	5.49

GROUND-WATER RECORDS

Belmont County

197

400118081082200. LOCAL NUMBER, B-3

LOCATION.--Lat 40°01'18", long 81°08'22", Hydrologic Unit 05040001, Mt. Olivett Public Square, Mt. Olivett, Oh.

Owner: Village of Mt. Olivett.

AQUIFER.--Shale of Pennsylvanian Age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 119 ft.

INSTRUMENTATION.--Type F continuous recorder.

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, Division of Water.

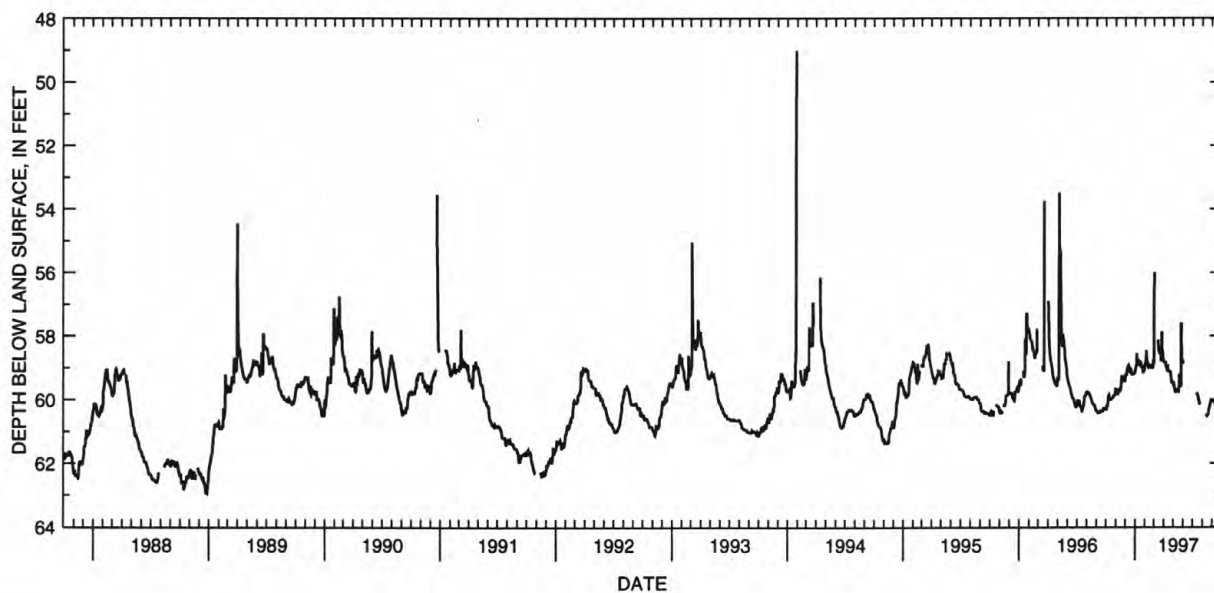
PERIOD OF RECORD.--July 19, 1984, to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 62.94 ft below land-surface datum, Dec. 26, 1988;
minimum daily low, 49.00 ft below land-surface datum, Jan. 28, 1994.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60.32	59.67	59.30	59.12	58.88	58.86	58.80	59.47	58.83	---	---	60.04
2	60.31	59.69	59.23	59.05	58.86	56.00	58.83	59.52	58.77	---	---	60.05
3	60.21	59.77	59.23	58.99	58.89	---	58.83	59.51	---	---	---	60.05
4	60.21	59.80	59.23	58.97	58.89	---	58.83	59.62	---	---	---	60.06
5	60.21	59.81	59.22	58.93	58.46	---	58.83	59.65	---	---	---	60.07
6	60.13	59.83	59.10	58.55	58.63	---	58.83	59.70	---	---	---	60.07
7	60.07	59.83	59.04	58.80	58.75	---	58.83	59.77	---	---	---	60.07
8	59.97	59.78	59.00	58.88	58.84	---	58.90	59.77	---	---	---	60.07
9	59.88	59.72	58.96	58.88	58.90	---	58.98	59.76	---	---	---	60.07
10	59.86	59.70	58.96	58.75	58.94	---	59.02	59.76	---	---	---	60.06
11	59.94	59.73	58.96	58.75	58.96	---	59.03	59.76	---	---	---	60.09
12	59.96	59.75	58.95	58.84	58.93	---	59.02	59.76	58.67	---	---	60.17
13	59.97	59.75	59.03	58.89	58.97	---	58.99	59.73	---	---	60.49	60.22
14	59.98	59.73	59.11	58.91	58.96	58.13	59.07	59.71	---	59.80	60.50	60.25
15	60.00	59.72	59.13	58.92	58.89	58.31	59.11	59.69	---	59.82	60.49	60.25
16	60.00	59.68	59.13	58.82	58.94	58.44	59.12	59.73	---	59.85	60.49	60.25
17	60.00	59.60	59.10	58.78	58.99	58.48	59.11	59.73	---	59.86	60.49	60.25
18	59.99	59.51	59.05	58.83	59.00	58.53	59.11	59.74	---	59.88	60.48	60.27
19	59.97	59.35	59.07	58.85	58.99	58.55	59.11	59.62	---	59.96	60.48	60.27
20	59.96	59.27	59.16	58.90	59.00	58.55	59.11	59.20	---	60.01	60.46	60.28
21	59.95	59.27	59.20	58.96	59.00	58.55	59.12	59.45	---	60.03	60.35	60.37
22	59.95	59.27	59.20	58.96	58.90	58.56	59.13	59.55	---	60.13	60.29	60.39
23	59.94	59.27	59.20	59.02	58.99	58.68	59.15	59.58	---	60.13	60.25	60.39
24	59.89	59.27	59.18	59.02	59.01	58.79	59.24	59.58	---	60.14	60.21	60.39
25	59.88	59.27	59.19	59.05	59.01	58.80	59.38	59.57	---	60.15	60.18	60.38
26	59.88	59.33	59.20	59.14	59.00	57.88	59.47	57.60	---	---	60.12	60.35
27	59.88	59.42	59.20	59.14	58.85	58.26	59.47	58.35	---	---	60.07	60.36
28	59.88	59.43	59.19	59.12	58.86	58.41	59.47	58.70	---	---	60.05	60.35
29	59.84	59.43	59.18	59.10	---	58.55	59.45	58.81	---	---	60.05	60.28
30	59.75	59.42	59.18	59.09	---	58.62	59.46	58.85	---	---	60.04	60.26
31	59.67	---	59.17	59.02	---	58.70	---	58.85	---	---	60.04	---
MAX	60.32	59.83	59.30	59.14	59.01	58.86	59.47	59.77	58.83	60.15	60.50	60.39

CAL YR 1996 LOW 60.42
WTR YR 1997 LOW 60.50



GROUND-WATER RECORDS

Belmont County

400118081082200. LOCAL NUMBER, B-3—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	LOCAL IDENTIFIER		DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	PUMP OR FLOW PERIOD PRIOR TO SAMPLING (MIN)	FLOW RATE (G/M)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)
JUN 12...	B-3 VILLAGE OF MT OLIVETT		970612	1630	57.70	119.00	53	2.0	880	8.5
DATE	TEMPERATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFIDE WATER, FLTRD, AS FIELD, (MG/L)	SILICA, DIS-SOLVED (MG/L AS SIO2)	NITROGEN, NITRITE DIS-SOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N)
JUN 12...	14.0	3.0	8.9	1.9	171	302	0.021	8.7	0.010	0.157
DATE	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS-SOLVED (MG/L AS N)	PHOSPHORUS DIS-SOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DIS-SOLVED (MG/L AS P)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYLLIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHROMIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)
JUN 12...	0.128	0.21	0.121	0.148	25	0.53	1.4	<5.0	<3.0	<10
DATE	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGANESE, DIS-SOLVED (UG/L AS MN)	MOLYBDENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SILVER, DIS-SOLVED (UG/L AS AG)	STRONTIUM, DIS-SOLVED (UG/L AS SR)	VANADIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
JUN 12...	29	18	11	10	<10	<10	<1.0	216	<6	<3.0

GROUND-WATER RECORDS

Brown County

199

385932083412400. LOCAL NUMBER, BR-20

LOCATION.--Lat 38°59'32", long 83°41'24", Hydrologic Unit 05090201, near Fincastle.

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.

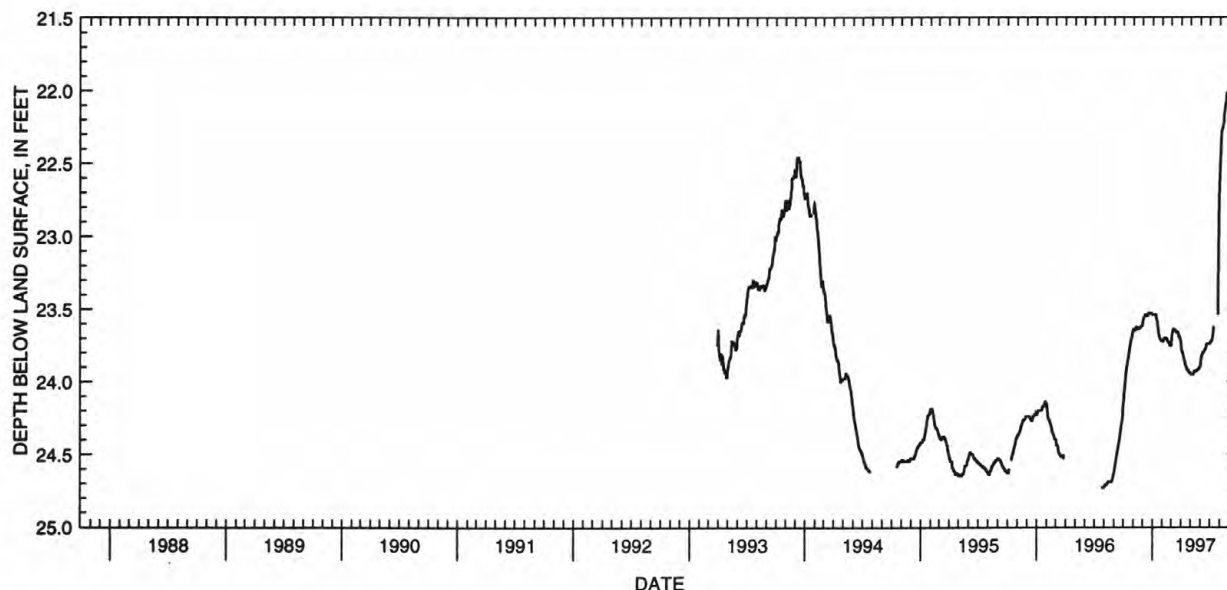
REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

PERIOD OF RECORD.--March 1993 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 24.73 ft below land-surface datum, July 24-31, 1996;
minimum daily low, 22.00 ft below land-surface datum, Aug. 29, 1997.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.14	23.64	23.60	23.54	23.72	23.75	23.74	23.94	23.89	23.74	22.56	22.03
2	24.12	23.64	23.58	23.54	23.72	23.71	23.78	23.95	23.87	23.73	22.50	22.04
3	24.08	23.64	23.57	23.54	23.73	23.69	23.79	23.95	23.85	23.73	22.44	22.04
4	24.06	23.64	23.56	23.54	23.72	23.67	23.79	23.95	23.83	23.72	22.38	22.05
5	24.04	23.64	23.56	23.54	23.71	23.66	23.80	23.95	23.83	23.72	22.32	22.06
6	24.02	23.65	23.56	23.54	23.71	23.65	23.80	23.95	23.82	23.72	22.28	22.06
7	23.99	23.65	23.55	23.54	23.70	23.64	23.81	23.95	23.81	23.72	22.27	22.06
8	23.97	23.64	23.55	23.54	23.70	23.64	23.82	23.95	23.81	23.71	22.27	22.06
9	23.94	23.64	23.54	23.54	23.70	23.64	23.83	23.95	23.80	23.70	22.26	22.06
10	23.92	23.63	23.54	23.54	23.70	23.64	23.84	23.95	23.80	23.68	22.25	22.05
11	23.90	23.62	23.54	23.54	23.70	23.64	23.85	23.94	23.80	23.66	22.24	22.04
12	23.89	23.63	23.54	23.55	23.70	23.65	23.86	23.94	23.80	23.64	22.23	22.06
13	23.88	23.63	23.54	23.57	23.70	23.65	23.86	23.93	23.79	23.62	22.22	22.07
14	23.86	23.63	23.54	23.58	23.70	23.65	23.88	23.93	23.78	---	22.19	22.09
15	23.85	23.64	23.55	23.58	23.71	23.65	23.89	23.93	23.78	---	22.16	22.10
16	23.84	23.64	23.55	23.59	23.71	23.65	23.89	23.93	23.78	---	22.13	22.11
17	23.82	23.64	23.55	23.62	23.72	23.66	23.90	23.93	23.78	---	22.11	22.11
18	23.81	23.64	23.54	23.63	23.72	23.66	23.91	23.93	23.77	---	22.10	22.13
19	23.79	23.64	23.53	23.65	23.73	23.66	23.91	23.93	23.76	---	22.09	22.14
20	23.78	23.63	23.53	23.67	23.73	23.66	23.92	23.93	23.75	---	22.08	22.14
21	23.76	23.63	23.53	23.68	23.73	23.66	23.92	23.92	23.75	---	22.04	22.17
22	23.75	23.63	23.53	23.69	23.73	23.66	23.92	23.92	23.74	---	22.02	22.18
23	23.74	23.63	23.53	23.70	23.74	23.67	23.92	23.92	23.74	---	22.02	22.20
24	23.72	23.63	23.53	23.70	23.75	23.68	23.92	23.92	23.74	---	22.03	22.21
25	23.71	23.63	23.53	23.71	23.75	23.69	23.93	23.92	23.74	---	22.03	22.21
26	23.70	23.62	23.53	23.71	23.75	23.69	23.94	23.92	23.74	23.54	22.02	22.21
27	23.70	23.62	23.53	23.71	23.75	23.69	23.94	23.91	23.74	23.25	22.02	22.22
28	23.69	23.62	23.53	23.72	23.76	23.70	23.94	23.91	23.74	23.01	22.01	22.22
29	23.67	23.62	23.53	23.72	---	23.70	23.94	23.91	23.74	22.82	22.00	22.22
30	23.66	23.61	23.54	23.72	---	23.71	23.94	23.90	23.74	22.70	22.01	22.21
31	23.65	---	23.54	23.72	---	23.72	---	23.90	---	22.62	22.01	---
MAX	24.14	23.65	23.60	23.72	23.76	23.75	23.94	23.95	23.89	23.74	22.56	22.22
CAL YR 1996	LOW 24.73											
WTR YR 1997	LOW 24.14											



GROUND-WATER RECORDS
Butler County**391805084261800. LOCAL NUMBER, BU-9**

LOCATION.--Lat 39°18'05", long 84°26'18", Hydrologic Unit 05090203, 2.5 mi northwest of Sharonville.

Owner: Olinkraft, Inc.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 8 in., depth 85 ft.

INSTRUMENTATION.--Biyearly 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, Division of Water. Prior to water year 1978, well diameter reported as 26 in.

PERIOD OF RECORD.--July 1938 to September 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 OBSERVATIONS

DATE	WATER LEVEL
Oct. 16, 1996	7.70
Apr. 22, 1997	7.80

GROUND-WATER RECORDS

201

Butler County

391904084371800. LOCAL NUMBER, BU-12

LOCATION.--Lat 39°19'04", long 84°37'18", Hydrologic Unit 05080002, Cincinnati well field 1.5 mi east of Ross.

Owner: City of Cincinnati.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled test water table well, diameter 6 in., depth 157 ft, cased.

INSTRUMENTATION.--Type F continuous recorder.

DATUM.--Elevation of land-surface datum is 547.73 ft above sea level.

Measuring point: Floor of instrument shelter 7.80 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

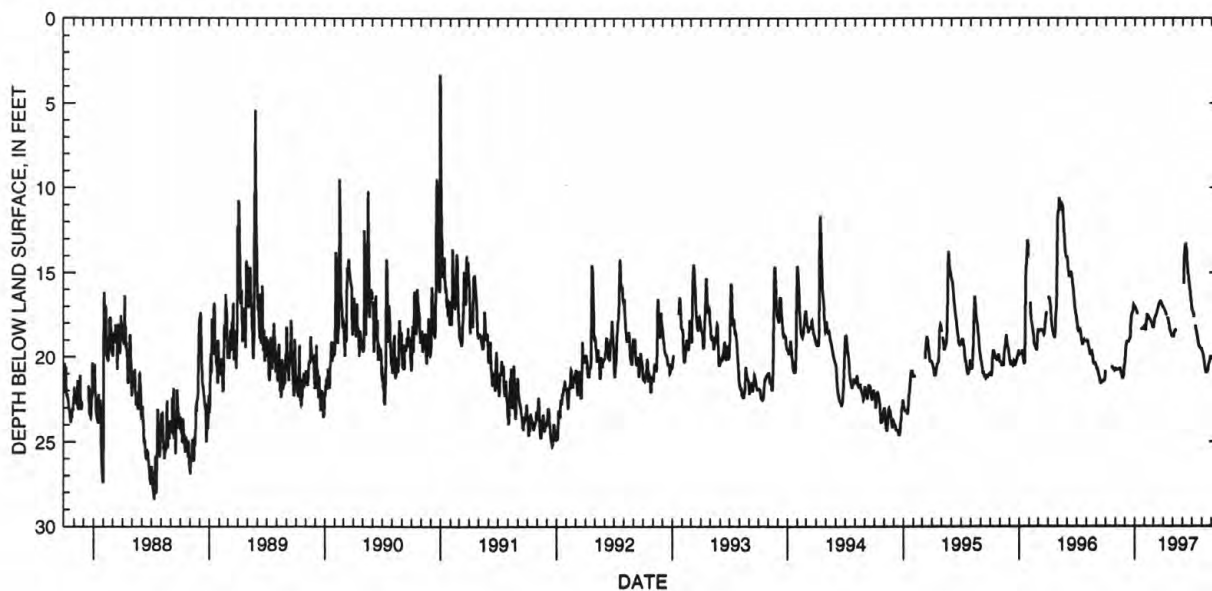
PERIOD OF RECORD.--April 1968 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 28.40 ft below land-surface datum, July 11, 1988;
minimum daily low, 2.00 ft above land surface, May 24, 25, 1968.DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	20.70	20.25	17.00	18.30	18.25	17.05	18.80	---	17.20	19.60	20.00
2	---	20.75	20.00	17.05	18.40	18.25	17.10	18.80	---	17.25	19.65	20.05
3	---	20.80	19.70	17.10	18.40	18.00	17.10	18.80	---	17.30	19.70	20.05
4	---	20.80	19.45	17.15	18.40	17.80	17.15	18.80	15.65	17.35	19.80	20.10
5	---	20.75	19.25	17.20	18.40	17.70	17.20	18.65	14.75	17.40	19.85	20.10
6	---	20.75	19.20	17.25	18.20	17.65	17.25	18.55	14.15	17.50	20.00	20.10
7	---	20.75	19.10	17.30	17.90	17.65	17.30	18.50	13.70	17.65	20.10	20.15
8	---	20.75	19.10	17.35	17.60	17.55	17.30	18.45	13.45	---	20.25	20.15
9	---	20.75	19.10	17.40	17.50	17.50	17.40	18.45	13.35	---	20.35	20.15
10	---	20.75	19.10	17.45	17.50	17.45	17.45	18.45	13.30	---	20.50	20.10
11	---	20.75	19.10	---	17.55	17.40	17.55	18.40	13.30	18.15	20.65	20.10
12	---	20.70	19.10	---	17.60	17.30	---	18.40	13.45	18.25	20.70	20.00
13	---	20.70	19.05	---	17.60	17.20	---	---	13.70	18.35	20.80	20.05
14	---	20.70	19.00	---	17.65	17.15	17.65	---	14.05	18.45	20.85	20.10
15	---	20.70	18.95	---	17.65	17.10	17.70	---	14.30	18.55	20.90	20.15
16	---	20.75	18.90	---	17.70	17.00	17.75	---	14.60	18.65	20.90	20.20
17	20.60	20.75	18.90	---	17.75	16.90	17.85	---	14.80	18.75	20.90	20.20
18	20.60	20.80	18.65	---	17.80	16.85	17.95	---	15.00	18.85	20.90	20.20
19	20.60	20.90	18.15	---	17.80	16.85	18.05	---	15.20	19.00	20.85	20.20
20	20.60	21.00	17.80	---	17.85	16.80	18.15	---	15.35	19.10	20.70	20.15
21	20.60	21.05	17.55	18.30	17.90	16.75	18.30	---	15.50	19.25	20.60	20.15
22	20.60	21.15	17.45	18.35	17.95	16.70	18.40	---	15.60	19.30	20.45	20.20
23	20.65	21.25	17.40	18.35	17.95	16.70	18.45	---	15.80	19.35	20.40	20.25
24	20.70	21.25	17.40	18.35	18.00	16.70	18.50	---	16.00	19.40	20.35	20.30
25	20.70	21.20	17.35	18.35	18.10	16.75	18.55	---	16.20	19.40	20.30	20.35
26	20.75	21.15	17.20	18.30	18.20	16.80	18.60	---	16.35	19.45	20.15	20.45
27	20.75	21.00	17.05	18.30	18.20	16.85	18.70	---	16.55	19.50	20.10	20.50
28	20.80	20.80	16.90	18.30	18.25	16.90	18.75	---	16.75	19.50	20.10	20.50
29	20.75	20.50	16.95	18.25	---	16.95	18.75	---	16.95	19.50	20.00	20.50
30	20.70	20.40	17.00	18.20	---	17.00	18.80	---	17.10	19.50	20.00	20.50
31	20.70	---	17.00	18.25	---	17.00	---	---	---	19.60	20.00	---
MAX	20.80	21.25	20.25	18.35	18.40	18.25	18.80	18.80	17.10	19.60	20.90	20.50

CAL YR 1996 LOW 21.55

WTR YR 1997 LOW 21.25



GROUND-WATER RECORDS

Butler County

391942084345700. LOCAL NUMBER, BU-18

LOCATION.--Lat 39°19'42", long 84°34'57", Hydrologic Unit 05080002, in Fairfield. 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.

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.

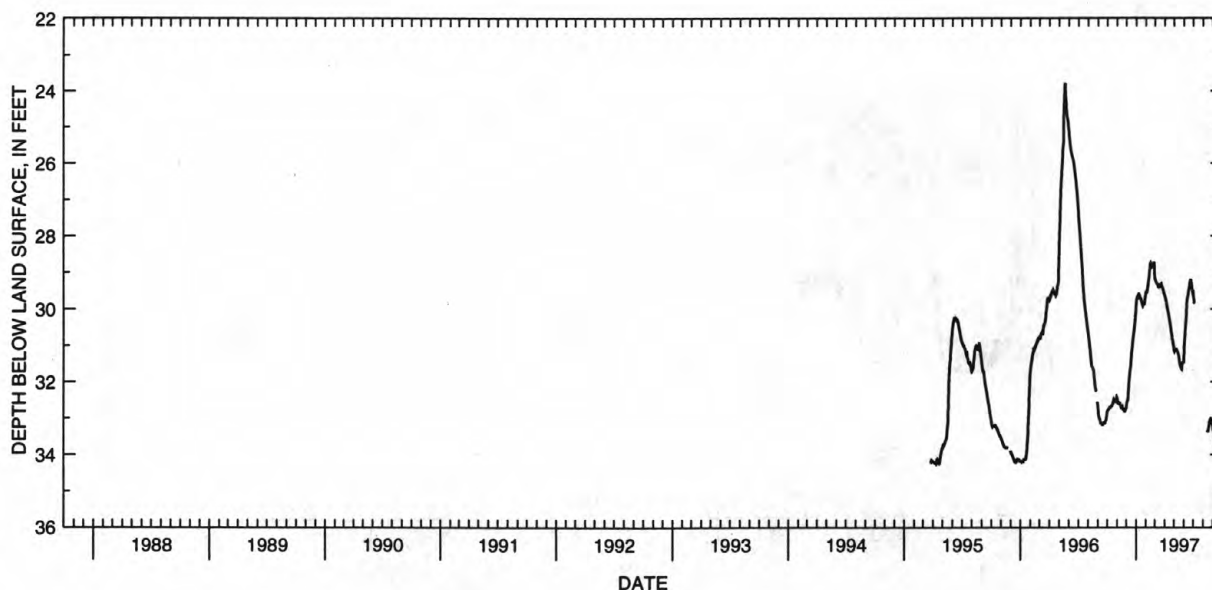
REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

PERIOD OF RECORD.--March 24, 1995, to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 34.26 ft below land-surface datum, Sept. 30, 1997;
minimum daily low, 23.79 ft below land surface, May 20, 1996.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32.81	32.43	32.65	29.83	29.53	29.19	29.64	31.14	31.39	29.61	---	33.25
2	32.79	32.47	32.57	29.73	29.52	29.19	29.67	31.17	31.01	29.70	---	33.31
3	32.78	32.61	32.55	29.69	29.55	29.22	29.70	31.14	30.91	29.77	---	33.36
4	32.76	32.56	32.54	29.68	29.54	29.25	29.74	31.09	30.78	29.85	---	33.40
5	32.75	32.57	32.50	29.66	29.46	29.27	29.76	31.09	30.62	---	---	33.45
6	32.74	32.59	32.44	29.72	29.41	29.30	29.81	31.11	30.50	---	---	33.49
7	32.73	32.58	32.26	29.69	29.33	29.31	29.87	31.11	30.38	---	---	33.54
8	32.71	32.59	32.12	29.68	29.23	29.32	29.92	31.11	30.27	---	---	33.60
9	32.71	32.59	32.00	29.57	29.19	29.32	29.97	31.14	30.08	---	---	33.65
10	32.70	32.59	31.90	29.61	29.15	29.32	30.01	31.15	29.87	---	---	33.66
11	32.70	32.62	31.75	29.63	29.07	29.39	30.05	31.15	29.75	---	---	33.66
12	32.69	32.64	31.69	29.66	28.95	29.41	30.09	31.17	29.70	---	---	33.69
13	32.68	32.68	31.64	29.71	28.86	29.41	30.15	31.20	29.67	---	33.35	33.70
14	32.66	32.70	31.57	29.72	28.76	29.39	30.20	31.23	29.63	---	33.35	33.71
15	32.66	32.73	31.47	29.71	28.74	29.40	30.25	31.27	29.57	---	33.35	33.75
16	32.64	32.73	31.33	29.74	28.77	29.39	30.30	31.30	29.49	---	33.37	33.80
17	32.63	32.73	31.22	29.77	28.76	29.34	30.35	31.35	29.47	---	33.37	33.86
18	32.61	32.71	31.13	29.81	28.78	29.34	30.39	31.42	29.42	---	33.34	33.90
19	32.57	32.74	31.02	29.85	28.83	29.35	30.45	31.51	29.37	---	33.26	33.94
20	32.53	32.76	30.93	29.90	28.82	29.33	30.51	31.54	29.27	---	33.17	33.97
21	32.50	32.77	30.84	29.92	28.74	29.31	30.56	31.56	29.23	---	33.11	34.00
22	32.48	32.78	30.77	29.89	28.77	29.37	30.62	31.58	29.21	---	33.08	34.04
23	32.50	32.79	30.71	29.86	28.83	29.39	30.68	31.60	29.19	---	33.06	34.06
24	32.52	32.79	30.64	29.82	28.83	29.40	30.75	31.63	29.25	---	33.04	34.08
25	32.55	32.81	30.55	29.87	28.75	29.42	30.82	31.65	29.32	---	33.02	34.09
26	32.56	32.81	30.48	29.87	28.72	29.44	30.86	31.58	29.39	---	33.03	34.13
27	32.56	32.77	30.39	29.86	28.89	29.47	30.90	31.49	29.47	---	33.04	34.16
28	32.54	32.74	30.29	29.77	29.08	29.50	30.96	31.47	29.50	---	33.06	34.21
29	32.51	32.74	30.17	29.67	---	29.55	31.02	31.47	29.54	---	33.10	34.25
30	32.44	32.71	30.08	29.65	---	29.58	31.07	31.47	29.53	---	33.16	34.26
31	32.41	---	29.96	29.54	---	29.62	---	31.47	---	---	33.21	---
MAX	32.81	32.81	32.65	29.92	29.55	29.62	31.07	31.65	31.39	29.85	33.37	34.26
CAL YR 1996	LOW 34.21											
WTR YR 1997	LOW 34.26											



GROUND-WATER RECORDS
Butler County

203

391942084345700. LOCAL NUMBER, BU-18—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	LOCAL IDENT- I- FIER	DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN)	FLOW RATE (G/M)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH WATER WHOLE FIELD (STAND- ARD UNITS)	
AUG 13...	BU-18 at Fairfield	970813	0905	33.00	210.00	55	15.0	859	6.9	
DATE	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFIDE WATER, FLTRD, FIELD, (MG/L)	SILICA, DIS- SOLVED (MG/L AS SIO2)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
AUG 13...	13.0	0.1	120	35	17	326	0.015	13	0.030	1.93
DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	BARIIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)
AUG 13...	0.022	<0.20	<0.010	<0.010	99	<0.50	2.6	<5.0	<3.0	<10
DATE	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
AUG 13...	230	13	6	62	<10	<10	<1.0	362	<6	<3.0

GROUND-WATER RECORDS

Butler County

392017084345200. LOCAL NUMBER, BU-7

LOCATION.--Lat 39°20'17", long 84°34'52", Hydrologic Unit 05080002, 5584 East River Road in Fairfield.

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.--Type F continuous recorder.

DATUM.--Elevation of land-surface datum is 572.54 ft above sea level.

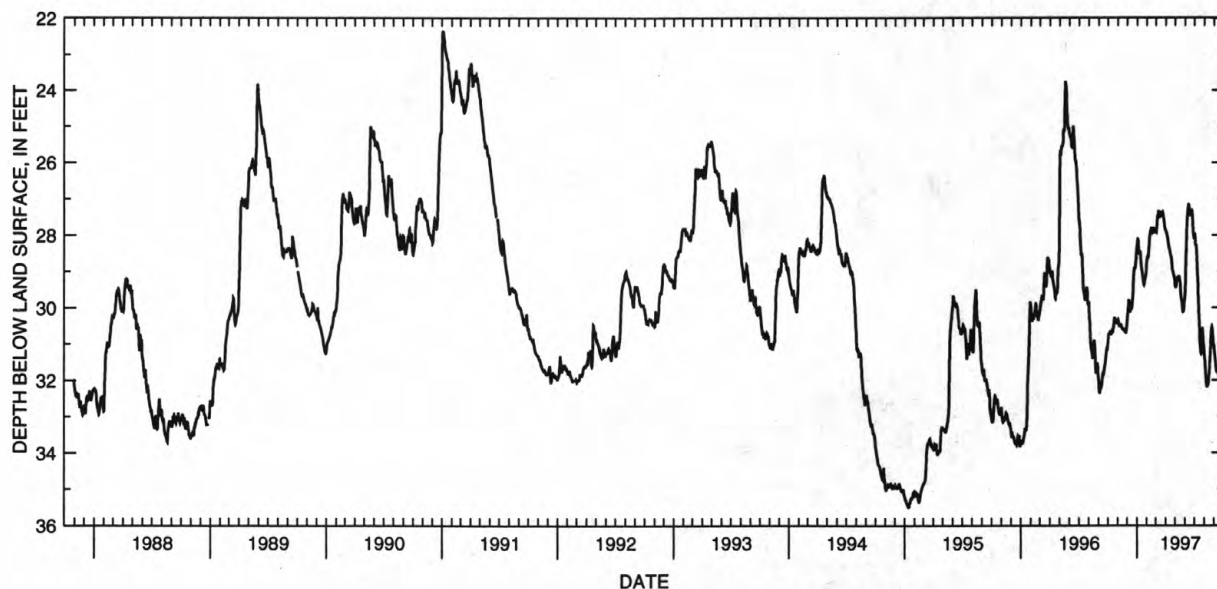
Measuring point: Floor of instrument shelter 1.93 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

PERIOD OF RECORD.--August 1943 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 35.51 ft below land-surface datum, Jan. 13-14, 1995;
minimum daily low, 11.45 ft below land-surface datum, June 6, 1947.DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30.96	30.38	30.33	28.25	28.66	27.92	27.90	29.38	29.69	28.01	31.29	31.09
2	30.81	30.36	30.23	28.12	28.62	27.93	27.90	29.44	29.51	28.00	31.40	31.21
3	30.74	30.38	30.16	28.11	28.63	27.88	27.92	29.44	29.09	28.11	31.47	31.31
4	30.74	30.45	30.04	28.12	28.63	27.75	27.97	29.43	28.62	28.26	31.61	31.36
5	30.74	30.49	29.91	28.30	28.60	27.58	28.01	29.36	28.24	28.28	31.78	31.46
6	30.73	30.52	29.79	28.44	28.51	27.48	28.03	29.27	27.93	28.28	31.93	31.55
7	30.71	30.52	29.83	28.50	28.36	27.45	28.08	29.22	27.66	28.37	32.05	31.65
8	30.69	30.50	29.90	28.50	28.23	27.44	28.14	29.18	27.50	28.56	32.15	31.72
9	30.70	30.50	29.98	28.49	28.06	27.35	28.21	29.18	27.39	28.82	32.18	31.77
10	30.71	30.49	30.00	28.43	27.97	27.35	28.27	29.17	27.27	28.98	32.18	31.77
11	30.72	30.46	30.02	28.53	27.93	27.44	28.33	29.17	27.19	29.16	32.17	31.77
12	30.73	30.51	30.07	28.61	27.89	27.50	28.35	29.16	27.13	29.37	32.15	31.77
13	30.71	30.54	30.05	28.75	27.86	27.50	28.38	29.16	27.18	29.67	32.14	31.78
14	30.67	30.57	30.04	28.85	27.83	27.50	28.43	29.16	27.25	29.93	32.09	31.78
15	30.69	30.59	30.01	28.92	27.79	27.48	28.49	29.21	27.34	30.16	31.98	31.83
16	30.68	30.61	29.94	28.98	27.85	27.45	28.54	29.27	27.42	30.35	31.87	31.89
17	30.63	30.61	29.85	29.05	27.91	27.39	28.57	29.32	27.45	30.60	31.75	31.93
18	30.59	30.59	29.75	29.12	27.93	27.35	28.59	29.50	27.45	30.89	31.60	31.96
19	30.52	30.59	29.58	29.19	27.91	27.40	28.63	29.65	27.45	31.02	31.43	32.03
20	30.44	30.62	29.33	29.23	27.93	27.41	28.73	29.74	27.40	31.14	31.19	32.07
21	30.34	30.64	29.12	29.34	27.93	27.40	28.85	29.79	27.35	31.24	30.99	32.09
22	30.28	30.65	29.00	29.37	27.86	27.38	28.94	29.84	27.29	31.27	30.81	32.13
23	30.32	30.66	28.92	29.38	27.80	27.40	28.98	29.91	27.33	31.24	30.67	32.18
24	30.35	30.66	28.92	29.35	27.87	27.47	29.02	30.02	27.47	31.03	30.57	32.20
25	30.39	30.67	28.92	29.25	27.90	27.51	29.05	30.11	27.64	30.74	30.54	32.22
26	30.43	30.70	28.90	29.16	27.90	27.58	29.09	30.12	27.85	30.56	30.58	32.24
27	30.44	30.70	28.78	29.15	27.90	27.65	29.13	30.11	27.97	30.64	30.68	32.26
28	30.43	30.64	28.68	29.15	27.90	27.75	29.14	30.05	28.05	30.81	30.76	32.32
29	30.39	30.55	28.55	29.09	---	27.80	29.21	29.94	28.07	30.97	30.88	32.40
30	30.33	30.42	28.45	28.95	---	27.84	29.26	29.83	28.06	31.04	31.01	32.47
31	30.38	---	28.37	28.80	---	27.88	---	29.75	---	31.16	31.06	---
MAX	30.96	30.70	30.33	29.38	28.66	27.93	29.26	30.12	29.69	31.27	32.18	32.47

CAL YR 1996 LOW 33.75
WTR YR 1997 LOW 32.47

GROUND-WATER RECORDS

Butler County

205

392048084311400. LOCAL NUMBER, BU-8

LOCATION.--Lat 39°20'48", long 84°31'14", Hydrologic Unit 05080002, Symmes and Gilmore Road, east of Hamilton.

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.--Type F continuous recorder.

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, Division of Water.

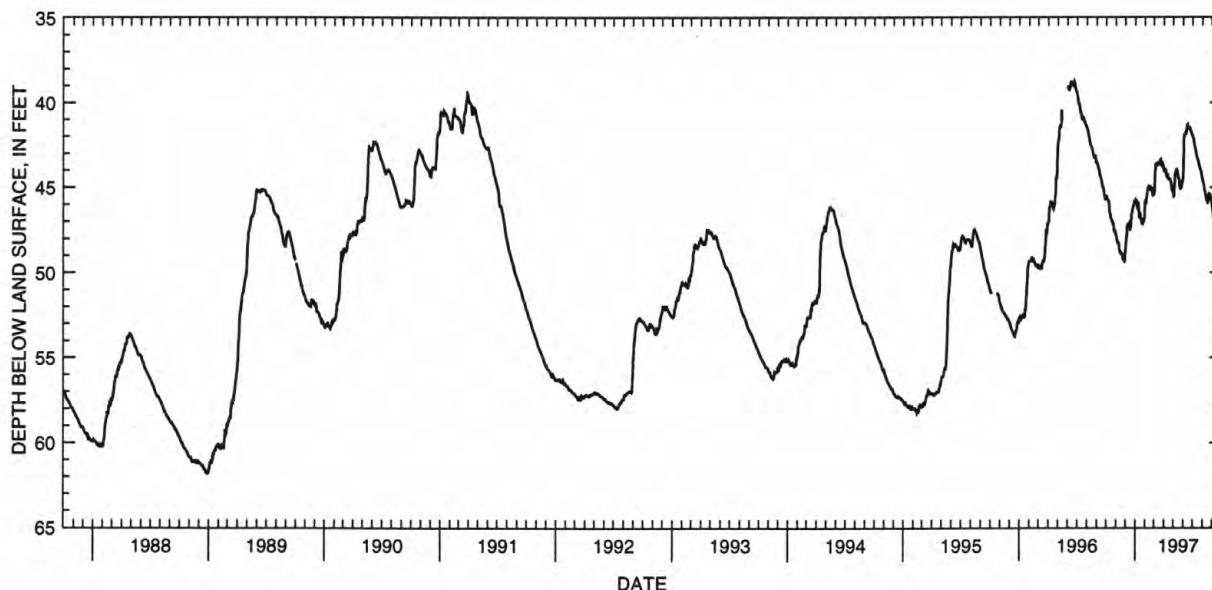
PERIOD OF RECORD.--April 1944 to current year.

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 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45.58	47.81	48.50	45.88	45.75	45.38	44.01	45.40	44.30	42.00	44.60	46.10
2	45.47	47.89	48.22	45.83	45.80	45.23	44.06	45.52	43.58	42.02	44.63	46.26
3	45.58	48.05	48.11	45.77	45.90	44.85	44.06	45.50	42.26	42.10	44.66	46.42
4	45.70	48.12	47.84	45.80	45.90	44.12	44.00	45.09	42.03	42.18	44.71	46.57
5	45.74	48.15	47.83	45.80	45.60	43.91	43.97	44.73	41.91	42.32	44.83	46.68
6	45.76	48.27	47.25	45.98	45.56	43.61	43.90	44.25	41.85	42.44	44.96	46.77
7	45.77	48.27	47.20	46.17	45.40	43.72	44.01	44.18	41.82	42.56	45.10	46.85
8	45.77	48.23	47.17	46.29	45.17	43.72	44.18	44.18	41.85	42.63	45.19	46.95
9	45.87	48.27	47.28	46.30	45.05	43.71	44.33	44.06	41.85	42.69	45.26	47.02
10	46.13	48.38	47.29	45.88	45.03	43.67	44.38	44.10	41.85	42.81	45.34	47.13
11	46.38	48.56	47.18	46.20	44.99	43.60	44.38	44.11	41.65	42.90	45.46	47.28
12	46.50	48.74	47.16	46.48	44.95	43.63	44.35	44.09	41.49	43.00	45.57	47.45
13	46.55	48.80	47.37	46.69	45.00	43.65	44.20	44.03	41.36	43.10	45.66	47.57
14	46.61	48.83	47.46	46.76	44.98	43.63	44.41	44.11	41.32	43.16	45.74	47.66
15	46.71	48.88	47.47	46.76	44.96	43.50	44.52	44.24	41.42	43.24	45.77	47.75
16	46.86	48.88	47.43	46.50	45.00	43.62	44.52	44.45	41.45	43.31	45.84	47.84
17	46.90	48.87	47.33	46.78	45.15	43.62	44.50	44.45	41.50	43.37	45.89	47.92
18	46.93	48.85	47.07	46.89	45.15	43.51	44.51	44.44	41.52	43.41	45.90	48.04
19	47.00	48.86	46.84	46.91	45.08	43.48	44.51	44.51	41.54	43.49	45.85	48.12
20	46.99	48.92	46.59	46.98	45.12	43.48	44.53	44.79	41.54	43.58	45.54	48.22
21	47.06	49.00	46.56	47.14	45.10	43.38	44.56	44.93	41.54	43.68	45.42	48.37
22	47.11	49.20	46.42	47.15	45.03	43.35	44.63	45.02	41.52	43.76	45.38	48.45
23	47.11	49.23	46.28	47.14	45.30	43.53	44.68	45.08	41.56	43.83	45.40	48.52
24	47.25	49.23	46.15	47.15	45.45	43.71	44.79	45.08	41.62	43.89	45.40	48.58
25	47.43	49.25	46.12	46.84	45.47	43.71	44.97	45.05	41.68	43.96	45.42	48.60
26	47.56	49.29	46.12	47.01	45.46	43.71	45.16	44.98	41.74	43.99	45.47	48.72
27	47.64	49.33	46.02	47.01	45.26	43.75	45.19	44.92	41.82	44.04	45.51	48.78
28	47.64	49.32	45.90	46.92	45.37	43.75	45.16	44.81	41.89	44.10	45.61	48.82
29	47.63	49.05	45.76	46.85	---	43.66	45.22	44.73	41.92	44.23	45.70	48.85
30	47.62	48.74	45.87	46.60	---	43.73	45.37	44.61	41.97	44.36	45.82	48.98
31	47.76	---	45.87	46.12	---	43.89	---	44.52	---	44.50	45.95	---
MAX	47.76	49.33	48.50	47.15	45.90	45.38	45.37	45.52	44.30	44.50	45.95	48.98

CAL YR 1996 LOW 52.77
WTR YR 1997 LOW 49.33



GROUND-WATER RECORDS

Butler County

392445084333000. LOCAL NUMBER, BU-36 (WELL 4)

LOCATION.--Lat 39°24'45", long 84°33'30", Hydrologic Unit 05080002, on right bank of Great Miami River 300 ft downstream from Two Mile Creek in Hamilton.

Owner: Champion Paper Company.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled industrial supply water-table well, diameter 30 in., depth 168 ft, cased.

PERIOD OF RECORD.--December 1965 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	CALCIUM DIS- SOLVED (MG/L) AS CA (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L) AS MG (00925)	SODIUM, DIS- SOLVED (MG/L) AS NA (00930)	POTAS- SIUM, DIS- SOLVED (MG/L) AS K (00935)	BICAR- BONATE IT-FLD AS HCO3 (99440)	ALKA- LITY, CARBON- ATE IT-FLD (MG/L - CAC03) (99430)
NOV 14...	1000	870	7.2	1.0	19.0	<10	93	29	31	3.6	339	278
APR 08...	1030	842	6.8	7.0	19.0	<10	97	28	29	3.5	326	267

DATE	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)
NOV 14...	82	55	0.30	10	494	0.010	2.30	0.020	<0.010	<1	<1
APR 08...	79	58	0.40	11	499	0.010	2.00	<0.015	0.020	--	--

DATE	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
NOV 14...	<1.0	1	13	10	<3.0	<1	<1.0	7.0	<10	<3.0	5.1
APR 08...	--	--	--	--	4.0	--	--	14	--	--	3.1

GROUND-WATER RECORDS
Butler County

207

393202084241500. LOCAL NUMBER, BU-15

LOCATION.--Lat 39°32'02", long 84°24'15", Hydrologic Unit 05080002, at Hook Field (municipal airport) at Middletown.
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, Division of Water. Water level affected by pumping wells nearby in Middletown well field.
PERIOD OF RECORD.--June 1972 to September 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 OBSERVATIONS

DATE	WATER LEVEL
Oct. 16, 1996	12.88
Apr. 22, 1997	12.38

GROUND-WATER RECORDS

Butler County

392737084291300. LOCAL NUMBER, BU-16

LOCATION.--Lat 39°27'37", long 84°29'13", Hydrologic Unit 05080002, Wayne - Madison Rd. 2 mi southwest of Trenton.
Owner: Miller Brewing Co.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled test water table well, diameter 4 in., depth 218 ft, cased.

INSTRUMENTATION.--Type F continuous recorder.

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, Division of Water. Prior to 1992 published as 392733084293000.

PERIOD OF RECORD.--May 1982 to July 1987. Reactivated April 17, 1991.

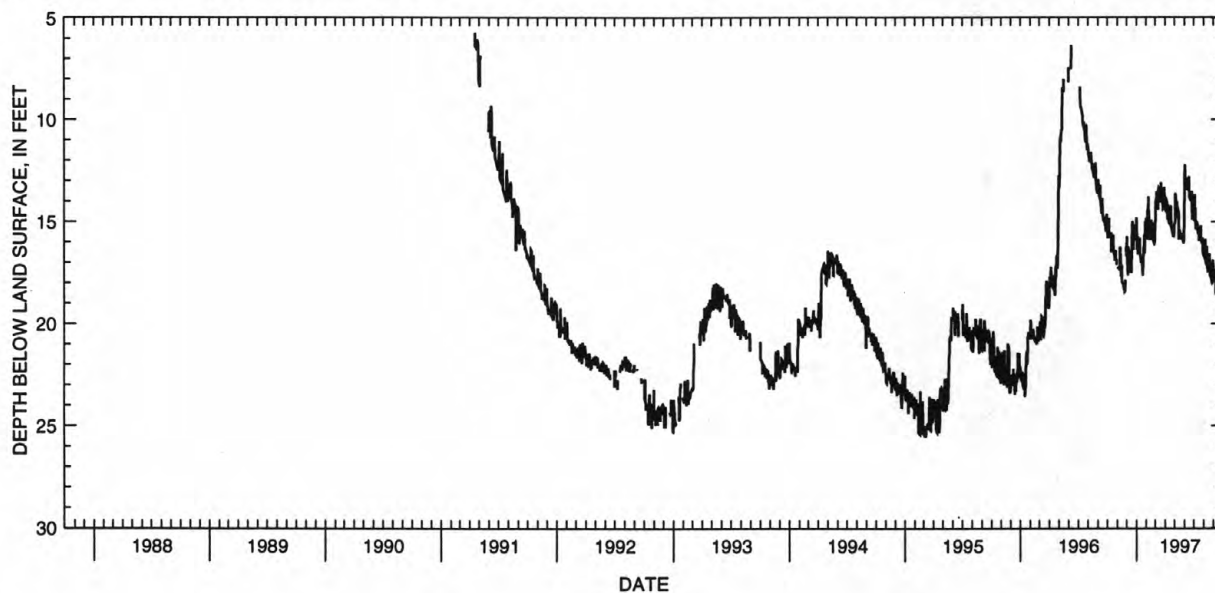
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 25.51 ft below land-surface datum, Mar. 7-8, 1995;
minimum daily low, 5.71 ft below land-surface datum, April. 17, 1991.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.25	17.07	16.60	14.80	14.83	15.43	14.40	15.10	14.68	14.45	16.63	17.17
2	15.80	---	15.72	15.53	14.88	14.90	14.43	15.08	12.73	14.90	16.67	17.85
3	15.24	---	16.75	16.32	15.79	13.98	13.84	15.06	12.21	14.90	16.42	17.90
4	15.32	17.23	17.15	16.33	15.80	13.94	13.86	13.62	12.80	13.68	16.18	17.93
5	15.30	17.27	17.62	15.73	14.70	13.98	14.50	13.78	13.00	14.95	16.17	17.41
6	14.84	17.30	16.38	16.54	14.35	13.54	13.93	14.65	13.18	14.33	15.86	17.45
7	15.64	17.18	16.23	16.54	14.48	13.63	14.03	14.74	13.33	15.08	16.87	17.45
8	15.67	17.24	16.79	16.43	13.78	13.75	14.09	14.82	13.11	15.38	16.96	17.42
9	15.77	17.25	17.35	16.46	14.70	14.33	14.90	14.00	13.30	14.98	17.06	18.52
10	15.69	16.85	17.41	16.46	14.71	14.40	14.84	14.29	13.45	15.00	17.07	18.57
11	15.74	16.25	17.49	15.82	15.01	13.50	14.20	14.36	13.34	15.05	16.21	17.70
12	15.76	16.95	17.45	16.58	15.17	13.38	14.29	14.39	13.30	15.13	16.26	17.80
13	15.52	17.67	17.43	16.66	15.80	13.43	15.00	14.49	12.88	15.14	17.24	17.81
14	16.48	17.61	16.52	16.67	15.89	13.43	15.04	14.51	13.00	15.53	17.30	17.81
15	16.17	17.68	16.53	16.93	15.27	13.70	15.07	15.87	13.00	15.60	17.42	18.42
16	16.20	17.13	17.51	17.00	15.44	13.54	14.46	15.45	12.80	15.48	17.41	18.58
17	16.09	17.95	17.01	16.95	14.92	13.87	14.50	15.47	13.80	15.49	17.09	18.63
18	16.10	18.03	15.62	16.89	15.82	14.00	14.27	15.47	13.84	15.94	17.11	18.69
19	15.64	18.04	14.98	17.13	15.68	14.00	14.26	15.59	13.77	15.63	17.11	18.10
20	16.15	18.00	15.15	17.15	15.08	13.09	14.27	15.67	13.87	15.67	16.56	18.82
21	16.45	18.21	15.47	17.64	15.10	13.85	15.26	15.76	13.94	15.68	17.58	17.89
22	16.53	18.28	16.36	17.39	15.15	13.90	15.32	15.83	13.95	15.57	17.65	18.83
23	16.58	18.31	16.00	16.88	15.79	13.98	15.40	15.67	13.96	15.20	17.65	18.91
24	16.69	18.35	15.89	16.41	15.76	14.08	15.47	15.88	13.53	15.91	17.68	18.96
25	16.82	18.44	15.35	16.44	15.98	14.12	15.54	15.70	13.58	15.92	17.78	19.30
26	16.81	18.43	15.90	15.64	16.02	14.35	15.59	15.58	14.89	15.96	17.85	19.40
27	16.40	17.85	15.27	16.52	16.08	14.32	15.61	15.80	14.42	16.04	17.91	19.40
28	16.86	---	15.30	16.30	16.07	14.31	15.75	15.92	14.45	16.07	18.02	18.89
29	16.88	16.25	15.36	15.15	---	14.09	15.70	15.92	14.50	15.80	18.01	19.24
30	16.89	16.67	15.68	15.18	---	13.32	15.50	16.05	14.50	16.47	17.17	19.25
31	17.07	---	15.47	15.19	---	14.32	---	15.37	---	16.57	16.88	---
MAX	17.07	18.44	17.62	17.64	16.08	15.43	15.75	16.05	14.89	16.57	18.02	19.40

CAL YR 1996 LOW 23.58

WTR YR 1997 LOW 19.40



GROUND-WATER RECORDS
Butler County

209

392737084291300. LOCAL NUMBER, BU-16—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	LOCAL IDENTIFIER		DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	PUMP OR FLOW PERIOD PRIOR TO SAMPLING (MIN)	FLOW RATE (G/M)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)
JUL 16...	BU-16 MILLER BREWING CO NR		970716	1342	15.44	218.00	42	10.0	690	7.2
DATE	TEMPERATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFIDE WATER, FLTRD, FIELD, (MG/L)	SILICA, DIS-SOLVED (MG/L AS SIO2)	NITROGEN, NITRITE DIS-SOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N)
JUL 16...	15.0	0.3	87	34	10	304	0.021	14	<0.010	<0.050
DATE	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS DIS-SOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DIS-SOLVED (MG/L AS P)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYLLIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHROMIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)
JUL 16...	0.032	<0.20	<0.010	<0.010	264	<0.50	<1.0	<5.0	8.5	<10
DATE	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGANESE, DIS-SOLVED (UG/L AS MN)	MOLYBDENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SILVER, DIS-SOLVED (UG/L AS AG)	STRONTIUM, DIS-SOLVED (UG/L AS SR)	VANADIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
JUL 16...	2300	<10	<4	112	16	<10	<1.0	132	<6	3.9

GROUND-WATER RECORDS

Butler County

392743084295500. LOCAL NUMBER, BU-17

LOCATION.--Lat 39°27'43", long 84°29'55", Hydrologic Unit 05080002, southwest of Trenton.

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.--Type F continuous recorder.

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.

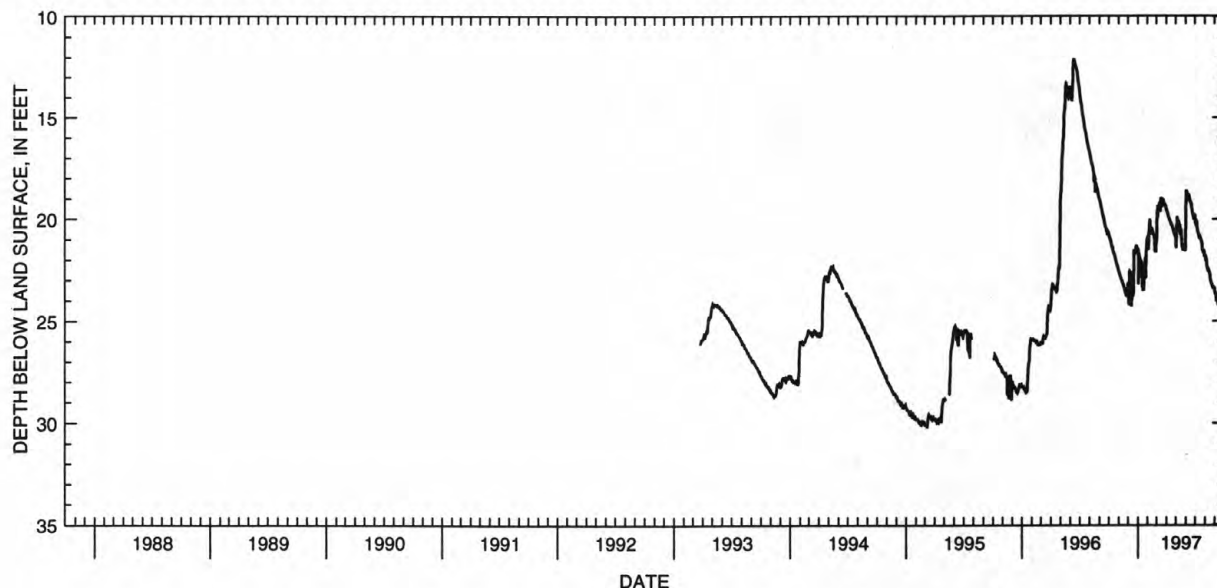
REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water. Prior to 1992 published as 392733084293000.

PERIOD OF RECORD.--March 1993 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 30.16 ft below land-surface datum, Mar. 8, 1995;
minimum daily low, 12.06 ft below land-surface datum, June 12, 1996.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.75	22.55	23.12	21.46	20.93	21.18	19.50	20.91	21.03	19.82	21.75	23.38
2	20.82	22.58	23.20	21.53	21.03	20.92	19.55	21.41	19.50	20.19	21.78	23.63
3	20.88	22.64	23.77	23.17	21.10	20.08	19.60	20.89	18.59	20.24	21.80	23.68
4	20.95	22.70	24.20	21.67	21.50	19.58	19.65	20.26	18.74	20.17	22.05	23.60
5	20.95	22.76	22.55	21.74	20.85	19.92	19.68	20.36	18.62	20.08	21.90	23.65
6	21.00	22.79	22.95	22.78	20.58	19.45	19.74	19.89	18.85	20.10	21.98	24.02
7	21.07	22.83	22.57	21.88	20.41	19.47	19.82	20.46	18.95	20.20	22.26	23.73
8	21.12	22.89	22.60	21.90	20.00	19.54	19.89	20.48	19.00	20.50	22.34	23.75
9	21.21	22.92	23.22	22.85	20.09	19.55	19.92	20.42	19.01	20.57	22.42	23.99
10	21.29	22.98	23.87	22.60	20.51	19.48	19.98	20.11	18.95	20.63	22.45	24.02
11	21.36	22.95	24.27	22.01	20.55	19.24	20.00	20.14	18.77	20.67	22.51	24.09
12	21.38	23.06	23.40	22.08	20.65	19.22	20.05	20.50	18.84	20.75	22.57	24.20
13	21.38	23.07	23.95	22.13	20.73	19.52	20.08	20.55	18.98	20.78	22.48	24.02
14	21.52	23.15	22.79	22.16	20.45	19.64	20.13	20.28	19.07	20.87	22.51	24.00
15	21.58	23.20	23.77	23.35	20.46	19.10	20.17	20.69	19.13	20.94	22.62	24.08
16	21.63	23.22	22.83	22.80	20.54	18.95	20.23	20.77	19.13	20.78	22.65	24.13
17	21.68	23.29	23.77	23.50	20.60	18.98	20.27	20.49	19.20	20.84	22.67	24.73
18	21.73	23.36	23.64	22.35	20.64	19.34	20.27	20.52	19.25	20.94	22.95	24.80
19	21.77	23.37	22.40	22.39	20.73	19.03	20.31	20.90	19.24	20.97	23.00	24.85
20	21.80	23.43	21.57	23.50	20.75	19.40	20.34	21.03	19.28	21.02	23.03	24.89
21	21.88	23.51	21.58	22.97	20.80	19.25	20.38	21.33	19.54	21.06	23.10	24.92
22	21.94	23.58	21.65	22.47	20.88	19.03	20.46	21.42	19.60	21.15	23.17	24.97
23	22.01	23.62	21.66	22.93	20.93	19.12	20.50	21.27	19.70	21.20	23.19	25.01
24	22.09	23.66	21.55	22.15	21.32	19.15	20.57	21.53	19.77	21.48	23.21	25.07
25	22.17	23.74	21.53	21.93	21.53	19.22	20.65	21.29	19.80	21.51	23.29	25.14
26	22.20	23.74	21.36	21.87	21.52	19.27	20.69	21.33	19.93	21.55	23.37	25.22
27	22.21	23.54	21.32	22.88	21.63	19.29	20.71	21.35	19.93	21.60	23.41	25.23
28	22.28	23.36	21.33	21.85	21.19	19.32	20.75	21.42	20.01	21.67	23.28	25.25
29	22.32	23.81	21.42	21.40	---	19.31	20.83	21.47	19.85	21.51	23.32	25.32
30	22.42	23.17	21.45	21.08	---	19.35	20.85	21.52	19.81	21.59	23.34	25.38
31	22.51	---	21.47	20.98	---	19.43	---	21.52	---	21.85	23.35	---
MAX	22.51	23.81	24.27	23.50	21.63	21.18	20.85	21.53	21.03	21.85	23.41	25.38
CAL YR 1996	LOW 28.50											
WTR YR 1997	LOW 25.38											



GROUND-WATER RECORDS

Butler County

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392743084295500. LOCAL NUMBER, BU-17—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	LOCAL IDENTIFIER		DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	PUMP OR FLOW PERIOD PRIOR TO SAMPLING (MIN)	FLOW RATE (G/M)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)
AUG 13...	BU-17 NR. TRENTON		970813	1330	22.08	212.00	100	15.0	619	7.1
DATE	TEMPERATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFIDE WATER, FLTRD, FIELD, (MG/L)	SILICA, DIS-SOLVED (MG/L AS SIO2)	NITROGEN, NITRITE DIS-SOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N)
AUG 13...	12.5	0.1	82	30	6.7	340	0.009	16	<0.010	<0.050
DATE	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS DIS-SOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DIS-SOLVED (MG/L AS P)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYLLIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHROMIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)
AUG 13...	0.102	0.25	<0.010	<0.010	287	<0.50	<1.0	<5.0	<3.0	<10
DATE	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGANESE, DIS-SOLVED (UG/L AS MN)	MOLYBDENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SILVER, DIS-SOLVED (UG/L AS AG)	STRONTIUM, DIS-SOLVED (UG/L AS SR)	VANADIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
AUG 13...	300	19	5	347	<10	<10	<1.0	539	<6	<3.0

GROUND-WATER RECORDS

Butler County

392939084231700. LOCAL NUMBER, BU-3

LOCATION.--Lat 39°29'39", long 84°23'17", Hydrologic Unit 05080002, Armco Steel Corp., Rt. 122 in Middletown.

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, Division of Water.

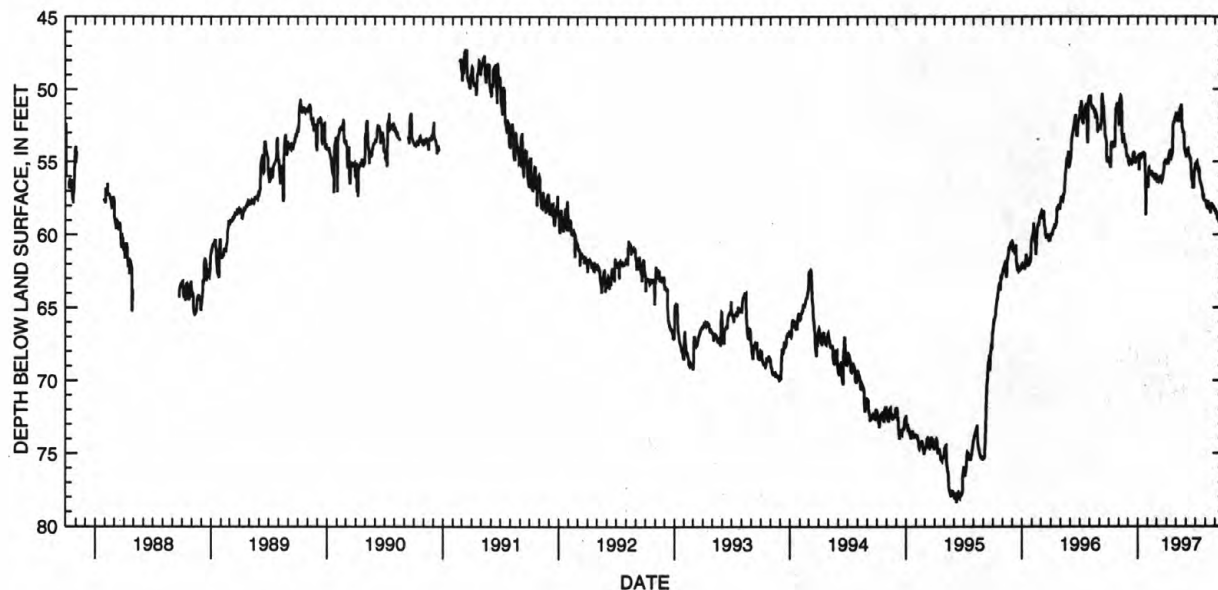
PERIOD OF RECORD.--July 1938 to current year.

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 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54.96	52.02	54.79	54.74	56.59	55.90	55.11	51.82	54.38	55.14	57.62	58.42
2	55.01	52.51	54.92	54.75	56.71	56.41	55.17	51.82	54.67	55.33	57.70	58.24
3	55.04	50.97	55.06	54.58	56.74	56.21	55.00	51.71	54.24	55.09	57.74	58.51
4	55.20	50.71	55.12	54.56	55.46	56.27	54.97	51.69	54.20	55.08	57.89	58.58
5	55.04	50.62	55.01	55.58	55.43	56.28	54.90	51.86	54.19	55.07	58.03	58.38
6	55.39	50.59	55.04	54.97	55.59	56.37	54.95	52.16	54.20	55.02	58.12	58.53
7	54.97	50.43	54.93	54.82	55.66	56.39	54.98	52.15	54.18	55.13	58.15	58.60
8	53.82	50.44	55.03	54.77	55.77	56.33	54.60	52.05	54.13	55.21	58.16	58.89
9	53.62	50.70	55.09	54.43	55.79	56.30	54.52	52.12	54.47	55.35	57.65	58.89
10	53.72	50.91	54.91	54.56	55.74	56.18	54.40	52.14	54.54	55.54	57.93	58.80
11	53.81	52.85	54.89	54.72	55.63	56.12	54.28	52.06	54.60	55.64	57.95	58.79
12	53.69	53.40	55.07	54.73	55.78	56.17	54.26	51.84	54.51	55.55	57.94	59.01
13	53.63	53.58	55.13	54.70	55.75	56.12	54.39	51.35	54.65	55.54	58.02	59.07
14	54.04	53.71	55.09	54.61	55.65	56.24	54.89	51.27	54.81	56.16	58.14	59.01
15	53.87	53.42	55.08	54.41	55.81	56.29	54.79	51.27	54.84	56.26	58.10	59.06
16	53.81	53.12	55.01	54.49	55.95	56.31	54.55	51.30	54.73	56.35	58.30	59.15
17	53.76	53.08	54.47	54.47	55.94	56.33	54.53	51.04	55.16	56.43	58.37	59.01
18	53.85	53.41	54.39	54.38	55.93	56.24	54.54	51.22	55.72	56.47	58.52	59.05
19	53.92	53.49	54.37	54.38	55.99	56.21	54.35	52.24	56.24	56.58	58.04	59.12
20	53.92	53.54	54.43	54.66	55.96	56.08	54.34	52.55	55.90	56.70	57.83	59.22
21	52.43	53.88	54.36	54.68	55.79	55.94	52.84	52.76	55.96	56.73	57.94	59.34
22	51.79	54.06	54.81	54.38	56.15	55.73	52.46	52.76	56.78	56.86	58.03	59.33
23	51.31	53.79	55.02	54.57	56.17	55.63	52.31	53.01	56.76	57.06	58.04	59.35
24	51.26	53.90	55.06	55.49	56.17	55.61	52.23	52.94	56.49	57.26	58.01	59.38
25	51.17	53.96	55.05	56.20	55.93	55.02	52.35	52.97	56.81	57.22	58.10	59.33
26	51.06	54.58	54.89	58.64	55.81	55.11	52.18	53.17	56.64	57.24	58.10	59.59
27	50.97	54.67	54.85	57.13	56.06	55.03	51.96	54.02	55.73	57.59	58.05	59.57
28	50.94	54.60	54.69	56.61	56.08	54.92	51.92	54.14	55.54	57.63	58.08	59.62
29	51.52	54.63	54.84	56.55	---	54.90	51.94	54.20	55.43	57.63	58.14	60.90
30	51.56	54.52	54.84	56.49	---	54.91	51.79	54.37	55.56	57.64	58.35	61.42
31	51.07	---	54.76	56.42	---	54.91	---	54.34	---	57.62	58.21	---
MAX	55.39	54.67	55.13	58.64	56.74	56.41	55.17	54.37	56.81	57.64	58.52	61.42

CAL YR 1996 LOW 62.36

WTR YR 1997 LOW 61.42



GROUND-WATER RECORDS Butler County

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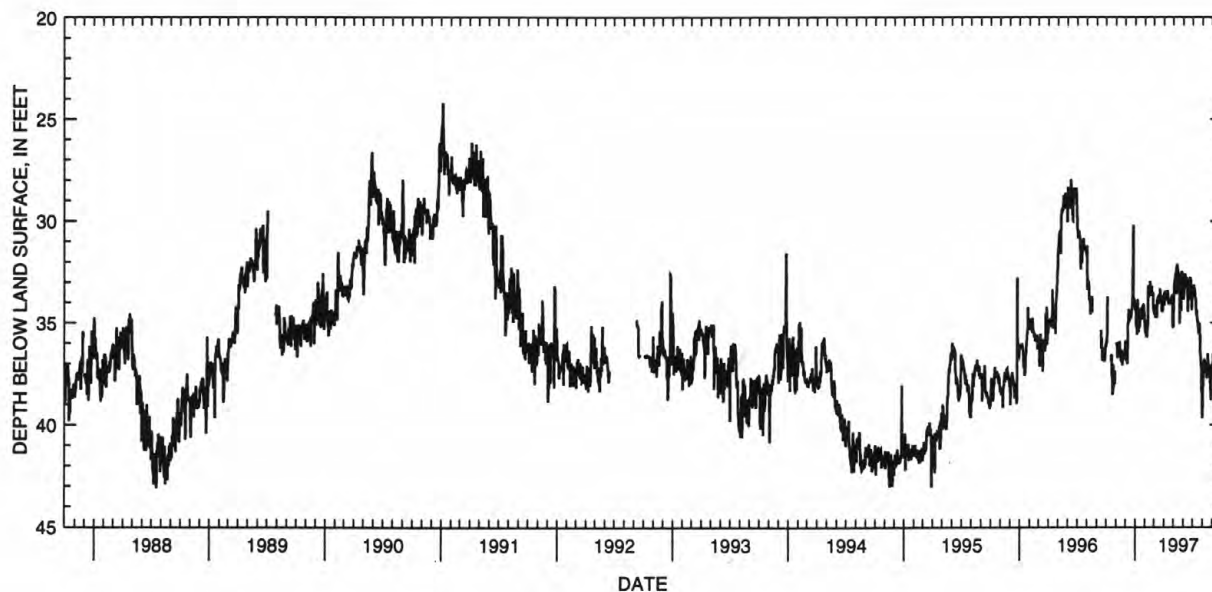
393103084240900. LOCAL NUMBER, BU-2

LOCATION.--Lat 39°31'03", long 84°24'09", Hydrologic Unit 05080002, in basement of YMCA in Middletown.
 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, Division of Water.
 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 1996 TO SEPTEMBER 1997 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36.14	---	35.88	34.04	35.35	34.34	33.65	35.21	32.60	33.77	39.67	37.42
2	35.93	---	36.50	34.41	35.51	34.59	33.68	34.28	33.66	33.33	38.16	37.39
3	35.97	---	36.84	35.16	34.90	34.41	34.11	33.20	33.84	33.48	38.11	36.52
4	35.63	35.97	36.80	34.84	35.67	34.51	33.55	33.06	33.48	33.48	37.88	36.74
5	34.03	36.48	36.60	35.00	35.55	34.60	33.57	32.97	33.04	33.14	37.34	36.82
6	33.71	36.72	36.77	35.21	35.61	34.75	33.90	32.98	33.26	33.37	36.86	36.64
7	---	36.32	37.00	35.57	35.63	34.59	33.42	32.70	32.60	33.30	36.79	37.60
8	---	36.07	35.98	34.79	35.13	34.27	33.47	32.51	32.69	33.49	36.85	38.08
9	---	36.06	35.00	33.84	34.94	34.11	33.85	32.57	33.03	33.60	37.14	38.29
10	---	36.14	34.99	35.06	35.17	34.74	33.85	32.45	32.91	33.79	37.11	38.12
11	---	36.64	34.32	35.45	33.17	33.88	33.82	32.24	33.00	33.84	37.18	38.09
12	---	36.03	34.86	35.02	33.41	33.82	33.59	33.57	32.77	34.56	37.47	38.20
13	---	35.91	34.87	35.12	33.72	33.91	33.40	32.11	33.15	34.56	37.25	38.29
14	---	36.38	34.38	34.95	33.59	33.94	33.58	32.53	33.39	34.39	37.39	38.43
15	---	36.55	34.81	35.22	33.21	33.82	33.92	32.34	34.31	34.70	37.72	38.51
16	36.56	36.87	34.56	34.90	33.30	33.73	34.09	32.89	34.45	34.91	37.19	38.45
17	36.89	36.41	34.68	34.67	32.95	33.60	33.91	32.90	33.26	34.91	37.18	38.51
18	36.59	36.40	34.80	34.59	33.27	33.95	33.94	32.56	33.89	35.19	36.51	38.83
19	37.52	36.95	34.59	34.29	33.47	33.92	33.90	32.72	33.51	35.04	37.05	38.89
20	37.70	36.90	34.51	34.58	33.66	33.32	34.08	32.63	33.25	35.56	37.02	39.24
21	38.50	36.85	34.29	34.84	33.27	33.65	34.02	35.04	32.94	35.15	37.24	39.31
22	38.43	37.09	34.15	34.78	33.26	33.66	33.92	33.41	32.75	35.02	37.56	39.21
23	37.05	36.69	34.02	34.19	33.50	33.70	34.01	33.85	33.30	35.21	37.49	39.44
24	38.15	36.40	32.23	34.41	33.54	33.74	33.73	34.24	32.79	35.39	37.51	39.30
25	38.08	36.56	30.20	34.14	33.66	34.42	33.73	34.41	32.97	36.50	37.86	37.94
26	37.57	36.39	33.80	34.13	33.51	34.30	33.84	32.88	33.18	36.69	38.17	38.44
27	37.74	36.73	33.82	34.22	34.46	34.46	33.62	32.51	34.10	36.84	38.53	39.15
28	37.99	36.61	34.07	34.10	34.08	34.38	33.95	32.51	34.35	37.14	38.78	39.12
29	37.37	36.37	33.81	34.73	---	34.33	35.24	32.86	34.06	38.39	37.31	39.44
30	---	36.01	34.06	34.45	---	33.85	35.11	32.86	33.58	36.98	37.04	39.51
31	---	---	34.35	35.17	---	33.71	---	32.88	---	39.52	37.32	---
MAX	38.50	37.09	37.00	35.57	35.67	34.75	35.24	35.21	34.45	39.52	39.67	39.51

CAL YR 1996 LOW 38.50
 WTR YR 1997 LOW 39.67



GROUND-WATER RECORDS

Carroll County

403709081052800. LOCAL NUMBER, C-1

LOCATION.--Lat 40°37'09", long 81°05'28", Hydrologic Unit 05040001, Carrollton well field, State Route 171, 3 mi north of Carrollton.

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 1050 ft above sea level, from topographic map.

Measuring point: Top of platform 3.0 ft above land-surface datum.

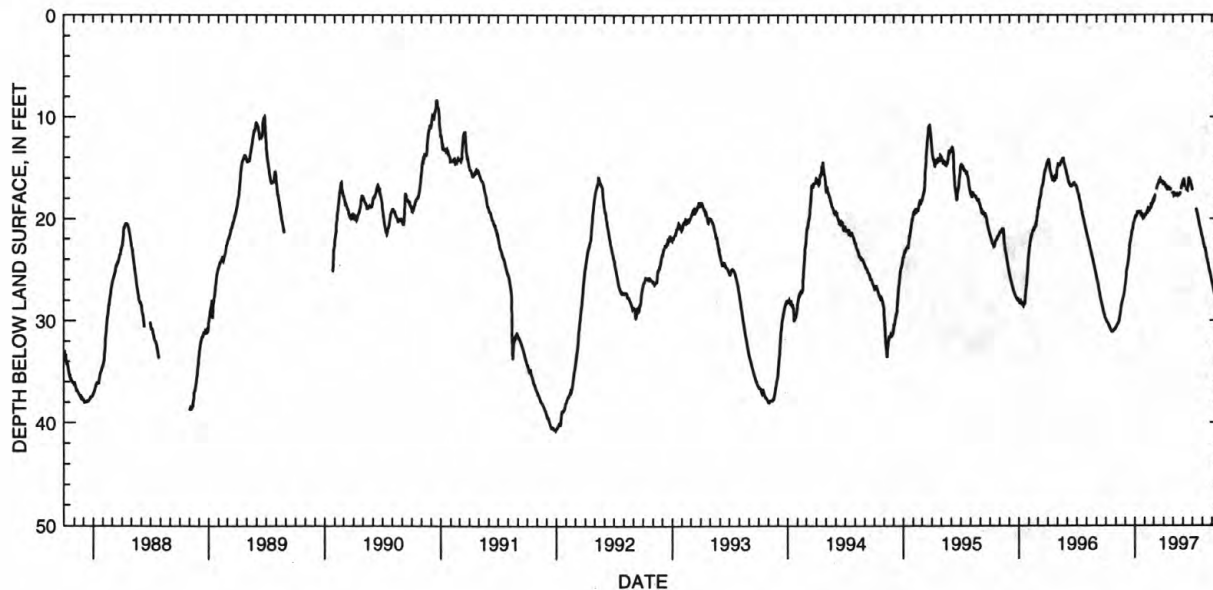
REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

PERIOD OF RECORD.--August 1951 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 40.76 ft below land-surface datum, Dec. 30, 1991;
minimum daily low, 7.20 ft below land-surface datum, Jan. 10, 1971.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29.84	30.68	26.53	20.06	19.78	18.16	16.60	---	16.34	17.15	21.82	26.32
2	29.98	30.66	26.45	19.85	19.70	18.28	16.57	17.67	16.32	17.22	21.97	26.43
3	30.07	30.64	26.13	19.84	19.77	18.11	16.50	17.38	16.29	---	22.11	26.59
4	30.11	30.57	25.85	19.75	19.55	17.92	16.57	17.77	16.16	---	22.30	26.73
5	30.16	30.47	25.48	19.74	19.66	17.73	16.57	17.71	16.08	---	22.46	26.83
6	30.20	30.42	25.15	19.75	19.54	17.69	16.69	17.78	16.35	---	22.60	26.98
7	30.22	30.33	24.95	19.63	19.40	17.67	16.80	17.78	16.94	---	22.72	27.14
8	30.27	30.35	24.75	19.57	19.35	---	16.92	17.61	---	---	22.86	27.29
9	30.38	30.27	24.70	19.27	19.32	---	16.95	17.67	---	---	22.89	27.38
10	30.46	30.21	24.44	19.38	19.17	17.16	16.99	17.69	---	---	22.92	27.57
11	30.53	30.11	24.15	19.43	19.10	16.95	17.00	17.64	17.21	---	23.09	27.74
12	30.57	29.97	24.03	19.41	19.26	16.87	16.93	17.59	17.13	---	23.20	27.89
13	30.64	29.76	23.75	19.41	19.15	16.75	17.21	17.59	17.15	19.01	23.42	28.00
14	30.78	29.53	23.38	19.37	18.95	16.64	17.09	17.56	17.19	19.15	23.55	28.11
15	30.80	29.41	23.03	19.24	19.09	16.66	17.09	17.66	17.12	19.32	23.76	28.22
16	30.87	29.14	22.54	19.43	19.14	16.58	16.94	17.71	16.95	19.45	23.97	28.32
17	30.92	28.93	22.37	19.43	19.06	16.34	16.94	17.68	16.98	19.59	24.07	28.53
18	31.03	28.70	22.27	19.43	18.89	16.35	16.95	17.65	16.79	19.77	24.26	28.63
19	31.03	28.50	21.97	19.39	19.05	16.20	17.05	17.71	16.04	19.97	24.36	28.72
20	31.10	28.36	21.87	19.66	18.96	16.17	17.05	17.74	15.97	20.08	24.52	28.99
21	31.10	28.22	21.72	19.64	18.50	16.09	17.04	17.68	16.05	20.26	24.71	29.05
22	31.05	28.13	21.34	19.60	18.87	16.31	17.13	17.60	16.20	20.40	24.90	29.12
23	31.05	27.93	21.17	19.81	18.73	16.47	17.13	17.55	16.27	20.55	25.02	29.30
24	31.06	27.83	21.14	19.64	18.61	16.47	17.23	17.41	16.26	20.75	25.12	29.36
25	31.04	27.65	21.08	19.91	18.41	16.27	---	---	16.34	20.85	25.28	29.52
26	31.01	27.63	20.85	19.90	18.30	16.39	---	17.12	16.46	20.96	25.44	29.70
27	30.93	27.58	20.62	19.73	18.48	16.35	---	16.93	16.60	21.15	25.53	29.72
28	30.89	27.28	20.42	19.95	18.40	16.28	17.45	16.82	16.74	21.34	25.72	29.79
29	30.82	27.05	20.34	19.88	---	16.49	17.49	16.67	16.86	21.50	25.87	29.92
30	30.82	26.80	20.33	19.63	---	16.42	17.46	16.58	16.97	21.60	25.98	30.14
31	30.81	---	20.21	19.55	---	16.56	---	16.42	---	21.72	26.19	---
MAX	31.10	30.68	26.53	20.06	19.78	18.28	17.49	17.78	17.21	21.72	26.19	30.14
CAL YR 1996	LOW 31.10											
WTR YR 1997	LOW 31.10											



GROUND-WATER RECORDS

Carroll County

215

403709081052800. LOCAL NUMBER, C-1—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	LOCAL IDENTIFIER		DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	PUMP OR FLOW PERIOD PRIOR TO SAMPLING (MIN)	FLOW RATE (G/M)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)
JUL 30...	C-1 MUNICIPAL WELL FIELD C		970730	1230	24.56	60.00	55	9.0	510	6.9
DATE	TEMPERATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFIDE WATER, FLTRD, FIELD, (MG/L)	SILICA, DIS-SOLVED (MG/L AS SIO2)	NITROGEN, NITRITE DIS-SOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N)
JUL 30...	12.0	0.3	50	17	25	176	0.002	12	<0.010	<0.050
DATE	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS DIS-SOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DIS-SOLVED (MG/L AS P)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYLLIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHROMIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)
JUL 30...	0.150	<0.20	<0.010	<0.010	302	<0.50	<1.0	<5.0	<3.0	<10
DATE	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGANESE, DIS-SOLVED (UG/L AS MN)	MOLYBDENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SILVER, DIS-SOLVED (UG/L AS AG)	STRONTIUM, DIS-SOLVED (UG/L AS SR)	VANADIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
JUL 30...	1400	<10	11	311	<10	<10	<1.0	307	<6	6.7

GROUND-WATER RECORDS

Champaign County

400638083453900. LOCAL NUMBER, CH-3

LOCATION.--Lat 40°06'38", long 83°45'39", Hydrologic Unit 05080001, in Urbana.

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 1030 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, Division of Water.

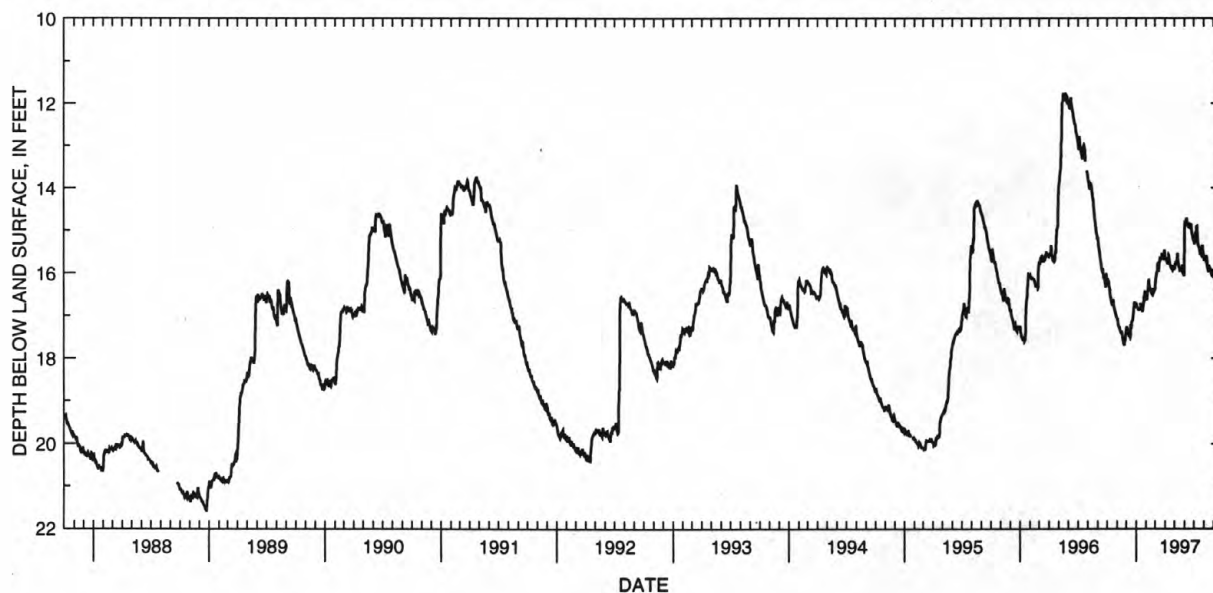
PERIOD OF RECORD.--May 1957 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 24.80 ft below land-surface datum, Feb. 26-29, Mar. 13, 1964;
minimum daily low, 11.76 ft below land-surface datum, May 20, 1996.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.13	17.07	17.33	16.78	16.59	16.39	15.61	15.85	15.85	15.24	15.60	15.92
2	16.14	17.08	17.26	16.76	16.60	16.23	15.63	15.91	14.96	15.26	15.67	15.97
3	16.16	17.08	17.28	16.79	16.62	16.18	15.66	15.77	14.83	15.30	15.66	16.09
4	16.18	17.19	17.31	16.81	16.62	16.11	15.69	15.80	14.84	15.30	15.66	16.11
5	16.19	17.22	17.36	16.81	16.46	16.06	15.69	15.80	14.87	15.10	15.60	16.16
6	16.22	17.25	17.34	16.83	16.44	16.00	15.70	15.73	14.86	15.08	15.65	16.19
7	16.31	17.27	17.36	16.85	16.41	15.98	15.73	15.76	14.75	15.05	15.71	16.23
8	16.34	17.25	17.42	16.85	16.25	15.97	15.75	15.77	14.73	15.05	15.73	16.28
9	16.37	17.29	17.46	16.87	16.18	15.82	15.76	15.74	14.73	15.04	15.61	16.29
10	16.51	17.31	17.46	16.87	16.15	15.76	15.78	15.63	14.83	14.92	15.61	16.32
11	16.54	17.35	17.48	16.82	16.28	15.83	15.80	15.54	14.86	14.91	15.67	16.36
12	16.57	17.37	17.49	---	16.33	15.89	15.69	15.69	14.88	15.12	15.82	16.40
13	16.62	17.39	17.51	---	16.36	15.90	15.59	15.76	14.89	15.21	15.87	16.26
14	16.65	17.41	17.47	16.71	16.38	15.83	15.60	15.80	14.87	15.33	15.91	16.25
15	16.71	17.42	17.21	16.77	16.40	15.73	15.72	15.85	14.91	15.33	15.93	16.25
16	16.74	17.43	17.31	16.81	16.43	15.71	15.76	15.88	14.92	15.36	15.98	16.39
17	16.76	17.37	17.28	16.83	16.44	15.67	15.79	15.89	14.83	15.40	15.92	16.42
18	16.71	17.49	17.15	16.85	16.47	15.68	15.81	15.93	14.86	15.41	15.82	16.50
19	16.66	17.52	17.13	16.87	16.49	15.66	15.84	15.92	14.89	15.43	15.86	16.51
20	16.62	17.56	17.12	16.89	16.51	15.65	15.86	15.88	14.93	15.51	15.89	16.57
21	16.75	17.58	17.11	16.91	16.52	15.66	15.89	15.90	14.85	15.50	15.89	16.58
22	16.79	17.62	17.04	16.84	16.37	15.63	15.89	15.91	14.88	15.51	15.90	16.62
23	16.82	17.66	16.99	16.73	16.41	15.54	15.89	15.94	14.85	15.52	15.93	16.72
24	16.84	17.69	16.87	16.73	16.44	15.59	15.91	15.95	15.03	15.54	15.96	16.70
25	16.88	17.70	16.80	16.55	16.46	15.60	15.92	15.84	15.07	15.57	16.03	16.74
26	16.92	17.57	16.73	16.61	16.44	15.61	15.86	15.81	15.10	15.53	16.05	16.75
27	16.94	17.53	16.68	16.62	16.42	15.63	15.83	15.96	15.13	15.55	16.05	16.62
28	16.97	17.54	16.75	16.42	16.40	15.64	15.85	16.00	15.18	15.35	16.09	16.61
29	17.02	17.43	16.78	16.52	---	15.61	15.91	16.03	15.20	15.45	16.07	16.63
30	17.04	17.39	16.82	16.56	---	15.50	15.90	16.05	15.22	15.51	16.08	16.78
31	17.05	---	16.80	16.57	---	15.46	---	16.07	---	15.55	15.95	---
MAX	17.05	17.70	17.51	16.91	16.62	16.39	15.92	16.07	15.85	15.57	16.09	16.78

CAL YR 1996 LOW 17.70
WTR YR 1997 LOW 17.70

GROUND-WATER RECORDS

Champaign County

217

400638083453900. LOCAL NUMBER, CH-3—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	LOCAL IDENTIFIER	DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	PUMP OR FLOW PERIOD PRIOR TO SAMPLING (MIN)	FLOW RATE (G/M)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	
JUN 10...	CH-3 HOWARD PAPER CO URBAN	970610	1327	14.84	40.00	52	5.0	705	6.9	
DATE	TEMPERATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	CALCIUM, DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	ALKALINITY, WAT DIS TOT IT FIELD MG/L AS CACO3	SULFIDE WATER, FLTRD, AS FIELD, (MG/L)	SILICA, DIS-SOLVED (MG/L AS SIO2)	NITROGEN, NITRITE DIS-SOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N)
JUN 10...	14.0	5.8	92	35	9.3	316	0.013	12	<0.010	6.25
DATE	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS-SOLVED (MG/L AS N)	PHOSPHORUS, DIS-SOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYLLIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM, DIS-SOLVED (UG/L AS CD)	CHROMIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)
JUN 10...	<0.015	<0.20	<0.010	<0.010	132	<0.50	<1.0	<5.0	<3.0	<10
DATE	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM, DIS-SOLVED (UG/L AS LI)	MANGANESE, DIS-SOLVED (UG/L AS MN)	MOLYBDENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SILVER, DIS-SOLVED (UG/L AS AG)	STRONTIUM, DIS-SOLVED (UG/L AS SR)	VANADIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
JUN 10...	9.9	<10	<4	1.2	<10	<10	<1.0	293	<6	<3.0

GROUND-WATER RECORDS

Clark County

395639084012200. LOCAL NUMBER, CL-9

LOCATION.--Lat 39°56'39", long 84°01'22", Hydrologic Unit 05080001, at north edge of New Carlisle.

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.

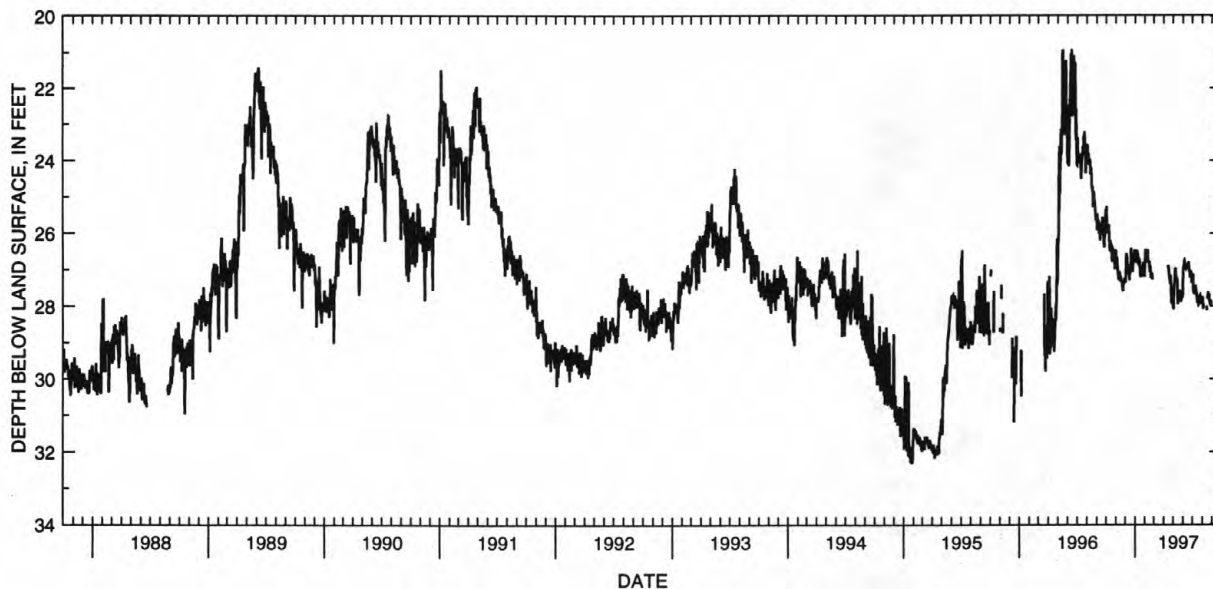
Measuring point: Top of platform 2.50 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

PERIOD OF RECORD.--September 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 32.29 ft below land-surface datum, Jan. 23, 28, 1995;
minimum daily low, 18.20 ft below land-surface datum, July 4, 1980.DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.50	26.45	27.28	26.80	26.82	---	---	28.02	27.39	27.28	27.89	---
2	25.27	26.74	27.29	26.60	26.57	---	---	28.08	26.99	27.16	27.74	---
3	25.62	26.90	26.99	26.49	26.43	---	---	27.58	26.92	27.12	27.95	28.12
4	25.85	26.81	26.58	26.57	26.52	---	---	27.52	26.90	27.52	28.07	---
5	25.82	26.64	26.55	26.78	26.65	---	---	27.33	26.75	27.62	27.94	---
6	25.99	26.81	26.62	26.81	26.45	---	---	27.30	26.74	27.63	---	28.17
7	25.78	27.06	26.69	26.46	26.80	---	---	27.05	26.80	27.63	---	---
8	25.84	27.03	27.05	26.52	26.63	---	---	26.95	26.85	27.67	---	---
9	25.76	27.18	26.99	26.56	26.52	---	---	27.03	26.85	27.52	---	---
10	25.97	27.16	26.86	26.61	26.44	---	---	27.34	27.00	27.52	---	---
11	26.19	27.23	27.13	26.84	26.69	---	---	27.32	26.92	27.43	---	28.02
12	26.39	27.29	26.98	26.84	26.80	---	---	27.26	26.95	27.58	---	---
13	26.49	27.04	27.08	26.82	26.76	---	---	27.22	26.92	27.68	---	---
14	26.27	27.22	27.29	26.91	26.79	---	---	27.29	26.92	27.63	---	28.39
15	26.25	27.15	27.00	26.69	26.77	---	26.88	27.77	26.84	27.72	28.00	28.39
16	26.29	27.32	27.11	26.92	27.07	---	26.96	27.94	26.95	27.84	28.10	28.34
17	26.37	27.19	26.91	27.11	26.88	---	26.97	27.73	26.87	27.91	---	28.39
18	26.31	27.32	26.83	27.20	26.93	---	27.09	27.61	26.90	27.77	27.79	28.44
19	26.78	27.30	26.40	27.09	27.09	---	27.23	27.58	26.78	27.90	27.65	28.45
20	26.37	27.34	26.59	27.06	27.22	---	27.25	27.65	26.94	27.95	27.61	28.57
21	26.40	27.32	26.78	27.03	27.13	---	27.24	27.56	27.02	27.94	27.75	28.64
22	26.50	27.52	26.89	26.91	27.12	---	27.39	27.59	27.03	27.82	27.67	28.64
23	26.40	27.55	26.82	27.04	27.09	---	27.15	27.66	27.12	27.73	27.82	28.63
24	26.64	27.58	27.05	27.04	27.26	---	27.40	27.87	27.10	27.72	27.82	28.66
25	26.59	27.37	26.87	27.19	27.19	---	27.67	27.66	27.09	27.70	27.92	28.72
26	26.55	27.33	26.72	26.82	---	---	27.93	27.88	27.03	27.86	27.91	28.75
27	26.64	27.34	26.61	26.82	---	---	27.51	27.74	27.11	27.94	27.85	28.78
28	26.75	27.23	26.55	26.94	---	---	27.66	27.75	27.35	27.75	27.86	28.89
29	26.98	27.34	26.61	26.91	---	---	27.75	27.73	27.31	27.76	27.88	28.78
30	26.85	27.24	26.45	27.14	---	---	27.46	27.70	27.31	27.85	28.01	28.88
31	26.60	---	26.70	27.19	---	---	---	27.71	---	27.87	---	---
MAX	26.98	27.58	27.29	27.20	27.26	---	27.93	28.08	27.39	27.95	28.10	28.89
CAL YR 1996	LOW 30.73											
WTR YR 1997	LOW 28.89											



GROUND-WATER RECORDS

Clark County

219

395840083495200. LOCAL NUMBER, CL-7

LOCATION.--Lat 39°58'40", long 83°49'52", Hydrologic Unit 05080001. Eagle City Road northwest of Springfield.

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, Division of Water.

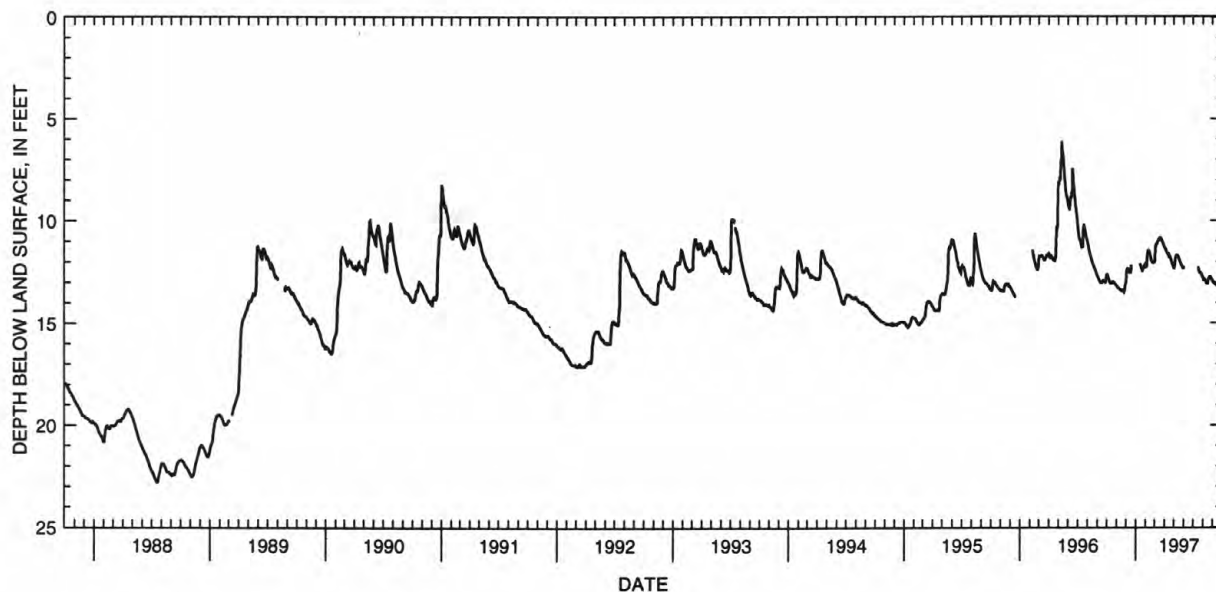
PERIOD OF RECORD.--September 1960 to current year.

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 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.74	13.19	13.00	---	12.19	12.04	11.30	12.31	12.24	---	12.82	12.95
2	12.58	13.19	12.72	---	12.22	11.99	11.32	12.32	---	---	12.88	12.98
3	12.66	13.22	12.48	---	12.26	11.63	11.36	12.25	---	---	12.92	13.01
4	12.71	13.25	12.38	---	12.25	11.32	11.39	12.15	---	---	12.92	13.02
5	12.77	13.29	12.35	---	12.01	11.23	11.39	12.00	---	---	12.91	13.04
6	12.82	13.29	12.34	---	11.75	11.16	11.42	11.83	---	---	12.88	13.04
7	12.85	13.30	12.35	---	11.54	11.15	11.47	11.77	---	---	12.90	13.05
8	12.87	13.31	12.36	---	11.48	11.14	11.53	11.73	---	---	12.92	13.08
9	12.95	13.31	12.44	---	11.46	11.14	11.56	11.70	---	---	12.96	13.10
10	13.02	13.32	12.46	---	11.45	11.08	11.58	11.69	---	---	12.98	13.12
11	13.03	13.33	12.51	---	11.45	11.02	11.62	11.69	---	---	13.02	13.13
12	13.03	13.38	12.54	---	11.52	11.00	11.63	11.70	---	---	13.06	13.13
13	13.05	13.38	12.55	---	11.53	11.00	11.65	11.72	---	---	13.06	13.14
14	13.07	13.39	12.55	12.11	11.57	10.93	11.69	11.73	---	---	13.05	13.14
15	13.07	13.42	12.54	12.14	11.67	10.93	11.73	11.79	---	---	13.07	13.15
16	13.07	13.43	12.52	12.21	11.75	10.90	11.69	11.83	---	---	13.08	13.17
17	13.05	13.43	12.52	12.25	11.77	10.86	11.71	11.88	---	12.27	13.08	13.23
18	12.99	13.44	12.16	12.30	11.85	10.87	11.74	11.89	---	12.34	12.88	13.25
19	12.97	13.43	---	12.35	11.98	10.87	11.78	11.94	---	12.43	12.83	13.25
20	12.97	13.40	---	12.41	11.99	10.84	11.80	11.97	---	12.48	12.82	13.31
21	12.97	13.39	---	12.45	12.00	10.84	11.85	12.01	---	12.54	12.80	13.34
22	12.98	13.41	---	12.45	12.04	10.92	11.89	12.06	---	12.56	12.77	13.34
23	13.03	13.42	---	12.40	12.05	10.97	11.94	12.10	---	12.57	12.77	13.35
24	13.04	13.47	---	12.33	12.07	10.99	12.00	12.12	---	12.57	12.74	13.35
25	13.07	13.49	---	12.28	12.07	10.99	12.07	12.17	---	12.56	12.75	13.36
26	13.08	13.44	---	12.28	12.05	11.05	12.11	12.19	---	12.57	12.76	13.39
27	13.10	13.31	---	12.28	12.06	11.06	12.13	12.22	---	12.60	12.79	13.41
28	13.11	13.20	---	12.20	12.06	11.11	12.17	12.26	---	12.63	12.84	13.42
29	13.12	13.11	---	12.17	---	11.18	12.23	12.28	---	12.69	12.89	13.43
30	13.16	13.05	---	12.16	---	11.21	12.25	12.32	---	12.73	12.89	13.44
31	13.17	---	---	12.14	---	11.24	---	12.32	---	12.78	12.91	---
MAX	13.17	13.49	13.00	12.45	12.26	12.04	12.25	12.32	12.24	12.78	13.08	13.44

CAL YR 1996 LOW 13.49
WTR YR 1997 LOW 13.49



GROUND-WATER RECORDS

Coshocton County

401256081525100. LOCAL NUMBER, CS-3

LOCATION.--Lat 40°12'56", long 81°52'51", Hydrologic Unit 05040004, 1.5 mi north of Conesville.

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, Division of Water.

PERIOD OF RECORD.--April 1958 to current year.

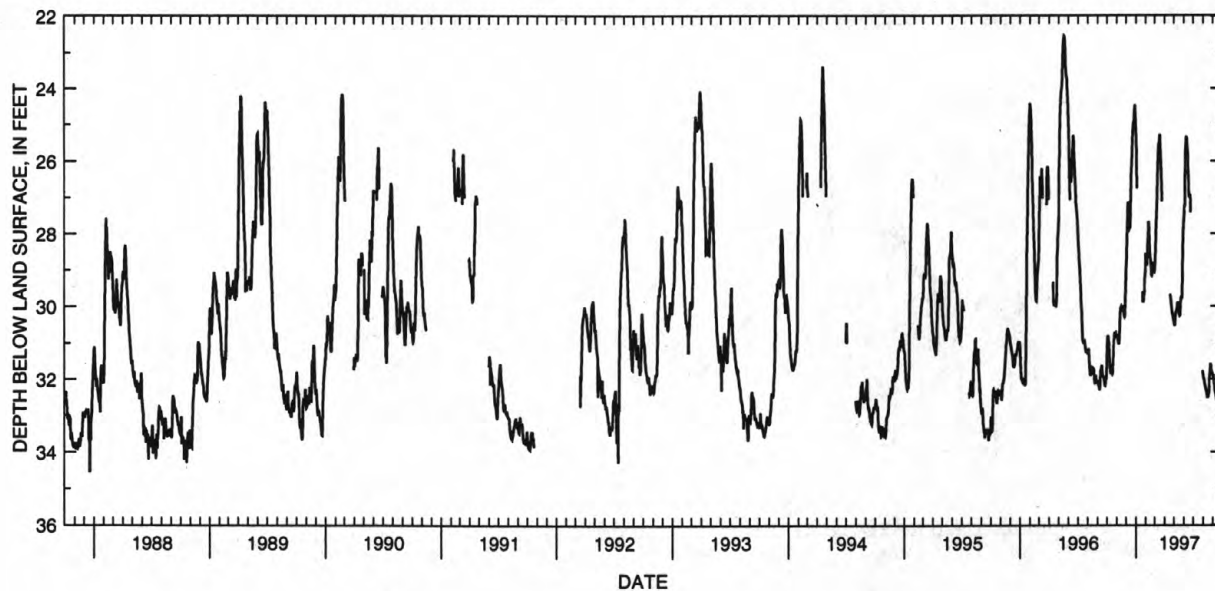
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 36.98 ft below land-surface datum, Oct. 16, 1973;
minimum daily low, 21.40 ft below land-surface datum, July 10, 1969.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31.25	30.85	28.86	25.22	28.55	28.99	---	30.42	27.58	---	31.90	31.93
2	30.90	30.83	28.70	25.62	28.60	28.81	---	30.47	27.40	---	31.97	31.94
3	30.86	30.85	28.35	26.23	28.75	28.55	---	30.52	27.24	---	32.00	31.93
4	30.81	30.87	27.92	26.75	28.86	28.25	---	30.52	27.24	---	32.01	32.00
5	30.88	30.92	27.54	---	28.86	27.89	---	30.40	26.33	---	32.07	32.10
6	30.94	30.98	27.26	---	28.66	27.61	---	30.26	25.86	---	32.14	32.21
7	30.99	31.02	27.14	---	28.30	27.38	---	30.17	25.54	---	32.18	32.29
8	31.16	31.04	27.21	---	27.94	27.09	---	30.15	25.37	---	32.23	32.35
9	31.40	31.00	27.41	---	27.72	26.70	---	30.13	25.33	---	32.27	32.36
10	31.57	30.78	27.58	---	27.68	26.31	---	30.08	25.38	---	32.30	32.41
11	31.71	30.49	27.79	---	27.81	26.03	---	30.01	25.46	---	32.34	32.48
12	31.80	30.23	27.86	---	28.04	25.74	---	29.92	25.57	---	32.39	32.54
13	31.84	30.05	27.84	---	28.33	25.56	---	29.90	25.75	---	32.43	32.58
14	31.84	30.06	27.53	---	28.56	25.53	---	30.00	25.95	---	32.47	32.58
15	31.80	30.03	27.11	---	28.65	25.50	---	30.06	26.22	---	32.50	32.55
16	31.79	30.09	26.71	---	28.71	25.38	---	30.12	26.53	---	32.50	32.49
17	31.83	30.09	26.37	---	28.83	25.28	---	30.18	26.82	---	32.47	32.42
18	31.86	30.07	26.15	---	28.98	25.49	29.69	30.23	26.98	---	32.44	32.42
19	31.84	30.09	25.91	---	29.15	25.71	29.71	30.26	26.99	---	32.39	32.47
20	31.67	30.09	25.62	---	29.16	25.96	29.74	30.25	26.95	---	32.23	32.53
21	31.40	30.07	25.34	29.61	29.11	26.22	29.79	30.08	26.93	---	32.02	32.58
22	31.15	30.11	25.11	29.78	29.00	26.52	29.88	29.89	27.10	---	31.83	32.60
23	30.94	30.16	24.99	29.87	28.93	26.84	29.96	29.77	27.42	---	31.70	32.61
24	30.81	30.21	24.95	29.87	28.84	27.11	30.05	29.76	---	---	31.61	32.61
25	30.73	30.26	24.93	29.81	28.86	---	30.13	29.79	---	---	31.61	32.59
26	30.78	30.29	24.79	29.75	28.95	---	30.19	29.77	---	---	31.66	32.45
27	30.75	30.26	24.60	29.59	29.04	---	30.22	29.39	---	---	31.75	32.43
28	30.74	29.96	24.46	29.37	29.05	---	30.28	28.77	---	---	31.79	32.47
29	30.73	29.51	24.61	29.21	---	---	30.33	28.25	---	---	31.81	32.51
30	30.81	29.09	24.81	29.03	---	---	30.36	27.89	---	31.78	31.84	32.53
31	30.85	---	25.02	28.74	---	---	---	27.69	---	31.83	31.88	---
MAX	31.86	31.04	28.86	29.87	29.16	28.99	30.36	30.52	27.58	31.83	32.50	32.61

CAL YR 1996 LOW 32.30

WTR YR 1997 LOW 32.61



GROUND-WATER RECORDS

Coshocton County

221

401735081523800. LOCAL NUMBER, CS-2

LOCATION.--Lat 40°17'35", long 81°52'38", Hydrologic Unit 05040003, 1.7 mi northwest of courthouse in Coshocton.

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.

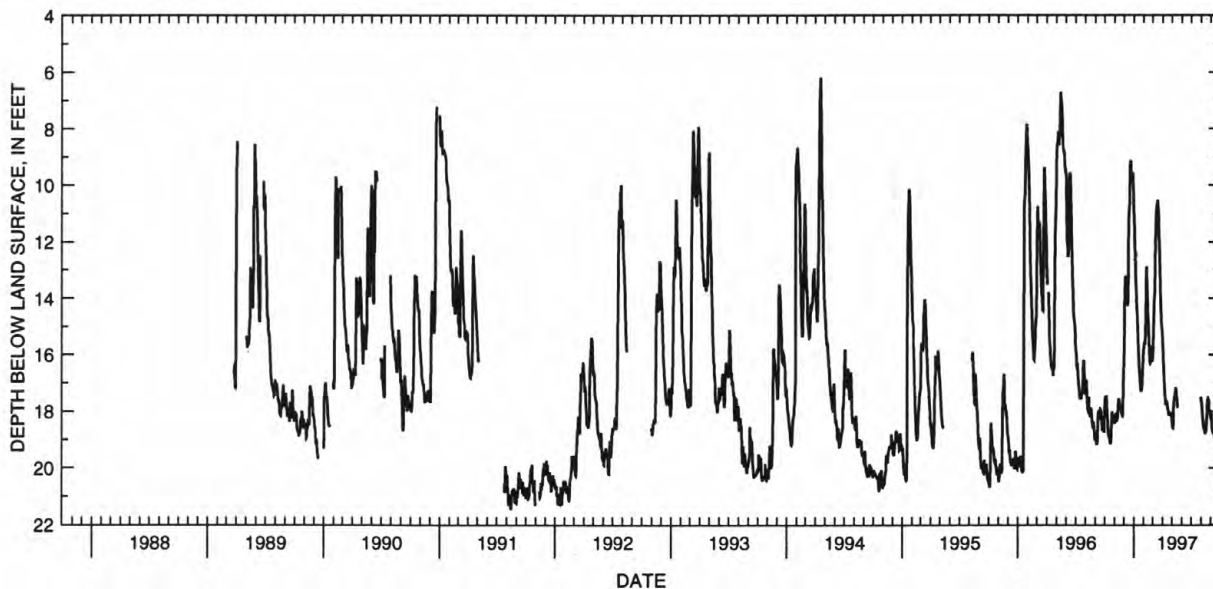
REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

PERIOD OF RECORD.--May 1949 to September 1982. Reactivated March 24, 1989.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 21.47 ft below land-surface datum, Aug. 15, 1991;
minimum measured low, 0.43 ft below land-surface datum, Feb. 21, 1951.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.78	18.40	15.89	10.99	15.76	16.11	15.49	18.33	---	---	17.60	18.28
2	17.49	18.39	15.14	11.39	15.66	15.86	15.79	18.48	---	---	17.69	18.29
3	17.58	18.24	14.10	11.79	15.56	15.55	16.08	18.59	---	---	17.80	18.09
4	17.59	18.14	13.50	12.23	15.60	14.91	16.37	18.60	---	---	17.95	18.36
5	17.51	18.10	13.20	12.70	15.60	14.36	16.63	18.46	---	---	18.14	18.61
6	17.45	18.09	13.26	13.08	15.35	14.09	16.87	17.90	---	---	18.30	18.76
7	17.64	18.13	13.45	13.45	14.71	13.83	17.07	17.64	---	---	18.42	18.77
8	17.88	18.27	13.67	13.77	13.68	13.18	17.26	17.54	---	---	18.52	18.66
9	18.09	18.30	13.67	14.07	13.03	12.46	17.45	17.48	---	---	18.61	18.67
10	18.34	18.26	13.80	14.36	12.89	11.82	17.65	17.42	---	---	18.61	18.73
11	18.59	18.09	14.15	14.60	13.31	11.54	17.74	17.36	---	---	18.38	18.77
12	18.78	17.82	14.25	14.80	13.79	11.00	17.74	17.31	---	---	18.64	18.84
13	18.85	17.59	14.13	15.11	14.24	10.81	17.74	17.16	---	---	18.77	18.91
14	18.84	17.55	13.22	15.47	14.55	10.72	17.63	17.25	---	---	18.78	18.93
15	18.87	17.61	11.83	15.80	14.76	10.68	17.68	17.38	---	---	18.76	18.88
16	18.96	17.68	11.00	16.09	14.99	10.54	17.78	17.50	---	---	18.69	18.82
17	19.05	17.76	10.90	16.34	15.32	10.58	17.86	17.61	---	---	18.63	18.97
18	19.11	17.82	10.69	16.56	15.75	10.77	17.93	17.74	---	---	18.53	19.06
19	19.12	17.88	9.83	16.73	16.12	11.05	17.99	17.85	---	---	18.11	19.08
20	19.12	17.91	9.32	16.91	16.27	11.43	18.05	17.85	---	---	17.75	18.96
21	18.95	17.94	9.14	17.06	16.30	11.87	18.12	---	---	---	17.58	18.81
22	18.64	17.99	9.20	17.21	16.27	12.28	18.12	---	---	---	17.54	18.91
23	18.37	18.04	9.55	17.27	15.99	12.65	18.11	---	---	---	17.57	18.96
24	18.02	18.09	9.79	17.27	15.69	13.12	18.07	---	---	---	17.57	19.06
25	18.05	18.14	9.83	17.25	15.79	13.63	18.06	---	---	---	17.66	19.11
26	18.26	18.16	9.83	17.17	15.99	14.07	18.06	---	---	---	17.89	19.10
27	18.31	18.10	9.67	16.97	16.21	14.44	18.08	---	---	---	17.99	18.99
28	18.31	17.31	9.56	16.67	16.23	14.76	18.12	---	---	---	17.99	18.93
29	18.18	16.65	9.83	16.44	---	14.99	18.14	---	---	---	17.97	18.92
30	18.21	16.19	10.21	16.12	---	15.03	18.20	---	---	17.50	18.08	19.05
31	18.33	---	10.62	15.93	---	15.22	---	---	---	17.52	18.18	---
MAX	19.12	18.40	15.89	17.27	16.30	16.11	18.20	18.60	---	17.52	18.78	19.11
CAL YR 1996	LOW 20.15											
WTR YR 1997	LOW 19.12											



GROUND-WATER RECORDS

Darke County

400514084345700. LOCAL NUMBER, D-2

LOCATION.--Lat 40°05'14", long 84°34'57", Hydrologic Unit 05080001, State Route 571, 3 mi east of Greenville.

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 1038 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, Division of Water.

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.

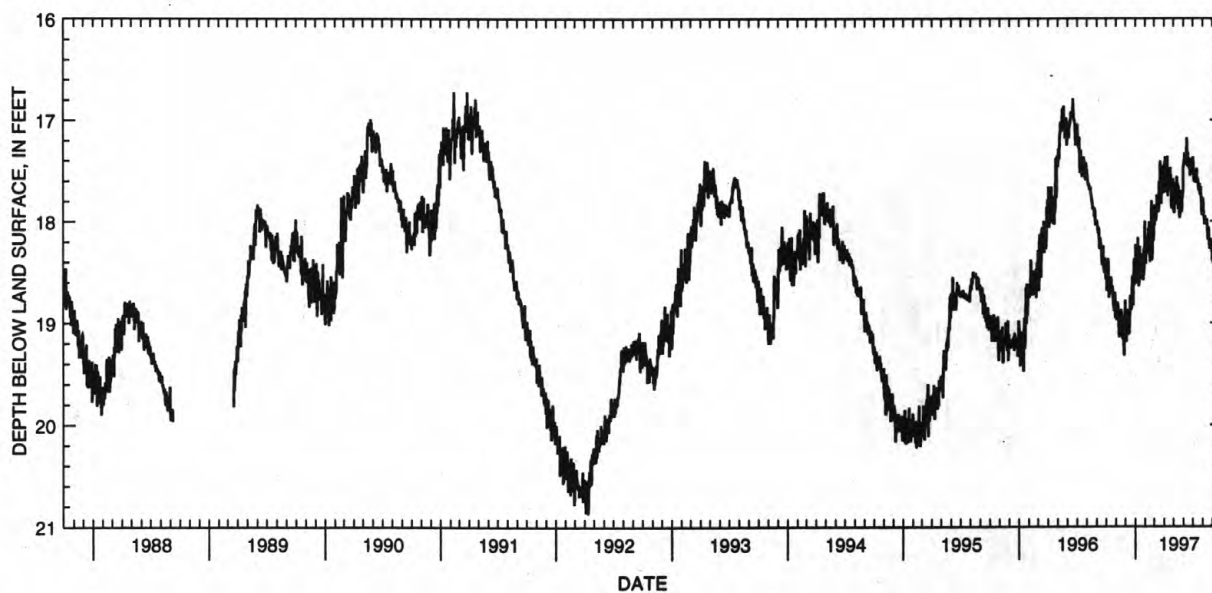
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.48	18.79	18.98	18.49	18.29	17.84	17.72	17.88	17.48	17.38	17.83	18.39
2	18.59	18.95	19.08	18.23	18.31	18.04	17.63	17.88	17.44	17.38	17.77	18.36
3	18.68	18.97	19.11	18.33	18.42	17.92	17.42	17.91	17.42	17.44	17.82	18.41
4	18.60	18.90	19.19	18.33	18.16	17.90	17.43	17.91	17.41	17.55	17.87	18.39
5	18.51	18.84	18.94	18.51	18.33	17.87	17.37	17.83	17.34	17.61	17.95	18.34
6	18.47	18.85	18.87	18.61	18.30	17.99	17.54	17.82	17.33	17.55	17.98	18.31
7	18.39	18.80	18.91	18.57	18.15	17.99	17.68	17.83	17.36	17.61	18.03	18.37
8	18.37	18.87	18.98	18.55	18.21	17.94	17.70	17.62	17.37	17.54	17.96	18.34
9	18.58	18.97	19.12	18.16	18.21	17.92	17.70	17.73	17.43	17.58	17.95	18.30
10	18.72	19.02	18.94	18.40	18.11	17.74	17.65	17.76	17.44	17.62	18.01	18.40
11	18.75	19.12	18.93	18.59	18.07	17.83	17.50	17.70	17.31	17.60	18.00	18.48
12	18.61	19.14	19.04	18.64	18.31	17.88	17.36	17.56	17.18	17.57	17.99	18.55
13	18.58	19.04	19.11	18.62	18.30	17.76	17.69	17.63	17.27	17.49	18.00	18.54
14	18.62	19.02	19.00	18.51	18.01	17.79	17.75	17.62	17.45	17.49	18.03	18.52
15	18.62	19.02	18.92	18.25	18.28	17.91	17.69	17.82	17.46	17.59	17.98	18.49
16	18.58	18.92	18.73	18.54	18.39	17.88	17.51	17.88	17.32	17.62	18.09	18.49
17	18.55	18.87	18.80	18.53	18.39	17.61	17.52	17.66	17.43	17.58	18.15	18.58
18	18.66	18.90	18.78	18.42	18.03	17.66	17.50	17.66	17.43	17.59	18.18	18.62
19	18.71	18.89	18.75	18.33	18.25	17.64	17.49	17.83	17.48	17.66	18.16	18.51
20	18.65	18.96	18.87	18.50	18.23	17.44	17.55	17.93	17.43	17.70	18.06	18.71
21	18.69	19.13	18.78	18.52	17.80	17.41	17.47	17.97	17.38	17.64	18.13	18.76
22	18.64	19.16	18.62	18.32	18.38	17.71	17.53	17.93	17.54	17.67	18.22	18.64
23	18.75	19.02	18.54	18.57	18.37	17.82	17.54	17.88	17.55	17.63	18.27	18.60
24	18.82	19.02	18.82	18.38	18.31	17.82	17.74	17.70	17.46	17.73	18.20	18.60
25	18.82	19.03	18.82	18.57	18.14	17.55	17.84	17.73	17.41	17.74	18.21	18.57
26	18.88	19.31	18.62	18.57	17.86	17.73	17.87	17.85	17.44	17.66	18.24	18.71
27	18.85	19.32	18.52	18.27	18.18	17.58	17.65	17.91	17.53	17.72	18.17	18.67
28	18.74	19.09	18.37	18.53	18.18	17.45	17.61	17.87	17.44	17.80	18.24	18.54
29	18.70	18.95	18.62	18.46	---	17.67	17.70	17.74	17.42	17.89	18.28	18.55
30	18.94	18.78	18.62	18.14	---	17.65	17.58	17.77	17.44	17.94	18.26	18.81
31	18.95	---	18.55	18.00	---	17.67	---	17.71	---	17.92	18.35	---
MAX	18.95	19.32	19.19	18.64	18.42	18.04	17.87	17.97	17.55	17.94	18.35	18.81

CAL YR 1996 LOW 19.47

WTR YR 1997 LOW 19.32



GROUND-WATER RECORDS

Delaware County

223

402126083040400. LOCAL NUMBER, DL-3

LOCATION.--Lat 40°21'26", long 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, Division of Water.

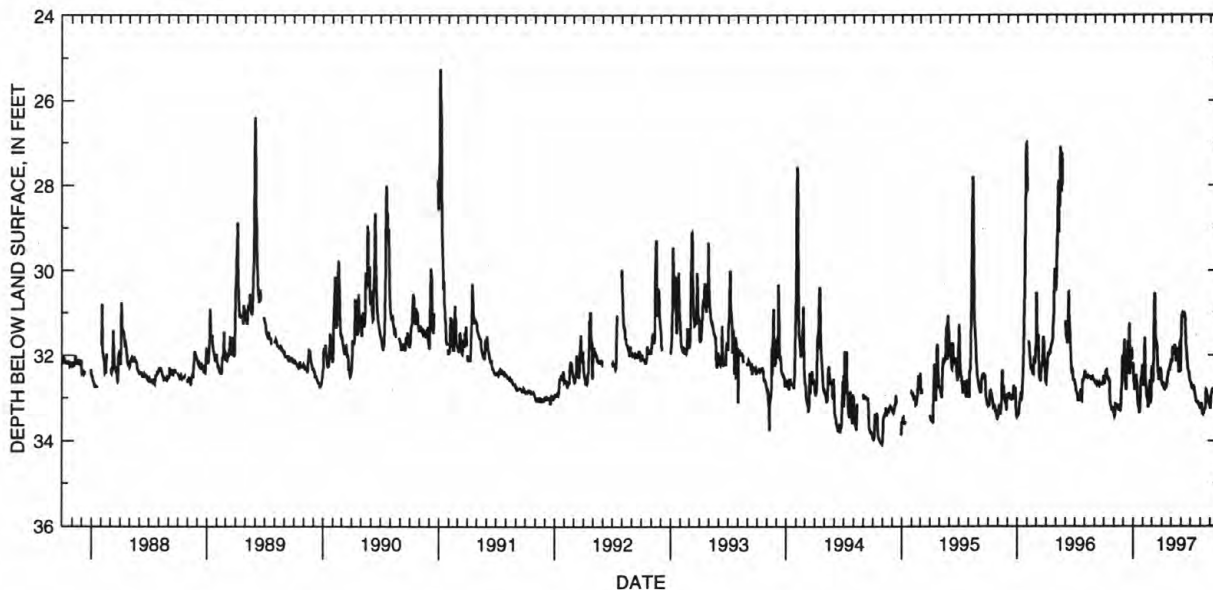
PERIOD OF RECORD.--October 1948 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 37.04 ft below land-surface datum, Nov. 1, 1948, Dec. 2, 3, 1948; minimum daily low, 20.43 ft below land-surface datum, Jan. 27, 1959.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32.65	33.33	32.05	32.18	32.38	32.26	32.65	32.17	31.75	32.62	33.24	33.23
2	32.68	33.40	31.97	32.49	32.58	32.64	32.67	32.17	31.21	32.63	33.24	33.23
3	32.63	33.43	31.92	32.63	32.70	32.63	32.65	32.14	31.05	32.66	33.21	33.03
4	32.51	33.41	31.62	32.64	32.70	32.61	32.66	32.15	31.05	32.73	33.19	32.93
5	32.47	33.27	32.25	32.75	32.20	32.60	32.65	31.79	31.03	32.75	33.12	32.89
6	32.39	33.15	32.50	32.82	31.58	32.30	32.62	31.91	31.01	32.77	33.28	32.84
7	32.36	33.16	32.62	32.68	31.95	31.25	32.72	31.99	31.02	32.78	33.36	32.82
8	32.36	33.15	32.70	32.67	32.47	30.63	32.73	31.94	31.02	32.78	33.36	32.82
9	32.35	33.15	32.80	32.55	32.60	30.52	32.79	31.85	31.02	32.77	33.37	32.80
10	32.45	33.17	32.80	32.45	32.65	30.59	32.80	31.89	31.01	32.75	33.35	32.81
11	32.51	33.17	32.25	32.57	32.75	31.01	32.77	31.92	31.03	32.73	33.35	32.82
12	32.53	33.19	32.31	32.60	32.93	31.50	32.72	31.77	31.02	32.75	33.37	32.86
13	32.53	33.19	32.07	32.62	33.01	31.75	32.73	31.77	31.05	32.83	33.27	32.87
14	32.57	33.25	31.75	32.85	32.91	31.75	32.77	31.93	31.25	32.85	33.26	32.86
15	32.58	33.26	31.66	32.99	33.05	31.78	32.76	31.99	31.46	32.92	33.24	32.85
16	32.56	33.25	32.31	33.16	33.10	31.85	32.73	32.11	31.62	32.95	33.28	32.84
17	32.57	33.22	32.31	33.18	33.21	31.67	32.64	32.10	31.82	32.98	33.25	32.83
18	32.61	33.16	31.84	33.21	33.21	31.98	32.63	32.05	31.82	33.05	32.92	32.83
19	32.96	33.19	31.24	33.21	33.13	32.24	32.50	31.95	31.99	33.09	32.80	32.81
20	33.08	33.22	31.47	33.34	33.10	32.38	32.48	31.87	32.10	33.09	32.81	32.86
21	33.14	33.28	32.45	33.34	32.71	32.40	32.45	31.82	32.14	33.10	32.89	32.85
22	33.16	33.32	32.24	33.28	32.65	32.51	32.38	32.00	32.28	33.11	32.92	32.84
23	33.19	33.15	32.25	33.17	32.66	32.58	32.35	32.12	32.33	33.08	32.95	32.83
24	33.24	32.90	32.09	32.80	33.12	32.51	32.31	32.27	32.36	33.11	32.99	32.81
25	33.27	32.80	31.96	32.56	33.12	32.39	32.35	32.40	32.37	33.13	33.04	32.79
26	33.27	32.65	31.92	32.56	33.05	32.45	32.35	32.37	32.38	33.12	33.07	32.83
27	33.21	32.18	31.82	32.50	32.98	32.29	32.23	32.26	32.46	33.14	33.06	32.83
28	33.26	32.02	31.90	32.49	32.36	32.30	32.21	31.67	32.54	33.14	33.11	32.79
29	33.27	32.02	32.10	32.30	---	32.36	32.25	31.87	32.60	33.20	33.14	32.78
30	33.34	32.05	---	32.23	---	32.36	32.10	32.39	32.61	33.22	33.15	32.85
31	33.34	---	32.20	32.25	---	32.58	---	32.23	---	33.23	33.18	---
MAX	33.34	33.43	32.80	33.34	33.21	32.64	32.80	32.40	32.61	33.23	33.37	33.23

CAL YR 1996 LOW 33.46
WTR YR 1997 LOW 33.43



GROUND-WATER RECORDS

Fairfield County

393450082403600. LOCAL NUMBER, F-7

LOCATION.--Lat 39°34'50", long 82°40'36", Hydrologic Unit 05030204, southeast of Amanda.

Owner: Pine Grove Springs Water Co. Inc.

AQUIFER.--Sandstone of Mississippian Age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 5 in., depth 120 ft, cased to 31 ft.

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 0.60 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

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.

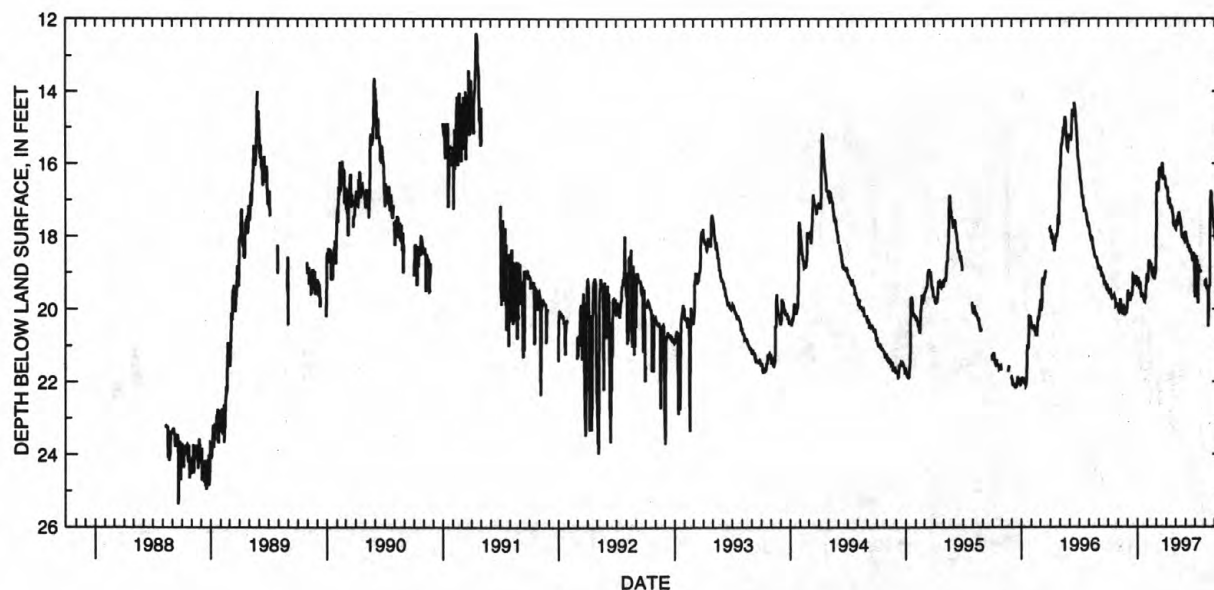
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.45	19.94	19.74	19.28	19.15	18.58	16.65	17.78	17.90	19.56	19.35	17.90
2	19.42	20.03	19.48	19.16	19.25	17.75	16.67	17.80	17.90	19.67	19.24	18.04
3	19.51	20.05	19.55	19.16	19.25	16.84	16.68	17.65	17.97	18.85	19.22	18.10
4	19.55	20.07	19.67	19.16	19.19	16.53	16.67	17.58	18.03	18.54	19.21	18.12
5	19.54	20.03	19.64	19.20	18.80	16.52	16.67	17.56	18.09	18.57	19.32	18.12
6	19.53	20.05	19.55	19.32	18.73	16.60	16.65	17.67	18.10	18.57	19.39	18.17
7	19.52	19.97	19.60	19.42	18.66	16.63	16.85	17.72	18.15	18.70	19.40	18.17
8	19.50	19.75	19.64	19.42	18.70	16.74	16.96	17.62	18.20	18.68	19.46	18.34
9	19.49	19.75	19.75	19.35	18.72	16.74	17.05	17.44	18.30	18.68	19.43	18.35
10	19.62	19.85	19.75	19.25	18.72	16.47	17.13	17.47	18.30	19.70	19.37	18.35
11	19.66	19.98	19.66	19.45	18.75	16.15	17.10	17.46	18.31	19.84	19.51	18.53
12	19.68	20.03	19.66	19.56	18.86	16.22	16.95	17.34	18.29	18.93	20.48	18.70
13	19.63	20.07	19.57	19.61	18.90	16.23	17.04	17.37	18.24	18.81	20.06	18.70
14	19.67	20.10	19.61	19.67	18.75	16.10	17.13	17.47	18.38	18.87	19.45	18.69
15	19.67	20.12	19.61	19.63	18.92	16.26	17.20	17.57	18.40	18.86	19.43	18.70
16	19.72	20.12	19.51	19.55	19.05	16.37	17.19	17.61	18.39	18.93	19.35	18.73
17	19.69	20.07	19.43	19.60	19.06	16.35	17.15	17.59	18.42	18.94	19.34	18.73
18	19.63	19.99	19.06	19.63	18.97	16.36	17.19	17.63	18.37	18.95	18.05	18.81
19	19.64	19.88	19.08	19.63	19.04	16.26	17.20	17.73	18.43	18.95	16.97	18.81
20	19.62	20.00	19.28	19.68	19.02	16.05	17.26	17.86	18.50	18.99	16.87	18.72
21	19.67	19.99	19.33	19.73	18.85	15.98	17.27	17.98	18.47	---	16.76	19.15
22	19.72	20.15	19.29	19.73	19.07	16.13	17.36	18.03	18.55	---	16.82	19.80
23	19.69	20.15	19.25	19.79	19.14	16.33	17.38	18.03	18.65	---	17.03	19.92
24	19.79	20.04	19.15	19.80	19.19	16.45	17.52	18.02	18.66	---	17.10	19.65
25	19.93	20.04	19.16	19.66	19.13	16.42	17.66	17.91	18.68	---	17.26	19.47
26	19.92	20.07	19.15	19.72	19.02	16.38	17.73	17.98	18.45	---	17.34	19.27
27	19.89	20.10	19.15	19.69	19.03	16.37	17.69	18.08	18.53	---	17.55	19.10
28	19.88	20.10	19.09	19.41	19.04	16.34	17.65	18.10	18.50	---	17.55	19.02
29	19.87	20.00	19.18	19.33	---	16.39	17.68	18.10	18.48	---	17.59	18.95
30	19.84	19.93	19.25	19.28	---	16.42	17.65	18.13	19.24	---	17.74	19.04
31	19.87	---	19.30	19.04	---	16.54	---	18.08	---	19.35	17.79	---
MAX	19.93	20.15	19.75	19.80	19.25	18.58	17.73	18.13	19.24	19.84	20.48	19.92

CAL YR 1996 LOW 22.11

WTR YR 1997 LOW 20.48



GROUND-WATER RECORDS Fairfield County

225

394257082362900. LOCAL NUMBER, F-6

LOCATION.--Lat 39°42'57", long 82°36'29", Hydrologic Unit 05030204, near Hocking River in well field at Lancaster.

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.--Type F continuous recorder.

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, Division of Water.

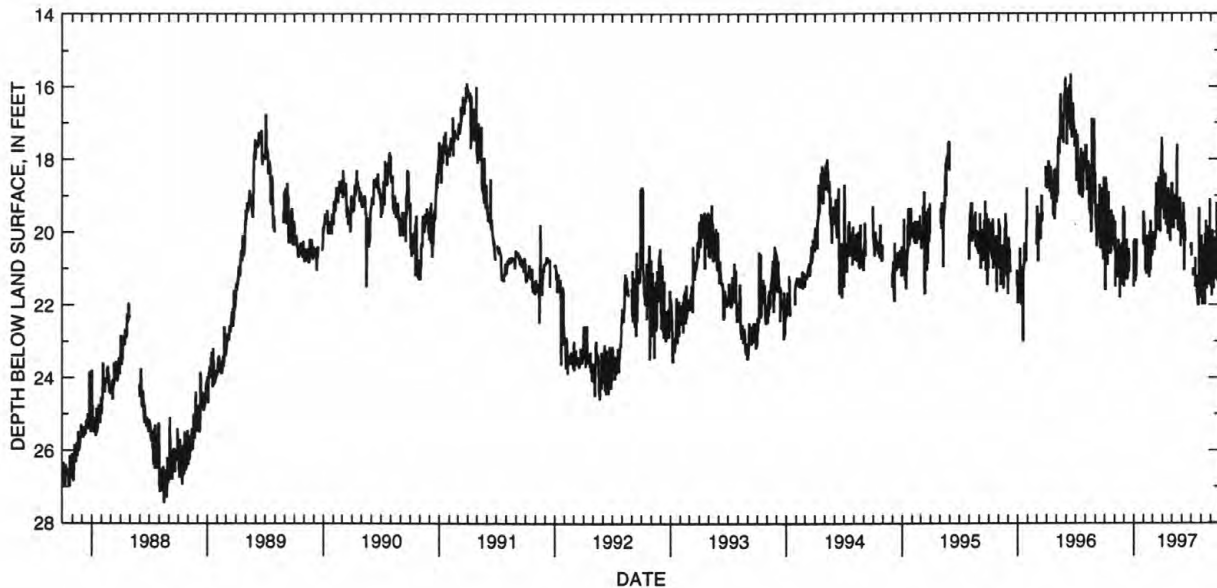
PERIOD OF RECORD.--June 1978 to current year.

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 1996 TO SEPTEMBER 1997 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.65	20.50	21.50	20.25	19.45	20.50	19.25	19.90	19.50	20.35	21.55	21.05
2	19.75	19.70	19.45	20.80	19.90	20.00	19.30	18.65	19.75	20.30	20.10	21.50
3	21.60	19.85	20.25	21.20	20.00	20.10	18.30	19.00	19.70	20.65	21.20	21.00
4	18.50	21.50	21.10	20.20	19.75	20.00	19.35	19.40	20.05	---	21.80	21.75
5	19.15	20.15	21.15	21.25	20.40	20.05	19.30	19.80	20.00	19.55	22.00	20.60
6	18.65	20.90	21.30	21.35	20.40	20.45	19.65	19.25	20.20	---	21.30	20.80
7	18.85	20.50	20.80	20.60	21.05	20.50	19.55	19.90	19.20	21.00	20.70	19.95
8	20.90	21.10	20.70	21.20	20.35	20.05	19.10	19.10	19.75	21.20	21.35	20.55
9	20.70	21.00	20.20	20.85	20.60	20.00	19.40	19.30	21.05	---	21.75	21.35
10	20.90	20.45	20.65	20.20	21.15	20.20	19.25	19.00	20.10	---	20.35	21.55
11	20.30	20.70	21.30	---	20.75	19.30	18.40	19.00	19.75	---	21.30	20.85
12	20.30	21.25	21.25	---	21.10	20.10	19.80	19.10	20.25	---	21.65	20.20
13	18.90	20.80	21.05	---	21.05	18.65	19.00	19.65	---	21.45	21.00	20.65
14	19.50	20.20	21.10	---	20.10	19.90	19.10	19.20	---	21.50	22.00	20.15
15	19.45	20.90	20.45	---	20.90	18.70	19.80	19.55	---	20.70	20.05	20.60
16	19.85	20.40	21.10	---	21.00	19.30	19.50	19.55	---	---	20.10	20.60
17	19.55	20.35	20.55	---	21.10	19.50	19.40	17.60	---	---	19.70	21.10
18	20.25	21.80	21.00	---	21.05	19.85	20.05	19.05	---	21.20	21.20	20.60
19	20.35	21.10	---	---	21.25	19.90	19.20	19.60	---	21.45	21.55	21.30
20	20.60	20.80	---	---	20.00	18.50	18.80	19.80	---	21.70	20.90	19.20
21	20.10	20.70	---	---	20.65	19.95	19.70	19.95	---	21.65	19.95	20.60
22	20.55	20.65	---	---	20.90	19.25	19.60	19.50	---	21.90	20.30	20.20
23	19.40	20.55	---	---	19.70	19.05	20.00	19.55	---	22.00	19.85	21.35
24	20.35	20.30	---	---	21.05	18.95	19.50	19.50	---	22.00	20.75	19.35
25	19.65	20.75	---	---	---	19.25	19.75	19.60	---	21.50	20.95	20.40
26	20.15	20.55	---	---	---	20.00	20.25	20.00	---	19.35	20.50	21.40
27	19.55	21.45	---	---	---	18.15	19.00	19.05	---	20.10	21.00	20.70
28	20.10	19.95	---	---	20.65	19.25	19.00	19.80	---	20.50	21.45	20.75
29	19.65	19.30	---	---	---	18.00	19.20	20.40	---	20.80	19.10	20.60
30	19.95	19.65	---	20.35	---	17.40	18.65	19.50	20.45	21.80	20.50	20.40
31	20.30	---	21.50	20.10	---	18.30	---	19.50	---	21.50	20.70	---
MAX	21.60	21.80	21.50	21.35	21.25	20.50	20.25	20.40	21.05	22.00	22.00	21.75

CAL YR 1996 LOW 23.00
WTR YR 1997 LOW 22.00



GROUND-WATER RECORDS

Fairfield County

394544082271000. LOCAL NUMBER, F-1

LOCATION.--Lat 39°45'44", long 82°27'10", Hydrologic Unit 05030204, near the west edge of West Rushville.

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, Division of Water.

PERIOD OF RECORD.--March 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 21.89 ft below land-surface datum, Nov. 29, 1994;
minimum daily low, 7.27 ft below land-surface datum, May 5-6, 1962.

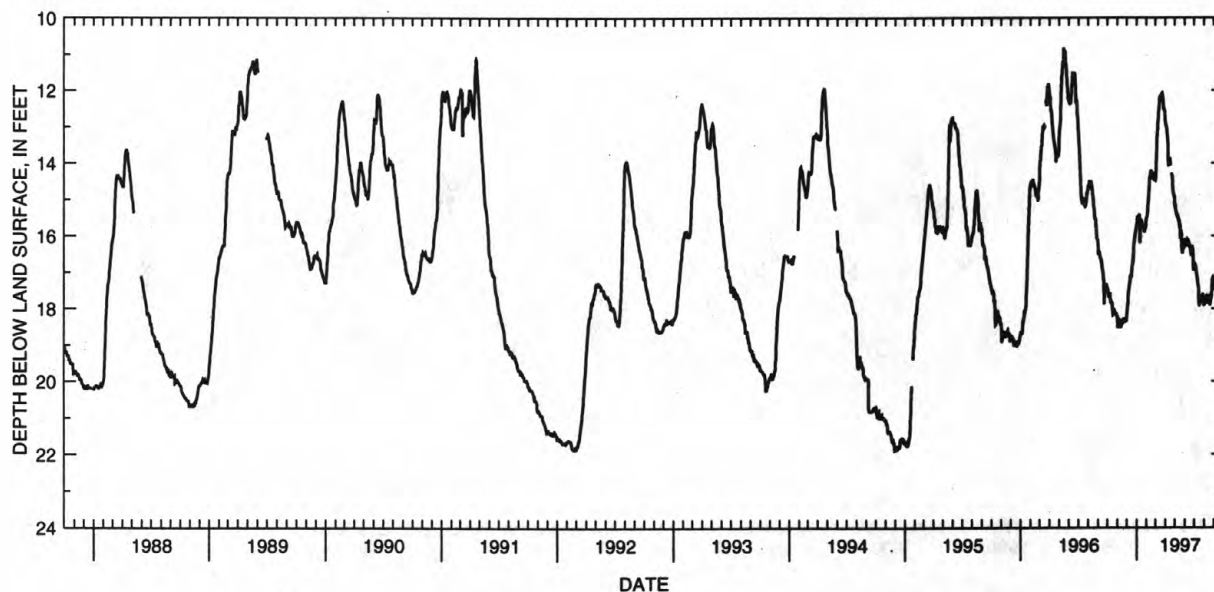
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.45	18.20	18.17	15.72	15.50	14.47	12.78	15.15	16.20	16.73	17.90	17.46
2	17.46	18.35	18.06	15.65	15.49	14.40	12.92	15.19	16.10	16.75	17.90	17.46
3	17.48	18.50	18.04	15.54	15.48	14.29	12.92	15.18	16.10	16.76	17.87	17.30
4	17.58	18.50	17.90	15.47	15.40	13.94	12.97	15.29	16.12	16.77	17.84	17.22
5	17.65	18.50	17.81	15.47	15.26	13.60	13.00	15.34	16.21	16.84	17.71	17.29
6	17.68	18.50	17.62	15.49	15.09	13.28	13.09	15.34	16.22	16.87	17.70	17.19
7	17.68	18.40	17.53	15.55	15.03	13.21	13.09	15.43	16.17	16.91	17.67	17.20
8	17.65	18.27	17.45	15.55	14.82	13.04	13.26	15.45	16.18	16.96	17.66	17.30
9	17.57	18.41	17.35	15.44	14.78	12.86	13.31	15.40	16.15	17.07	17.74	17.28
10	17.74	18.46	17.35	15.40	14.60	12.79	13.57	15.46	16.10	17.11	17.82	17.21
11	17.78	18.50	17.20	16.16	14.43	12.60	14.08	15.47	16.12	17.16	17.82	17.16
12	17.82	18.50	17.12	16.20	14.36	12.54	14.00	15.53	16.08	17.28	17.85	17.22
13	17.81	18.50	17.07	15.77	14.31	12.40	13.87	15.60	16.20	17.35	17.75	17.35
14	17.82	18.42	17.15	15.63	14.26	12.27	13.87	15.60	16.16	17.35	17.71	17.35
15	17.85	18.39	17.15	15.63	14.20	12.21	13.88	15.54	16.24	17.38	17.70	17.33
16	17.85	18.39	17.08	15.55	14.24	12.22	13.88	15.72	16.23	17.72	17.64	17.45
17	18.00	18.39	16.99	15.64	14.39	12.17	13.98	15.70	16.25	17.91	17.70	17.58
18	18.00	18.39	16.85	15.71	14.39	12.15	14.06	15.67	16.26	17.91	17.62	17.80
19	18.14	18.30	16.78	15.70	14.29	12.15	---	16.08	16.33	17.75	17.85	17.74
20	18.13	18.28	16.71	15.70	14.29	12.15	---	15.93	16.40	17.75	17.91	17.69
21	18.10	18.28	16.73	15.72	14.30	12.09	14.28	15.85	16.47	17.75	17.75	17.65
22	18.06	18.32	16.45	15.72	14.26	12.08	14.32	15.92	16.54	17.68	17.77	17.62
23	18.05	18.35	16.27	15.74	14.38	12.13	14.35	16.25	16.32	17.65	17.68	17.63
24	18.09	18.35	16.18	15.74	14.45	12.15	14.49	16.35	16.34	17.80	17.72	17.62
25	18.09	18.31	16.10	15.88	14.45	12.23	14.67	16.48	16.34	17.80	17.60	17.72
26	18.15	18.32	16.08	15.88	14.42	12.33	14.80	16.21	16.33	17.79	17.35	17.68
27	18.15	18.32	15.95	15.86	14.41	12.51	14.84	16.19	16.37	17.79	17.26	17.65
28	18.15	18.31	15.90	15.75	14.46	12.51	14.87	16.19	16.68	17.59	17.17	17.68
29	18.15	18.32	15.86	15.77	---	12.53	14.89	16.26	16.92	17.65	17.16	17.71
30	18.15	18.32	15.79	15.76	---	12.54	14.95	16.28	16.92	17.73	17.23	17.73
31	18.18	---	15.76	15.54	---	12.62	---	16.23	---	17.72	17.25	---
MAX	18.18	18.50	18.17	16.20	15.50	14.47	14.95	16.48	16.92	17.91	17.91	17.80

CAL YR 1996 LOW 18.70

WTR YR 1997 LOW 18.50



GROUND-WATER RECORDS

Fairfield County

227

395053082361900. LOCAL NUMBER, F-5

LOCATION.--Lat 39°50'53", long 82°36'19", Hydrologic Unit 05060001, Gaylord Paper Co., Baltimore.

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.--Type F continuous recorder.

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, Division of Water.

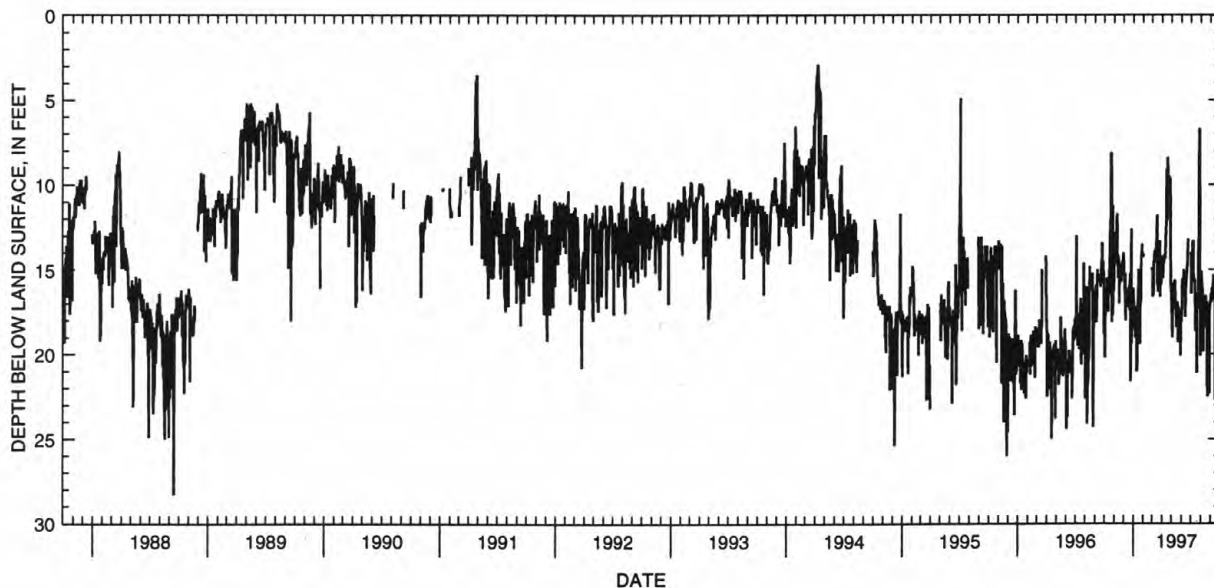
PERIOD OF RECORD.--June 1971 to current year.

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 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.50	14.70	14.20	16.40	14.20	14.90	14.20	16.90	17.40	14.10	16.30	16.60
2	16.60	14.70	14.60	16.90	14.10	15.00	14.70	17.70	17.70	16.40	15.10	16.50
3	20.20	13.60	15.30	18.50	14.10	16.60	15.00	19.00	16.20	14.50	15.50	16.40
4	17.40	14.40	15.20	18.40	---	16.40	15.50	17.60	15.60	14.10	15.80	16.90
5	17.50	12.80	16.90	17.20	---	16.40	14.50	15.80	15.60	14.10	16.10	16.10
6	16.40	13.90	15.20	17.40	---	14.50	14.40	17.30	16.10	13.40	16.20	16.70
7	16.60	13.50	18.00	19.00	---	14.60	14.60	16.20	15.60	13.40	19.80	16.10
8	16.20	14.20	16.10	17.40	---	14.00	14.20	16.80	15.00	13.30	19.80	16.00
9	15.50	12.00	16.10	17.50	---	13.90	14.20	15.90	15.40	15.30	17.40	15.70
10	15.60	11.70	16.50	17.40	---	14.10	14.30	16.20	15.10	15.70	16.80	15.30
11	15.70	13.70	17.20	21.00	---	14.00	14.30	15.60	15.30	15.50	17.70	16.20
12	15.70	14.50	16.70	20.60	---	13.80	13.40	16.10	15.30	15.70	16.90	16.10
13	17.50	15.50	16.70	18.80	---	14.00	12.60	17.30	17.80	15.60	18.40	15.90
14	16.30	14.20	16.40	17.30	---	13.70	12.40	17.20	15.70	17.00	16.80	16.10
15	16.40	14.30	16.40	16.70	---	12.50	9.10	17.70	16.10	18.60	16.60	22.70
16	16.50	14.80	17.00	16.00	---	11.80	9.20	18.40	15.30	16.70	16.60	16.80
17	15.10	17.00	16.80	15.00	---	15.80	12.10	17.70	15.50	17.80	16.90	21.00
18	14.20	14.80	16.70	15.90	---	15.80	8.40	17.70	15.10	18.00	17.00	19.00
19	12.60	14.80	15.90	17.80	---	16.10	9.30	17.30	14.60	21.10	16.90	17.10
20	12.10	15.00	17.40	18.80	---	16.30	9.80	16.90	14.80	16.50	21.90	16.40
21	12.00	15.50	15.60	19.40	---	14.70	9.70	19.30	13.40	17.30	17.80	16.40
22	8.10	14.80	15.20	17.50	---	14.40	9.60	17.80	13.20	16.40	22.50	16.20
23	8.20	15.60	21.60	17.10	---	14.30	9.50	17.20	---	16.60	17.90	16.90
24	13.30	15.70	17.90	16.80	---	14.00	9.80	18.70	---	13.90	18.00	17.60
25	18.10	15.00	12.60	14.70	---	13.30	9.80	18.50	---	13.20	17.00	16.40
26	15.70	14.50	19.40	14.30	---	16.60	9.60	17.90	---	8.20	20.60	17.00
27	11.20	14.80	16.80	13.90	---	14.30	11.00	18.50	---	6.70	21.60	14.90
28	17.70	15.10	16.20	13.50	15.00	14.80	14.50	18.50	---	10.10	22.30	15.30
29	15.90	14.40	16.20	14.20	---	15.90	16.20	20.10	---	15.20	17.40	15.60
30	15.00	14.00	---	14.00	---	15.40	16.30	17.60	14.00	20.10	17.10	21.20
31	16.30	---	16.10	14.20	---	14.50	---	18.10	---	16.90	16.70	---
MAX	20.20	17.00	21.60	21.00	15.00	16.60	16.30	20.10	17.80	21.10	22.50	22.70

CAL YR 1996 LOW 25.00
WTR YR 1997 LOW 22.70



GROUND-WATER RECORDS

Fayette County

393153083322000. LOCAL NUMBER, FA-1

LOCATION.--Lat 39°31'53", long 83°32'20", Hydrologic Unit 05060003, Burnett-Perill Road about 6 mi west of Washington Court House.
Owner: Martha Slagle.

AQUIFER.--Limestone of Silurian Age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 5 in., depth 78 ft, cased.

INSTRUMENTATION.--Type F continuous recorder.

DATUM.--Elevation of land-surface datum is 1010 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, Division of Water.

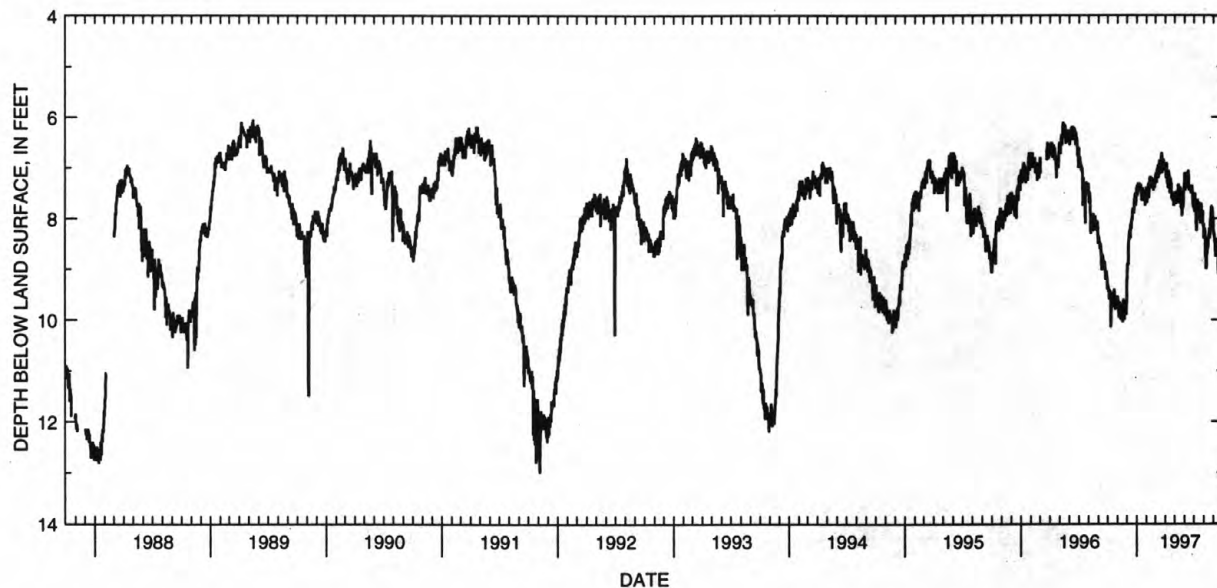
PERIOD OF RECORD.--February 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 13.45 ft below land-surface datum, Sept. 30 1982;
minimum daily low, 3.26 ft below land-surface datum, Apr. 28, 1964.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.30	9.55	9.10	7.50	7.50	7.15	6.95	7.50	7.10	7.60	8.40	8.30
2	9.35	9.60	9.00	7.35	7.70	7.20	6.90	7.50	7.30	7.85	8.35	8.30
3	9.40	9.75	8.90	7.55	7.60	7.10	7.20	7.70	7.45	7.85	8.25	8.30
4	9.45	9.80	8.90	7.45	7.40	7.30	7.10	7.70	7.25	7.50	8.20	8.40
5	9.40	9.95	8.90	7.30	7.40	7.20	6.90	7.55	7.20	7.65	8.30	8.50
6	9.60	9.70	8.50	7.45	7.35	7.05	7.00	7.60	7.15	7.75	8.75	8.40
7	9.45	9.80	8.40	7.35	7.30	7.05	7.30	7.50	7.10	7.65	8.65	8.75
8	9.45	9.65	8.30	7.30	7.60	7.00	7.10	7.45	7.20	8.20	9.00	8.55
9	9.50	9.70	8.25	7.45	7.45	6.95	7.35	7.70	7.40	8.25	8.95	8.55
10	9.45	9.90	8.25	7.35	7.35	7.20	7.40	7.60	7.20	7.70	8.60	8.50
11	10.15	10.00	8.40	7.35	7.20	7.05	7.15	7.55	7.15	7.65	8.50	8.40
12	9.85	9.85	8.15	7.35	7.20	6.95	7.05	7.35	7.10	7.65	8.70	8.55
13	9.50	9.80	8.10	7.35	7.20	6.90	7.20	7.35	7.05	7.70	8.50	8.70
14	9.60	9.80	8.20	7.35	7.40	6.85	7.20	7.40	7.30	7.85	8.60	8.60
15	9.60	9.80	8.05	7.50	7.35	7.10	7.50	7.70	7.45	7.90	8.40	8.60
16	9.60	9.90	8.00	7.65	7.30	7.10	7.45	7.65	7.40	7.75	8.35	9.10
17	9.50	10.05	8.05	7.50	7.30	7.00	7.20	7.45	7.35	7.70	8.35	8.80
18	9.75	9.70	7.85	7.45	7.20	6.85	7.25	7.40	7.40	7.70	8.20	8.65
19	9.60	9.65	7.85	7.40	7.25	6.80	7.35	7.40	7.40	8.00	8.30	8.90
20	9.45	9.60	7.80	7.45	7.40	6.75	7.30	7.55	7.40	8.05	8.40	8.75
21	9.55	9.65	7.85	7.65	7.30	6.70	7.60	7.80	7.50	8.10	8.10	8.75
22	9.40	9.90	7.90	7.60	7.45	7.10	7.60	7.70	7.40	8.00	8.05	8.80
23	9.50	10.00	7.85	7.55	7.30	7.00	7.55	7.75	7.50	7.75	7.90	8.60
24	9.75	9.70	7.65	7.50	7.40	6.90	7.50	7.95	7.40	7.70	7.85	8.65
25	9.80	9.65	7.60	7.50	7.25	7.00	7.65	7.60	7.35	7.90	7.75	8.75
26	9.70	9.70	7.55	7.50	7.40	6.85	7.55	7.60	7.50	7.85	8.00	8.90
27	9.70	9.80	7.50	7.75	7.30	6.85	7.70	7.80	7.70	8.05	7.80	8.65
28	9.65	9.80	7.75	7.65	7.30	7.05	7.75	7.70	7.75	7.85	7.80	8.75
29	9.55	9.90	7.70	7.50	---	7.00	7.55	7.50	7.75	8.10	7.90	8.80
30	9.70	9.50	7.50	7.40	---	6.90	7.50	7.40	7.80	8.15	8.00	8.80
31	9.55	---	7.40	7.40	---	6.95	---	7.30	---	8.10	8.05	---
MAX	10.15	10.05	9.10	7.75	7.70	7.30	7.75	7.95	7.80	8.25	9.00	9.10

CAL YR 1996 LOW 10.15
WTR YR 1997 LOW 10.15



GROUND-WATER RECORDS Franklin County

229

394956083002700. LOCAL NUMBER, FR-18

LOCATION.--Lat 39°49'56", long 83°00'27", Hydrologic Unit 05060001, south of State Rt. 665 at Shadeville.
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.--Type F continuous recorder.

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, Division of Water.

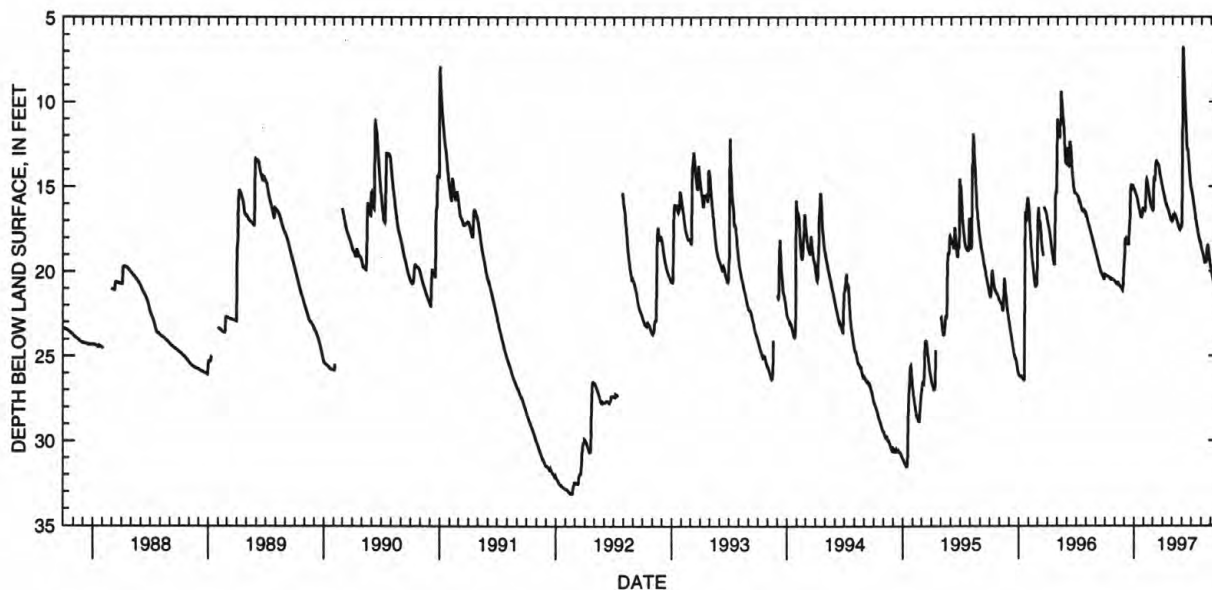
PERIOD OF RECORD.--November 22, 1985, to March 26, 1986, periodic, continuous thereafter.

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 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.21	20.60	19.25	15.17	16.33	16.42	15.11	16.96	17.09	15.17	18.58	19.92
2	20.22	20.64	18.78	15.23	16.37	16.35	15.22	17.00	13.40	15.26	18.69	20.03
3	20.22	20.67	18.15	15.29	16.41	15.15	15.32	16.93	7.00	15.38	18.79	20.13
4	20.23	20.70	18.08	15.37	16.43	14.60	15.41	16.70	6.74	15.51	18.82	20.23
5	20.25	20.73	18.07	15.38	16.30	14.63	15.49	16.72	7.21	15.65	18.86	20.33
6	20.26	20.76	18.05	15.45	15.65	14.65	15.58	16.72	7.88	15.77	18.95	20.43
7	20.28	20.77	18.10	15.52	14.95	14.65	15.68	16.73	8.47	15.92	19.04	20.52
8	20.29	20.69	18.17	15.58	14.60	14.25	15.77	16.75	8.95	16.06	19.14	20.60
9	20.30	20.66	18.25	15.63	14.57	13.78	15.88	16.65	9.45	16.17	19.26	20.68
10	20.30	20.66	18.32	15.71	14.65	13.64	15.97	16.68	9.90	16.31	19.36	20.75
11	20.32	20.68	18.38	15.80	14.75	13.53	16.05	16.73	10.32	16.44	19.45	20.83
12	20.33	20.71	18.41	15.90	14.85	13.50	16.10	16.78	10.80	16.58	19.53	20.91
13	20.36	20.75	18.41	16.00	14.98	13.57	16.09	16.84	11.25	16.70	19.47	20.99
14	20.38	20.79	18.41	16.11	15.10	13.60	16.16	16.89	11.75	16.83	19.41	21.06
15	20.40	20.83	17.90	16.20	15.23	13.60	16.22	16.94	12.25	16.96	19.45	21.14
16	20.42	20.87	17.51	16.28	15.36	13.65	16.28	17.01	12.72	17.08	19.44	21.21
17	20.44	20.90	17.35	16.38	15.49	13.70	16.33	17.08	12.77	17.20	19.44	21.29
18	20.46	20.90	16.85	16.48	15.62	13.74	16.38	17.16	12.86	17.31	18.80	21.37
19	20.41	20.92	15.78	16.56	15.76	13.74	16.44	17.24	12.75	17.43	18.67	21.44
20	20.42	20.95	15.18	16.65	15.90	13.84	16.50	17.30	12.99	17.55	18.68	21.50
21	20.44	20.98	15.02	16.73	16.00	13.96	16.57	17.36	13.27	17.69	18.43	21.58
22	20.46	21.02	15.07	16.75	16.08	14.10	16.64	17.42	13.53	17.81	18.49	21.66
23	20.47	21.05	15.10	16.79	16.14	14.24	16.72	17.46	13.79	17.87	18.62	21.73
24	20.48	21.08	14.98	16.80	16.20	14.37	16.78	17.53	14.03	17.97	18.78	21.79
25	20.50	21.10	14.94	16.59	16.26	14.45	16.85	17.55	14.26	18.08	18.94	21.85
26	20.52	20.88	14.95	16.61	16.32	14.53	16.92	17.41	14.49	18.18	19.11	21.91
27	20.52	20.76	14.97	16.62	16.38	14.66	16.97	17.44	14.68	18.17	19.27	21.96
28	20.53	20.15	14.99	16.29	16.41	14.77	16.90	17.44	14.87	18.19	19.42	22.01
29	20.54	19.68	15.03	16.29	---	14.85	16.90	17.44	15.05	18.27	19.54	22.07
30	20.57	19.49	15.07	16.29	---	14.95	16.95	17.30	15.17	18.35	19.67	22.11
31	20.58	---	15.12	16.30	---	15.02	---	17.31	---	18.50	19.80	---
MAX	20.58	21.10	19.25	16.80	16.43	16.42	16.97	17.55	17.09	18.50	19.80	22.11

CAL YR 1996 LOW 26.45
WTR YR 1997 LOW 22.11



GROUND-WATER RECORDS

Franklin County

395118082573300. LOCAL NUMBER, FR-3

LOCATION.--Lat 39°51'14", long 82°57'32", Hydrologic Unit 05060001, 0.7 mi southwest of Rees.

Owner: R. Hann.

AQUIFER.--Sand and gravel of Pleistocene Age.

CHARACTERISTICS.--Drilled test water table well, diameter 12 in., depth drilled 60 ft, present depth 53 ft, cased.

INSTRUMENTATION.--Type F continuous recorder.

DATUM.--Elevation of land-surface datum is 712.94 ft above sea level.

Measuring point: Floor of instrument shelter 3.43 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

PERIOD OF RECORD.--April 1946 to September 1982 continuous, periodic October 1982 to September 1989, continuous thereafter.

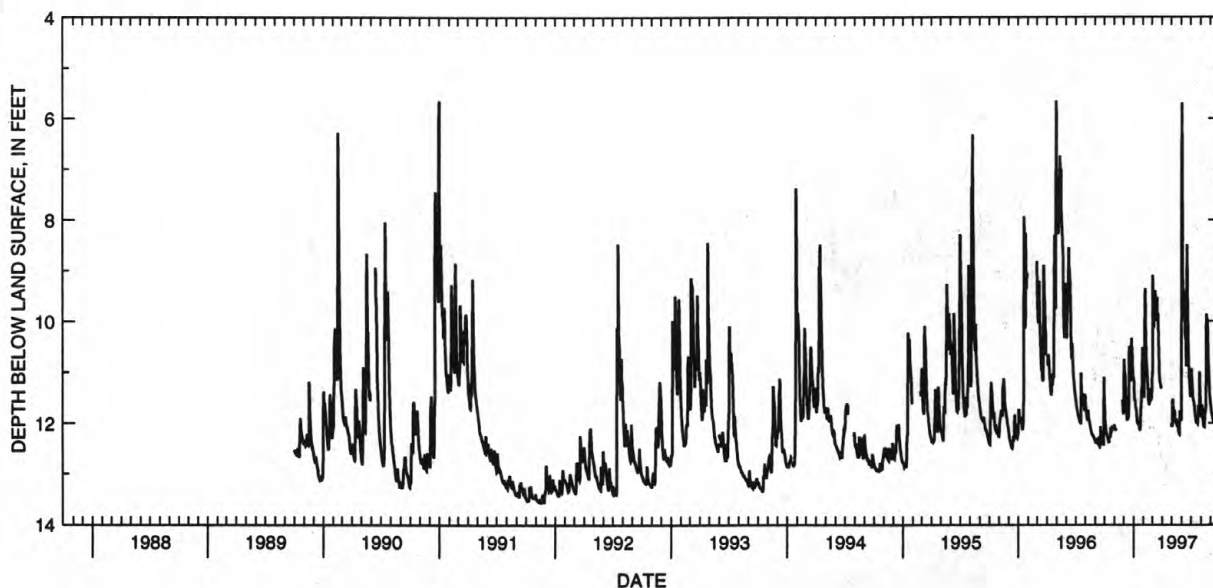
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 20.75 ft below land-surface datum, July 7, 1966;
minimum daily low, 0.0 ft below land-surface datum, Jan. 22, 1959.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.66	12.04	11.60	11.13	11.20	11.12	---	12.05	11.70	11.14	11.74	11.64
2	11.82	12.08	10.75	11.17	11.37	11.00	---	12.05	6.65	10.94	11.80	11.68
3	11.96	12.12	10.88	11.38	11.49	9.10	---	12.05	5.70	10.96	11.87	11.75
4	12.05	12.13	11.01	11.52	11.49	9.80	---	11.55	7.00	11.12	11.89	11.79
5	12.12	12.13	11.03	11.57	10.78	10.02	---	11.53	9.05	11.25	11.64	11.83
6	12.16	12.13	11.08	11.53	9.61	10.14	---	11.66	9.43	11.37	11.79	11.86
7	12.19	12.11	11.33	11.66	9.36	9.93	---	11.78	9.37	11.48	11.89	11.89
8	12.22	---	11.55	11.71	9.90	9.54	---	11.85	9.42	11.54	11.96	11.93
9	12.26	---	11.74	11.72	10.31	9.77	---	11.80	9.53	11.58	12.02	11.95
10	12.27	---	11.82	11.77	10.58	9.77	---	11.75	9.61	11.57	12.06	11.95
11	12.28	---	11.92	11.89	10.77	9.40	---	11.83	9.89	11.63	12.07	11.94
12	12.32	---	11.95	11.94	10.92	9.68	---	11.91	10.20	11.68	12.06	11.79
13	12.35	---	11.91	11.99	10.98	9.97	---	11.97	10.35	11.76	12.07	11.87
14	12.37	---	11.84	12.01	11.08	10.00	---	12.00	10.04	11.82	11.72	11.94
15	12.39	---	11.86	12.02	11.25	9.55	---	12.00	10.55	11.87	11.81	11.98
16	12.26	---	11.88	11.97	11.40	9.53	---	11.92	10.89	11.92	11.74	12.00
17	12.26	---	11.87	11.93	11.53	9.87	---	12.01	10.80	11.97	11.68	12.04
18	12.27	---	10.59	12.02	11.58	9.90	---	12.05	9.35	12.00	10.25	12.08
19	12.27	---	10.50	12.07	11.63	9.85	---	12.05	8.50	11.98	9.87	12.08
20	12.09	---	10.51	12.11	11.63	10.07	---	12.01	9.12	11.94	10.07	12.09
21	12.17	---	10.82	12.14	11.58	10.45	---	12.07	9.80	12.00	9.95	12.05
22	12.19	---	11.08	12.11	11.50	10.75	---	12.12	10.25	12.01	10.00	12.10
23	12.17	---	11.18	12.00	11.33	10.98	---	12.17	10.53	11.89	10.36	12.13
24	12.10	---	11.15	11.73	11.48	11.10	---	12.20	10.80	11.65	10.62	12.15
25	12.06	---	10.34	11.68	11.52	11.20	---	12.21	11.02	11.74	10.84	12.13
26	12.09	---	10.50	11.33	11.53	11.21	---	12.05	11.14	11.85	10.99	12.17
27	12.10	11.55	10.52	11.45	11.52	11.24	---	11.78	11.25	11.88	11.14	12.19
28	12.08	11.70	10.67	11.33	11.45	11.30	---	11.78	11.38	11.00	11.27	12.20
29	12.08	11.80	10.87	10.52	---	11.30	---	11.92	11.47	11.24	11.44	12.20
30	12.08	11.82	11.00	10.60	---	11.31	12.01	11.92	11.47	11.46	11.51	12.25
31	12.10	---	11.10	10.97	---	11.31	---	11.96	---	11.64	11.58	---
MAX	12.39	12.13	11.95	12.14	11.63	11.31	12.01	12.21	11.70	12.01	12.07	12.25

CAL YR 1996 LOW 12.47
WTR YR 1997 LOW 12.39



GROUND-WATER RECORDS

Franklin County

231

400101083021800. LOCAL NUMBER, FR-10

LOCATION.--Lat 40°01'01", long 83°02'18", Hydrologic Unit 05060001, Kenny and Ackerman Roads, Columbus.

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, Division of Water.

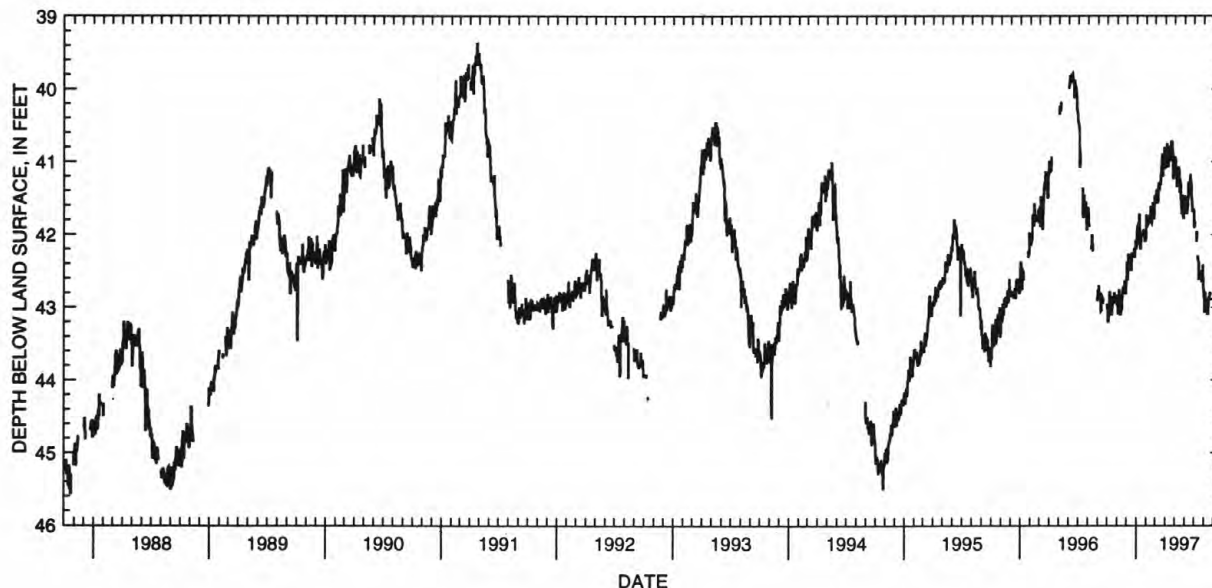
PERIOD OF RECORD.--March 1944 to current year.

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 1996 TO SEPTEMBER 1997 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43.03	42.90	42.38	42.13	41.75	41.49	41.06	40.93	41.47	41.90	42.87	---
2	43.01	42.89	42.45	41.95	41.85	41.48	41.09	41.10	41.48	41.90	42.83	---
3	43.20	43.06	42.62	41.89	41.90	41.45	41.04	40.96	41.50	41.83	43.07	---
4	43.20	43.09	42.62	41.88	41.75	41.40	40.93	41.11	41.54	41.84	42.80	---
5	43.15	43.03	42.48	41.89	41.87	41.40	40.88	41.15	41.57	---	42.79	---
6	43.10	42.93	42.28	42.05	41.86	41.47	40.75	41.19	41.55	41.93	42.87	---
7	42.95	42.82	42.27	42.13	41.80	41.57	40.95	41.35	41.61	---	42.92	---
8	42.81	42.76	42.38	42.12	41.81	41.55	41.01	41.18	41.72	42.10	42.94	---
9	42.78	42.87	42.43	41.72	41.82	41.55	41.06	41.08	41.55	41.96	42.92	---
10	42.95	43.02	42.33	41.90	41.78	41.33	41.06	41.19	41.64	42.05	42.92	---
11	42.95	43.10	42.30	42.10	41.73	41.29	41.00	41.22	41.57	---	43.00	---
12	42.95	43.10	42.40	42.19	41.81	41.39	40.79	41.07	41.37	42.29	43.10	---
13	42.95	43.06	42.50	42.20	41.84	41.39	40.87	41.08	41.29	42.34	42.94	---
14	43.06	43.03	---	42.20	41.61	41.28	40.97	41.12	41.29	42.36	43.00	---
15	43.11	43.03	42.50	42.00	41.76	---	40.99	41.21	41.46	42.38	43.10	---
16	43.00	42.99	42.37	41.97	41.83	---	40.95	41.42	41.31	42.62	42.88	---
17	43.02	42.90	42.25	42.00	41.84	41.32	40.82	41.23	41.31	---	42.85	---
18	42.85	42.80	42.28	41.98	41.79	41.17	40.80	41.32	41.24	42.57	42.90	---
19	42.88	42.75	42.30	41.97	41.62	41.16	40.71	41.30	41.17	---	42.86	---
20	42.85	42.73	---	42.00	41.71	41.12	40.75	41.48	41.26	---	42.80	---
21	42.95	42.72	---	---	41.56	40.95	40.71	41.60	41.29	42.50	42.79	---
22	42.88	42.78	---	41.93	41.58	40.89	40.74	41.66	41.34	42.58	42.83	---
23	42.80	42.78	42.29	42.00	41.71	41.02	40.82	41.72	41.54	42.58	---	---
24	42.85	42.65	42.19	42.02	41.79	41.19	40.91	41.60	41.55	42.63	---	---
25	---	42.63	42.31	42.03	41.75	41.19	41.10	41.46	41.69	42.65	42.88	---
26	---	42.79	42.31	42.10	41.58	41.01	41.24	41.57	41.67	42.55	42.90	43.30
27	---	42.82	42.20	42.03	41.47	41.00	41.15	41.75	---	---	42.90	43.40
28	---	42.82	42.18	42.05	41.56	40.94	40.92	41.78	---	42.41	---	43.47
29	---	42.71	42.08	42.09	---	40.80	41.00	41.75	---	42.58	42.99	43.18
30	42.83	42.58	42.20	42.03	---	40.86	41.01	41.67	41.65	42.74	---	43.40
31	42.97	---	42.17	41.73	---	40.98	---	41.67	---	42.76	---	---
MAX	43.20	43.10	42.62	42.20	41.90	41.57	41.24	41.78	41.72	42.76	43.10	43.47

CAL YR 1996 LOW 43.20
WTR YR 1997 LOW 43.47



GROUND-WATER RECORDS
Gallia County**383638082103300. LOCAL NUMBER, G-2**

LOCATION.--Lat 38°36'38", long 82°10'33", Hydrologic Unit 05090101, 5.9 mi east of Crown City.

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, Division of Water.

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, Oct. 4, 1982;
minimum daily low 16.43 ft below land-surface datum, Mar. 8, 1979.WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATIONS

DATE	WATER LEVEL
Oct. 8, 1996	31.27
Apr. 3, 1997	24.58

GROUND-WATER RECORDS

233

Greene County

394411083561300. LOCAL NUMBER, GR-1

LOCATION.--Lat 39°44'11", long 83°56'13", Hydrologic Unit 05090202, along Massies Creek near U.S. 68 north of Xenia.

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.

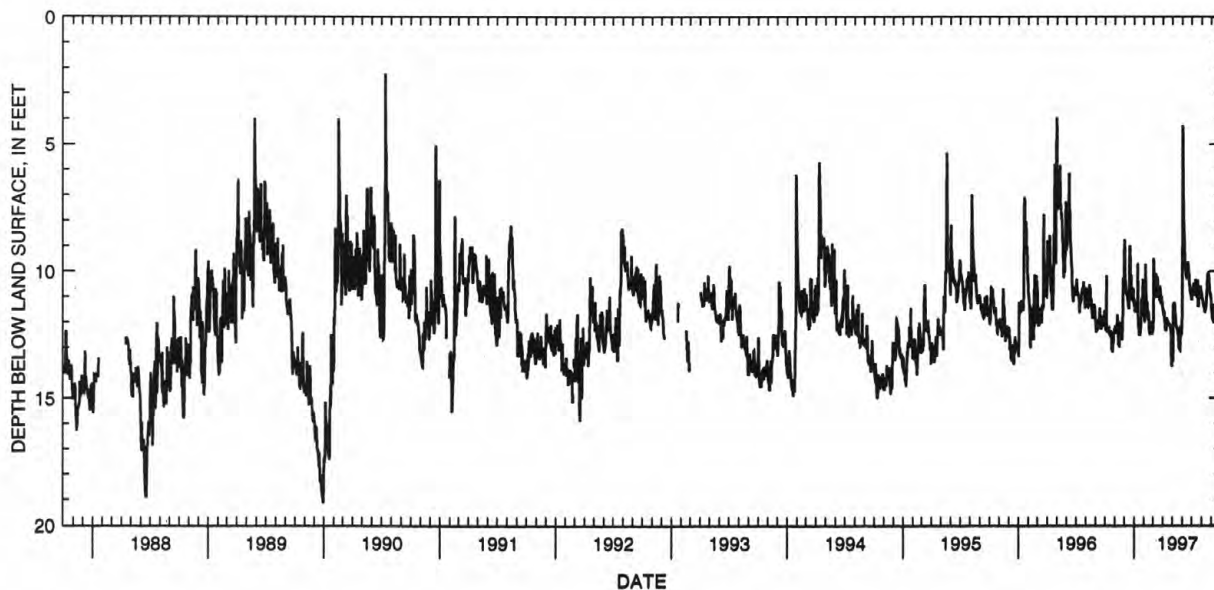
Measuring point: Floor of instrument shelter 4.50 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

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, 0.70 ft above land-surface datum, Aug. 3, 1958.DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.90	12.28	8.76	11.22	11.64	12.33	11.55	13.46	11.51	11.14	10.86	11.51
2	12.06	12.32	9.23	11.21	11.93	11.93	11.51	13.56	4.26	10.66	11.02	11.66
3	12.30	12.37	10.09	11.58	12.00	9.50	11.73	12.98	5.15	10.71	11.09	11.86
4	12.36	12.39	10.36	11.58	11.10	9.95	11.54	11.30	6.78	10.84	11.12	11.79
5	10.17	12.45	10.58	11.26	9.72	10.49	11.61	11.54	7.93	10.88	11.27	11.90
6	12.09	12.36	10.61	11.32	10.52	10.59	11.77	11.59	8.34	10.47	11.29	11.93
7	12.25	12.09	10.91	11.43	10.99	10.90	11.97	11.23	8.65	10.84	11.36	11.85
8	12.33	12.24	10.93	11.31	11.14	10.98	12.11	11.39	9.16	10.87	11.41	11.66
9	12.31	11.71	10.77	11.29	11.26	11.04	12.31	11.66	9.62	10.79	11.34	11.56
10	12.34	12.29	11.02	11.64	11.31	10.23	12.24	11.68	9.81	10.45	11.58	11.35
11	12.36	12.44	11.16	11.56	11.24	10.10	12.35	11.90	9.95	10.55	11.59	11.36
12	12.23	12.80	11.14	9.69	11.58	10.58	12.24	12.08	10.07	10.54	11.47	11.49
13	12.22	12.78	11.39	11.79	11.88	10.89	11.83	12.14	10.20	10.32	11.55	11.35
14	12.39	12.77	11.39	12.11	11.91	10.24	12.02	12.23	10.22	10.59	11.32	11.59
15	12.47	13.00	11.49	12.13	11.62	10.25	11.96	12.27	10.31	10.75	11.39	11.80
16	12.47	12.01	10.72	12.45	11.83	10.68	11.99	12.29	9.91	10.97	11.07	11.87
17	12.54	12.64	9.53	12.52	12.26	11.01	11.95	12.29	10.03	10.99	10.89	11.79
18	12.56	12.55	8.99	12.47	12.41	11.01	12.09	12.45	9.62	11.03	10.46	11.64
19	12.35	12.59	9.50	12.53	12.50	10.71	12.09	12.45	9.69	10.35	10.25	11.76
20	12.39	12.49	10.15	12.17	12.39	10.91	12.08	12.66	9.79	11.23	10.08	11.78
21	12.56	12.31	10.28	12.39	12.01	10.94	12.08	12.94	9.99	11.40	10.18	11.89
22	13.11	12.39	10.26	11.99	12.06	11.16	12.17	13.03	10.13	11.34	10.11	12.17
23	12.77	12.63	11.08	11.27	12.10	10.59	12.13	13.04	10.37	11.04	10.15	12.11
24	13.11	12.71	11.07	11.06	12.17	10.79	12.13	13.07	10.56	10.81	10.41	12.09
25	13.18	12.27	10.77	11.18	12.33	10.95	12.26	13.09	10.69	10.80	10.64	12.14
26	12.79	11.54	11.02	11.24	12.49	11.25	12.29	12.17	10.81	10.98	10.76	12.21
27	12.83	10.26	11.17	11.25	12.39	11.25	12.61	12.33	10.87	11.06	10.83	12.26
28	12.48	10.61	10.88	10.32	12.37	10.98	13.38	12.55	10.93	10.58	10.93	12.31
29	12.47	10.42	10.66	10.73	---	11.11	13.76	12.38	10.91	10.78	10.99	12.35
30	12.27	10.15	11.19	11.15	---	11.29	13.22	12.40	10.95	10.78	10.89	12.23
31	12.38	---	11.25	11.36	---	11.34	---	11.87	---	10.86	11.33	---
MAX	13.18	13.00	11.49	12.53	12.50	12.33	13.76	13.56	11.51	11.40	11.59	12.35

CAL YR 1996 LOW 13.37
WTR YR 1997 LOW 13.76

GROUND-WATER RECORDS

Greene County

394425083551100. LOCAL NUMBER, GR-10

LOCATION.--Lat 39°44'25", long 83°55'11", Hydrologic Unit 05090202, in well field along Massies Creek north of Xenia.
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.

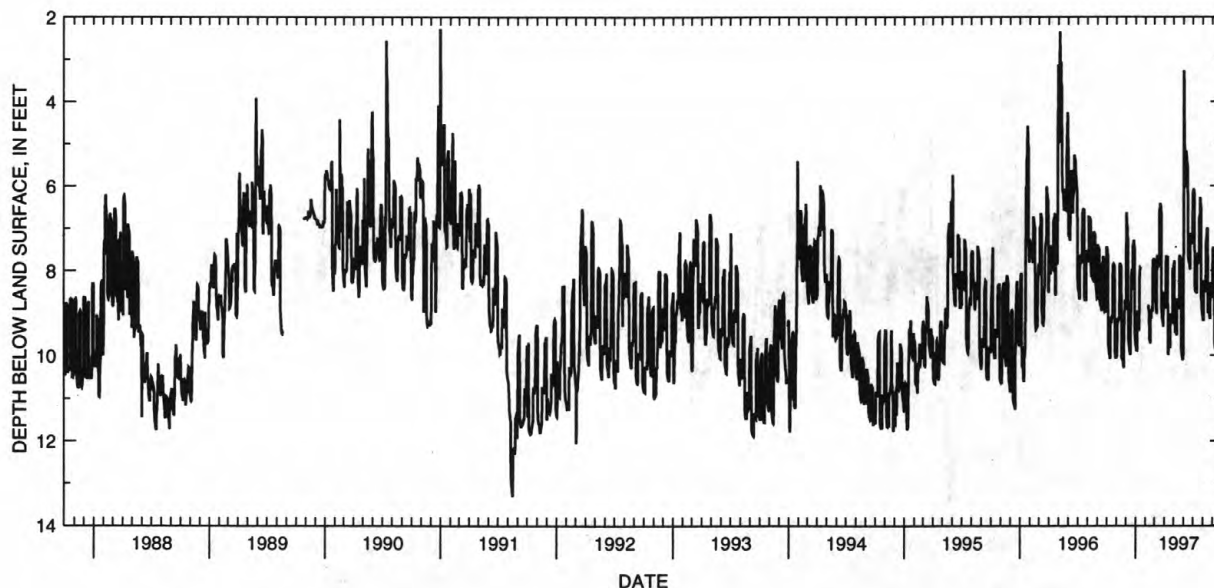
REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

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 1996 TO SEPTEMBER 1997 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.48	10.04	8.81	9.78	---	7.74	8.67	7.90	9.83	6.15	9.08	7.51
2	7.45	9.99	6.63	9.80	---	8.66	8.73	7.91	3.27	6.15	9.17	7.47
3	7.51	10.03	6.77	9.87	---	8.63	8.77	7.78	4.04	6.07	9.17	7.47
4	7.62	9.13	6.94	9.87	---	8.67	8.84	9.26	4.87	6.11	8.24	7.48
5	7.67	9.16	6.98	9.88	---	8.76	8.89	9.30	5.40	6.18	8.26	7.52
6	9.74	9.14	7.18	8.98	---	8.87	7.93	9.44	5.72	8.22	8.28	7.54
7	9.82	9.15	7.27	8.98	---	8.94	7.66	9.44	5.97	8.38	8.38	9.67
8	9.88	9.17	9.47	9.08	---	9.02	7.67	9.43	6.03	8.48	8.45	9.76
9	9.97	9.14	9.64	9.08	---	8.04	7.73	9.49	5.17	8.51	8.49	9.80
10	9.98	9.07	9.72	9.28	8.81	7.64	7.73	9.50	5.27	8.48	8.49	9.79
11	10.05	7.90	9.81	9.38	8.90	7.76	7.74	9.52	5.37	8.49	7.33	9.82
12	10.07	7.83	9.86	9.42	8.96	7.87	7.73	8.67	5.43	8.52	7.29	9.88
13	9.14	7.87	9.93	8.18	9.46	7.94	9.87	8.73	5.50	8.52	7.24	9.96
14	9.13	8.77	9.97	8.04	9.65	7.65	9.98	8.78	5.59	7.60	7.03	9.96
15	9.16	7.87	9.98	7.94	9.63	7.68	9.85	8.84	7.59	7.61	7.03	9.08
16	9.16	7.96	9.16	7.95	9.71	7.70	9.72	8.86	7.72	7.66	7.00	9.11
17	9.17	10.05	9.14	---	8.98	6.58	9.73	8.89	7.78	7.69	8.97	9.14
18	9.07	10.07	8.08	---	9.07	6.57	9.78	8.91	7.80	7.82	8.97	9.12
19	9.05	10.07	7.97	---	9.08	6.41	9.80	7.71	7.80	7.81	8.98	9.16
20	8.09	10.11	8.18	---	8.98	6.45	9.82	7.64	7.86	7.81	9.01	9.17
21	7.87	10.12	8.39	---	8.93	6.49	9.02	7.68	7.95	6.74	8.89	9.17
22	7.87	10.14	8.40	---	8.95	6.64	9.06	7.72	7.97	6.71	9.03	8.00
23	7.85	10.27	7.41	---	8.95	8.88	9.08	7.72	7.13	6.68	9.12	9.83
24	7.87	10.29	7.37	---	7.77	8.97	9.13	7.74	7.16	6.28	9.14	8.80
25	7.95	9.44	8.27	---	7.77	9.09	9.20	9.87	7.18	6.41	8.28	7.92
26	7.89	9.19	7.28	---	7.76	9.15	9.20	9.91	7.22	6.53	8.37	7.90
27	9.95	8.70	7.42	---	7.72	9.20	9.21	10.00	7.26	8.67	8.46	7.91
28	9.99	8.74	7.48	---	7.74	9.21	7.95	10.07	7.36	8.72	8.50	9.97
29	10.07	8.87	9.51	---	---	9.32	7.97	10.08	7.36	8.91	8.60	9.87
30	9.98	8.88	9.64	---	---	8.51	7.96	10.11	6.23	8.95	8.62	10.05
31	10.04	---	9.72	---	---	8.57	---	9.99	---	9.05	8.64	---
MAX	10.07	10.29	9.98	9.88	9.71	9.32	9.98	10.11	9.83	9.05	9.17	10.05
CAL YR 1996	LOW 10.61											
WTR YR 1997	LOW 10.29											



GROUND-WATER RECORDS
Hamilton County

235

391039084291500. LOCAL NUMBER, H-11

LOCATION.--Lat 39°10'39", long 84°29'15", Hydrologic Unit 05090203, 5.6 mi north of Riverfront Stadium in Cincinnati.
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, Division of Water.
PERIOD OF RECORD.--August 1939 to September 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, 47.07 ft below land-surface datum, Aug. 22, 1997.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATIONS

DATE	WATER LEVEL
Oct. 16, 1996	48.15
Apr. 22, 1997	47.27
Aug. 22, 1997	47.07

GROUND-WATER RECORDS

Hamilton County

391101084172100. LOCAL NUMBER, H-3

LOCATION.--Lat 39°11'01", long 84°17'21", Hydrologic Unit 05090202, southeast of Miamiville.

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, Division of Water.

PERIOD OF RECORD.--August 1952 to current year.

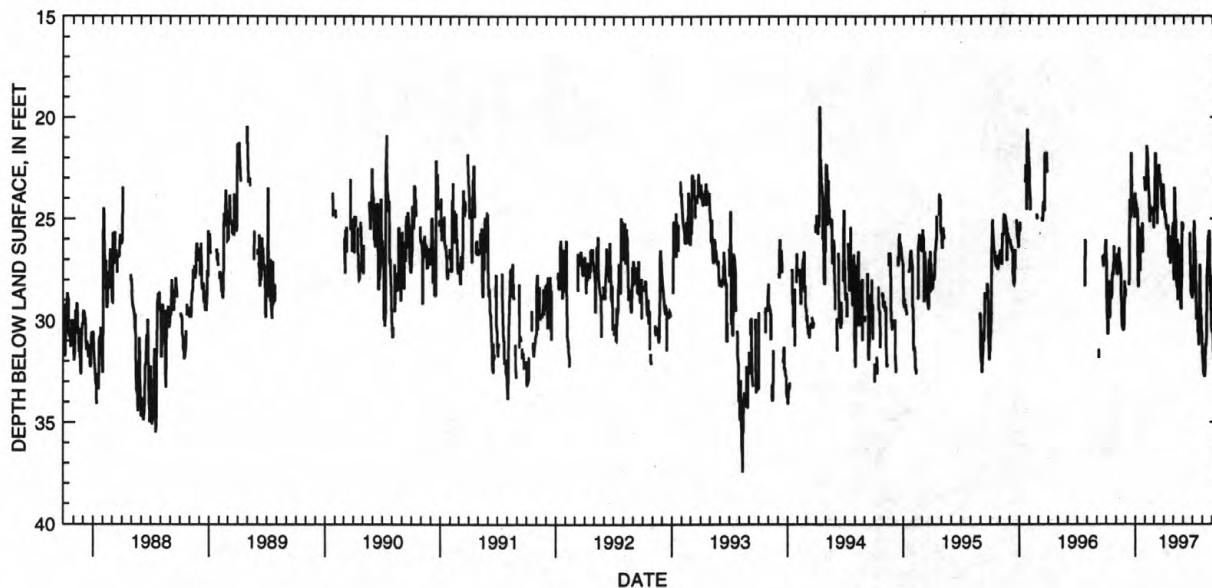
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 37.43 ft below land-surface datum, Aug. 11, 1993;
minimum daily low, 15.60 ft below land-surface datum, Feb. 28, 1962.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27.01	26.99	28.46	24.32	23.62	24.47	24.21	26.32	---	28.75	31.55	30.57
2	28.91	27.52	---	24.19	23.23	24.56	24.57	28.00	---	28.54	31.95	30.61
3	29.64	27.72	---	24.31	23.32	23.14	24.75	25.89	---	27.71	32.14	30.35
4	29.93	26.72	---	24.50	23.49	21.76	24.93	23.47	---	27.32	32.47	31.27
5	30.66	27.52	---	24.75	21.41	21.82	24.75	23.81	---	25.11	32.69	31.59
6	30.66	27.65	---	24.50	21.59	22.72	24.91	24.54	---	25.30	32.39	31.66
7	28.58	27.62	---	24.84	21.81	23.20	25.15	24.96	---	25.89	32.65	29.20
8	28.07	26.99	---	26.89	22.06	23.57	25.31	25.06	---	26.25	32.78	28.17
9	28.23	26.72	---	28.06	22.74	23.32	25.40	26.56	---	26.74	32.51	29.52
10	28.40	26.45	---	28.34	23.08	24.69	25.52	27.73	---	26.95	31.96	29.15
11	29.64	26.91	28.27	25.43	23.45	25.24	25.45	28.30	---	28.29	31.19	29.19
12	29.88	27.24	28.01	25.52	23.71	23.14	25.45	28.34	---	29.48	31.15	30.11
13	28.56	27.18	25.16	25.69	24.02	22.92	25.37	26.02	---	29.96	31.26	30.13
14	28.72	27.18	24.06	25.81	24.54	22.92	25.32	28.83	---	29.85	30.25	29.93
15	28.92	27.70	24.73	26.26	25.16	22.39	26.61	28.99	---	29.44	27.97	30.67
16	28.92	27.72	24.91	27.55	24.37	22.35	26.89	26.34	---	29.39	27.49	31.05
17	28.84	28.80	24.90	26.03	24.42	22.76	26.79	26.26	---	29.90	27.23	31.07
18	28.72	29.34	21.76	25.98	24.54	22.87	26.41	26.41	---	30.61	26.29	30.02
19	27.91	29.88	22.92	26.12	24.63	22.80	25.86	26.58	---	30.01	25.83	31.05
20	27.67	30.22	24.32	26.20	24.69	23.04	25.99	28.07	---	31.21	26.05	31.22
21	27.64	30.39	24.09	26.41	24.71	23.18	27.20	26.42	---	30.30	25.73	29.41
22	27.76	30.43	24.33	26.45	24.49	23.43	27.12	28.13	25.70	30.34	25.59	29.83
23	27.22	30.44	24.63	25.24	24.51	23.30	26.27	28.47	26.79	27.80	25.68	30.10
24	27.15	30.37	24.22	26.65	24.69	24.17	26.02	29.25	27.44	27.25	26.66	30.07
25	26.34	30.46	23.92	---	24.69	24.26	26.08	29.45	28.37	28.58	28.19	31.19
26	---	30.29	24.26	---	24.77	24.40	26.09	27.69	28.73	29.57	28.62	31.46
27	---	28.08	24.55	---	25.46	24.46	26.13	28.39	28.59	30.26	28.48	32.16
28	27.33	28.31	24.93	23.03	24.43	24.52	25.46	25.16	28.34	29.78	27.79	30.82
29	27.32	28.71	24.85	22.98	---	24.53	25.35	25.47	28.90	30.59	30.22	32.17
30	27.01	28.82	23.76	23.12	---	23.30	25.20	25.60	28.81	30.54	30.50	32.25
31	26.92	---	24.08	23.56	---	23.82	---	25.24	---	31.24	30.55	---
MAX	30.66	30.46	28.46	28.34	25.46	25.24	27.20	29.45	28.90	31.24	32.78	32.25

CAL YR 1996 LOW 31.86
WTR YR 1997 LOW 32.78



GROUND-WATER RECORDS

Hamilton County

237

391101084172100. LOCAL NUMBER, H-3—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	LOCAL IDENTIFIER		DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	PUMP OR FLOW PERIOD PRIOR TO SAMPLING (MIN)	FLOW RATE (G/M)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)
JUL 15...	H-3		970715	1157	29.42	60.00	65	2.0	1270	7.2
DATE	TEMPERATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFIDE WATER, FLTRD, FIELD, (MG/L)	SILICA, DIS-SOLVED (MG/L AS SIO2)	NITROGEN, NITRITE DIS-SOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N)
JUL 15...	13.5	0.2	96	28	115	340	0.006	10	<0.010	0.079
DATE	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS DIS-SOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DIS-SOLVED (MG/L AS P)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYLLIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHROMIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)
JUL 15...	3.29	4.5	0.260	0.242	185	<0.50	<1.0	<5.0	9.1	<10
DATE	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGANESE, DIS-SOLVED (UG/L AS MN)	MOLYBDENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SILVER, DIS-SOLVED (UG/L AS AG)	STRONTIUM, DIS-SOLVED (UG/L AS SR)	VANADIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
JUL 15...	3900	<10	21	80	11	<10	<1.0	1560	<6	3.3

GROUND-WATER RECORDS

Hamilton County

391201084281600. LOCAL NUMBER, H-10

LOCATION.--Lat 39°12'01", long 84°28'16", Hydrologic Unit 05090203, Section Road, Cincinnati.

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, Division of Water.

PERIOD OF RECORD.--January 1944 to current year.

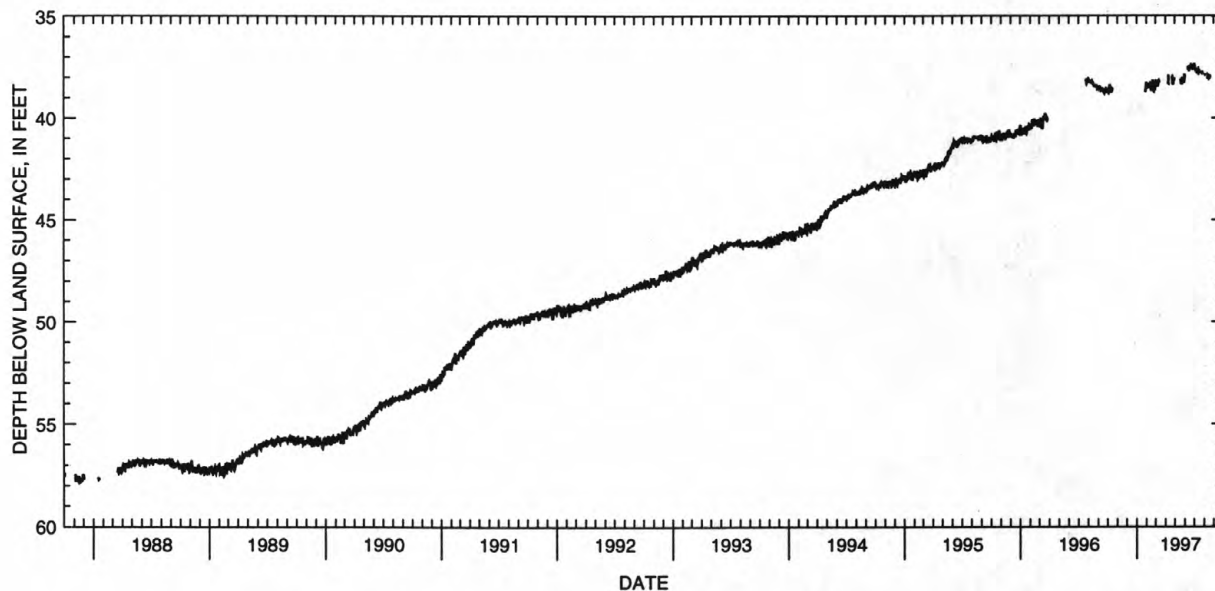
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 121.58 ft below land-surface datum, Nov. 3, 10, 1950;
minimum daily low, 37.38 ft below land-surface datum, July 1-2, 1997.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38.63	---	---	---	38.36	38.26	---	---	37.84	37.38	---	---
2	38.62	---	---	---	38.42	38.31	---	---	---	37.38	37.89	---
3	38.74	---	---	---	38.54	38.21	---	---	---	37.46	37.89	---
4	38.76	---	---	---	38.38	38.22	---	---	---	37.56	37.82	---
5	38.69	---	---	---	38.50	38.24	---	---	37.77	37.63	---	---
6	38.62	---	---	---	38.50	38.39	---	---	37.77	37.64	---	---
7	38.47	---	---	---	38.40	38.44	---	---	---	37.67	---	---
8	38.34	---	---	---	38.45	38.35	---	---	---	37.64	---	---
9	38.47	---	---	---	38.47	38.35	38.24	---	---	37.66	---	---
10	38.67	---	---	---	38.38	38.17	38.28	---	---	37.74	---	---
11	38.74	---	---	---	38.35	38.16	38.12	---	37.64	37.76	38.06	---
12	38.69	---	---	---	38.49	38.24	37.89	---	37.50	37.75	38.06	---
13	38.64	---	---	---	38.49	38.16	---	---	37.49	37.65	38.00	---
14	38.59	---	---	---	38.29	---	---	---	37.64	37.61	38.03	---
15	38.61	---	---	---	38.47	---	---	---	37.70	37.70	37.92	---
16	38.55	---	---	---	38.61	---	---	---	37.52	37.76	37.97	---
17	38.51	---	---	---	38.62	---	---	---	37.58	37.72	38.02	---
18	---	---	---	---	38.38	---	---	---	37.55	37.71	38.04	---
19	---	---	---	---	38.43	---	---	38.08	37.55	37.78	38.00	---
20	---	---	---	---	38.43	---	---	38.18	37.46	---	37.89	---
21	---	---	---	---	38.14	---	---	38.29	37.43	37.78	---	---
22	---	---	---	---	38.54	---	37.92	38.30	37.53	---	---	---
23	---	---	---	---	38.62	---	37.92	38.30	37.56	---	---	---
24	---	---	---	---	38.66	---	38.14	38.16	37.52	37.82	---	---
25	---	---	---	---	38.54	---	38.30	38.00	37.48	37.83	---	---
26	---	---	---	---	38.32	---	38.34	38.13	37.50	37.78	---	---
27	---	---	---	---	38.42	---	38.15	38.19	37.56	37.76	---	---
28	---	---	---	38.71	38.46	---	38.03	38.21	37.50	37.77	---	---
29	---	---	---	38.68	---	---	38.10	38.16	37.47	---	---	---
30	---	---	---	38.48	---	---	38.05	38.17	37.46	---	---	---
31	---	---	---	38.25	---	---	---	38.07	---	---	---	---
MAX	38.76	---	---	38.71	38.66	38.44	38.34	38.30	37.84	37.83	38.06	---

CAL YR 1996 LOW 40.85

WTR YR 1997 LOW 38.76



GROUND-WATER RECORDS

Hamilton County

239

391214084470100. LOCAL NUMBER, H-1

LOCATION.--Lat 39°12'14", long 84°47'01", Hydrologic Unit 05080003, Kilby Road 4 mi southeast of Harrison.
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.--Type F continuous recorder.

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, Division of Water.

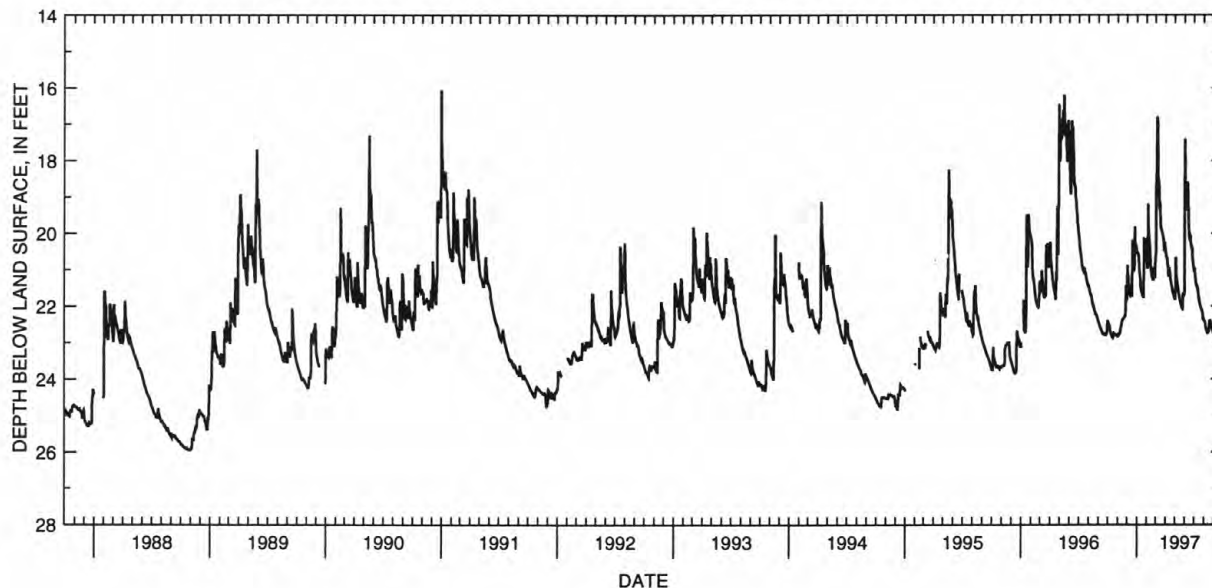
PERIOD OF RECORD.--February 1948 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 25.95 ft below land-surface datum, Oct. 26-27, 1988;
minimum daily low, 14.00 ft below land-surface datum, Jan. 22, 1959.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.43	22.83	21.60	20.57	20.71	20.65	20.43	21.81	19.00	21.02	22.39	22.75
2	22.46	22.83	20.88	20.52	20.96	20.53	20.51	21.81	17.40	21.01	22.41	22.77
3	22.49	22.78	21.08	20.55	20.95	18.72	20.59	21.45	19.01	20.95	22.42	22.79
4	22.51	22.77	21.17	20.57	20.95	18.35	20.65	20.66	19.25	21.11	22.44	22.82
5	22.54	22.78	21.20	20.57	19.20	17.37	20.68	20.98	19.35	21.23	22.45	22.84
6	22.55	22.79	21.39	20.60	19.78	16.80	20.66	21.15	19.30	21.31	22.55	22.92
7	22.58	22.78	21.49	20.78	19.98	16.90	20.76	21.26	19.35	21.39	22.59	22.96
8	22.67	22.77	21.58	21.00	20.11	17.68	20.84	21.32	19.35	21.42	22.64	22.98
9	22.71	22.72	21.63	21.06	20.22	18.47	20.90	21.37	18.98	21.45	22.65	22.98
10	22.75	22.60	21.69	21.15	20.29	18.55	21.07	21.45	18.60	21.45	22.68	22.96
11	22.77	22.59	21.74	21.28	20.36	19.03	21.17	21.51	18.76	21.47	22.73	22.87
12	22.80	22.58	21.74	21.45	20.55	18.60	21.17	21.59	19.00	21.52	22.74	22.93
13	22.82	22.48	21.64	21.52	20.80	19.30	21.15	21.65	19.54	21.60	22.74	22.97
14	22.84	22.42	21.63	21.58	20.93	19.34	20.95	21.70	19.86	21.65	22.71	23.00
15	22.87	22.40	21.68	21.61	21.03	19.13	21.08	21.75	20.04	21.73	22.72	23.03
16	22.88	22.38	21.69	21.60	21.13	19.52	21.17	21.81	20.15	21.82	22.70	23.06
17	22.85	22.37	21.25	21.63	21.20	19.75	21.25	21.84	20.18	21.82	22.70	23.10
18	22.85	22.36	20.20	21.73	21.21	19.88	21.31	21.88	20.20	21.90	22.61	23.12
19	22.80	22.34	20.60	21.70	21.25	19.88	21.37	21.92	20.07	21.94	22.39	23.15
20	22.76	22.33	20.83	21.73	21.28	19.93	21.42	21.95	20.08	21.98	22.42	23.18
21	22.77	22.32	20.95	21.76	21.28	19.94	21.46	21.98	20.35	22.01	22.43	23.20
22	22.77	22.31	21.02	21.76	21.28	20.03	21.49	22.03	20.42	22.04	22.42	23.22
23	22.78	22.30	21.05	20.12	20.95	20.00	21.55	22.05	20.39	22.08	22.46	23.25
24	22.80	22.29	20.91	20.40	21.04	20.05	21.60	22.07	20.34	22.08	22.49	23.26
25	22.80	22.28	19.83	20.57	21.09	20.10	21.65	22.08	20.45	22.10	22.54	23.28
26	22.80	22.07	20.20	20.73	21.21	20.16	21.68	22.06	20.68	22.14	22.57	23.32
27	22.80	21.45	20.31	20.76	21.21	20.23	21.69	21.65	20.76	22.18	22.58	23.34
28	22.80	21.60	20.31	20.15	20.85	20.47	21.72	21.73	20.85	22.22	22.60	23.37
29	22.81	21.83	20.33	20.25	---	20.47	21.77	21.73	20.92	22.35	22.68	23.43
30	22.82	21.85	20.38	20.41	---	20.25	21.80	21.70	20.99	22.36	22.70	23.44
31	22.83	---	20.46	20.56	---	20.31	---	21.68	---	22.36	22.73	---
MAX	22.88	22.83	21.74	21.76	21.28	20.65	21.80	22.08	20.99	22.36	22.74	23.44

CAL YR 1996 LOW 23.12
WTR YR 1997 LOW 23.44



GROUND-WATER RECORDS

Hamilton County

391214084470100. LOCAL NUMBER, H-1—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	LOCAL IDENTIFIER	DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	PUMP OR FLOW PERIOD PRIOR TO SAMPLING (MIN)	FLOW RATE (G/M)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	
JUL 16...	H-1	970716	0917	21.76	124.00	47	10.0	583	7.3	
DATE	TEMPERATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFIDE WATER, FLTRD, FIELD, (MG/L)	SILICA, DIS-SOLVED (MG/L AS SIO2)	NITROGEN, NITRITE DIS-SOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N)
JUL 16...	13.5	0.1	84	20	7.0	214	0.033	9.2	<0.010	2.39
DATE	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS DIS-SOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DIS-SOLVED (MG/L AS P)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYLLIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHROMIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)
JUL 16...	<0.015	<0.20	<0.010	0.013	26	<0.50	<1.0	<5.0	<3.0	<10
DATE	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGANESE, DIS-SOLVED (UG/L AS MN)	MOLYBDENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SILVER, DIS-SOLVED (UG/L AS AG)	STRONTIUM, DIS-SOLVED (UG/L AS SR)	VANADIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
JUL 16...	53	18	<4	61	12	<10	<1.0	208	<6	6.8

GROUND-WATER RECORDS
Hamilton County

241

391324084272500. LOCAL NUMBER, H-9

LOCATION.--Lat 39°13'24", long 84°27'25", Hydrologic Unit 05090203, 9.1 mi north of Riverfront Stadium in Cincinnati.

Owner: Diamond National Corporation.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 10 in., depth drilled 168 ft, present depth 163 ft, cased.

INSTRUMENTATION.--Periodic measurement with chalked tape by ODNR personnel.

DATUM.--Elevation of land-surface datum is 555.30 ft above sea level.

Measuring point: Floor of instrument shelter, 2.76 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

PERIOD OF RECORD.--July 1938 to September 1982 continuous, periodic thereafter.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low 136.80 ft below land-surface datum, Nov. 9, 1947, Feb. 15, 1948; minimum water level measured, 29.45 ft below land-surface datum, Apr. 22, 1997.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATIONS

DATE	WATER LEVEL
Oct. 16, 1996	30.50
Apr. 22, 1997	29.45
June 5, 1997	30.29
July 24, 1997	30.93

GROUND-WATER RECORDS

Hamilton County

391341084275300. LOCAL NUMBER, H-8

LOCATION.--Lat 39°13'41", long 84°27'53", Hydrologic Unit 05090203, Vine and Water Streets, Wyoming.

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.--Type F continuous recorder.

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, Division of Water.

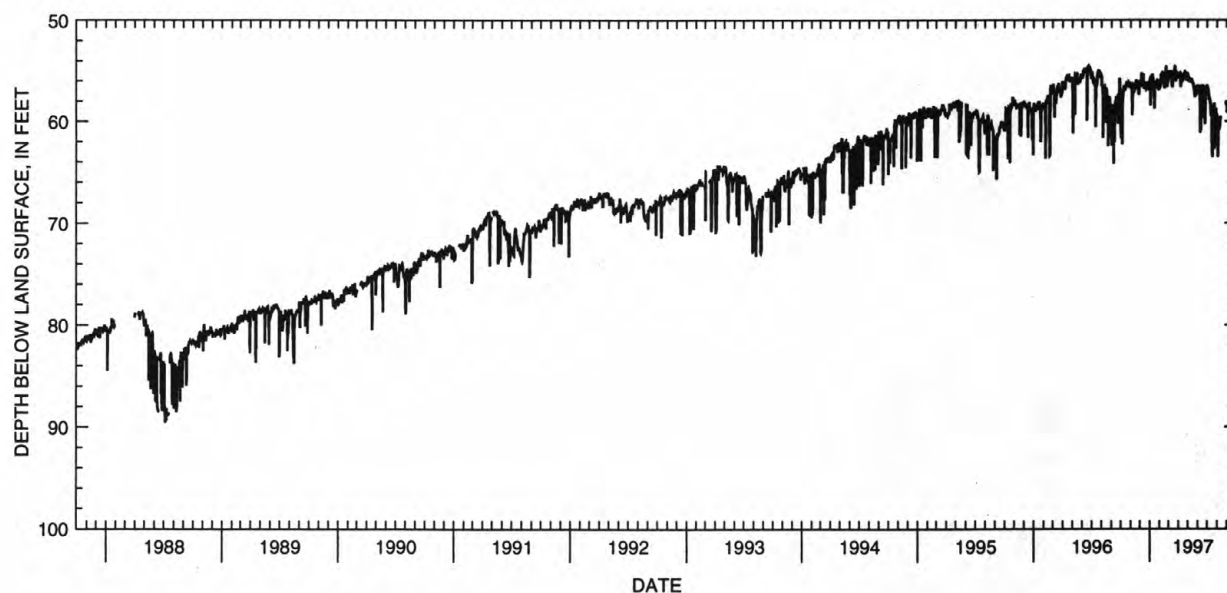
PERIOD OF RECORD.--June 1938 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 148.86 ft below land-surface datum, Dec. 1, 1948;
minimum daily low, 54.45 ft below land-surface datum, Mar. 21, 1997.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	61.65	56.50	56.10	56.05	56.40	55.50	55.70	55.70	56.75	56.55	62.35	59.15
2	57.05	56.65	56.10	55.75	56.60	55.10	55.70	55.50	56.65	56.65	59.70	58.55
3	57.75	56.85	56.15	58.40	56.55	55.10	55.50	55.80	56.80	56.70	59.95	58.45
4	57.80	56.75	56.50	55.55	56.30	55.15	55.30	56.10	56.70	56.90	63.50	58.45
5	62.25	56.65	55.60	56.00	55.45	55.35	55.25	55.70	56.70	57.10	60.20	58.35
6	58.15	59.35	55.20	56.20	55.45	55.50	55.45	55.90	56.65	57.60	60.25	58.35
7	57.60	58.20	56.15	56.30	55.35	55.10	55.15	55.95	56.70	57.85	60.55	58.55
8	57.25	56.20	56.45	56.10	55.50	55.45	56.60	55.80	56.70	57.75	60.50	58.15
9	56.90	56.35	56.60	55.35	55.75	55.20	56.30	56.15	61.10	57.85	60.55	57.65
10	56.50	56.60	56.10	55.70	55.55	55.05	56.00	56.00	57.10	58.05	60.10	57.80
11	56.75	57.10	55.30	56.40	55.30	56.10	55.60	56.00	60.90	58.20	59.85	58.00
12	56.75	57.05	56.30	56.70	55.50	56.50	55.45	56.00	56.50	59.45	59.50	57.45
13	56.80	56.90	56.40	56.75	55.25	56.60	55.75	55.80	56.50	58.85	---	57.75
14	56.95	56.95	56.80	56.75	55.10	55.70	56.05	56.00	56.80	58.65	---	58.20
15	56.70	56.70	56.55	58.75	56.55	55.60	55.90	56.15	56.80	58.45	---	58.10
16	56.65	56.60	56.15	56.35	56.70	55.45	55.55	56.15	56.60	62.05	---	57.95
17	56.45	56.50	56.20	56.30	56.55	55.20	55.50	56.20	56.60	63.50	---	57.90
18	56.35	56.15	56.40	56.40	56.25	55.15	55.35	56.30	56.75	59.30	---	57.95
19	56.45	56.00	56.65	56.35	56.35	54.95	55.40	56.55	56.65	59.60	---	57.75
20	56.55	56.00	56.75	56.50	56.00	54.80	55.50	56.70	56.70	60.00	---	57.90
21	56.40	56.20	56.65	56.15	54.50	54.45	55.25	56.85	59.65	59.40	---	58.45
22	56.20	56.20	56.45	56.00	56.45	55.00	55.20	57.25	56.95	58.80	---	---
23	56.15	56.10	56.20	56.45	55.75	56.05	55.30	57.50	56.95	58.20	---	---
24	56.50	56.10	56.65	55.85	56.60	55.85	55.55	57.50	60.25	62.70	---	---
25	56.35	56.40	56.70	56.55	56.40	55.50	55.85	57.00	57.15	58.75	---	---
26	56.55	57.20	56.50	56.75	55.90	55.60	55.95	57.15	56.80	60.95	---	---
27	56.55	57.35	56.25	56.50	55.95	55.40	55.50	57.30	56.75	60.35	---	---
28	56.50	57.00	56.10	56.90	56.10	55.15	55.55	57.30	56.90	58.75	---	---
29	56.15	56.50	56.40	56.80	---	55.40	55.50	56.60	57.35	58.80	58.00	57.45
30	56.30	56.25	56.30	56.40	---	55.40	55.20	56.50	56.40	60.65	58.30	60.15
31	56.65	---	56.35	55.95	---	55.65	---	56.50	---	59.25	58.30	---
MAX	62.25	59.35	56.80	58.75	56.70	56.60	56.60	57.50	61.10	63.50	63.50	60.15

CAL YR 1996 LOW 64.15
WTR YR 1997 LOW 63.50



GROUND-WATER RECORDS

Hamilton County

243

391442084262900. LOCAL NUMBER, H-7

LOCATION.--Lat 39°14'42", long 84°26'29", Hydrologic Unit 05090203, at Evendale.

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.--Type F continuous recorder.

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, Division of Water.

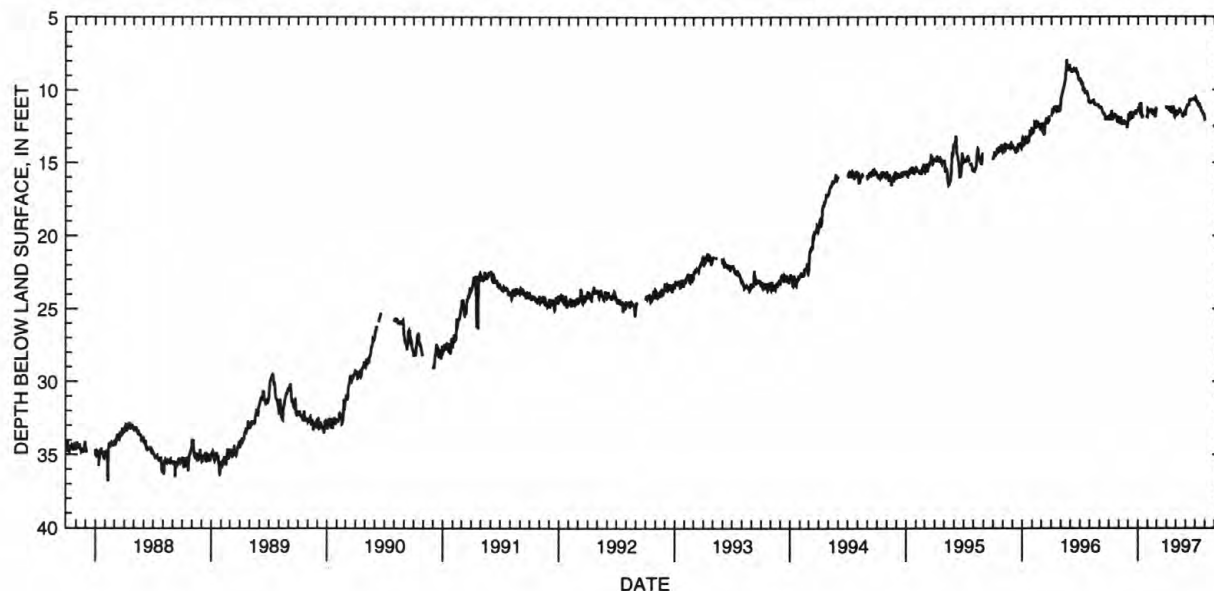
PERIOD OF RECORD.--April 1941 to current year.

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 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.82	12.01	11.67	11.40	11.30	---	11.25	11.51	11.45	10.54	---	---
2	11.72	12.15	11.85	11.20	11.38	---	11.30	11.61	11.26	10.50	---	---
3	11.90	12.26	11.90	---	11.56	---	11.26	11.55	11.20	10.54	---	12.68
4	11.97	12.26	12.08	---	11.55	---	---	11.72	11.17	10.65	---	12.75
5	11.93	12.18	12.05	10.94	11.50	---	---	11.72	11.16	10.83	---	12.74
6	11.87	12.10	11.53	11.34	---	---	---	11.57	11.06	10.88	---	---
7	11.72	12.01	---	11.53	---	---	11.13	11.62	11.03	10.90	---	---
8	11.51	11.85	11.64	11.60	---	---	11.27	11.62	11.03	10.90	---	---
9	11.49	12.00	11.86	11.59	11.45	---	11.41	11.47	11.07	10.88	---	---
10	11.76	12.19	11.86	10.90	11.44	---	11.41	11.53	11.08	11.01	---	---
11	12.01	12.43	11.50	11.33	11.37	---	11.41	11.53	11.04	11.10	---	---
12	12.01	---	11.62	11.70	11.32	---	11.32	11.43	10.89	11.12	---	12.74
13	12.00	---	12.00	11.88	11.45	---	11.27	11.25	10.67	11.13	---	12.80
14	11.90	---	---	11.90	11.40	---	11.50	---	10.67	11.07	---	---
15	11.89	---	---	11.90	11.42	---	11.52	11.37	10.69	11.04	---	---
16	11.84	---	11.92	11.75	11.50	---	11.54	11.55	10.70	11.17	---	---
17	11.81	12.40	11.65	---	11.68	---	11.45	11.53	10.70	11.23	---	---
18	11.74	12.22	11.60	---	11.68	---	11.34	---	10.67	11.25	---	---
19	11.83	12.08	11.62	---	---	---	11.33	---	10.69	11.25	---	---
20	11.82	---	---	---	---	---	11.22	11.60	10.69	11.44	---	12.82
21	11.81	---	---	---	---	---	11.22	11.76	10.65	11.49	---	13.26
22	11.78	12.34	---	---	11.35	---	11.21	11.82	10.63	11.49	---	13.73
23	11.74	12.34	11.61	---	11.70	---	11.19	11.83	10.65	11.50	---	13.95
24	11.79	12.19	11.40	---	11.84	---	11.22	11.78	10.67	11.51	---	13.83
25	11.95	12.18	11.65	---	11.84	---	11.55	11.63	10.68	11.66	---	---
26	12.10	12.35	11.65	---	11.62	---	11.81	11.58	10.70	11.68	---	---
27	12.18	12.62	11.49	11.91	11.23	---	11.85	11.72	10.68	11.68	---	---
28	12.18	12.61	11.36	11.90	11.52	---	11.75	---	10.69	11.68	---	---
29	12.03	12.34	---	11.85	---	---	11.42	---	10.67	11.77	12.43	12.80
30	11.82	12.03	---	11.87	---	---	11.50	11.71	10.65	11.96	12.48	12.93
31	12.02	---	11.40	11.82	---	11.12	---	11.70	---	12.13	12.58	---
MAX	12.18	12.62	12.08	11.91	11.84	11.12	11.85	11.83	11.45	12.13	12.58	13.95

CAL YR 1996 LOW 13.83
WTR YR 1997 LOW 13.95



GROUND-WATER RECORDS

Hamilton County

391608084254400. LOCAL NUMBER, H-6

LOCATION.--Lat 39°16'08", long 84°25'44", Hydrologic Unit 05090203, Water Treatment Plant in Glendale.

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.--Type F continuous recorder.

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, Division of Water.

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.

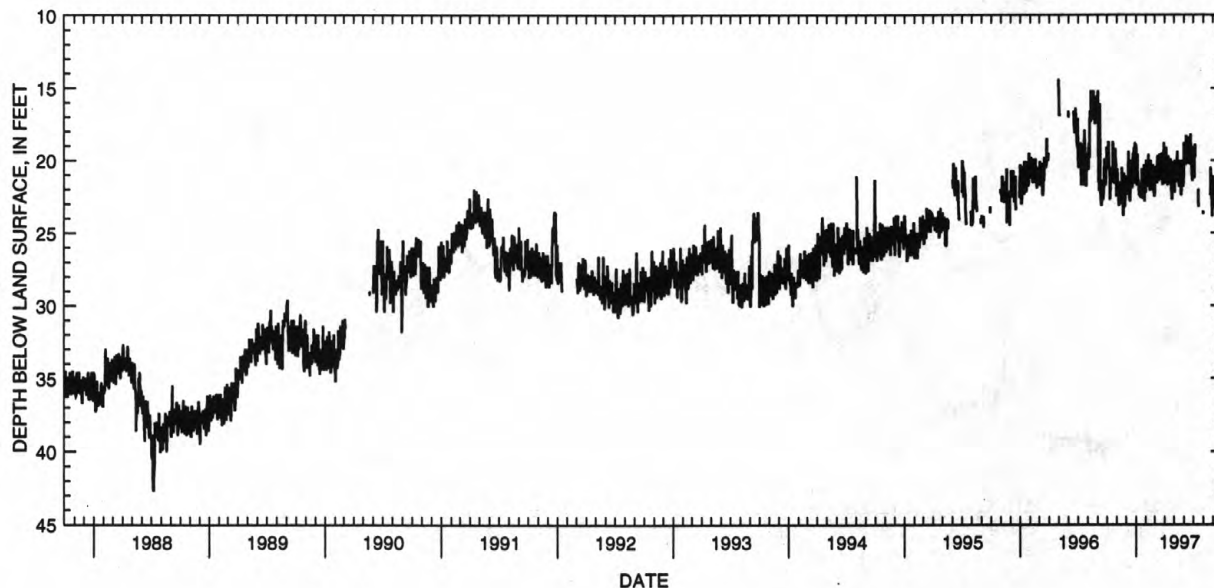
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.10	22.40	21.20	18.90	22.20	22.40	21.50	21.80	18.80	20.70	23.50	21.10
2	20.10	21.90	21.10	20.40	20.00	20.50	21.60	21.70	19.10	20.50	---	21.60
3	20.10	20.60	22.30	21.60	20.80	20.50	21.20	22.20	19.60	20.70	21.50	22.50
4	20.50	21.40	22.30	21.70	21.40	20.90	21.10	20.00	19.50	21.20	---	22.80
5	20.50	22.00	21.70	19.60	21.80	21.00	21.10	20.80	19.50	19.30	---	23.20
6	18.70	22.00	21.80	20.60	21.40	21.40	19.10	21.50	19.90	18.90	---	22.90
7	19.70	22.70	21.50	21.30	21.60	21.50	20.40	21.40	20.30	19.80	---	21.40
8	20.40	23.00	19.40	21.60	21.50	21.50	20.90	21.40	18.30	---	---	21.50
9	20.70	23.10	20.40	21.30	19.60	20.10	21.20	21.20	18.80	---	---	22.10
10	21.20	22.00	21.20	22.00	20.60	19.70	21.60	21.40	19.20	---	---	22.20
11	22.70	21.50	21.60	22.40	21.60	20.20	21.70	19.40	19.50	---	22.40	23.10
12	22.10	22.20	22.60	21.80	21.40	20.40	21.10	20.20	19.40	---	---	23.50
13	20.50	22.40	22.80	22.10	21.60	21.20	19.70	20.40	19.70	---	---	22.90
14	21.50	22.70	21.80	22.50	22.00	20.90	21.10	20.90	20.20	---	---	20.80
15	21.50	23.00	20.00	22.00	22.00	21.40	21.40	20.90	18.40	---	---	21.90
16	20.90	22.90	20.30	22.50	20.00	19.60	21.60	21.60	18.80	22.00	22.20	22.60
17	21.30	20.50	21.10	22.50	20.90	20.40	21.50	21.80	19.30	23.00	---	23.00
18	21.50	21.00	21.20	22.40	21.80	20.80	20.90	20.00	19.60	23.20	---	22.90
19	20.90	22.20	21.70	20.60	22.00	21.00	21.30	20.40	19.90	---	---	22.70
20	18.70	22.00	21.90	21.60	21.80	21.10	19.90	21.20	20.20	---	21.90	22.20
21	19.70	23.60	21.70	22.00	21.80	21.30	20.90	21.40	20.20	---	---	21.40
22	19.80	23.80	19.50	22.30	22.00	21.20	21.70	21.60	18.20	---	22.40	22.00
23	20.60	23.00	20.60	22.60	20.30	19.50	22.10	22.30	19.10	---	22.30	22.60
24	21.10	20.90	21.00	22.60	21.40	20.70	22.20	22.40	19.90	---	20.50	23.00
25	21.60	22.10	19.10	22.50	21.80	21.30	22.70	20.10	20.10	---	21.00	23.70
26	21.10	23.20	20.40	20.30	22.20	21.60	22.00	20.00	20.80	---	21.50	23.80
27	19.20	23.10	20.50	21.00	21.80	21.60	20.10	20.60	21.20	---	22.20	23.20
28	19.80	22.60	20.50	22.80	22.40	20.80	21.40	21.30	21.40	---	23.10	21.90
29	20.00	21.40	18.80	22.00	---	19.60	21.80	21.80	19.10	---	23.80	22.30
30	21.00	21.70	20.30	21.90	---	18.80	22.00	21.70	19.60	---	23.80	23.00
31	22.40	---	21.60	22.00	---	20.40	---	21.20	---	23.70	22.00	---
MAX	22.70	23.80	22.80	22.80	22.40	22.40	22.70	22.40	21.40	23.70	23.80	23.80

CAL YR 1996 LOW 23.80

WTR YR 1997 LOW 23.80



GROUND-WATER RECORDS

Hamilton County

245

391608084254400. LOCAL NUMBER, H-6—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	LOCAL IDENT- I- FIER		DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN)	FLOW RATE (G/M)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH WATER WHOLE FIELD (STAND- ARD UNITS)
JUL 15...	H-6		970715	1646	20.94	160.00	150	8.0	589	7.4
DATE	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFIDE WATER, FLTRD, FIELD, (MG/L)	SILICA, DIS- SOLVED (MG/L AS SIO2)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
JUL 15...	15.5	0.1	73	20	20	260	0.013	15	<0.010	<0.050
DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- (MG/L AS N)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)
JUL 15...	0.257	0.34	0.063	0.073	467	<0.50	<1.0	<5.0	11	<10
DATE	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
JUL 15...	3800	<10	<4	77	16	<10	<1.0	502	<6	34

GROUND-WATER RECORDS

Hamilton County

391733084392400. LOCAL NUMBER, H-2

LOCATION.--Lat 39°17'33", long 84°39'24", Hydrologic Unit 05080002, East Miami River Road 1.5 mi south of Ross.

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.--Type F continuous recorder.

DATUM.--Elevation of land-surface datum is 534.21 ft above sea level.

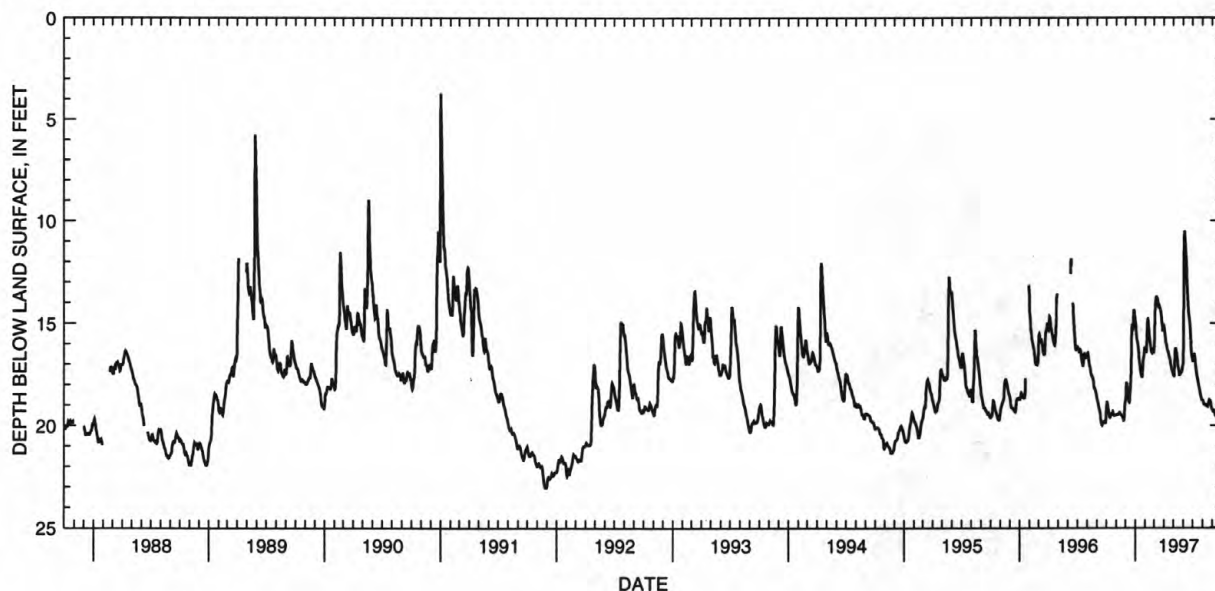
Measuring point: Floor of instrument shelter 8.97 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

PERIOD OF RECORD.--August 1952 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 24.37 ft below land-surface datum, Sept. 24, 25, 1972;
minimum daily low 1.60 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 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.07	19.48	18.78	14.94	16.26	16.20	15.15	17.56	16.92	16.85	18.75	19.22
2	18.85	19.48	18.52	15.07	16.31	15.85	15.24	17.57	15.20	16.85	18.79	19.24
3	18.85	19.48	18.08	15.31	16.41	15.18	15.34	17.57	12.10	16.79	18.82	19.30
4	18.95	19.46	17.89	15.53	16.41	14.37	15.50	17.22	10.85	16.65	18.88	19.32
5	19.05	19.45	17.95	15.72	16.29	13.92	15.67	16.77	10.50	16.48	18.96	19.32
6	19.15	19.45	18.05	15.80	15.77	13.83	15.85	16.43	10.68	16.52	18.98	19.31
7	19.24	19.45	18.18	15.89	15.18	13.79	15.95	16.26	11.00	16.63	18.99	19.30
8	19.33	19.45	18.32	15.96	14.80	13.68	15.98	16.20	11.36	16.75	18.99	19.35
9	19.44	19.42	18.47	16.06	14.79	13.79	16.03	16.31	11.46	16.93	18.99	19.41
10	19.53	19.38	18.61	16.25	14.86	13.80	16.14	16.39	11.79	17.09	18.97	19.49
11	19.59	19.35	18.76	16.45	15.00	13.74	16.24	16.44	12.17	17.23	18.98	19.53
12	19.61	19.35	18.87	16.65	15.22	13.89	16.32	16.59	12.63	17.35	19.02	19.53
13	19.59	19.40	18.88	16.80	15.42	14.01	16.37	16.73	13.08	17.48	19.04	19.51
14	19.53	19.43	18.75	16.95	15.59	14.17	16.38	16.88	13.51	17.56	19.03	19.50
15	19.47	19.45	18.45	17.03	15.75	14.16	16.41	17.05	13.76	17.64	19.02	19.55
16	19.44	19.46	18.18	17.20	15.91	14.04	16.52	17.16	14.00	17.71	19.05	19.62
17	19.43	19.49	18.00	17.32	16.02	14.08	16.61	17.25	14.28	17.79	19.07	19.70
18	19.45	19.51	17.50	17.42	16.15	14.23	16.68	17.30	14.50	17.88	19.01	19.77
19	19.44	19.52	16.55	17.52	16.30	14.25	16.70	17.43	14.65	17.97	18.91	19.82
20	19.37	19.54	15.70	17.60	16.38	14.28	16.75	17.52	14.75	18.04	18.89	19.85
21	19.33	19.57	15.17	17.62	16.43	14.34	16.83	17.52	14.90	18.13	18.79	19.86
22	19.36	19.59	15.02	17.62	16.45	14.45	16.95	17.51	15.07	18.21	18.74	19.87
23	19.43	19.63	15.17	17.54	16.40	14.55	17.05	17.45	15.27	18.28	18.76	19.87
24	19.48	19.71	15.22	17.18	16.26	14.68	17.14	17.39	15.60	18.40	18.76	19.86
25	19.51	19.75	15.10	16.83	16.22	14.85	17.23	17.40	15.98	18.48	18.80	19.83
26	19.52	19.74	14.63	16.71	16.30	14.98	17.28	17.41	16.32	18.54	18.87	19.89
27	19.51	19.52	14.34	16.70	16.43	15.14	17.30	17.39	16.56	18.59	18.96	19.92
28	19.50	19.14	14.39	16.60	16.43	15.32	17.36	17.30	16.63	18.66	19.05	19.93
29	19.50	18.91	14.61	16.35	---	15.31	17.43	17.17	16.67	18.73	19.14	19.93
30	19.49	18.83	14.68	16.15	---	15.31	17.50	17.09	16.78	18.74	19.18	19.94
31	19.49	---	14.81	16.18	---	15.19	---	17.04	---	18.74	19.20	---
MAX	19.61	19.75	18.88	17.62	16.45	16.20	17.50	17.57	16.92	18.74	19.20	19.94
CAL YR 1996	LOW 19.99											
WTR YR 1997	LOW 19.94											



GROUND-WATER RECORDS
Hamilton County

247

391733084392400. LOCAL NUMBER, H-2—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	LOCAL IDENT- I- FIER	DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN)	FLOW RATE (G/M)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH WATER WHOLE FIELD (STAND- ARD UNITS)	
AUG 12...	H-2	970812	1530	19.00	89.00	60	6.0	790	7.0	
DATE	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFIDE WATER, FLTRD, FIELD, (MG/L)	SILICA, DIS- SOLVED (MG/L AS SIO2)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
AUG 12...	15.0	0.1	98	31	21	320	0.003	13	<0.010	<0.050
DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- (MG/L AS N)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)
AUG 12...	0.133	0.29	<0.010	<0.010	171	<0.50	<1.0	5.1	3.6	<10
DATE	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
AUG 12...	1000	20	5	463	<10	<10	<1.0	374	<6	<3.0

GROUND-WATER RECORDS

Hamilton County

391748084393800. LOCAL NUMBER, H-19

LOCATION.--Lat 39°17'48", long 84°39'38", Hydrologic Unit 05080002, on left bank of Great Miami River 1.3 mi southwest of Venice.

Owner: Southwest Ohio Water Company.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Collector-type industrial supply water-table well, diameter 20 ft, depth 144 ft, and horizontal intakes at 95-100 ft.

PERIOD OF RECORD.--1964 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	CALCIUM DIS- SOLVED (MG/L) AS CA (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L) AS MG (00925)	SODIUM, DIS- SOLVED (MG/L) AS NA (00930)	POTAS- SIUM, DIS- SOLVED (MG/L) AS K (00935)	BICAR- BONATE IT-FLD (MG/L) AS HCO3) (99440)	ALKA- LITY, CARBON- ATE IT-FLD (MG/L - CAC03) (99430)
NOV 14...	0830	767	7.6	0.0	15.5	<10	75	26	35	3.9	273	224
APR 08...	0800	715	7.2	1.0	13.0	<10	76	25	27	3.2	278	228
AUG 27...	0800	714	7.4	21.0	14.5	<10	74	27	31	3.3	273	224

DATE	SULFATE DIS- SOLVED (MG/L) AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L) AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L) AS F) (00950)	SILICA, DIS- SOLVED (MG/L) AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L) AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L) AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L) AS N) (00608)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L) AS P) (00671)	ARSENIC TOTAL (UG/L) AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L) AS AS) (01000)
NOV 14...	66	58	0.40	7.8	432	0.030	1.60	0.050	<0.010	<1	<1
APR 08...	58	46	0.30	7.8	414	0.020	2.90	0.030	<0.010	--	--
AUG 27...	62	51	0.33	7.6	434	0.024	1.90	0.027	0.012	<1	<1

DATE	CHRO- MIUM, DIS- SOLVED (UG/L) AS CR) (01030)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L) AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (UG/L) AS CU) (01042)	COPPER, DIS- SOLVED (UG/L) AS CU) (01040)	IRON, DIS- SOLVED (UG/L) AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L) AS PB) (01051)	LEAD, DIS- SOLVED (UG/L) AS PB) (01049)	MANGA- NESE, DIS- SOLVED (UG/L) AS MN) (01056)	ZINC, TOTAL RECOV- ERABLE (UG/L) AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L) AS ZN) (01090)	CARBON, ORGANIC TOTAL (MG/L) AS C) (00680)
NOV 14...	<1.0	<1	1	2.0	13	<1	<1.0	210	10	9.0	2.0
APR 08...	--	--	--	--	13	--	--	200	--	--	2.6
AUG 27...	<1.0	<1	1	1.5	16	<1	<1.0	203	20	9.8	0.90

GROUND-WATER RECORDS

Hamilton County

249

391817084393300. LOCAL NUMBER, H-4

LOCATION.--Lat 39°18'17", long 84°39'33", Hydrologic Unit 05080002, 0.7 mi southwest of Ross.

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.--Digital recorder--60-minute punch.

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.

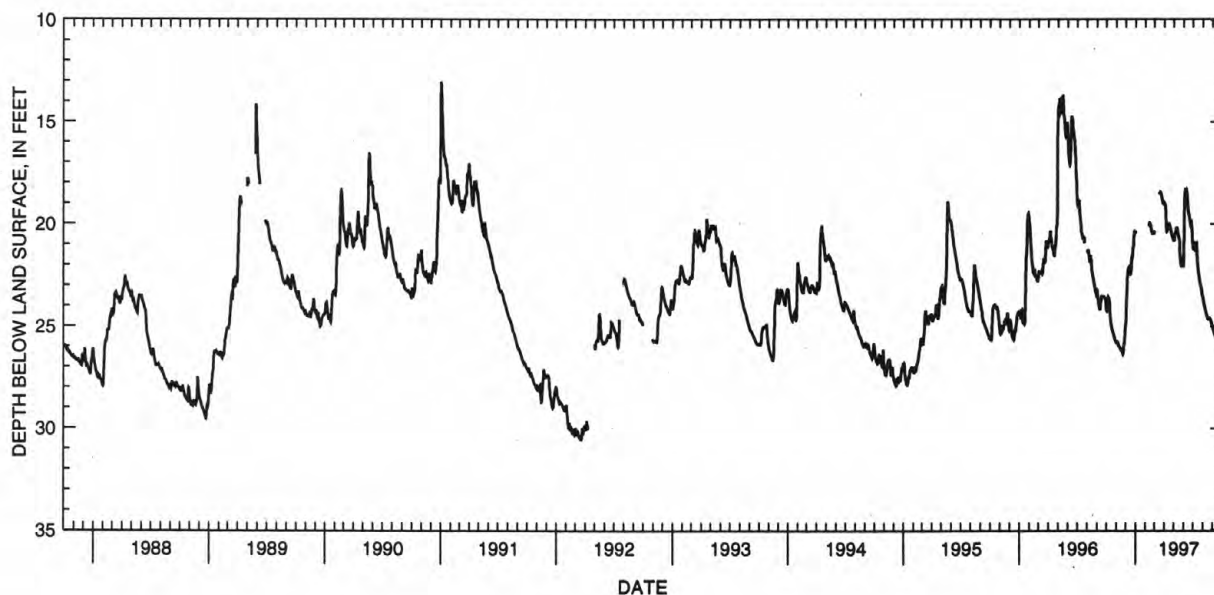
PERIOD OF RECORD.--December 1954 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 32.16 ft below land-surface datum, Nov. 20, 1971;
minimum daily low, 11.60 ft below land-surface datum, June 16, 1958.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.22	25.83	24.83	20.44	---	20.33	18.95	20.79	22.05	21.12	23.60	25.07
2	24.24	25.85	24.64	---	---	---	18.98	20.79	21.19	21.19	23.68	25.11
3	24.16	25.85	24.05	---	---	---	19.02	20.78	19.82	21.23	23.76	25.16
4	23.97	25.76	23.45	---	---	---	19.10	20.53	18.87	21.23	23.84	25.22
5	23.78	25.76	22.97	---	---	---	19.18	20.48	18.46	21.00	23.93	25.27
6	23.72	25.80	22.63	---	---	---	19.58	20.52	18.40	20.87	24.01	25.32
7	23.57	25.87	22.43	---	---	---	19.98	20.45	18.45	21.14	24.09	25.37
8	23.59	25.93	22.27	---	---	---	20.27	20.29	18.45	21.29	24.16	25.42
9	23.64	25.98	22.19	---	---	---	20.35	20.22	18.39	21.29	24.21	25.47
10	23.71	26.00	22.13	---	---	---	20.33	20.18	18.35	21.12	24.27	25.52
11	23.87	26.03	22.08	---	20.03	---	20.22	20.18	18.46	21.00	24.34	25.56
12	24.25	26.05	22.07	---	20.05	---	20.15	20.25	18.61	20.97	24.41	25.61
13	24.49	26.08	22.15	---	20.01	---	20.12	20.32	18.85	21.29	24.47	25.66
14	24.67	26.13	22.32	---	19.95	---	20.09	20.41	19.09	21.60	24.50	25.69
15	24.82	26.18	22.40	---	19.97	---	20.08	20.51	19.29	21.84	24.54	25.72
16	24.93	26.18	22.44	---	20.03	18.54	19.93	20.59	19.44	22.02	24.61	25.78
17	25.03	26.17	22.43	---	20.05	18.50	20.00	20.66	19.48	22.19	24.64	25.83
18	25.12	26.15	22.22	---	20.17	18.50	20.08	20.70	19.56	22.33	24.64	25.89
19	25.17	26.20	21.70	---	20.26	18.50	20.14	20.81	19.65	22.45	24.61	25.95
20	25.22	26.27	21.61	---	20.34	18.45	20.19	21.23	19.73	22.57	24.57	26.00
21	25.27	26.33	21.62	---	20.37	18.47	20.25	21.55	19.84	22.69	24.57	26.01
22	25.33	26.36	21.46	---	20.42	18.53	20.31	21.77	19.98	22.76	24.57	26.00
23	25.38	26.30	21.25	---	20.47	18.61	20.38	21.93	20.02	22.87	24.60	26.02
24	25.44	26.05	21.12	---	20.47	18.65	20.46	21.98	19.95	22.96	24.63	26.06
25	25.50	25.90	21.02	---	20.46	18.75	20.54	21.92	19.78	23.03	24.67	26.09
26	25.58	25.90	20.70	---	20.45	18.84	20.60	21.69	19.94	23.03	24.71	26.12
27	25.63	25.71	20.51	---	20.46	18.91	20.65	21.64	20.18	23.12	24.76	26.17
28	25.67	25.40	20.37	---	20.46	18.98	20.70	21.82	20.53	23.24	24.82	26.20
29	25.71	25.15	20.34	---	---	19.01	20.73	21.97	20.75	23.38	24.89	26.28
30	25.74	24.97	20.35	---	---	19.01	20.72	22.05	20.98	23.47	24.95	26.34
31	25.79	---	20.40	---	---	19.00	---	22.06	---	23.53	25.00	---
MAX	25.79	26.36	24.83	20.44	20.47	20.33	20.73	22.06	22.05	23.53	25.00	26.34

CAL YR 1996 LOW 26.36
WTR YR 1997 LOW 26.36



GROUND-WATER RECORDS

Hardin County

404218083503700. LOCAL NUMBER, HN-1

LOCATION.--Lat 40°42'18", long 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.--Type F continuous recorder.

DATUM.--Elevation of land-surface datum is 975 ft above sea level, from topographic map.

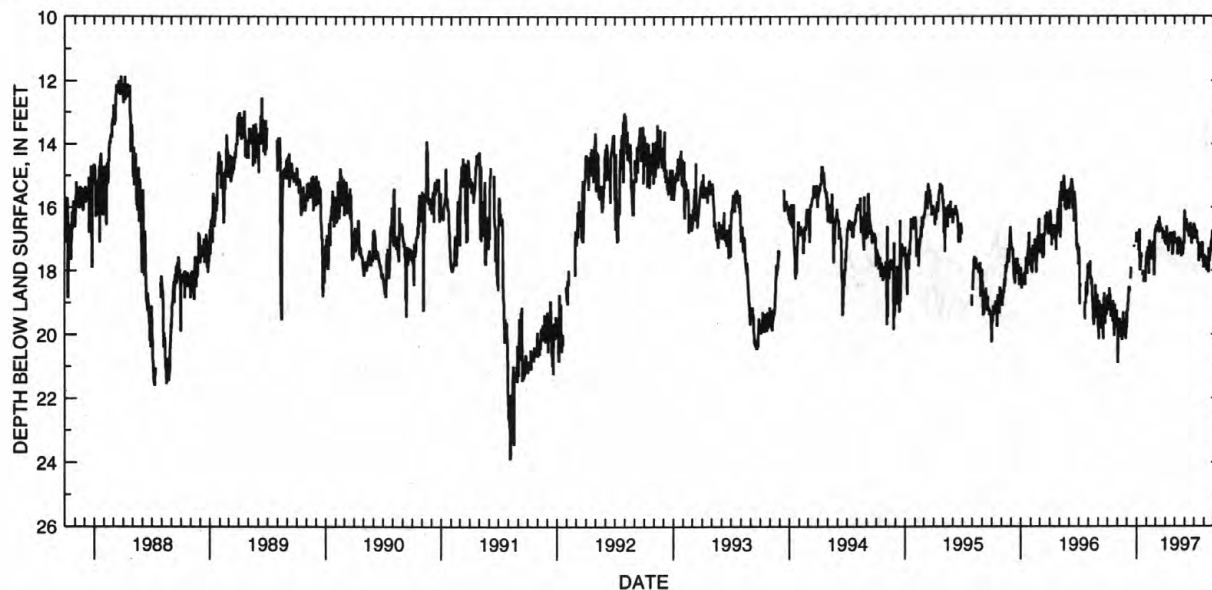
Measuring point: Floor of instrument shelter 1.5 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

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, 5.85 ft below land-surface datum, July 1, 1946.DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.80	19.80	19.80	16.80	17.50	16.70	17.00	16.80	16.40	16.55	17.90	17.30
2	18.80	19.50	19.55	16.90	17.40	16.80	17.15	17.05	16.10	16.55	17.50	17.40
3	19.15	20.90	19.25	16.90	17.45	16.75	16.95	17.10	16.40	16.80	17.75	17.35
4	18.80	20.00	19.25	16.80	17.50	16.60	17.20	17.05	16.45	16.60	17.70	17.65
5	19.25	19.75	18.95	16.90	17.30	16.75	16.85	17.15	16.45	16.90	17.80	17.55
6	19.15	19.90	19.00	17.05	17.25	16.55	16.60	17.05	16.55	16.70	17.60	17.65
7	18.95	19.70	18.70	17.10	17.50	16.75	16.80	17.05	16.40	16.80	17.55	17.55
8	18.55	19.65	18.50	17.35	17.30	16.65	17.00	17.00	16.40	17.00	17.60	17.50
9	18.95	19.50	18.60	16.90	18.10	16.75	17.00	17.00	16.70	16.90	17.85	17.60
10	18.75	19.85	18.50	16.70	17.10	16.45	17.25	17.20	16.70	16.75	17.95	17.50
11	19.10	19.60	18.65	17.60	17.05	16.50	17.15	17.50	16.80	16.95	18.00	17.30
12	19.45	20.10	---	18.00	17.10	16.65	17.40	17.05	16.55	17.00	18.00	17.50
13	19.35	19.80	18.25	17.75	17.25	16.80	17.10	17.20	16.65	17.10	17.60	17.75
14	19.25	19.85	18.10	17.90	17.15	16.30	17.20	17.45	16.60	17.15	17.65	17.70
15	19.45	19.85	17.90	17.60	17.35	16.55	17.10	16.95	16.90	17.10	17.95	17.80
16	19.40	20.15	---	17.55	17.30	16.75	17.00	17.10	16.90	17.15	18.05	17.70
17	19.15	20.15	---	17.45	17.65	16.50	16.80	17.00	16.70	17.70	17.30	17.85
18	19.60	19.95	---	---	17.40	16.70	17.15	17.20	16.60	17.50	17.40	17.70
19	18.95	19.65	---	---	17.45	16.65	16.95	17.15	16.80	17.45	17.65	18.00
20	19.30	19.30	---	18.15	17.30	16.75	16.90	17.00	16.50	17.55	17.70	17.80
21	19.25	19.70	---	18.00	17.35	16.75	16.80	17.25	16.70	17.60	17.55	17.80
22	19.75	19.55	---	---	17.10	16.65	16.90	17.20	16.75	17.50	17.40	18.10
23	20.05	19.90	---	18.35	17.10	16.75	16.90	17.55	17.05	17.40	17.25	17.90
24	19.25	19.80	17.20	18.20	17.30	16.75	17.15	17.35	17.15	17.55	17.15	18.15
25	19.05	19.90	17.25	18.20	17.60	17.00	17.50	17.20	16.90	17.15	17.05	---
26	19.55	19.85	---	18.20	18.15	16.90	17.40	17.35	---	17.30	17.30	18.15
27	19.65	19.95	17.50	18.05	17.65	16.75	17.20	17.50	16.90	17.10	17.15	18.10
28	19.50	20.15	---	18.10	16.85	16.90	17.00	17.35	16.65	17.15	16.75	18.00
29	19.30	19.90	---	18.35	---	16.95	17.05	17.20	17.00	17.50	17.10	18.10
30	19.25	19.30	17.05	17.90	---	16.80	16.80	17.05	16.80	17.70	17.20	---
31	19.45	---	17.10	17.80	---	17.10	---	17.15	---	17.75	17.30	---
MAX	20.05	20.90	19.80	18.35	18.15	17.10	17.50	17.55	17.15	17.75	18.05	18.15

CAL YR 1996 LOW 20.90
WTR YR 1997 LOW 20.90

GROUND-WATER RECORDS

Hocking County

251

393200082235300. LOCAL NUMBER, HK-1

LOCATION.--Lat 39°32'00", long 82°23'53", Hydrologic Unit 05060002, at railroad yards southeast edge of Logan.

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, Division of Water.

PERIOD OF RECORD.--August 1962 to September 1982 continuous, periodic thereafter.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 21.35 ft below land-surface datum, Dec. 21, 22, 1967;
minimum daily low, 9.11 ft below land-surface datum, Apr. 22, 1964.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM INSTANTANEOUS OBSERVATIONS

DATE	WATER LEVEL
Oct. 8, 1996	18.54
Apr. 2, 1997	15.25

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	LOCAL IDENT- I- FIER	DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN)	FLOW RATE (G/M)	SPE- CIFIC CON- DUCT- ANCE (US/CM)		
JUN 23...	HK-1	970623	1231	18.33	88.00	33	10.0	1690		
DATE	PH WATER WHOLE FIELD (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	ALKA- LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3)	SILICA, DIS- SOLVED (MG/L AS SIO2)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
JUN 23...	7.5	13.0	0.1	150	50	104	342	11	<0.010	<0.050
DATE	NITRO- GEN, AM- MONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)
JUN 23...	0.524	0.52	0.083	0.016	296	<0.50	<1.0	<5.0	31	<10
DATE	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
JUN 23...	3800	<10	12	64	17	<10	<1.0	591	<6	96

GROUND-WATER RECORDS

Knox County

402344082300700. LOCAL NUMBER, K-1

LOCATION.--Lat 40°23'44", long 82°30'07", Hydrologic Unit 05040003, in city park, Mt. Vernon.

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, Division of Water.

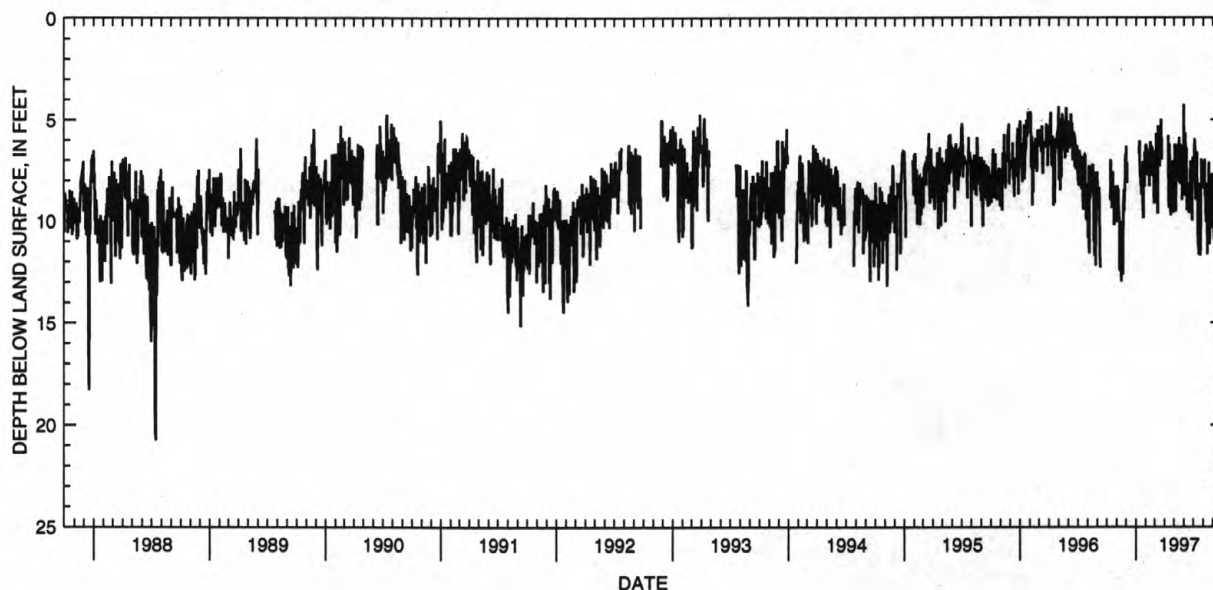
PERIOD OF RECORD.-- April 1946 to current year.

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 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	9.62	6.33	---	6.30	8.31	---	7.81	4.28	6.98	7.69	8.15
2	---	9.71	7.92	---	6.30	6.59	---	7.34	7.69	7.84	8.29	8.57
3	---	8.29	7.18	---	6.43	7.05	---	7.48	8.26	7.92	7.65	8.76
4	---	9.56	8.12	---	6.40	7.30	---	6.24	8.77	8.04	8.32	10.18
5	---	9.82	7.14	---	6.49	6.56	---	7.60	7.20	5.97	7.59	10.92
6	---	8.45	---	---	7.54	5.70	---	7.83	5.67	6.23	6.98	8.95
7	---	9.59	---	---	7.74	8.45	---	9.54	6.54	6.38	8.73	8.69
8	---	9.27	---	---	6.80	8.50	---	8.62	6.79	8.84	8.74	10.71
9	---	9.86	---	---	6.66	6.55	---	6.91	7.80	8.97	9.66	11.04
10	---	10.93	---	6.32	7.60	9.16	---	6.52	6.41	6.97	10.01	8.89
11	8.97	12.38	---	6.69	7.82	9.63	---	6.25	9.48	7.49	10.07	8.88
12	8.60	12.45	---	6.07	7.27	5.32	5.95	7.54	9.26	8.31	8.15	8.98
13	7.00	10.05	---	7.14	8.28	6.54	5.79	7.77	8.15	6.62	8.71	7.70
14	8.68	10.21	---	7.60	7.49	6.79	8.68	7.64	9.03	8.14	10.37	7.39
15	8.49	12.82	---	7.86	6.41	6.90	9.36	7.97	9.11	8.68	11.65	9.40
16	8.96	12.98	---	8.23	6.12	7.04	7.58	8.00	8.77	10.71	10.41	10.18
17	9.36	10.47	---	7.86	7.00	7.31	6.22	5.90	9.54	11.23	8.57	9.05
18	9.25	10.30	---	8.66	7.00	6.81	7.00	7.30	9.55	11.36	8.73	8.26
19	7.99	10.15	---	8.66	6.32	6.82	7.56	7.14	9.13	11.66	7.56	11.40
20	7.60	12.41	---	7.40	7.70	6.89	9.20	7.54	9.25	9.19	7.12	9.82
21	8.85	12.62	---	8.17	7.72	5.00	9.72	8.18	7.84	8.18	9.86	9.24
22	9.15	10.29	---	7.10	6.40	6.75	8.51	7.89	7.06	8.95	11.15	9.09
23	8.89	9.13	---	9.14	6.95	6.96	8.15	6.24	9.25	10.11	10.25	8.32
24	10.20	8.49	---	9.86	7.78	5.89	7.75	7.09	9.40	11.70	8.33	7.68
25	9.39	9.53	---	8.05	6.71	---	7.96	7.19	9.62	10.33	7.73	8.94
26	9.40	9.05	---	7.28	7.75	---	7.13	6.46	8.77	7.78	10.13	9.19
27	8.32	8.06	---	7.73	8.83	---	7.61	8.96	9.81	6.96	9.98	8.02
28	8.73	7.81	---	6.62	9.13	---	7.05	7.51	9.98	7.79	10.36	8.28
29	9.26	6.83	---	8.29	---	---	9.43	6.43	6.90	8.21	8.78	8.90
30	9.62	6.86	---	6.76	---	---	9.59	6.77	7.84	7.60	7.68	8.12
31	10.07	---	---	6.39	---	---	---	6.95	---	8.41	8.10	---
MAX	10.20	12.98	8.12	9.86	9.13	9.63	9.72	9.54	9.98	11.70	11.65	11.40

CAL YR 1996 LOW 12.98

WTR YR 1997 LOW 12.98



GROUND-WATER RECORDS

Knox County

253

402747082374300. LOCAL NUMBER, K-4

LOCATION.--Lat 40°27'47", long 82°37'43", Hydrologic Unit 05040003, near Fredericktown.

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.--Type F graphic recorder.

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, Division of Water.

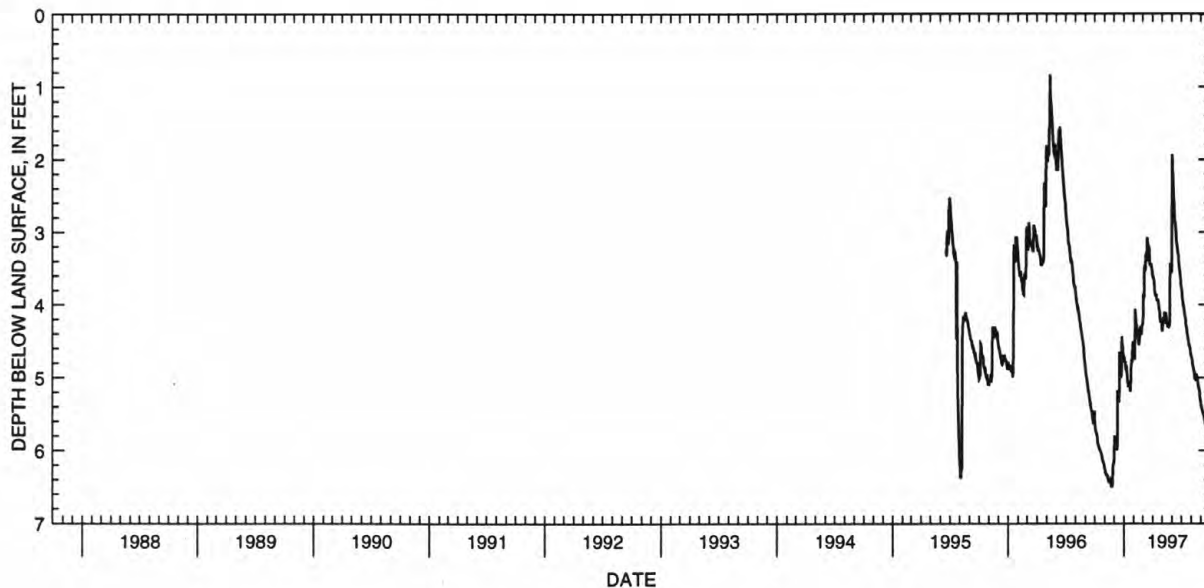
PERIOD OF RECORD.- June 19, 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 6.50 ft below land-surface datum, Nov. 25, 1996;
minimum daily low, 0.84 ft below land-surface datum, May 12, 1996.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.61	6.24	6.12	4.75	4.67	4.26	3.61	4.35	3.00	3.76	4.70	5.38
2	5.67	6.27	5.83	4.72	4.71	4.18	3.62	4.36	1.93	3.78	4.71	5.40
3	5.72	6.30	5.80	4.78	4.75	3.85	3.62	4.27	2.12	3.83	4.74	5.42
4	5.73	6.30	5.84	4.79	4.73	3.89	3.65	4.19	2.23	3.89	4.75	5.44
5	5.76	6.31	5.84	4.79	4.06	3.89	3.66	4.19	2.35	3.94	4.80	5.45
6	5.77	6.33	5.86	4.84	4.12	3.50	3.70	4.23	2.47	3.98	4.84	5.47
7	5.77	6.33	5.90	4.89	4.19	3.46	3.77	4.25	2.55	4.02	4.85	5.48
8	5.79	6.33	5.91	4.90	4.25	3.53	3.82	4.20	2.63	4.02	4.87	5.50
9	5.84	6.35	5.98	4.83	4.27	3.54	3.85	4.10	2.77	4.07	4.89	5.51
10	5.90	6.35	5.98	4.92	4.30	3.40	3.87	4.13	2.84	4.08	4.92	5.51
11	5.92	6.37	5.96	4.99	4.33	3.30	3.87	4.13	2.87	4.14	4.95	5.51
12	5.93	6.40	5.18	5.05	4.41	3.38	3.85	4.11	2.90	4.15	4.98	5.56
13	5.93	6.40	5.23	5.07	4.45	3.40	3.88	4.14	2.95	4.17	4.97	5.60
14	5.96	6.43	5.30	5.09	4.40	3.36	3.93	4.15	3.05	4.20	5.01	5.63
15	5.98	6.43	5.31	5.08	4.48	3.08	3.94	4.20	3.13	4.26	5.01	5.64
16	5.99	6.43	5.34	5.05	4.53	3.15	3.94	4.25	3.13	4.29	5.03	5.65
17	5.99	6.43	5.32	5.06	4.55	3.15	3.94	4.25	3.18	4.31	5.04	5.67
18	6.00	6.42	4.65	5.11	4.53	3.20	3.94	4.27	3.20	4.33	4.95	5.67
19	6.01	6.41	4.75	5.11	4.45	3.21	3.96	4.26	3.28	4.38	4.98	5.72
20	6.02	6.43	4.89	5.13	4.40	3.21	4.01	4.24	3.29	4.41	5.00	5.72
21	6.04	6.46	4.95	5.19	4.30	3.21	4.03	4.27	3.30	4.44	5.02	5.73
22	6.05	6.49	4.99	5.17	4.35	3.33	4.07	4.29	3.35	4.47	5.07	5.79
23	6.06	6.49	5.00	4.88	4.38	3.41	4.08	4.30	3.44	4.49	5.12	5.80
24	6.10	6.49	4.95	4.84	4.40	3.46	4.16	4.29	3.48	4.53	5.12	5.81
25	6.12	6.50	4.44	4.75	4.40	3.43	4.20	4.26	3.50	4.55	5.15	5.83
26	6.15	6.47	4.51	4.79	4.35	3.45	4.23	3.70	3.55	4.57	5.17	5.84
27	6.16	6.20	4.56	4.78	4.28	3.45	4.23	3.43	3.60	4.57	5.18	5.87
28	6.16	6.19	4.58	4.58	4.27	3.45	4.20	3.49	3.63	4.59	5.21	5.90
29	6.17	6.18	4.66	4.52	---	3.50	4.23	3.50	3.67	4.62	5.30	5.91
30	6.20	6.18	4.69	4.51	---	3.52	4.25	3.55	3.75	4.66	5.31	6.02
31	6.23	---	4.75	4.55	---	3.58	---	3.55	---	4.70	5.34	---
MAX	6.23	6.50	6.12	5.19	4.75	4.26	4.25	4.36	3.75	4.70	5.34	6.02

CAL YR 1996 LOW 6.50
WTR YR 1997 LOW 6.50



GROUND-WATER RECORDS

Knox County

402747082374300. LOCAL NUMBER, K-4—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	LOCAL IDENTIFIER	DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	PUMP OR FLOW PERIOD PRIOR TO SAMPLING (MIN)	FLOW RATE (G/M)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	
JUN 09...	K-4 nr. Fredericktown	970609	1603	5.00	151.00	73	10.0	616	7.4	
DATE	TEMPERATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFIDE WATER, FLTRD, FIELD, (MG/L)	SILICA, DIS-SOLVED (MG/L AS SIO2)	NITROGEN, NITRITE DIS-SOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N)
JUN 09...	11.5	0.1	81	30	12	296	0.003	14	<0.010	0.057
DATE	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS DIS-SOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DIS-SOLVED (MG/L AS P)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYLLIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHROMIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)
JUN 09...	0.132	<0.20	<0.010	<0.010	195	<0.50	1.2	<5.0	6.2	<10
DATE	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGANESE, DIS-SOLVED (UG/L AS MN)	MOLYBDENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SILVER, DIS-SOLVED (UG/L AS AG)	STRONTIUM, DIS-SOLVED (UG/L AS SR)	VANADIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
JUN 09...	2000	<10	14	70	12	<10	<1.0	4440	<6	7.8

GROUND-WATER RECORDS

255

Licking County

400848082251100. LOCAL NUMBER, LI-4

LOCATION.--Lat 40°08'48", long 82°25'11", Hydrologic Unit 05040006, near St. Louisville.

Owner: City of Newark

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 79 ft, cased.

INSTRUMENTATION.--Type F continuous recorder.

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, Division of Water.

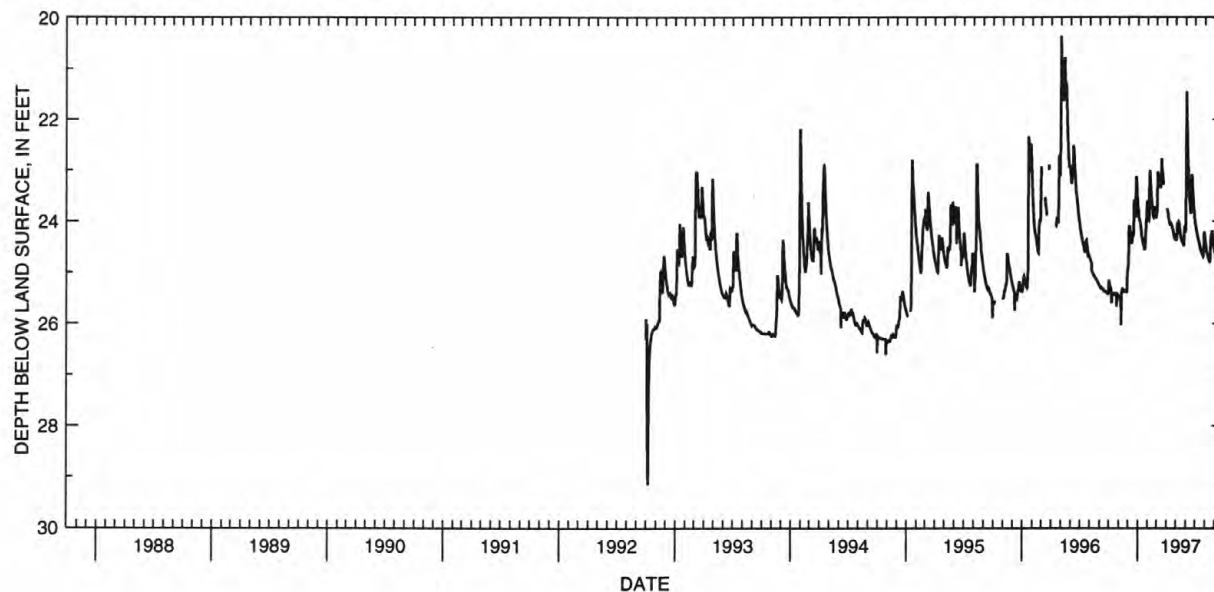
PERIOD OF RECORD.--October 1992 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 29.15 ft below land-surface datum, Oct. 8 1992;
minimum daily low, 20.36 ft below land-surface, May 1, 1996.DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.15	25.45	24.87	23.75	23.80	23.80	---	24.36	24.12	24.04	24.34	24.60
2	25.19	25.46	24.58	23.81	23.90	23.80	---	24.36	22.44	24.07	24.41	24.63
3	25.23	25.47	24.17	23.89	23.97	23.39	23.75	24.34	21.45	24.12	24.46	24.66
4	25.26	25.49	24.08	23.94	23.98	23.03	23.79	24.24	21.98	24.15	24.51	24.69
5	25.28	25.51	24.12	24.00	23.85	23.08	23.82	24.04	22.14	24.18	24.55	24.71
6	25.30	25.50	24.17	23.99	23.13	23.13	23.86	24.01	22.43	24.22	24.58	24.73
7	25.31	25.52	24.22	24.00	23.00	23.15	23.91	24.04	22.68	24.25	24.61	24.76
8	25.37	26.03	24.28	24.06	23.12	23.26	23.95	24.08	22.90	24.28	24.64	24.78
9	25.59	25.45	24.33	24.08	23.23	23.31	23.99	24.08	23.08	24.32	24.66	24.80
10	25.45	25.37	24.37	24.15	23.33	23.34	24.02	24.03	23.24	24.34	24.69	24.81
11	25.40	25.33	24.42	24.21	23.42	23.11	24.04	24.05	23.36	24.36	24.71	24.82
12	25.40	25.31	24.42	24.27	23.53	23.16	24.07	24.12	23.48	24.38	24.73	24.80
13	25.40	25.31	24.35	24.31	23.59	23.22	24.07	24.17	23.59	24.41	24.74	24.80
14	25.41	25.32	24.22	24.35	23.67	23.35	24.03	24.22	23.69	24.44	24.76	24.80
15	25.41	25.33	24.24	24.37	23.75	23.06	24.04	24.27	23.76	24.47	24.77	24.82
16	25.42	25.34	24.28	24.42	23.81	22.77	24.07	24.30	23.83	24.49	24.79	24.82
17	25.42	25.35	24.29	24.43	23.86	22.90	24.08	24.34	23.83	24.52	24.78	24.81
18	25.43	25.36	24.01	24.45	23.90	23.01	24.09	24.37	23.58	24.54	24.62	24.83
19	25.43	25.37	23.58	24.48	23.92	23.06	24.12	24.39	23.32	24.57	24.37	24.84
20	25.41	25.37	23.63	24.52	23.91	23.12	24.15	24.39	23.08	24.59	24.27	24.86
21	25.41	25.37	23.72	24.54	23.77	23.16	24.17	24.39	23.12	24.61	24.27	24.87
22	25.40	25.37	23.82	24.54	23.71	23.28	24.20	24.41	23.27	24.62	24.26	24.87
23	25.41	25.37	23.90	24.53	23.75	---	24.23	24.43	23.40	24.63	24.20	24.89
24	25.43	25.38	23.90	24.33	23.81	---	24.28	24.45	23.51	24.65	24.20	24.89
25	25.66	25.38	23.37	24.20	23.85	---	24.31	24.48	23.62	24.66	24.28	24.89
26	25.46	25.38	23.12	24.03	23.89	---	24.32	24.46	23.72	24.68	24.33	24.90
27	25.44	25.24	23.24	23.98	23.94	---	24.30	24.18	23.80	24.67	24.38	24.92
28	25.43	25.03	23.38	23.92	23.90	---	24.32	24.10	23.87	24.47	24.43	24.92
29	25.44	24.93	23.50	23.67	---	---	24.31	24.15	23.94	24.25	24.48	24.93
30	25.46	24.90	23.58	23.60	---	---	24.32	24.19	23.99	24.21	24.52	24.95
31	25.46	---	23.69	23.69	---	---	---	24.19	---	24.28	24.56	---
MAX	25.66	26.03	24.87	24.54	23.98	23.80	24.32	24.48	24.12	24.68	24.79	24.95

CAL YR 1996 LOW 26.03

WTR YR 1997 LOW 26.03



GROUND-WATER RECORDS

Licking County

400848082251100. LOCAL NUMBER, LI-4—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	LOCAL IDENT- I- FIER	DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN)	FLOW RATE (G/M)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH WATER WHOLE FIELD (STAND- ARD UNITS)	
JUN 09...	LI-4 NR. ST. LOUISVILLE	970609	1104	22.99	79.00	59	6.0	367	7.6	
DATE	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFIDE WATER, FLTRD, FIELD, (MG/L)	SILICA, DIS- SOLVED (MG/L AS SIO2)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
JUN 09...	12.5	0.1	52	15	5.5	162	0.00	12	<0.010	0.052
DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)
JUN 09...	0.057	<0.20	<0.010	<0.010	37	<0.50	<1.0	<5.0	<3.0	<10
DATE	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
JUN 09...	590	<10	<4	122	<10	<10	<1.0	103	<6	<3.0

GROUND-WATER RECORDS

Logan County

257

401510083444400. LOCAL NUMBER, LO-3

LOCATION.--Lat 40°15'10", long 83°44'44", Hydrologic Unit 05080001, at West Liberty.

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.--Type F graphic recorder.

DATUM.--Elevation of land-surface datum is 1090 ft above sea level, from topographic map.

Measuring point: Floor of instrument shelter 3.5 ft above land-surface datum.

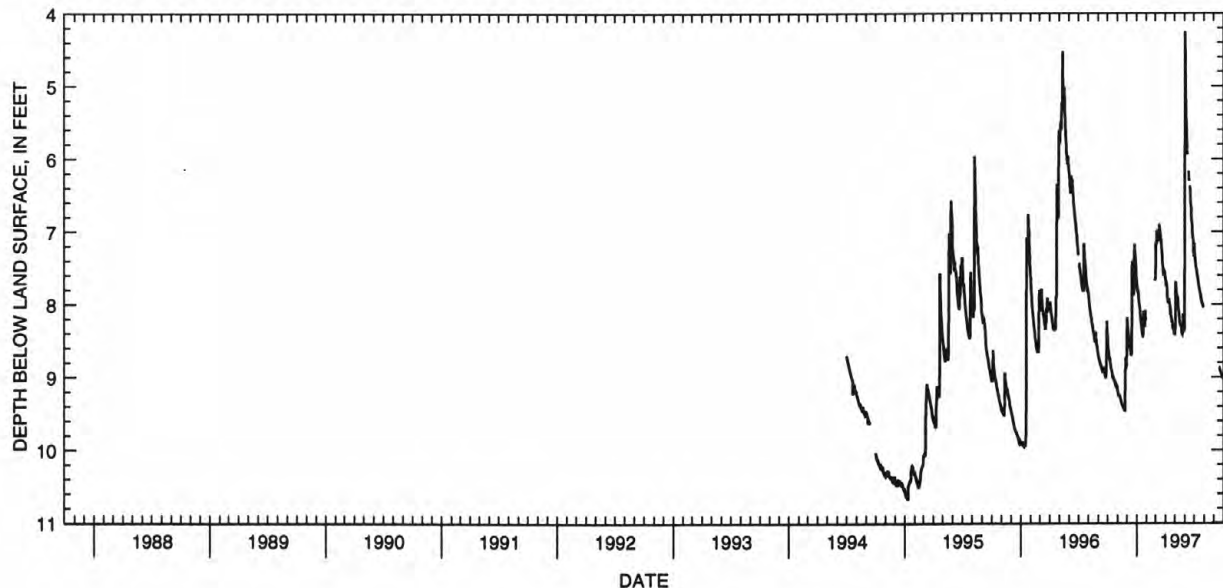
REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

PERIOD OF RECORD.--July 1994 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 10.67 ft below land-surface datum, Jan. 9-11, 1995;
minimum daily low, 4.25 ft below land-surface, June 3, 1997.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.43	9.18	8.66	7.65	---	7.65	7.64	8.41	8.06	7.34	---	---
2	8.48	9.20	8.18	7.73	---	7.49	7.64	8.42	6.45	7.16	---	---
3	8.59	9.20	8.25	7.78	---	7.15	7.74	8.30	4.25	7.27	---	---
4	8.63	9.24	8.32	7.83	---	7.18	7.72	7.69	4.73	7.34	---	---
5	8.66	9.25	8.35	7.80	---	7.14	7.70	7.76	5.10	7.39	---	---
6	8.71	9.25	8.40	7.80	---	7.00	7.71	7.75	5.39	7.44	---	---
7	8.74	9.25	8.45	7.89	---	7.00	7.82	7.88	5.54	7.49	---	---
8	8.77	9.25	8.50	7.95	---	7.09	7.88	7.89	5.69	7.51	---	---
9	8.74	9.25	8.57	7.98	---	7.08	7.95	7.87	5.88	7.51	---	---
10	8.81	9.27	8.60	8.02	---	6.98	7.96	7.93	5.94	7.57	---	---
11	8.84	9.30	8.61	8.05	---	7.06	7.98	7.91	---	7.60	---	---
12	8.88	9.32	8.61	8.12	---	7.13	7.96	8.01	---	7.62	---	---
13	8.89	9.33	8.63	8.15	---	7.11	7.92	8.07	6.18	7.65	---	---
14	8.90	9.35	8.66	8.20	---	6.90	7.97	8.10	6.17	7.68	---	---
15	8.92	9.37	8.70	8.25	---	6.99	7.98	8.15	6.27	7.73	---	---
16	8.99	9.38	8.68	8.28	---	6.99	8.04	8.23	6.30	7.75	---	---
17	9.00	9.39	8.47	8.33	---	7.05	8.09	8.26	---	7.78	---	---
18	8.97	9.40	7.46	8.39	---	7.07	8.08	8.27	6.37	7.79	---	8.87
19	9.00	9.40	7.40	8.40	---	7.11	8.12	8.30	6.45	7.83	---	8.87
20	9.02	9.42	7.65	8.43	---	7.17	8.17	8.27	6.55	7.85	---	8.90
21	9.04	9.43	7.76	8.45	---	7.23	8.20	8.30	6.60	7.88	---	8.91
22	9.05	9.44	7.82	8.35	---	7.31	8.24	8.35	6.71	7.91	---	8.92
23	9.03	9.45	7.87	8.10	---	7.39	8.23	8.39	6.79	7.90	---	8.94
24	9.07	9.46	7.77	8.10	---	7.45	8.26	8.40	6.85	7.94	---	8.94
25	9.10	9.47	7.17	8.22	---	7.50	8.33	8.41	6.93	7.96	---	8.96
26	9.11	9.05	7.24	8.29	---	7.56	8.32	8.39	7.00	7.99	---	8.97
27	9.10	8.73	7.30	8.31	---	7.55	8.33	8.13	7.05	8.00	---	8.99
28	9.12	8.81	7.35	8.08	7.67	7.57	8.35	8.22	7.11	8.00	---	9.00
29	9.13	8.86	7.42	8.13	---	7.53	8.40	8.31	7.15	8.02	---	9.01
30	9.10	8.85	7.47	8.22	---	7.54	8.41	8.36	7.30	8.04	---	9.01
31	9.12	---	7.61	---	---	7.56	---	8.36	---	8.04	---	---
MAX	9.13	9.47	8.70	8.45	7.67	7.65	8.41	8.42	8.06	8.04	---	9.01
CAL YR 1996	LOW 9.94											
WTR YR 1997	LOW 9.47											



GROUND-WATER RECORDS

Logan County

401510083444400. LOCAL NUMBER, LO-3—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	LOCAL IDENTIFIER	DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	PUMP OR FLOW PERIOD PRIOR TO SAMPLING (MIN)	FLOW RATE (G/M)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	
JUN 10...	LO-3 AT WEST LIBERTY	970610	1007	6.85	71.00	32	10.0	741	7.0	
DATE	TEMPERATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	ALKALINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFIDE WATER, FLTRD, FIELD, (MG/L)	SILICA, DIS-SOLVED (MG/L AS SIO2)	NITROGEN, NITRITE DIS-SOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N)
JUN 10...	12.0	0.2	100	42	2.9	320	0.00	14	<0.010	<0.050
DATE	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS DIS-SOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DIS-SOLVED (MG/L AS P)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYLLIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHROMIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)
JUN 10...	<0.015	<0.20	<0.010	<0.010	245	<0.50	<1.0	<5.0	4.3	<10
DATE	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGANESE, DIS-SOLVED (UG/L AS MN)	MOLYBDENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SILVER, DIS-SOLVED (UG/L AS AG)	STRONTIUM, DIS-SOLVED (UG/L AS SR)	VANADIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
JUN 10...	1600	<10	5	37	<10	<10	<1.0	391	<6	<3.0

GROUND-WATER RECORDS

Madison County

259

395301083272200. LOCAL NUMBER, M-2

LOCATION.--Lat 39°53'01", long 83°27'22", Hydrologic Unit 05060002, U.S. 42 and Westmore Dr., London.

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 1035 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, Division of Water.

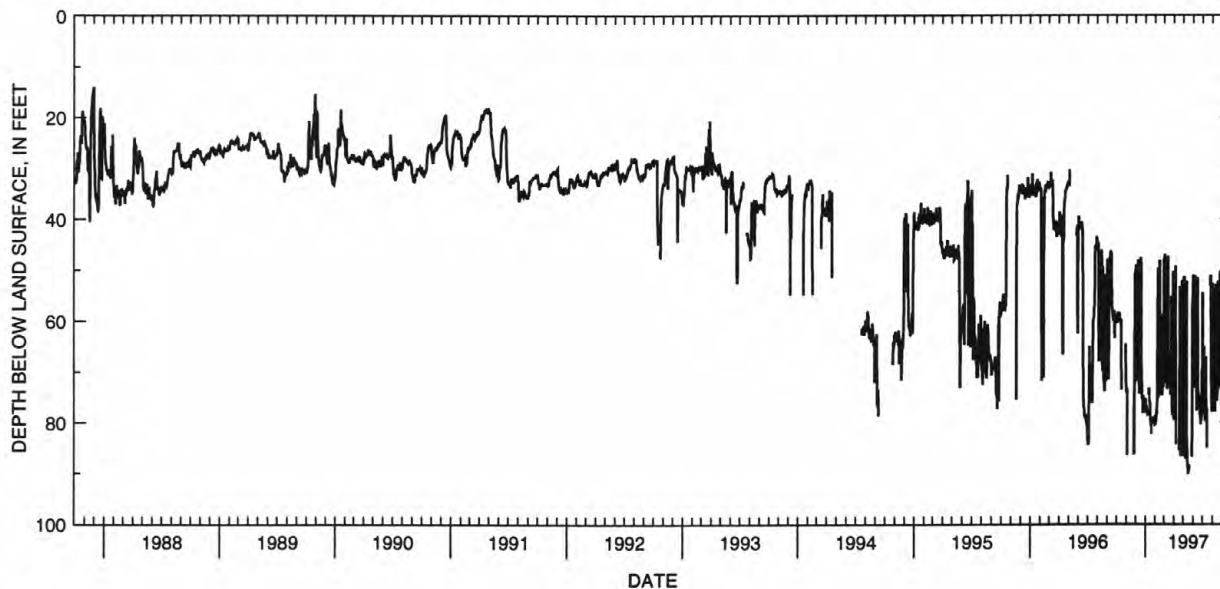
PERIOD OF RECORD.--August 1971 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 90.12 ft below land-surface datum, May 17, 1997;
minimum daily low, 0.55 ft above land-surface, Apr. 13, 1980.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58.92	74.16	49.16	75.40	80.31	47.77	79.50	59.19	51.00	54.56	52.77	50.91
2	60.49	73.98	66.14	76.71	80.22	47.51	78.99	51.61	66.82	69.63	66.67	65.48
3	58.84	73.45	71.89	77.29	79.96	46.96	65.30	51.75	73.20	78.52	76.09	73.52
4	59.07	85.43	70.82	76.77	79.01	70.18	53.10	51.27	72.14	78.00	74.45	76.59
5	58.34	86.45	68.30	77.33	77.35	71.94	50.30	78.28	54.53	65.10	55.43	60.83
6	59.73	---	68.31	78.30	78.39	72.23	49.24	83.90	51.88	69.73	70.15	53.78
7	59.50	---	51.50	77.66	76.14	57.40	77.52	85.79	52.20	76.70	75.52	59.88
8	58.97	---	50.01	78.75	55.61	47.86	83.21	86.97	51.24	77.69	77.91	73.91
9	59.80	---	48.03	---	49.71	64.45	84.23	87.10	52.03	79.72	61.86	76.34
10	58.35	---	67.87	74.48	66.39	73.35	---	61.22	71.09	78.43	53.76	62.66
11	59.91	---	71.68	74.12	73.21	73.34	---	52.26	74.87	67.15	52.88	54.01
12	60.13	---	72.91	73.32	75.00	57.74	---	83.13	77.63	75.49	67.92	72.12
13	59.91	---	74.31	74.50	70.36	47.37	---	85.39	74.80	79.30	57.18	73.38
14	60.55	---	59.26	75.61	55.38	67.96	---	87.76	55.74	77.32	73.58	56.78
15	59.67	---	51.94	76.15	48.19	72.85	84.55	88.82	51.63	85.01	75.77	70.34
16	71.23	---	49.41	78.41	59.76	69.21	84.55	89.40	68.09	---	74.17	78.39
17	73.55	---	47.62	78.95	72.64	65.96	85.32	90.12	73.79	---	55.20	78.33
18	---	---	48.67	80.34	73.49	70.45	85.32	---	75.28	---	52.26	60.98
19	---	---	69.25	80.80	73.85	72.52	53.33	89.44	74.61	---	57.90	54.65
20	---	---	72.26	82.35	58.77	73.05	68.60	88.38	76.68	---	73.36	53.12
21	---	---	75.24	---	69.47	74.56	83.89	---	77.07	---	72.48	63.49
22	82.89	---	74.81	---	74.63	74.17	85.33	---	77.41	---	54.64	85.63
23	---	---	75.68	80.20	74.06	55.33	86.56	---	78.40	---	52.33	85.55
24	---	76.86	78.04	80.07	66.49	59.39	86.40	---	79.00	53.10	51.21	85.70
25	---	86.19	74.85	79.12	72.49	71.63	86.50	---	80.40	51.64	50.24	85.53
26	---	86.18	77.93	79.71	73.00	77.32	58.43	---	79.47	51.08	50.53	52.56
27	---	61.88	77.95	79.09	58.54	78.59	52.17	86.78	79.42	60.11	55.29	52.58
28	---	51.05	77.30	79.27	48.04	63.27	78.46	83.82	69.52	72.48	72.79	56.05
29	64.52	50.79	76.30	79.13	---	50.37	84.81	56.79	75.40	76.43	76.57	72.46
30	68.16	50.13	77.70	78.99	---	66.53	86.50	55.28	75.69	77.91	63.67	75.56
31	72.21	---	76.50	80.37	---	75.09	---	52.29	---	62.87	53.45	---
MAX	82.89	86.45	78.04	82.35	80.31	78.59	86.56	90.12	80.40	85.01	77.91	85.70

CAL YR 1996 LOW 86.45
WTR YR 1997 LOW 90.12



GROUND-WATER RECORDS

Madison County

395352083292100. LOCAL NUMBER, M-5

LOCATION.--Lat 39°53'52", long 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.--Type F continuous recorder.

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, Division of Water.

PERIOD OF RECORD.--October 1, 1986 to current year.

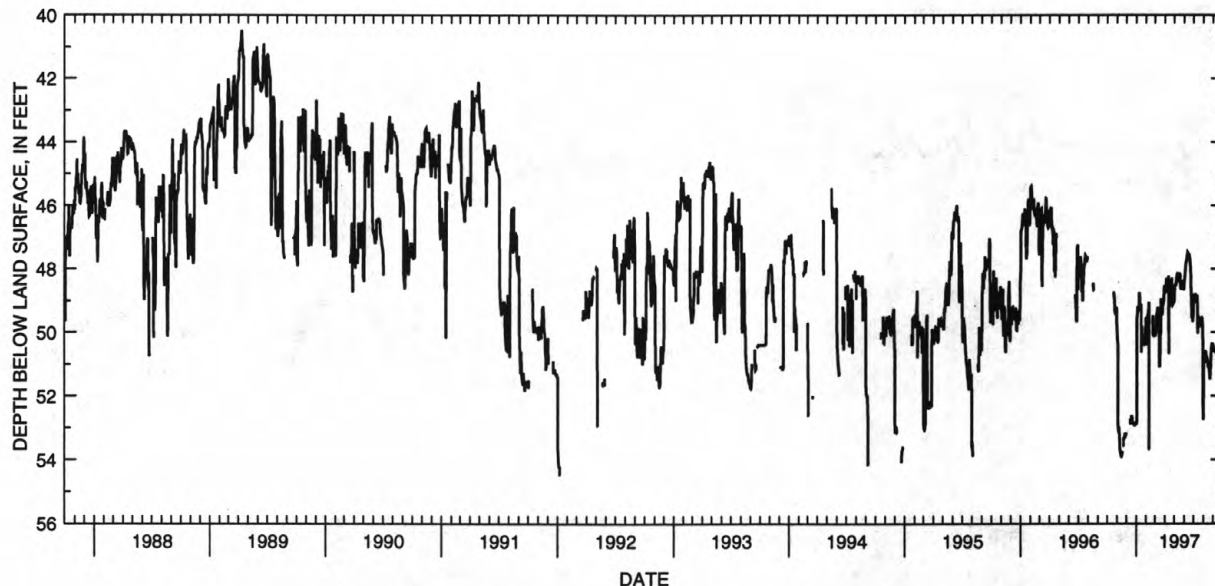
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 54.65 ft below land-surface datum, Jan. 17, 1992;
minimum daily low, 40.47 ft below land-surface datum, Apr. 11, 1989.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	50.00	53.17	52.89	49.56	50.07	48.64	48.98	48.45	49.06	52.75	50.47
2	---	50.25	---	52.84	49.63	50.12	48.67	48.66	48.36	48.89	50.80	50.46
3	---	50.37	---	49.53	50.39	50.04	48.63	48.49	48.32	48.79	50.81	50.53
4	---	50.42	---	49.46	49.69	50.03	48.54	48.52	48.13	48.90	50.90	50.59
5	---	52.95	---	49.20	49.58	49.43	48.47	48.50	48.00	49.05	50.91	50.60
6	---	53.16	---	49.24	49.55	49.45	48.30	48.47	47.88	48.79	50.88	50.58
7	---	---	---	49.30	49.45	49.44	48.40	48.48	47.80	48.80	50.71	50.55
8	---	53.00	---	49.29	49.29	49.32	48.46	48.26	47.76	48.82	50.59	50.55
9	---	53.35	---	49.15	49.23	49.25	48.65	48.23	47.70	48.89	50.72	50.58
10	---	53.51	---	48.75	49.06	49.23	48.71	48.26	47.58	48.95	50.77	50.62
11	---	53.69	---	48.89	53.70	49.40	48.74	48.25	47.57	48.95	50.79	50.64
12	---	53.82	---	49.14	---	49.42	48.44	48.13	47.50	48.93	50.80	50.68
13	---	53.85	52.73	49.25	---	49.38	48.23	48.20	47.52	49.06	50.82	50.72
14	---	53.90	52.88	49.27	---	49.22	50.67	48.21	47.61	50.03	50.92	50.76
15	---	53.91	52.88	49.12	---	51.07	48.46	48.34	47.64	49.47	51.02	50.74
16	---	53.89	52.86	49.32	---	51.07	48.35	48.40	47.56	49.51	51.09	50.75
17	---	53.84	52.63	50.63	---	51.00	48.45	48.24	47.56	49.55	51.09	50.87
18	---	53.75	52.66	49.82	---	50.07	48.50	48.17	47.63	49.58	51.03	50.86
19	---	---	52.68	49.93	---	50.05	48.48	48.17	47.73	49.67	51.11	50.73
20	---	---	52.85	50.14	---	48.95	48.50	48.35	47.82	49.75	51.25	50.74
21	48.73	53.60	52.87	50.22	49.75	48.97	48.75	48.56	47.99	49.75	51.44	50.81
22	48.81	53.34	52.87	50.19	49.48	49.25	49.16	48.64	48.30	49.78	51.47	50.81
23	48.93	53.34	52.88	50.36	50.09	49.39	48.29	48.52	48.73	49.77	51.18	50.84
24	49.10	53.32	52.90	50.35	50.10	49.45	48.75	48.45	48.88	49.68	51.08	51.02
25	49.35	53.31	52.93	50.39	50.02	49.35	49.04	48.37	49.53	49.64	50.70	51.19
26	49.37	53.24	52.93	50.41	49.88	49.06	49.11	48.43	49.36	49.56	50.49	---
27	49.42	53.26	52.92	50.36	49.75	49.08	49.08	48.45	49.46	49.51	50.44	---
28	49.42	53.26	52.85	50.35	50.05	49.08	49.02	48.46	49.67	49.56	50.34	---
29	49.41	53.22	52.88	50.10	---	48.91	49.06	48.48	49.53	49.70	50.45	---
30	49.22	53.18	52.89	49.83	---	48.59	49.03	48.63	49.40	49.82	50.45	---
31	49.75	---	52.89	49.57	---	48.54	---	48.63	---	52.37	50.43	---
MAX	49.75	53.91	53.17	52.89	53.70	51.07	50.67	48.98	49.67	52.37	52.75	51.19

CAL YR 1996 LOW 53.91

WTR YR 1997 LOW 53.91



GROUND-WATER RECORDS Madison County

261

395357083304400. LOCAL NUMBER, M-4

LOCATION.--Lat 39°53'57", long 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.--Type F continuous recorder.

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, Division of Water.

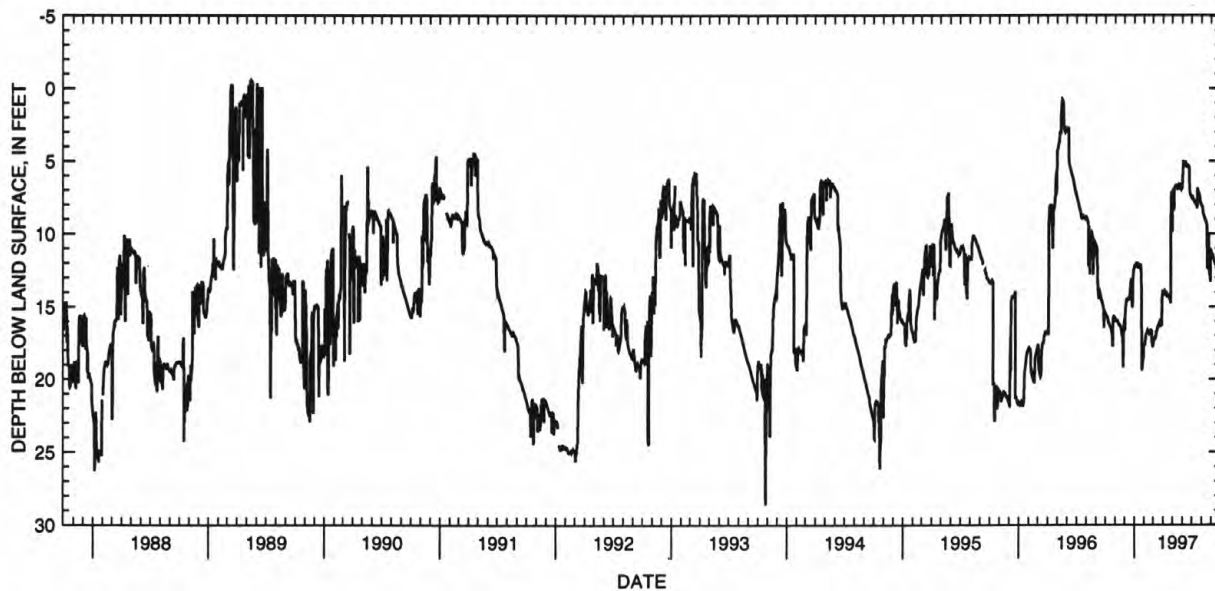
PERIOD OF RECORD.--June 1983 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 28.60 ft below land-surface datum, Oct. 26, 1994;
minimum daily low 0.50 ft above land-surface datum, May 13-14, 16, 1989.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.45	15.90	15.80	12.30	17.60	17.60	14.15	7.25	6.80	7.45	8.05	11.25
2	15.50	16.00	16.65	12.15	17.60	17.45	14.10	7.25	6.00	7.45	8.10	11.30
3	15.65	16.00	15.45	12.20	17.65	17.30	14.00	7.00	5.85	7.45	8.15	11.40
4	15.60	16.00	15.00	12.20	17.50	17.25	14.00	7.00	5.05	7.55	8.20	11.45
5	15.65	16.00	14.85	12.15	17.05	17.20	13.95	8.25	5.05	7.65	8.45	11.50
6	15.70	16.00	14.60	12.20	17.00	17.25	14.00	8.40	5.10	7.65	8.65	11.50
7	15.70	15.90	14.50	12.20	16.90	17.25	14.10	6.95	5.10	7.70	8.70	11.60
8	15.80	15.95	14.50	12.20	16.85	17.20	14.15	6.90	5.15	7.75	8.75	11.65
9	15.90	16.05	14.55	12.05	16.85	17.15	14.20	6.80	5.20	7.75	8.85	11.70
10	16.05	16.10	14.55	12.05	16.75	17.00	14.20	6.80	5.30	7.85	8.90	11.80
11	16.15	16.20	14.40	12.20	16.70	16.75	14.15	6.80	5.30	7.90	9.00	11.90
12	16.15	16.25	14.45	12.30	16.80	16.75	14.10	6.70	5.25	7.90	9.05	12.00
13	16.20	16.25	14.50	12.30	16.80	16.70	14.20	6.70	5.20	7.95	9.05	12.05
14	16.30	16.30	14.50	12.30	16.65	16.50	14.30	6.75	5.30	7.95	9.15	12.10
15	16.35	16.30	14.45	12.20	16.80	16.50	14.30	6.80	5.40	8.00	9.15	12.15
16	16.40	16.35	14.35	12.25	16.80	16.45	14.25	6.85	5.40	8.10	9.30	12.20
17	16.45	16.35	14.25	12.35	16.85	16.35	14.25	6.75	5.30	8.15	9.35	12.40
18	16.50	16.40	14.10	12.35	16.80	16.30	14.25	6.75	5.30	8.25	9.50	12.45
19	16.60	16.50	13.65	12.35	16.70	16.25	14.30	6.70	5.30	6.90	12.30	12.50
20	16.65	16.55	13.35	12.10	16.80	16.15	14.35	6.85	5.35	7.05	12.30	12.65
21	16.80	17.00	13.30	12.20	16.60	16.10	14.30	6.90	5.40	7.10	12.30	12.70
22	16.80	16.80	13.10	13.45	16.70	16.30	14.35	6.90	5.40	7.20	12.30	12.70
23	17.60	16.85	13.95	13.75	16.70	16.35	14.40	6.90	5.50	7.20	12.45	12.80
24	17.75	16.90	14.80	19.35	16.65	16.35	14.60	6.80	7.05	7.25	9.95	12.80
25	15.85	17.65	15.00	19.40	17.40	16.25	14.75	6.75	7.20	7.40	12.55	12.90
26	15.75	19.20	15.00	19.10	17.45	16.30	7.70	6.85	7.30	7.45	12.70	13.00
27	15.75	17.50	13.20	18.90	17.75	16.30	7.35	6.90	7.35	7.70	12.80	13.00
28	15.70	16.50	12.65	18.65	17.75	16.30	7.15	6.95	7.40	7.80	12.80	13.05
29	15.75	16.20	12.50	18.60	---	14.40	9.80	6.90	7.45	7.90	13.30	13.10
30	15.90	16.00	12.50	18.40	---	14.25	9.80	6.90	7.50	8.00	11.05	13.30
31	15.95	---	12.35	17.60	---	14.10	---	6.90	---	8.05	11.20	---
MAX	17.75	19.20	16.65	19.40	17.75	17.60	14.75	8.40	7.50	8.25	13.30	13.30

CAL YR 1996 LOW 21.85
WTR YR 1997 LOW 19.40



GROUND-WATER RECORDS

Madison County

395357083304400. LOCAL NUMBER, M-4—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	LOCAL IDENT- I- FIER	DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN)	FLOW RATE (G/M)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH WATER WHOLE FIELD (STAND- ARD UNITS)	
JUN 11...	M-4 LONDON ST FISH HATCHER	970611	1131	5.25	49.00	56	10.0	738	7.0	
DATE	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFIDE WATER, FLTRD, FIELD, (MG/L)	SILICA, DIS- SOLVED (MG/L AS SIO2)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
JUN 11...	12.0	0.1	110	40	5.4	338	0.010	10	<0.010	0.314
DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)
JUN 11...	0.131	<0.20	<0.010	<0.010	98	<0.50	1.2	<5.0	<3.0	<10
DATE	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
JUN 11...	2300	<10	7	40	11	<10	<1.0	10400	<6	<3.0

GROUND-WATER RECORDS
Madison County

263

395740083255700. LOCAL NUMBER, M-3

LOCATION.--Lat 39°57'40", long 83°25'57", Hydrologic Unit 05060002, 5.2 mi north of London.

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, Division of Water.

PERIOD OF RECORD.--November 1974 to September 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, 1975.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATIONS

DATE	WATER LEVEL
Oct. 21, 1996	7.47
Apr. 24, 1997	6.14

GROUND-WATER RECORDS

Mahoning County

410042080453800. LOCAL NUMBER, MA-1

LOCATION.--Lat 41°00'42", long 80°45'38", Hydrologic Unit, 05030103, in county fairgrounds at south edge of Canfield.

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, Division of Water. 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 OBSERVATIONS

DATE	WATER LEVEL
Oct. 31, 1996	32.50
Apr. 18, 1997	31.28
Sept. 23, 1997	34.21

GROUND-WATER RECORDS

Marion County

265

403413083170500. LOCAL NUMBER, MN-4

LOCATION.--Lat 40°34'13", long 83°17'05", Hydrologic Unit 05060001, 1.9 mi southeast of New Bloomington.

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.--Digital recorder--60-minute punch.

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.--Influenced by seasonal water demand for nearby wildlife refuge.

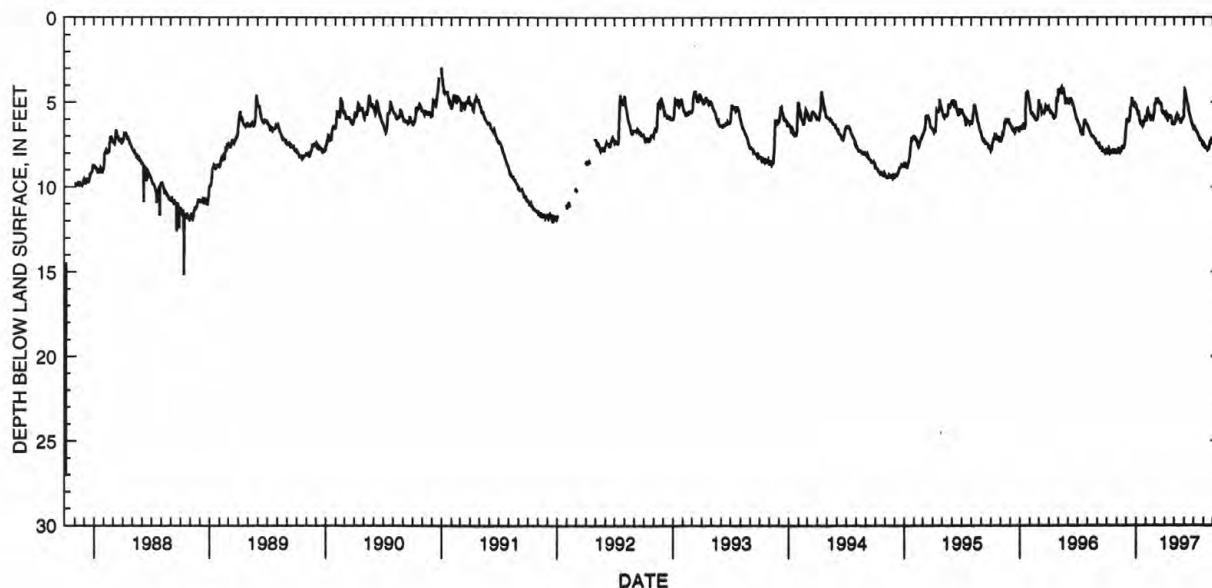
PERIOD OF RECORD.--January 1973 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 32.57 ft below land-surface datum, Aug. 14, 1983;
minimum daily low, 0.61 ft below land-surface datum, Mar. 18, 1974.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.90	7.90	6.40	5.35	5.95	5.10	5.70	6.30	5.60	6.45	7.55	7.40
2	7.85	7.95	6.20	5.30	6.00	5.15	5.75	6.30	5.00	6.40	7.50	7.40
3	7.90	8.00	6.00	5.40	6.10	5.00	5.65	6.15	4.45	6.40	7.55	7.45
4	7.95	8.00	6.10	5.40	6.00	5.00	5.65	6.20	4.25	6.45	7.50	7.50
5	7.90	7.90	6.10	5.45	5.80	5.00	5.60	6.10	4.30	6.55	7.55	7.50
6	7.85	7.90	6.00	5.55	5.45	4.80	5.65	6.00	4.45	6.55	7.55	7.45
7	7.75	7.70	6.00	5.70	5.40	4.80	5.80	6.05	4.55	6.60	7.60	7.50
8	7.70	7.70	6.05	5.70	5.55	4.90	5.90	5.95	4.70	6.65	7.65	7.50
9	7.75	7.75	6.15	5.50	5.55	4.90	5.95	5.85	4.85	6.65	7.65	7.55
10	7.95	7.80	6.15	5.65	5.55	4.85	6.00	5.90	4.95	6.70	7.65	7.50
11	8.00	7.90	6.05	5.85	5.60	4.85	5.90	5.90	5.00	6.75	7.70	7.55
12	7.95	7.95	6.00	6.00	5.80	5.00	5.80	5.75	5.00	6.75	7.75	7.60
13	7.90	7.90	5.75	6.10	5.80	5.00	5.85	5.80	5.10	6.75	7.75	7.70
14	8.00	7.90	5.50	6.15	5.70	4.90	5.90	5.80	5.20	6.80	7.75	7.70
15	8.00	7.90	5.30	6.10	5.95	4.95	5.90	5.90	5.40	6.90	7.80	7.65
16	7.90	7.80	5.25	6.15	6.05	5.00	5.90	6.00	5.50	7.00	7.75	7.65
17	7.90	7.75	5.20	6.15	6.05	5.00	5.80	6.00	5.50	7.00	7.80	7.60
18	7.85	7.65	5.05	6.25	6.00	5.10	5.80	6.00	5.65	7.00	7.80	7.75
19	7.90	7.60	4.75	6.25	6.00	5.10	5.80	6.00	5.70	7.05	7.70	7.70
20	7.85	7.60	4.75	6.35	6.05	5.05	5.85	6.10	5.80	7.15	7.65	7.75
21	7.85	7.65	4.90	6.45	5.90	5.05	5.85	6.15	5.85	7.20	7.50	7.85
22	7.85	7.70	5.00	6.35	5.85	5.20	5.95	6.20	5.90	7.25	7.35	7.85
23	7.75	7.70	5.10	6.40	5.90	5.40	5.95	6.20	6.05	7.25	7.30	7.80
24	7.85	7.65	5.10	6.35	5.95	5.55	6.05	6.10	6.15	7.20	7.35	7.85
25	7.95	7.60	5.15	6.05	5.90	5.45	6.25	6.00	6.15	7.25	7.35	7.75
26	8.00	7.45	5.10	6.20	5.75	5.55	6.30	6.00	6.20	7.25	7.30	7.90
27	8.00	7.40	5.00	6.15	5.60	5.50	6.30	6.00	6.30	7.30	7.25	7.90
28	8.00	7.10	5.00	6.10	5.60	5.50	6.20	5.95	6.40	7.30	7.30	7.85
29	7.95	6.80	5.10	6.10	---	5.60	6.20	5.90	6.45	7.45	7.25	7.75
30	7.75	6.65	---	6.00	---	5.60	6.20	5.90	6.50	7.45	7.30	8.00
31	7.90	---	5.35	5.80	---	5.65	---	5.85	---	7.55	7.30	---
MAX	8.00	8.00	6.40	6.45	6.10	5.65	6.30	6.30	6.50	7.55	7.80	8.00

CAL YR 1996 LOW 8.05
WTR YR 1997 LOW 8.00



GROUND-WATER RECORDS

Marion County

403443083230400. LOCAL NUMBER, MN-1

LOCATION.--Lat 40°34'43, long 83°23'04", Hydrologic Unit 05060001, SR 37 at Baptist Church in LaRue.

Owner: Village of LaRue.

AQUIFER.--Limestone of Silurian Age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 4 in., depth 100 ft, cased.

INSTRUMENTATION.--Type F continuous recorder.

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, Division of Water.

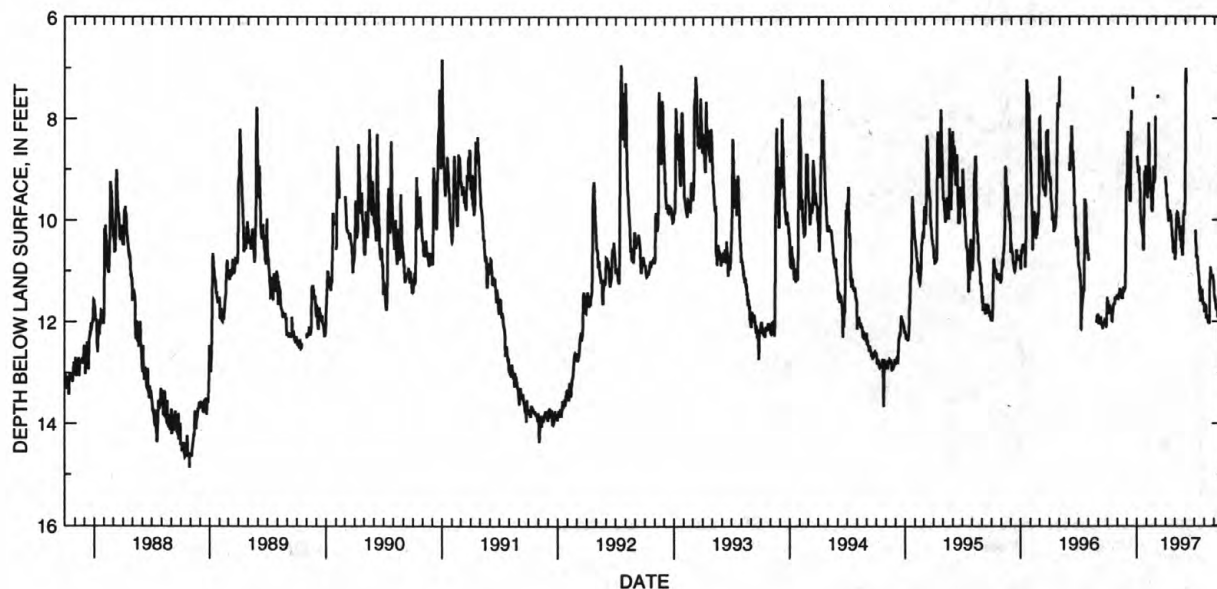
PERIOD OF RECORD.--March 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 14.87 ft below land-surface datum, Oct. 29, 1988;
minimum daily low, 5.67 ft below land-surface datum, Jan. 23, 1959.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.73	11.47	9.05	8.76	9.35	7.97	9.28	10.78	8.89	---	11.81	11.50
2	11.59	11.50	8.25	8.86	9.53	7.97	9.35	10.68	7.08	---	11.65	11.48
3	11.70	11.57	8.62	8.93	9.57	---	9.46	10.42	7.02	10.21	11.75	11.60
4	11.85	11.55	8.86	9.07	9.45	---	9.55	10.20	7.31	10.22	11.75	11.54
5	11.72	11.47	8.85	9.05	8.55	---	9.49	9.96	---	10.44	11.67	11.58
6	11.74	11.45	9.08	9.01	8.09	7.55	9.65	9.88	---	10.51	11.71	11.75
7	11.68	11.45	9.32	8.95	8.32	7.60	9.82	10.00	---	10.75	11.93	11.75
8	11.67	11.37	9.50	9.22	8.59	---	9.80	9.85	---	10.74	11.87	11.75
9	11.78	11.35	9.60	9.25	9.02	---	9.89	9.86	---	10.72	11.92	11.76
10	11.74	11.43	9.64	9.39	8.98	---	10.03	10.00	---	10.73	11.91	11.68
11	11.79	11.45	9.60	9.77	9.08	---	9.91	9.96	---	10.87	11.92	11.70
12	11.74	11.46	8.99	9.91	9.28	---	9.83	10.05	---	10.98	11.92	11.91
13	11.82	11.50	7.85	10.03	9.36	---	9.85	10.15	---	11.03	12.03	11.90
14	11.98	11.50	---	10.09	9.45	---	9.81	10.13	---	11.10	11.90	11.78
15	11.99	11.55	---	9.97	9.60	---	9.82	10.25	---	11.15	11.88	11.85
16	11.85	11.52	---	10.15	9.78	---	9.95	10.32	---	11.28	12.04	11.80
17	11.83	11.55	7.62	10.18	9.82	---	9.91	10.40	---	11.43	11.90	11.94
18	11.74	11.37	7.39	10.25	9.82	---	9.90	10.40	---	11.44	11.30	11.92
19	11.66	11.39	---	10.30	9.70	---	10.12	10.13	---	11.31	11.05	11.86
20	11.65	11.32	---	10.50	9.46	---	10.15	10.55	---	11.60	10.93	11.92
21	11.64	11.42	---	10.60	9.40	---	10.20	10.47	---	11.54	10.97	11.87
22	11.64	11.40	---	10.40	8.95	---	10.33	10.48	---	11.42	11.07	12.38
23	11.67	11.35	---	9.97	9.02	---	10.33	10.64	---	11.50	11.10	12.42
24	11.52	11.37	---	9.07	9.27	---	10.42	10.70	---	11.39	11.08	12.25
25	11.53	11.32	---	9.08	9.23	---	10.60	10.48	---	11.37	11.12	11.96
26	11.57	10.90	---	9.31	9.19	---	10.64	10.25	---	11.52	11.14	11.94
27	11.54	9.55	---	9.34	9.00	---	10.60	9.91	---	11.62	11.08	11.95
28	11.54	9.30	---	9.16	7.97	---	10.65	9.82	---	11.63	11.13	11.93
29	11.54	9.33	---	8.94	---	---	10.63	9.90	---	11.67	11.18	12.02
30	11.48	9.25	---	9.00	---	---	10.60	9.90	---	11.62	11.19	12.08
31	11.54	---	8.75	9.08	---	9.15	---	9.67	---	11.66	11.38	---
MAX	11.99	11.57	9.64	10.60	9.82	9.15	10.65	10.78	8.89	11.67	12.04	12.42
CAL YR 1996	LOW 12.15											
WTR YR 1997	LOW 12.42											



GROUND-WATER RECORDS

Marion County

267

403601083110400. LOCAL NUMBER, MN-2

LOCATION.--Lat 40°36'01, long 83°11'04", Hydrologic Unit 05060001, water treatment plant 2 mi west of Marion.

Owner: Marion Water Department.

AQUIFER.--Limestone of Silurian Age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 12 in., depth 67 ft, cased.

INSTRUMENTATION.--Type F continuous recorder.

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, Division of Water.

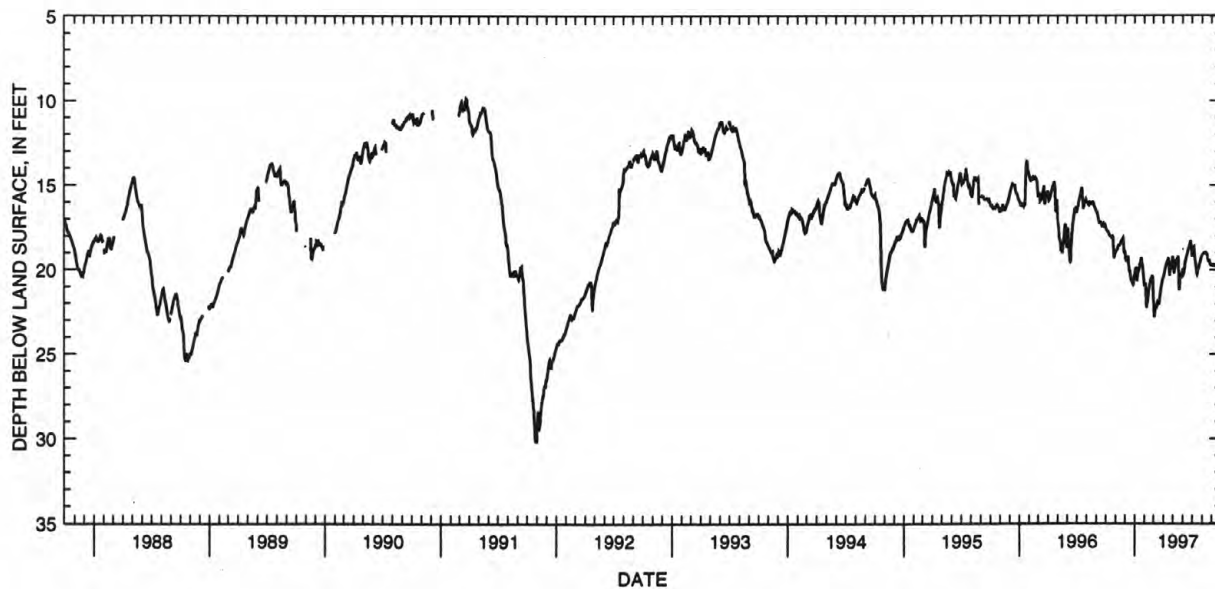
PERIOD OF RECORD.--May 1959 to current year.

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 1996 TO SEPTEMBER 1997 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.54	18.95	18.92	20.27	20.97	21.66	20.43	19.20	20.10	19.05	19.13	19.70
2	17.60	18.89	19.12	20.12	20.90	22.09	20.37	19.40	20.24	18.83	19.09	19.71
3	17.64	18.85	19.26	19.98	20.91	22.49	20.29	19.70	20.28	18.81	19.05	19.73
4	17.68	18.84	19.35	19.91	20.80	22.80	20.19	20.01	20.23	18.73	19.03	19.75
5	17.71	18.83	19.49	19.90	21.03	22.60	20.10	20.18	20.11	18.68	19.00	19.75
6	17.72	18.80	19.46	20.03	21.79	22.20	20.00	20.01	19.96	18.64	19.00	19.70
7	17.73	18.75	19.41	20.44	22.23	22.32	19.89	19.90	19.85	18.85	19.00	19.69
8	17.73	18.66	19.34	20.63	22.08	22.32	19.84	19.80	19.63	19.09	18.99	19.71
9	17.74	18.60	19.28	20.54	21.95	22.16	19.77	19.67	19.50	19.29	18.97	19.71
10	17.82	18.56	19.28	20.23	21.93	22.07	19.71	19.60	19.41	19.42	18.96	19.74
11	17.87	18.54	19.19	20.13	21.86	22.14	19.63	19.54	19.35	19.62	18.94	19.77
12	17.91	18.55	19.43	20.08	21.60	22.15	19.53	19.45	19.26	19.75	18.95	19.78
13	17.93	18.54	19.76	20.05	21.42	22.03	19.50	19.40	19.19	19.89	18.99	19.78
14	17.97	18.52	20.00	20.00	21.26	21.87	19.55	19.36	19.08	20.03	19.03	19.76
15	17.98	18.50	20.10	19.90	21.09	21.77	19.43	19.32	19.03	20.18	19.03	19.71
16	18.01	18.45	20.02	19.71	21.00	21.96	19.36	19.32	18.98	20.23	19.11	19.70
17	18.02	18.41	20.09	19.70	20.88	21.98	19.33	19.25	18.89	20.12	19.11	19.76
18	18.03	18.36	20.28	19.63	20.78	21.95	19.35	19.18	18.81	20.00	19.30	19.75
19	18.07	18.30	20.39	19.58	20.67	21.96	19.83	20.08	18.74	19.94	19.38	19.68
20	18.06	18.25	20.52	19.42	20.58	21.85	20.15	20.80	18.68	19.94	19.44	19.60
21	18.08	18.22	20.60	19.35	20.53	21.60	20.33	21.17	18.62	19.89	19.42	19.60
22	18.07	18.21	20.63	19.27	20.51	21.40	20.15	20.83	18.53	19.78	19.42	19.65
23	18.03	18.20	20.56	19.49	20.44	21.30	20.00	20.58	18.44	19.69	19.40	19.70
24	18.07	18.15	20.55	19.65	20.43	21.15	19.89	20.40	18.39	19.63	19.36	19.64
25	18.44	18.13	20.68	19.76	20.39	21.08	19.83	20.20	18.36	19.55	19.56	19.65
26	18.84	18.40	20.82	19.84	20.33	20.91	19.77	20.31	18.26	19.48	19.64	19.75
27	19.20	18.72	20.85	20.00	20.50	20.84	19.69	20.46	18.47	19.39	19.66	19.75
28	19.30	18.96	20.78	20.23	21.14	20.73	19.55	20.40	18.64	19.31	19.66	19.72
29	19.13	18.97	20.55	20.47	---	20.59	19.47	20.33	18.93	19.25	19.71	19.68
30	18.98	18.84	20.47	20.65	---	20.51	19.38	20.19	19.20	19.19	19.71	19.80
31	18.98	---	20.31	20.85	---	20.51	---	20.08	---	19.14	19.69	---
MAX	19.30	18.97	20.85	20.85	22.23	22.80	20.43	21.17	20.28	20.23	19.71	19.80

CAL YR 1996 LOW 20.85
WTR YR 1997 LOW 22.80



GROUND-WATER RECORDS

Medina County

410120081431800. LOCAL NUMBER, MD-3

LOCATION.--Lat 41°01'20", long 81°43'18", Hydrologic Unit 05040001, Auble Street at water treatment plant in Wadsworth.

Owner: Wadsworth Water Department.

AQUIFER.--Sandstone of Mississippian Age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 12 in., depth 275 ft, cased.

INSTRUMENTATION.--Type F continuous recorder.

DATUM.--Elevation of land-surface datum is 1180 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, Division of Water.

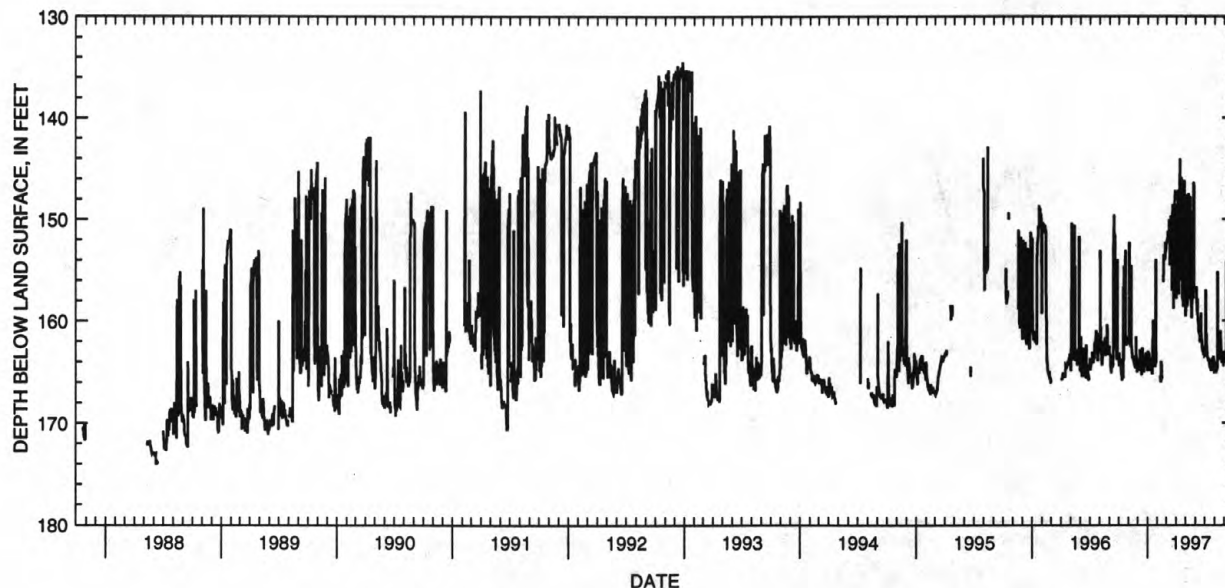
PERIOD OF RECORD.--December 1973 to current year.

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 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	164.40	161.90	---	164.50	---	152.40	157.80	159.50	---	163.40	---	163.40
2	163.20	161.90	164.00	163.00	---	152.30	148.60	159.00	---	163.20	---	163.40
3	163.70	152.30	164.40	163.60	---	152.20	157.30	149.40	156.90	163.30	164.40	164.00
4	163.90	162.00	164.90	163.50	---	152.00	148.60	147.60	156.70	157.00	164.60	164.10
5	164.00	162.30	164.70	163.20	---	152.00	157.00	158.30	158.30	161.20	165.00	163.60
6	163.80	162.00	164.00	163.80	---	151.20	147.20	158.60	158.70	161.40	165.00	163.60
7	163.90	162.50	164.00	164.10	---	151.60	156.20	158.30	159.40	162.50	164.00	163.60
8	164.90	161.90	162.90	164.90	---	151.50	157.00	149.60	157.90	163.00	164.70	154.20
9	165.30	161.80	164.60	164.50	165.40	151.50	148.40	157.90	159.70	163.50	164.70	161.90
10	165.30	154.60	164.80	164.20	165.50	150.10	157.40	147.60	160.30	163.60	155.20	161.80
11	165.80	162.40	164.90	164.30	165.90	150.30	147.30	147.60	161.00	163.70	162.30	159.60
12	164.70	163.20	164.50	163.70	166.00	154.50	147.10	155.70	161.10	163.90	163.60	158.60
13	164.70	163.60	165.30	164.10	164.00	150.40	144.10	156.10	161.30	163.80	163.80	159.80
14	165.60	163.40	164.40	164.90	164.30	154.40	156.00	156.70	161.30	163.80	163.40	---
15	156.70	163.70	162.70	165.20	165.40	149.70	147.40	147.80	162.10	164.10	163.50	160.30
16	163.90	163.80	163.40	162.50	165.70	149.90	146.60	156.00	160.30	164.40	163.60	156.00
17	154.70	163.80	163.80	163.50	---	149.70	145.90	155.40	161.00	164.50	163.70	160.20
18	162.20	163.50	164.00	160.00	---	152.00	146.00	156.50	161.50	164.60	163.70	152.00
19	161.70	164.10	164.10	163.20	156.20	157.00	155.70	158.60	159.30	164.60	161.60	159.10
20	162.00	164.20	165.00	160.20	155.50	149.30	156.70	159.70	161.30	164.80	161.00	159.00
21	153.70	164.50	164.50	164.10	153.50	148.60	157.80	158.30	161.80	164.90	161.80	158.80
22	153.10	164.60	164.10	164.40	154.00	156.40	157.60	157.70	162.30	164.60	163.30	151.80
23	161.50	164.00	164.00	163.80	153.90	148.80	158.10	149.30	162.70	164.70	164.00	150.30
24	161.60	163.60	164.10	164.50	154.00	158.80	158.60	157.60	162.90	163.70	164.10	158.30
25	162.40	161.60	164.20	163.00	153.80	150.80	150.40	157.80	162.80	164.30	163.70	158.50
26	161.90	163.30	163.20	154.20	152.30	157.60	148.80	146.40	163.10	164.30	163.10	150.00
27	162.00	164.30	164.20	154.00	152.80	148.30	146.20	146.70	163.30	164.10	163.70	157.20
28	162.10	165.00	164.30	163.10	152.83	148.20	157.80	156.80	163.00	163.50	164.10	149.20
29	161.60	163.70	163.40	164.10	---	147.20	---	---	163.20	163.80	164.40	149.20
30	---	163.70	163.80	164.10	---	---	158.40	147.90	163.43	164.40	164.00	157.50
31	162.00	---	164.90	---	---	154.60	---	---	---	165.10	163.00	---
MAX	165.80	165.00	165.30	165.20	166.00	158.80	158.60	159.70	163.43	165.10	165.00	164.10

CAL YR 1996 LOW 166.10

WTR YR 1997 LOW 166.00



GROUND-WATER RECORDS

Mercer County

269

402833084375200. LOCAL NUMBER, MR-2

LOCATION.--Lat 40°28'33", long 84°37'52", Hydrologic Unit 05120101, at AVCO Mfg. Co. building in Coldwater.

Owner: New Idea Farm Equipment Co.

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, Division of Water.

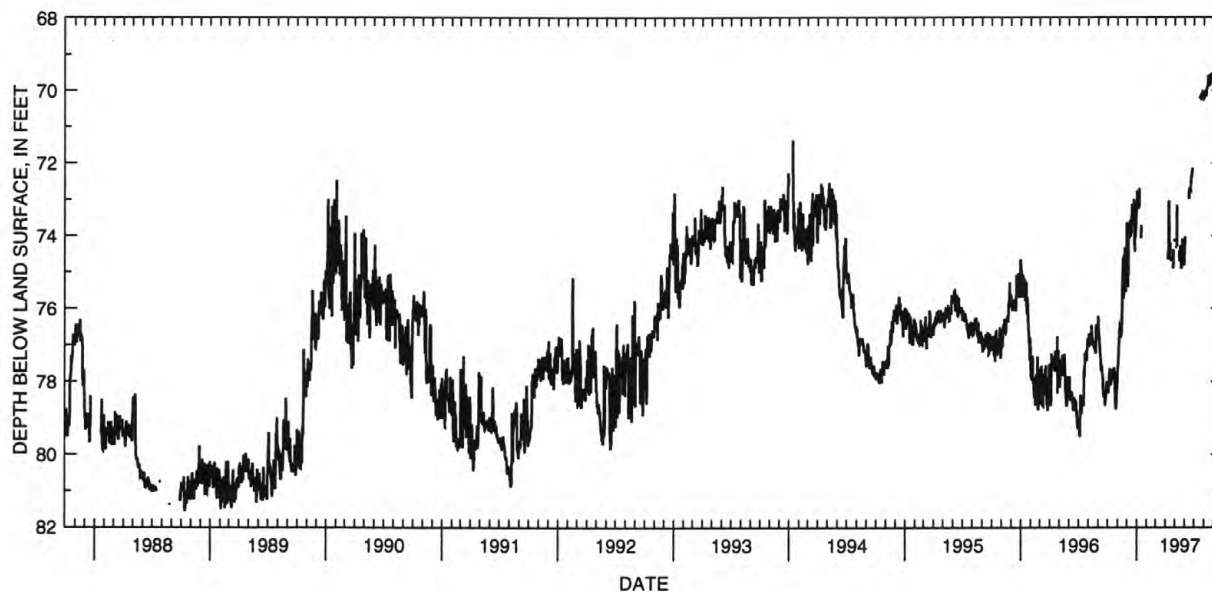
PERIOD OF RECORD.--February 1967 to current year.

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 1996 TO SEPTEMBER 1997 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	78.06	77.77	73.63	73.18	---	---	---	---	74.09	---	70.19	69.66
2	78.18	77.59	73.74	72.76	---	---	---	---	74.27	---	70.05	69.61
3	78.32	77.55	74.99	72.88	---	---	---	---	74.02	---	70.04	69.67
4	78.18	77.38	75.41	72.79	---	---	---	74.33	---	---	70.00	69.66
5	78.06	77.07	74.93	72.76	---	---	---	74.31	---	---	70.09	69.53
6	77.85	76.92	73.77	73.05	---	---	---	---	---	---	70.12	69.34
7	77.77	76.61	73.65	73.24	---	---	---	74.28	---	---	70.16	69.32
8	77.65	76.55	73.72	73.17	---	---	---	73.15	---	---	70.08	69.30
9	77.68	76.44	74.07	72.70	---	---	74.65	---	---	---	69.95	69.16
10	77.96	76.46	73.70	---	---	---	74.41	---	---	---	69.94	69.19
11	78.10	76.70	73.57	---	---	---	74.12	74.12	---	---	69.95	69.34
12	78.00	76.75	73.83	---	---	---	73.05	---	---	---	69.92	69.47
13	77.73	76.73	74.01	---	---	---	74.24	---	72.77	---	69.81	69.49
14	77.95	76.54	73.86	74.06	---	---	74.55	74.58	72.98	---	69.83	69.43
15	77.86	76.36	73.70	73.72	---	---	74.61	74.42	72.98	---	69.59	69.32
16	77.77	75.36	73.42	---	---	---	74.63	74.69	72.68	---	69.79	69.22
17	77.68	75.08	73.14	---	---	---	74.20	74.65	72.74	---	69.78	69.25
18	77.85	74.88	73.17	---	---	---	---	74.27	72.74	70.17	69.88	69.32
19	77.86	74.56	73.40	---	---	---	---	74.70	72.76	70.19	69.83	69.15
20	77.67	75.72	73.61	---	---	---	---	74.62	72.52	70.19	69.56	69.46
21	77.62	75.54	73.52	---	---	---	---	74.90	72.53	70.17	69.62	69.56
22	77.66	74.75	73.19	---	---	---	---	74.86	72.33	70.20	69.79	69.38
23	77.95	74.63	73.00	---	---	---	---	74.73	72.36	70.17	69.82	69.27
24	78.33	74.32	73.42	---	---	---	---	74.49	72.27	70.14	69.72	69.19
25	78.47	74.61	74.44	---	---	---	74.89	74.10	72.14	70.17	69.66	68.97
26	78.66	74.68	74.02	---	---	---	74.80	---	---	70.11	69.66	69.10
27	78.76	75.54	74.02	---	---	---	74.38	74.79	---	70.06	69.55	69.05
28	78.69	75.21	73.82	---	---	---	---	74.63	---	70.08	69.56	68.79
29	78.41	74.99	73.80	---	---	---	74.15	74.75	---	70.19	69.59	68.64
30	78.23	73.72	73.38	---	---	---	74.10	74.81	---	70.24	69.58	68.99
31	78.17	---	73.41	---	---	---	---	74.51	---	70.23	69.59	---
MAX	78.76	77.77	75.41	74.06	---	---	74.89	74.90	74.27	70.24	70.19	69.67

CAL YR 1996 LOW 79.48
WTR YR 1997 LOW 78.76



GROUND-WATER RECORDS

Mercer County

402833084375200. LOCAL NUMBER, MR-2—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	LOCAL IDENT- I- FIER	DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN)	FLOW RATE (G/M)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH WATER WHOLE FIELD (STAND- ARD UNITS)	
AUG 01...	MR-2	970801	1230	70.14	253.00	150	4.0	1480	7.0	
DATE	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFIDE WATER, FLTRD, FIELD, (MG/L)	SILICA, DIS- SOLVED (MG/L AS SIO2)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
AUG 01...	16.0	0	260	76	90	222	0.006	12	<0.010	<0.050
DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)
AUG 01...	0.398	0.31	<0.010	<0.010	10	<0.50	<1.0	<5.0	6.6	<10
DATE	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
AUG 01...	2800	<10	26	50	37	<10	<1.0	11300	<6	61

GROUND-WATER RECORDS
Miami County

271

395848084085500. LOCAL NUMBER, MI-3

LOCATION.--Lat 39°58'48", long 84°08'55", Hydrologic Unit 05080001, 2.0 mi northeast of Tipp City.

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, Division of Water.

PERIOD OF RECORD.--October 1966 to September 1982 continuous, periodic thereafter.

EXTREMES FOR PERIOD OF RECORD---Maximum daily low, 15.61 ft below land-surface datum, Feb. 4, 1971;
minimum daily low, 7.53 ft below land-surface datum, Feb. 25, 1975.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATIONS

DATE	WATER LEVEL
Oct. 10, 1996	10.48
Apr. 15, 1997	10.32

GROUND-WATER RECORDS

Miami County

400208084112900. LOCAL NUMBER, MI-44

LOCATION.--Lat 40°02'08", long 84°11'29", Hydrologic Unit 05080001, on left bank of Great Miami River 0.7 mi east of city hall in Troy.

Owner: City of Troy.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled public supply water-table well, diameter 26 in, depth 105 ft, screened below 89 ft.

PERIOD OF RECORD.--August 1974 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER FIELD (STANDARD UNITS) (00400)	TEMPERATURE AIR (DEG C) (00020)	TEMPERATURE WATER (DEG C) (00010)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L) (00340)	CALCIUM DIS-SOLVED (MG/L) (00915)	MAGNESIUM, DIS-SOLVED (MG/L) (00925)	SODIUM, DIS-SOLVED (MG/L) (00930)	POTASSIUM, DIS-SOLVED (MG/L) (00935)	BICARBONATE (MG/L) (99440)	ALKALINITY, CARBONATE (MG/L) (99430)
NOV 13...	1000	737	6.8	1.0	13.0	<10	79	31	23	2.5	342	280
APR 07...	1015	775	7.1	3.0	13.5	<10	83	30	23	2.4	361	296
AUG 26...	1200	735	7.2	24.5	13.5	<10	80	30	22	2.7	326	267

DATE	SULFATE DIS-SOLVED (MG/L) (00945)	CHLORIDE, DIS-SOLVED (MG/L) (00940)	FLUORIDE, DIS-SOLVED (MG/L) (00950)	SILICA, DIS-SOLVED (MG/L) (00955)	SOLIDS, RESIDUE AT 180 DEG. C (MG/L) (70300)	NITROGEN, NITRITE DIS-SOLVED (MG/L) (00613)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L) (00631)	NITROGEN, AMMONIA DIS-SOLVED (MG/L) (00608)	PHOSPHORUS, ORTHO, DIS-SOLVED (MG/L) (00671)	ARSENIC TOTAL (UG/L) (01002)	ARSENIC DIS-SOLVED (UG/L) (01000)
NOV 13...	64	36	1.0	13	436	<0.010	<0.050	0.340	<0.010	1	<1
APR 07...	64	39	0.90	13	457	<0.010	<0.050	0.340	<0.010	--	--
AUG 26...	63	40	0.70	11	453	<0.010	0.070	0.242	<0.010	<1	<1

DATE	CHROMIUM, DIS-SOLVED (UG/L) (01030)	CHROMIUM, TOTAL RECOVERABLE (UG/L) (01034)	COPPER, TOTAL RECOVERABLE (UG/L) (01042)	COPPER, DIS-SOLVED (UG/L) (01040)	IRON, DIS-SOLVED (UG/L) (01046)	LEAD, TOTAL RECOVERABLE (UG/L) (01051)	LEAD, DIS-SOLVED (UG/L) (01049)	MANGANESE, DIS-SOLVED (UG/L) (01056)	ZINC, TOTAL RECOVERABLE (UG/L) (01092)	ZINC, DIS-SOLVED (UG/L) (01090)	CARBON, ORGANIC TOTAL (MG/L) (00680)
NOV 13...	<1.0	<1	2	<1.0	1400	<1	<1.0	46	<10	<3.0	1.2
APR 07...	--	--	--	--	1400	--	--	46	--	--	6.6
AUG 26...	<1.0	<1	<1	<1.0	1000	<1	<1.0	65	<10	<3.0	0.90

GROUND-WATER RECORDS
Montgomery County

273

393757084173600. LOCAL NUMBER MT-928

LOCATION.--Lat 39°37'57", long 84°17'36", Hydrologic Unit 05080002, on right bank of Great Miami River 0.2 mi south of Linden Ave. bridge, Miamisburg.
Owner: City of Miamisburg.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled municipal supply water-table well, diameter 20 in., depth 95 ft, screened below 70 ft.
PERIOD OF RECORD.--September 1983 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	CALCIUM DIS- SOLVED (MG/L) AS CA (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L) AS MG (00925)	SODIUM, DIS- SOLVED (MG/L) AS NA (00930)	POTAS- SIUM, DIS- SOLVED (MG/L) AS K (00935)	BICAR- BONATE IT-FLD (MG/L AS HCO3) (99440)	ALKA- LINITY, CARBON- ATE IT-FLD (MG/L - CAC03) (99430)
NOV 13...	1300	888	7.1	2.0	14.0	<10	84	30	49	4.1	347	284
APR 07...	1300	885	7.3	5.5	15.5	<10	86	29	44	3.8	337	276
AUG 26...	1430	911	7.3	26.0	13.5	<10	88	33	46	3.7	332	272

DATE	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)
NOV 13...	68	90	0.40	8.4	518	0.040	1.60	0.020	0.020	1	<1
APR 07...	58	74	0.40	9.1	500	0.050	4.00	<0.015	0.030	--	--
AUG 26...	55	88	0.34	8.4	554	0.033	3.44	0.033	0.032	1	1

DATE	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
NOV 13...	<1.0	<1	3	3.0	<3.0	<1	<1.0	150	<10	<3.0	2.4
APR 07...	--	--	--	--	<3.0	--	--	170	--	--	2.1
AUG 26...	<1.0	<1	2	1.8	<3.0	<1	<1.0	176	<10	<3.0	0.90

GROUND-WATER RECORDS

Montgomery County

394012084151700. LOCAL NUMBER, MT-55

LOCATION.--Lat 39°40'12", long 84°15'17", Hydrologic Unit 05080002, Elm Street in West Carrollton.

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, Division of Water.

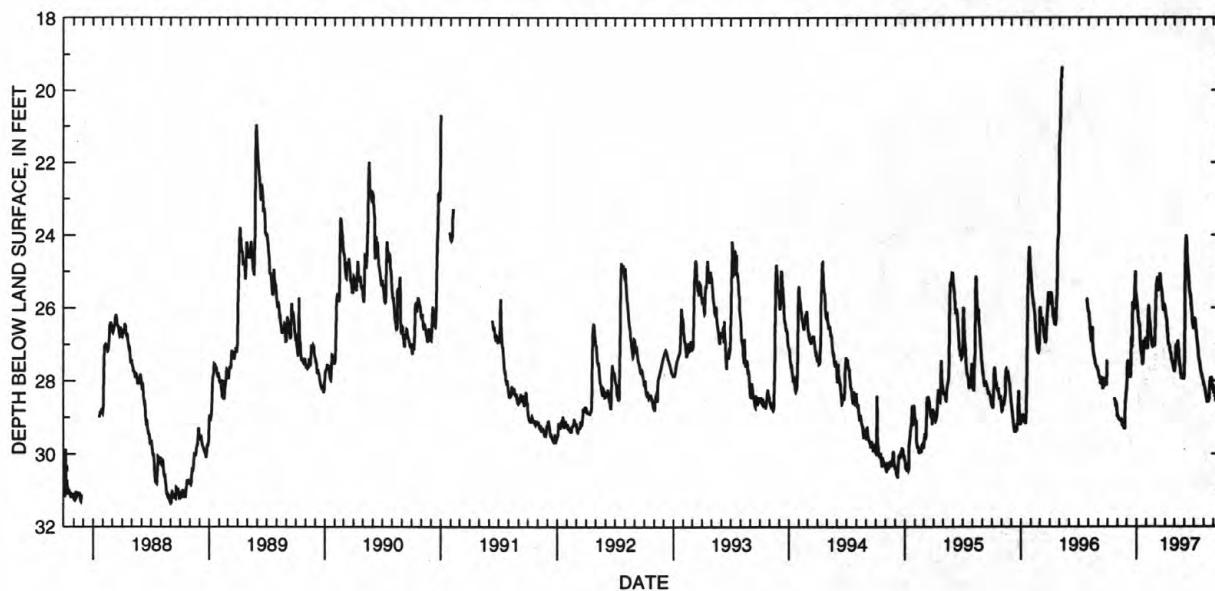
PERIOD OF RECORD.--April 1970 to current year.

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 1996 TO SEPTEMBER 1997

DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	28.94	28.15	25.80	26.94	26.57	26.02	27.76	27.78	26.49	28.11	28.21
2	---	28.97	27.93	25.88	27.03	26.09	26.12	27.64	27.05	26.27	28.11	28.36
3	---	28.97	27.61	25.95	27.10	25.79	26.15	27.53	25.60	26.30	28.15	28.27
4	---	29.00	27.47	26.04	27.13	25.54	26.25	27.44	24.97	26.28	28.18	28.30
5	---	29.04	27.44	26.15	27.06	25.31	26.30	27.18	24.34	26.35	28.25	28.31
6	---	29.05	27.57	26.25	26.41	25.41	26.33	27.01	24.20	26.47	28.28	28.35
7	---	29.06	27.65	26.36	26.12	25.24	26.42	27.08	24.01	26.56	28.38	28.48
8	---	29.07	27.70	26.43	25.93	25.16	26.57	27.06	24.17	26.64	28.41	28.57
9	---	29.07	27.79	26.47	26.00	25.19	26.72	27.16	24.35	26.74	28.46	28.55
10	---	29.04	27.86	26.42	26.20	25.23	26.73	27.14	24.58	26.82	28.49	28.58
11	---	29.07	27.88	26.63	26.33	25.31	26.94	26.93	24.78	26.89	28.56	28.43
12	---	29.09	27.92	26.82	26.38	25.42	27.00	26.89	24.93	27.01	28.58	28.33
13	---	29.03	27.87	26.99	26.49	25.37	27.01	27.14	25.00	27.08	28.58	28.44
14	---	29.12	27.47	27.13	26.60	25.46	27.02	27.14	25.04	27.12	28.53	28.40
15	---	29.18	27.11	27.17	26.73	25.44	27.03	27.35	25.17	27.23	28.52	28.41
16	---	29.20	26.77	27.22	26.83	25.06	27.13	27.42	25.40	27.36	28.51	28.34
17	---	29.24	27.11	27.30	26.90	25.07	27.20	27.54	25.44	27.43	28.52	28.37
18	---	29.12	26.92	27.26	26.91	25.32	27.21	27.61	25.56	27.46	28.48	28.61
19	---	29.24	26.01	27.46	27.03	25.43	27.25	27.62	25.65	27.49	28.29	28.58
20	---	29.26	25.85	27.57	27.04	25.44	27.29	27.74	25.60	27.53	28.02	28.61
21	---	29.19	25.98	27.45	27.01	25.49	27.36	27.83	25.71	27.64	28.05	28.66
22	28.48	29.25	26.00	27.45	27.02	25.57	27.40	27.86	25.83	27.70	27.92	28.71
23	28.53	29.27	26.01	26.90	26.94	25.64	27.45	27.93	25.95	27.76	28.05	28.66
24	28.53	29.31	26.05	27.13	26.84	25.79	27.47	27.93	26.05	27.80	27.94	28.67
25	28.61	29.33	25.69	26.99	26.93	25.86	27.53	27.94	26.18	27.81	27.90	28.78
26	28.67	28.57	25.50	27.03	27.01	25.99	27.56	27.94	26.28	27.88	28.04	28.81
27	28.66	28.57	25.33	27.11	27.05	25.97	27.57	27.93	26.42	27.92	28.17	28.82
28	28.59	28.48	25.00	27.12	26.92	26.09	27.63	27.90	26.48	27.93	28.21	28.81
29	28.66	28.31	25.57	26.86	---	26.03	27.69	27.92	26.54	27.98	28.17	28.84
30	28.82	28.25	25.63	26.81	---	25.91	27.74	27.97	26.58	27.99	28.26	28.89
31	28.98	---	25.67	26.89	---	25.93	---	27.86	---	28.06	28.22	---
MAX	28.98	29.33	28.15	27.57	27.13	26.57	27.74	27.97	27.78	28.06	28.58	28.89
CAL YR 1996 LOW 29.33												
WTR YR 1997 LOW 29.33												



GROUND-WATER RECORDS Montgomery County

275

394025084162800. LOCAL NUMBER, MT-49

LOCATION.--Lat 39°40'25", long 84°16'28", Hydrologic Unit 05080002, 1.2 mi west of city hall in West Carrollton.

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.

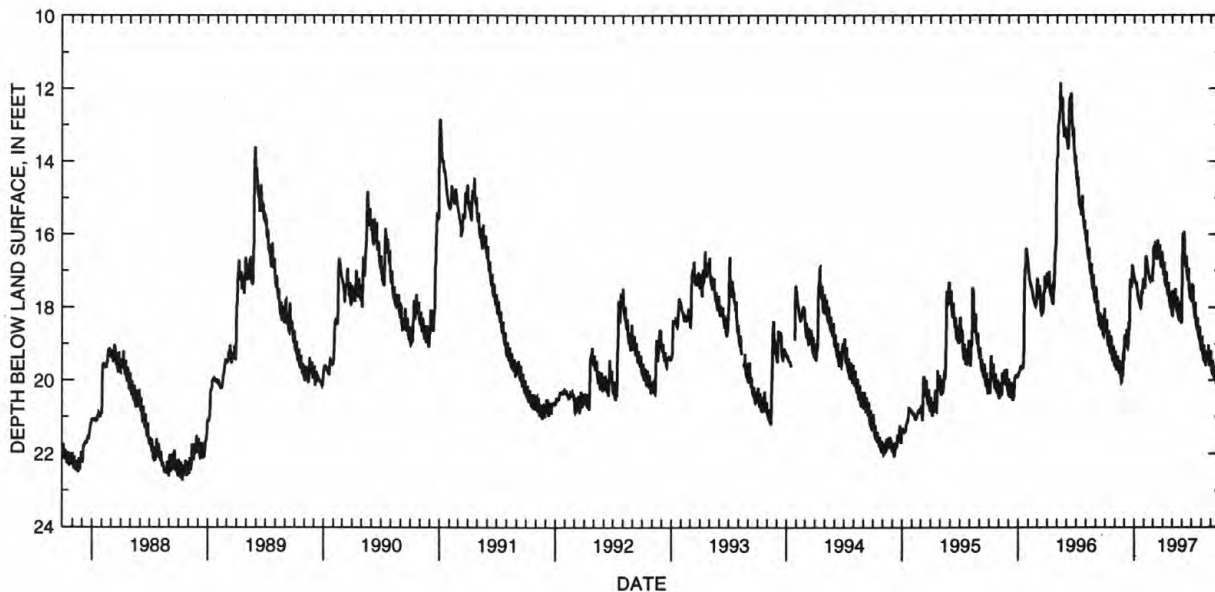
PERIOD OF RECORD.--November 1947 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 36.30 ft below land-surface datum, Dec. 8, 1974;
minimum daily low, 10.58 ft below land-surface datum, Jan. 23, 1959.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.45	19.61	18.94	17.17	17.35	16.91	16.90	18.21	17.78	17.80	19.16	19.21
2	18.56	19.38	18.75	17.22	17.40	16.85	16.97	18.22	16.72	17.83	19.16	19.60
3	18.65	19.20	18.87	17.29	17.47	16.41	17.05	18.01	16.18	17.83	18.79	19.71
4	18.71	19.57	18.93	17.30	17.42	16.32	17.12	17.53	15.97	17.57	19.15	19.76
5	18.55	19.67	18.94	17.35	17.06	16.35	16.85	17.63	16.03	17.39	19.25	19.83
6	18.33	19.68	18.99	17.33	16.63	16.34	16.75	17.74	16.11	17.40	19.31	19.83
7	18.72	19.71	19.00	17.35	16.58	16.37	17.17	17.80	16.06	17.89	19.39	19.45
8	18.84	19.73	18.61	17.39	16.65	16.23	17.30	17.80	15.92	17.99	19.44	19.82
9	18.92	19.64	18.98	17.38	16.69	16.21	17.35	17.86	16.48	18.07	19.44	19.86
10	19.01	19.33	19.09	17.49	16.75	16.42	17.38	17.80	16.63	18.16	19.04	19.90
11	19.06	19.59	19.11	17.58	16.82	16.55	17.43	17.48	16.75	18.23	19.44	19.92
12	18.87	19.68	19.06	17.67	16.90	16.63	17.22	17.86	16.83	18.21	19.50	19.98
13	18.64	19.73	19.03	17.72	16.93	16.68	17.03	17.97	16.90	17.85	19.50	19.98
14	19.03	19.78	18.68	17.76	16.99	16.66	17.43	18.03	16.66	18.28	19.55	19.61
15	19.11	19.80	18.40	17.75	17.05	16.35	17.52	18.09	16.58	18.39	19.58	19.93
16	19.19	19.81	18.64	17.82	17.13	16.15	17.57	18.14	16.99	18.48	19.58	19.98
17	19.18	19.46	18.61	17.84	17.15	16.58	17.63	17.82	17.09	18.55	19.20	20.07
18	19.18	19.77	17.79	17.89	17.18	16.59	17.66	17.71	17.12	18.59	19.30	20.08
19	19.00	19.84	17.31	17.92	17.25	16.49	17.66	18.14	17.22	18.54	19.37	20.13
20	18.78	19.94	17.26	17.97	17.26	16.50	17.31	18.24	17.27	18.28	19.28	20.13
21	19.17	19.99	17.27	18.00	17.19	16.56	17.69	18.28	17.23	18.65	19.34	19.79
22	19.28	20.06	17.31	17.97	17.22	16.50	17.81	18.32	16.92	18.73	19.41	20.09
23	19.36	20.04	17.46	17.79	17.16	16.29	17.86	18.33	17.43	18.75	19.39	20.12
24	19.41	19.65	17.34	17.56	17.21	16.67	17.89	18.31	17.53	18.83	19.04	20.17
25	19.45	19.91	16.99	17.52	17.24	16.76	17.99	17.89	17.63	18.86	19.42	20.24
26	19.45	19.89	16.83	17.55	17.23	16.82	17.99	17.85	17.66	18.81	19.50	20.27
27	19.05	19.56	16.92	17.56	17.29	16.89	17.59	18.24	17.77	18.52	19.58	20.22
28	19.42	19.20	16.98	17.43	17.11	16.90	17.99	18.32	17.69	18.86	19.61	19.91
29	19.46	19.38	17.07	17.25	---	16.67	18.09	18.39	17.37	18.97	19.32	20.21
30	19.54	19.39	17.08	17.24	---	16.46	18.12	18.43	17.82	19.05	19.32	20.35
31	19.60	---	17.15	17.28	---	16.81	---	18.37	---	19.11	19.21	---
MAX	19.60	20.06	19.11	18.00	17.47	16.91	18.12	18.43	17.82	19.11	19.61	20.35

CAL YR 1996 LOW 20.06
WTR YR 1997 LOW 20.35



GROUND-WATER RECORDS

Montgomery County

394425084113200. LOCAL NUMBER, MT-3

LOCATION.--Lat 39°44'25", long 84°11'32", Hydrologic Unit 05080002, Patterson Blvd. at Stewart St., in Dayton.

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, Division of Water.

PERIOD OF RECORD.--May 1945 to June 1974. Reactivated June 1980.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low 79.45 ft below land-surface datum, Apr. 6, 1971;
minimum daily low, 24.13 ft below land-surface datum, May 12, 1996.

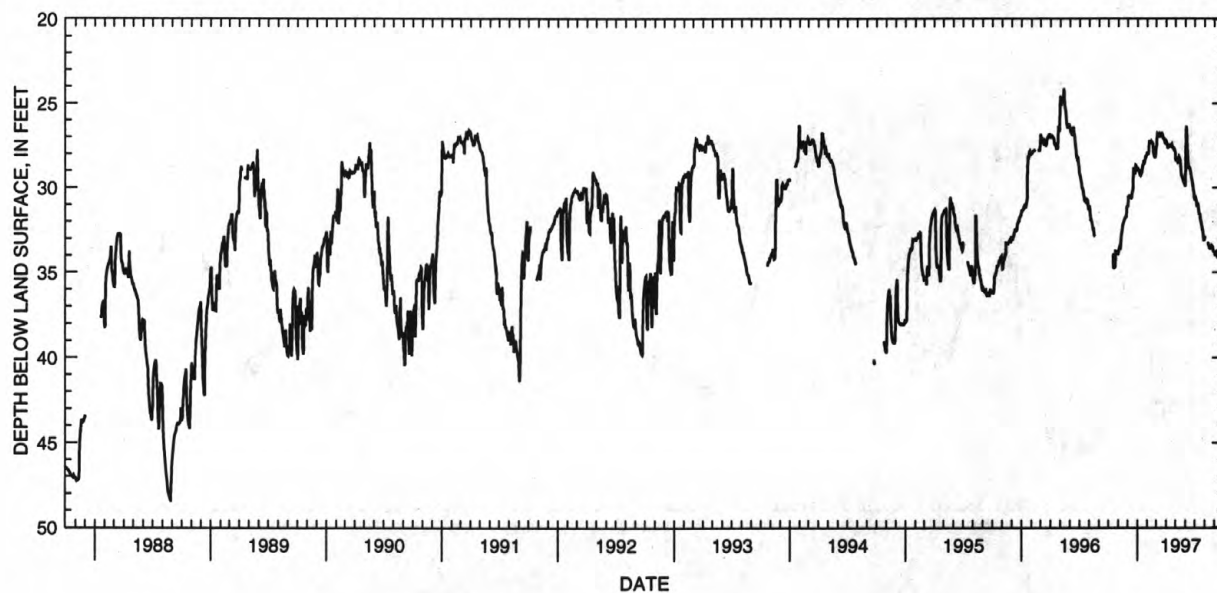
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	33.80	31.08	28.95	27.96	27.55	27.21	28.34	29.66	30.69	32.93	33.87
2	---	33.67	30.77	28.91	27.97	27.49	27.30	28.39	27.85	30.47	32.93	33.96
3	---	33.60	30.49	28.97	27.99	27.06	27.35	28.39	26.64	30.64	32.94	33.97
4	---	33.54	30.54	28.99	27.98	26.84	27.50	28.39	26.36	30.69	---	33.96
5	---	33.50	30.54	28.99	27.84	26.89	27.54	28.38	26.69	30.76	---	33.87
6	---	33.53	30.50	28.99	27.40	26.90	27.64	28.27	27.13	30.88	---	33.83
7	---	33.56	30.53	29.11	27.23	26.79	27.64	28.27	27.62	31.06	---	33.85
8	---	33.38	30.53	29.24	27.23	26.88	27.61	28.51	28.02	31.06	---	33.96
9	---	33.03	30.53	29.24	27.25	26.89	27.54	28.58	28.38	30.94	---	34.01
10	---	32.83	30.50	29.28	27.25	26.83	27.52	28.36	28.66	30.94	---	33.98
11	---	32.68	30.59	29.23	27.26	26.88	27.46	28.26	28.80	31.01	33.22	33.83
12	---	32.60	30.61	29.02	27.31	26.95	27.45	28.19	28.79	31.25	33.33	33.72
13	---	32.43	30.58	28.97	27.34	26.95	27.45	28.25	28.79	31.37	33.37	33.65
14	33.93	32.27	30.32	29.13	27.28	26.85	27.45	28.28	28.84	31.56	33.38	33.84
15	33.94	32.18	30.24	28.98	27.33	26.85	27.55	28.32	28.84	31.56	33.47	33.88
16	34.61	32.09	30.23	28.71	27.33	26.80	27.56	28.55	28.92	31.55	33.58	33.82
17	34.72	32.06	30.16	28.71	27.35	26.79	27.56	28.83	29.01	31.60	33.59	33.76
18	34.73	32.04	29.42	28.63	27.37	26.86	27.51	29.06	29.19	31.86	33.59	33.78
19	34.73	31.96	28.81	28.53	27.72	26.86	27.45	29.28	29.26	31.97	33.59	33.98
20	34.64	31.88	28.94	28.44	27.90	26.83	27.51	29.31	29.43	31.98	33.59	34.15
21	34.63	31.85	29.04	28.45	27.99	26.90	27.55	29.35	29.48	32.13	33.55	34.15
22	34.69	31.79	29.10	28.44	28.11	27.06	27.61	29.37	29.57	32.24	33.54	34.15
23	33.75	31.74	29.15	28.47	28.14	27.09	27.61	29.45	29.76	32.32	33.47	34.11
24	33.76	31.72	29.15	28.37	28.18	27.10	27.64	29.51	29.76	32.47	33.43	34.11
25	33.77	31.73	28.96	28.21	28.18	27.13	27.74	29.62	30.07	32.53	33.46	34.11
26	33.79	31.71	28.67	28.22	28.18	27.17	27.76	29.65	30.15	32.61	33.53	34.06
27	33.83	31.30	28.70	28.20	27.93	27.25	27.78	29.68	30.21	32.79	33.65	34.07
28	33.86	31.11	28.84	28.13	27.80	27.31	27.76	29.72	30.44	32.97	33.75	34.07
29	33.86	31.09	28.95	28.10	---	27.35	27.83	29.77	30.60	33.07	33.77	34.07
30	33.86	31.09	28.96	28.03	---	27.31	27.98	29.82	30.69	33.07	33.77	34.10
31	33.87	---	28.96	27.95	---	27.19	---	29.92	---	32.99	33.80	---
MAX	34.73	33.80	31.08	29.28	28.18	27.55	27.98	29.92	30.69	33.07	33.80	34.15

CAL YR 1996 LOW 34.73

WTR YR 1997 LOW 34.73



GROUND-WATER RECORDS

Montgomery County

277

394533084113800. LOCAL NUMBER, MT-6

LOCATION.--Lat 39°45'33", long 84°11'38", Hydrologic Unit 05080002, 3rd and Ludlow Sts., Dayton.

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.--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 13.00 ft below land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

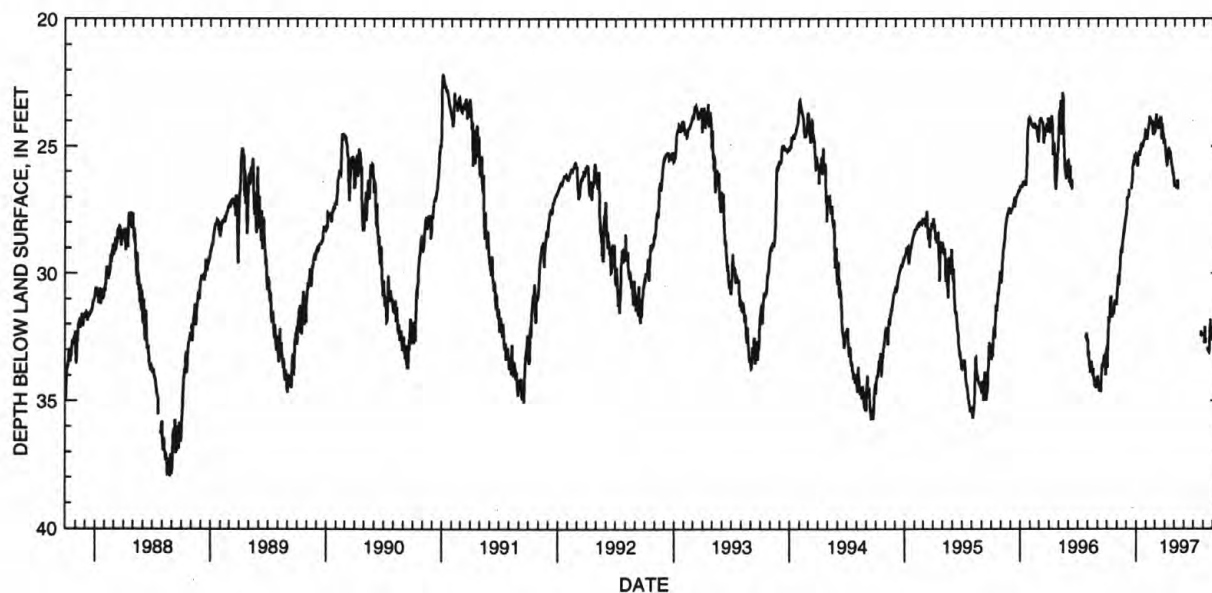
PERIOD OF RECORD.--February 1946 to current year.

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 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32.98	30.82	27.53	25.36	24.67	24.35	24.93	26.58	---	---	---	32.59
2	33.69	30.57	27.44	25.36	24.67	24.18	25.13	26.47	---	---	---	32.65
3	32.97	30.43	27.03	25.67	24.73	23.91	25.30	26.55	---	---	32.74	32.48
4	32.53	30.27	27.04	25.78	24.68	23.74	25.47	26.48	---	---	32.68	32.28
5	32.03	30.05	27.02	25.73	24.47	24.07	25.44	26.48	---	---	32.38	32.08
6	31.71	30.30	27.01	25.45	24.34	24.17	25.60	26.53	---	---	32.10	31.99
7	31.89	30.47	26.97	25.28	24.32	24.15	25.73	26.60	---	---	32.70	31.82
8	31.93	30.33	26.94	25.38	24.16	24.22	25.72	26.58	26.66	---	32.56	32.56
9	31.76	29.99	26.70	25.19	24.11	24.12	25.53	26.58	---	---	32.73	---
10	31.46	29.84	---	25.23	24.05	24.18	25.20	26.33	---	---	---	---
11	31.13	29.53	---	25.38	23.83	24.32	25.22	26.38	---	---	---	32.50
12	30.94	29.34	---	25.28	23.88	24.14	25.26	26.68	---	---	---	32.28
13	30.93	29.10	---	25.19	23.89	23.96	25.05	---	---	---	32.80	32.13
14	31.38	29.01	---	24.97	23.96	24.09	25.15	---	---	---	---	32.00
15	31.47	29.00	---	24.94	24.08	24.04	25.40	---	---	---	32.90	32.55
16	31.61	29.07	26.68	25.00	24.12	23.93	25.49	---	---	---	33.02	32.70
17	31.72	29.08	26.48	25.02	24.12	23.95	25.34	---	---	---	33.07	33.00
18	31.65	28.88	26.42	24.96	23.99	23.97	25.31	---	---	---	33.02	---
19	31.43	28.74	26.17	24.90	24.25	23.95	25.44	---	---	---	33.08	32.79
20	31.36	28.60	25.79	24.95	24.26	24.62	25.48	---	---	---	32.99	32.85
21	31.44	28.53	25.75	24.97	24.49	24.71	25.70	---	---	---	32.89	32.21
22	31.59	28.36	25.71	24.87	24.53	24.15	25.75	---	---	---	32.15	32.09
23	31.45	28.38	25.63	24.80	24.38	24.15	25.79	---	---	---	32.01	32.13
24	31.13	28.36	25.65	24.76	24.32	24.43	25.87	---	---	32.28	31.81	32.12
25	31.06	28.14	25.56	24.76	24.07	24.52	26.04	---	---	32.46	32.34	32.07
26	31.16	28.01	25.40	24.75	24.02	24.44	26.09	---	---	32.38	32.18	32.04
27	31.08	27.89	25.33	24.55	24.44	24.71	26.07	---	---	32.42	32.41	31.90
28	31.24	27.89	25.53	24.51	24.43	24.91	26.17	---	---	32.40	32.47	31.65
29	31.07	27.75	25.59	24.40	---	24.86	26.31	---	---	32.46	32.61	31.68
30	31.24	27.62	25.41	24.42	---	24.71	26.60	---	---	---	32.54	31.76
31	31.13	---	25.33	24.50	---	24.79	---	---	---	---	32.60	---
MAX	33.69	30.82	27.53	25.78	24.73	24.91	26.60	26.68	26.66	32.46	33.08	33.00

CAL YR 1996 LOW 34.66
WTR YR 1997 LOW 33.69



GROUND-WATER RECORDS

Montgomery County

394811084095000. LOCAL NUMBER, MT-74

LOCATION.--Lat 39°48'11", long 84°09'50", Hydrologic Unit 05080002, Miami Well Field in Dayton.

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.--Type F continuous recorder.

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, Division of Water.

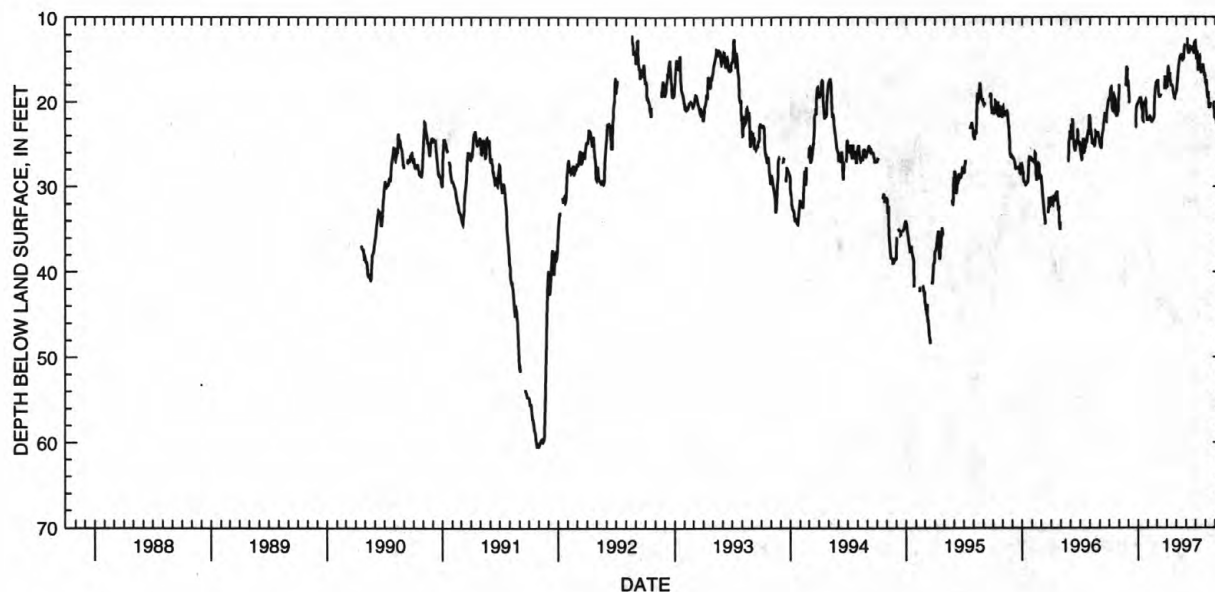
PERIOD OF RECORD.--April 18, 1990 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 60.50 ft below land-surface datum, Oct. 31-Nov. 1, 1991;
minimum daily low, 12.05 ft below land-surface datum, Aug. 20, 1992.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.44	17.98	18.05	19.99	22.00	17.59	18.25	18.83	---	13.26	17.80	21.50
2	19.78	---	18.70	19.93	22.05	17.52	18.25	18.57	---	13.54	17.88	21.01
3	19.85	---	19.39	19.94	22.00	17.44	18.20	18.09	---	14.64	17.33	21.01
4	18.63	---	20.17	19.86	21.92	17.44	16.23	17.68	---	14.96	17.60	21.87
5	18.48	---	---	19.61	21.92	18.40	15.86	17.16	12.40	14.02	18.40	22.53
6	18.26	---	---	19.47	21.79	19.10	15.73	16.75	13.45	13.98	19.00	22.55
7	18.23	---	---	19.60	21.72	19.21	16.38	16.40	14.04	14.68	19.45	22.45
8	19.85	---	---	19.69	21.87	19.40	16.82	15.83	14.18	15.39	19.50	22.27
9	20.55	---	---	19.63	22.00	19.41	17.02	15.59	14.19	16.29	18.82	22.08
10	20.88	---	---	20.60	22.16	19.40	16.90	15.22	14.19	15.75	19.48	22.10
11	21.00	---	---	20.77	22.24	19.29	17.08	15.03	14.09	15.34	20.38	22.07
12	21.03	---	---	20.83	22.36	19.26	17.40	14.73	14.03	15.39	20.65	22.00
13	19.70	---	---	21.00	22.37	19.20	17.83	14.56	13.87	14.57	20.66	21.86
14	19.31	---	---	21.85	22.30	19.10	18.04	14.54	13.67	14.54	20.65	21.67
15	19.20	---	---	22.23	22.16	---	18.04	14.75	13.49	15.62	20.66	21.50
16	19.35	---	---	22.25	22.11	---	18.02	14.75	13.62	15.98	20.33	21.60
17	19.42	---	---	20.70	22.07	---	18.08	14.81	13.76	16.26	20.10	22.05
18	19.62	---	---	20.10	21.96	---	18.10	14.96	13.77	16.61	---	22.88
19	19.54	---	---	20.07	21.89	---	18.27	15.00	13.67	16.35	---	22.98
20	21.10	---	---	20.42	21.72	---	18.42	14.62	13.43	15.96	---	23.03
21	21.46	17.85	---	20.43	20.03	---	18.72	14.34	13.50	16.54	---	23.12
22	21.55	18.00	---	20.40	19.27	---	19.00	14.70	13.78	16.13	---	22.76
23	21.42	18.01	22.99	20.04	18.70	---	19.15	14.92	13.88	15.88	---	22.13
24	21.26	16.00	23.01	19.78	18.32	18.54	19.35	14.90	13.94	15.54	---	21.63
25	21.70	15.80	21.20	19.89	18.00	18.32	19.54	14.19	14.12	15.82	20.31	21.17
26	21.60	16.03	20.67	20.98	17.71	16.96	19.57	13.74	14.29	16.23	20.29	21.51
27	20.70	16.08	20.36	21.68	17.65	18.34	19.30	13.30	13.06	16.57	20.45	21.53
28	20.45	17.62	20.36	22.00	17.67	18.35	19.12	13.14	12.83	16.93	21.03	21.06
29	21.18	18.20	20.34	22.13	---	18.37	19.06	---	12.82	16.82	21.65	20.66
30	19.70	17.45	20.18	22.16	---	18.30	18.92	---	12.76	16.78	21.86	20.54
31	19.00	---	20.07	21.77	---	18.22	---	---	---	17.37	21.93	---
MAX	21.70	18.20	23.01	22.25	22.37	19.41	19.57	18.83	14.29	17.37	21.93	23.12

CAL YR 1996 LOW 35.00
WTR YR 1997 LOW 23.12



GROUND-WATER RECORDS
Montgomery County

279

394811084095000. LOCAL NUMBER, MT-74—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

				DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN)	FLOW RATE (G/M)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH WATER WHOLE FIELD (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)		
DATE	LOCAL IDENT- I- FIER			DATE	TIME							
AUG												
18...	MT-74 CTYOFDAYTON@DAYTON			970818	1112	14.85	100.00	52	14.0	583	7.3	13.5
DATE	OXYGEN, DIS- SOLVED (MG/L)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFIDE WATER, FLTRD, FIELD, (MG/L)	SILICA, DIS- SOLVED (MG/L AS SIO2)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)
AUG												
18...	0	63	26	17	206	0.001	4.9	88	<0.50	<1.0	<5.0	<3.0
DATE	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	
AUG												
18...	<10	150	<10	<4	23	<10	<10	<1.0	1200	<6	3.5	

GROUND-WATER RECORDS

Muskingum County

395804081593200. LOCAL NUMBER, MU-1A

LOCATION.--Lat 39°58'04", long 81°59'32", Hydrologic Unit 05040004, 2.2 mi northeast of the "Y" bridge in Zanesville.

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.--Digital recorder--60-minute punch.

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.--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.

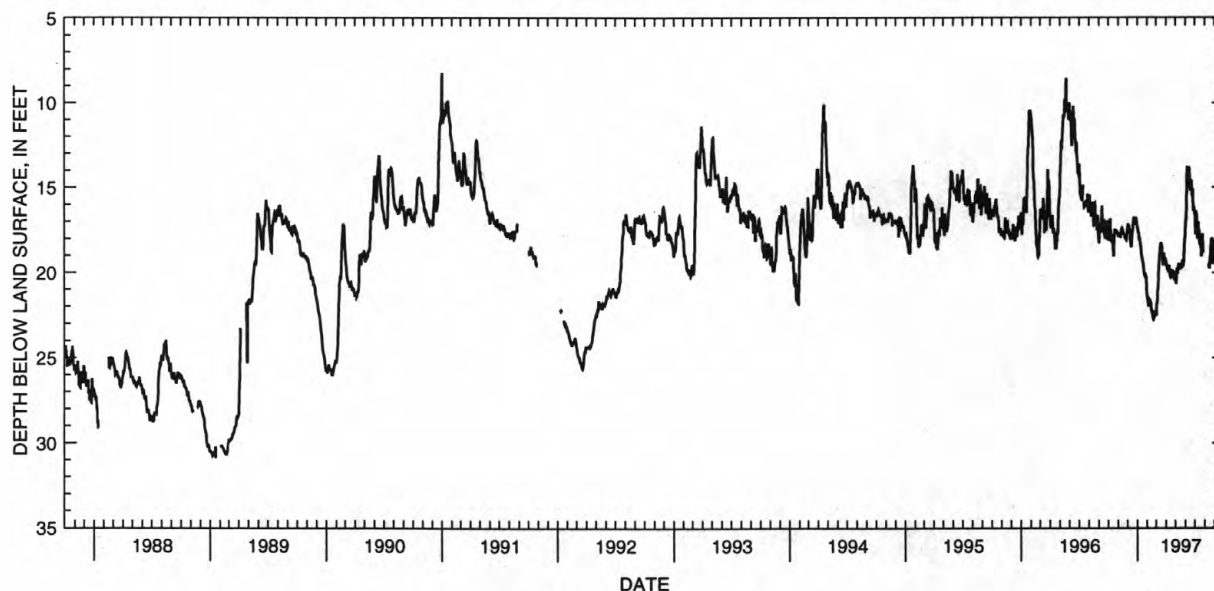
PERIOD OF RECORD.--May 1942 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 37.25 ft below land-surface datum, Aug. 1-2, 1954; minimum daily low, 8.22 ft below land-surface datum, Jan. 1, 1991.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.70	17.71	17.42	17.35	21.42	22.47	19.33	20.25	17.54	16.56	---	19.19
2	17.75	17.74	17.29	17.37	21.57	22.46	19.63	20.38	17.01	16.57	---	19.34
3	16.95	17.74	17.15	17.60	21.55	21.86	19.57	20.68	17.02	17.76	---	19.36
4	17.97	17.74	17.46	17.63	21.83	21.78	19.50	20.50	16.79	17.73	---	18.02
5	18.14	17.80	17.30	17.67	22.00	21.65	19.83	20.07	15.80	16.40	---	18.98
6	17.28	17.83	17.30	18.03	21.74	21.10	19.57	19.75	14.50	16.58	---	19.13
7	16.85	17.91	17.42	18.06	21.76	20.93	19.82	19.98	13.95	16.60	---	19.10
8	17.55	17.85	17.50	18.03	21.69	20.52	19.83	20.05	13.98	17.17	---	19.17
9	17.55	17.87	17.70	18.07	21.60	19.94	20.00	19.78	13.79	17.35	---	19.13
10	17.83	17.70	18.17	18.33	21.63	19.50	19.73	19.65	14.91	18.02	---	19.10
11	18.12	17.55	18.23	18.35	21.71	19.44	19.58	19.70	15.01	17.76	---	19.35
12	18.23	17.43	18.40	18.45	21.72	19.00	19.77	19.67	14.23	17.04	---	20.01
13	17.99	17.45	18.51	18.77	21.88	18.77	19.90	19.47	13.79	17.73	19.48	20.01
14	17.93	17.41	18.35	19.00	22.18	18.57	20.20	19.68	14.00	17.67	19.62	19.15
15	17.90	17.45	18.04	19.05	22.16	18.42	20.25	19.67	14.79	17.45	19.65	19.42
16	18.72	17.55	17.70	19.18	22.36	18.26	20.29	19.82	15.20	18.18	19.75	19.25
17	18.74	17.60	17.55	19.30	22.36	18.30	20.28	19.60	14.52	18.37	19.33	19.25
18	19.04	17.65	17.50	19.39	22.45	18.37	20.22	19.52	14.93	18.06	19.00	19.89
19	18.18	17.72	17.01	19.42	22.66	18.45	19.98	19.75	15.10	18.20	19.32	19.98
20	17.93	17.79	16.98	19.52	22.68	18.95	19.94	19.71	15.00	18.46	18.52	19.40
21	17.66	17.84	16.75	19.85	22.58	18.96	19.84	19.52	14.61	18.45	18.55	19.52
22	17.53	17.86	16.93	20.02	22.63	19.26	19.90	19.55	15.41	19.05	18.07	20.07
23	17.53	17.95	16.80	20.11	22.59	19.57	20.10	19.40	15.52	18.50	18.51	19.75
24	17.58	18.00	17.20	20.19	22.51	19.50	20.17	19.25	15.14	18.19	17.97	20.28
25	17.56	18.02	17.07	20.05	22.22	19.32	20.18	19.64	15.15	17.72	18.23	20.28
26	17.57	18.04	17.07	20.19	22.34	18.85	20.34	19.51	16.21	18.30	19.46	19.45
27	17.57	18.07	16.86	20.15	22.37	19.35	20.37	19.41	16.18	18.75	19.49	20.03
28	17.60	18.00	16.84	20.20	22.53	19.15	20.30	18.81	16.35	18.83	18.85	19.89
29	17.63	17.75	16.87	20.23	---	19.37	19.95	18.42	16.14	---	18.13	20.01
30	17.70	17.58	17.09	20.93	---	19.17	20.33	18.07	16.50	---	18.22	19.90
31	17.75	---	17.19	21.20	---	19.20	---	17.90	---	---	18.43	---
MAX	19.04	18.07	18.51	21.20	22.68	22.47	20.37	20.68	17.54	19.05	19.75	20.28

CAL YR 1996 LOW 19.07
WTR YR 1997 LOW 22.68

GROUND-WATER RECORDS

Pickaway County

281

393327082571600. LOCAL NUMBER, PK-7

LOCATION.--Lat 39°33'27", long 82°57'16", Hydrologic Unit 05060002, 3.1 mi south of Circleville.

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.--Type F continuous recorder.

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, Division of Water.

PERIOD OF RECORD.--July 1972 to September 1982 continuous, October 1982 to April 1985 periodic, continuous thereafter.

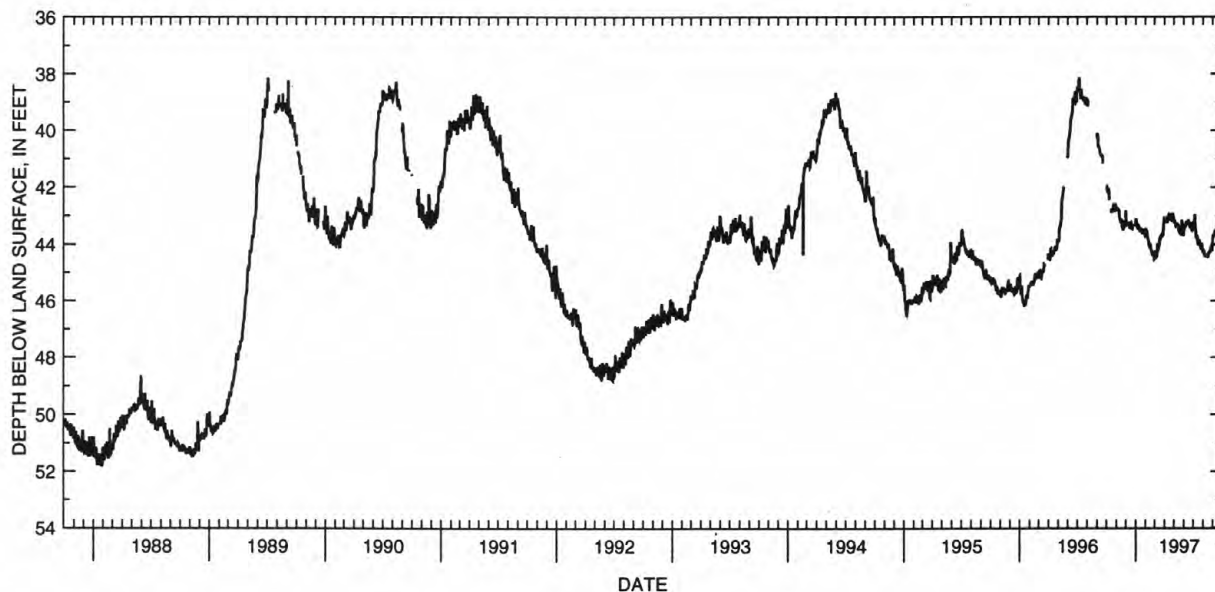
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 54.80 ft below land-surface datum, Sept. 15, 1977;

minimum daily low, 38.13 ft below land-surface datum, July 7, 1996.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41.95	42.74	42.85	43.20	43.51	44.50	43.17	43.20	43.50	43.37	44.28	43.75
2	41.95	42.76	43.12	43.11	43.50	44.28	43.21	43.20	43.40	43.42	44.29	43.66
3	42.10	42.76	43.30	43.31	43.54	44.24	43.20	43.15	43.41	43.42	44.22	43.73
4	42.13	42.76	43.35	43.33	43.53	44.37	43.21	43.24	43.41	43.41	44.23	43.73
5	42.18	42.80	43.35	43.30	43.55	44.37	43.21	43.25	43.40	43.12	44.37	43.71
6	42.13	42.81	---	43.42	43.68	44.43	43.06	43.33	43.39	42.96	44.41	43.67
7	42.04	42.80	---	43.44	43.78	44.45	43.13	43.37	43.37	43.32	44.42	43.58
8	42.13	42.79	---	43.44	43.82	44.42	43.20	43.36	43.24	43.50	44.42	43.51
9	42.31	42.81	43.27	43.34	43.82	44.25	43.22	43.33	43.19	43.59	44.43	43.54
10	42.44	42.86	43.30	43.35	43.87	43.98	43.22	43.32	43.25	43.75	44.43	43.55
11	---	43.03	43.23	43.45	43.93	44.15	43.20	43.30	43.26	43.78	44.41	43.59
12	---	43.15	43.30	43.48	44.08	44.20	43.03	43.26	43.26	43.79	44.42	43.60
13	42.45	43.15	43.42	43.53	44.09	44.19	43.00	43.33	43.25	43.72	44.42	43.60
14	---	43.22	43.42	43.53	44.05	44.06	43.07	43.38	43.25	43.74	44.42	43.37
15	42.77	43.22	43.39	43.52	44.05	44.05	43.12	43.48	43.24	43.92	44.42	43.33
16	42.85	43.22	43.25	43.44	44.04	44.01	43.12	43.52	43.14	44.00	44.45	43.36
17	42.86	43.18	43.24	43.48	44.10	43.82	43.04	43.50	43.24	44.00	44.44	43.40
18	42.86	43.17	43.33	43.48	44.12	43.78	43.00	43.42	43.25	44.00	44.32	43.45
19	42.86	43.31	43.35	43.48	44.25	43.80	42.99	43.45	43.35	44.00	44.32	43.45
20	42.82	43.40	43.44	43.53	44.28	43.78	42.95	43.56	43.38	43.94	44.30	43.41
21	42.77	43.45	43.45	43.62	44.27	43.73	42.95	43.62	43.37	43.93	44.27	43.33
22	42.73	43.48	43.38	43.57	44.38	43.69	42.95	43.65	43.30	44.01	44.27	43.32
23	42.59	43.48	43.31	43.62	44.38	43.69	42.95	43.65	43.25	44.05	44.27	43.30
24	42.71	43.28	---	43.62	44.38	43.66	43.08	43.60	43.34	44.10	44.26	43.31
25	42.75	43.18	---	43.53	44.37	43.61	43.18	43.50	43.43	44.15	44.14	43.30
26	42.83	43.42	43.25	43.53	44.36	43.71	43.18	43.15	43.48	44.15	44.15	43.23
27	42.83	---	---	43.48	44.45	43.70	43.04	43.35	43.52	44.04	44.15	43.23
28	42.68	---	---	43.62	44.52	43.65	42.91	43.52	43.52	43.97	44.19	43.19
29	42.59	43.08	43.28	43.66	---	43.35	43.05	43.58	43.28	44.15	44.23	43.06
30	42.68	42.84	---	43.60	---	43.24	43.08	43.67	43.23	44.20	44.18	43.20
31	42.75	---	43.35	43.45	---	43.04	---	43.67	---	44.25	43.99	---
MAX	42.86	43.48	43.45	43.66	44.52	44.50	43.22	43.67	43.52	44.25	44.45	43.75

CAL YR 1996 LOW 46.16
WTR YR 1997 LOW 44.52



GROUND-WATER RECORDS

Pickaway County

393402082572500. LOCAL NUMBER, PK-4

LOCATION.--Lat 39°34'02", long 82°57'25", Hydrologic Unit 05060002, 2 mi south of Circleville.

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.--Type F continuous recorder.

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, Division of Water.

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;

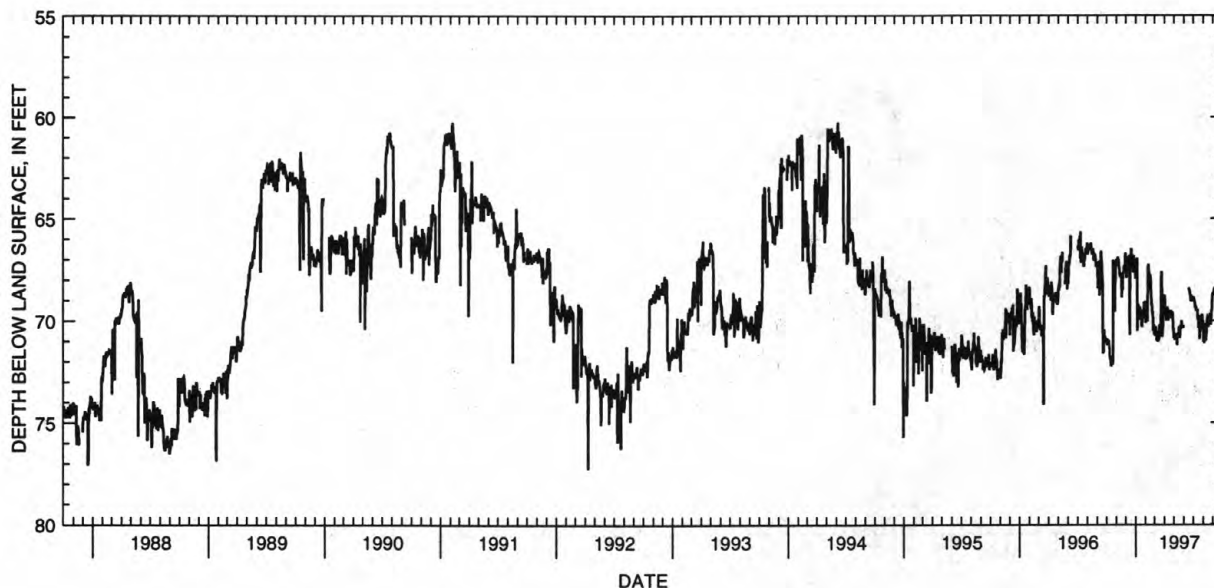
minimum daily low, 47.40 ft below land-surface datum, Feb. 25, 1960.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71.10	67.00	66.90	67.00	70.10	70.40	68.80	70.85	---	69.00	70.00	68.70
2	70.90	67.30	67.30	67.45	69.85	70.55	68.80	70.70	---	68.85	71.05	68.65
3	71.20	67.20	67.90	67.25	69.50	70.30	69.15	70.65	---	69.00	70.80	68.75
4	71.05	67.25	67.45	67.20	69.40	70.75	69.50	70.95	---	69.00	70.85	68.60
5	71.15	66.90	67.25	66.95	69.50	70.30	69.35	70.80	---	69.10	71.10	68.45
6	70.95	66.95	66.90	70.50	69.40	70.60	69.60	70.80	---	69.20	70.25	68.40
7	71.15	67.15	67.30	69.95	70.05	70.75	70.00	70.80	---	69.35	70.20	68.50
8	70.95	67.00	67.20	69.45	67.40	71.00	69.85	70.80	---	69.35	70.20	68.45
9	71.20	67.30	67.15	69.20	67.40	70.55	69.80	70.70	---	69.35	71.00	68.50
10	71.40	67.40	67.25	69.40	67.25	70.70	69.75	70.95	---	69.50	70.70	68.50
11	71.80	67.60	66.80	69.40	67.65	70.60	69.35	71.20	---	69.45	70.75	68.35
12	71.90	67.85	67.20	69.65	67.65	71.05	69.50	70.65	---	69.50	70.35	68.20
13	71.75	67.65	70.70	69.95	67.85	70.75	70.00	70.70	---	69.50	69.95	68.40
14	72.05	67.75	67.35	69.80	67.80	70.65	69.85	70.70	---	69.45	69.90	68.35
15	72.15	67.90	67.15	69.35	67.75	71.00	69.90	70.60	---	69.90	69.85	68.40
16	72.25	67.80	66.80	69.60	67.90	70.40	69.70	70.65	---	69.90	69.90	68.25
17	71.90	67.95	66.85	69.70	68.05	70.20	69.80	70.30	68.40	69.75	69.90	68.40
18	71.95	68.85	66.50	69.80	68.60	70.50	69.75	70.40	68.50	70.35	70.30	68.45
19	72.10	68.50	66.90	70.20	69.05	70.75	69.70	70.70	68.55	70.30	70.10	68.30
20	72.10	68.30	67.20	70.25	69.25	70.65	69.60	70.85	68.55	70.30	70.20	68.45
21	72.10	68.50	67.15	70.30	69.20	70.00	69.50	70.45	68.75	70.90	70.15	68.40
22	67.05	67.75	67.25	69.60	69.70	67.85	69.70	70.40	68.80	70.35	69.65	68.25
23	67.15	67.65	67.35	69.50	69.55	67.60	69.55	70.25	69.00	70.50	70.05	68.40
24	67.45	67.60	67.65	69.85	69.85	67.80	69.60	70.25	69.00	70.50	70.15	68.25
25	68.55	67.30	66.80	69.70	70.50	70.00	69.90	70.00	69.05	69.80	70.15	68.10
26	69.45	67.60	67.40	69.55	70.30	70.80	69.60	70.10	68.95	69.80	70.05	68.00
27	69.55	67.35	67.20	69.10	70.20	69.90	69.65	70.35	68.90	69.75	69.55	68.10
28	67.30	67.25	67.10	69.30	70.70	70.30	70.00	70.30	68.95	69.85	69.45	68.10
29	68.20	66.70	67.25	69.30	---	69.05	70.55	70.30	69.00	69.70	69.50	68.10
30	67.35	66.80	67.45	69.05	---	68.90	70.40	70.30	68.90	70.00	68.80	68.25
31	67.15	---	67.95	69.50	---	68.75	---	70.25	---	70.10	68.65	---
MAX	72.25	68.85	70.70	70.50	70.70	71.05	70.55	71.20	69.05	70.90	71.10	68.75

CAL YR 1996 LOW 74.10
WTR YR 1997 LOW 72.25



GROUND-WATER RECORDS Pickaway County

283

393638082572300. LOCAL NUMBER, PK-6

LOCATION.--Lat 39°36'38", long 82°57'23", Hydrologic Unit 05060002, water works plant 1 mi northwest of Circleville.

Owner: Circleville Water Dept.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled unused water table well, diameter 6 in., depth 120 ft, cased.

INSTRUMENTATION.--Type F continuous recorder.

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, Division of Water.

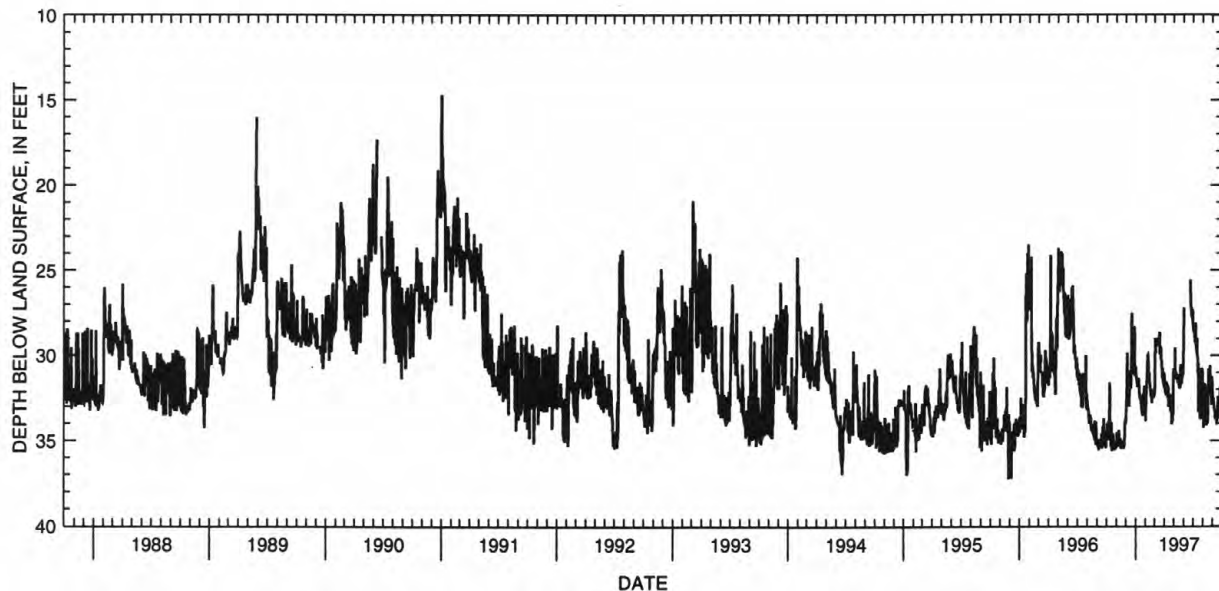
PERIOD OF RECORD.--July 1966 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 37.32 ft below land-surface datum, Feb. 24, 1977;
minimum daily low, 14.50 ft below land-surface datum, Feb. 2, 1969.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34.90	35.20	33.80	30.65	33.85	32.30	31.90	30.80	28.30	28.30	30.90	32.30
2	34.75	34.55	33.10	31.10	32.65	31.90	31.10	31.25	27.20	28.50	33.45	32.50
3	34.00	34.90	32.65	31.35	32.85	29.95	31.80	31.40	---	28.65	34.25	32.85
4	34.95	35.35	31.80	31.45	31.95	29.00	32.20	31.00	---	28.50	33.50	32.50
5	34.90	34.70	29.85	31.65	31.00	29.85	31.85	29.55	---	28.70	33.70	33.05
6	34.90	34.80	32.10	31.85	31.00	29.70	32.20	31.15	---	29.05	33.50	33.20
7	33.85	34.85	32.25	31.40	30.00	---	32.15	31.10	---	29.25	34.10	33.15
8	34.35	35.35	32.00	31.50	29.95	29.35	31.55	31.05	---	28.10	31.65	33.40
9	34.90	34.40	32.40	31.45	30.05	29.35	32.05	31.10	---	28.20	32.50	33.70
10	32.90	34.95	32.40	31.35	30.50	29.30	31.70	31.20	---	29.35	33.90	33.70
11	31.60	35.00	33.00	31.75	30.95	29.05	32.45	31.20	---	29.55	33.40	33.60
12	33.85	35.20	32.40	32.00	31.05	29.00	32.50	31.35	---	29.85	34.05	33.50
13	34.45	35.20	31.90	32.50	31.10	29.45	32.30	31.30	---	29.00	34.10	33.80
14	35.00	34.90	31.70	32.25	31.55	29.00	31.85	31.60	---	30.10	32.35	34.00
15	35.35	35.40	30.90	32.50	31.75	29.35	33.00	31.50	---	30.00	33.30	34.00
16	33.95	35.45	31.05	32.50	32.10	28.90	32.55	31.35	---	31.05	33.00	33.50
17	34.85	35.15	31.95	32.85	32.10	28.65	32.65	31.55	---	30.50	34.00	32.43
18	35.60	35.35	30.15	32.65	32.45	29.90	32.95	31.80	---	33.35	32.65	33.17
19	34.80	35.05	27.50	33.10	32.30	29.90	33.00	31.90	---	31.20	30.80	33.71
20	35.10	35.25	29.65	33.20	32.50	29.65	32.30	31.90	---	30.75	31.80	33.59
21	35.15	35.20	30.70	33.40	32.80	29.50	33.25	31.90	---	32.40	31.45	33.47
22	34.60	35.45	30.75	33.50	32.25	30.25	32.75	30.65	25.55	33.30	30.95	33.66
23	35.00	35.35	30.90	33.50	32.35	30.30	33.35	30.55	26.65	33.75	31.25	32.53
24	35.40	35.45	30.95	32.25	32.30	30.70	33.10	31.70	27.15	33.40	30.60	33.03
25	35.45	35.40	30.80	32.90	32.00	31.20	34.05	31.25	27.30	33.70	31.60	31.90
26	35.50	35.30	29.15	32.45	32.50	31.30	33.60	31.60	27.65	33.20	31.90	33.25
27	35.50	34.50	28.30	32.45	32.30	30.75	33.85	30.80	27.75	31.85	31.90	31.80
28	35.25	33.95	28.65	31.80	32.40	31.60	33.35	31.10	27.45	32.40	32.85	33.42
29	35.40	33.80	31.20	31.95	---	31.00	33.45	31.15	27.95	33.30	32.90	33.99
30	35.45	34.00	30.65	31.90	---	31.60	31.00	31.10	27.30	30.75	31.25	33.15
31	35.25	---	31.15	32.80	---	31.80	---	29.75	---	30.95	31.70	---
MAX	35.60	35.45	33.80	33.50	33.85	32.30	34.05	31.90	28.30	33.75	34.25	34.00

CAL YR 1996 LOW 35.60
WTR YR 1997 LOW 35.60



GROUND-WATER RECORDS

Pickaway County

393438083072200. LOCAL NUMBER, PK-8

LOCATION.--Lat 39°34'38", long 83°07'22", Hydrologic Unit 05060002, 0.5 mi south of Williamsport.

Owner: Village of Williamsport.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled test water table well, diameter 10 in., depth 18 ft, cased.

INSTRUMENTATION.--Type F continuous recorder.

DATUM.--Elevation of land-surface datum is 723 ft above sea level, from topographic map.

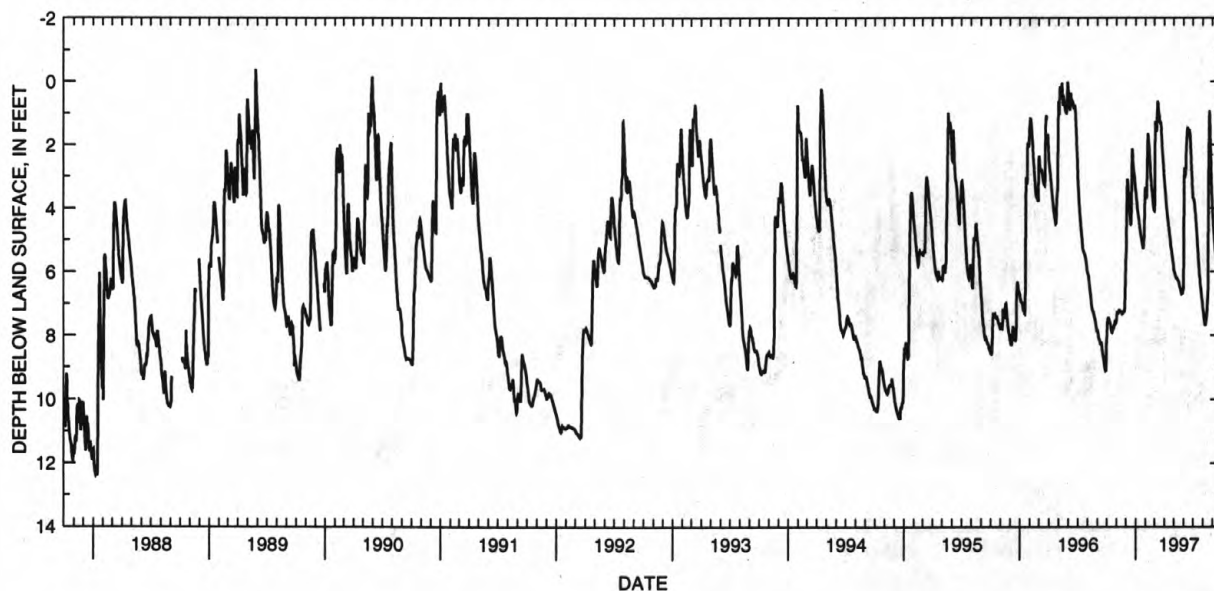
Measuring point: Floor of instrument shelter 0.9 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

PERIOD OF RECORD.--April 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low 12.38 ft below land-surface datum, Jan. 9, 13-14, 1988;
minimum recorded daily low, 0.15 ft above land-surface datum, May 30, 1990.DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.04	7.53	5.56	3.47	3.41	4.09	3.04	5.93	6.51	3.68	7.14	4.04
2	7.73	7.37	5.30	3.55	3.53	3.90	3.18	5.98	4.75	3.69	7.21	4.27
3	7.59	7.31	4.60	3.66	3.65	1.98	3.30	6.02	3.15	3.71	7.30	4.42
4	7.51	7.32	3.72	3.78	3.69	1.26	3.42	6.05	2.74	3.75	7.41	4.59
5	7.47	7.32	3.12	3.89	3.57	1.38	3.55	6.09	2.81	3.81	7.49	4.72
6	7.44	7.31	3.09	4.01	2.90	1.52	3.67	6.12	2.92	3.90	7.58	4.88
7	7.48	7.31	3.18	4.09	2.18	1.58	3.80	6.16	2.95	4.01	7.64	5.00
8	7.50	7.27	3.30	4.17	1.65	1.52	3.93	6.19	2.90	4.13	7.68	5.15
9	7.53	7.22	3.48	4.24	1.70	1.15	4.04	6.21	2.45	4.23	7.68	5.27
10	7.57	7.19	3.66	4.30	1.86	.89	4.13	6.21	2.04	4.37	7.60	5.36
11	7.62	7.24	3.87	4.39	1.94	.62	4.22	6.21	1.82	4.50	7.55	5.44
12	7.63	7.25	4.02	4.47	2.03	.68	4.30	6.24	1.61	4.69	7.49	5.54
13	7.67	7.25	4.16	4.57	2.18	.85	4.39	6.26	1.51	4.79	7.42	5.62
14	7.75	7.25	4.29	4.63	2.35	.96	4.49	6.28	1.45	4.94	7.28	5.68
15	7.83	7.25	4.40	4.71	2.53	1.03	4.58	6.29	1.48	5.09	7.12	5.79
16	7.89	7.25	4.52	4.78	2.71	1.09	4.66	6.30	1.58	5.24	6.92	5.89
17	7.91	7.26	4.55	4.86	2.90	1.18	4.76	6.34	1.71	5.41	6.69	5.95
18	7.92	7.32	4.20	4.92	3.06	1.30	4.85	6.37	1.75	5.60	6.47	6.01
19	7.88	7.34	3.38	4.98	3.20	1.31	4.91	6.45	1.52	5.74	3.09	6.07
20	7.83	7.33	2.67	5.02	3.35	1.27	5.00	6.48	1.57	5.90	2.22	6.13
21	7.79	7.31	2.14	5.10	3.45	1.33	5.12	6.50	1.64	6.04	1.24	6.16
22	7.81	7.29	2.31	5.16	3.55	1.44	5.21	6.54	1.75	6.18	.93	6.24
23	7.80	7.27	2.54	5.24	3.65	1.63	5.28	6.57	1.95	6.25	1.24	6.29
24	7.74	7.25	2.69	5.26	3.77	1.82	5.35	6.63	2.18	6.41	1.62	6.33
25	7.73	7.24	2.81	5.26	3.87	2.00	5.43	6.68	2.45	6.49	2.01	6.38
26	7.68	7.24	2.89	5.04	3.95	2.17	5.50	6.70	2.68	6.58	2.37	6.42
27	7.59	7.15	2.95	4.99	4.02	2.33	5.57	6.68	2.91	6.66	2.75	6.44
28	7.56	6.81	3.01	4.92	4.08	2.46	5.66	6.68	3.15	6.77	3.04	6.50
29	7.56	6.33	3.13	4.10	---	2.59	5.73	6.68	3.38	6.85	3.39	6.62
30	7.57	5.70	3.26	3.63	---	2.75	5.82	6.58	3.60	6.91	3.63	6.69
31	7.58	---	3.36	3.35	---	2.92	---	6.55	---	7.04	3.84	---
MAX	8.04	7.53	5.56	5.26	4.08	4.09	5.82	6.70	6.51	7.04	7.68	6.69

CAL YR 1996 LOW 9.11
WTR YR 1997 LOW 8.04

GROUND-WATER RECORDS

Pickaway County

285

394742083094800. LOCAL NUMBER, PK-9

LOCATION.--Lat 39°47'42", long 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.--Type F continuous recorder.

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.

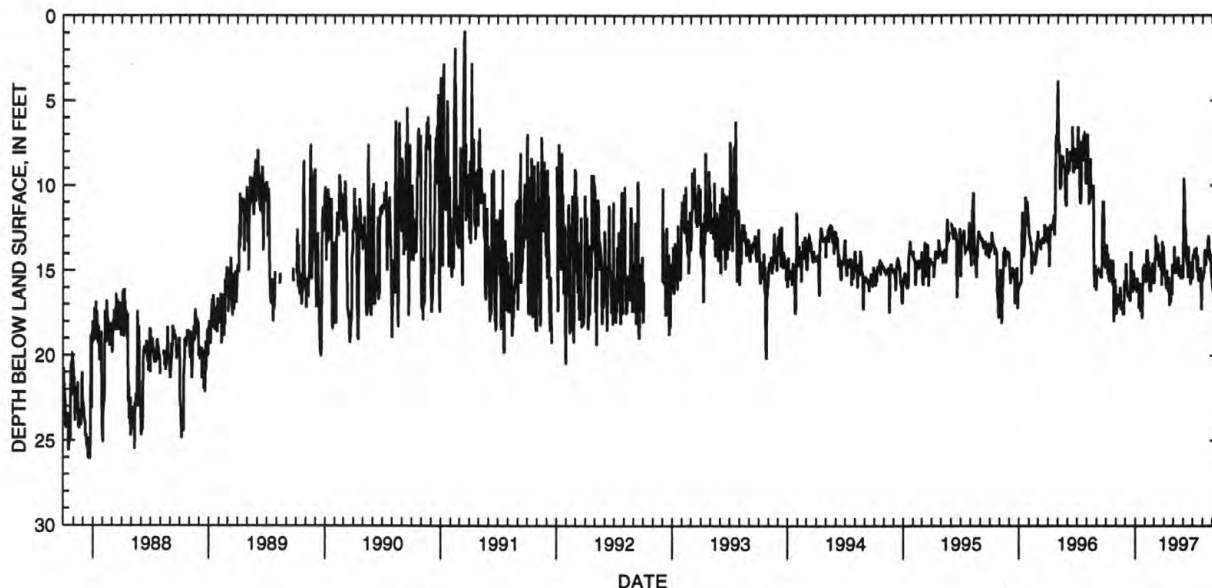
PERIOD OF RECORD.--October 1986 to current year.

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 1996 TO SEPTEMBER 1997 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.40	17.25	16.00	16.00	15.35	15.70	14.25	15.10	14.10	15.45	15.50	15.80
2	13.55	17.55	15.50	16.05	15.50	15.65	14.60	15.10	11.95	14.05	15.25	16.10
3	13.50	17.20	14.60	16.15	15.65	15.25	15.05	14.60	9.60	14.15	15.40	16.15
4	14.25	16.35	15.10	16.00	15.65	14.25	15.25	13.60	10.15	14.20	15.40	15.45
5	15.05	16.90	15.80	16.15	14.80	14.30	15.25	14.25	10.60	14.25	15.10	14.90
6	15.20	17.05	15.85	16.25	13.80	12.95	15.40	14.30	12.10	13.85	15.15	15.00
7	14.00	17.15	16.30	15.45	14.00	14.30	15.55	15.00	12.55	13.75	14.10	15.10
8	14.25	16.90	16.40	15.70	13.80	14.30	15.95	14.80	12.65	14.10	13.85	15.15
9	15.30	16.95	16.55	15.85	14.20	13.50	15.95	14.60	12.75	14.25	13.80	15.60
10	15.50	16.95	16.30	16.00	14.65	13.40	15.45	15.15	14.05	14.00	13.90	16.20
11	15.25	17.00	16.30	16.20	15.20	13.45	15.00	15.05	14.45	13.85	14.70	16.35
12	15.65	17.10	16.50	17.20	15.60	13.55	15.60	14.80	14.40	13.65	14.55	16.45
13	14.80	16.45	16.50	16.65	14.50	13.50	16.00	14.75	14.70	14.15	13.95	16.70
14	14.35	16.10	16.65	16.30	15.55	13.60	16.20	14.75	14.20	14.75	14.15	16.80
15	15.35	16.00	16.75	15.75	16.10	14.35	16.10	14.60	14.65	15.05	14.20	16.85
16	14.95	16.90	16.80	17.00	16.20	14.70	15.70	14.20	15.35	14.90	13.95	16.30
17	14.25	17.30	15.85	17.40	15.90	14.75	15.40	14.35	15.40	14.15	13.75	16.75
18	15.15	16.85	13.90	16.50	16.10	14.05	16.80	14.60	13.60	14.90	13.15	16.88
19	15.40	16.90	14.00	16.25	16.20	14.30	17.05	15.30	15.40	15.50	13.30	16.88
20	15.65	16.95	15.70	15.85	14.80	14.50	16.75	15.15	15.15	15.60	12.95	16.79
21	15.75	16.95	16.00	17.20	15.35	14.70	16.35	15.10	14.60	15.40	13.75	16.85
22	15.85	17.00	16.05	17.65	15.60	14.95	16.20	14.95	14.50	15.40	13.75	16.06
23	14.40	17.60	16.20	17.80	15.30	14.90	16.85	14.95	15.50	15.40	13.70	17.10
24	15.65	17.50	16.20	16.30	14.55	13.95	15.80	15.45	15.80	15.55	14.40	17.79
25	17.60	17.35	15.30	14.85	15.55	15.85	15.70	15.35	15.70	15.45	14.35	18.09
26	18.00	17.60	15.00	14.95	15.65	14.65	16.35	15.00	15.35	14.85	14.40	17.94
27	16.15	16.20	15.15	14.95	15.35	13.30	16.35	14.70	14.90	15.95	14.05	17.75
28	15.50	15.60	15.40	14.75	15.70	14.00	14.65	15.45	14.95	16.40	14.75	17.78
29	15.55	15.70	15.50	14.70	---	14.45	14.80	15.40	14.90	17.30	15.25	17.79
30	15.90	16.00	15.55	14.65	---	13.55	15.00	15.40	15.45	15.45	15.40	17.88
31	16.60	---	15.90	15.00	---	13.70	---	15.40	---	15.65	15.45	---
MAX	18.00	17.60	16.80	17.80	16.20	15.85	17.05	15.45	15.80	17.30	15.50	18.09
CAL YR 1996	LOW 18.00											
WTR YR 1997	LOW 18.09											



GROUND-WATER RECORDS

Pike County

390359083015100. LOCAL NUMBER, PI-2

LOCATION.--Lat 39°03'59", long 83°01'51", Hydrologic Unit 05060002, 1 mi west of Piketon.

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.

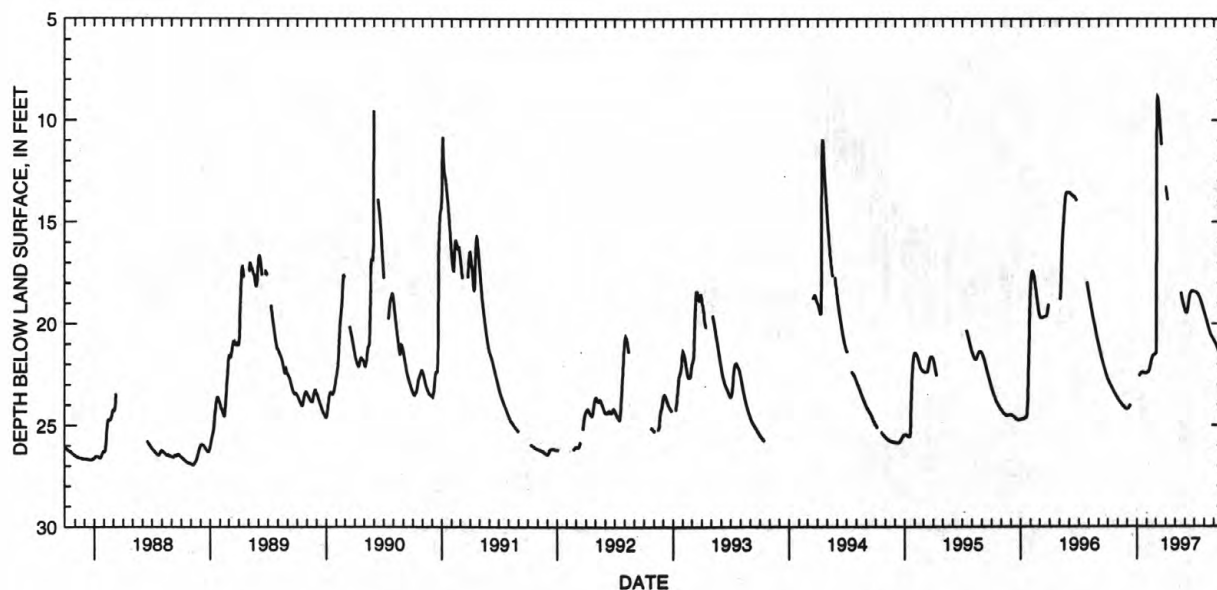
PERIOD OF RECORD.--September 1969 to current year.

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 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.74	23.70	24.20	---	22.43	21.49	---	---	19.33	18.42	19.43	20.82
2	22.78	23.72	24.20	---	22.42	21.45	13.28	---	19.38	18.43	19.49	20.86
3	22.81	23.74	24.19	---	22.41	16.99	13.43	---	19.42	18.44	19.54	20.89
4	22.85	23.77	24.18	---	22.40	10.40	13.58	---	19.45	18.45	19.59	20.91
5	22.88	23.79	24.17	---	22.39	9.03	13.69	---	19.46	18.45	19.65	20.94
6	22.92	23.81	24.14	---	22.36	8.85	13.82	---	19.46	18.46	19.71	20.97
7	22.95	23.83	24.12	22.58	22.34	8.89	13.93	---	19.46	18.47	19.76	21.00
8	22.98	23.85	24.09	22.56	22.30	8.97	13.94	---	19.42	18.48	19.82	21.05
9	23.01	23.87	24.05	22.53	22.25	9.09	---	---	19.35	18.49	19.87	21.08
10	23.04	23.89	24.03	22.50	22.19	9.24	---	---	19.24	18.51	19.93	21.12
11	23.07	23.92	24.00	22.48	22.12	9.48	---	---	19.12	18.52	19.99	21.15
12	23.11	23.93	---	22.46	22.05	9.71	---	---	19.00	18.55	20.05	21.19
13	23.14	23.97	---	22.44	22.00	9.94	---	---	18.88	18.57	20.10	21.23
14	23.17	23.99	---	22.43	21.91	10.16	---	---	18.77	18.60	20.16	21.27
15	23.19	24.00	---	22.42	21.81	10.41	---	---	18.68	18.63	20.22	21.31
16	23.23	24.02	---	22.42	21.77	10.59	---	---	18.61	18.66	20.27	21.34
17	23.26	24.03	---	22.41	21.72	10.79	---	---	18.55	18.69	20.33	21.38
18	23.29	24.05	---	22.41	21.67	11.10	---	---	18.51	18.73	20.38	21.43
19	23.32	24.07	---	22.41	21.63	11.23	---	18.47	18.47	18.77	20.43	21.47
20	23.36	24.08	---	22.42	21.59	---	---	18.53	18.45	18.82	20.48	21.52
21	23.39	24.10	---	22.43	21.57	---	---	18.59	18.43	18.86	20.52	21.56
22	23.42	24.11	---	22.43	21.55	---	---	18.72	18.41	18.91	20.56	21.60
23	23.45	24.14	---	22.44	21.54	---	---	18.80	18.40	18.96	20.59	21.64
24	23.47	24.15	---	22.44	21.53	---	---	18.86	18.40	19.01	20.62	21.68
25	23.50	24.17	---	22.45	21.52	---	---	18.92	18.40	19.06	20.65	21.73
26	23.53	24.18	---	22.45	21.51	---	---	18.99	18.40	19.11	20.67	21.76
27	23.56	24.19	---	22.45	21.50	---	---	19.05	18.40	19.16	20.70	21.81
28	23.58	24.19	---	22.45	21.49	---	---	19.11	18.41	19.21	20.72	21.85
29	23.61	24.20	---	22.45	---	---	---	19.17	18.42	19.27	20.74	21.90
30	23.63	24.20	---	22.45	---	---	---	19.23	18.42	19.32	20.77	21.94
31	23.67	---	---	22.44	---	---	---	19.28	---	19.38	20.81	---
MAX	23.67	24.20	24.20	22.58	22.43	21.49	13.94	19.28	19.46	19.38	20.81	21.94

CAL YR 1996 LOW 24.71

WTR YR 1997 LOW 24.20



GROUND-WATER RECORDS Portage County

287

411401081025000. LOCAL NUMBER, PO-1

LOCATION.--Lat 41°14'01", long 81°02'50" Hydrologic Unit 05030103. Bauer Street in Windham.

Owner: Cristopher Minter.

AQUIFER.--Sandstone of Pennsylvanian Age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in., depth 55 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 0.60 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

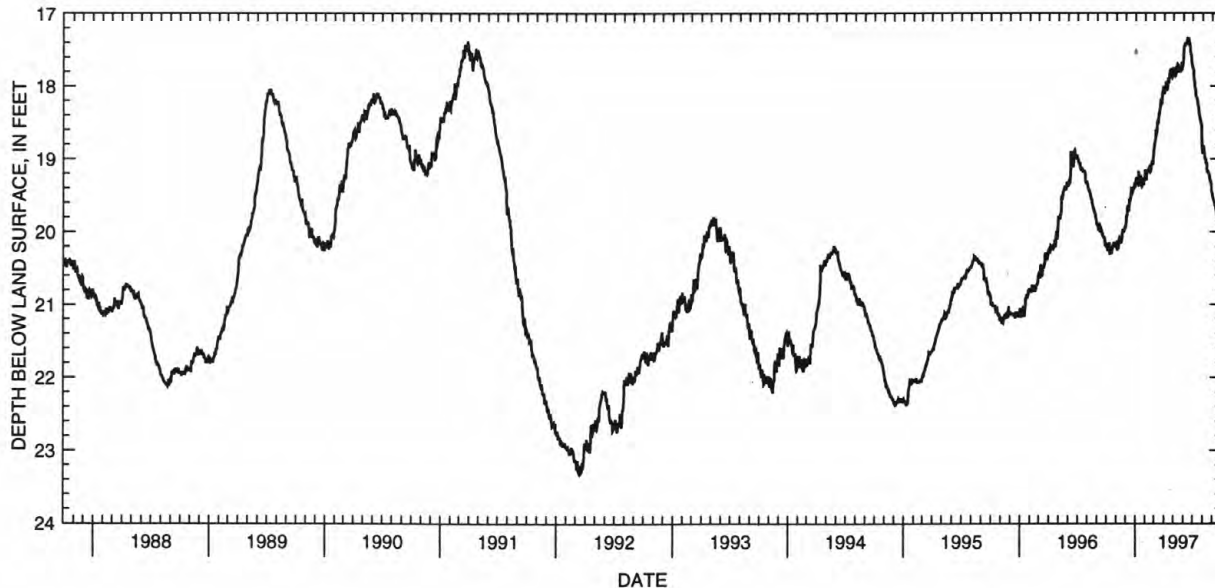
PERIOD OF RECORD.--May 1946 to current year.

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 1996 TO SEPTEMBER 1997 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.20	20.16	19.90	19.37	19.22	18.82	18.10	17.85	17.56	17.75	18.92	19.52
2	20.20	20.20	19.85	19.27	19.22	18.78	18.10	17.85	17.46	17.76	18.84	19.52
3	20.24	20.23	19.77	19.28	19.28	18.78	18.03	17.79	17.46	17.80	18.83	19.55
4	20.25	20.25	19.79	19.28	19.28	18.73	18.01	17.82	17.45	17.88	18.83	19.57
5	20.25	20.24	19.77	19.25	19.16	18.72	18.01	17.82	17.42	17.93	18.89	19.57
6	20.24	20.23	19.66	19.31	19.17	18.60	17.94	17.82	17.41	17.97	18.92	19.58
7	20.20	20.23	19.65	19.33	19.17	18.68	18.01	17.85	17.41	18.02	18.95	19.58
8	20.18	20.16	19.65	19.34	19.16	18.64	18.02	17.84	17.41	18.04	19.00	19.62
9	20.15	20.11	19.71	19.32	19.16	18.65	18.05	17.73	17.42	18.05	19.00	19.64
10	20.21	20.09	19.71	19.17	19.15	18.50	18.05	17.76	17.42	18.13	19.01	19.64
11	20.30	20.10	19.63	19.28	19.14	18.49	18.04	17.76	17.40	18.15	19.05	19.65
12	20.30	20.13	19.55	19.34	19.13	18.51	17.98	17.73	17.38	18.16	19.06	19.68
13	20.29	20.15	19.57	19.36	19.19	18.51	17.89	17.70	17.33	18.16	19.06	19.72
14	20.28	20.15	19.57	19.36	19.14	18.49	17.95	17.71	17.36	18.17	19.09	19.75
15	20.29	20.13	19.57	19.35	19.12	18.38	17.95	17.71	17.40	18.19	19.17	19.77
16	20.29	20.15	19.53	19.23	19.15	18.39	17.94	17.80	17.40	18.25	19.17	19.77
17	20.26	20.13	19.49	19.28	19.17	18.39	17.86	17.80	17.35	18.27	19.16	19.78
18	20.27	20.11	19.42	19.27	19.16	18.31	17.83	17.77	17.35	18.27	19.19	19.79
19	20.23	20.07	19.43	19.31	19.08	18.31	17.79	17.75	17.42	18.32	19.20	19.83
20	20.21	20.00	19.46	19.28	19.08	18.25	17.79	17.77	17.42	18.38	19.20	19.86
21	20.18	19.97	19.47	19.37	19.05	18.20	17.79	17.80	17.42	18.39	19.20	19.86
22	20.19	19.98	19.45	19.36	19.03	18.18	17.77	17.80	17.50	18.41	19.23	19.88
23	20.19	20.00	19.44	19.33	19.07	18.20	17.77	17.80	17.55	18.44	19.29	19.90
24	20.14	20.00	19.39	19.35	19.07	18.26	17.80	17.79	17.55	18.46	19.30	19.90
25	20.19	19.98	19.41	19.27	19.07	18.23	17.87	17.71	17.57	18.50	19.30	19.91
26	20.20	19.98	19.41	19.35	18.97	18.10	17.88	17.67	17.60	18.50	19.32	19.92
27	20.20	19.96	19.38	19.35	18.87	18.10	17.86	17.73	17.68	18.52	19.32	19.90
28	20.20	19.93	19.34	19.26	18.89	18.07	17.75	17.74	17.69	18.55	19.36	19.95
29	20.16	19.95	19.34	19.30	---	18.04	17.77	17.72	17.72	18.68	19.45	19.96
30	20.16	19.92	19.35	19.28	---	18.05	17.75	17.68	17.76	18.84	19.46	20.01
31	20.17	---	19.38	19.15	---	18.08	---	17.65	---	18.92	19.48	---
MAX	20.30	20.25	19.90	19.37	19.28	18.82	18.10	17.85	17.76	18.92	19.48	20.01

CAL YR 1996 LOW 21.17
WTR YR 1997 LOW 20.30



GROUND-WATER RECORDS

Preble County

394438084335900. LOCAL NUMBER, PR-2

LOCATION.--Lat 39°44'38", long 84°33'59", Hydrologic Unit 05080002, Stover Rd 4 mi east of Eaton.

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, Division of Water.

PERIOD OF RECORD.--May 1972 to current year.

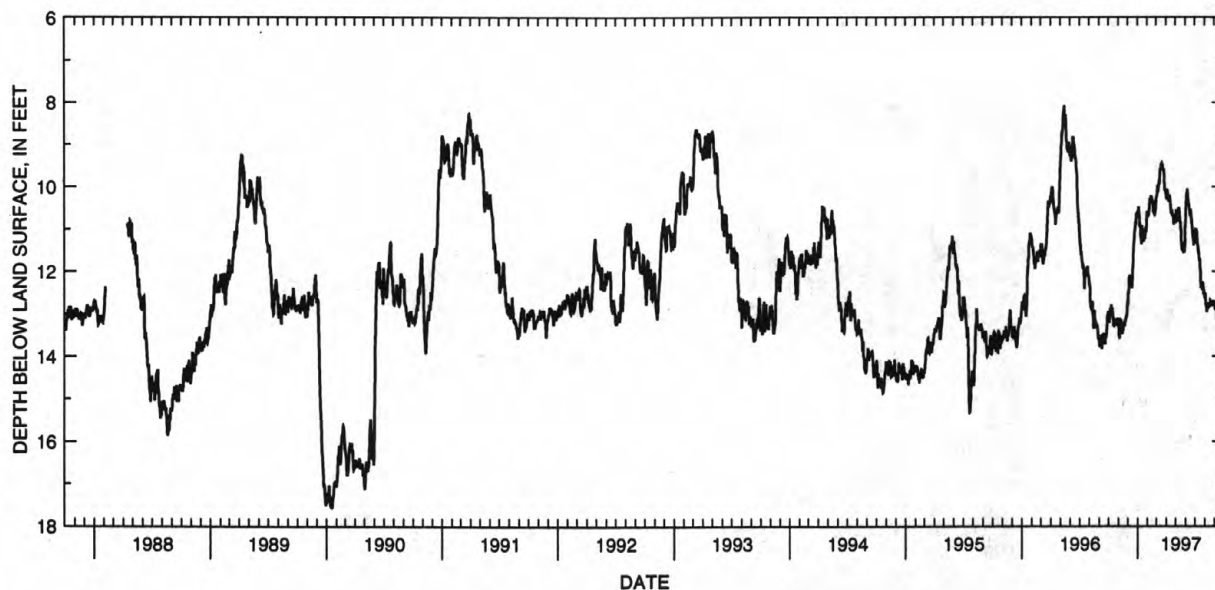
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 17.58 ft below land-surface datum, Jan. 18, 1990;

minimum daily low, 7.94 ft below land-surface datum, May 4, 1975.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.95	13.22	12.72	10.62	10.59	10.38	10.15	10.66	10.97	11.20	12.58	12.79
2	13.04	13.32	12.73	10.59	10.71	10.23	10.24	10.86	10.88	11.09	12.63	12.75
3	13.07	13.53	12.48	10.69	10.66	10.23	10.30	10.55	10.61	11.13	12.51	12.90
4	13.21	13.43	12.53	10.54	10.64	10.21	10.18	10.58	10.41	11.02	12.63	12.84
5	13.10	13.57	12.36	10.48	10.70	10.04	10.14	10.61	10.20	11.03	12.81	12.92
6	12.99	13.59	12.13	10.62	10.66	10.05	10.06	10.82	10.16	10.99	12.76	12.77
7	12.87	13.29	12.12	10.63	10.56	10.13	10.18	10.76	10.14	11.09	12.82	12.77
8	12.93	13.30	12.09	10.94	10.48	10.07	10.31	10.77	10.05	11.08	12.96	12.93
9	12.98	13.15	12.30	10.92	10.34	10.04	10.23	10.62	10.26	11.29	12.82	13.15
10	12.80	13.16	12.16	10.91	10.35	9.92	10.35	10.55	10.26	11.33	12.76	13.07
11	13.05	13.31	12.17	11.17	10.34	9.85	10.32	10.50	10.37	11.37	12.76	13.20
12	12.94	13.24	12.31	11.18	10.32	9.95	10.22	10.57	10.38	11.50	12.89	13.16
13	12.86	13.36	12.36	11.24	10.21	9.74	10.20	10.51	10.40	11.49	12.80	13.25
14	12.94	13.48	12.39	11.35	10.31	9.60	10.27	10.61	10.52	11.56	12.86	13.14
15	13.00	13.43	12.35	11.27	10.24	9.56	10.37	10.69	10.56	11.67	12.77	13.13
16	13.17	13.38	12.18	10.91	10.29	9.60	10.46	10.85	10.65	11.74	12.79	13.12
17	13.27	13.38	11.95	11.11	10.39	9.48	10.55	10.82	10.70	11.70	12.84	13.38
18	13.28	13.24	11.83	11.20	10.37	9.46	10.64	10.99	10.62	11.91	12.80	13.57
19	13.17	13.24	11.50	11.10	10.49	9.57	10.55	10.99	10.53	11.97	12.69	13.59
20	13.14	13.24	11.37	11.05	10.60	9.59	10.57	11.24	10.67	12.30	12.70	13.53
21	13.15	13.17	11.29	11.29	10.48	9.44	10.57	11.38	10.81	12.39	12.73	13.46
22	13.28	13.29	11.17	11.09	10.55	9.59	10.68	11.47	10.80	12.35	12.78	13.45
23	13.17	13.16	11.06	11.18	10.63	9.57	10.65	11.47	10.91	12.24	12.78	13.48
24	13.23	13.16	11.02	11.18	10.65	9.62	10.71	11.49	11.01	12.38	12.78	13.48
25	13.12	13.14	10.94	11.19	10.66	9.60	10.73	11.38	11.20	12.43	12.76	13.29
26	13.20	13.07	10.82	11.07	10.64	9.60	10.89	11.37	11.17	12.34	12.82	13.64
27	13.20	13.02	10.89	10.95	10.32	9.86	10.71	11.47	11.24	12.26	12.80	13.65
28	13.29	13.07	10.72	11.02	10.56	10.08	10.80	11.52	11.37	12.39	12.77	13.65
29	13.17	12.95	10.63	11.03	---	10.05	10.65	11.40	11.29	12.49	12.80	13.91
30	13.11	12.75	10.73	10.89	---	10.06	10.75	11.55	11.30	12.48	12.73	15.37
31	13.20	---	10.63	10.69	---	10.13	---	11.40	---	12.55	12.69	---
MAX	13.29	13.59	12.73	11.35	10.71	10.38	10.89	11.55	11.37	12.55	12.96	15.37

CAL YR 1996 LOW 13.82
WTR YR 1997 LOW 15.37

GROUND-WATER RECORDS Richland County

289

404625082305100. LOCAL NUMBER, R-4

LOCATION.--Lat 40°46'25", long 82°30'51", Hydrologic Unit 05040002, at Ohio Brass Plant in Mansfield.

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 1150 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, Division of Water.

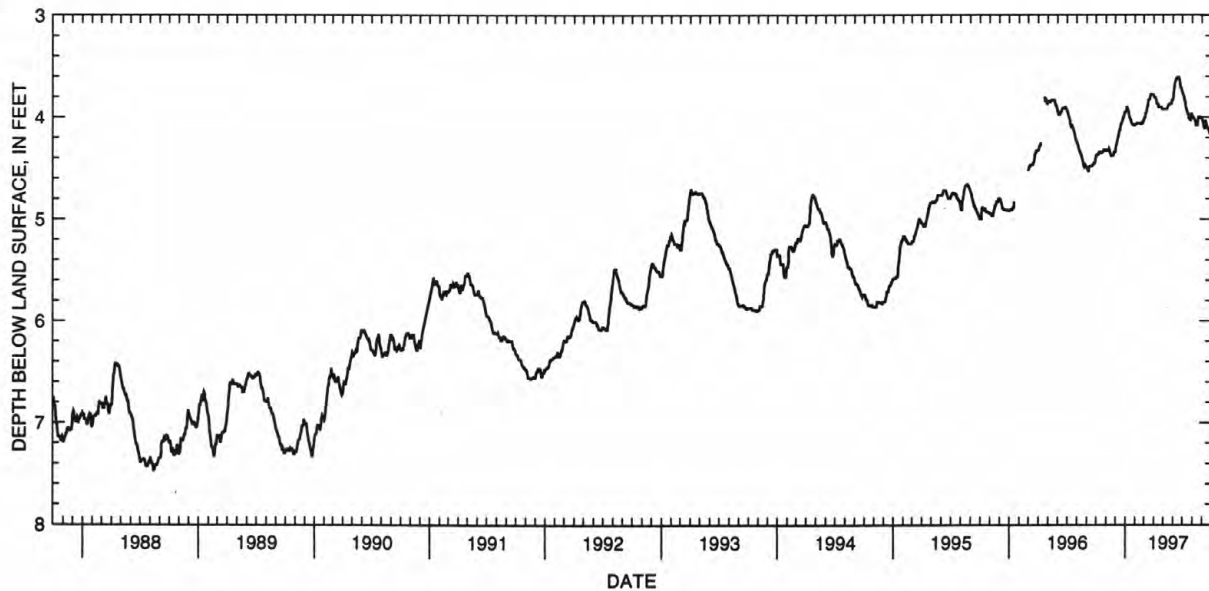
PERIOD OF RECORD.--May 1942 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 60.10 ft below land-surface datum, Oct. 12, 13, 19, 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 1996 TO SEPTEMBER 1997 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.38	4.32	4.32	3.95	4.08	4.03	3.78	3.92	3.82	3.76	3.98	4.02
2	4.38	4.32	4.29	3.95	4.07	4.01	3.79	3.92	3.81	3.77	3.99	4.03
3	4.37	4.32	4.28	3.94	4.07	4.01	3.80	3.92	3.78	3.78	4.00	4.03
4	4.37	4.32	4.26	3.93	4.07	4.00	3.81	3.92	3.74	3.78	4.01	4.05
5	4.37	4.33	4.26	3.93	4.07	3.99	3.81	3.92	3.71	3.79	4.01	4.06
6	4.37	4.33	4.24	3.90	4.06	3.96	3.81	3.92	3.69	3.80	4.01	4.09
7	4.37	4.33	4.22	3.90	4.06	3.96	3.81	3.92	3.67	3.82	4.01	4.10
8	4.36	4.33	4.21	3.92	4.06	3.95	3.82	3.92	3.65	3.84	4.02	4.10
9	4.36	4.33	4.19	3.93	4.06	3.95	3.83	3.92	3.64	3.84	4.03	4.11
10	4.35	4.32	4.19	3.93	4.06	3.93	3.85	3.92	3.63	3.85	4.04	4.11
11	4.34	4.31	4.18	3.94	4.06	3.91	3.87	3.92	3.63	3.90	4.05	4.06
12	4.34	4.32	4.15	3.96	4.06	3.89	3.87	3.92	3.62	3.91	4.06	4.03
13	4.35	4.34	4.13	3.98	4.06	3.89	3.87	3.91	3.62	3.92	4.08	4.05
14	4.35	4.35	4.12	4.00	4.06	3.86	3.87	3.91	3.62	3.92	4.08	4.06
15	4.35	4.36	4.12	4.00	4.06	3.83	3.87	3.90	3.61	3.94	4.08	4.08
16	4.35	4.37	4.12	4.01	4.06	3.83	3.90	3.89	3.61	3.95	4.08	4.08
17	4.35	4.38	4.09	4.02	4.06	3.83	3.90	3.88	3.61	3.95	4.08	4.09
18	4.35	4.38	4.07	4.02	4.07	3.83	3.90	3.88	3.61	3.97	4.08	4.10
19	4.34	4.38	4.06	4.03	4.07	3.82	3.90	3.88	3.61	3.97	4.03	4.11
20	4.34	4.38	4.06	4.05	4.07	3.81	3.90	3.88	3.61	3.98	4.00	4.11
21	4.34	4.38	4.06	4.06	4.07	3.79	3.90	3.87	3.62	4.01	4.00	4.12
22	4.34	4.38	4.04	4.07	4.05	3.78	3.90	3.87	3.64	4.01	4.00	4.12
23	4.33	4.38	4.04	4.07	4.05	3.78	3.90	3.87	3.65	4.01	4.00	4.14
24	4.33	4.37	4.02	4.07	4.05	3.77	3.90	3.87	3.68	4.01	4.00	4.15
25	4.32	4.37	4.00	4.07	4.06	3.78	3.90	3.87	3.71	4.02	4.00	4.15
26	4.32	4.34	4.00	4.07	4.06	3.78	3.90	3.87	3.71	4.03	4.00	4.16
27	4.33	4.34	4.00	4.08	4.03	3.78	3.91	3.87	3.71	4.03	4.00	4.16
28	4.33	4.34	3.99	4.08	4.03	3.78	3.92	3.84	3.72	3.98	4.01	4.16
29	4.33	4.34	3.97	4.08	---	3.78	3.92	3.83	3.74	3.97	4.01	4.16
30	4.33	4.34	3.96	4.08	---	3.78	3.92	3.83	3.75	3.97	4.01	4.16
31	4.32	---	3.95	4.08	---	3.78	---	3.83	---	3.98	4.01	---
MAX	4.38	4.38	4.32	4.08	4.08	4.03	3.92	3.92	3.82	4.03	4.08	4.16

CAL YR 1996 LOW 4.92
WTR YR 1997 LOW 4.38



GROUND-WATER RECORDS

Richland County

405753082360800. LOCAL NUMBER, R-3

LOCATION.--Lat 40°57'53", long 82°36'08", Hydrologic Unit 05040002, Voisard plant in Shiloh.

Owner: Voisard Corp.

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 1080 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, Division of Water. Published in WDR OH Vol. 2 prior to 1995 water year.

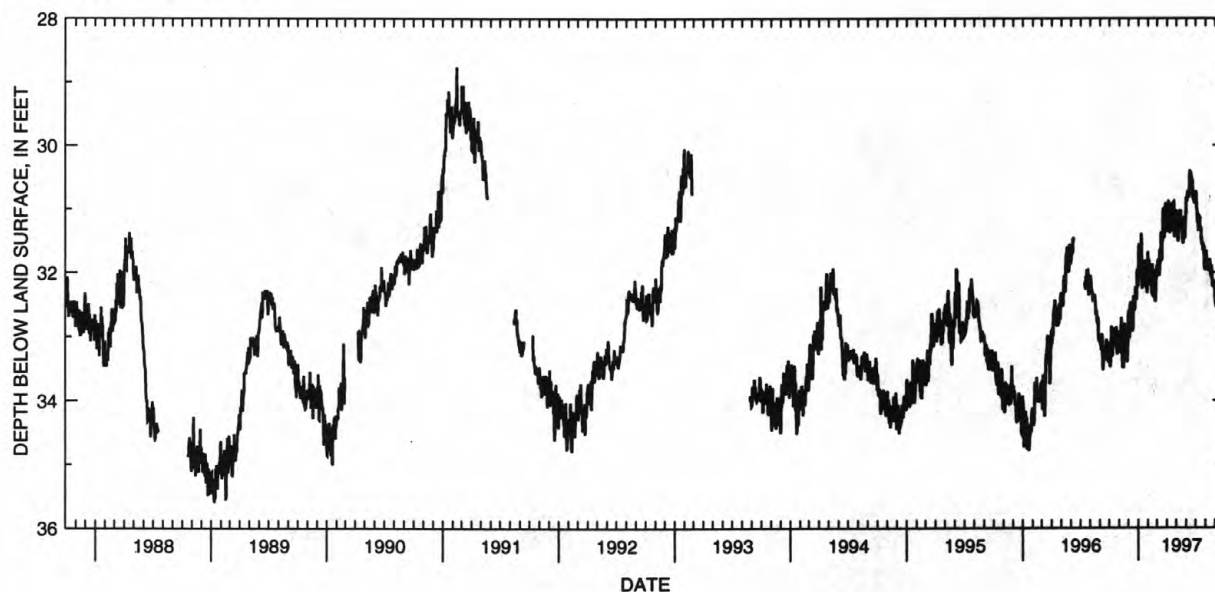
PERIOD OF RECORD.--April 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 35.90 ft below land-surface datum, Feb. 12, 1981;
minimum daily low, 23.68 ft below land-surface datum, June 15, 23, 1947.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33.34	32.92	32.60	32.08	31.85	31.89	31.34	31.22	30.84	30.76	31.92	32.44
2	33.28	33.08	32.79	31.65	31.98	31.93	31.34	31.23	30.82	30.72	31.71	32.46
3	33.41	33.21	32.82	31.60	32.18	31.88	31.15	31.16	30.87	30.78	31.66	32.54
4	33.48	33.22	33.03	31.61	31.80	31.81	31.09	31.33	30.87	30.90	31.67	32.53
5	33.39	33.09	32.91	31.57	32.04	31.81	31.00	31.33	30.78	31.02	31.82	32.49
6	33.21	33.07	32.54	31.86	32.07	31.96	30.87	31.45	30.73	31.06	31.91	32.29
7	33.02	32.88	32.48	32.04	32.07	32.03	31.19	31.51	30.73	31.20	31.96	32.33
8	32.84	32.71	32.48	32.04	32.18	32.05	31.32	31.36	30.73	31.20	31.92	32.31
9	32.89	32.81	32.84	31.71	32.20	32.02	31.36	31.22	30.80	31.23	31.83	32.29
10	33.20	33.00	32.73	31.39	32.11	31.64	31.37	31.31	30.82	31.31	31.85	32.22
11	33.31	33.31	32.59	31.84	32.03	31.72	31.26	31.30	30.70	31.30	31.96	32.38
12	33.18	33.44	32.69	32.18	32.32	31.83	30.91	31.04	30.51	31.22	31.96	32.50
13	33.09	33.43	32.89	32.25	32.34	31.82	31.17	31.04	30.39	31.12	31.82	32.52
14	33.15	33.48	32.92	32.23	31.87	31.37	31.34	31.04	30.59	31.13	31.81	32.52
15	33.14	33.48	32.88	32.01	32.22	31.70	31.33	31.18	30.59	31.30	31.79	32.52
16	32.93	33.29	32.56	31.81	32.35	31.80	31.09	31.28	30.42	31.34	31.85	32.52
17	32.94	33.13	32.37	31.89	32.38	31.53	31.03	31.17	30.48	31.32	31.89	32.47
18	32.87	32.98	32.41	31.97	32.09	31.49	31.01	31.16	30.51	31.28	32.05	32.57
19	32.90	32.80	32.38	31.93	32.37	31.46	30.93	31.26	30.56	31.49	32.06	32.50
20	32.92	32.84	32.59	32.13	32.39	31.09	30.96	31.39	30.56	31.48	31.92	32.70
21	32.98	32.95	32.56	32.20	31.96	30.99	30.92	31.49	30.56	31.55	31.89	32.79
22	32.98	33.12	32.36	31.81	32.31	31.13	30.91	31.54	30.75	31.55	32.07	32.71
23	32.85	33.02	32.23	32.17	32.44	31.40	30.90	31.53	30.83	31.53	32.21	32.68
24	33.06	32.91	32.34	32.07	32.46	31.46	31.15	31.36	30.84	31.64	32.22	32.69
25	33.20	32.93	32.39	32.11	32.38	31.21	31.39	31.13	30.79	31.64	32.20	32.40
26	33.28	33.29	32.43	32.25	31.98	31.13	31.44	31.35	30.84	31.58	32.20	32.57
27	33.23	33.40	32.23	32.11	32.03	31.01	31.34	31.45	30.91	31.57	32.12	32.55
28	33.06	33.26	31.95	32.29	32.10	30.91	31.04	31.44	30.88	31.73	32.15	32.38
29	33.00	33.07	32.16	32.32	---	30.96	31.07	31.29	30.88	31.91	32.21	32.13
30	32.94	32.84	32.20	32.08	---	30.96	31.02	31.15	30.81	31.96	32.18	32.48
31	32.98	---	32.22	31.68	---	31.21	---	31.06	---	31.94	32.32	---
MAX	33.48	33.48	33.03	32.32	32.46	32.05	31.44	31.54	30.91	31.96	32.32	32.79

CAL YR 1996 LOW 34.79
WTR YR 1997 LOW 33.48



GROUND-WATER RECORDS

Ross County

291

391341083172200. LOCAL NUMBER, RO-7

LOCATION.--Lat 39°13'41", long 83°17'22", Hydrologic Unit 05060003, Highland County well field, 1 mi west of Bainbridge.

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, Division of Water.

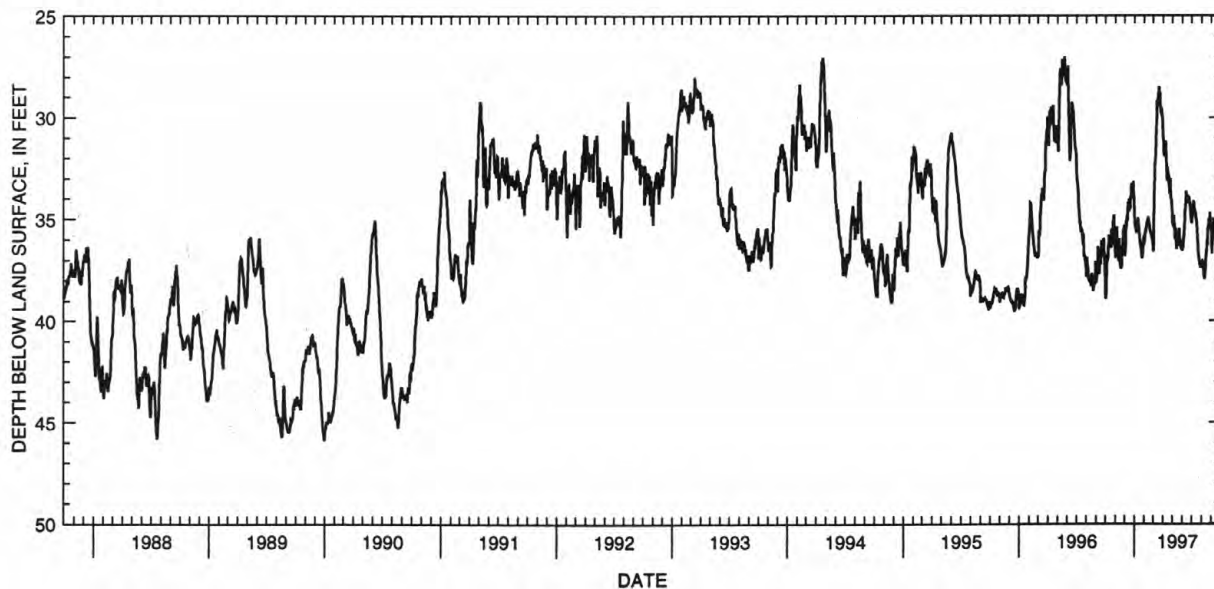
PERIOD OF RECORD.--February 1971 to current year.

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 1996 TO SEPTEMBER 1997 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38.89	36.65	36.41	34.88	36.23	36.58	30.98	35.19	36.54	35.21	37.14	36.06
2	38.85	36.87	36.81	35.29	35.98	36.34	31.01	35.21	36.45	34.88	37.09	36.39
3	38.69	36.89	36.64	35.31	35.81	34.89	31.51	35.37	36.36	34.80	37.06	36.69
4	37.82	36.06	36.32	35.22	35.59	33.68	31.89	35.09	36.33	34.55	37.08	36.34
5	37.76	36.21	35.10	35.51	35.61	33.09	31.63	34.85	35.87	34.59	37.17	35.83
6	36.75	35.38	35.23	35.36	35.60	32.25	31.93	35.12	35.95	34.11	37.45	35.15
7	37.09	35.98	35.26	35.66	35.39	32.25	31.64	35.25	35.57	34.22	37.47	35.42
8	36.85	36.28	34.77	35.22	35.27	31.87	31.86	35.58	35.38	34.24	37.84	35.37
9	36.94	36.55	34.98	35.59	35.19	31.60	31.22	35.90	34.56	34.61	37.50	35.68
10	36.24	36.71	34.99	35.26	35.14	30.85	31.18	35.97	34.67	34.67	37.92	35.00
11	36.49	36.87	34.17	35.18	35.09	30.46	31.92	35.45	34.27	34.68	37.46	35.28
12	35.80	37.01	34.60	34.93	35.08	30.17	32.38	35.88	34.27	34.63	37.70	35.85
13	36.08	37.04	34.20	35.19	34.90	29.18	32.88	36.21	33.64	34.79	37.28	35.59
14	35.80	35.96	34.62	35.25	35.10	29.47	33.10	36.46	33.83	34.91	37.30	36.05
15	36.20	36.54	34.03	35.42	35.03	29.15	32.45	36.04	33.86	35.05	36.88	35.98
16	35.96	36.97	34.50	35.67	35.28	29.09	32.97	35.96	34.02	35.11	36.45	36.36
17	35.79	37.25	34.39	35.86	35.25	28.77	32.67	35.80	34.12	35.40	36.61	36.50
18	36.25	37.41	34.52	36.01	35.49	28.86	33.16	35.91	33.84	35.68	36.03	36.75
19	36.40	37.26	33.86	36.14	35.54	28.48	32.84	36.00	34.06	36.03	36.29	36.98
20	35.49	37.42	33.90	36.28	35.65	29.05	33.47	36.23	34.17	36.23	35.43	37.16
21	36.07	37.25	33.90	36.41	35.69	29.21	33.13	36.28	34.17	36.52	35.51	37.34
22	36.21	37.31	33.26	36.46	35.78	28.77	33.76	35.46	33.90	36.79	35.31	37.46
23	36.21	36.38	33.42	36.76	35.66	29.39	33.49	35.82	34.07	36.85	34.98	37.67
24	35.89	36.77	33.63	36.76	35.82	29.49	33.02	36.01	34.20	37.04	35.17	37.79
25	35.06	36.79	33.77	36.91	35.92	29.77	33.64	36.17	34.25	37.06	34.98	37.93
26	35.45	35.49	33.87	36.61	35.99	29.80	34.04	36.27	34.41	37.29	35.22	38.04
27	34.79	36.01	33.98	36.71	36.07	29.57	34.11	36.36	34.77	37.22	34.69	38.10
28	35.24	36.05	33.16	36.35	36.14	29.59	34.01	36.40	34.79	37.37	35.17	38.21
29	35.39	35.48	33.66	36.24	---	30.00	34.38	36.45	35.09	37.25	35.23	38.28
30	36.00	35.30	33.94	35.87	---	30.00	34.76	36.49	34.96	37.37	35.36	38.43
31	36.40	---	34.20	35.81	---	30.26	---	36.07	---	37.09	35.63	---
MAX	38.89	37.42	36.81	36.91	36.23	36.58	34.76	36.49	36.54	37.37	37.92	38.43

CAL YR 1996 LOW 39.42
WTR YR 1997 LOW 38.89



GROUND-WATER RECORDS

Shelby County

401707084103100. LOCAL NUMBER, SH-5

LOCATION.--Lat 40°17'07", long 84°10'31", Hydrologic Unit 05080001, at Sidney.

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, Division of Water.

PERIOD OF RECORD.--July 1993 to current year.

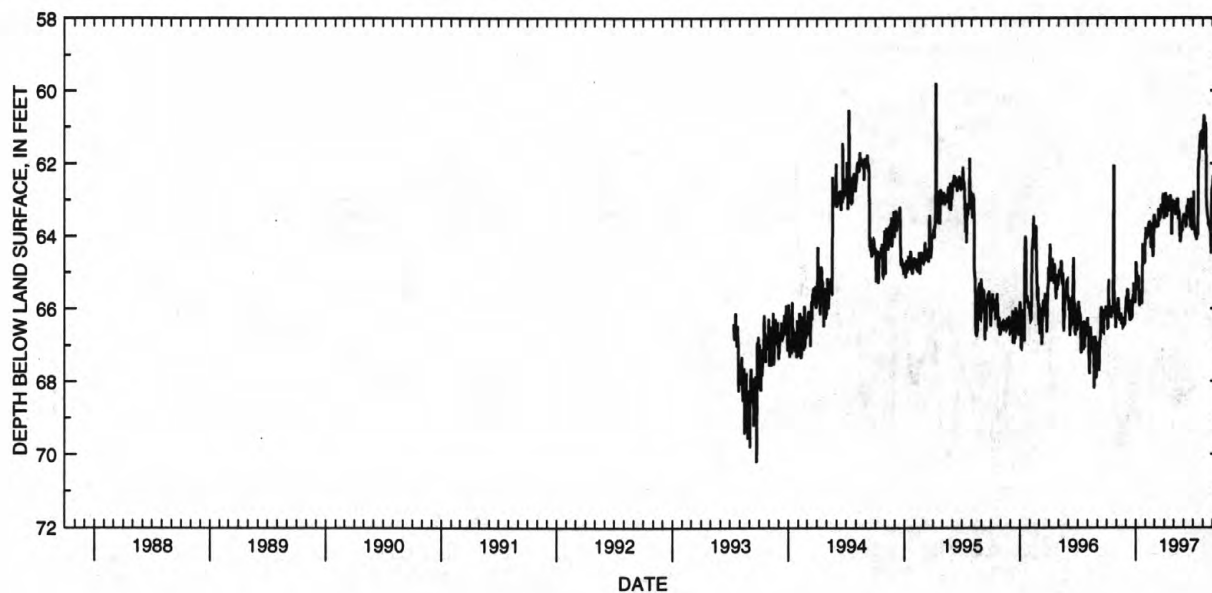
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 70.22 ft below land-surface datum, Sept. 23, 1993;
minimum daily low, 59.79 ft below land-surface datum, Apr. 10, 1995.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66.22	66.19	65.92	65.61	64.06	63.42	63.51	63.12	63.44	63.63	61.61	62.69
2	66.14	66.24	65.68	64.72	63.78	63.51	63.35	63.24	63.40	63.60	61.25	62.35
3	66.32	66.17	65.72	65.00	63.96	63.52	63.22	63.04	63.46	62.78	60.94	62.56
4	66.53	66.26	65.88	65.00	63.94	63.67	63.06	63.24	63.57	63.41	60.84	62.68
5	66.52	65.94	65.83	65.11	64.06	63.61	63.01	63.24	63.53	63.69	60.68	62.57
6	66.20	65.91	65.50	65.29	63.91	63.63	62.81	63.24	63.39	63.83	60.94	62.40
7	65.21	65.71	65.47	65.19	63.86	63.74	63.10	63.40	63.52	63.90	61.04	62.07
8	65.72	65.93	65.60	65.42	63.84	63.74	63.24	63.24	63.63	63.94	61.08	62.19
9	65.87	66.07	65.80	65.41	63.86	63.69	63.46	63.11	63.71	63.91	61.04	62.06
10	66.00	66.12	66.10	65.10	63.81	63.64	63.35	63.24	63.70	63.80	60.88	61.97
11	66.14	66.33	66.13	65.50	63.69	63.66	63.21	63.15	63.20	63.94	61.32	61.90
12	66.14	66.18	66.06	65.79	63.70	63.75	62.94	62.97	63.19	64.10	62.82	62.03
13	66.18	66.21	66.24	65.90	64.00	63.71	62.94	63.08	63.34	64.00	63.14	62.13
14	66.13	66.20	66.33	65.90	63.60	63.26	63.32	62.97	63.41	63.80	63.28	62.11
15	66.24	66.25	66.29	65.73	63.71	63.48	63.27	63.29	63.48	63.78	63.37	62.07
16	66.21	66.13	66.21	65.51	63.82	63.57	63.24	63.53	62.99	63.98	63.45	62.10
17	66.19	66.40	65.80	65.62	63.82	63.42	63.18	63.28	63.33	63.34	63.49	61.92
18	65.94	66.42	65.77	65.70	64.32	63.35	63.18	63.32	63.28	62.10	63.64	61.99
19	66.03	66.31	66.01	65.65	64.15	63.32	63.04	63.45	63.33	61.90	63.70	62.09
20	66.02	66.24	66.25	65.53	64.19	63.51	62.95	63.74	63.32	61.86	63.62	62.03
21	66.08	66.35	66.24	65.87	64.13	63.42	62.88	64.00	63.51	61.75	63.58	62.12
22	66.08	66.51	65.87	65.05	63.65	63.14	62.99	64.15	63.63	61.49	63.72	62.11
23	63.52	66.50	65.74	64.22	63.83	63.32	63.05	64.13	63.75	61.30	63.81	61.79
24	62.05	66.35	65.62	64.36	64.54	63.38	63.22	63.94	63.22	61.20	63.83	62.00
25	65.38	66.30	65.84	64.45	64.56	63.25	63.95	63.65	62.97	61.19	63.77	62.02
26	65.76	66.33	65.31	64.74	64.32	63.17	63.46	63.69	63.43	61.25	64.19	62.29
27	65.84	66.45	65.57	64.76	63.44	63.18	63.27	63.83	63.74	61.14	64.47	62.21
28	66.10	66.43	65.66	64.53	63.88	62.96	63.01	63.86	63.82	61.13	64.04	62.01
29	66.27	66.21	65.70	64.74	---	62.84	63.08	63.63	63.77	61.30	62.78	61.78
30	66.52	65.96	65.71	64.67	---	62.94	63.18	63.55	63.56	61.41	62.71	61.93
31	66.26	---	65.84	64.10	---	63.15	---	63.57	---	61.49	62.59	---
MAX	66.53	66.51	66.33	65.90	64.56	63.75	63.95	64.15	63.82	64.10	64.47	62.69

CAL YR 1996 LOW 68.18
WTR YR 1997 LOW 66.53



GROUND-WATER RECORDS

Shelby County

293

401707084103100. LOCAL NUMBER, SH-5—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	LOCAL IDENT- I- FIER	DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN)	FLOW RATE (G/M)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH WATER WHOLE FIELD (STAND- ARD UNITS)	
AUG 01...	SH-5 AT SIDNEY	970801	1800	61.50	300.00	125	4.0	650	7.3	
DATE	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFIDE WATER, FLTRD, FIELD, (MG/L)	SILICA, DIS- SOLVED (MG/L AS SIO2)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
AUG 01...	13.5	0	97	37	11	352	0.007	19	<0.010	<0.050
DATE	NITRO- GEN, AM- MONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)
AUG 01...	0.441	0.34	<0.010	0.011	157	<0.50	<1.0	<5.0	3.9	<10
DATE	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
AUG 01...	1400	<10	15	17	25	<10	<1.0	12200	<6	7.1

GROUND-WATER RECORDS

Stark County

404939081203800. LOCAL NUMBER, ST-5A

LOCATION.--Lat 40°49'39", long 81°20'38", Hydrologic Unit 05040001, Northeast well field off Harrisburg Rd, Canton.
 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.--Type F continuous recorder.

DATUM.--Elevation of land-surface datum is 1060 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, Division of Water.

PERIOD OF RECORD.--June 1949 to current year.

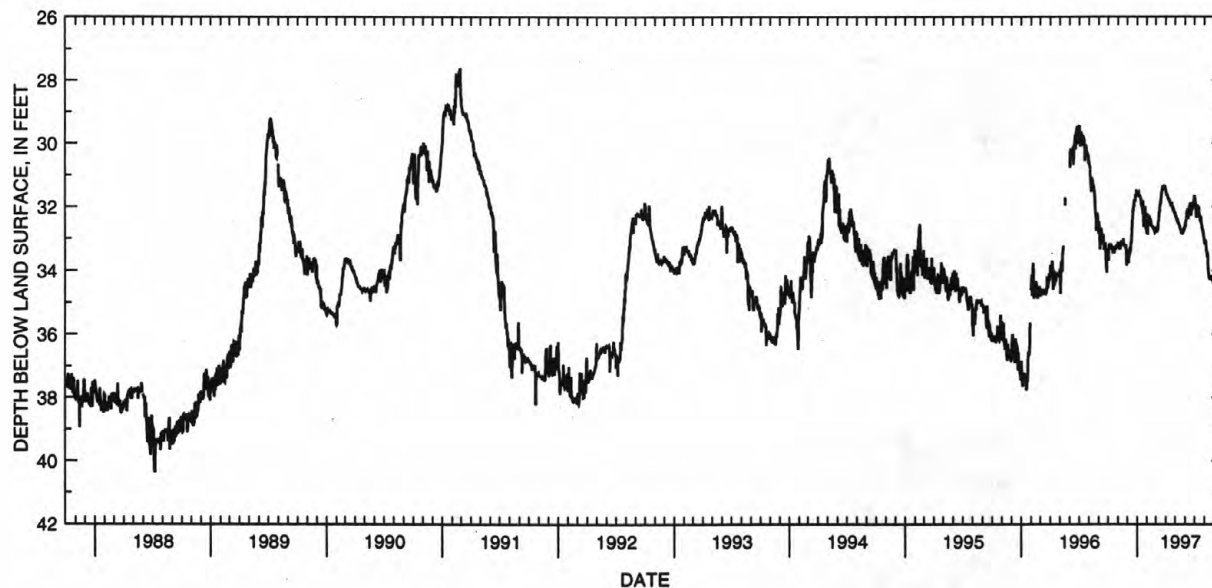
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 54.00 ft below land-surface datum, Feb. 10, 1956;
 minimum daily low, 26.13 ft below land-surface datum, May 18, 1964.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33.45	33.11	33.70	31.54	32.42	32.80	31.50	32.22	32.53	31.65	33.09	34.24
2	33.68	33.27	33.34	31.56	32.22	32.62	31.55	32.30	32.63	31.77	33.16	34.23
3	33.29	33.19	33.35	31.52	32.87	32.80	31.61	32.30	32.45	31.83	33.06	34.32
4	33.16	33.29	33.76	31.56	32.45	32.75	31.60	32.35	32.44	31.87	33.05	34.56
5	33.21	33.25	33.49	31.54	32.46	32.77	31.61	32.35	32.35	32.12	33.06	34.58
6	33.23	33.33	33.41	31.60	32.40	32.68	31.62	32.39	32.24	32.33	33.21	34.40
7	33.17	33.17	33.52	31.66	32.46	32.69	31.68	32.44	32.12	32.20	33.37	34.40
8	33.19	33.32	33.39	31.66	32.28	32.47	31.70	32.43	32.12	32.34	33.41	34.40
9	33.16	33.25	33.26	31.64	32.40	32.47	31.75	32.50	32.05	32.26	33.48	34.40
10	33.26	33.13	33.41	31.70	32.43	32.33	31.80	32.45	32.25	31.94	33.57	34.44
11	33.24	33.06	33.14	31.73	32.47	32.18	31.75	32.52	32.38	32.04	33.42	34.47
12	33.32	33.14	33.10	31.76	32.45	32.18	31.79	32.52	32.09	32.10	33.75	34.58
13	33.32	33.20	33.10	31.88	32.52	31.98	31.81	32.57	32.09	32.13	33.94	34.49
14	33.22	33.13	32.77	32.00	32.51	31.97	31.87	32.58	32.02	32.00	34.07	34.52
15	33.37	33.20	32.64	31.79	32.57	31.86	31.89	32.62	32.03	32.14	34.19	34.55
16	33.35	33.10	32.37	31.87	32.59	31.87	31.91	32.68	31.96	32.24	34.23	34.53
17	33.42	33.16	32.36	32.03	32.60	31.79	31.95	32.70	31.89	32.29	34.24	34.65
18	33.28	32.99	32.08	32.23	32.62	31.62	31.95	32.71	31.93	32.38	34.23	34.67
19	33.38	33.23	32.13	31.81	32.62	31.50	31.97	32.72	31.90	32.47	34.26	34.72
20	33.45	33.16	31.95	32.30	32.69	31.52	31.85	32.77	32.27	32.33	34.29	34.65
21	33.30	33.20	32.00	32.62	32.64	31.42	32.01	32.76	32.15	32.30	34.19	34.67
22	33.29	33.25	31.77	32.10	32.72	31.44	31.99	32.84	32.00	32.50	34.24	34.74
23	33.35	33.20	31.85	32.11	32.73	31.43	32.06	32.69	31.86	32.56	34.23	34.90
24	33.27	33.26	31.76	32.12	32.75	31.40	32.05	32.85	32.10	32.59	34.15	34.97
25	33.33	33.26	31.82	32.14	32.77	31.42	32.14	32.70	31.89	32.67	34.20	34.90
26	33.23	33.25	31.61	32.00	32.73	31.40	32.10	32.77	31.88	32.74	34.29	35.00
27	33.27	33.44	31.64	32.30	32.80	31.33	32.15	32.75	31.88	32.73	34.30	35.02
28	33.18	33.84	31.67	32.69	32.71	31.37	32.17	32.74	32.00	32.74	34.35	35.00
29	33.25	33.35	31.47	32.38	---	31.40	32.20	32.63	31.73	32.86	34.38	34.93
30	33.20	33.50	31.53	32.65	---	31.39	32.17	32.66	31.70	32.94	34.23	35.05
31	33.28	---	31.57	32.83	---	31.42	---	32.63	---	33.01	34.20	---
MAX	33.68	33.84	33.76	32.83	32.87	32.80	32.20	32.85	32.63	33.01	34.38	35.05

CAL YR 1996 LOW 37.77

WTR YR 1997 LOW 35.05



GROUND-WATER RECORDS

Stark County

295

404939081203800. LOCAL NUMBER, ST-5A—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	LOCAL IDENT- IFIER	DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN)	FLOW RATE (G/M)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH WATER WHOLE FIELD (STAND- ARD UNITS)	
JUL 02...	ST-5A	970702	1511	31.62	132.00	180	10.0	874	7.1	
DATE	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFIDE WATER, FLTRD, FIELD, (MG/L)	SILICA, DIS- SOLVED (MG/L AS SIO2)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
JUL 02...	14.0	0.1	120	22	34	226	0.002	11	<0.010	0.053
DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)
JUL 02...	0.080	<0.20	<0.010	<0.010	50	<0.50	<1.0	5.4	4.2	<10
DATE	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
JUL 02...	530	16	10	638	<10	<10	<1.0	231	<6	13

GROUND-WATER RECORDS

Stark County

405211081253500. LOCAL NUMBER, ST-27

LOCATION.--Lat 40°52'11", long 81°25'35", Hydrologic Unit 05040001, Dresler Rd near North Canton.

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.--Type F continuous recorder.

DATUM.--Elevation of land-surface datum is 1060 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, Division of Water.

PERIOD OF RECORD.--April 1975 to current year.

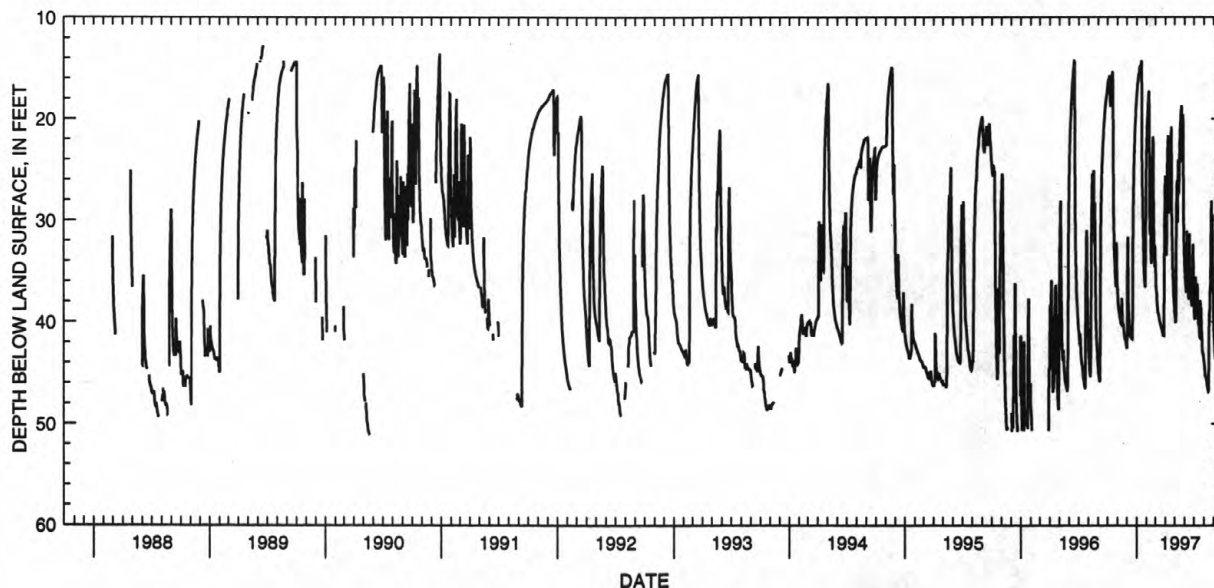
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 51.10 ft below land-surface datum, May 20, 1990;
minimum daily low, 7.10 ft below land-surface datum, June 15, 1981.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.70	36.65	42.60	17.55	22.50	33.95	25.65	39.00	34.25	38.30	43.75	40.20
2	16.35	37.40	41.10	17.10	21.30	35.40	29.50	39.35	35.00	39.25	44.05	41.35
3	16.20	38.00	34.85	16.75	20.30	36.45	29.40	39.70	35.60	39.70	44.40	41.90
4	16.15	38.40	31.65	16.45	19.60	36.95	32.60	40.10	36.00	39.75	44.70	42.40
5	16.00	38.70	36.15	16.15	18.80	37.20	33.45	39.40	36.55	37.90	45.30	43.25
6	15.90	38.95	38.20	15.85	18.20	37.80	30.30	32.40	37.00	35.60	45.40	43.55
7	15.75	39.10	39.20	15.60	17.70	38.30	25.80	28.30	37.00	38.10	45.40	43.55
8	17.35	39.40	39.90	15.50	17.25	38.65	23.75	26.10	32.80	39.00	45.50	38.00
9	18.35	39.60	40.45	15.30	19.00	39.00	22.50	29.90	31.05	39.50	45.70	38.95
10	18.80	39.75	40.90	14.85	25.50	39.20	21.65	30.20	34.00	39.70	45.70	38.00
11	18.50	40.00	41.30	14.80	29.65	39.25	26.70	26.90	35.20	36.30	46.15	32.80
12	17.15	40.15	41.45	14.80	31.40	39.35	29.30	24.15	36.35	36.80	46.35	29.75
13	16.35	40.20	41.50	14.80	30.50	39.65	27.60	24.15	37.40	38.60	46.40	28.00
14	15.95	38.80	41.55	14.65	31.10	39.80	23.50	27.40	37.70	39.55	46.75	26.70
15	15.70	37.70	41.55	14.50	33.60	40.00	26.90	26.80	37.75	40.20	46.80	25.65
16	15.50	39.00	41.45	14.25	34.25	40.10	26.10	23.50	32.50	40.35	46.75	24.70
17	15.35	39.75	41.65	21.80	31.40	40.25	25.70	21.95	31.35	40.20	41.00	27.15
18	20.00	40.15	41.70	26.55	27.35	40.35	25.55	20.95	34.40	41.00	39.00	26.70
19	26.30	40.35	39.70	27.35	25.65	40.50	22.40	20.25	36.05	41.50	39.85	31.30
20	29.40	40.20	32.25	28.40	23.75	40.65	20.80	19.65	36.55	41.55	37.10	34.10
21	31.20	40.65	28.45	31.15	21.80	40.70	24.70	19.20	37.35	37.90	37.00	35.85
22	32.55	41.00	26.25	32.65	22.50	40.80	29.50	18.70	37.95	39.35	36.10	37.00
23	33.55	41.25	24.70	34.00	28.10	41.00	31.95	24.10	38.10	38.60	32.10	37.30
24	34.35	41.50	23.40	35.10	31.35	41.15	33.65	24.25	38.30	39.70	29.65	36.55
25	35.05	41.65	22.35	35.80	33.00	41.25	34.80	22.10	38.45	41.00	28.10	30.50
26	35.75	41.75	21.45	36.10	33.90	41.35	35.90	19.85	36.85	41.80	32.10	27.25
27	36.40	41.70	20.55	36.40	34.60	41.40	36.75	19.60	36.95	42.80	32.25	25.65
28	36.55	42.00	19.80	36.60	32.50	41.40	37.50	25.70	32.40	43.00	29.45	24.50
29	32.20	42.30	19.10	33.20	---	34.90	38.05	29.65	34.50	43.00	31.75	23.60
30	34.85	42.50	18.60	27.00	---	30.00	38.55	31.95	37.50	43.15	35.80	24.70
31	36.30	---	18.15	24.10	---	27.30	---	33.45	---	43.50	38.50	---
MAX	36.55	42.50	42.60	36.60	34.60	41.40	38.55	40.10	38.45	43.50	46.80	43.55

CAL YR 1996 LOW 50.65
WTR YR 1997 LOW 46.80



GROUND-WATER RECORDS
Tuscarawas County

297

403207081293800. LOCAL NUMBER, TU-3

LOCATION.--Lat 40°32'07", long 81°29'38", Hydrologic Unit 05040001, in the northwest part of Dover.

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 September 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, Dec. 6-8, 1962;
minimum daily low, 3.20 ft below land-surface datum, July 15, 1969.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATIONS

DATE	WATER LEVEL
Oct. 1, 1996	10.30
Oct. 31, 1996	11.07
Dec. 2, 1996	10.20
Dec. 31, 1996	8.10
Feb. 3, 1997	9.26
Mar. 3, 1997	8.43
Apr. 1, 1997	9.16
May 2, 1997	10.52
June 3, 1997	8.52
June 30, 1997	8.68
Aug. 4, 1997	10.51
Sept. 2, 1997	11.45
Sept. 30, 1997	12.83

GROUND-WATER RECORDS

Tuscarawas County

403557081313600. LOCAL NUMBER, TU-4

LOCATION.--Lat 40°35'57", long 81°31'36", Hydrologic Unit 05040001, near Fire Dept. building in Strasburg.

Owner: Strasburg Water Dept.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled unused water table well, diameter 6 in., depth 42.5 ft, cased.

INSTRUMENTATION.--Type F continuous recorder.

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, Division of Water.

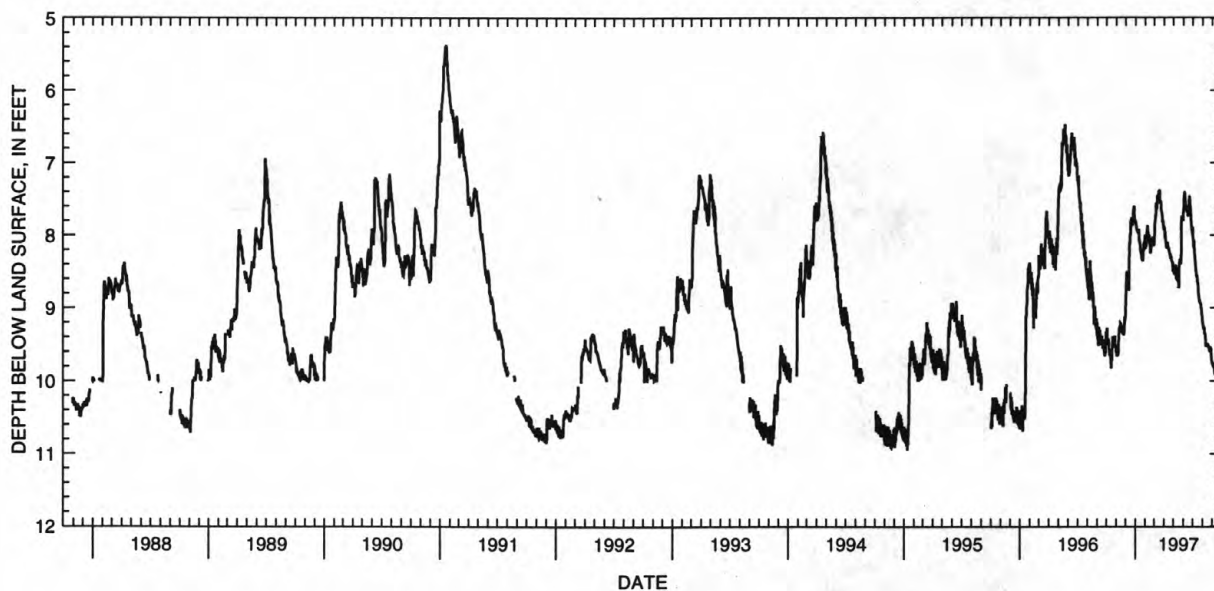
PERIOD OF RECORD.--June 1960 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 10.95 ft below land-surface datum, Jan. 11, 1995;
minimum daily low, 4.05 ft below land-surface datum, July 13, 1969.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.37	9.60	8.92	7.81	8.09	8.12	7.88	8.49	7.69	7.89	9.19	9.77
2	9.39	9.63	8.75	7.83	8.15	7.99	7.92	8.51	7.68	8.07	9.23	9.78
3	9.28	9.65	8.65	7.86	8.16	7.85	7.92	8.50	7.52	8.07	9.27	9.75
4	9.45	9.65	8.50	7.90	8.15	7.80	8.01	8.50	7.45	8.16	9.29	9.76
5	9.45	9.63	8.62	7.93	7.98	7.72	8.00	8.45	7.40	8.08	9.27	9.79
6	9.45	9.51	8.50	7.93	7.98	7.75	8.05	8.47	7.46	8.25	9.28	9.79
7	9.51	9.65	8.68	7.94	7.89	7.56	8.10	8.55	7.49	8.26	9.35	9.83
8	9.43	9.52	8.72	7.97	7.87	7.64	8.12	8.48	7.62	8.32	9.35	9.88
9	9.57	9.38	8.70	7.96	7.97	7.65	8.18	8.41	7.59	8.40	9.38	9.90
10	9.62	9.30	8.75	7.97	7.97	7.56	8.16	8.60	7.60	8.44	9.38	9.90
11	9.65	9.30	8.75	7.92	8.02	7.45	8.17	8.57	7.65	8.50	9.53	9.91
12	9.57	9.25	8.30	8.07	8.10	7.48	8.10	8.61	7.68	8.53	9.50	9.91
13	9.66	9.28	8.10	8.07	8.00	7.45	8.12	8.61	7.65	8.57	9.53	9.89
14	9.67	9.21	8.10	8.10	8.10	7.47	8.18	8.61	7.66	8.55	9.51	9.90
15	9.77	9.22	7.99	8.10	8.12	7.39	8.20	8.63	7.72	8.57	9.52	9.93
16	9.83	9.24	8.00	8.20	8.17	7.42	8.17	8.64	7.74	8.64	9.52	9.93
17	9.61	9.26	7.80	8.22	8.25	7.49	8.22	8.64	7.71	8.67	9.50	10.00
18	9.72	9.32	7.81	8.24	8.23	7.37	8.23	8.73	7.60	8.69	9.49	10.02
19	9.52	9.32	7.76	8.25	8.18	7.55	8.26	8.42	7.62	8.80	9.52	---
20	9.49	9.35	7.82	8.32	8.07	7.55	8.27	8.39	7.46	8.84	9.54	---
21	9.40	9.30	7.82	8.33	8.03	7.52	8.27	8.33	7.48	8.87	9.55	---
22	9.49	9.36	7.84	8.34	8.05	7.55	8.32	8.35	7.55	8.91	9.57	---
23	9.50	9.36	7.87	8.35	8.05	7.65	8.30	8.36	7.60	8.93	9.60	---
24	9.52	9.27	7.77	8.35	8.11	7.67	8.30	8.40	7.65	8.92	9.57	---
25	9.40	9.38	7.64	8.22	8.15	7.69	8.35	8.28	7.78	8.94	9.60	---
26	9.50	9.32	7.65	8.12	8.12	7.71	8.36	7.81	7.83	8.95	9.53	---
27	9.39	9.14	7.60	8.21	8.13	7.80	8.37	7.75	7.90	9.00	9.60	---
28	9.53	9.14	7.74	8.12	8.15	7.83	8.37	7.75	7.94	9.01	9.56	---
29	9.53	9.15	7.77	8.09	---	7.80	8.45	7.75	7.95	9.08	9.71	---
30	9.53	9.10	7.80	8.07	---	7.87	8.44	7.75	8.00	9.09	9.73	---
31	9.60	---	7.80	8.00	---	7.92	---	7.80	---	9.17	9.75	---
MAX	9.83	9.65	8.92	8.35	8.25	8.12	8.45	8.73	8.00	9.17	9.75	10.02
CAL YR 1996	LOW 10.69											
WTR YR 1997	LOW 10.02											



GROUND-WATER RECORDS Tuscarawas County

299

403557081313600. LOCAL NUMBER, TU-4—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	LOCAL IDENT- I- FIER		DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN)	FLOW RATE (G/M)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	
JUL 30...	TU-4		970730	1630	8.94	42.50	40	5.0	880	
DATE	PH WATER WHOLE FIELD (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFIDE WATER, FLTRD, FIELD, (MG/L)	SILICA, DIS- SOLVED (MG/L AS SIO2)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
JUL 30...	7.2	13.0	110	27	30	212	0.033	11	0.038	4.18
DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)
JUL 30...	<0.015	<0.20	<0.010	<0.010	50	<0.50	<1.0	<5.0	<3.0	<10
DATE	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
JUL 30...	27	<10	8	27	<10	<10	<1.0	124	<6	<3.0

GROUND-WATER RECORDS

Tuscarawas County

403653081321800. LOCAL NUMBER, TU-1

LOCATION.--Lat 40°36'53", long 81°32'18", Hydrologic Unit 05040001, 1.3 mi north of Strasburg.

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, Division of Water.

PERIOD OF RECORD.--July 1946 to current year.

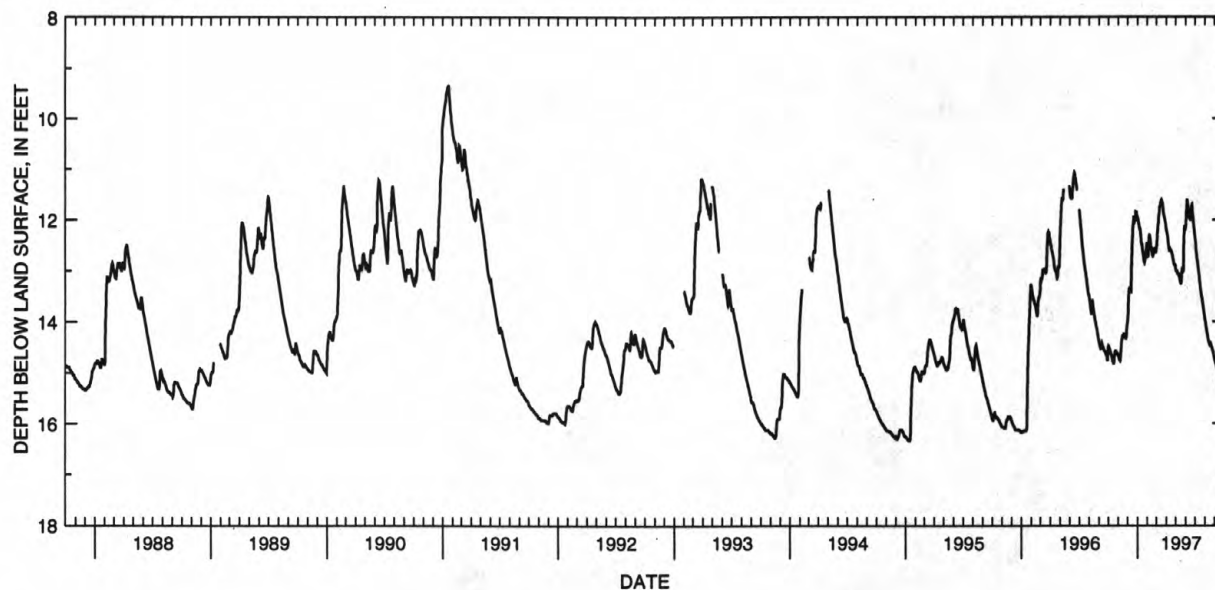
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 16.34 ft below land-surface datum, Jan. 11-14, 1995;
minimum daily low, 6.64 ft below land-surface datum, July 14, 1969.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.48	14.65	13.97	11.96	12.61	12.54	12.19	12.96	12.16	12.37	13.96	14.75
2	14.49	14.68	13.82	11.99	12.66	12.50	12.21	13.00	12.05	12.41	13.98	14.78
3	14.51	14.71	13.63	12.04	12.71	12.42	12.24	13.00	11.90	12.50	14.03	14.80
4	14.54	14.73	13.46	12.05	12.70	12.25	12.28	13.00	11.77	12.58	14.07	14.82
5	14.56	14.75	13.39	12.10	12.50	12.19	12.30	13.00	11.64	12.64	14.11	14.85
6	14.58	14.76	13.35	12.12	12.38	12.12	12.36	13.03	11.60	12.70	14.15	14.86
7	14.60	14.77	13.34	12.17	12.28	12.06	12.41	13.05	11.65	12.76	14.20	14.88
8	14.63	14.75	13.35	12.19	12.32	11.92	12.48	13.05	11.72	12.80	14.23	14.91
9	14.64	14.63	13.39	12.16	12.34	11.91	12.53	13.05	11.79	12.84	14.27	14.93
10	14.65	14.54	13.38	12.27	12.37	11.85	12.57	13.07	11.85	12.89	14.30	14.94
11	14.67	14.45	13.39	12.34	12.42	11.75	12.60	13.08	11.90	12.96	14.35	14.95
12	14.72	14.37	13.18	12.41	12.52	11.73	12.60	13.11	11.94	13.00	14.37	14.97
13	14.74	14.33	12.83	12.46	12.54	11.72	12.57	13.14	11.93	13.05	14.39	14.99
14	14.78	14.29	12.61	12.48	12.55	11.67	12.58	13.15	11.93	13.10	14.42	15.00
15	14.79	14.28	12.45	12.48	12.63	11.66	12.60	13.20	11.96	13.17	14.43	15.03
16	14.80	14.27	12.31	12.58	12.67	11.62	12.60	13.22	12.01	13.23	14.45	15.05
17	14.82	14.27	12.18	12.59	12.69	11.61	12.62	13.25	11.92	13.28	14.43	15.08
18	14.82	14.27	12.08	12.65	12.70	11.64	12.63	13.26	11.82	13.35	14.40	15.10
19	14.80	14.25	12.01	12.68	12.68	11.65	12.65	13.16	11.78	13.39	14.42	15.11
20	14.70	14.25	11.93	12.77	12.66	11.67	12.68	13.03	11.71	13.44	14.45	15.14
21	14.63	14.28	12.00	12.78	12.55	11.70	12.70	12.98	11.70	13.49	14.47	15.15
22	14.60	14.30	12.02	12.82	12.58	11.80	12.75	12.99	11.79	13.51	14.50	15.17
23	14.58	14.32	12.03	12.83	12.60	11.88	12.77	13.00	11.86	13.55	14.51	15.19
24	14.58	14.33	12.01	12.80	12.61	11.90	12.82	13.01	11.92	13.60	14.54	15.20
25	14.58	14.35	11.98	12.72	12.60	11.92	12.85	13.00	12.01	13.64	14.56	15.22
26	14.59	14.30	11.85	12.70	12.60	11.95	12.87	12.57	12.08	13.68	14.58	15.25
27	14.62	14.24	11.86	12.65	12.64	11.98	12.87	12.29	12.15	13.72	14.60	15.26
28	14.62	14.11	11.84	12.60	12.63	12.01	12.88	12.15	12.20	13.77	14.63	15.28
29	14.62	14.06	11.91	12.51	---	12.05	12.90	12.11	12.28	13.81	14.66	15.29
30	14.65	14.03	11.92	12.45	---	12.08	12.90	12.16	12.31	13.85	14.69	15.31
31	14.65	---	11.95	12.50	---	12.15	---	12.17	---	13.93	14.72	---
MAX	14.82	14.77	13.97	12.83	12.71	12.54	12.90	13.26	12.31	13.93	14.72	15.31

CAL YR 1996 LOW 16.17
WTR YR 1997 LOW 15.31



GROUND-WATER RECORDS Tuscarawas County

301

403823081324200. LOCAL NUMBER, TU-5

LOCATION.--Lat 40°38'23", long 81°32'42", Hydrologic Unit 05040001, Sugar Creek well field near Strasburg.

Owner: Canton Water Dept.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled unused water table well, diameter 6 in., depth 100 ft, cased.

INSTRUMENTATION.--Type F continuous recorder.

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, Division of Water.

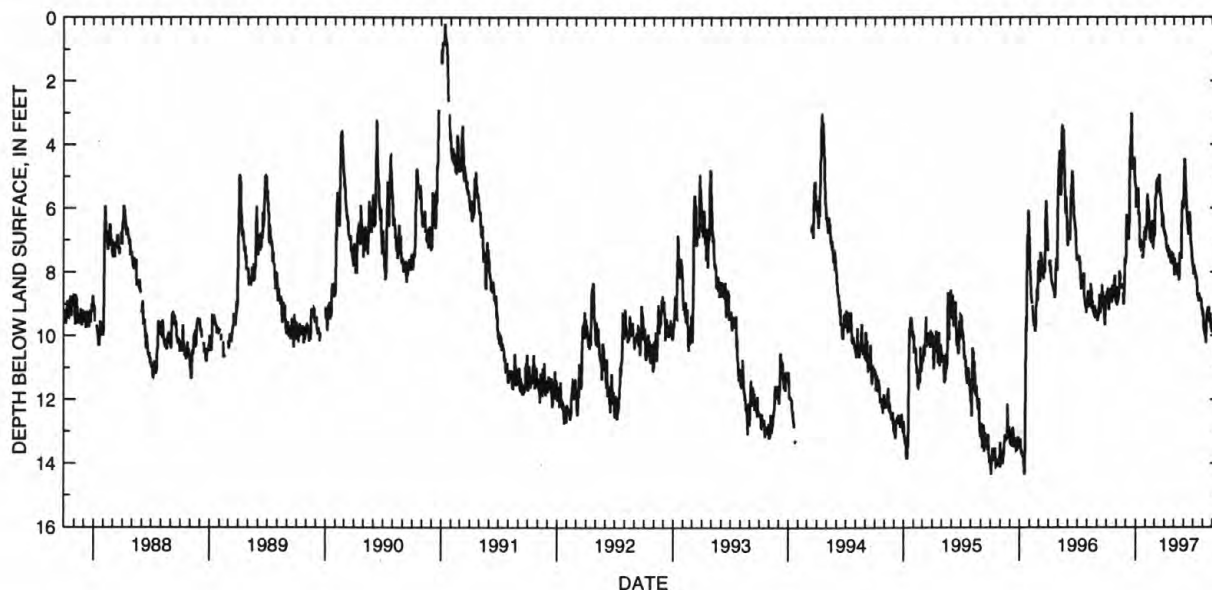
PERIOD OF RECORD.--June 1960 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 14.35 ft below land-surface datum, Oct. 4, 1995 and Jan. 17, 1996;
minimum daily low, 0.20 ft below land-surface datum, Jan. 13, 1991.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.83	8.98	7.65	5.32	7.00	6.54	6.75	7.64	5.84	7.78	9.27	9.82
2	8.60	8.45	7.55	5.97	6.81	6.86	6.67	7.82	5.34	7.89	9.25	9.90
3	8.76	8.87	6.55	5.60	6.74	6.11	6.82	8.10	4.90	8.07	9.35	9.95
4	8.65	9.04	6.20	5.44	6.63	5.67	6.88	7.57	4.50	7.77	9.70	9.65
5	8.84	8.80	6.23	5.74	6.43	5.70	6.90	7.76	4.45	7.86	9.82	9.91
6	8.50	8.91	6.42	5.80	5.95	5.62	6.86	7.74	5.00	7.98	9.76	9.81
7	8.94	8.80	6.51	5.50	5.57	5.25	6.90	7.87	5.10	8.04	9.94	9.75
8	9.01	8.86	6.67	5.37	5.85	5.12	7.20	7.90	5.35	7.97	9.96	9.61
9	9.18	8.68	6.85	5.57	5.76	5.17	7.25	7.77	5.70	8.13	9.90	9.82
10	8.77	8.68	6.98	6.22	5.98	5.53	7.27	7.75	5.77	8.12	10.00	9.95
11	8.95	7.96	6.67	6.17	6.07	5.17	7.30	7.75	6.14	8.12	10.14	10.02
12	8.82	8.07	6.43	6.15	6.07	5.05	7.28	7.90	6.24	8.18	10.22	10.28
13	8.52	8.30	5.07	6.50	6.60	5.27	7.17	8.04	6.44	8.21	9.62	10.21
14	8.90	8.07	4.44	7.10	6.74	5.18	7.30	8.11	6.51	8.42	9.33	10.24
15	8.77	---	4.05	7.23	6.97	5.17	7.38	7.97	6.60	8.68	9.33	10.04
16	8.95	---	4.13	7.08	6.85	4.95	7.56	7.97	6.82	8.67	9.23	10.32
17	8.70	8.52	3.70	6.97	6.82	5.01	7.27	8.00	6.66	8.77	9.21	10.34
18	8.95	8.47	3.02	7.25	7.00	5.40	7.52	8.25	6.48	8.77	9.12	10.24
19	8.40	8.37	3.65	7.23	7.09	5.52	7.42	8.10	6.15	8.85	9.52	10.56
20	8.54	---	4.07	7.09	7.00	5.61	7.38	7.51	6.12	8.84	9.09	10.48
21	8.49	---	4.78	---	6.60	5.61	7.50	7.40	6.30	8.67	9.15	10.49
22	8.65	---	4.73	7.45	6.39	5.94	7.67	7.44	6.48	8.82	9.53	10.43
23	8.77	8.65	4.79	7.55	6.48	6.00	7.72	7.53	6.83	8.79	9.57	10.38
24	8.80	9.01	4.72	7.48	7.18	5.98	7.35	7.51	7.12	8.92	9.59	10.29
25	8.80	9.00	4.70	7.15	7.19	6.58	7.60	7.57	7.14	8.85	9.36	10.12
26	8.25	8.73	4.62	7.02	7.01	6.20	7.69	6.68	7.22	8.87	9.35	10.02
27	8.10	8.12	4.40	7.22	6.93	6.41	7.68	6.07	7.39	8.86	9.75	9.98
28	8.73	7.56	4.50	6.77	6.67	6.18	7.62	5.79	7.66	8.90	9.76	10.23
29	8.43	7.60	5.00	6.72	---	6.36	7.42	6.03	7.57	9.10	9.83	10.05
30	8.89	7.75	5.20	---	---	6.69	7.78	5.92	7.78	9.17	9.85	10.01
31	8.86	---	5.27	6.58	---	6.70	---	6.00	---	9.16	9.88	---
MAX	9.18	9.04	7.65	7.55	7.19	6.86	7.78	8.25	7.78	9.17	10.22	10.56

CAL YR 1996 LOW 14.35
WTR YR 1997 LOW 10.56



GROUND-WATER RECORDS

Union County

401826083255200. LOCAL NUMBER, U-4

LOCATION.--Lat 40°18'26", long 83°25'52", Hydrologic Unit 05060001, 2.6 mi southeast of Raymond.

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.--Digital recorder--60-minute punch.

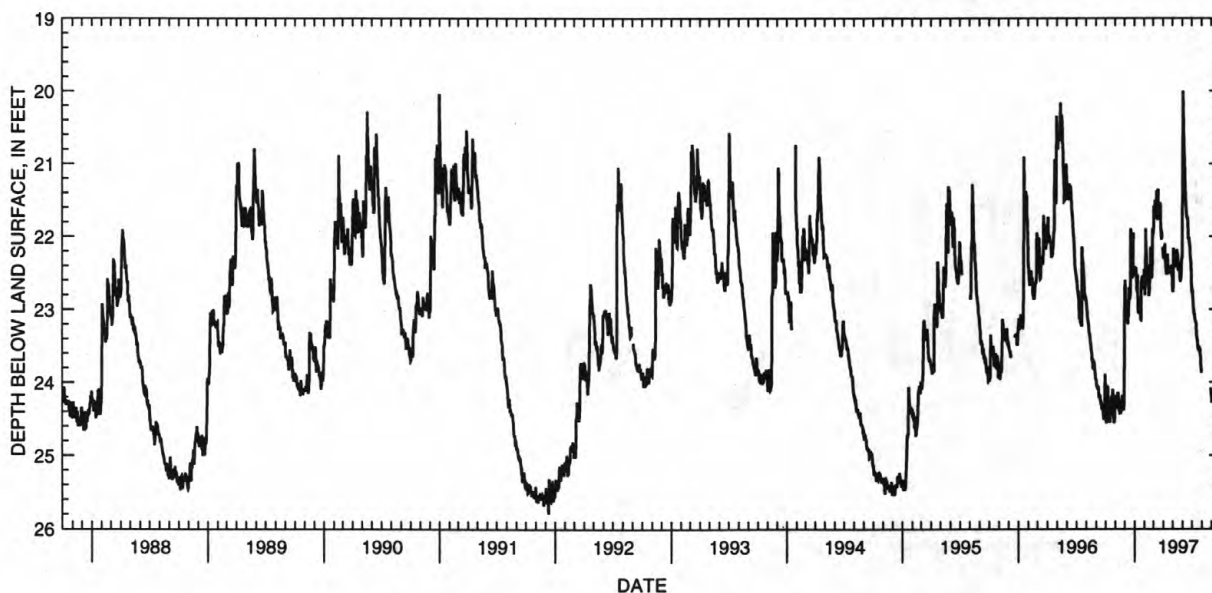
DATUM.--Elevation of land-surface datum is 1,040 ft above sea level, from topographic map.

Measuring point: Floor of instrument shelter 3.00 ft above land-surface datum.

PERIOD OF RECORD.--January 1973 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 25.79 ft below land-surface datum, Dec. 11, 1991;
minimum daily low, 19.32 ft below land-surface datum, Feb. 24, 1975.DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.04	24.18	22.85	22.51	22.65	21.95	22.24	22.72	21.90	22.75	---	24.27
2	24.20	24.23	22.60	22.42	22.74	21.87	22.29	22.76	20.85	22.74	---	24.27
3	24.55	24.34	22.67	22.43	22.80	21.58	22.29	22.67	20.00	22.74	---	---
4	24.55	24.35	22.98	22.47	22.72	21.70	22.23	22.16	20.27	22.84	---	---
5	24.35	24.36	23.00	22.43	21.89	21.75	22.25	22.24	20.54	22.93	---	---
6	24.30	24.32	22.89	22.50	22.07	21.59	22.24	22.26	20.72	23.00	---	---
7	24.15	24.33	22.89	22.62	22.18	21.50	22.10	22.32	20.83	23.03	---	---
8	24.05	24.28	22.94	22.74	22.35	21.53	22.30	22.42	20.99	23.07	---	---
9	24.20	24.15	22.98	22.69	22.40	21.65	22.36	22.36	21.18	23.05	---	---
10	24.40	24.15	23.15	22.53	22.40	21.75	22.44	22.20	21.33	23.11	---	---
11	24.55	24.19	23.20	22.82	22.40	21.60	22.50	22.27	21.49	23.15	---	---
12	24.45	24.23	23.10	23.01	22.62	21.37	22.52	22.31	21.55	23.17	---	---
13	24.45	24.31	23.09	23.05	22.61	21.66	22.48	22.26	21.65	23.16	---	---
14	24.40	24.39	22.85	23.05	22.62	21.76	22.45	22.18	21.73	23.18	---	---
15	24.55	24.41	22.70	22.98	22.69	21.76	22.24	22.19	21.74	23.27	---	---
16	24.45	24.40	22.83	22.93	22.81	21.35	22.38	22.23	21.74	23.37	---	---
17	24.40	24.39	22.87	22.96	22.75	21.63	22.49	22.26	21.73	23.40	---	24.45
18	24.35	24.43	22.82	23.06	22.63	21.65	22.50	22.43	21.78	23.41	---	24.50
19	24.20	24.42	22.79	23.00	22.52	21.67	22.51	22.47	21.98	23.47	---	24.48
20	24.20	24.38	21.89	23.13	22.47	21.70	22.43	22.40	22.04	23.54	---	24.58
21	24.25	24.34	21.97	23.14	22.15	21.60	22.43	22.39	22.03	23.54	---	24.62
22	24.30	24.27	22.19	23.03	22.42	21.55	22.45	22.38	22.01	23.55	---	24.62
23	24.30	24.21	22.46	22.62	22.55	21.55	22.43	22.45	22.10	23.50	---	24.57
24	24.10	24.22	22.51	22.56	22.57	21.71	22.42	22.55	22.10	23.56	---	24.58
25	24.30	24.24	22.55	22.55	22.55	21.83	22.48	22.61	22.21	23.55	---	24.48
26	24.45	24.29	22.57	22.71	22.40	22.00	22.46	22.61	22.27	23.53	---	24.58
27	24.50	24.37	22.54	22.71	21.89	22.04	22.45	22.59	22.34	23.60	---	24.59
28	24.55	24.37	21.95	22.55	21.98	21.93	22.48	22.53	22.34	23.65	---	24.54
29	24.55	24.30	---	22.55	---	22.02	22.47	22.41	22.50	23.74	24.08	24.51
30	24.50	23.33	---	22.53	---	---	22.60	22.30	22.74	23.81	24.10	24.67
31	24.45	---	22.52	22.45	---	22.15	---	22.29	---	23.87	24.20	---
MAX	24.55	24.43	23.20	23.14	22.81	22.15	22.60	22.76	22.74	23.87	24.20	24.67

CAL YR 1996 LOW 24.55
WTR YR 1997 LOW 24.67

GROUND-WATER RECORDS

Union County

303

402010083321900. LOCAL NUMBER, U-5

LOCATION.--Lat 40°20'10", long 83°32'19", Hydrologic Unit 05060001, east of East Liberty.

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, Division of Water.

PERIOD OF RECORD.--October 1991 to current year.

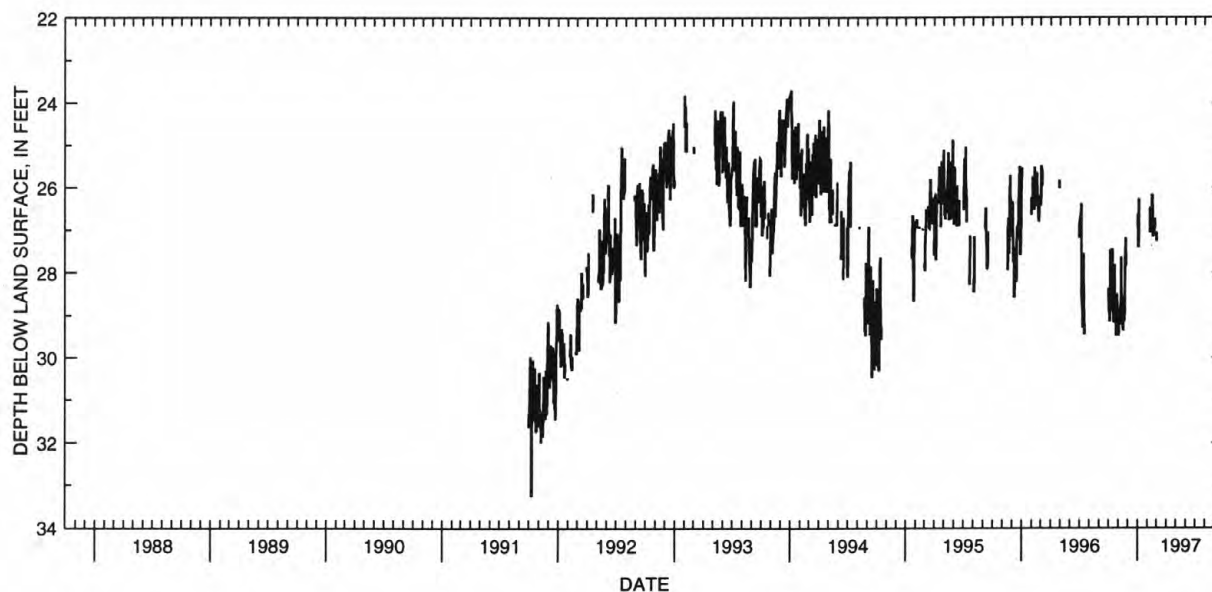
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 33.25 ft below land-surface datum, Oct. 10, 1991;
minimum daily low, 23.70 ft below land-surface datum, Jan. 4, 1994.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28.37	29.48	---	26.62	---	27.26	---	---	---	---	---	---
2	28.65	29.42	---	26.95	---	27.05	---	---	---	---	---	---
3	28.86	29.11	---	27.40	---	---	---	---	---	---	---	---
4	28.95	28.87	---	27.18	---	---	---	---	---	---	---	---
5	29.15	29.12	---	26.27	---	---	---	---	---	---	---	---
6	28.63	29.22	---	---	---	---	---	---	---	---	---	---
7	27.47	29.16	---	---	---	---	---	---	---	---	---	---
8	28.29	28.91	---	---	---	---	---	---	---	---	---	---
9	28.54	28.61	---	---	27.06	---	---	---	---	---	---	---
10	28.80	27.65	---	---	26.47	---	---	---	---	---	---	---
11	28.89	28.37	---	---	26.74	---	---	---	---	---	---	---
12	28.47	28.74	---	---	26.91	---	---	---	---	---	---	---
13	27.45	28.88	---	---	27.06	---	---	---	---	---	---	---
14	28.18	29.08	---	---	27.00	---	---	---	---	---	---	---
15	28.72	29.29	---	---	26.91	---	---	---	---	---	---	---
16	28.96	29.36	---	---	26.17	---	---	---	---	---	---	---
17	29.14	29.03	---	---	26.42	---	---	---	---	---	---	---
18	29.17	28.57	---	---	26.99	---	---	---	---	---	---	---
19	28.67	29.04	---	---	27.15	---	---	---	---	---	---	---
20	27.82	29.15	---	---	27.09	---	---	---	---	---	---	---
21	28.66	28.86	---	---	26.98	---	---	---	---	---	---	---
22	28.90	28.17	---	---	27.07	---	---	---	---	---	---	---
23	29.08	27.63	---	---	26.95	---	---	---	---	---	---	---
24	29.19	27.19	---	---	26.73	---	---	---	---	---	---	---
25	29.48	27.56	---	---	26.90	---	---	---	---	---	---	---
26	29.12	27.85	---	---	26.93	---	---	---	---	---	---	---
27	28.50	---	---	---	---	---	---	---	---	---	---	---
28	28.69	---	---	---	---	---	---	---	---	---	---	---
29	28.90	---	---	---	---	---	---	---	---	---	---	---
30	29.36	---	---	---	---	---	---	---	---	---	---	---
31	29.39	---	---	---	---	---	---	---	---	---	---	---
MAX	29.48	29.48	---	27.40	27.15	27.26	---	---	---	---	---	---

CAL YR 1996 LOW 29.48

WTR YR 1997 LOW 29.48



GROUND-WATER RECORDS

Vinton County

391452082282900. LOCAL NUMBER, V-1

LOCATION.--Lat 39°14'52", long 82°28'29", Hydrologic Unit 05090101, State Highway garage in McArthur.

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, Division of Water.

PERIOD OF RECORD.--September 1959 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 93.23 ft below land-surface datum, Apr. 12, 1979;

minimum daily low, 49.55 ft below land-surface datum, Mar. 20, 1963.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	81.10	80.83	80.60	80.77	81.45	81.48	81.29	81.98	82.15	82.55	83.53	82.18
2	81.09	80.78	80.63	80.67	81.54	81.17	81.43	82.04	82.01	82.42	83.50	82.18
3	81.03	80.85	80.72	80.60	81.62	81.17	81.43	82.01	81.97	82.36	83.43	82.22
4	81.17	80.90	80.83	80.59	81.62	81.38	81.34	82.12	81.97	82.40	83.30	82.26
5	81.13	80.90	80.83	80.53	81.61	81.38	81.34	82.12	81.92	82.42	83.23	82.24
6	81.09	80.92	80.66	80.72	81.61	81.63	81.26	82.21	81.97	82.42	83.31	82.17
7	80.91	80.83	80.62	80.74	81.59	81.67	81.38	82.25	81.97	82.42	83.32	82.07
8	80.80	80.64	80.63	80.75	81.53	81.78	81.51	82.21	81.97	82.57	83.31	81.98
9	80.93	80.68	80.74	80.66	81.55	81.79	81.56	82.11	81.96	82.55	83.30	81.86
10	81.17	80.69	80.75	80.38	81.49	81.59	81.60	82.16	81.96	82.61	83.26	81.76
11	81.32	80.85	80.53	80.59	81.48	81.58	81.59	82.16	81.97	82.65	83.26	81.84
12	81.33	80.91	80.57	80.69	81.55	81.70	81.43	81.94	81.97	82.71	83.20	81.92
13	81.33	80.93	80.70	80.75	81.59	81.70	81.43	81.92	81.82	82.66	83.10	81.93
14	81.24	80.92	80.73	80.78	81.45	81.55	81.55	81.83	81.92	82.58	82.98	81.88
15	81.28	80.99	80.73	80.71	81.48	81.63	81.58	81.90	82.02	82.64	82.85	81.83
16	81.24	80.96	80.64	80.64	81.55	81.70	81.58	82.02	82.01	82.80	82.85	81.83
17	81.25	80.90	80.35	80.71	81.55	81.70	81.55	82.01	82.04	82.88	82.82	81.81
18	81.17	80.82	80.37	80.84	81.53	81.62	81.51	81.93	82.02	82.98	82.67	81.86
19	81.14	80.72	80.51	81.17	81.55	81.59	81.46	81.97	82.07	83.04	82.60	81.86
20	81.10	80.70	80.64	81.18	81.56	81.42	81.48	82.11	82.19	83.13	82.52	81.83
21	81.10	80.69	80.65	81.29	81.51	81.38	81.45	82.21	82.27	83.09	82.48	81.89
22	81.10	80.77	80.60	81.27	81.63	81.49	81.38	82.29	82.46	83.09	82.47	81.87
23	80.97	80.77	80.50	81.45	81.68	81.58	81.39	82.32	82.51	83.07	82.52	81.76
24	81.02	80.71	80.54	81.46	81.72	81.65	81.65	82.27	82.54	83.10	82.45	81.81
25	81.04	80.66	80.64	81.50	81.72	81.57	81.82	82.26	82.54	83.16	82.36	81.65
26	81.15	80.83	80.66	81.53	81.53	81.48	81.96	82.17	82.62	83.19	82.34	81.67
27	81.17	80.95	80.54	81.53	81.37	81.48	81.96	82.30	82.73	83.19	82.29	81.64
28	81.12	80.97	80.54	81.59	81.48	81.37	81.74	82.40	82.73	83.15	82.30	81.60
29	81.03	80.90	80.66	81.64	---	81.27	81.82	82.40	82.73	83.24	82.34	81.35
30	80.84	80.79	80.73	81.64	---	81.27	81.86	82.39	82.68	83.44	82.29	81.34
31	80.92	---	80.77	81.47	---	81.18	---	82.37	---	83.57	82.21	---
MAX	81.33	80.99	80.83	81.64	81.72	81.79	81.96	82.40	82.73	83.57	83.53	82.26

CAL YR 1996 LOW 82.27
WTR YR 1997 LOW 83.57



GROUND-WATER RECORDS

Warren County

305

392712084191700. LOCAL NUMBER, W-5

LOCATION.--Lat 39°27'12", long 84°19'17", Hydrologic Unit 05080002, Union Rd., 2 mi east of Monroe.

Owner: Bob Proeschel.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 12 in., depth 121 ft, cased.

INSTRUMENTATION.--Type F continuous recorder.

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, Division of Water.

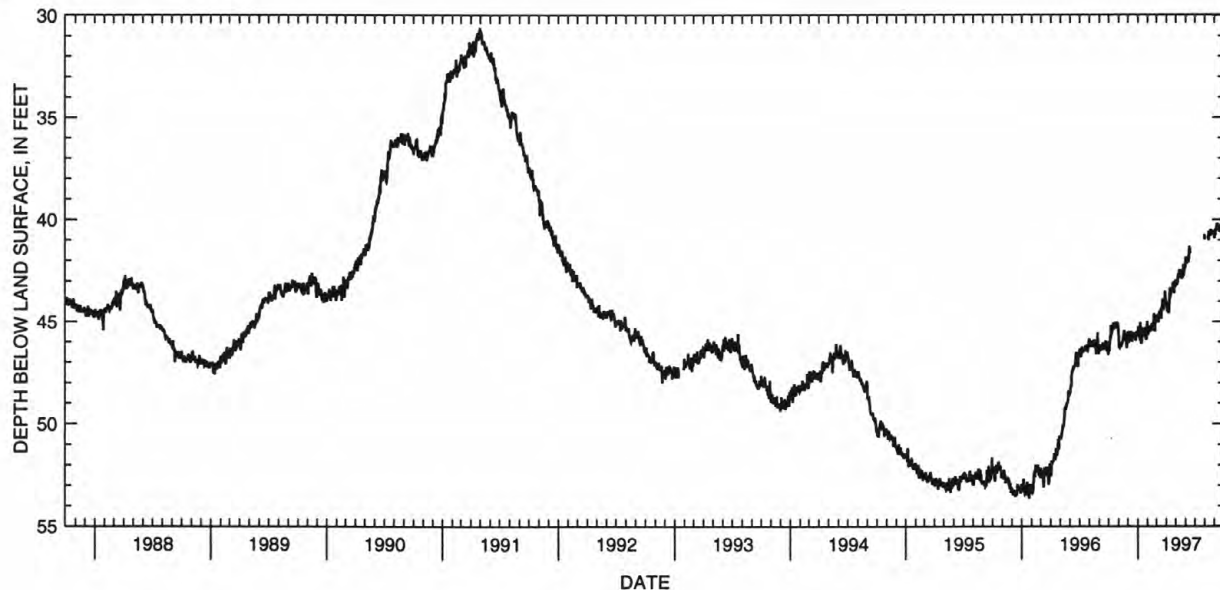
PERIOD OF RECORD.--March 1972 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 53.65 ft below land-surface datum, Jan. 25, 1996;
minimum daily low, 17.70 ft below land-surface datum, Apr. 30, 1975.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46.45	45.65	45.65	45.55	45.35	44.70	44.15	43.15	41.85	---	40.75	40.90
2	46.40	46.20	45.80	45.30	45.50	44.95	44.05	43.10	42.00	---	---	40.60
3	46.45	46.25	45.90	45.30	45.65	44.70	44.20	43.05	41.90	---	---	40.75
4	46.10	46.30	46.05	45.30	45.25	44.80	44.50	43.20	42.15	---	---	40.75
5	45.95	46.15	45.55	45.60	45.50	44.65	44.20	43.15	42.10	---	---	40.50
6	45.70	46.25	45.50	45.80	45.55	44.95	44.30	43.05	42.00	---	---	40.50
7	45.85	46.20	45.60	45.85	45.40	45.05	44.50	43.05	41.85	---	---	40.55
8	45.20	46.05	45.70	45.80	45.40	44.85	44.50	42.70	41.95	---	---	40.35
9	45.40	46.25	45.85	45.05	45.50	44.70	44.60	42.70	42.05	---	---	40.25
10	45.65	46.05	45.50	45.70	45.30	44.50	44.30	42.85	42.05	---	---	40.20
11	45.55	46.15	45.55	45.85	45.25	44.65	44.00	42.65	41.75	---	---	40.35
12	45.45	46.10	45.75	46.05	45.40	44.80	43.35	42.50	41.70	---	40.95	40.35
13	45.20	46.05	45.95	46.05	45.30	44.60	43.70	42.50	41.30	---	40.75	40.45
14	45.25	45.95	45.95	45.95	45.10	44.40	43.80	42.50	41.65	---	41.00	40.40
15	45.10	45.90	45.70	45.30	45.35	44.70	43.70	42.70	41.55	---	40.60	40.40
16	45.10	45.70	45.60	45.65	45.40	44.85	43.40	42.80	---	---	40.75	40.25
17	45.40	45.65	45.55	45.70	45.45	44.35	43.40	42.65	---	---	40.65	40.60
18	45.10	45.60	45.75	45.70	45.20	44.30	43.40	42.65	---	---	40.80	40.35
19	45.15	45.45	45.75	45.50	45.15	44.20	43.40	42.65	---	---	40.65	40.30
20	45.05	45.55	45.80	45.65	45.05	44.00	43.45	42.90	---	---	40.50	40.35
21	45.15	45.80	45.80	45.70	44.60	43.90	43.25	42.80	---	---	40.60	40.40
22	45.05	45.95	45.70	45.40	45.25	44.20	43.20	42.80	---	---	40.60	40.30
23	45.10	45.85	45.55	45.70	45.45	44.40	43.05	42.70	---	---	40.75	40.65
24	45.35	45.85	45.80	45.30	45.45	44.40	43.35	42.50	---	---	40.70	40.50
25	45.25	45.80	45.95	45.75	45.10	43.90	43.50	42.20	---	---	40.65	40.00
26	45.25	46.20	45.60	45.90	44.70	44.20	43.60	42.75	---	---	40.65	40.20
27	45.35	46.30	45.60	45.60	44.95	44.00	43.15	42.50	---	---	40.60	40.10
28	45.25	46.15	45.50	45.80	45.05	43.50	43.00	42.45	---	---	40.60	40.00
29	45.05	45.80	45.75	45.90	---	43.90	43.30	42.40	---	---	40.60	40.20
30	45.25	45.50	45.60	45.40	---	43.90	42.95	42.35	41.05	---	40.60	40.45
31	45.35	---	45.70	45.00	---	44.05	---	42.15	---	40.95	40.60	---
MAX	46.45	46.30	46.05	46.05	45.65	45.05	44.60	43.20	42.15	40.95	41.00	40.90

CAL YR 1996 LOW 53.65
WTR YR 1997 LOW 46.45



GROUND-WATER RECORDS

Warren County

392712084191700. LOCAL NUMBER, W-5—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE		LOCAL IDENT- I- FIER	DATE		TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN)	FLOW RATE (G/M)	SPE- CIFIC CON- DUCT- ANCE (US/CM)
AUG 12...	W-5		970812	1115	40.40	121.00	105	7.0	887	
DATE	PH WATER WHOLE FIELD (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFIDE WATER, FLTRD, FIELD, (MG/L)	SILICA, DIS- SOLVED (MG/L AS SIO2)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)
AUG 12...	6.9	13.5	0.1	130	31	15	360	0.00	15	<0.010
DATE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)
AUG 12...	<0.050	0.192	0.37	<0.010	<0.010	58	<0.50	1.7	5.5	<10
DATE	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
AUG 12...	6200	16	5	85	<10	<10	<1.0	251	<6	7.6

GROUND-WATER RECORDS Washington County

307

392553081281600. LOCAL NUMBER, WA-2

LOCATION.--Lat 39°25'53", long 81°28'16", Hydrologic Unit 05040004, near county fairgrounds north of Marietta.
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, Division of Water.

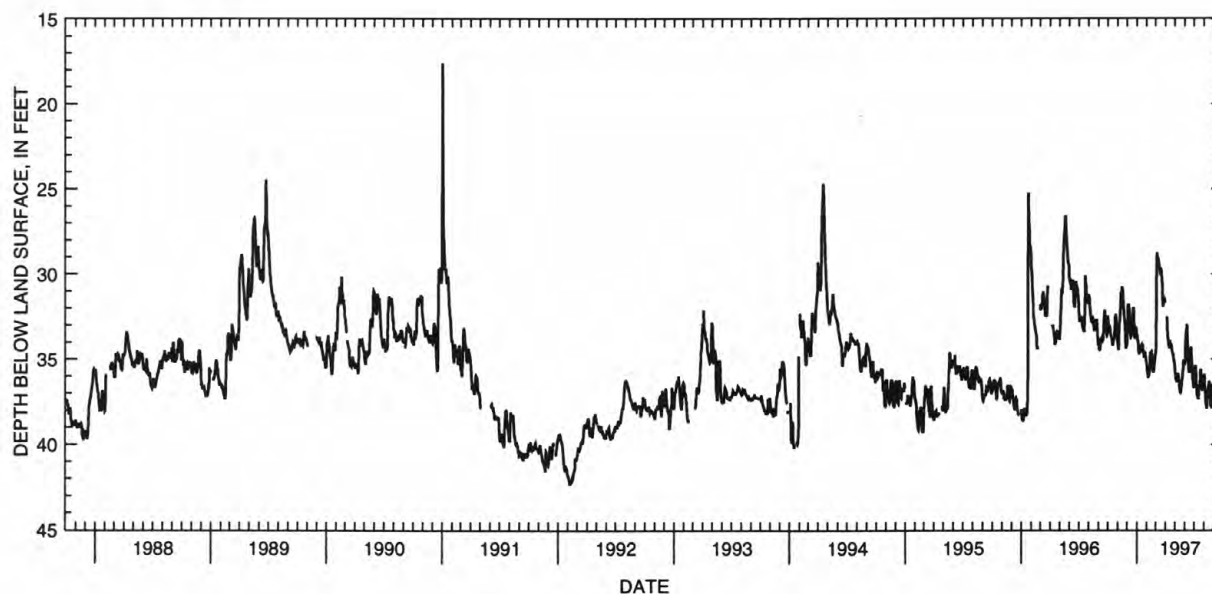
PERIOD OF RECORD.--August 1971 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 42.30 ft below land-surface datum, Feb. 7-8, 1992;
minimum daily low, 17.60 ft below land-surface datum, Jan. 2, 1991.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32.45	34.05	34.10	33.55	35.35	34.70	---	35.50	35.30	36.65	36.20	36.60
2	32.85	34.25	33.15	33.70	35.55	34.45	---	35.75	35.35	36.20	35.95	37.05
3	32.95	34.40	32.70	33.85	35.75	33.15	---	36.00	34.50	35.75	35.95	37.70
4	33.05	34.45	31.75	33.95	35.80	30.15	---	36.15	34.00	35.55	36.40	38.00
5	33.05	33.70	32.00	34.10	36.05	28.75	---	36.20	33.55	35.45	36.95	38.15
6	33.05	33.00	32.00	34.45	36.05	28.85	32.50	36.25	33.35	35.40	37.30	---
7	33.10	32.80	31.95	34.65	36.00	29.45	32.95	36.30	33.30	35.75	37.50	---
8	33.15	32.65	32.10	34.70	35.90	29.40	33.45	36.30	32.95	36.35	37.65	---
9	33.45	32.30	32.60	34.60	35.80	29.25	33.75	36.20	33.25	36.75	37.75	---
10	33.60	31.75	32.65	34.45	35.85	29.20	33.95	36.10	33.90	37.00	37.85	---
11	33.65	31.05	33.25	34.40	35.40	29.30	34.10	35.90	34.45	37.15	37.85	---
12	33.70	31.10	33.60	34.35	34.75	29.50	34.20	35.85	35.00	37.15	37.50	---
13	33.75	31.15	33.70	34.40	34.55	29.60	34.30	36.15	35.55	37.30	37.05	---
14	33.95	31.05	33.65	34.25	34.65	29.55	34.30	36.40	35.65	37.30	36.80	---
15	34.05	30.75	33.50	34.20	34.65	29.85	34.05	36.55	35.75	37.30	36.65	---
16	34.15	30.95	33.30	34.15	34.60	29.80	33.90	36.75	35.75	36.60	36.60	---
17	34.15	31.00	32.90	34.25	34.70	29.70	34.10	36.80	34.85	36.60	36.50	---
18	33.95	31.30	32.55	34.20	35.25	29.70	34.20	36.90	34.55	36.60	36.30	---
19	33.85	31.65	32.35	34.10	35.60	29.95	34.20	37.00	34.55	36.60	36.45	---
20	33.85	32.10	32.05	34.35	35.65	29.95	34.10	37.00	34.45	36.20	36.80	---
21	33.75	32.25	31.95	34.60	35.70	30.45	34.40	36.70	34.35	35.75	37.15	---
22	33.45	32.50	32.10	34.65	35.75	30.60	34.50	36.55	34.35	35.60	37.60	---
23	33.15	32.75	32.80	34.85	35.75	31.40	34.55	36.35	34.90	35.94	37.75	---
24	32.55	32.95	33.60	34.85	35.60	31.80	34.70	36.20	35.15	36.40	37.75	---
25	32.55	33.50	33.80	34.70	35.40	31.90	34.70	35.95	35.65	36.75	37.80	---
26	32.35	34.10	33.75	34.65	35.15	31.80	34.65	35.80	36.00	36.85	37.75	---
27	32.65	34.30	33.35	34.55	35.00	31.60	35.05	35.65	36.30	36.75	37.40	---
28	33.30	34.30	33.15	34.75	34.75	31.55	35.05	35.10	36.40	36.50	36.70	---
29	33.50	34.20	33.10	34.90	---	31.45	35.20	35.10	36.60	36.35	36.45	---
30	33.60	34.15	33.25	35.05	---	31.50	35.35	35.15	36.70	36.20	36.60	---
31	33.80	---	33.45	35.15	---	31.65	---	35.20	---	36.30	36.60	---
MAX	34.15	34.45	34.10	35.15	36.05	34.70	35.35	37.00	36.70	37.30	37.85	38.15

CAL YR 1996 LOW 38.60
WTR YR 1997 LOW 38.15



GROUND-WATER RECORDS

Washington County

393241081353500. LOCAL NUMBER, WA-3

LOCATION.--Lat 39°32'41", long 81°35'35", Hydrologic Unit 05040004 near Beverly.

Owner: Tri-County Rural Water Association.

AQUIFER.--Sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth, 49 ft, cased.

INSTRUMENTATION.--Type F continuous recorder.

DATUM.--Elevation of land-surface datum is 620 ft above sea level, from topographic map.

Measuring point: Floor of instrument shelter 3.25 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

PERIOD OF RECORD.--November 1992 to current year.

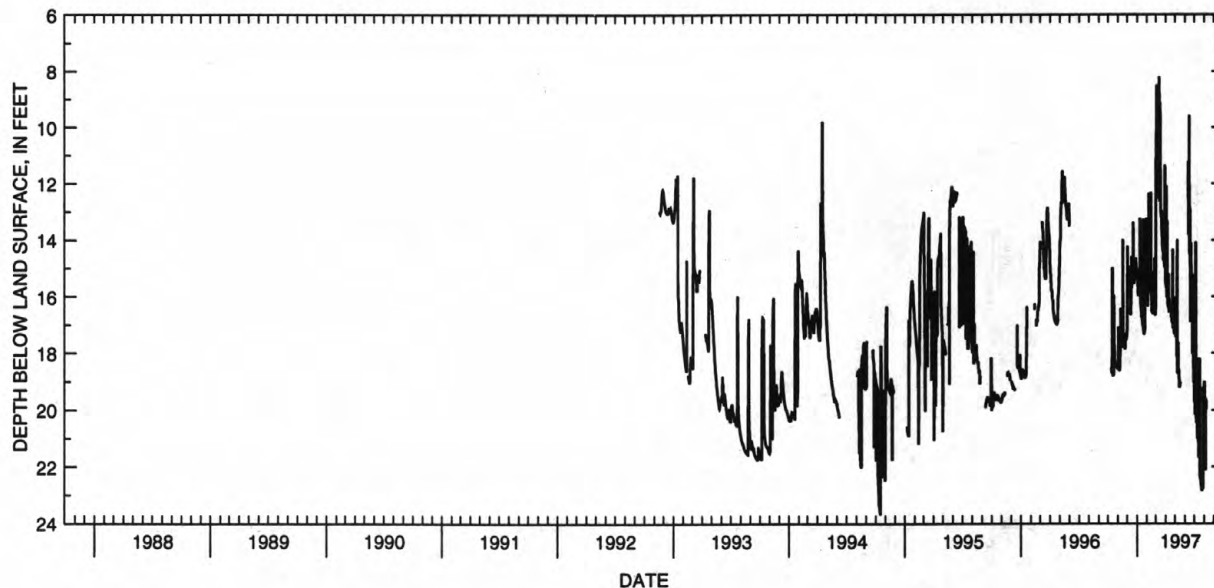
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 23.69 ft below land-surface datum, Oct. 16, 1994;
minimum daily low, 8.21 ft below land-surface datum, Mar. 12, 1997.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	18.47	17.15	15.24	14.97	16.44	15.52	17.27	---	18.33	21.49	---
2	---	18.43	14.22	15.17	16.01	10.20	15.51	17.33	---	19.72	19.00	---
3	---	17.08	14.99	15.54	16.09	11.02	15.69	17.43	---	17.62	21.72	---
4	---	18.41	14.91	15.89	16.34	8.50	12.08	16.04	---	20.16	20.94	---
5	---	18.16	15.96	15.96	14.69	11.60	16.04	17.15	---	17.69	22.11	---
6	---	18.59	16.00	15.96	15.50	11.71	14.67	16.99	---	14.07	19.67	---
7	---	18.62	15.91	15.96	12.35	12.27	13.33	18.11	---	20.26	19.66	---
8	---	18.19	15.97	15.84	15.17	12.52	16.24	14.00	---	20.45	19.98	---
9	---	17.99	16.09	15.88	15.18	12.44	16.32	18.71	---	18.17	---	---
10	---	16.43	14.97	13.24	15.40	11.77	16.37	18.60	---	20.22	---	---
11	18.57	16.46	16.41	14.39	15.67	10.43	15.20	17.63	---	20.97	---	---
12	18.52	17.60	16.65	16.19	15.74	8.21	16.56	18.57	11.22	21.02	---	---
13	18.66	17.41	16.23	16.36	15.89	12.29	16.09	18.59	13.81	20.74	---	---
14	18.71	17.59	14.59	16.36	12.32	12.64	16.46	18.92	13.78	21.14	---	---
15	14.99	17.64	15.69	16.73	16.12	9.13	16.41	19.20	9.58	21.66	---	---
16	18.64	17.80	15.53	16.57	15.87	11.52	16.51	19.15	14.49	21.36	---	---
17	18.81	13.99	15.34	16.78	16.55	12.97	16.55	19.03	13.84	19.08	---	---
18	18.67	17.76	14.73	16.90	16.34	13.17	16.41	---	12.87	18.19	---	---
19	18.77	17.73	14.73	17.07	16.61	12.95	16.74	---	16.88	22.33	---	---
20	15.94	17.73	13.38	13.27	16.59	13.51	16.56	---	16.81	22.42	---	---
21	18.47	17.60	14.88	17.14	15.18	13.85	16.69	---	14.11	22.39	---	---
22	17.69	17.75	14.83	17.24	15.18	14.21	16.90	---	15.62	22.60	---	---
23	18.35	17.75	15.56	17.35	15.56	14.39	16.81	---	16.58	22.59	---	---
24	18.41	17.86	15.11	17.21	16.40	13.26	14.33	---	15.70	22.79	---	---
25	18.31	17.81	14.78	17.26	16.44	14.65	17.11	---	15.22	22.84	---	---
26	18.41	17.32	14.89	16.94	14.64	14.63	16.04	---	18.03	22.74	---	---
27	18.47	17.37	14.78	13.28	15.64	14.70	17.10	---	16.95	22.72	---	---
28	18.40	17.44	14.64	16.24	16.67	14.68	17.17	---	18.51	22.77	---	---
29	18.49	17.46	14.81	16.03	---	14.97	17.32	---	18.49	19.19	---	---
30	18.51	17.34	15.02	13.24	---	11.35	17.23	---	19.03	21.58	---	---
31	18.56	---	15.37	15.54	---	11.46	---	---	---	21.44	---	---
MAX	18.81	18.62	17.15	17.35	16.67	16.44	17.32	19.20	19.03	22.84	22.11	---

CAL YR 1996 LOW 18.90

WTR YR 1997 LOW 22.84



GROUND-WATER RECORDS

Washington County

309

393241081353500. LOCAL NUMBER, WA-3—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	LOCAL IDENT- I- FIER	DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN)	FLOW RATE (G/M)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH WATER WHOLE FIELD (STAND- ARD UNITS)	
JUN 12...	WA-3 NR. BEVERLY	970612	1032	10.95	49.00	22	10.0	625	7.2	
DATE	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFIDE WATER, FLTRD, AS FIELD, (MG/L)	SILICA, DIS- SOLVED (MG/L AS SIO2)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
JUN 12...	13.0	0.7	100	20	8.0	222	0.00	12	<0.010	7.99
DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHORUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)
JUN 12...	<0.015	<0.20	<0.010	<0.010	95	0.53	1.0	<5.0	<3.0	<10
DATE	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
JUN 12...	<3.0	11	6	<1.0	<10	<10	<1.0	168	<6	4.9

GROUND-WATER RECORDS

Wayne County

404655081553200. LOCAL NUMBER, WN-3

LOCATION.--Lat 40°46'55", long 81°55'32", Hydrologic Unit 05040003, OARDC-OSU Experiment Station near Wooster.

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 1040 ft above sea level, from topographic map.

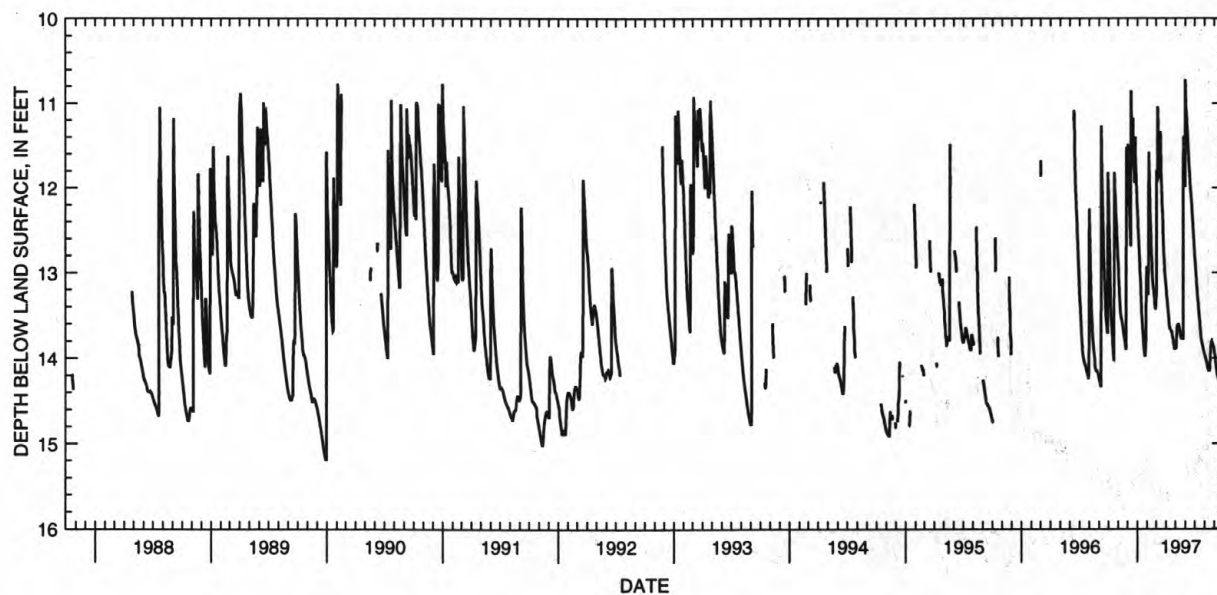
Measuring point: Floor of instrument shelter 3.50 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

PERIOD OF RECORD.--June 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, 10.43 ft below land-surface datum, Apr. 6, 1987.DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.06	12.88	12.14	12.25	13.01	13.31	13.15	13.88	10.72	12.81	13.95	13.93
2	12.24	12.96	11.48	12.35	13.09	13.25	13.20	13.88	10.89	12.86	13.97	13.95
3	12.43	13.05	11.71	12.45	13.19	11.79	13.26	13.88	11.05	12.91	13.98	13.98
4	12.64	13.14	11.87	12.54	13.26	11.85	13.30	13.84	11.08	12.96	13.99	14.02
5	12.82	13.23	12.00	12.63	12.82	11.93	13.34	13.72	11.14	13.01	14.01	14.05
6	12.99	13.31	12.12	12.69	11.58	11.04	13.37	13.66	11.22	13.07	14.02	14.08
7	13.20	13.38	12.24	12.78	11.74	11.18	13.41	13.62	11.29	13.12	14.04	14.11
8	13.39	13.44	12.36	12.88	11.88	11.46	13.45	13.62	11.36	13.18	14.06	14.14
9	13.53	13.49	12.49	12.97	12.02	11.67	13.49	13.62	11.44	13.24	14.08	14.17
10	13.58	13.52	12.60	13.05	12.16	11.68	13.55	13.61	11.52	13.28	14.10	14.19
11	13.62	13.54	12.69	13.14	12.31	11.48	13.59	13.61	11.59	13.32	14.12	14.21
12	13.69	13.55	10.85	13.24	12.45	11.69	13.64	13.62	11.67	13.36	14.13	14.22
13	13.75	13.57	11.13	13.33	12.58	11.85	13.65	13.64	11.74	13.40	14.14	14.23
14	13.82	13.59	11.43	13.43	12.71	11.89	13.65	13.66	11.79	13.45	14.14	14.25
15	13.89	13.62	11.64	13.51	12.81	11.34	13.66	13.69	11.86	13.49	14.14	14.26
16	13.95	13.65	11.74	13.57	12.90	11.61	13.67	13.71	11.92	13.54	14.14	14.28
17	13.99	13.68	11.76	13.63	12.99	11.80	13.68	13.73	11.98	13.58	14.14	14.30
18	14.03	13.71	11.18	13.69	13.09	11.94	13.69	13.76	12.04	13.63	14.11	14.32
19	13.17	13.73	11.50	13.75	13.14	12.07	13.69	13.77	12.08	13.67	13.97	14.34
20	11.82	13.75	11.63	13.81	13.18	12.17	13.71	13.77	12.13	13.72	13.88	14.36
21	11.89	13.78	11.74	13.87	13.20	12.27	13.73	13.75	12.18	13.76	13.83	14.36
22	11.99	13.79	11.84	13.92	13.23	12.38	13.75	13.74	12.24	13.79	13.81	14.36
23	12.09	13.83	11.93	13.95	13.27	12.51	13.77	13.75	12.31	13.81	13.80	14.36
24	12.19	13.86	11.94	13.97	13.31	12.65	13.79	13.77	12.37	13.83	13.82	14.36
25	12.28	13.89	11.40	13.97	13.36	12.76	13.83	13.78	12.44	13.84	13.82	14.36
26	12.38	13.89	11.63	13.95	13.41	12.82	13.85	11.69	12.51	13.86	13.83	14.36
27	12.46	11.52	11.75	13.86	13.43	12.89	13.88	11.39	12.57	13.88	13.84	14.37
28	12.55	11.79	11.86	13.80	13.42	12.96	13.89	11.58	12.63	13.89	13.85	14.38
29	12.63	11.95	11.96	13.14	---	13.02	13.89	11.74	12.69	13.91	13.86	14.39
30	12.72	12.10	12.06	12.93	---	13.08	13.89	11.89	12.75	13.93	13.88	14.40
31	12.80	---	12.16	12.96	---	13.11	---	11.99	---	13.94	13.90	---
MAX	14.03	13.89	12.69	13.97	13.43	13.31	13.89	13.88	12.75	13.94	14.14	14.40
CAL YR 1996	LOW 14.33											
WTR YR 1997	LOW 14.40											



GROUND-WATER RECORDS

311

Wayne County

404802081583100. LOCAL NUMBER, WN-2A

LOCATION.--Lat 40°48'02", long 81°58'31", Hydrologic Unit 05040003, in well field by Killbuck Creek near Wooster.
 Owner: Wooster Water Dept.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled test water table well, diameter 6 in., depth 65 ft, cased.

INSTRUMENTATION.--Digital recorder--60-minute punch.

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, Division of Water.

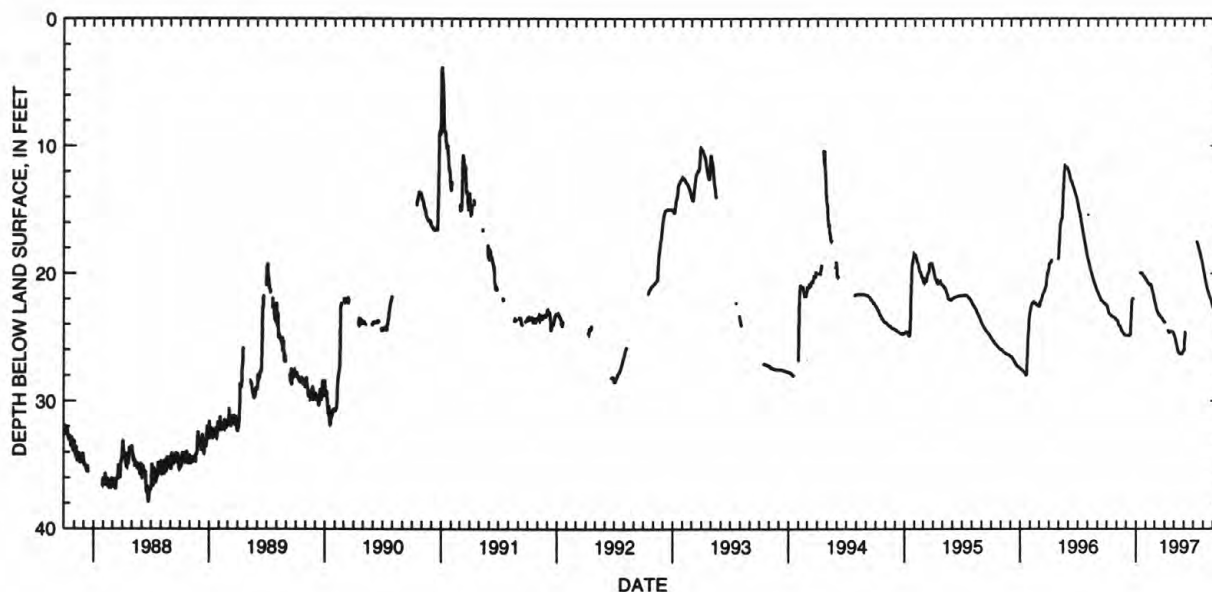
PERIOD OF RECORD.--July 1951 to current year.

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 1996 TO SEPTEMBER 1997
 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.54	23.69	24.89	---	20.48	22.20	23.87	24.82	26.06	---	19.65	22.62
2	22.60	23.69	24.89	---	20.49	22.29	23.91	24.91	25.93	---	19.77	22.70
3	22.70	23.70	24.89	---	20.55	22.42	---	24.98	25.53	---	19.89	22.78
4	22.81	23.77	24.90	---	20.59	22.54	---	25.06	24.84	---	20.01	22.87
5	22.93	23.85	24.90	---	20.66	22.65	---	25.15	24.57	---	20.15	22.95
6	23.02	23.96	24.90	---	20.71	22.76	---	25.26	---	---	20.27	23.02
7	23.10	24.07	24.91	---	20.74	22.86	---	25.36	---	---	20.41	23.09
8	23.15	24.12	24.91	---	20.75	22.92	---	25.49	---	---	20.55	23.17
9	23.19	24.14	24.87	---	20.75	22.97	---	25.61	---	---	20.68	23.26
10	23.23	24.14	24.87	---	20.77	23.04	---	25.70	---	---	20.76	23.36
11	23.24	24.15	24.87	---	20.82	23.10	24.47	25.82	---	17.49	20.88	23.44
12	23.26	24.19	24.88	---	20.86	23.17	24.52	25.91	---	17.54	20.99	23.53
13	23.27	24.24	24.87	19.91	20.90	23.20	24.57	26.05	---	17.58	21.10	23.59
14	23.29	24.36	24.81	19.94	20.92	23.25	24.64	26.16	---	17.66	21.20	23.65
15	23.33	24.49	24.22	19.96	20.93	23.28	24.68	26.22	---	17.75	21.31	23.74
16	23.36	24.52	23.55	19.97	20.93	23.28	24.68	26.25	---	17.85	21.39	23.85
17	23.39	24.54	23.07	20.00	20.92	23.34	24.64	26.26	---	17.96	21.48	23.99
18	23.39	24.57	22.58	20.01	21.00	23.38	24.61	26.28	---	18.07	21.57	24.09
19	23.41	24.60	22.11	20.01	21.09	23.42	24.61	26.29	---	18.17	21.62	24.18
20	23.41	24.64	22.02	20.02	21.20	23.45	24.60	26.29	---	18.25	21.73	24.24
21	23.41	24.68	22.00	20.05	21.30	23.47	24.58	26.31	---	18.35	21.80	24.32
22	23.42	24.71	22.00	20.09	21.42	23.49	24.58	26.34	---	18.45	21.88	24.38
23	23.43	24.76	21.92	20.14	21.49	23.52	24.60	26.36	---	18.57	21.95	24.45
24	23.46	24.79	---	20.18	21.59	23.56	24.60	26.36	---	18.68	21.99	24.54
25	23.47	24.83	---	20.21	21.72	23.59	24.62	26.36	---	18.79	22.06	24.60
26	23.51	24.86	---	20.22	21.83	23.64	24.62	26.36	---	18.90	22.15	24.71
27	23.52	24.88	---	20.27	21.97	23.68	24.62	26.23	---	18.99	22.24	24.77
28	23.57	24.88	---	20.32	22.10	23.74	24.62	26.17	---	19.09	22.34	24.82
29	23.60	24.88	---	20.37	---	23.76	24.68	26.16	---	19.22	22.43	24.89
30	23.63	24.89	---	20.39	---	23.79	24.76	26.11	---	19.37	22.51	24.96
31	23.66	---	---	20.44	---	23.83	---	26.09	---	19.51	22.57	---
MAX	23.66	24.89	24.91	20.44	22.10	23.83	24.76	26.36	26.06	19.51	22.57	24.96

CAL YR 1996 LOW 27.97
 WTR YR 1997 LOW 26.36



GROUND-WATER RECORDS

Wayne County

405745081510200. LOCAL NUMBER, WN-7

LOCATION.--Lat 40°57'45", long 81°51'02", Hydrologic Unit 05040001, in well field along Steele Ditch near Sterling.

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.--Type F continuous recorder.

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, Division of Water.

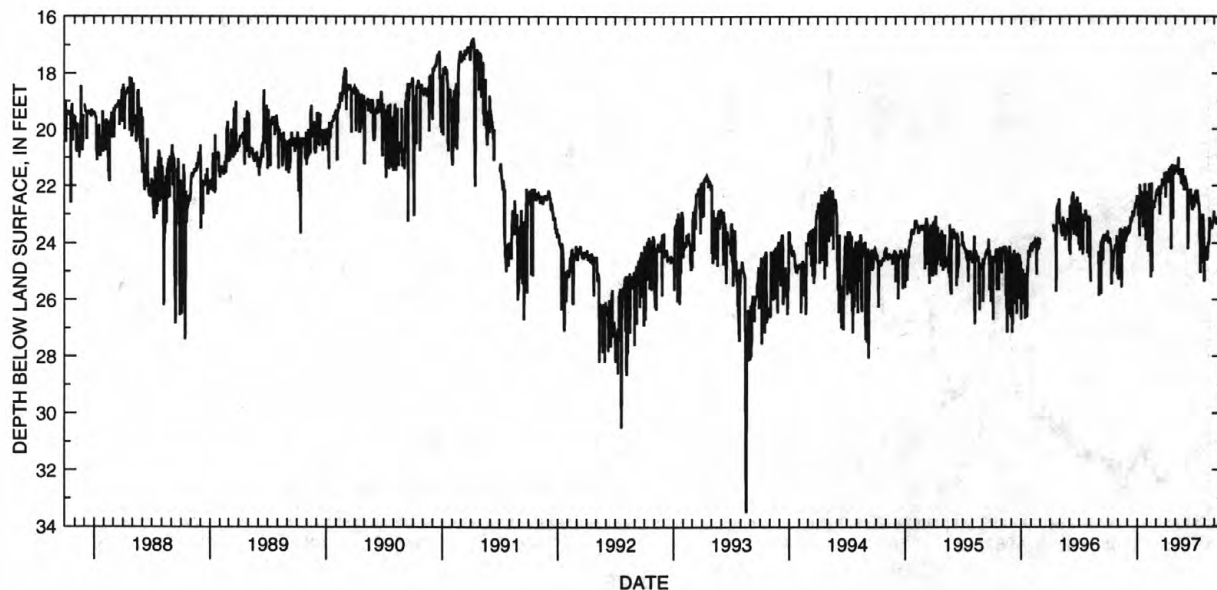
PERIOD OF RECORD.--April 1979 to current year.

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 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.00	23.95	23.70	22.35	22.60	22.35	22.40	21.30	21.65	22.30	24.55	23.20
2	23.80	25.25	23.70	22.50	22.35	22.30	21.60	21.30	21.90	22.35	24.55	23.20
3	23.95	25.10	23.50	22.60	22.20	22.20	21.50	21.35	21.75	22.30	24.35	23.20
4	23.90	25.25	23.55	23.05	24.30	22.35	21.65	21.50	21.80	22.25	24.15	23.25
5	23.80	25.25	23.40	22.80	23.70	22.10	21.55	21.35	22.15	22.15	24.15	23.20
6	23.90	24.90	23.60	22.80	22.20	22.25	21.60	21.50	21.90	22.25	24.30	23.25
7	23.85	23.70	23.65	22.90	23.80	22.20	21.60	21.50	22.05	22.60	24.35	23.30
8	23.90	23.60	23.60	23.55	21.95	22.20	21.50	21.35	22.10	22.50	24.30	23.20
9	24.05	23.50	23.55	23.75	21.95	22.15	21.55	21.30	22.30	22.50	24.55	23.35
10	24.10	23.55	23.40	21.95	23.85	22.05	21.90	21.35	24.20	22.15	24.60	23.25
11	24.10	24.80	23.30	23.00	24.30	22.05	21.50	21.00	23.50	22.35	24.40	23.10
12	25.45	23.55	23.10	22.40	23.00	22.10	21.40	21.60	22.85	22.45	24.20	23.15
13	24.65	25.55	23.25	22.40	25.20	22.70	21.45	21.45	22.55	22.55	24.00	23.15
14	25.00	24.75	23.25	22.35	23.80	23.00	21.65	21.40	22.30	22.70	24.00	23.30
15	24.95	23.65	23.15	22.20	21.90	22.15	21.45	21.50	22.25	22.60	24.05	23.30
16	25.00	23.55	23.20	22.55	21.95	22.30	21.35	21.40	22.25	22.85	23.80	23.30
17	24.90	23.70	23.05	23.00	25.00	22.10	21.35	21.65	22.20	23.95	23.15	23.30
18	24.60	23.55	22.90	22.75	23.50	22.10	24.20	21.65	22.15	23.20	23.15	23.35
19	24.35	23.55	23.10	23.45	22.55	22.00	21.40	21.70	22.15	25.05	23.30	23.30
20	24.25	23.85	23.05	22.90	22.60	22.05	21.45	21.90	22.35	23.30	23.35	23.25
21	24.25	24.35	23.05	22.75	22.60	21.75	21.40	21.90	22.35	23.25	23.25	23.15
22	24.15	23.50	23.00	22.65	22.70	21.95	21.25	21.85	22.55	23.20	23.30	23.30
23	24.10	23.55	22.90	22.45	22.75	22.00	21.30	21.85	22.75	24.70	23.25	24.50
24	24.05	23.45	22.85	22.25	22.75	21.90	23.15	21.90	22.80	23.00	23.50	23.55
25	24.15	23.50	22.75	21.95	22.60	21.90	21.40	21.40	22.85	23.05	23.45	23.50
26	24.05	23.95	22.70	21.95	22.55	21.90	21.50	21.95	22.70	23.20	23.35	23.50
27	24.15	23.70	22.60	22.70	22.55	21.85	21.50	21.95	22.70	23.00	23.25	23.55
28	23.90	23.80	22.75	23.90	22.50	21.55	21.60	22.00	22.65	23.15	23.35	23.50
29	23.75	23.70	22.60	23.70	---	21.70	21.45	22.15	22.75	23.40	23.20	23.35
30	25.10	23.60	22.50	23.85	---	21.65	21.50	22.05	22.70	23.55	23.10	23.80
31	24.30	---	22.55	22.40	---	21.70	---	21.75	---	25.35	22.90	---
MAX	25.45	25.55	23.70	23.90	25.20	23.00	24.20	22.15	24.20	25.35	24.60	24.50

CAL YR 1996 LOW 26.70

WTR YR 1997 LOW 25.55



GROUND-WATER RECORDS

Wayne County

313

405745081510200. LOCAL NUMBER, WN-7—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

				DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN)	FLOW RATE (G/M)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH WATER WHOLE FIELD (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)		
DATE	LOCAL IDENT- I- FIER			DATE	TIME							
JUL 01...WN-7				970701	1204	21.82	123.00	94	10.0	816	7.6	11.5
DATE	OXYGEN, DIS- SOLVED (MG/L)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFIDE WATER, FLTRD, FIELD, (MG/L)	SILICA, DIS- SOLVED (MG/L AS SIO2)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)
JUL 01...	0.1	89	30	44	182	0.011	13	27	<0.50	<1.0	<5.0	4.5
DATE	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	
JUL 01...	<10	690	17	27	91	27	<10	<1.0	1570	<6	<3.0	

GROUND-WATER RECORDS

Wayne County

405805081462300. LOCAL NUMBER, WN-6

LOCATION.--Lat 40°58'05", long 81°46'23", Hydrologic Unit 05040001, Salt Street, Rittman.

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.

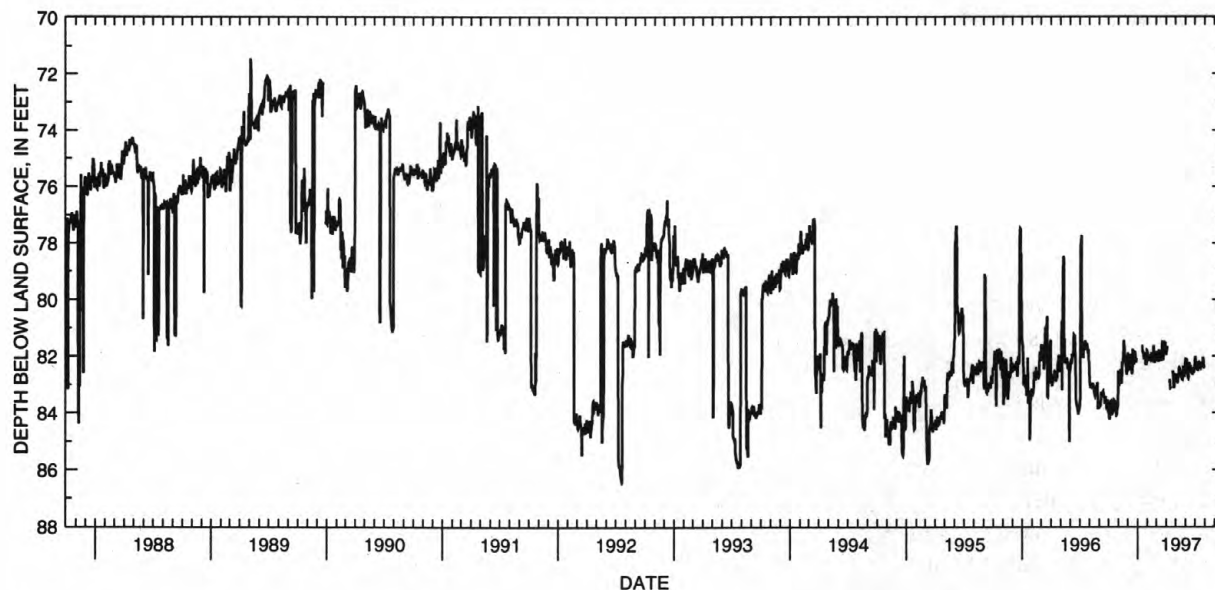
Measuring point: Floor of instrument shelter 2.30 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

PERIOD OF RECORD.--May 1971 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 92.80 ft below land-surface datum, July 21, 1971;
minimum daily low, 69.87 ft below land-surface datum, Apr. 22, 1984.DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	83.98	82.53	81.90	---	81.82	81.95	81.93	82.74	82.22	82.31	---	---
2	83.92	82.82	82.22	---	81.91	81.94	81.96	82.83	82.08	82.12	---	---
3	84.16	83.03	82.22	---	82.17	81.94	81.87	82.66	82.16	82.02	---	---
4	84.25	83.06	82.49	---	82.13	81.89	81.72	82.85	82.16	82.17	---	---
5	84.19	82.89	82.48	---	81.99	81.89	81.66	82.85	82.15	82.42	---	---
6	84.08	82.93	82.07	---	82.05	81.97	---	82.92	82.11	82.44	---	---
7	83.82	82.71	81.98	---	82.04	82.18	---	82.94	82.60	82.47	---	---
8	83.61	82.47	81.95	---	82.03	82.18	---	82.94	82.68	82.47	---	---
9	83.60	82.60	82.37	---	82.06	82.18	---	82.63	82.74	82.38	---	---
10	83.93	82.77	82.37	---	82.06	81.78	---	82.74	82.79	82.49	---	---
11	84.10	82.94	82.14	---	81.97	81.89	---	82.74	82.73	82.52	---	---
12	84.05	82.97	82.24	---	82.14	82.08	82.95	82.44	82.53	82.45	---	---
13	83.91	82.22	82.54	---	82.21	82.09	82.83	82.41	82.24	82.37	---	---
14	83.98	82.26	82.62	---	81.89	82.00	83.07	82.42	82.51	82.21	---	---
15	83.99	82.31	82.62	---	82.01	82.02	83.13	82.54	82.59	82.21	---	80.13
16	83.78	82.14	82.38	81.62	82.11	82.17	83.10	82.72	82.40	82.33	---	80.11
17	83.71	82.05	81.76	81.81	82.21	82.10	---	82.64	82.37	82.28	---	80.00
18	83.56	81.69	81.84	81.89	82.02	81.87	---	82.58	82.37	82.24	---	80.10
19	83.57	81.45	81.84	81.89	81.91	81.86	---	82.53	82.49	82.37	---	80.09
20	83.60	81.68	82.22	81.95	81.96	81.56	---	82.70	82.48	82.40	---	80.10
21	83.67	81.75	82.23	82.11	81.64	81.47	---	82.81	82.43	82.35	---	80.26
22	83.67	82.14	82.11	81.87	81.91	81.59	82.59	82.82	82.53	---	---	80.26
23	83.60	82.08	82.03	82.09	82.13	81.93	82.54	82.83	82.65	---	---	80.13
24	83.81	82.12	81.84	82.09	82.21	82.14	82.72	82.72	82.62	82.28	---	80.12
25	83.95	82.20	81.98	82.04	82.21	81.98	83.02	82.37	82.52	82.30	---	79.85
26	84.09	82.48	82.17	82.25	81.87	81.73	83.13	82.51	82.46	82.24	---	80.11
27	84.08	82.66	82.23	82.24	81.85	81.73	83.10	82.67	82.58	82.05	---	80.13
28	83.93	82.62	82.08	82.22	82.05	81.63	82.63	82.74	82.55	82.17	---	79.95
29	83.86	82.54	---	82.32	---	81.53	82.70	82.63	82.47	82.35	---	81.17
30	83.63	82.32	---	82.21	---	81.54	82.69	82.50	82.38	82.43	---	81.54
31	83.79	---	---	81.80	---	81.76	---	82.46	---	---	---	---
MAX	84.25	83.06	82.62	82.32	82.21	82.18	83.13	82.94	82.79	82.52	---	81.54

CAL YR 1996 LOW 85.02
WTR YR 1997 LOW 84.25

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CONVERSION FACTORS AND VERTICAL DATUM

Multiply	By	To obtain
<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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