

Water Resources Data Ohio Water Year 1999

Volume 1. Ohio River Basin Excluding Project Data

Water-Data Report OH-99-1



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



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

CALENDAR FOR WATER YEAR 1999

1998

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

1999

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

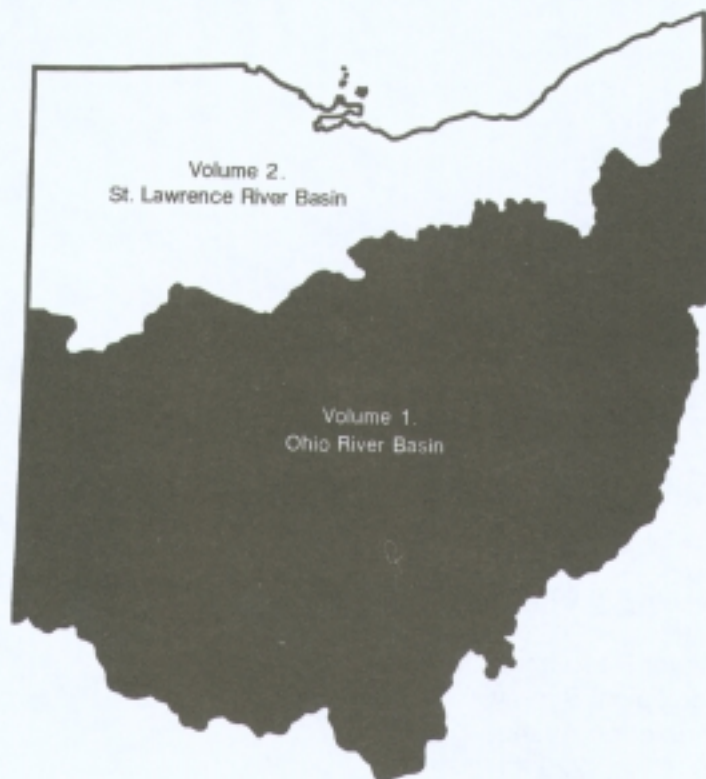
U.S. Department of the Interior
U.S. Geological Survey

Water Resources Data Ohio Water Year 1999

Volume 1. Ohio River Basin Excluding Project Data

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

Water-Data Report OH-99-1



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
Charles G. Groat, Director

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PREFACE

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

Volume 1. Ohio River Basin Excluding Project Data

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

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

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13. ABSTRACT (Maximum 200 words) Water-resources data for the 1999 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 120 gaging stations and 69 partial-record sites; water levels at 187 observation wells and 26 crest-stage gages; and water quality at 34 gaging stations, 337 observation wells, and 3 partial-record sites. Also included are data from miscellaneous and synoptic sites. Additional water data were collected at various sites not involved in the systematic data-collection program and are published as miscellaneous measurements and analyses. These data represent that part of the National Water Information System collected by the U.S. Geological Survey and cooperating Federal, State, and local agencies in Ohio.				
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SURFACE-WATER STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED

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

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GROUND-WATER STATIONS FOR WHICH RECORDS ARE PUBLISHED

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

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ASHLAND COUNTY			
Northeast of Ashland (l)	As-2	405303082170700	209
Ashland (l)	As-3	405425082173000	210
ATHENS COUNTY			
Athens (l)	At-2a	392004082071600	211
Athens (l)	At-5	392009082072200	212
AUGLAIZE COUNTY			
Southwest of New Hampshire (l)	Au-3	403233083574500	213
BELMONT COUNT			
Mount Olivett (l)	B-3	400118081082200	214
BROWN COUNTY			
Fincastle (l)	Br-20	385932083412400	215
BUTLER COUNTY			
Northwest of Sharonville (l)	Bu-9	391805084261800	216
East of Ross (l)	Bu-12	391904084371800	217
Fairfield (l)	Bu-18	391942084345700	218
Fairfield (l)	Bu-7	392017084345200	219
East of Hamilton (1)	Bu-8	392048084311400	220
Southwest of Trenton (1)	Bu-16	392733084293000	221
Southwest of Trenton (1)	Bu-17	392743084295500	222
Middletown (1)	Bu-3	392939084231700	223
Middletown (1)	Bu-2	393103084240900	224
Middletown (l)	Bu-15	393202084241500	225
CARROLL COUNTY			
North of Carrollton (1)	C-1	403709081052800	226
CHAMPAIGN COUNTY			
Urbana (1)	Ch-3	400638083453900	227
CLARK COUNTY			
New Carlisle (l)	Cl-9	395639084012200	228
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North of Conesville (1)	Cs-3	401256081525100	230
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DARKE COUNTY			
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Delaware (1)	DI-3	402126083040400	233
FAIRFIELD COUNTY			
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HOCKING COUNTY			
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Northwest of London (l).....	M-5	395352083292100	263
Northwest of London (l).....	M-4	395357083304400	264
North of London (l)	M-3	395740083255700	265
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West Carrollton (I)	Mt-55	394012084151700	275
West Carrollton (I)	Mt-49	394025084162800	276
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Dayton (I)	Mt-74	394811084095000	279
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Zanesville (I)	Mu-1a	395804081593200	280
PICKAWAY COUNTY			
South of Circleville (I)	Pk-7	393327082571600	281
South of Circleville (1)	Pk-4	393402082572500	282
Northwest of Circleville (I)	Pk-6	393638082572300	283
South of Williamsport (I)	Pk-8	393438083072200	284
Orient (1)	Pk-9	394742083094800	285
PIKE COUNTY			
West of Piketon (I)	Pi-2	390359083015100	286
PORTAGE COUNTY			
Windham (I)	Po-1	411401081025000	287
PREBLE COUNTY			
East of Eaton (I)	Pr-2	394438084335900	288
RICHLAND COUNTY			
Mansfield (I)	R-4	404625082305100	289
Shiloh (I)	R-3	405753082360800	290
ROSS COUNTY			
West of Bainbridge (I)	Ro-7	391341083172200	291
SHELBY COUNTY			
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STARK COUNTY			
Canton (I)	St-5a	404939081203800	293
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North of Strasburg (1)	Tu-1	403653081321800	297
Strasburg (I)	Tu-5	403823081324200	298
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East of East Liberty (1)	U-5	402010083321900	300
VINTON COUNTY			
McArthur (1)	V-1	391452082282900	301
WARREN COUNTY			
Kings Mill (I)	W-6	392119084142000	302
East of Monroe (I)	W-5	392712084191700	303
WASHINGTON COUNTY			
North of Marietta (I)	Wa-2	392553081281600	304

	Station Number	Well Number	Page
WAYNE COUNTY			
Wooster (I)	Wn-3	404655081553200	305
Wooster (I)	Wn-2a	404802081583100	306
Sterling (I)	Wn-7	405745081510200	307
Rittman (I)	Wn-6	405805081462300	308

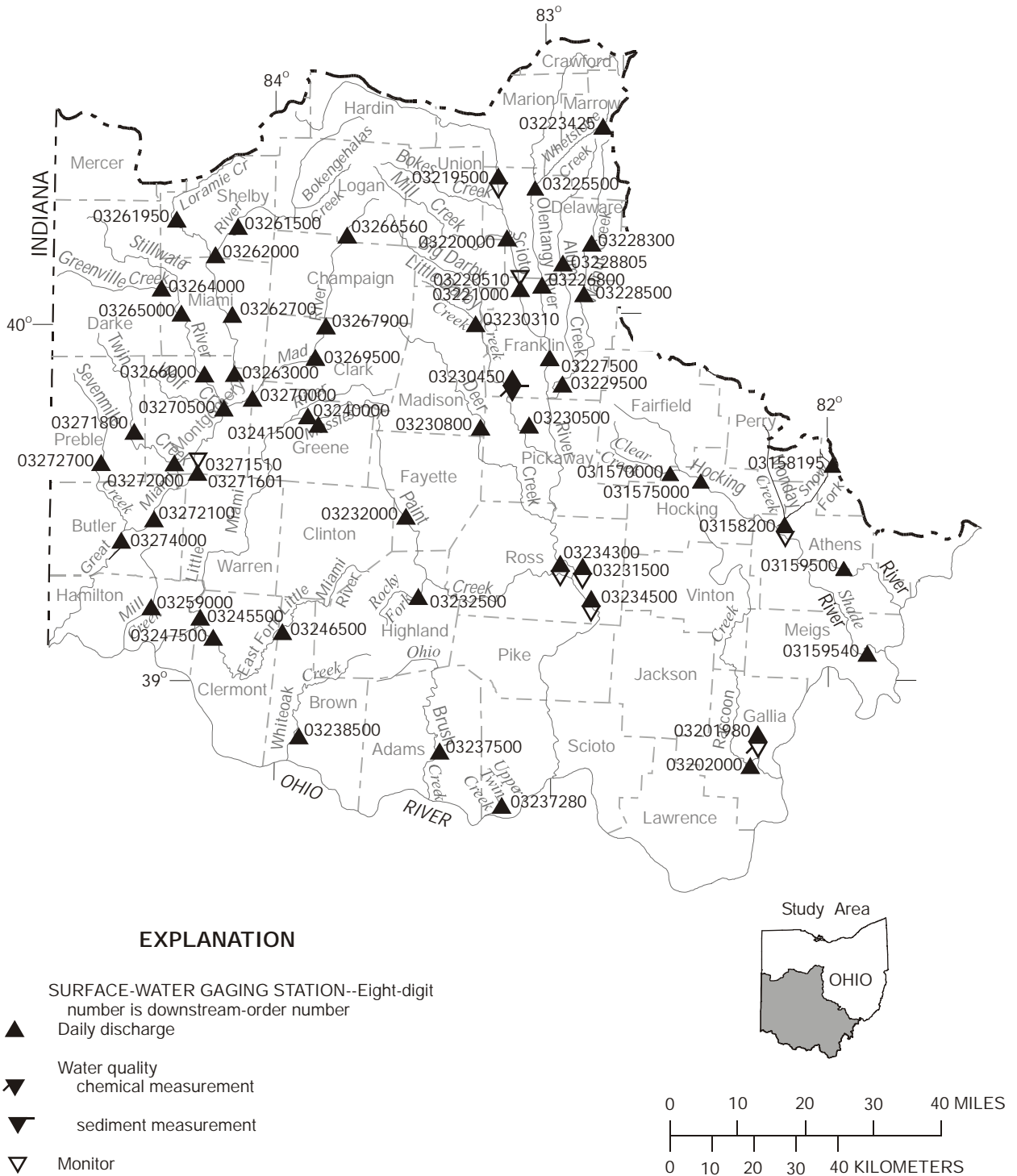


Figure 1a. Location of data-collection stations.

EXPLANATION

SURFACE-WATER GAGING STATION--Eight-digit number is downstream-order number
 ▲ Daily discharge

Water quality

▼ chemical measurement

▽ Monitor

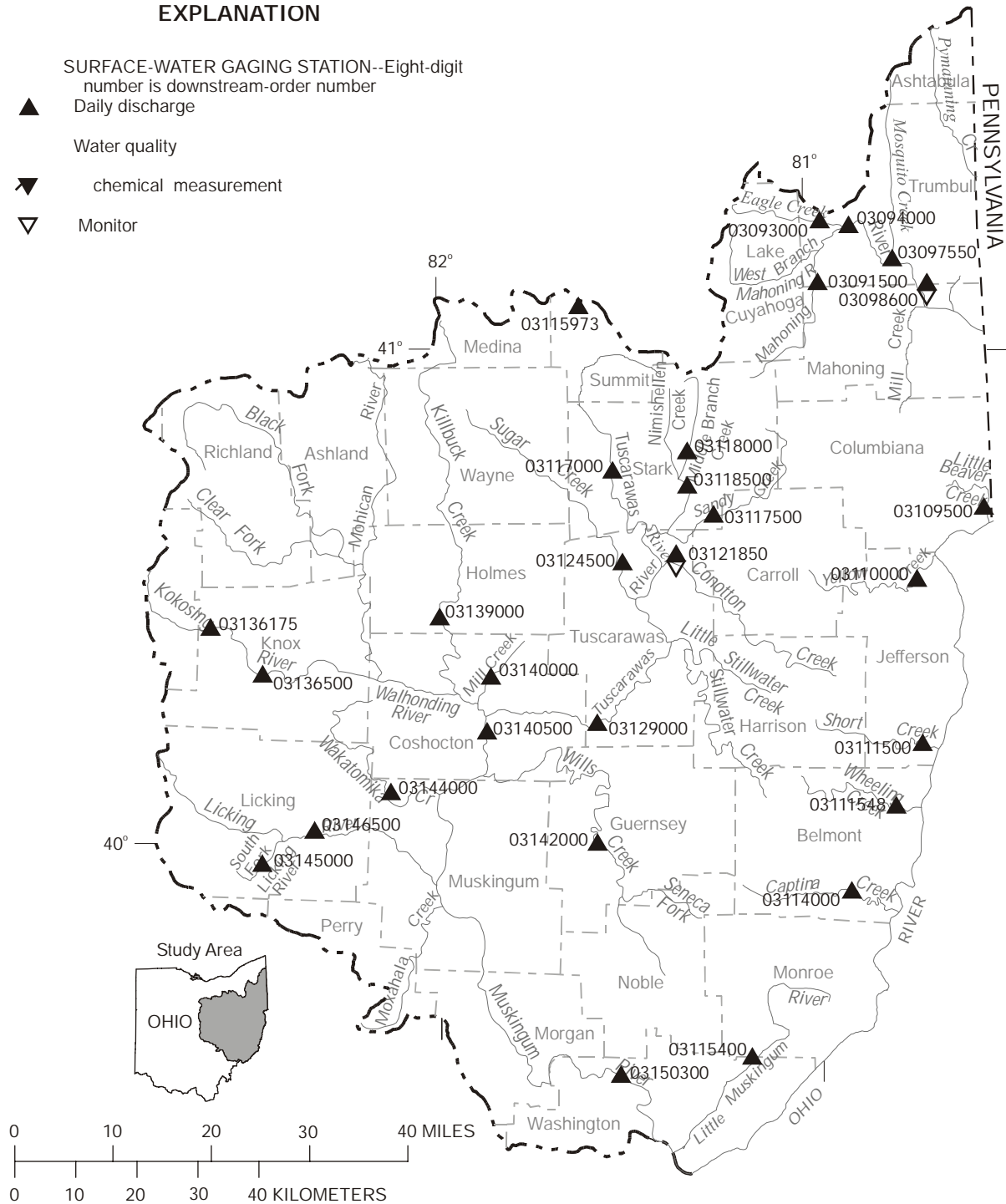
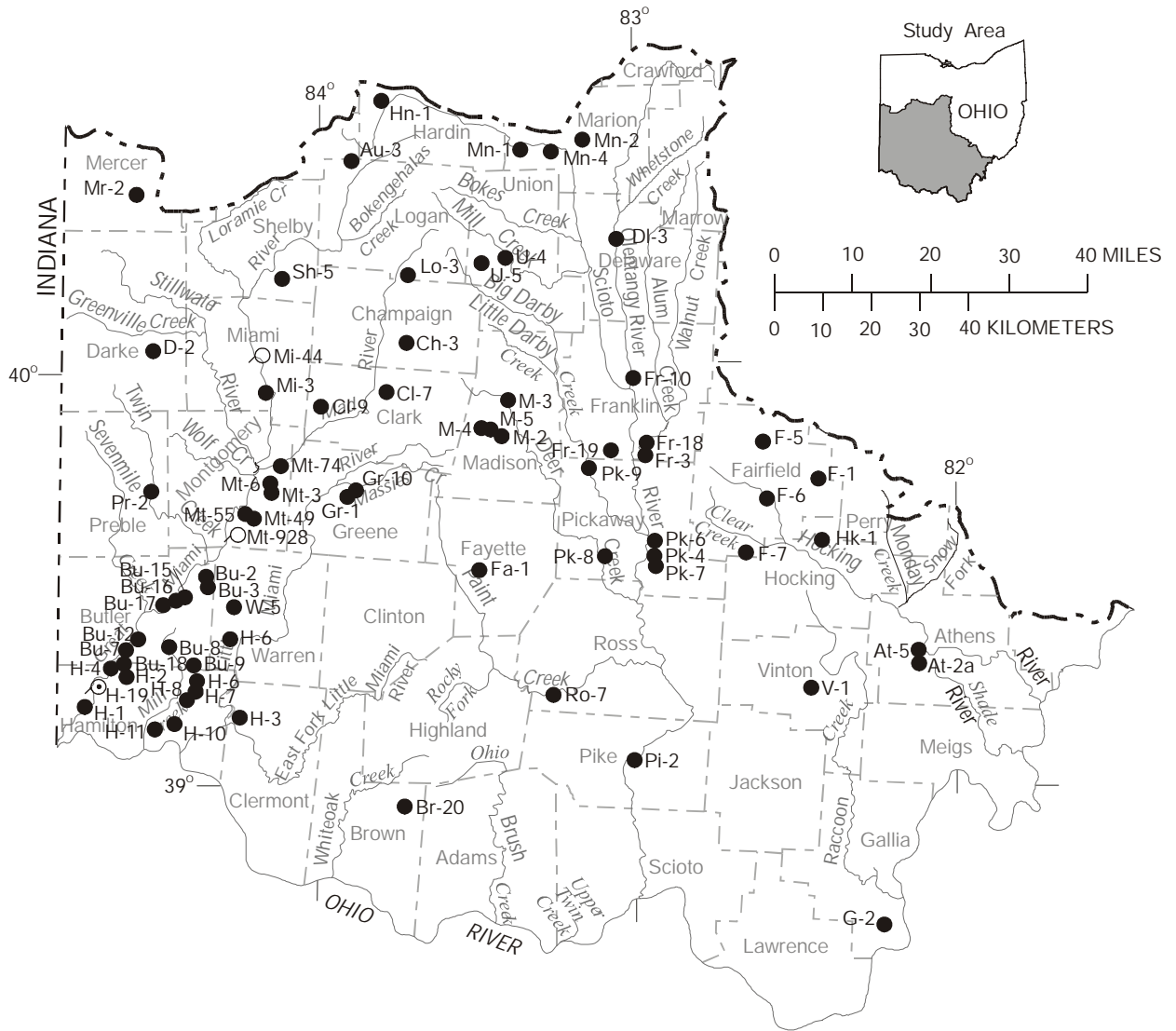


Figure 1b. Location of data-collection stations.



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

Figure 1c. Location of data-collection wells.

Discontinued Surface-Water-Discharge Stations

The following continuous-record surface-water-discharge or stage-only stations (gaging stations) have been discontinued. Daily discharge or stage records were collected and published for the period of record, expressed in water years, shown for each station. Those stations with an asterisk (*) after the station number are currently operated as crest-stage partial-record stations. Discontinued project stations with less than 3 years of record have not been included. Information regarding these stations may be obtained from the 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
Pymatuning Creek at Kinsman	03102950*	96.7	1966-94
Lisbon Creek at Lisbon	03109000	6.19	1947-62
Stateline Creek near Negley	03109320	3.09	1977-79
Yellow Creek at Hammondsville	03110500	164	1915-35
Consol Run near Bloomingdale	03110983	.98	1979-81
Little Muskingum River at Fay	03115500	258	1915-18 1926-35
Montrose Run at Montrose	03115969	0.263	1993-98
Schocalog Run at Montrose	03115970	1.59	1994-98
Schocalog Run at Fairlawn	03115971	2.13	1992-98
Tuscarawas River at Clinton	03116000	174	1926-79
Chippewa Creek at Easton	03116200	146	1961-82
Tuscarawas River at Crystal Springs	03116500	435	1922-29
Sandy Creek at Sandyville	03119000	481	1924-47
McGuire Creek below Leesville Dam near Leesville	03120500*	48.3	1939-90 1992
Indian Fork below Atwood Dam near New Cumberland	03121500	70	1961-75
Tuscarawas River below Dover Dam near Dover	03122500*	1,045	1924-92
Sugar Creek above Beach City Dam at Beach City	03123000	160	1945-75
Sugar Creek below Beach City Dam near Beach City	03124000*	300	1939-91
Home Creek near New Philadelphia	03125000	1.64	1937-80
Stillwater Creek at Piedmont	03126000*	122	1939-93
Stillwater Creek at Tippecanoe	03127000*	282	1939-93
Stillwater Creek at Urichsville	03127500*	367	1922-93
Clear Fork Tributary near Hanover	03127970	.68	1978-81

Discontinued Surface-Water-Discharge Stations—Continued

STATION NAME	STATION NUMBER	DRAINAGE AREA (MI ²)	PERIOD OF RECORD
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 McConnellsville	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
Hocking River below Athens	03159510	957	1977-93
East Branch Shade River near Tupper's Plains	03159555	37.5	1980-82 1983-85
Sandy Run above Big Four Hollow Creek near Lake Hope	03201600	.98	1971-82
Big Four Hollow Creek below East Fork near Lake Hope	03201660	.73	1979-81
Big Four Hollow Creek near Lake Hope	03201700	1.01	1971-83
Hull Hollow Creek near Lake Hope	03201720	.22	1979-81
Sandy Run near Lake Hope	03201800	4.99	1958-79
Zinns Run near Radcliff	03201929	3.41	1988-91
Strongs Run near Ewington	03201947	15.8	1988-91
Symmes Creek at Getaway	03205500	335	1938-47

Discontinued Surface-Water-Discharge Stations—Continued

STATION NAME	STATION NUMBER	DRAINAGE AREA (MI ²)	PERIOD OF RECORD
Scioto River at LaRue	03217500	257	1927-35 1939-51
Little Scioto River above Marion	03218000	72.4	1939-72
Little Scioto River at Sewage Treatment Plant near Marion	03218500	85.8	1925-36 1938-39
Little Scioto River near Marion	03219000	93.3	1924-25 1939
Bokes Creek near Warrenburg	03219590	83.2	1982-97
Eagon Run near Warrenburg	03219600	.123	1950-62
Olentangy River near New Winchester	03222500	49.4	1947-49
Olentangy River at Clairdon	03223000	157	1947-98
Whetstone Creek near Shawtown	03223500	61.8	1947-55
Shaw Creek at Shawtown	03224000	25.4	1947-55
Whetstone Creek near Ashley	03224500	98.7	1955-74
Olentangy River at Delaware	03226000	421	1922-24
Olentangy River at Stratford	03226500	445	1934-36 1938-58
Rush Run at Worthington	03226865	1.65	1979-82
Linworth Road Creek at Columbus	03226870	2.03	1979-82
Bethel Road Creek at Columbus	03226875	.22	1979-82
Olentangy River at Henderson Road at Columbus	03226885	518	1978-82
Scioto Big Run at Briggsdale	03228000	11.0	1947-58
Alum Creek at Kilbourne	03228750	64.9	1974-83
Alum Creek at Columbus	03229000	189	1923-35 1938-98
Scioto River near Circleville	03230000	2,638	1939-56
Scioto River at Circleville	03230700	3,217	1974-79 1990
Deer Creek at Pancoastburg	03230900*	277	1964-98
Deer Creek at Williamsport	03231000	333	1927-35 1939-56 1962-92
Rattlesnake Creek at Centerfield	03232300	209	1971-82
Paint Creek below Paint Creek Dam near Bainbridge	03232470	570	1968-92
Paint Creek at Bourneville	03234000*	807	1921-37 1938-98
Salt Creek at Tarlton	03235000	11.5	1947-61
Tar Hollow Creek at Tar Hollow State Park	03235500	1.35	1947-79
Salt Creek near Londonderry	03236000	286	1939-50
Little Salt Creek near Jackson	03236500	76.1	1925-32
Little Miami River near Selma	03239000	48.9	1952-58
North Fork Little Miami River near Pitchin	03239500	28.9	1951-58
North Fork Massies Creek at Cedarville	03240500	28.9	1954-68
South Fork Massies Creek at Cedarville	03241000	17.1	1954-68
Little Miami River at Spring Valley	03242000	360	1926-35 1940-51
Little Miami River near Spring Valley	03242050	366	1968-85
Caesar Creek near Xenia	03242150	71.4	1900 1968-84
Anderson Fork near New Burlington	03242200	77.8	1968-84
Caesar Creek at Harveysburg	03242300	209	1961-75

Discontinued Surface-Water-Discharge Stations—Continued

STATION NAME	STATION NUMBER	DRAINAGE AREA (MI ²)	PERIOD OF RECORD
Caesar Creek near Wellman	03242350	239	1965-74
Little Miami River near Fort Ancient	03242500	680	1940-51
Todd Fork near Wilmington	03243000	22.2	1923
			1943-44
Cowan Creek near Wilmington	03243500	32.0	1943-50
Todd Fork near Roachester	03244000	219	1952-75
East Fork Little Miami River near Dodsonville	03246000	91.4	1947-48
East Fork Little Miami River near Marathon	03246200	195	1968-84
East Fork Little Miami River near Bantam	03247000	330	1949-53
East Fork Little Miami River near Batavia	03247050	352	1965-94
Shayler Run near Perintown	03247400	11.8	1968-73
Little Miami River at Plainville	03248000	1,713	1965-71
Mill Creek at Reading	03255500	73.0	1939-91
West Fork Mill Creek at Mount Healthy	03256000	7.90	1949-53
West Fork Mill Creek near Greenhills	03257000	29.9	1945-53
West Fork Mill Creek at Woodlaw	03257500	32.2	1953-86
West Fork Mill Creek at Lockland	03258000	35.6	1939-57
Mill Creek at Mitchell Avenue at Cincinnati	03259500	135	1941-48
			1990
Stony Creek near DeGraff	03260800	59.1	1958-76
Bokengehalas Creek near DeGraff	03260700	36.3	1957-92
Bokengehalas Creek at DeGraff	03260706*	40.4	1992-96
Great Miami River at Quincy	03261000	405	1947-49
Great Miami River at Piqua	03262500	866	1915-17
Greenville Creek near Greenville	03263500	142	1930-31
Mad River at Zanesfield	03266500	7.31	1947-78
Mad River near Urbana	03267000*	162	1926-31
			1939-98
Mad River at Tremont City	03267500	264	1931-33
			1966-75
Chapman Creek at Tremont City	03267600	24.0	1968-69
Moore Run near Eagle City	03267700	18.2	1966-72
Buck Creek near New Moorefield	03267950	30.5	1967-77
East Fork Buck Creek near New Moorefield	03267960	28.7	1967-77
Buck Creek at New Moorefield	03268000	65.3	1943-58
Beaver Creek near Springfield	03268500	39.2	1943-58
			1973-76
Buck Creek at Springfield	03269000	139	1915-21
			1925-49
			1973-74
Wolf Creek at Trotwood	03270800	22.7	1963-86
Wolf Creek at Dayton	03271000*	68.7	1939-50
			1987-97
Great Miami River at Miamisburg	03271500*	2,711	1916-20
			1924-35
			1952-95
Sevenmile Creek at Collinsville	03272800	120	1960-72
Sevenmile Creek at Sevenmile	03273000	135	1915-20
Fourmile Creek near Hamilton	03273500	307	1938-60
Great Miami River at Venice	03274500	3,789	1915-27
			1932-33

Discontinued Surface-Water-Quality Stations

The following continuous-record surface-water-quality stations have been discontinued. Daily records of temperature, specific conductance, pH, dissolved oxygen, or sediment were collected and published for the period of record, expressed in water years, shown for each station. 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.

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

STATION NAME	STATION NUMBER	DRAINAGE AREA (MI ²)	TYPE OF RECORD	PERIOD OF RECORD
Beech Creek near Bolton	03087000	17.4	t	1943-51
Mahoning River above Duck Creek at Leavittsburg	03093800	542	do, pH, sc, t	1968-81
Mahoning River at Warren	03094500	594	t	1924-35
Mahoning River at Lowellville	03099500	1,073	t	1953-61
			do, pH, sc, t	1963-67
Mahoning River at Ohio-Pennsylvania State Line	03099510	1,075	do, pH, sc, t	1967-91
Ohio River at Stratton	03110700	23,500	t	1961
			sc	1964-70
Consol Run near Bloomingdale	03110983	.98	s	1979-81
Tuscarawas River at Navarre	03117100	534	do, pH, sc, t	1968-84
			do, pH, sc, t	1987-91
Black Fork at Londonville	03131500	349	do, pH, sc, t	1968-76
Sand Fork near Wakatomika	03144400	1.34	s	1978-81
North Fork Licking River at Utica	03146000	116	t	1970-73
Licking River near Newark	03146500	537	t	1962-68
			do, pH, sc, t	1968-80
Muskingum River at Philo	03149200	7,196	do, pH, sc, t	1965-74
Muskingum River near Beverly	03150300	7,626	t	1963-70
			sc	1964-70
North Branch Hunters Run near Hooker	03155900	104	s	1956-62
Hocking River at Athens	03159500	943	t	1954-64
			s	1956-65
			sc	1964-65
Hocking River below Athens	03159510		do, sc, t	1966-80
			pH	1972-80
Sandy Run above Big Four Hollow Creek near Lake Hope	03201600	98	pH, sc, t	1971-78
Big Four Hollow Creek near Lake Hope	03201700	1.01	pH, sc, t	1971-83
			s	1978-83
Sandy Run near Lake Hope	03201800	4.99	do, sc, t	1970-78
Raccoon Creek at Adamsville	03202000	585	do, pH, sc, t	1967-84
			s	1969-74
			s	1985
Whetstone Creek near Ashley	03224500	98.7	sc	1964-68
Olentangy River near Worthington	03226800	497	t	1955-68
			s	1978-81
Rush Run at Worthington	03226865	1.65	s	1978-81
Linworth Road Creek at Columbus	03226870	2.03	s	1978-81
Bethel Road Creek at Columbus	03226875	.22	s	1978-81
Olentangy River at Henderson Road at Columbus	03226885	518	s	1978-81
Alum Creek at Africa	03228805	122	sc, t	1965-70

Discontinued Surface-Water-Quality Stations—Continued

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

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

INTRODUCTION

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

This report (in two volumes) includes records on surface water and ground water in the State. Specifically, it contains (1) discharge records for streamflow-gaging stations, miscellaneous sites, and crest-stage stations, (2) stage and content records for streams, lakes, and reservoirs, (3) water-quality data for streamflow-gaging stations, wells, synoptic sites, and partial-record sites, and (4) water-level data for observation wells. Locations of lake- and streamflow-gaging stations, water-quality stations, and observation wells for which data are presented in this volume are shown in figures 1a through 1d. 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-99-1." For archiving and general distribution, the reports for 1971-74 water years are also identified as water-data reports. These water-data reports can be purchased in paper copy or in microfiche from the National Technical Information Service, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, VA 22161.

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

Additional information for 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) 430-7700.

COOPERATION

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

Cities of Akron, Canton, Cincinnati, Columbus (Water Division and Sewerage & Drainage Division),
Cortland, Cuyahoga Falls, Delphos, Fremont, Lima, and Warren

Counties of Clermont, Cuyahoga (Board of Health and Sanitary Engineering Division), Geauga, Knox
Madison, Ross, Summit, and Washington
Cuyahoga River Community Planning Organization
Eastgate Development and Transportation Agency
Federal Emergency Management Agency, Region V, Hazardous Branch
Miami Conservancy District
Northeast Ohio Regional Sewer District
Ohio Departments of Agriculture, Natural Resources (Mines and Reclamation, Oil and Gas, Real Estate
and Land Management, Water Division, and Wildlife), and Transportation
Ohio State University Research Foundation
Ottawa County Soil and Water Conservation District
State of Ohio Adjutant General's Department
U.S. Air Force, Air Force Materiel Command, Aeronautical Systems Center, Environmental
Management Directorate, Restoration Branch
U.S. Army Corps of Engineers (Buffalo, Huntington, Louisville, and Pittsburgh Districts, and Industrial
Operations)
U.S. Environmental Protection Agency (Drinking Water Standards Division, Great Lakes National
Project Office, NERL-MICROBIAL and Chemical Exposure Assessment Research Division, and
Superfund Division, Region V)
University of Toledo

SUMMARY OF HYDROLOGIC CONDITIONS

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

Precipitation

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

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

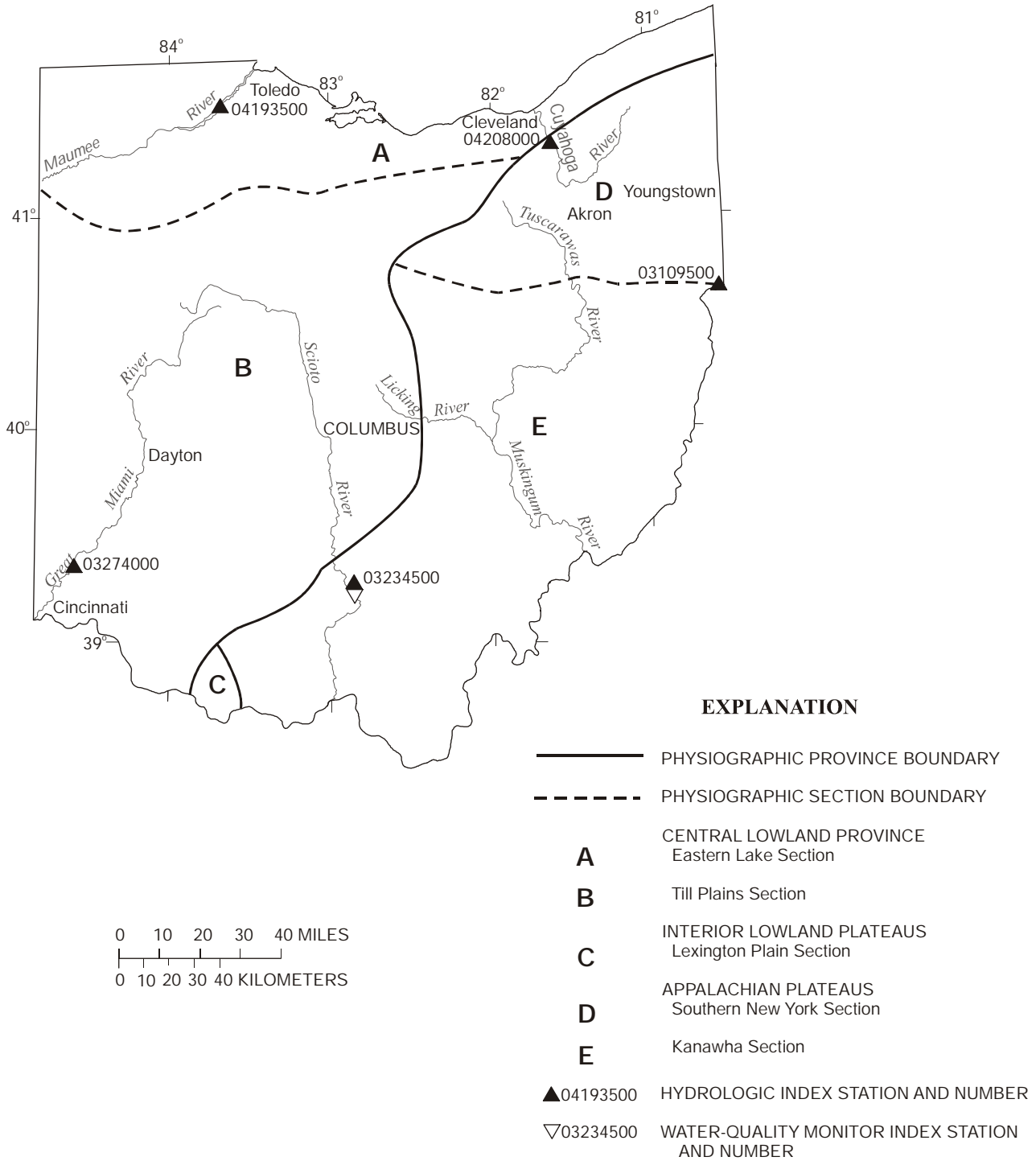


Figure 2. Physiographic divisions and location of hydrologic index stations.

the southern border to about 8 to 12 inches along most of the northern border, except in the northeast, where runoff is as much as 20 inches. The pattern of streamflow differs from the pattern of precipitation because of the contributions of snowmelt to streamflow in the early spring and the reduction in flows by evapotranspiration from June through September.

Surface Water

Streamflow

Streamflow-data-collection stations are distributed irregularly throughout the State and tend to be concentrated on the main river systems. The stations are used to sample a wide variety of conditions. The drainage areas range from less than 4 to 7,430 square miles and represent a wide diversity of topography and other physical characteristics. Streamflow ranges from unregulated to highly regulated.

Statewide Streamflow, Water Year 1999. At the beginning of water year 1999, streamflow was in the normal¹ range for most of the State. Flows remained in the normal range in October except for northeast Ohio, where above-normal precipitation produced excessive flows.

In November and December, below-normal precipitation produced normal to below-normal flows throughout the State.

January was the only month in water year 1999 in which excessive flows prevailed statewide. Flows returned the normal range throughout the State in February and remained normal for most of the State through April.

During May through July, streamflow was near normal in northern Ohio and deficient in southern Ohio.

Below-normal precipitation throughout the State in August and September caused streamflow to decline into the deficient range statewide by year's end.

A comparison of streamflows for 1999 with long-term median flows at four representative stations is shown in figure 3.

Water Quality

Water-quality data in Ohio are collected on a short-term basis in conjunction with local or regional studies. On a long-term basis, water-quality data in Ohio are collected at fixed stations. From 1974 to 1995, collection of long-term water-quality data was done as part of the National Stream Quality Accounting Network (NASQAN). With the redesign of the program in 1996 to concentrate on evaluation of large river basins, collection of water-quality data at fixed stations for NASQAN was discontinued in Ohio. 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 Ohio in 1996 at some sites as part of the Lake Erie-Lake St. Clair (LERI) study unit and in 1998 at some sites as part of the Great and Little Miami River Basins (MIAM). 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 1999, samples were collected monthly at the Maumee River at Waterville. Samples from this site are analyzed for major anions and cations, nutrients, trace elements, suspended sediment, selected physical properties, and *Escherichia coli*.

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

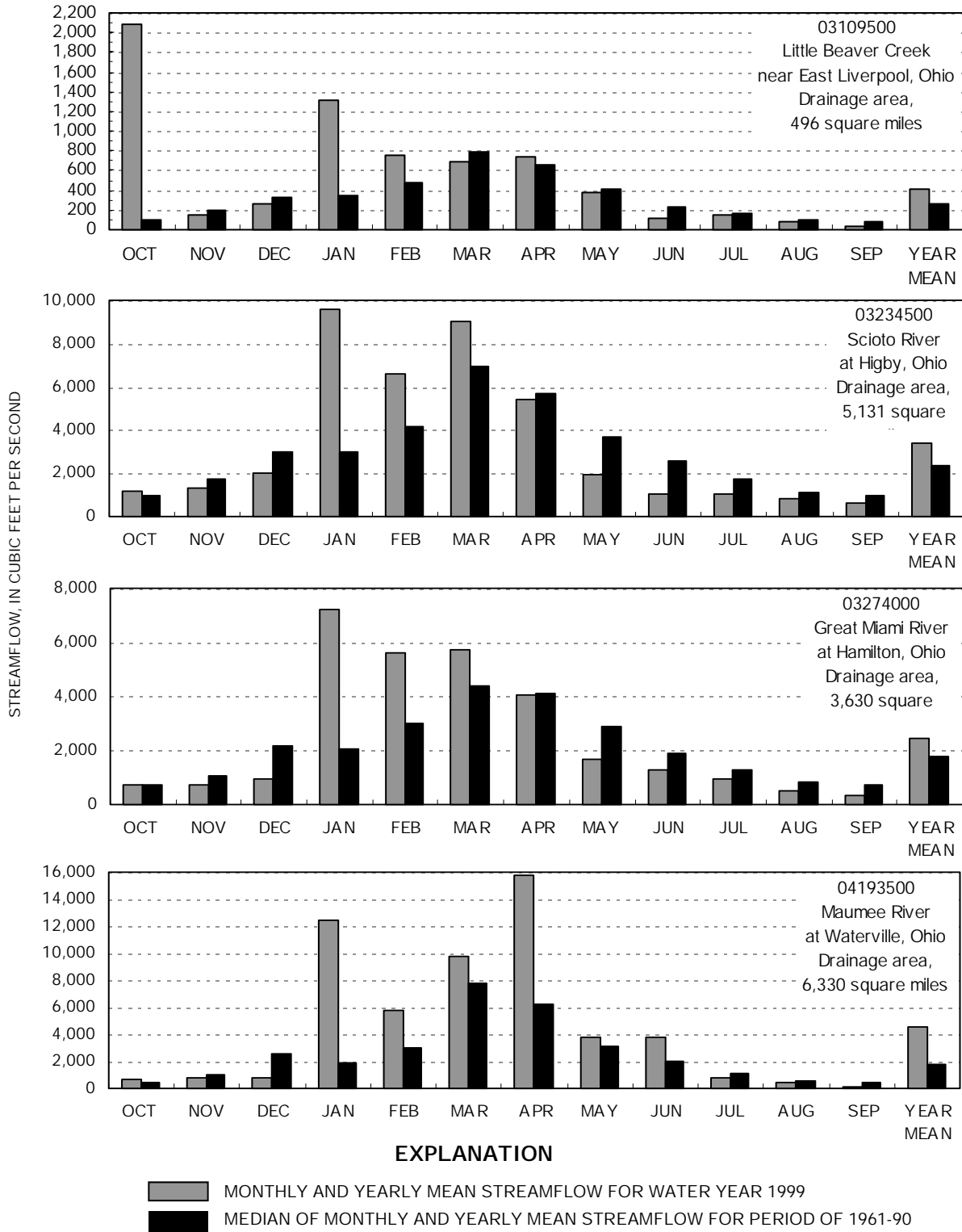


Figure 3. Streamflow during water year 1999 compared with median streamflow for period 1961-90 for four representative gaging stations.

Box plots of streamflow and concentrations of selected constituents measured during the previous 10-year period (1989-95 as part of NASQAN and 1996-98 as part of NAWQA) are shown in figures 4 and 5 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 1999 as part of the NAWQA program are superimposed on the box plots and are represented by dark circles.

For the Maumee River, the values for streamflow measured at the time of water-quality sampling were lower during 1999 than for the previous 10-year period. Seven out of twelve samples were collected at low flow; these values were below the 25th percentile, with streamflows ranging from 393 to 976 cubic feet per second.

Fecal-coliform bacteria were monitored as part of the NASQAN program. The LERI replaced monitoring for fecal coliforms with another bacterial indicator, *Escherichia coli* (*E. coli*) in 1997. *Escherichia coli* is the preferred and most useful indicator of the quality of freshwater recreational water for body contact. Because data for only two years of *E. coli* concentrations before 1999 are available for the Maumee River, and fecal-coliform concentrations are no longer determined at this site, a comparison of bacterial indicator concentrations could not be done for data collected during 1999 to the previous 10-year period.

Chloride concentrations, commonly associated with municipal or industrial point sources of wastewater, were higher in 1999 than concentrations measured during the previous 10-year period. Chloride concentrations determined in nine samples collected during 1999 were above the median concentration (28 milligrams per liter) found for the years 1989-98. This reflects the low extremes of streamflow measured during 1999. Similarly, the range of dissolved-solids concentrations in 1999 were higher than those determined during the previous 10-year period.

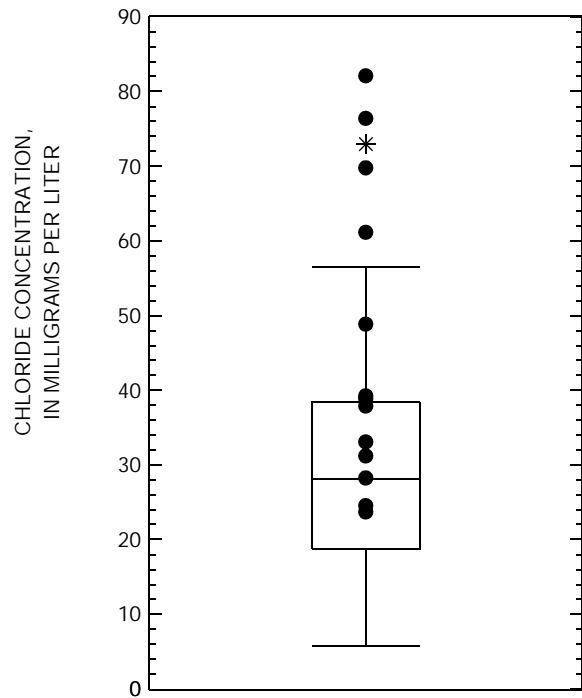
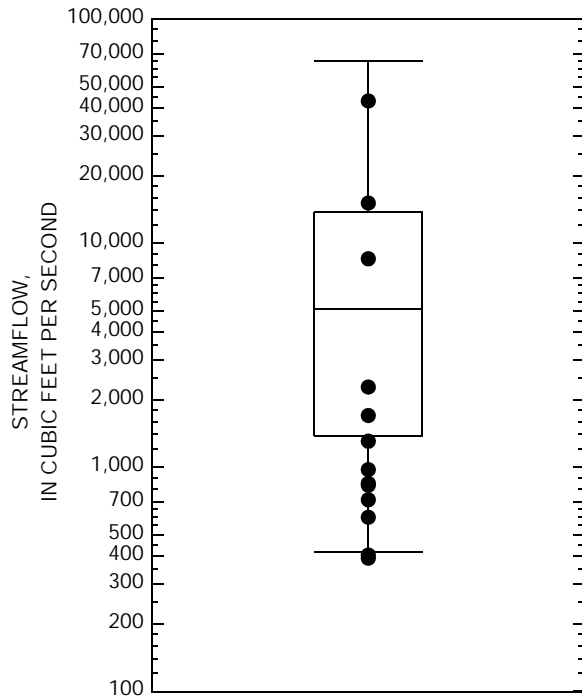
Out of the 12 samples collected for nitrate plus nitrite during 1999, none exceeded the U.S. Environmental Protection Agency maximum contaminant level for finished drinking water (10 milligrams per liter, as N). In Ohio, fertilizers are a major source of nitrate. Concentrations in the Maumee River in 1999 were generally lower than those found during the previous 10-year period; seven samples collected during 1999 were below the 25th percentile for the years 1989-98. During 1999, concentrations of nitrate plus nitrite ranged from <0.05 to 8.5 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 1999, total phosphorus concentrations ranged from 0.038 to 0.344 milligrams per liter. As with other constituents affected by the low streamflows in 1999, phosphorus concentrations were reduced; 9 out of 12 samples collected during 1999 were below the median concentration of 0.2 milligram per liter found during the previous 10-year period. The extreme high values for total phosphorus found during the previous 10-year period were also not found in 1999.

Ground Water

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

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



EXPLANATION

- * OUTSIDE VALUE¹
- UPPER WHISKER²
- 75TH PERCENTILE
SELECTED FLOW
OR CONCENTRATION
FOR WATER YEAR 1999
- MEDIAN
- 25TH PERCENTILE
- LOWER WHISKER²

¹ An outside value is defined as >1.5 and ≤ 3 interquartile ranges from the box

² Upper whisker is defined as the largest data point less than or equal to the upper quartile plus 1.5 times the interquartile range. Lower whisker is minus 1.5 times the interquartile range

Figure 4. Streamflow and concentration of chloride measured in water year 1999 and the distribution of those characteristics from measurements made during water years 1989-98 for the Maumee River at Waterville.

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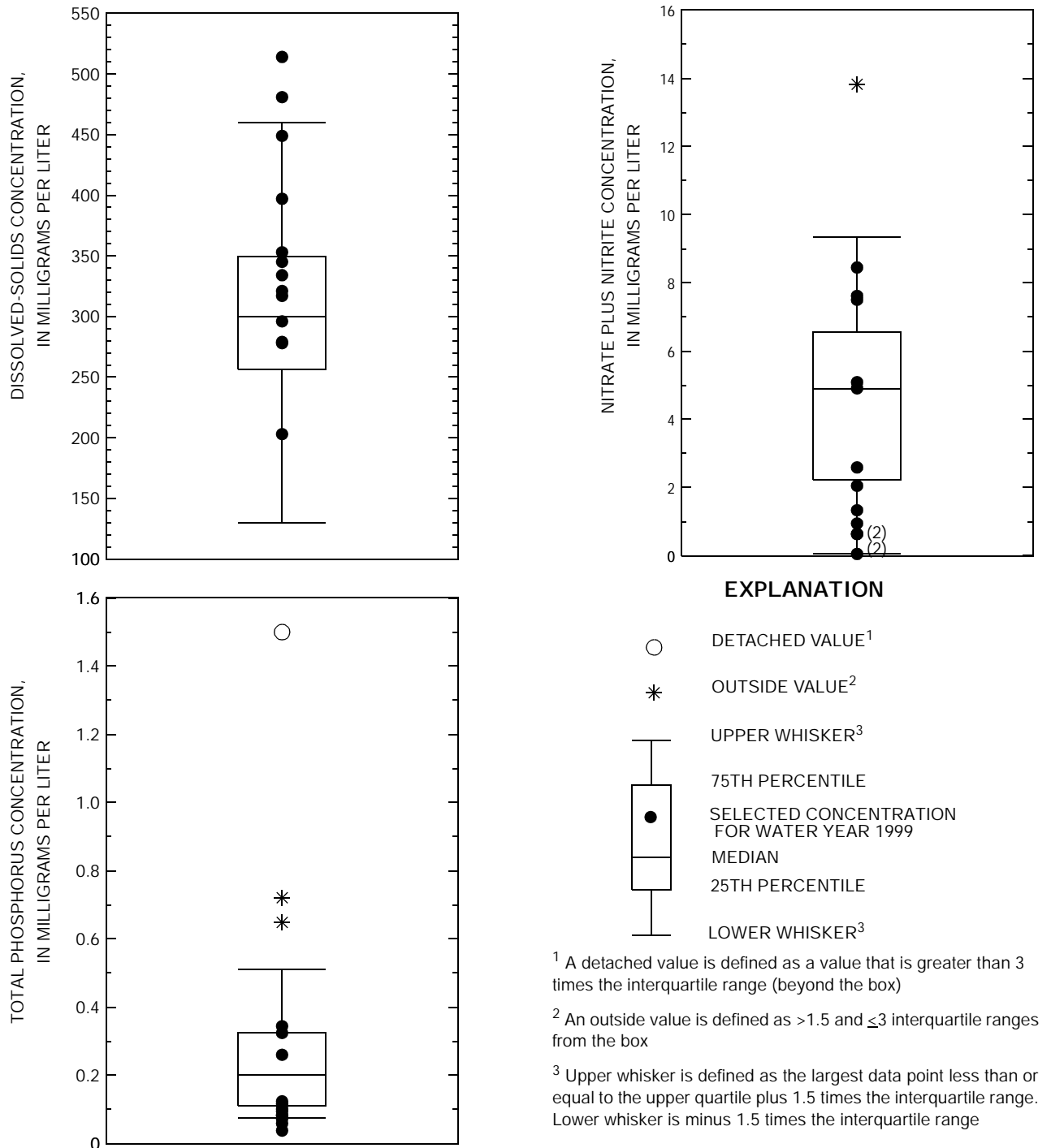


Figure 5. Concentrations of dissolved solids, nitrate plus nitrite, and total phosphorus measured in water year 1999 and the distribution of those characteristics from measurements made during water years 1989-1998 for the Maumee River at Waterville.

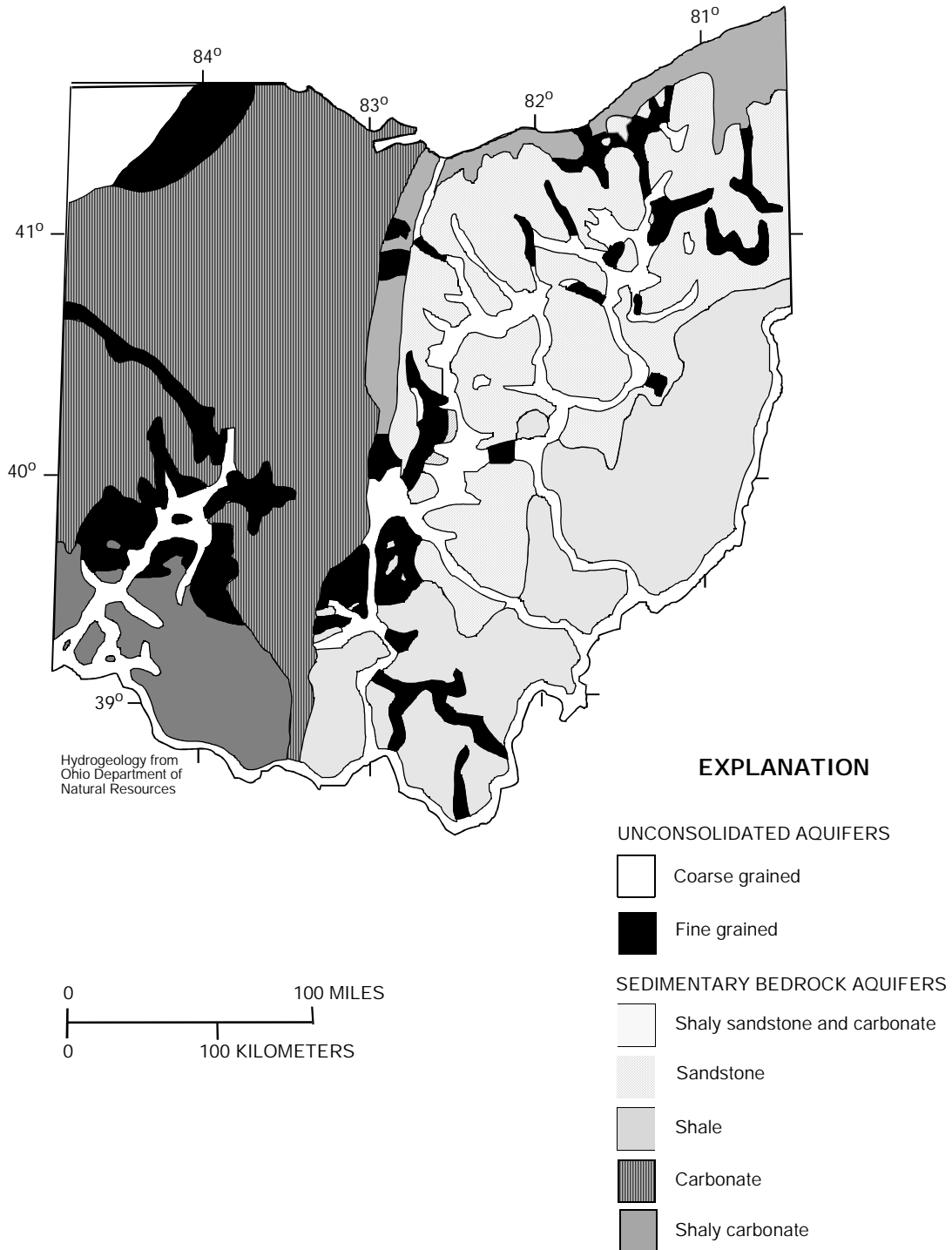


Figure 6. Geographic distribution of principal aquifers in Ohio.

permeable because of higher percentages of mixed fine sand, silt, and clay. Included in the fine-grained unconsolidated aquifers are tills that contain thin or localized stratified lenses of sand and gravel.

Ground-water supply for much of the unglaciated upland area of southeastern Ohio is from bedrock aquifers composed of shaly sandstone and thin limestone. These strata, which range from Mississippian to Permian in age, are dominated by low-yielding shales and shaly sandstones that include numerous coal-bearing strata. In some places, small water supplies are available from fractured coal beds. Several sandstone aquifers in northeastern Ohio are of regional extent and are major ground-water sources for individual and small public supplies. These include the Berea and Black Hand Sandstones of Mississippian age and several sandstone members of the Pottsville and Allegheny Formations of Pennsylvanian age. The Lake Erie coastline of northeastern Ohio is underlain by shale of Devonian and Mississippian age (fig. 6) that yields only small amounts of water to wells. Silurian-age limestone and dolomite and Devonian limestone comprise the carbonate aquifer system (fig. 6) of much of western Ohio. Glacial cover is uneven and consists of valley fill and terminal moraine in some places. The northeastern part of western Ohio contains an area of high-yielding wells that tap a preferentially weathered zone, which developed when 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 7. The observation-well network also includes some bedrock wells in areas where consolidated aquifers are heavily used for water supply, such as in the carbonate-rock region of northwestern Ohio. Sample 1-year and 5-year hydrographs of a well completed in a confined carbonate-rock aquifer are shown in figure 8. The yearly low for most wells occurs during the winter months, especially in cold, dry years or near the end of the growing season. Highs for the year usually occur from March through June, which is the peak of the recharge season. The yearly water-level fluctuation due to climatic conditions in water-table and confined-aquifer wells is commonly 3 to 5 feet but can be as much as 10 feet.

At the beginning of water year 1999, ground-water levels were below normal² for most of the State. Levels declined during October to December and generally remained below normal.

In January, water levels rose in response to above-normal precipitation but were still in the below-normal range statewide. Net rises in ground-water levels continued through March, with levels in the near-normal to below-normal range throughout the State.

The remainder of the water year was characterized by declining ground-water levels statewide in response to below-normal precipitation. Levels were in the below-normal range for most of the State from June through September.

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.

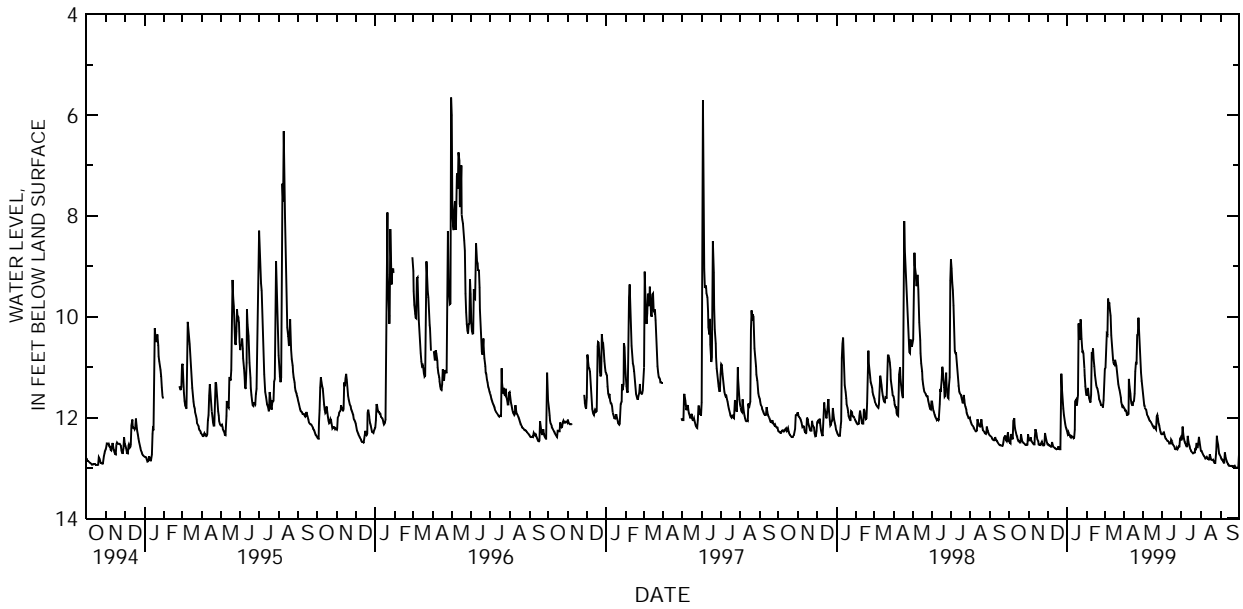
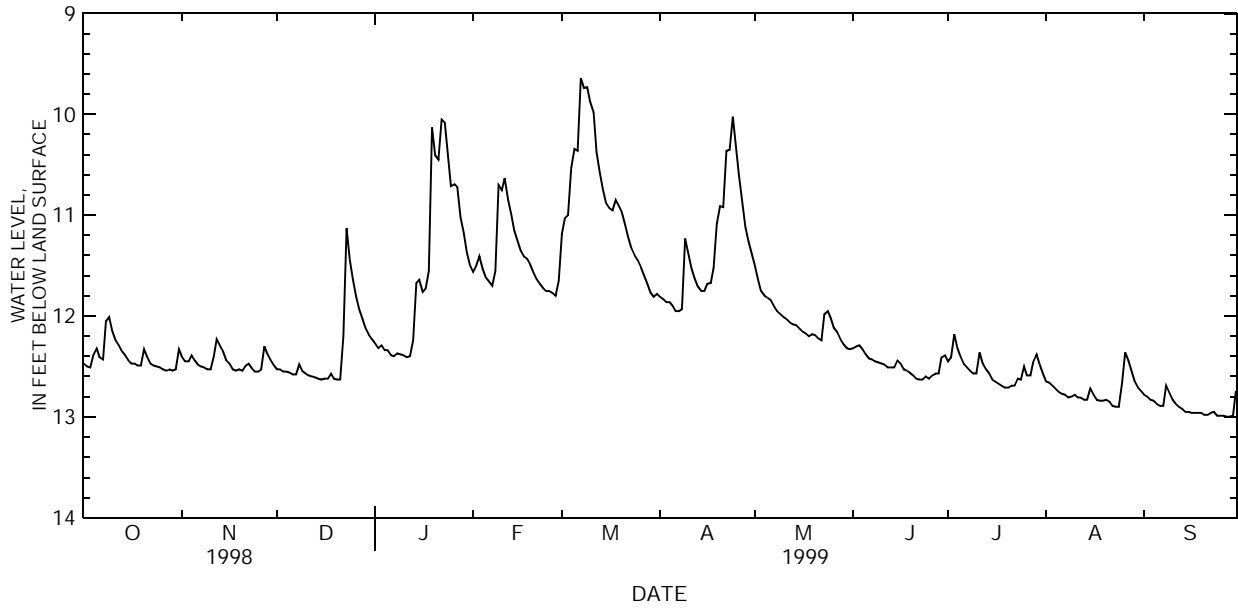


Figure 7. Sample of 1-year and 5-year hydrographs of well Fr-3 (395118082573300), completed in a unconfined unconsolidated aquifer.

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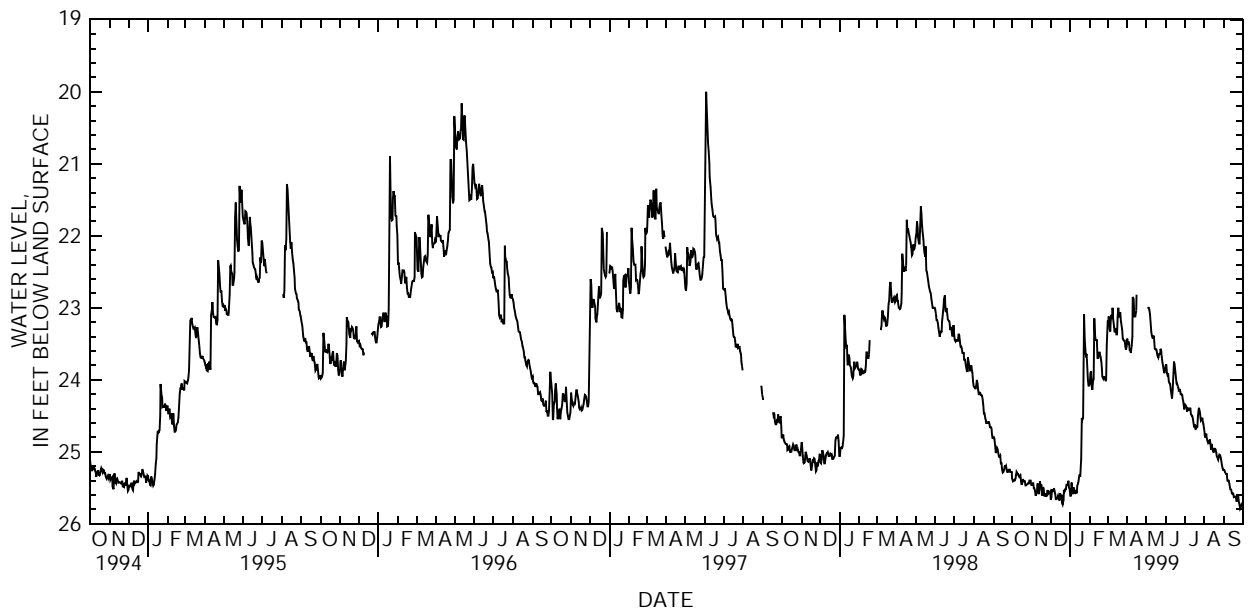
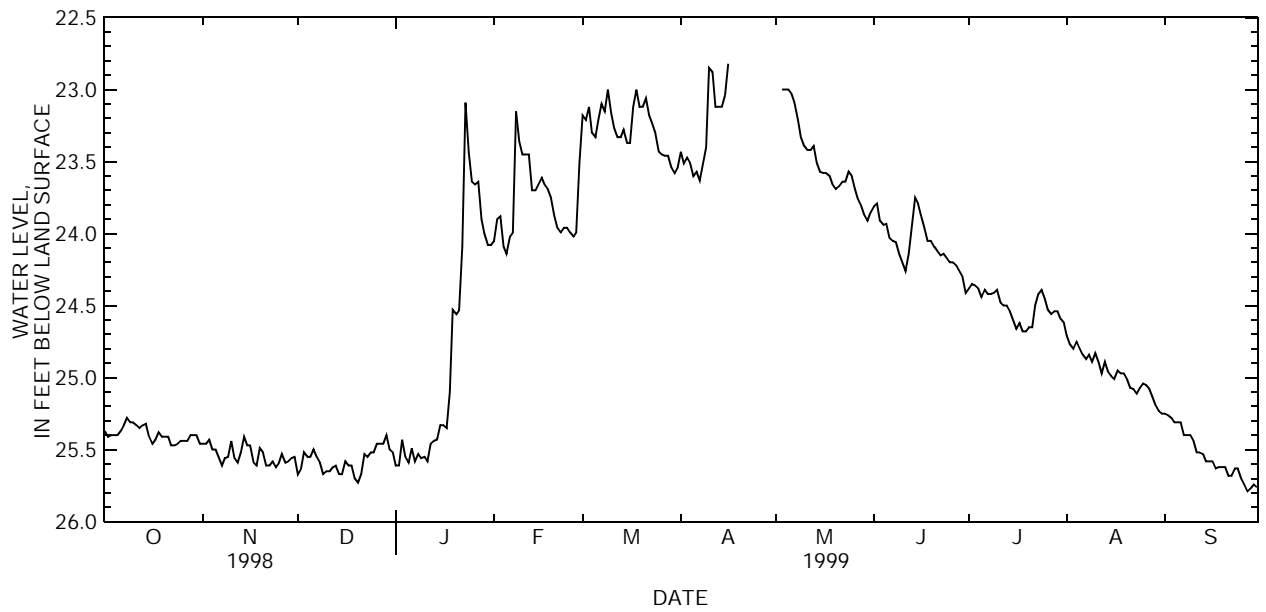


Figure 8. Sample of 1-year and 5-year hydrographs of well U-4 (401826083255200), completed in a confined carbonate-rock aquifer.

SPECIAL NETWORKS AND PROGRAM

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

National Stream-Quality Accounting Network (NASQAN) monitors the water quality of large rivers within four of the Nation's largest river basins—the Mississippi, Columbia, Colorado, and Rio Grande. Samples are collected with sufficient frequency that the flux of a wide range of constituents can be estimated. The objective of NASQAN is to characterize the water quality of these large rivers by measuring concentration and mass transport of a wide range of dissolved and suspended constituents, including nutrients, major ions, dissolved and sediment-bound heavy metals, common pesticides, and inorganic and organic forms of carbon. This information will be used (1) to describe the long-term trends and changes in concentration and transport of these constituents, (2) to test findings of the National Water-Quality Assessment Program (NAWQA), (3) to characterize processes unique to large-river systems, such as storage and remobilization of sediments and associated contaminants, and (4) to refine existing estimates of off-continent transport of water, sediment, and chemicals for assessing human effects on the world's oceans and for determining global cycles of carbon, nutrients, and other chemicals.

The National Atmospheric Deposition Program/National Trends Network (NADP/NTN) provides continuous measurement and assessment of the chemical climate of precipitation throughout the United States. As the lead Federal agency, the USGS works together with over 100 organizations to 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.sws.uiuc.edu>.

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

Assessment activities are being conducted in 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://water.usgs.gov/nawqa/nawqa_home.html.

EXPLANATION OF THE RECORDS

The records in this report are for the 1999 water year that began October 1, 1998, and ended September 30, 1999. 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 9.)

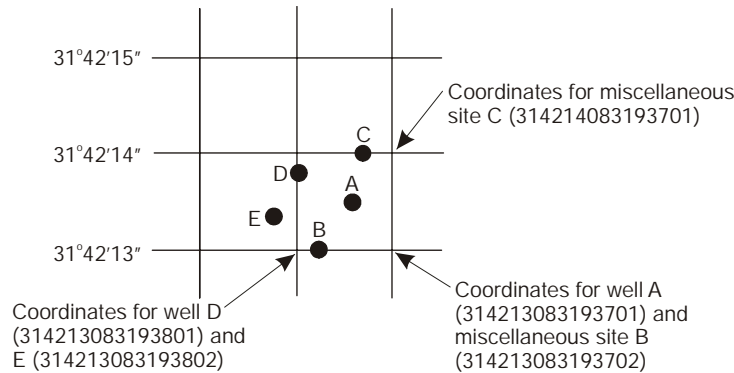


Figure 9. System for numbering wells and miscellaneous sites (latitude and longitude).

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 1a through 1d.

Data Collection and Computation

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

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

In computing discharge records, results of individual measurements are plotted against the corresponding stages, and stage-discharge relation curves are then constructed. From these curves, rating tables indicating the

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

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

At some stream-gaging stations the stage-discharge relation is affected by the backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method, in which the slope or fall in a reach of the stream is a factor in computing discharge. The slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage; at these stations the rate of change in stage is used as a factor in computing discharge.

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

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

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

Data Presentation

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

Station Manuscript. The manuscript provides, under various headings, descriptive information such as station location, period of record, historical extremes outside the period of record, record accuracy, and other

remarks pertinent to station operation and regulation. The following information, as appropriate, is provided with each continuous record of discharge or lake content. Comments to follow clarify information presented under the various headings of the station description.

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

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

PERIOD OF RECORD.—This indicates the period for which there are published records for the station or for an equivalent station. An equivalent station is one that was in operation at a time that the present station was not, and whose location was such that records from it can reasonably be considered equivalent with records from the present station.

REVISED RECORDS.—Published records, because of new information, occasionally are found to be incorrect, and revisions are printed in later reports. Listed under this heading are all the reports in which revisions have been published for the station and the water years to which the revisions apply. If a revision did not include daily, monthly, or annual figures of discharge, that fact is noted after the year dates as follows: (M) means that only the instantaneous maximum discharge was revised, (m) that only the instantaneous minimum was revised, and (P) that only the peak discharges were revised. If the drainage area has been revised, the report in which the most recently revised figure was first published is given.

GAGE.—The type of gage in current use, the datum of the current gage referred to sea level (National Geodetic Vertical Datum of 1929) unless otherwise noted, and a condensed history of the types, locations, and datums of previous gages are given under this heading.

REMARKS.—All periods of estimated daily discharge record will either be identified by date in this paragraph of the station description for water-discharge stations or be flagged in the daily discharge table. (See the section, "Identifying Estimated Daily Discharge.") If a "remarks" statement is used to identify estimated record, the paragraph will begin with this information presented as the first entry. The paragraph is also used to present information relative to the accuracy of the records, to special methods of computation, and to conditions that affect natural flow at the station, in addition, possibly, to other pertinent items. For reservoir stations, information is given on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir.

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

EXTREMES FOR PERIOD OF RECORD.—In some headings "Extremes for Period of Record" is presented as a paragraph separate from summary statistics. Extremes may include maximum and minimum stages and maximum and minimum discharges or contents. Unless otherwise qualified, the maximum discharge or content is the instantaneous maximum corresponding to the highest stage that occurred. The highest stage may have been obtained from a graphic or digital recorder, from a crest-stage gage, or by direct observation of a nonrecording gage. If the maximum stage did not occur on the same day as the maximum discharge or content, it is given separately. Similarly, the minimum is the instantaneous minimum discharge, unless otherwise qualified, and was determined and is reported in the same manner as the maximum.

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

PEAK DISCHARGES ABOVE BASE FOR CURRENT YEAR—Presented as a separate table. For stations meeting certain criteria, all peak discharges and stages occurring during the water year and greater than a selected base discharge are presented under this heading. All peaks greater than the base discharge are listed with the maximum for the year footnoted by an asterisk (*). Peak discharges are not published for canals, ditches, drains, or streams for which the peaks are subject to substantial regulation or at locations where the instantaneous peak discharge does not exceed the mean daily discharge by 10 percent. The time of occurrence for peaks is expressed in 24-hour local standard time. For example, 12:30 a.m. is 0030, and 1:30 p.m. is 1330.

REVISIONS.—If 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 CFM), or in inches (line headed IN.), or in acre-feet (line headed AC-FT). Figures for cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion or if the drainage area includes large noncontributing areas. In the yearly summary below the monthly summary, the figures shown are the appropriate discharges for the calendar and water years. At some stations monthly and (or) yearly observed discharges are adjusted for reservoir storage or diversion, or diversions or reservoir contents are given. These figures are identified by symbol and corresponding footnote.

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

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

statistical characteristics designated ANNUAL (See line headings below), except for the ANNUAL SEVEN-DAY MINIMUM statistic, are calculated for the designated period using complete water years. The other statistical characteristics may be calculated using partial water years.

The date or water year, as appropriate, of the first occurrence of each statistic reporting extreme values of discharge is provided adjacent to the statistic. Repeated occurrences may be noted in the REMARKS paragraph of the manuscript or in the footnotes. When the maximum or minimum statistic occurred outside the designated period, that statistic is listed in the EXTREMES FOR PERIOD OF RECORD paragraph in the manuscript. Selected streamflow-duration-curve statistics and runoff data are also given. Runoff data may be omitted if there is extensive regulation or diversion of flow in the drainage basin.

The following summary statistics data, as appropriate, are provided with each continuous record of discharge. Comments to follow clarify information presented under the various line headings of the summary statistics table.

ANNUAL TOTAL.—The sum of the daily mean values of discharge for the year. At some stations the annual total discharge is adjusted for reservoir storage or diversion. The adjusted figures are identified by a symbol and corresponding footnotes.

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

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

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

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

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

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

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

INSTANTANEOUS PEAK STAGE.—The maximum instantaneous stage occurring for the water year or for the designated period. If the dates of occurrence for the instantaneous peak flow and instantaneous peak stage differ, the "Remarks" paragraph in the manuscript or a footnote may be used to provide further information.

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

ANNUAL RUNOFF.—Indicates the total quantity of water in runoff for a drainage area for the year. Data reports may use any of the following units of measurement in presenting annual runoff data: Acre-foot (AC-FT) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Cubic feet per second per square mile (CFSM) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area for the area. Inches (INCHES) indicates the depth to which the drainage area would be covered if all the runoff for a given time period were uniformly distributed on it.

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

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

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

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

Identifying Estimated Daily Discharge

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

Accuracy of the Records

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

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

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

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or other factors. For such stations, figures of cubic feet per second per square mile and of runoff, in inches, are not published unless satisfactory adjustments can be made for diversions, for changes in contents of reservoirs, or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

Other Records Available

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

Records of Surface-Water Quality

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

Classification of Records

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

A careful distinction needs to be made between "continuing records" as used in this report and "continuous recordings," which refers to a continuous series of discrete values collected at short intervals and 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 1a and 1b.

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 water-quality-related chapters in the series "Techniques of Water-Resources Investigations" (TWRI) and in 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." Additional information on collecting, treating, and shipping samples can be found in USGS Water-Resources Investigations Report 98-4057 "Quality-Assurance/Quality-Control Manual for Collection and Analysis of Water-Quality Data in the Ohio District, U.S. Geological Survey."

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load. All samples obtained for the National Stream-Quality Accounting Network (see definitions) are obtained from at least several verticals. Whether samples are obtained from the centroid of flow or from several verticals depends on flow conditions and other factors that must be evaluated by the collector.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon hourly readings beginning at 0100 hours and ending at 2400 hours for each day of record. More detailed records (hourly values) may be obtained from the USGS District Office, whose address is given on the back of the title page of this report.

Water Temperatures

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

At stations where recording instruments are used, either mean temperatures or maximum and minimum temperatures for each day are published.

Sediment

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

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

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

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

Laboratory Measurements

Sediment samples, samples for microbiological analyses, and samples for specific conductance, pH, and dissolved oxygen are analyzed locally. All other samples are analyzed in the USGS laboratories in Arvada, Colo., or by a USGS-approved outside laboratory. Methods used in analyzing sediment samples and computing sediment records are given in 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 (1999) 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.

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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

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

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

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

Dissolved Trace-Element Concentrations

NOTE.—To confidently produce dissolved trace-element data with insignificant contamination, the USGS began

using a new trace-element protocol at some stations in water year 1994 to collect trace-element data at the microgram per liter ($\mu\text{g/L}$) level (refer to USGS Open-File Report 94-539 "U.S. Geological Survey Protocol for the Collection and Processing of Surface-Water Samples for the Subsequent Determination of Inorganic Constituents in Filtered Water"). This protocol was used in 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 Program Office (Telephone: 217-333-7873).

Records of Ground-Water Levels

Water-level data from a network of observation wells (in addition to project wells) are given in this report. The network well data are intended to provide a sampling and historical record of water-level changes in the Nation's most important aquifers. Locations of the observation wells in this network in Ohio are shown in figures 1a and 1b. 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. 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.

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.

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

Acre-foot (AC-FT, acre-ft) is 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.

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

Annual runoff is the total quantity of water in runoff for a drainage area. Runoff data may be reported as inches (depth to which the drainage area would be covered with water if all the runoff were distributed uniformly in time and area) or as acre-feet or cubic feet per second per square mile (both units defined elsewhere in this list).

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.

Clostridium perfringens (*C. perfringens*) is a spore-forming bacterium that is common in the feces of humans and other warm-blooded animals. Clostridial spores are being used experimentally as an indicator of past fecal contamination and presence of microorganisms that are resistant to disinfection and environmental stresses. *C. perfringens* is a rod-shaped, anaerobic, gram-positive bacterium that produces acid phosphatase and also toxins that cause gas gangrene and gastroenteritis. After inoculation on mCP agar and anaerobic incubation at 42°C for 24 hours,

C. perfringens forms colonies that turn pink to magenta upon exposure to ammonium hydroxide fumes.

Enterococcus bacteria are commonly found in the feces of humans and other warm-blooded animals. Although some strains are ubiquitous and not related to fecal pollution, the presence of enterococci in water is an indication of fecal pollution and the possible presence of enteric pathogens. Enterococcus bacteria are those bacteria that produce pink to red colonies with black or reddish-brown precipitate after incubation at 41°C on mE agar and subsequent transfer to EIA medium. Enterococci include *Streptococcus feacalis*, *Streptococcus feacium*, *Streptococcus avium*, and their variants.

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.

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.

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.

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

Benthic organisms (invertebrates) are the group of animals inhabiting the bottom of an aquatic environment. They include microinvertebrates (such as bacteria and fungi) and macroinvertebrates (such as insect larvae and nymphs, snails, clams, and crayfish). They are useful as indicators of water quality.

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

Biomass is the amount of living matter present at any given time, expressed as 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/m³) and periphyton and benthic organisms in grams per square meter (g/m²).

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.
- Coliphages are viruses that infect and replicate in *Escherichia coli* bacteria. They are indicative of sewage contamination of waters and of the survival and transport of viruses in the environment.
- Color unit is produced by 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.
- Cubic foot per second (cfs, ft³/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.
- Datum, as used in this report, is an elevation above sea level to which gage-height readings are referenced.
- 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.
- Annual 7-day minimum is the lowest mean discharge for 7 consecutive days in a 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.)
- 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 oxygen (DO) content of water in equilibrium with air is a function of atmospheric pressure, temperature, and dissolved-solids concentration of the water. The ability of water to retain oxygen decreases with increasing temperature or dissolved solids, with small temperature changes having the more significant offset. Photosynthesis and respiration may cause diurnal variations in dissolved-oxygen concentration in water from some streams.

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.

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 benchmark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a 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 benchmark 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 2.

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.

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

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, $\mu\text{g}/\text{L}$) 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.

Miscellaneous site, or miscellaneous station, is a site where streamflow, sediment, and/or water-quality data are collected once, or more often on a random or discontinuous basis.

National Geodetic Vertical Datum of 1929 (NGVD of 1929) is a geodetic datum derived from a general adjustment of the first order level nets of the United States and Canada. It was formerly called "Sea Level Datum of 1929" or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place. See NOAA web site: <http://www.ngs.noaa.gov/faq.shtml#WhatVD29VD88>

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

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 (m²), 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 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.

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

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.

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 milliliters (cells/mL) 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.
- 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.
- Recurrence interval 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 return period.
- 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 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 emersed 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..... Ephemeraeidae
Genus..... *Hexagenia*
Species..... *Hexagenia limbata*

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.

Turbidity is a measurement of the collective optical properties of a water sample that cause light to be scattered and absorbed rather than transmitted in straight lines; the higher the intensity of scattered light, the higher the turbidity. Turbidity is expressed in nephelometric turbidity units (NTU) or Formazin turbidity units (FTU) depending on the method and equipment used.

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 water year 1980.

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.

Well is an excavation (pit, hole, tunnel), generally cylindrical in form and often walled in, drilled, dug, driven, bored, or jetted into the ground to such a depth as to penetrate water-yielding geologic material and allow the water to flow or to be pumped to the surface.

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.

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.
- 2-D1. *Application of surface geophysics to ground-water investigations*, by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS—TWRI Book 2, Chapter D1. 1974. 116 pages.
- 2-D2. *Application of seismic-refraction techniques to hydrologic studies*, by F. P. Haeni: USGS—TWRI Book 2, Chapter D2. 1988. 86 pages.
- 2-E1. *Application of borehole geophysics to water-resources investigations*, by W. S. Keys and L.M. MacCary: USGS—TWRI Book 2, Chapter E1. 1971. 126 pages.
- 2-E2. *Borehole geophysics applied to ground-water investigations*, by W. S. Keys: USGS—TWRI Book 2, Chapter E2. 1990. 150 pages.
- 2-F1. *Application of drilling, coring, and sampling techniques to test holes and wells*, by Eugene Shuter and W. E. Teasdale: USGS—TWRI Book 2, Chapter F1. 1989. 97 pages.
- 3-A1. *General field and office procedures for indirect discharge measurements*, by M. A. Benson and Tate Dalrymple: USGS—TWRI Book 3, Chapter A1. 1967. 30 pages.

- 3-A2. *Measurement of peak discharge by the slope-area method*, by Tate Dalrymple and M. A. Benson: USGS—TWRI Book 3, Chapter A2. 1967. 12 pages.
- 3-A3. *Measurement of peak discharge at culverts by indirect methods*, by G. L. Bodhaine: USGS—TWRI Book 3, Chapter A3. 1968. 60 pages.
- 3-A4. *Measurement of peak discharge at width contractions by indirect methods*, by H. F. Matthai: USGS—TWRI Book 3, Chapter A4. 1967. 44 pages.
- 3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS—TWRI Book 3, Chapter A5. 1967. 29 pages.
- 3-A6. *General procedure for gaging streams*, by R. W. Carter and Jacob Davidian: USGS—TWRI Book 3, Chapter A6. 1968. 13 pages.
- 3-A7. *Stage measurement at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS—TWRI Book 3, Chapter A7. 1968. 28 pages.
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- 3-A9. *Measurement of time of travel in streams by dye tracing*, by F. A. Kilpatrick and J. F. Wilson, Jr.: USGS—TWRI Book 3, Chapter A9. 1989. 27 pages.
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SURFACE-WATER RECORDS Beaver River Basin

03091500 MAHONING RIVER AT PRICETOWN, OHIO

LOCATION.--Latitude 41°07'53", longitude 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.
DRAINAGE AREA.--273 mi².

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.--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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	316	166	166	104	1550	114	72	64	220	256	158	172
2	258	162	166	104	1540	114	70	64	223	246	167	172
3	216	129	166	104	1690	116	70	64	225	238	170	172
4	216	186	165	104	1780	268	70	64	227	247	170	172
5	204	171	164	104	1770	391	70	66	228	253	170	174
6	197	171	164	104	1760	391	70	66	229	253	170	175
7	195	170	164	104	1760	391	70	66	251	252	170	176
8	195	170	163	104	1760	488	68	66	267	248	172	177
9	195	170	162	103	1750	554	72	66	270	245	172	177
10	195	170	162	102	1730	557	71	66	273	243	172	174
11	193	170	144	102	1720	563	72	66	246	238	172	172
12	193	170	131	102	1320	563	71	66	228	235	172	172
13	193	170	131	102	994	563	70	66	229	231	172	172
14	193	170	115	102	991	565	56	76	231	226	172	172
15	186	170	106	102	990	494	47	83	233	221	172	172
16	181	169	106	102	732	353	47	84	230	213	172	172
17	181	168	104	100	469	188	48	87	229	205	172	167
18	180	168	104	101	310	118	47	97	233	199	172	164
19	167	168	104	120	220	104	47	102	236	193	172	164
20	166	168	104	346	220	103	47	103	239	190	172	164
21	166	168	105	608	220	102	47	148	241	190	172	164
22	166	168	106	518	153	102	48	178	244	186	172	164
23	165	166	104	394	116	102	49	179	246	185	172	163
24	164	166	104	e540	116	102	49	181	248	183	172	171
25	164	166	104	e800	115	102	49	181	248	181	172	166
26	164	166	104	1150	114	102	49	200	249	180	172	166
27	164	166	104	1570	114	102	49	212	251	179	172	161
28	170	166	104	1570	114	102	48	214	253	179	172	158
29	167	166	104	1600	---	84	49	216	256	165	172	152
30	166	166	104	1600	---	72	58	217	256	155	172	153
31	166	---	104	1550	---	74	---	218	---	155	172	---
TOTAL	5842	5020	3938	14216	26118	8044	1750	3626	7239	6570	5303	5050
MEAN	188	167	127	459	933	259	58.3	117	241	212	171	168
MAX	316	186	166	1600	1780	565	72	218	273	256	172	177
MIN	164	129	104	100	114	72	47	64	220	155	158	152

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 1999, BY WATER YEAR (WY)

	230	235	275	283	329	367	286	280	276	236	249	263
MEAN	230	235	275	283	329	367	286	280	276	236	249	263
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

SUMMARY STATISTICS

	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1942 - 1999	
ANNUAL TOTAL	109092		92716			
ANNUAL MEAN	299		254		275	
HIGHEST ANNUAL MEAN					490	
LOWEST ANNUAL MEAN					131	
HIGHEST DAILY MEAN	1490	May 2	1780	Feb 4	3370	Jun 10 1947
LOWEST DAILY MEAN	45	Apr 10	47	Apr 15	.40	Nov 9 1941
ANNUAL SEVEN-DAY MINIMUM	46	Apr 8	47	Apr 15	.94	Feb 24 1945
INSTANTANEOUS PEAK FLOW			1780	Feb 3	4120	Apr 10 1942
INSTANTANEOUS PEAK STAGE			6.34	Feb 3	10.62	Apr 10 1942
INSTANTANEOUS LOW FLOW			47	Apr 15	.40	Nov 9 1941
10 PERCENT EXCEEDS	932		392		676	
50 PERCENT EXCEEDS	168		170		176	
90 PERCENT EXCEEDS	82		70		60	

e Estimated.

SURFACE-WATER RECORDS Beaver River Basin

03094000 MAHONING RIVER AT LEAVITTSBURG, OHIO

LOCATION.--Latitude 41°14'21", longitude 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 good except for periods of estimated record, 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 1998 TO SEPTEMBER 1999 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	351	203	222	244	2210	870	197	262	285	302	243	273
2	343	201	219	190	2440	630	202	254	291	315	266	273
3	265	194	217	209	2790	840	205	246	292	286	282	273
4	262	206	214	205	2740	1830	209	241	287	271	286	273
5	257	225	212	196	2450	1510	228	258	280	279	287	273
6	234	216	212	185	2320	e1050	232	264	273	282	286	273
7	247	215	212	184	2270	e1000	214	262	273	288	284	279
8	385	214	212	183	2610	e940	201	258	293	302	291	291
9	358	214	212	186	2560	e900	416	258	295	295	285	283
10	256	232	210	185	2320	e860	1490	257	293	296	281	275
11	231	258	202	185	2220	e820	1230	256	287	289	281	268
12	224	268	177	185	2150	e800	1300	251	282	287	281	264
13	220	243	172	201	1740	e820	812	255	289	284	281	262
14	216	228	169	211	1560	832	429	263	304	282	283	262
15	215	222	156	249	1490	796	304	273	309	281	285	262
16	202	219	158	272	1450	733	287	279	301	286	281	262
17	201	215	164	286	1100	858	527	278	287	287	281	253
18	207	214	167	393	1010	867	635	303	281	286	277	246
19	214	213	169	674	704	623	474	375	289	287	276	245
20	202	214	175	1040	621	395	521	284	292	287	276	246
21	200	214	204	1510	583	332	445	253	292	289	277	246
22	214	214	554	1510	535	301	563	299	291	300	278	245
23	216	214	602	1900	325	279	858	296	289	289	276	245
24	212	213	331	3750	297	262	1060	371	289	296	276	245
25	205	213	303	3490	269	246	668	426	289	292	284	245
26	202	244	278	2170	265	234	426	359	300	290	295	245
27	199	269	264	2380	261	227	351	330	300	286	283	244
28	199	257	259	2750	469	222	306	302	302	305	280	239
29	202	234	258	3000	---	211	283	290	297	338	276	256
30	203	224	258	2550	---	194	266	283	299	284	272	301
31	202	---	254	2290	---	195	---	280	---	243	273	---
TOTAL	7344	6710	7416	32963	41759	20677	15339	8866	8731	8984	8663	7847
MEAN	237	224	239	1063	1491	667	511	286	291	290	279	262
MAX	385	269	602	3750	2790	1830	1490	426	309	338	295	301
MIN	199	194	156	183	261	194	197	241	273	243	243	239

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1999, BY WATER YEAR (WY)

MEAN	448	612	843	785	825	956	841	673	552	409	372	481
MAX	1575	2077	2010	2105	2262	1909	2089	2267	2116	1047	1022	1705
(WY)	1991	1986	1978	1993	1990	1993	1994	1996	1989	1990	1992	1975
MIN	145	139	156	171	226	212	243	261	253	237	236	227
(WY)	1967	1992	1992	1992	1992	1969	1986	1992	1988	1988	1967	1967

SUMMARY STATISTICS FOR 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1967 - 1999

ANNUAL TOTAL	202356	175299	
ANNUAL MEAN	554	480	649
HIGHEST ANNUAL MEAN			981
LOWEST ANNUAL MEAN			367
HIGHEST DAILY MEAN	4210	Jan 9	3750
LOWEST DAILY MEAN	156	Dec 15	156
ANNUAL SEVEN-DAY MINIMUM	165	Dec 13	165
INSTANTANEOUS PEAK FLOW			4070
INSTANTANEOUS PEAK STAGE		10.22	Jan 25
INSTANTANEOUS LOW FLOW		169	Dec 15
10 PERCENT EXCEEDS	1720		1020
50 PERCENT EXCEEDS	302		279
90 PERCENT EXCEEDS	212		203
			214

e Estimated.

SURFACE-WATER RECORDS
Beaver River Basin

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

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

DRAINAGE AREA.--854 mi².

PERIOD OF RECORD.--October 1987 to current year.

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	404	232	261	348	2320	1500	288	e450	354	454	387	369
2	403	232	259	313	2600	1200	293	e430	363	505	420	359
3	402	229	255	378	2970	1370	303	e410	396	405	443	362
4	374	218	251	360	2960	2780	319	e400	367	345	448	366
5	338	249	253	328	2630	2400	354	e390	352	347	443	368
6	318	245	248	303	2460	1820	354	e430	336	402	438	363
7	339	240	247	300	2400	1840	314	e410	334	442	427	391
8	752	235	243	295	2810	1590	272	e400	350	443	453	385
9	532	232	238	306	2910	1520	625	e420	367	471	437	377
10	370	298	240	299	2580	1380	2260	e400	368	526	424	357
11	311	348	241	296	2390	1270	2310	e420	378	468	407	351
12	292	311	229	300	2400	1220	2290	e410	375	461	409	336
13	285	275	214	335	2130	1220	1570	e400	389	448	425	336
14	274	252	210	343	1820	1200	825	e400	454	452	474	324
15	277	238	205	354	1700	1180	539	e400	441	456	433	312
16	272	242	208	396	1690	1120	516	e390	389	458	370	310
17	259	234	218	423	1430	1290	840	e390	366	462	358	310
18	269	235	228	798	1290	1330	1100	e450	366	478	375	304
19	313	235	231	1010	975	1030	892	e540	391	479	378	301
20	270	259	235	1170	799	654	931	e460	401	481	376	311
21	254	254	282	1440	727	501	e840	e380	413	496	420	309
22	279	252	881	1800	678	449	e1500	e340	415	654	448	302
23	268	244	959	3080	517	409	e1800	e380	415	439	429	312
24	263	237	544	4570	406	378	1950	e1600	419	453	427	314
25	254	240	438	4420	388	354	1430	e2000	434	472	487	312
26	247	321	406	2850	366	334	891	535	445	484	628	304
27	242	311	384	2530	377	319	740	449	452	486	458	304
28	234	310	376	2850	780	309	666	409	462	696	408	297
29	234	276	371	3140	---	301	573	383	448	813	386	445
30	237	257	374	2800	---	280	e480	362	444	572	376	740
31	240	---	374	2440	---	281	---	353	---	376	378	---
TOTAL	9806	7741	10103	40575	47503	32829	28065	15591	11884	14924	13170	10531
MEAN	316	258	326	1309	1697	1059	936	503	396	481	425	351
MAX	752	348	959	4570	2970	2780	2310	2000	462	813	628	740
MIN	234	218	205	295	366	280	272	340	334	345	358	297
MED	277	244	251	396	1760	1200	782	409	390	462	425	330
CFSM	.37	.30	.38	1.53	1.99	1.24	1.10	.59	.46	.56	.50	.41
IN.	.43	.34	.44	1.77	2.07	1.43	1.22	.68	.52	.65	.57	.46

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1999, BY WATER YEAR (WY)

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
MEAN	618	790	956	1316	1247	1257	1105	936	950	648	557	591
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	1990	1988	1992	1992	1988	1988	1994

SUMMARY STATISTICS FOR 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1988 - 1999

ANNUAL TOTAL	280522	242722	
ANNUAL MEAN	769	665	
HIGHEST ANNUAL MEAN			1262 1997
LOWEST ANNUAL MEAN			546 1992
HIGHEST DAILY MEAN	5950	Jan 9	4570 Jan 24 9120 May 12 1996
LOWEST DAILY MEAN	205	Dec 15	205 Dec 15 183 Feb 9 1992
ANNUAL SEVEN-DAY MINIMUM	216	Dec 12	216 Dec 12 196 Feb 5 1992
INSTANTANEOUS PEAK FLOW			4770 Jan 24 9760 Apr 13 1994
INSTANTANEOUS PEAK STAGE			7.50 Jan 24 13.35 Apr 13 1994
INSTANTANEOUS LOW FLOW			205 Dec 15 183 Feb 9 1992
ANNUAL RUNOFF (CFSM)	.90	.78	1.07
ANNUAL RUNOFF (INCHES)	12.22	10.57	14.51
10 PERCENT EXCEEDS	2150	1640	2230
50 PERCENT EXCEEDS	412	396	493
90 PERCENT EXCEEDS	248	248	295

e Estimated.

SURFACE-WATER RECORDS Beaver River Basin

03098600 MAHONING RIVER BELOW WEST AVENUE AT YOUNGSTOWN, OHIO

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

DRAINAGE AREA.--978 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1987 to current year.

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

REMARKS.--Records good except for periods of estimated record, which are poor. 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 1998 TO SEPTEMBER 1999 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e540	236	282	e370	2520	1870	319	470	382	e480	e420	379
2	e500	233	274	e350	3080	1460	325	457	385	e540	e440	378
3	e540	228	271	402	3500	1810	330	449	e420	e450	e460	371
4	e540	217	265	385	3320	3360	353	438	e390	e390	e470	370
5	e450	253	266	e360	2860	2740	406	429	e365	e370	e470	369
6	e400	252	261	e340	2650	2220	396	456	e350	e440	e475	367
7	e660	240	271	e335	2600	2270	359	443	e350	e460	e475	430
8	4600	242	270	e330	3250	1880	324	446	e380	e460	e470	414
9	2120	239	258	e320	3300	1710	1040	459	e390	e540	460	408
10	502	345	255	e320	2810	1540	2890	438	e390	567	450	377
11	331	446	251	e320	2570	1400	2960	446	e400	e520	429	361
12	291	355	236	e340	2600	1350	2770	431	e400	e480	434	348
13	277	313	213	393	2370	1350	1890	417	e440	e460	437	360
14	265	284	208	413	1990	1310	986	440	e490	e460	636	356
15	263	270	203	412	1840	1280	625	432	e470	e480	608	341
16	254	268	203	442	1840	1240	638	434	e410	e485	435	e360
17	237	260	227	491	1610	1470	1070	434	e400	e490	398	e370
18	259	259	243	e1000	1420	1530	1320	424	e400	e500	380	e370
19	350	257	245	e1300	1070	1150	1120	668	e415	e500	e400	e370
20	275	297	254	e1700	838	713	1170	482	e425	e510	e400	e370
21	255	293	581	e2400	747	552	946	356	e435	e530	e430	e370
22	310	277	5540	e3500	686	495	1510	357	e440	1240	e465	e350
23	275	269	5250	e5000	543	450	2210	392	e440	e470	e450	e340
24	261	265	2810	e5600	424	418	2360	2940	e440	e480	e450	e330
25	244	258	485	e4900	415	e390	1710	3360	e450	e495	519	e330
26	239	371	e420	3520	400	362	1100	1200	e460	e520	658	e330
27	237	349	e400	2860	409	348	888	526	e470	442	459	e330
28	231	340	e390	3260	1140	337	730	439	e490	2770	e470	e400
29	232	298	e390	3560	---	330	623	400	e470	2950	e430	513
30	231	280	e390	3070	---	308	535	377	e460	656	e420	873
31	236	---	e390	2630	---	300	---	362	---	432	e450	---
TOTAL	16405	8494	22002	50623	52802	37943	33903	19802	12607	20567	14348	11635
MEAN	529	283	710	1633	1886	1224	1130	639	420	663	463	388
MAX	4600	446	5540	5600	3500	3360	2960	3360	490	2950	658	873
MIN	231	217	203	320	400	300	319	356	350	370	380	330

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1999, BY WATER YEAR (WY)

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
MEAN	694	877	1133	1555	1431	1487	1354	1096	1114	772	616	681
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 1998 CALENDAR YEAR	FOR 1999 WATER YEAR	WATER YEARS 1988 - 1999
ANNUAL TOTAL	358965	301131	
ANNUAL MEAN	983	825	1065
HIGHEST ANNUAL MEAN			1445
LOWEST ANNUAL MEAN			643
HIGHEST DAILY MEAN	9060	Jan 9	5600
LOWEST DAILY MEAN	203	Dec 15	203
ANNUAL SEVEN-DAY MINIMUM	219	Dec 12	219
INSTANTANEOUS PEAK FLOW			6200
INSTANTANEOUS PEAK STAGE			12.08
INSTANTANEOUS LOW FLOW			203
10 PERCENT EXCEEDS	2770	2380	2550
50 PERCENT EXCEEDS	490	434	560
90 PERCENT EXCEEDS	261	261	342

e Estimated.

SURFACE-WATER RECORDS
Beaver River Basin

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

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD--

SPECIFIC CONDUCTANCE: July 1992 to current year.

pH: July 1992 to current year.

WATER TEMPERATURES: June 1992 to current year.

DISSOLVED OXYGEN: July 1992 to current year.

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

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

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 1,060 microsiemens Jan. 15, 1999; minimum, 189 microsiemens Aug. 1, 1992.

pH: Maximum, 8.8 units May 14, 23, 31, 1994; minimum, 6.6 units Feb. 2, 1999.

WATER TEMPERATURES: Maximum, 32.5°C July 10, 1993, July 15, 1995, and July 27, 1999; minimum, 1.0°C on several days during winter.

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

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 1,060 microsiemens Jan. 15; minimum, 306 microsiemens Jan. 25.

pH: Maximum, 8.4 units July 13; minimum, 6.6 units Feb. 2.

WATER TEMPERATURES: Maximum, 32.5°C July 27; minimum, 2.0°C Jan. 24-26 and 31.

DISSOLVED OXYGEN: Maximum, 13.1 mg/L Jan. 27; minimum, 3.7 mg/L July 21 and 22.

SPECIFIC CONDUCTANCE, MICROSIEMENS/CM AT 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	422	399	412	555	538	548	536	525	532	510	493	496
2	424	415	420	561	532	550	552	536	543	514	502	508
3	439	416	428	533	520	529	549	542	544	665	505	607
4	448	429	439	536	519	528	550	538	542	658	598	619
5	469	438	451	530	518	525	539	527	534	753	622	676
6	440	411	419	532	517	525	545	523	535	753	676	708
7	444	430	439	537	505	521	535	523	529	681	660	671
8	448	378	430	524	505	516	527	510	521	674	652	661
9	383	363	371	525	502	512	518	510	514	737	674	714
10	416	383	400	523	497	510	---	---	---	722	694	717
11	464	416	439	514	485	499	---	---	---	695	671	687
12	463	457	458	---	---	---	---	---	---	715	671	699
13	467	455	460	---	---	---	---	---	---	976	714	857
14	477	467	470	---	---	---	---	---	---	1000	932	960
15	492	468	479	---	---	---	---	---	---	1060	999	1040
16	488	470	479	---	---	---	541	527	531	1050	924	975
17	483	474	480	---	---	---	548	526	536	984	899	919
18	485	470	480	---	---	---	568	542	557	1040	958	993
19	484	467	475	---	---	---	569	552	565	992	929	968
20	484	464	473	566	538	555	585	560	575	935	824	896
21	495	463	478	562	554	558	645	571	605	824	684	761
22	504	463	483	567	547	555	600	448	532	690	642	666
23	507	497	499	566	528	541	493	441	472	646	476	585
24	540	507	524	548	529	535	489	482	486	476	334	396
25	524	512	518	555	534	546	482	461	470	334	306	312
26	539	524	532	558	532	543	525	462	489	366	309	331
27	541	536	538	563	538	549	527	485	512	440	366	401
28	567	538	552	552	504	522	490	483	486	446	429	437
29	578	557	571	521	513	518	488	479	483	429	397	411
30	571	551	563	525	519	521	501	484	492	422	396	403
31	554	539	549	---	---	---	498	487	493	432	422	428
MONTH	578	363	474	567	485	532	645	441	523	1060	306	661

SURFACE-WATER RECORDS
Beaver River Basin

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

WATER-QUALITY RECORDS—CONTINUED

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

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

SURFACE-WATER RECORDS
Beaver River Basin

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

WATER-QUALITY RECORDS—CONTINUED

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999—Continued

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN												
													JUNE			JULY			AUGUST			SEPTEMBER		
1	7.7	7.5	7.6	7.7	7.5	7.6	7.7	7.5	7.6	---	---	---												
2	7.8	7.5	7.6	8.0	7.6	7.7	7.6	7.5	7.6	8.0	7.8	7.9												
3	7.6	7.5	7.5	8.0	7.6	7.7	7.7	7.5	7.6	8.0	7.8	7.8												
4	7.6	7.5	7.5	8.0	7.6	7.8	7.7	7.6	7.6	7.9	7.7	7.8												
5	7.8	7.4	7.6	7.9	7.6	7.8	7.7	7.6	7.6	7.9	7.7	7.8												
6	7.9	7.5	7.6	7.9	7.7	7.8	7.7	7.6	7.6	7.9	7.7	7.8												
7	8.1	7.5	7.7	8.0	7.6	7.8	7.7	7.6	7.6	7.9	7.7	7.8												
8	7.9	7.5	7.6	7.9	7.6	7.7	7.7	7.6	7.6	7.9	7.7	7.8												
9	7.7	7.5	7.6	8.0	7.6	7.8	7.6	7.6	7.6	7.8	7.7	7.8												
10	7.7	7.5	7.6	7.9	7.6	7.7	7.7	7.6	7.6	7.9	7.7	7.8												
11	7.7	7.5	7.5	7.9	7.6	7.7	7.7	7.6	7.6	7.9	7.7	7.8												
12	7.7	7.5	7.5	8.0	7.6	7.8	7.7	7.6	7.6	7.8	7.7	7.8												
13	7.7	7.5	7.5	8.4	7.8	8.0	7.7	7.6	7.7	7.8	7.7	7.8												
14	7.5	7.5	7.5	8.0	7.6	7.8	7.7	7.5	7.6	7.9	7.7	7.8												
15	7.5	7.5	7.5	8.1	7.6	7.8	7.7	7.5	7.6	8.1	7.8	7.8												
16	7.5	7.4	7.5	8.1	7.7	7.9	7.6	7.5	7.5	7.8	7.7	7.8												
17	7.6	7.5	7.5	8.1	7.7	7.9	7.7	7.5	7.6	7.8	7.7	7.8												
18	7.6	7.5	7.5	8.0	7.6	7.8	7.7	7.6	7.6	7.8	7.7	7.7												
19	7.6	7.5	7.5	7.8	7.6	7.7	7.7	7.6	7.6	7.7	7.6	7.7												
20	7.7	7.5	7.6	7.7	7.6	7.6	---	---	---	7.7	7.6	7.7												
21	7.7	7.5	7.6	7.7	7.5	7.6	---	---	---	7.7	7.6	7.7												
22	7.7	7.5	7.6	7.7	7.5	7.6	---	---	---	7.7	7.6	7.7												
23	7.7	7.5	7.5	7.7	7.5	7.6	---	---	---	7.7	7.6	7.7												
24	7.6	7.4	7.5	7.8	7.5	7.6	---	---	---	7.7	7.6	7.6												
25	7.6	7.4	7.5	7.8	7.6	7.7	---	---	---	7.6	7.6	7.6												
26	7.7	7.4	7.5	7.8	7.5	7.6	---	---	---	7.8	7.6	7.7												
27	7.6	7.4	7.5	7.8	7.6	7.7	---	---	---	7.8	7.7	7.7												
28	7.6	7.5	7.5	7.8	7.5	7.6	---	---	---	7.8	7.7	7.8												
29	7.6	7.5	7.6	7.7	7.5	7.6	---	---	---	7.9	7.7	7.8												
30	7.7	7.5	7.6	7.6	7.5	7.6	---	---	---	7.8	7.6	7.7												
31	---	---	---	7.7	7.5	7.6	---	---	---	---	---	---												
MONTH	8.1	7.4	7.5	8.4	7.5	7.7	7.7	7.5	7.6	8.1	7.6	7.8												
YEAR	8.4	6.6	7.4																					

TEMPERATURE, WATER, DEGREES CELSIUS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN												
													OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	23.5	22.0	23.0	18.0	16.0	17.0	12.5	12.0	12.5	4.5	3.5	4.0												
2	22.0	21.0	21.5	16.0	15.0	16.0	13.5	11.0	12.5	3.5	2.5	3.0												
3	21.0	19.5	20.0	15.0	14.5	14.5	11.0	10.5	11.0	3.5	2.5	3.0												
4	19.5	18.0	18.5	16.5	14.5	16.0	11.5	11.0	11.5	4.0	2.5	3.5												
5	19.0	18.0	18.5	17.0	16.0	16.5	12.5	11.5	12.0	4.0	2.5	3.0												
6	20.5	18.5	19.5	17.0	16.5	17.0	13.5	12.0	13.0	5.5	4.0	5.0												
7	21.0	20.5	20.5	16.5	16.5	16.5	13.5	12.5	13.0	6.0	5.5	6.0												
8	21.0	19.5	20.0	17.0	16.5	17.0	12.5	11.5	12.0	6.5	6.0	6.0												
9	19.5	19.0	19.0	17.5	16.5	17.0	---	---	---	7.5	6.0	7.0												
10	19.0	18.0	18.5	16.5	15.5	16.0	---	---	---	7.5	6.0	6.5												
11	19.5	18.0	18.5	---	---	---	---	---	---	6.5	6.0	6.0												
12	19.5	18.5	19.0	---	---	---	---	---	---	7.5	6.0	7.0												
13	19.5	18.5	18.5	---	---	---	---	---	---	8.0	6.0	7.0												
14	18.5	18.0	18.5	---	---	---	---	---	---	6.0	4.5	5.5												
15	19.0	18.0	18.5	---	---	---	---	---	---	5.5	4.5	5.0												
16	19.0	18.0	18.5	---	---	---	10.0	9.5	9.5	7.0	5.5	6.0												
17	19.5	18.0	19.0	---	---	---	10.0	9.5	10.0	7.5	6.0	7.0												
18	20.0	19.0	19.5	---	---	---	9.5	9.0	9.5	7.5	4.0	5.0												
19	19.5	18.5	19.0	---	---	---	10.0	9.5	9.5	4.5	4.0	4.0												
20	18.5	18.0	18.5	17.0	14.0	16.5	10.0	9.5	10.0	4.0	3.0	3.5												
21	18.0	17.0	17.5	14.0	11.5	12.5	10.5	9.5	10.0	3.5	3.0	3.0												
22	17.5	16.5	17.0	12.0	11.5	11.5	11.0	8.5	10.0	3.0	2.5	3.0												
23	18.5	17.5	18.0	12.0	11.5	11.5	8.5	6.0	7.0	3.0	2.5	2.5												
24	19.0	18.0	18.5	11.5	10.0	11.0	6.0	5.5	6.0	3.0	2.0	2.5												
25	18.5	16.0	17.0	12.0	10.0	11.0	7.0	5.0	6.0	2.0	2.0	2.0												
26	16.0	14.0	16.0	12.5	11.0	11.5	5.5	3.5	4.0	3.0	2.0	2.5												
27	16.0	13.5	15.0	12.0	10.5	11.5	4.0	3.5	3.5	3.0	2.5	2.5												
28	18.0	16.0	17.0	10.5	10.0	10.5	5.5	4.0	5.0	3.5	3.0	3.5												
29	20.0	18.0	19.0	11.0	10.0	10.5	6.5	5.5	6.0	3.5	3.0	3.0												
30	19.5	18.5	19.0	12.0	11.0	11.5	6.5	5.0	5.5	3.0	2.5	3.0												
31	20.0	18.0	19.0	---	---	---	5.0	4.0	4.5	3.0	2.0	2.5												
MONTH	23.5	13.5	18.5	18.0	10.0	14.0	13.5	3.5	9.0	8.0	2.0	4.5												

SURFACE-WATER RECORDS
Beaver River Basin

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

WATER-QUALITY RECORDS—CONTINUED

OXYGEN, DISSOLVED, MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	6.7	6.0	6.3	---	---	---	8.2	6.4	6.9	---	---	---
2	6.5	6.0	6.2	---	---	---	7.0	6.3	6.6	---	---	---
3	7.9	6.3	7.3	---	---	---	7.4	6.4	7.0	---	---	---
4	8.1	7.7	7.9	---	---	---	7.5	6.8	7.1	---	---	---
5	8.2	7.7	7.9	---	---	---	7.4	6.6	7.0	---	---	---
6	8.1	7.7	7.9	---	---	---	7.0	6.0	6.6	---	---	---
7	7.7	6.8	7.4	---	---	---	6.6	5.9	6.4	---	---	---
8	7.9	7.0	7.7	---	---	---	7.2	6.1	6.6	---	---	---
9	7.9	7.3	7.5	---	---	---	7.3	6.0	6.5	---	---	---
10	7.5	7.3	7.4	---	---	---	---	---	---	---	---	---
11	7.9	6.9	7.3	---	---	---	---	---	---	---	---	---
12	7.7	6.6	7.0	---	---	---	---	---	---	---	---	---
13	7.7	6.7	7.2	---	---	---	---	---	---	---	---	---
14	7.3	6.8	7.1	---	---	---	---	---	---	---	---	---
15	8.0	7.0	7.6	---	---	---	---	---	---	---	---	---
16	8.2	7.2	7.7	---	---	---	---	---	---	---	---	---
17	8.2	7.3	7.8	---	---	---	---	---	---	---	---	---
18	8.2	7.2	7.8	---	---	---	---	---	---	---	---	---
19	7.4	6.6	7.0	9.0	8.0	8.6	---	---	---	---	---	---
20	7.1	6.3	6.7	8.9	7.7	7.9	---	---	---	---	---	---
21	6.7	6.0	6.4	9.7	8.7	9.1	---	---	---	---	---	---
22	6.2	5.7	6.0	9.5	7.1	9.0	---	---	---	10.7	9.6	10.4
23	6.1	5.4	5.6	8.8	6.3	7.7	---	---	---	11.8	11.3	11.6
24	5.8	5.1	5.4	8.1	6.6	6.9	---	---	---	11.7	11.2	11.5
25	6.1	5.1	5.5	7.2	6.3	6.8	---	---	---	12.3	11.6	12.0
26	6.0	5.7	5.8	7.2	6.3	6.7	---	---	---	12.7	12.1	12.4
27	6.2	5.6	6.0	7.3	6.4	6.8	---	---	---	13.1	10.9	11.8
28	---	---	---	7.6	6.9	7.1	---	---	---	12.6	12.5	12.1
29	---	---	---	7.9	7.0	7.3	---	---	---	12.8	12.1	12.4
30	---	---	---	7.5	6.9	7.1	---	---	---	12.8	12.1	12.4
31	---	---	---	---	---	---	---	---	---	12.7	11.7	12.4
MONTH	8.2	5.1	6.9	9.7	6.3	7.6	8.2	5.9	6.7	13.1	9.6	11.9
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	12.1	11.6	11.9	10.9	9.9	10.5	7.7	6.6	7.2	9.4	8.7	9.0
2	---	---	---	11.1	10.7	10.9	8.4	6.4	7.1	9.1	8.0	8.5
3	---	---	---	10.8	10.4	10.6	9.1	6.4	7.5	8.9	7.5	8.1
4	---	---	---	11.3	10.6	11.0	7.8	6.9	7.4	9.0	7.4	8.1
5	---	---	---	11.6	11.2	11.4	9.7	7.2	8.2	8.4	7.2	7.7
6	---	---	---	11.5	11.2	11.4	9.1	7.2	7.9	8.8	7.0	7.8
7	---	---	---	12.0	11.5	11.8	9.8	7.1	8.0	8.9	7.6	8.1
8	---	---	---	12.2	11.8	12.0	9.4	5.9	7.3	8.6	7.5	8.0
9	---	---	---	12.0	11.6	11.7	7.4	5.5	6.7	8.8	7.6	8.0
10	---	---	---	11.8	11.5	11.6	9.3	7.3	8.7	9.1	7.9	8.4
11	---	---	---	12.0	11.4	11.6	9.6	9.2	9.4	9.0	7.6	8.2
12	---	---	---	11.9	11.5	11.7	9.5	9.3	9.4	8.8	7.4	7.9
13	---	---	---	11.9	11.5	11.7	9.5	9.2	9.3	7.7	6.9	7.3
14	---	---	---	11.7	11.4	11.5	9.2	8.5	9.0	8.2	7.1	7.6
15	---	---	---	11.9	11.3	11.5	8.6	8.3	8.4	8.8	7.5	8.0
16	---	---	---	11.8	10.9	11.3	8.4	8.1	8.3	8.9	7.7	8.2
17	---	---	---	11.4	10.7	11.0	9.0	8.2	8.5	8.9	7.7	8.2
18	12.7	11.8	12.2	10.8	10.3	10.6	10.0	9.0	9.6	8.4	7.3	7.8
19	12.1	11.6	11.8	10.9	10.3	10.6	10.9	9.6	9.9	7.6	7.0	7.3
20	11.7	11.2	11.5	11.2	10.0	10.5	9.9	9.5	9.7	8.4	6.9	7.6
21	11.4	11.1	11.2	10.7	9.5	10.0	9.5	8.9	9.4	8.2	6.9	7.5
22	11.7	11.1	11.4	9.9	9.0	9.5	9.2	8.9	9.0	7.6	6.8	7.1
23	11.6	11.1	11.3	11.0	9.1	9.8	9.5	9.0	9.2	7.7	6.5	7.0
24	11.5	10.6	11.3	11.4	9.1	9.9	10.1	9.5	9.8	8.2	6.2	7.6
25	11.0	9.6	10.1	11.0	8.7	9.2	10.0	9.6	9.9	8.4	8.1	8.3
26	10.2	9.5	9.8	12.3	8.9	10.0	9.7	8.8	9.4	8.8	8.3	8.6
27	9.7	9.3	9.5	12.0	8.7	10.0	9.2	8.8	9.0	8.9	8.4	8.7
28	10.0	9.1	9.5	12.0	8.6	9.8	9.4	8.8	9.1	9.0	8.2	8.6
29	---	---	---	12.0	8.2	9.5	10.5	8.8	9.1	9.2	8.2	8.7
30	---	---	---	11.7	7.9	9.3	9.6	8.8	9.2	8.7	7.9	8.2
31	---	---	---	11.3	7.4	8.8	---	---	---	9.1	7.2	8.2
MONTH	12.7	9.1	11.0	12.3	7.4	10.7	10.9	5.5	8.7	9.4	6.2	8.0

SURFACE-WATER RECORDS
Wheeling Creek Basin

0311548 WHEELING CREEK BELOW BLAINE, OHIO

LOCATION.--Latitude 40°04'01", longitude 80°48'31", Belmont County, Hydrologic Unit 05030106, on left bank at bridge on Pease Township Road 320 near U.S. Route 40, 0.5 mi east of Blaine, 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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	e31	35	e44	153	190	94	125	53	30	26	14
2	54	e36	34	e120	199	158	95	116	62	82	25	14
3	65	e36	34	e160	185	178	94	111	60	53	22	14
4	93	e35	34	e70	160	215	99	107	54	35	20	13
5	74	34	34	e58	143	169	97	103	52	30	19	13
6	e54	33	34	e52	139	466	92	102	48	29	18	14
7	e40	32	36	e49	199	309	87	97	46	29	17	16
8	e240	32	36	e46	292	214	82	110	45	26	19	14
9	e140	32	35	e44	191	209	195	106	42	27	21	14
10	e90	41	33	e42	166	195	239	93	38	38	19	13
11	e58	71	33	e40	152	175	150	87	36	31	18	13
12	e50	46	32	e39	162	168	131	84	35	27	18	12
13	e43	38	31	e38	161	165	117	85	34	25	24	12
14	e38	36	31	e37	140	160	106	89	34	25	40	14
15	e37	35	31	e37	138	166	105	83	35	25	24	13
16	e36	34	31	e36	136	199	119	73	33	24	21	12
17	e35	33	34	e70	132	221	114	72	32	23	18	12
18	e34	33	34	1590	124	191	122	72	30	22	17	12
19	e38	32	32	717	118	164	119	79	30	23	17	12
20	e36	43	32	387	114	152	251	67	29	23	16	12
21	e32	42	41	523	107	146	205	64	28	24	17	16
22	e33	37	348	927	101	138	197	69	27	26	17	15
23	e33	35	104	672	97	129	594	88	25	25	23	13
24	e32	34	67	586	e92	125	387	95	25	23	17	13
25	e32	33	e60	349	e88	117	235	95	26	22	26	14
26	e31	56	e53	270	e84	112	198	76	26	20	39	14
27	e30	49	e46	232	e88	108	176	65	25	20	28	13
28	e33	41	e42	207	228	104	159	60	26	24	28	13
29	e33	37	e39	181	---	101	144	57	53	87	21	27
30	e32	36	e36	161	---	96	134	56	39	43	17	41
31	e31	---	e33	149	---	93	---	54	---	28	15	---
TOTAL	1660	1143	1535	7933	4089	5333	4937	2640	1128	969	667	442
MEAN	53.5	38.1	49.5	256	146	172	165	85.2	37.6	31.3	21.5	14.7
MAX	240	71	348	1590	292	466	594	125	62	87	40	41
MIN	30	31	31	36	84	93	82	54	25	20	15	12
CFSM	.55	.39	.51	2.62	1.49	1.76	1.68	.87	.38	.32	.22	.15
IN.	.63	.44	.58	3.02	1.56	2.03	1.88	1.01	.43	.37	.25	.17

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 1999, BY WATER YEAR (WY)

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
MEAN	46.2	94.2	112	150	157	185	162	147	115	76.6	48.5	42.7				
MAX	138	402	395	294	262	330	279	344	345	230	127	95.2				
(WY)	1991	1986	1991	1991	1986	1993	1994	1996	1998	1990	1997	1990				
MIN	17.9	23.7	44.4	51.5	67.9	72.7	73.9	52.8	34.7	31.3	16.6	9.53				
(WY)	1989	1992	1989	1992	1992	1987	1986	1986	1992	1999	1986	1985				

SUMMARY STATISTICS FOR 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1984 - 1999

ANNUAL TOTAL	51174	32476	
ANNUAL MEAN	140	89.0	111
HIGHEST ANNUAL MEAN			148
LOWEST ANNUAL MEAN			70.6
HIGHEST DAILY MEAN	3360	Jun 28	3900
LOWEST DAILY MEAN	30	Oct 27	7.0
ANNUAL SEVEN-DAY MINIMUM	32	Oct 26	12
INSTANTANEOUS PEAK FLOW			1940
INSTANTANEOUS PEAK STAGE			5.02
INSTANTANEOUS LOW FLOW			11
ANNUAL RUNOFF (CFSM)	1.44	.91	1.14
ANNUAL RUNOFF (INCHES)	19.48	12.37	15.46
10 PERCENT EXCEEDS	243	190	215
50 PERCENT EXCEEDS	94	42	71
90 PERCENT EXCEEDS	34	17	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 Muskingum River Basin

03115973 SCHOCALOG RUN AT COPLEY JUNCTION, OHIO

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

DRAINAGE AREA.--3.65 mi².

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

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

REMARKS.-- Records good except for periods of estimated record, and discharges less than 2.0 ft³/s, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	1.1	2.2	1.0	3.1	6.2	2.4	1.9	2.0	2.1	2.6	e.60
2	.42	1.0	1.7	.96	7.1	5.6	2.1	1.9	2.6	6.1	1.6	e.70
3	2.2	1.3	1.2	3.7	8.0	28	1.7	1.9	2.0	2.6	1.2	e.80
4	4.7	1.1	1.0	3.0	4.9	16	2.7	2.0	1.5	1.5	.59	e1.1
5	1.2	.88	.90	1.8	3.7	7.1	2.9	1.8	1.4	1.1	.31	e1.3
6	.57	1.1	.84	1.4	2.9	7.4	1.8	1.6	1.2	9.8	.55	e2.6
7	5.7	.89	1.5	1.3	4.0	7.0	1.4	1.6	1.1	42	.63	e2.5
8	27	.69	1.5	1.2	10	5.4	1.4	1.5	1.0	8.0	7.7	e1.1
9	5.6	.69	.99	1.2	4.3	4.5	26	1.8	1.0	3.4	4.1	e.70
10	2.3	4.4	.86	1.1	2.9	4.2	21	1.6	1.0	6.4	1.8	e.60
11	1.4	10	.77	1.1	2.3	4.0	15	1.1	.93	3.2	1.4	e.60
12	1.1	2.8	.76	1.1	6.6	3.7	8.1	1.1	.97	2.0	1.1	e.60
13	1.2	1.5	.77	3.0	5.8	3.6	4.6	1.1	.97	1.3	1.3	e.60
14	1.1	1.2	.72	2.7	3.5	3.0	3.4	3.2	3.3	1.0	8.3	e.60
15	1.3	1.1	.61	2.2	3.0	2.7	2.9	1.7	3.8	.99	8.1	e.60
16	1.2	1.1	.64	1.8	2.7	4.2	8.9	1.1	1.7	.79	2.6	e.60
17	1.2	1.1	1.0	2.9	3.2	7.0	16	1.0	1.2	1.1	1.6	e.60
18	1.3	1.0	1.5	28	2.8	5.8	6.9	1.1	1.2	1.1	1.3	e.70
19	4.8	1.0	1.1	15	2.3	3.7	6.2	1.1	1.0	1.3	1.1	e.70
20	1.8	1.7	1.0	6.7	2.1	2.8	6.5	.92	.85	3.7	.97	e1.8
21	1.3	1.9	5.0	5.9	1.9	2.7	4.2	.73	.77	1.6	.97	e2.5
22	4.8	1.2	28	33	1.8	2.6	23	2.9	.74	1.0	1.1	e2.0
23	2.3	1.0	5.3	50	1.7	2.4	17	2.9	.64	1.7	1.1	e2.3
24	1.5	.86	2.3	32	1.6	2.0	11	26	.65	1.4	1.0	e2.7
25	1.2	.95	1.6	9.9	1.8	1.4	5.1	8.4	.94	1.5	3.2	e2.6
26	1.0	9.2	1.3	6.1	2.4	1.5	3.6	2.9	.92	1.5	e29	e2.5
27	1.0	2.7	1.1	5.1	2.5	1.6	2.4	1.9	1.3	.67	e.70	e2.6
28	1.1	1.4	1.1	6.2	8.5	1.8	2.3	1.6	12	1.1	e.60	e2.2
29	1.0	1.1	1.0	4.4	---	2.1	2.2	1.8	4.7	17	e.50	e12
30	1.1	1.1	1.3	3.0	---	2.3	2.0	1.7	2.3	6.6	e.50	e3.1
31	1.4	---	1.2	2.6	---	1.7	---	1.2	---	2.9	e.50	---
TOTAL	84.99	57.06	70.76	239.36	107.4	154.0	214.7	83.05	55.68	136.45	88.02	53.90
MEAN	2.74	1.90	2.28	7.72	3.84	4.97	7.16	2.68	1.86	4.40	2.84	1.80
MAX	27	10	28	50	10	28	26	26	12	42	29	12
MIN	.42	.69	.61	.96	1.6	1.4	1.4	.73	.64	.67	.31	.60
CFSM	.75	.52	.63	2.12	1.05	1.36	1.96	.73	.51	1.21	.78	.49
IN.	.87	.58	.72	2.44	1.09	1.57	2.19	.85	.57	1.39	.90	.55

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1999, BY WATER YEAR (WY)

	1992	1993	1994	1995	1996	1997	1998	1999
MEAN	2.45	4.59	4.30	7.19	4.41	6.49	8.23	4.93
MAX	5.32	9.51	9.83	10.9	6.80	11.0	12.2	10.0
(WY)	1997	1993	1997	1993	1997	1993	1994	1996
MIN	.28	1.90	1.81	3.33	1.99	3.34	4.33	2.52
(WY)	1995	1999	1996	1992	1995	1995	1995	1992

SUMMARY STATISTICS FOR 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1992 - 1999

ANNUAL TOTAL	1782.05	1345.37	
ANNUAL MEAN	4.88	3.69	4.93
HIGHEST ANNUAL MEAN			6.10
LOWEST ANNUAL MEAN			3.27
HIGHEST DAILY MEAN	73	Aug 25	121
LOWEST DAILY MEAN	.25	Aug 20	.01
ANNUAL SEVEN-DAY MINIMUM	.31	Aug 16	.03
INSTANTANEOUS PEAK FLOW		64	Jan 23a
INSTANTANEOUS PEAK STAGE		11.99	Jan 23
INSTANTANEOUS LOW FLOW		.10	Oct 2
ANNUAL RUNOFF (CFSM)	1.34	1.01	1.35
ANNUAL RUNOFF (INCHES)	18.16	13.71	18.36
10 PERCENT EXCEEDS	10	7.5	10
50 PERCENT EXCEEDS	1.9	1.7	2.4
90 PERCENT EXCEEDS	.90	.77	.64

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

SURFACE-WATER RECORDS
Muskingum River Basin

03121850 HUFF RUN AT MINERAL CITY, OHIO

LOCATION.--Latitude 40°35'50", longitude 81°21'33", Tuscarawas County, Hydrologic Unit 05040001, on left abutment of bridge on County Road 90, adjacent to intersection of Sandy Township Road 46, 500 ft southeast of State Route 800 at southeast edge of Mineral City, and 1.4 mi upstream from Conotton Creek.
DRAINAGE AREA.--12.3 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1997 to current year.

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	3.2	3.4	e4.3	18	e9.6	10	11	7.0	4.3	17	2.5
2	2.7	3.1	3.3	e3.9	29	e17	11	11	6.8	32	7.0	2.4
3	4.2	3.1	3.2	e20	25	45	11	10	6.3	6.4	e5.0	2.4
4	4.4	3.1	3.3	e15	23	50	10	9.7	6.0	5.0	e3.8	2.3
5	3.5	3.0	3.2	e12	21	36	9.3	9.3	5.7	4.3	e4.9	2.3
6	3.2	3.0	3.2	e9.5	20	56	8.9	9.0	5.4	4.0	e3.7	2.3
7	7.9	3.0	3.5	e8.4	26	47	8.5	8.3	5.2	3.9	e4.0	3.0
8	29	2.9	3.3	e7.8	40	36	8.4	8.2	5.0	e2.5	e9.0	2.6
9	6.9	2.9	3.2	e7.2	31	34	33	8.2	4.9	e3.0	e4.5	2.4
10	5.0	4.4	3.1	e6.6	25	29	51	7.2	4.7	e2.5	e4.2	2.2
11	4.4	4.9	3.0	e6.2	22	25	29	6.8	4.5	3.4	e3.9	2.1
12	4.0	3.8	3.0	e5.8	28	23	23	6.6	4.3	3.1	e3.7	2.1
13	3.7	3.5	3.0	e40	25	22	18	7.2	4.3	3.0	e4.5	2.1
14	3.6	3.4	2.9	e25	21	20	16	7.9	4.9	3.0	e5.2	2.1
15	3.5	3.3	2.8	e20	21	20	15	7.1	5.0	2.9	e5.2	2.0
16	3.4	3.3	2.9	e17	21	21	20	6.3	4.3	2.8	e3.6	2.0
17	3.6	3.2	3.3	e18	22	25	21	6.1	4.1	2.7	e3.1	1.9
18	3.7	4.9	3.1	138	20	26	19	7.9	4.0	2.7	e2.7	1.8
19	4.3	3.1	3.1	100	18	21	19	12	4.0	2.6	2.5	1.8
20	3.6	3.6	3.1	50	16	19	27	7.0	3.8	2.6	2.5	1.9
21	3.6	3.7	7.7	50	15	18	25	6.3	3.8	2.6	2.4	2.0
22	4.2	3.2	82	198	13	17	32	9.2	3.6	2.6	2.5	1.9
23	3.7	3.2	26	192	12	15	34	8.8	3.6	2.5	2.3	1.9
24	3.5	3.2	16	97	e11	15	29	60	3.5	2.3	3.9	1.9
25	3.4	3.2	11	56	e11	14	25	28	3.5	2.6	11	1.9
26	3.3	4.6	9.1	e40	e11	12	22	17	3.4	2.4	6.6	1.8
27	3.3	3.8	8.1	e30	e10	12	19	13	3.5	2.2	4.5	1.7
28	3.3	3.5	e6.6	e25	e10	11	16	10	3.6	2.3	3.5	1.8
29	3.4	3.5	e5.9	22	---	11	14	8.8	3.7	20	3.1	3.3
30	3.3	3.4	e5.2	18	---	10	12	7.7	3.5	5.4	2.7	4.0
31	3.3	---	e4.7	16	---	9.6	---	7.2	---	3.9	2.6	---
TOTAL	145.7	104.0	245.2	1258.7	565	726.2	596.1	342.8	135.9	145.5	145.1	66.4
MEAN	4.70	3.47	7.91	40.6	20.2	23.4	19.9	11.1	4.53	4.69	4.68	2.21
MAX	29	4.9	82	198	40	56	51	60	7.0	32	17	4.0
MIN	2.7	2.9	2.8	3.9	10	9.6	8.4	6.1	3.4	2.2	2.3	1.7
CFSM	.38	.28	.64	3.30	1.64	1.90	1.62	.90	.37	.38	.38	.18
IN.	.44	.31	.74	3.81	1.71	2.20	1.80	1.04	.41	.44	.44	.20

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 1999, BY WATER YEAR (WY)

	1998	1999	1998	1999	1998	1999	1998	1999	1998	1999	1998	1999
MEAN	3.66	3.74	6.79	33.3	16.8	21.3	26.2	17.3	6.92	5.67	6.09	2.84
MAX	4.70	4.01	7.91	40.6	20.2	23.4	32.4	23.5	9.32	6.65	7.49	3.46
(WY)	1999	1998	1999	1999	1999	1999	1998	1998	1998	1998	1998	1998
MIN	2.62	3.47	5.68	26.1	13.4	19.2	19.9	11.1	4.53	4.69	4.68	2.21
(WY)	1998	1999	1998	1998	1998	1998	1999	1999	1999	1999	1999	1999

SUMMARY STATISTICS

FOR 1998 CALENDAR YEAR

FOR 1999 WATER YEAR

WATER YEARS 1998 - 1999

ANNUAL TOTAL	4796.0	4476.6		
ANNUAL MEAN	13.1	12.3	12.5	
HIGHEST ANNUAL MEAN			12.8	1998
LOWEST ANNUAL MEAN			12.3	1999
HIGHEST DAILY MEAN	221	Jan 8	221	Jan 8 1998
LOWEST DAILY MEAN	2.4	Aug 23	1.7	Sep 27 1999
ANNUAL SEVEN-DAY MINIMUM	2.5	Aug 17	1.8	Sep 22 1999
INSTANTANEOUS PEAK FLOW			401	Jan 22a 1998
INSTANTANEOUS PEAK STAGE			4.07	Jan 22 1998
INSTANTANEOUS LOW FLOW			1.6	Sep 20 1999
ANNUAL RUNOFF (CFSM)	1.07	1.00	1.6	Sep 20 1999
ANNUAL RUNOFF (INCHES)	14.50	13.54	13.85	
10 PERCENT EXCEEDS	28	26	26	
50 PERCENT EXCEEDS	6.3	5.0	5.9	
90 PERCENT EXCEEDS	3.1	2.5	2.6	

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

SURFACE-WATER RECORDS
Muskingum River Basin

30121850 HUFF RUN AT MINERAL CITY, OHIO—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1997 to current year.

PERIOD OF DAILY RECORD--

SPECIFIC CONDUCTANCE: October 1997 to September 1998.

pH: October 1997 to September 1998.

WATER TEMPERATURES: October 1997 to September 1998.

DISSOLVED OXYGEN: October 1997 to September 1998.

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

EXTREMES FOR PERIOD OF RECORD.--

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

pH: Maximum, 7.7 units Jan. 16, 1999; minimum, 3.9 units Aug. 24, 1998.

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

DISSOLVED OXYGEN: Maximum, 15 mg/L Mar. 11-13, 1999; minimum, 3.9 mg/L July 2, 1999.

EXTREMES FOR CURRENT YEAR.--

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

pH: Maximum, 7.7 units Jan. 16; minimum, 4.3 units July 28 and 29.

WATER TEMPERATURES: Maximum, 25.5°C July 31; minimum, 0.0°C on many days during winter.

DISSOLVED OXYGEN: Maximum, 15 mg/L Mar. 11-13; minimum, 3.9 mg/L July 2.

SPECIFIC CONDUCTANCE, MICROSIEMENS/CM AT 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	1730	1660	1690	1540	1510	1520	1410	1360	1390	1240	1150	1200
2	1730	1680	1700	1540	1510	1520	1430	1410	1420	1270	1220	1260
3	1730	1290	1630	1550	1520	1540	1440	1410	1430	1220	544	812
4	1630	1480	1530	1570	1540	1560	1480	1430	1450	793	575	676
5	1580	1400	1490	1580	1560	1570	1470	1440	1450	905	793	846
6	1480	1400	1450	1580	1560	1570	1460	1450	1450	948	905	934
7	1570	1060	1420	1610	1570	1580	1450	1420	1440	969	942	951
8	1060	599	715	1580	1550	1560	1500	1430	1450	1010	969	996
9	1100	761	890	1570	1550	1560	1470	1420	1450	997	851	937
10	1290	977	1110	1560	1300	1500	1450	1440	1440	960	854	923
11	1480	1160	1280	1500	1360	1440	1480	1440	1460	989	942	968
12	1490	1320	1410	1380	1240	1310	1500	1480	1490	1340	989	1080
13	1630	1420	1490	1350	1250	1310	1520	1490	1500	1160	430	765
14	1630	1380	1500	1410	1340	1390	1520	1500	1520	767	437	585
15	1650	1420	1500	1440	1410	1430	1580	1520	1550	953	653	790
16	1550	1420	1440	1460	1440	1460	1560	1520	1540	1160	822	993
17	1490	1440	1460	1480	1450	1470	1540	1510	1530	1530	1160	1390
18	1760	1400	1580	1490	1460	1480	1560	1510	1540	1390	290	514
19	1510	1400	1470	1510	1480	1500	1530	1490	1510	442	282	365
20	1450	1400	1420	1520	1400	1480	1500	1470	1480	552	442	501
21	1410	1320	1400	1540	1430	1490	1500	992	1410	576	486	537
22	1450	1270	1400	1500	1380	1440	992	354	575	492	200	343
23	1450	1410	1420	1450	1380	1430	1150	541	830	353	197	277
24	1440	1400	1420	1500	1450	1480	---	---	---	448	348	395
25	1450	1420	1440	1520	1430	1500	---	---	---	540	448	499
26	1480	1440	1470	1460	1230	1380	---	---	---	618	540	580
27	1510	1470	1500	1420	1340	1400	---	---	---	721	618	675
28	1510	1490	1500	1390	1320	1340	1020	995	1020	737	708	719
29	1530	1500	1510	1380	1330	1360	1050	1020	1040	809	734	778
30	1560	1520	1530	1400	1370	1380	1110	1050	1080	881	807	845
31	1540	1520	1530	---	---	---	1160	1100	1120	931	876	897
MONTH	1760	599	1430	1610	1230	1460	1580	354	1350	1530	197	775

SURFACE-WATER RECORDS
Muskingum River Basin

03121850 HUFF RUN AT MINERAL CITY, OHIO—Continued

WATER-QUALITY RECORDS—CONTINUED

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	5.5	5.3	5.4	5.9	5.8	5.9	6.1	6.1	6.1	5.7	5.7	5.7
2	5.5	5.3	5.4	5.9	5.8	5.9	6.1	5.7	5.9	6.3	5.6	5.7
3	6.0	5.2	5.4	5.9	5.8	5.9	5.8	5.7	5.8	6.4	5.6	5.9
4	6.0	5.3	5.7	5.9	5.9	5.9	5.8	5.8	5.8	5.7	5.6	5.6
5	6.1	5.9	6.0	5.9	5.9	5.9	5.9	5.8	5.8	5.7	5.7	5.7
6	6.0	5.8	5.8	5.9	5.9	5.9	6.0	5.8	5.8	6.0	5.6	5.7
7	5.9	5.6	5.7	5.9	5.9	5.9	6.1	5.8	5.9	5.9	5.6	5.7
8	6.2	5.4	6.0	5.9	5.9	5.9	5.9	5.8	5.8	6.0	5.6	5.7
9	6.2	5.9	6.0	5.9	5.9	5.9	5.8	5.7	5.8	6.6	5.8	6.3
10	6.1	5.5	5.7	---	---	---	5.8	5.7	5.7	6.2	5.8	6.0
11	5.9	5.2	5.6	---	---	---	5.8	5.7	5.7	6.3	5.7	5.8
12	---	---	---	---	---	---	5.8	5.7	5.7	6.3	5.8	6.2
13	---	---	---	---	---	---	5.8	5.7	5.7	6.3	5.9	6.1
14	---	---	---	---	---	---	5.8	5.7	5.7	6.6	5.9	6.3
15	---	---	---	---	---	---	5.8	5.8	5.8	6.7	6.3	6.5
16	---	---	---	---	---	---	6.1	5.8	5.9	7.7	6.5	7.1
17	5.9	5.7	5.7	---	---	---	6.2	5.8	6.0	7.0	6.7	6.8
18	5.9	5.4	5.7	---	---	---	5.9	5.8	5.8	7.0	6.1	6.5
19	5.9	5.6	5.8	6.0	6.0	6.0	6.2	5.8	5.8	6.6	6.1	6.2
20	5.9	5.8	5.8	6.1	6.0	6.0	6.2	6.2	6.2	6.1	6.0	6.1
21	5.9	5.8	5.8	6.1	6.1	6.1	6.3	6.0	6.2	6.7	6.1	6.2
22	5.9	5.7	5.8	6.1	6.0	6.1	6.2	5.8	6.0	6.9	5.9	6.3
23	5.9	5.8	5.8	6.1	6.0	6.0	6.3	6.0	6.1	6.5	5.9	6.0
24	5.9	5.8	5.8	6.1	6.0	6.0	6.3	6.2	6.3	6.5	6.1	6.1
25	5.8	5.8	5.8	6.3	6.1	6.1	6.3	6.2	6.3	6.2	6.1	6.2
26	5.8	5.8	5.8	6.3	6.0	6.1	6.3	6.2	6.2	6.2	6.1	6.2
27	5.8	5.7	5.8	6.2	6.0	6.1	6.3	6.0	6.2	6.5	6.1	6.2
28	5.8	5.8	5.8	6.2	6.1	6.1	6.0	5.7	5.9	6.3	6.3	6.3
29	5.9	5.8	5.8	6.1	6.1	6.1	6.4	5.7	5.9	6.3	6.2	6.2
30	5.9	5.7	5.8	6.1	6.1	6.1	6.0	5.7	5.7	6.2	6.2	6.2
31	5.9	5.8	5.9	---	---	---	5.7	5.7	5.7	6.2	6.2	6.2
MONTH	6.2	5.2	5.8	6.3	5.8	6.0	6.4	5.7	5.9	7.7	5.6	6.1
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	6.6	6.1	6.3	6.6	6.0	6.1	6.4	6.0	6.3	6.3	6.1	6.2
2	6.7	6.2	6.4	6.6	6.0	6.1	6.4	6.0	6.3	6.3	6.1	6.2
3	6.2	6.2	6.2	6.6	6.1	6.3	6.4	6.0	6.1	6.3	6.1	6.2
4	6.7	6.1	6.3	6.1	6.0	6.0	6.4	6.0	6.2	6.3	6.1	6.2
5	6.1	6.1	6.1	6.1	6.0	6.0	6.1	6.0	6.1	6.2	6.0	6.1
6	6.1	6.1	6.1	6.5	6.0	6.2	6.4	6.0	6.1	6.2	6.0	6.1
7	6.6	5.9	6.2	6.1	6.0	6.0	6.1	6.0	6.0	6.2	6.1	6.2
8	5.9	5.8	5.9	6.0	5.9	6.0	6.1	6.0	6.0	6.2	6.2	6.2
9	6.1	5.8	5.9	6.0	5.9	6.0	6.5	6.1	6.2	6.3	6.0	6.2
10	6.1	6.0	6.0	6.5	6.0	6.0	---	---	---	6.3	6.0	6.2
11	6.0	6.0	6.0	6.1	6.0	6.0	---	---	---	6.5	6.1	6.2
12	6.4	6.0	6.0	6.1	5.9	6.0	---	---	---	6.2	6.2	6.2
13	6.0	6.0	6.0	6.1	6.0	6.1	6.4	6.1	6.2	6.3	6.2	6.2
14	6.0	6.0	6.0	6.1	6.1	6.1	6.4	6.0	6.2	6.4	6.3	6.3
15	6.0	5.9	6.0	6.1	6.1	6.1	6.5	6.1	6.2	6.3	5.8	6.2
16	6.0	5.9	6.0	6.2	6.1	6.1	6.6	6.1	6.3	6.2	5.8	6.1
17	6.5	5.9	6.1	6.3	6.1	6.2	6.4	6.0	6.1	6.2	6.1	6.2
18	6.0	5.9	6.0	6.2	6.0	6.2	6.1	6.0	6.1	6.4	6.1	6.2
19	6.0	6.0	6.0	6.2	6.2	6.2	6.5	6.0	6.1	6.8	6.3	6.5
20	6.0	5.9	6.0	6.2	6.1	6.2	6.6	6.0	6.2	6.4	6.2	6.3
21	6.0	5.9	5.9	6.2	6.1	6.2	6.6	6.2	6.3	6.3	6.1	6.2
22	5.9	5.9	5.9	6.2	6.2	6.2	6.7	6.4	6.6	6.3	6.1	6.2
23	6.0	5.9	5.9	6.2	6.1	6.2	6.7	6.3	6.6	6.4	6.1	6.3
24	6.0	5.9	6.0	6.2	6.1	6.2	6.5	6.2	6.4	6.4	6.1	6.3
25	6.5	5.7	6.0	6.2	6.2	6.2	6.5	6.2	6.3	6.3	6.3	6.3
26	6.0	5.8	6.0	6.5	5.8	6.1	6.5	6.2	6.3	6.3	6.3	6.3
27	6.5	6.0	6.2	6.2	5.9	6.0	6.5	6.2	6.3	6.3	6.1	6.2
28	6.6	6.0	6.2	6.2	5.9	6.0	6.5	6.2	6.3	6.4	6.2	6.3
29	---	---	---	6.3	5.9	6.1	6.4	6.0	6.3	6.4	6.2	6.3
30	---	---	---	6.2	5.9	6.0	6.4	6.0	6.2	6.4	6.3	6.3
31	---	---	---	6.2	5.9	6.1	---	---	---	6.3	6.3	6.3
MONTH	6.7	5.7	6.1	6.6	5.8	6.1	6.7	6.0	6.2	6.8	5.8	6.2

SURFACE-WATER RECORDS
Muskingum River Basin

03121850 HUFF RUN AT MINERAL CITY, OHIO—Continued

WATER-QUALITY RECORDS—CONTINUED

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999—Continued

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	6.3	6.3	6.3	6.3	6.0	6.1	6.9	5.9	6.5	6.0	5.8	5.9
2	6.3	6.3	6.3	6.5	6.3	6.3	6.9	6.7	6.8	5.8	5.6	5.7
3	6.3	6.2	6.3	6.5	6.4	6.5	---	---	---	5.9	5.4	5.7
4	6.4	6.2	6.3	6.4	6.2	6.3	---	---	---	5.9	5.5	5.7
5	6.4	6.3	6.3	6.2	6.0	6.1	---	---	---	5.6	5.3	5.5
6	6.3	6.2	6.3	6.0	5.8	5.9	---	---	---	5.4	5.0	5.2
7	6.3	6.2	6.2	5.8	5.7	5.8	---	---	---	5.7	4.9	5.3
8	6.3	6.2	6.3	---	---	---	---	---	---	6.1	5.6	5.8
9	6.3	6.3	6.3	---	---	---	---	---	---	6.1	6.0	6.1
10	6.3	6.2	6.3	6.1	6.0	6.0	---	---	---	6.0	5.8	5.9
11	6.3	6.2	6.3	6.1	6.0	6.0	---	---	---	5.9	5.8	5.9
12	6.3	6.2	6.3	6.2	6.0	6.1	---	---	---	5.9	5.6	5.8
13	6.3	6.3	6.3	6.1	5.9	6.0	---	---	---	5.7	5.4	5.5
14	6.4	6.2	6.3	6.0	5.6	5.9	---	---	---	5.4	5.0	5.2
15	6.5	6.3	6.4	5.8	5.6	5.7	---	---	---	5.3	5.0	5.2
16	6.6	6.5	6.5	5.6	5.5	5.6	---	---	---	5.3	5.0	5.1
17	6.5	6.4	6.4	5.6	5.3	5.5	---	---	---	5.4	5.1	5.2
18	6.4	6.3	6.4	5.4	5.1	5.2	6.0	6.0	6.0	5.4	5.1	5.2
19	6.3	6.2	6.3	5.2	4.9	5.1	6.0	5.9	6.0	5.3	4.9	5.1
20	6.3	6.2	6.2	5.1	4.8	5.0	6.0	5.9	5.9	5.1	4.7	5.0
21	6.2	6.1	6.2	5.1	4.7	4.9	5.9	5.7	5.8	5.2	4.8	5.0
22	6.4	6.1	6.2	5.0	4.7	4.9	5.9	5.7	5.8	5.2	4.9	5.1
23	6.4	6.3	6.4	4.9	4.6	4.8	5.9	5.8	5.9	5.3	5.0	5.2
24	6.3	6.3	6.3	4.8	4.5	4.6	6.1	5.7	5.8	5.2	4.9	5.1
25	6.3	6.2	6.3	4.7	4.4	4.5	6.5	5.8	6.2	5.3	5.0	5.1
26	6.3	6.2	6.2	4.7	4.5	4.6	6.7	6.1	6.5	5.1	4.9	5.0
27	6.2	6.1	6.1	4.6	4.4	4.5	6.5	6.3	6.5	5.0	4.8	4.9
28	6.2	6.1	6.1	4.7	4.3	4.4	6.5	6.3	6.4	4.9	4.7	4.8
29	6.2	6.0	6.1	7.0	4.3	6.0	6.3	6.1	6.2	5.3	4.7	4.9
30	6.2	6.1	6.2	6.7	6.5	6.6	6.1	6.0	6.0	5.4	5.3	5.4
31	---	---	---	6.5	6.4	6.4	6.1	5.9	6.0	---	---	---
MONTH	6.6	6.0	6.3	7.0	4.3	5.6	6.9	5.7	6.1	6.1	4.7	5.3
YEAR	7.7	4.3	6.0									

TEMPERATURE, WATER, DEGREES CELSIUS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

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

SURFACE-WATER RECORDS
Muskingum River Basin

03121850 HUFF RUN AT MINERAL CITY, OHIO—Continued

WATER-QUALITY RECORDS—CONTINUED

OXYGEN, DISSOLVED, MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	8.6	7.2	7.8	9.9	9.3	9.6	---	---	---	12.5	12.1	12.4
2	9.2	7.6	8.4	9.9	9.3	9.7	7.7	6.5	7.3	13.4	11.6	12.1
3	11.2	7.9	9.2	10.1	9.5	9.9	7.0	6.4	6.7	14.8	12.6	13.4
4	9.1	8.6	8.9	10.4	9.9	10.2	6.7	6.1	6.5	13.3	12.3	12.8
5	9.3	8.5	8.8	10.3	10.0	10.2	7.1	6.5	6.7	14.7	12.1	13.6
6	9.0	8.1	8.5	10.2	9.9	10.1	7.1	6.7	6.9	14.6	11.4	12.9
7	11.6	7.9	8.7	10.1	9.7	9.9	8.8	6.6	7.3	14.5	11.8	12.7
8	11.6	8.2	9.4	9.8	9.4	9.7	7.6	7.1	7.4	14.3	11.5	12.4
9	8.6	7.9	8.3	9.4	9.0	9.3	8.4	7.5	8.0	14.6	11.0	13.0
10	8.3	7.4	8.0	10.1	8.8	9.4	9.0	8.2	8.7	12.4	11.9	12.2
11	8.6	7.7	8.1	10.0	9.2	9.7	9.3	8.6	9.0	12.7	11.7	12.0
12	---	---	---	10.6	10.0	10.3	9.6	9.1	9.3	12.7	10.8	11.4
13	---	---	---	10.2	9.8	10.1	9.6	9.1	9.4	11.8	8.7	10.5
14	---	---	---	10.3	9.6	10.0	9.9	9.3	9.6	9.8	8.4	9.0
15	---	---	---	9.6	9.4	9.5	9.9	9.5	9.7	9.1	8.6	8.9
16	---	---	---	10.0	9.4	9.7	10.7	9.8	10.0	11.6	9.0	10.1
17	7.6	7.0	7.3	9.4	9.2	9.3	12.6	10.1	10.9	10.6	8.3	9.1
18	7.1	6.5	7.0	9.6	8.3	9.3	10.8	10.0	10.5	14.2	10.6	12.9
19	7.2	6.5	7.0	9.5	8.7	9.2	11.7	9.5	10.4	13.1	10.7	11.4
20	7.7	7.0	7.4	8.7	8.2	8.6	13.2	11.7	13.0	11.1	10.7	10.9
21	8.2	7.4	7.9	8.7	8.4	8.6	13.1	10.2	12.3	11.6	10.9	11.1
22	8.5	8.0	8.3	8.5	7.9	8.4	---	---	---	---	---	---
23	8.9	8.3	8.6	7.9	7.0	7.6	---	---	---	10.4	9.6	10.1
24	9.1	8.5	8.8	7.2	6.9	7.1	---	---	---	10.6	9.7	10.3
25	9.2	8.5	8.9	7.1	6.5	6.9	---	---	---	10.7	10.5	10.6
26	9.3	8.5	9.0	---	---	---	---	---	---	11.1	10.6	10.8
27	9.6	8.8	9.2	---	---	---	---	---	---	12.2	10.6	11.1
28	9.0	8.6	8.9	---	---	---	13.1	10.8	12.1	13.0	10.6	11.8
29	9.6	8.6	9.2	---	---	---	12.7	11.4	11.7	13.3	12.4	12.9
30	9.7	9.1	9.5	---	---	---	12.7	11.8	12.3	14.0	13.3	13.8
31	10.0	9.2	9.6	---	---	---	12.6	12.2	12.4	14.2	13.5	13.8
MONTH	11.6	6.5	8.5	10.6	6.5	9.3	13.2	6.1	9.5	14.8	8.3	11.7
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	14.3	13.4	13.8	12.8	12.0	12.4	9.8	6.9	9.0	---	---	---
2	14.3	12.4	13.4	12.9	11.9	12.5	9.6	6.8	8.3	---	---	---
3	13.1	12.6	12.8	12.8	12.0	12.4	8.5	6.3	7.0	---	---	---
4	13.3	12.6	13.0	13.1	12.5	12.8	9.1	6.5	7.9	---	---	---
5	13.6	13.0	13.2	13.1	12.0	12.6	6.8	6.3	6.5	---	---	---
6	13.0	11.9	12.4	13.2	11.9	12.5	8.2	6.2	6.5	---	---	---
7	13.5	11.0	12.7	13.8	12.9	13.3	6.7	6.4	6.5	---	---	---
8	11.5	10.5	11.1	14.9	13.2	13.8	6.8	6.2	6.5	---	---	---
9	11.6	10.7	11.1	14.8	13.7	14.4	8.8	6.3	7.6	---	---	---
10	12.1	11.2	11.6	14.7	13.6	14.2	---	---	---	---	---	---
11	11.4	9.6	10.7	15.0	13.9	14.4	---	---	---	---	---	---
12	10.8	9.3	10.0	15.0	13.7	14.4	---	---	---	---	---	---
13	11.4	10.8	11.2	15.0	14.0	14.4	8.6	7.8	8.2	---	---	---
14	11.4	10.7	11.1	14.3	13.6	14.0	8.9	7.9	8.4	---	---	---
15	11.1	10.0	10.6	14.2	12.9	13.6	9.7	8.0	8.7	---	---	---
16	11.2	9.1	9.9	13.9	12.4	13.2	10.2	8.2	9.2	---	---	---
17	11.3	9.4	10.4	12.9	11.2	12.2	9.5	8.6	9.1	---	---	---
18	11.9	9.5	9.9	11.9	11.1	11.5	9.2	8.5	8.9	8.2	5.3	6.4
19	12.2	11.8	12.0	12.0	11.2	11.7	9.0	8.2	8.7	9.0	5.9	7.3
20	12.5	12.0	12.2	11.4	10.0	10.9	9.3	8.6	8.9	7.3	5.8	6.4
21	12.6	11.7	12.1	10.0	9.0	9.6	10.2	8.7	9.2	7.3	6.1	6.5
22	12.6	11.6	12.1	9.0	8.3	8.8	10.2	8.3	9.4	8.1	6.1	6.7
23	12.2	11.3	11.8	8.3	7.3	7.9	11.6	9.9	10.7	7.1	6.4	6.7
24	12.3	11.2	11.8	---	---	---	11.9	10.2	11.1	---	---	---
25	13.4	12.1	12.4	---	---	---	11.1	9.8	10.5	---	---	---
26	12.7	11.8	12.3	---	---	---	10.9	9.7	10.3	---	---	---
27	13.3	12.2	12.7	7.7	7.1	7.4	11.2	10.0	10.5	---	---	---
28	13.2	11.8	12.3	7.9	7.2	7.4	11.0	10.0	10.5	---	---	---
29	---	---	---	7.7	7.1	7.4	---	---	---	7.8	6.6	7.2
30	---	---	---	7.9	7.2	7.5	---	---	---	7.6	6.6	7.0
31	---	---	---	7.9	6.9	7.4	---	---	---	7.4	6.7	7.0
MONTH	14.3	9.1	11.8	15.0	6.9	11.6	11.9	6.2	8.7	9.0	5.3	6.8

SURFACE-WATER RECORDS
Muskingum River Basin

03136500 KOKOSING RIVER AT MOUNT VERNON, OHIO

LOCATION.--Latitude 40°24'20", longitude 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 fair 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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	61	86	49	e66	e250	599	212	153	63	44	e30	21
2	58	82	47	e64	e350	376	223	147	72	65	e27	20
3	62	83	46	e60	e320	636	218	138	73	63	e25	20
4	65	81	52	e58	e280	767	227	131	64	51	e23	19
5	63	79	57	e54	e250	426	230	129	56	45	e22	21
6	62	78	56	e52	e240	783	220	128	53	39	e21	22
7	67	77	55	e50	e500	1120	e214	124	51	36	28	e23
8	116	76	59	e48	e800	641	e201	121	51	32	32	e22
9	92	78	60	e46	e500	485	294	119	46	30	29	e21
10	79	71	58	e44	e330	426	1200	116	50	28	e25	21
11	e74	168	e54	e43	e280	376	598	111	65	27	e22	20
12	e70	e150	e51	e42	e240	350	474	107	62	26	e19	18
13	e66	e120	e50	e41	224	329	298	111	59	25	22	19
14	e64	e92	e47	e40	196	311	240	116	61	24	28	20
15	e61	e74	e46	e40	180	301	214	112	61	23	29	18
16	e57	e56	e46	e130	182	329	289	107	56	22	27	19
17	63	e47	e45	e300	187	519	805	102	52	21	23	17
18	67	e40	e45	e1000	183	565	922	98	50	20	e20	17
19	72	e38	e45	e1600	164	406	654	97	51	22	e18	17
20	74	54	e45	e800	148	323	541	92	49	32	e16	18
21	70	53	e45	e1200	136	288	452	90	50	32	e15	22
22	67	50	e2700	e2700	124	260	418	93	45	e26	e14	22
23	66	49	e350	e1500	120	251	362	101	44	30	19	20
24	66	48	e250	e1000	119	234	478	211	44	27	31	17
25	67	48	e150	e540	118	216	347	165	44	24	62	19
26	66	52	e120	e410	116	199	263	119	42	21	44	20
27	67	51	e105	e340	126	187	221	98	41	20	35	19
28	67	51	e93	e290	595	177	198	85	45	34	30	19
29	69	49	e84	e230	---	168	183	72	43	50	26	25
30	75	49	e76	e200	---	210	165	65	41	42	23	38
31	92	---	e70	e180	---	206	---	62	---	e34	22	---
TOTAL	2165	2130	5056	13168	7258	12464	11361	3520	1584	1015	807	614
MEAN	69.8	71.0	163	425	259	402	379	114	52.8	32.7	26.0	20.5
MAX	116	168	2700	2700	800	1120	1200	211	73	65	62	38
MIN	57	38	45	40	116	168	165	62	41	20	14	17

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 1999, BY WATER YEAR (WY)

	63.8	143	240	281	346	421	379	269	200	152	81.2	65.3
MEAN	63.8	143	240	281	346	421	379	269	200	152	81.2	65.3
MAX	275	635	979	1020	805	1068	845	820	909	636	438	587
(WY)	1991	1973	1991	1959	1975	1963	1964	1996	1998	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 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1953 - 1999

ANNUAL TOTAL	93034	61142	
ANNUAL MEAN	255	168	221
HIGHEST ANNUAL MEAN			325
LOWEST ANNUAL MEAN			78.7
HIGHEST DAILY MEAN	7050	2700	14600
LOWEST DAILY MEAN	26	14	8.6
ANNUAL SEVEN-DAY MINIMUM	29	18	11
INSTANTANEOUS PEAK FLOW		e3560	38000
INSTANTANEOUS PEAK STAGE		e9.80	18.19
INSTANTANEOUS LOW FLOW		14	8.6
10 PERCENT EXCEEDS	448	388	481
50 PERCENT EXCEEDS	115	66	103
90 PERCENT EXCEEDS	45	22	30

e Estimated.

SURFACE-WATER RECORDS
Muskingum River Basin

03140000 MILL CREEK NEAR COSHOCTON, OHIO

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

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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.53	1.9	4.6	e5.8	27	64	13	18	6.8	.61	5.2	.53
2	.53	1.7	4.7	e5.0	60	51	13	16	5.5	29	2.7	.44
3	.72	1.7	3.4	e35	54	70	12	15	5.6	5.1	1.3	.41
4	3.4	1.6	3.1	e25	45	96	12	14	4.2	2.4	.88	.36
5	1.7	1.6	3.0	e20	36	80	11	13	3.6	1.6	.68	.31
6	1.1	1.6	2.8	e13	33	81	10	13	3.2	1.1	.55	.33
7	.91	1.6	3.7	e11	37	94	9.3	11	2.8	.91	.47	.34
8	69	1.5	4.9	e9.0	85	72	8.8	10	2.5	.68	.52	.33
9	12	1.5	3.2	e8.0	55	64	24	10	2.1	.58	.58	.31
10	6.1	1.8	2.7	e7.2	44	57	39	9.1	1.9	1.2	.58	.30
11	3.8	11	2.6	e6.8	38	49	24	7.8	1.7	1.0	.54	.26
12	2.7	4.2	2.4	e6.4	45	47	20	7.1	1.5	.61	.46	.26
13	2.2	2.4	2.3	e100	49	47	17	6.9	1.4	.48	.46	.25
14	1.8	2.1	2.3	e60	39	43	15	9.9	1.5	.45	11	.25
15	1.8	2.0	2.1	e39	38	40	14	7.4	3.3	.41	3.2	.25
16	1.8	1.9	2.1	e31	37	44	18	6.3	1.7	.38	1.3	.27
17	1.7	1.9	2.6	e26	40	53	24	5.8	1.4	.37	.75	.34
18	1.6	1.8	2.6	e200	37	50	28	5.3	1.2	.35	.54	.34
19	3.7	1.7	2.3	199	33	40	24	6.2	1.1	.32	.45	.34
20	2.6	1.9	2.3	101	29	34	34	5.0	1.0	.33	.41	.37
21	1.8	3.2	2.7	139	25	32	35	4.4	.91	9.8	.38	.63
22	2.0	2.2	372	366	22	28	37	4.5	.77	11	.37	.86
23	2.1	1.9	60	310	20	25	56	6.3	.70	1.9	.35	.72
24	1.9	1.8	33	163	e19	23	58	41	.66	.99	.49	.21
25	1.8	1.8	21	88	e18	20	43	20	.65	.65	57	.19
26	1.7	12	17	62	e17	18	37	12	.62	.55	8.9	.19
27	1.6	8.1	14	52	e16	17	31	8.5	.61	.45	4.5	.20
28	1.6	4.8	e11	46	e50	15	27	6.8	.58	3.9	2.5	.22
29	1.8	3.5	e9.8	37	---	14	23	6.0	.73	5.7	1.7	.39
30	1.8	3.0	e8.0	31	---	13	20	5.2	.73	1.8	1.1	.85
31	1.8	---	e6.6	27	---	12	---	4.8	---	24	.72	---
TOTAL	139.59	89.7	614.8	2229.2	1048	1393	737.1	316.3	60.96	108.62	110.58	11.05
MEAN	4.50	2.99	19.8	71.9	37.4	44.9	24.6	10.2	2.03	3.50	3.57	.37
MAX	69	12	372	366	85	96	58	41	6.8	29	57	.86
MIN	.53	1.5	2.1	5.0	16	12	8.8	4.4	.58	.32	.35	.19
CFSM	.17	.11	.73	2.64	1.38	1.65	.90	.38	.07	.13	.13	.01
IN.	.19	.12	.84	3.05	1.43	1.91	1.01	.43	.08	.15	.15	.02

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1937 - 1999, BY WATER YEAR (WY)

	MEAN	MAX	(WY)	MIN	(WY)	MEAN	MAX	(WY)	MIN	(WY)	MEAN	MAX	(WY)	MIN	(WY)
1937	6.72	14.9	1978	29.1	1964	42.2	206	1937	49.1	1954	58.1	174	1963	53.2	1971
1938	56.4	92.1	1986	138	1964	206	106	1951	15.2	1954	174	106	1963	134	1971
1939	1978	1986	1991	1937	1964	1951	1963	1979	7.87	1969	1963	1979	1996	1957	1988
1940	.10	.42	.60	1.49	1964	2.69	15.2	7.87	5.59	1969	15.2	7.87	5.59	1.28	1988
1941	1964	1954	1964	1977	1954	1969	1971	1986	1988	1944	1962	1963	1963	1963	1963

SUMMARY STATISTICS

	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1937 - 1999	
ANNUAL TOTAL	7313.53		6858.90			
ANNUAL MEAN	20.0		18.8		27.7	
HIGHEST ANNUAL MEAN					54.5	
LOWEST ANNUAL MEAN					7.66	
HIGHEST DAILY MEAN	372		372		2360	
LOWEST DAILY MEAN	.47		.19		.00	
ANNUAL SEVEN-DAY MINIMUM	.59		.26		.06	
INSTANTANEOUS PEAK FLOW			890		8720	
INSTANTANEOUS PEAK STAGE			9.31		15.38	
INSTANTANEOUS LOW FLOW			.19		.00	
ANNUAL RUNOFF (CFSM)	.74		.69		1.02	
ANNUAL RUNOFF (INCHES)	10.00		9.38		13.85	
10 PERCENT EXCEEDS	53		49		63	
50 PERCENT EXCEEDS	8.1		4.5		10	
90 PERCENT EXCEEDS	.88		.45		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

03144000 WAKATOMIKA CREEK NEAR FRAZEYSBURG, OHIO

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

DRAINAGE AREA.--140 mi².

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

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	18	25	e45	142	364	89	139	34	14	9.1	9.9
2	12	18	23	e43	244	289	92	129	35	68	7.7	9.5
3	12	19	21	e41	242	550	84	132	36	55	6.8	9.1
4	18	19	21	e38	208	814	85	130	30	26	6.4	8.5
5	22	18	20	e36	174	448	82	115	27	18	5.9	8.5
6	19	19	20	e34	165	731	77	110	25	14	5.6	8.2
7	27	18	24	e33	227	691	72	99	23	12	5.4	8.0
8	199	18	27	e32	565	410	69	90	22	12	7.2	8.0
9	61	17	23	e31	342	350	746	88	20	12	9.0	7.9
10	28	24	20	e30	254	295	864	81	19	14	7.9	7.5
11	18	55	18	e29	212	242	366	72	18	14	7.5	7.5
12	14	44	17	e28	231	226	256	64	17	11	7.1	7.1
13	13	31	17	e27	243	233	195	60	16	9.5	7.2	6.9
14	12	23	17	e26	198	222	169	62	16	9.3	29	7.0
15	11	20	16	e25	193	207	159	60	18	9.0	21	6.7
16	11	19	16	e25	200	235	187	54	19	8.7	13	6.3
17	10	18	17	e25	204	298	286	51	17	8.7	9.8	6.2
18	11	17	19	e300	190	281	350	48	15	12	8.1	6.2
19	16	16	18	1120	172	225	316	46	14	11	7.3	6.2
20	19	20	17	548	155	196	350	43	13	9.2	6.9	6.2
21	18	24	44	668	139	186	424	41	13	8.5	6.6	6.5
22	15	22	1840	1900	123	168	532	54	13	9.2	6.3	7.3
23	14	20	381	1750	116	149	604	73	12	9.7	5.9	7.5
24	13	19	171	886	113	140	593	103	12	9.7	9.6	7.5
25	13	18	122	453	118	129	382	112	12	8.6	132	7.3
26	13	48	e80	308	116	117	295	68	12	7.6	61	7.0
27	14	53	e70	249	121	109	241	55	12	7.1	29	7.0
28	14	39	e62	216	399	103	202	47	12	6.9	20	7.0
29	15	30	e58	177	---	97	176	43	12	14	15	15
30	16	26	e52	152	---	89	154	39	14	19	12	31
31	18	---	e48	137	---	84	---	36	---	11	11	---
TOTAL	709	750	3324	9412	5806	8678	8497	2344	558	458.7	496.3	254.5
MEAN	22.9	25.0	107	304	207	280	283	75.6	18.6	14.8	16.0	8.48
MAX	199	55	1840	1900	565	814	864	139	36	68	132	31
MIN	10	16	16	25	113	84	69	36	12	6.9	5.4	6.2
MED	14	20	23	43	196	226	222	64	16	11	7.9	7.4
CFSM	.16	.18	.77	2.17	1.48	2.00	2.02	.54	.13	.11	.11	.06
IN.	.19	.20	.88	2.50	1.54	2.31	2.26	.62	.15	.12	.13	.07

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1937 - 1999, BY WATER YEAR (WY)

	36.9	85.2	155	222	255	310	298	195	125	80.8	57.8	37.0
MEAN	36.9	85.2	155	222	255	310	298	195	125	80.8	57.8	37.0
MAX	155	396	786	1219	560	883	654	601	745	432	720	617
(WY)	1987	1986	1991	1937	1990	1963	1940	1968	1998	1990	1980	1979
MIN	4.78	7.39	10.1	14.3	15.0	73.8	47.9	21.7	12.6	9.48	5.05	3.45
(WY)	1964	1954	1964	1964	1964	1983	1941	1941	1988	1944	1962	1953

SUMMARY STATISTICS FOR 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1937 - 1999

ANNUAL TOTAL	78387.0		41287.5		154	
ANNUAL MEAN	215		113		270	
HIGHEST ANNUAL MEAN					1979	
LOWEST ANNUAL MEAN					51.9	
HIGHEST DAILY MEAN	9200	Jun 28	1900	Jan 22	9200	Jun 28 1998
LOWEST DAILY MEAN	9.0	Sep 16	5.4	Aug 7	2.6	Oct 3 1963
ANNUAL SEVEN-DAY MINIMUM	9.2	Sep 13	6.3	Sep 15	2.7	Sep 25 1953
INSTANTANEOUS PEAK FLOW			2470	Dec 22a	16800	Sep 14 1979
INSTANTANEOUS PEAK STAGE			5.96	Dec 22	14.07	Sep 14 1979
INSTANTANEOUS LOW FLOW			5.4	Aug 7	2.0	Oct 3 1963
ANNUAL RUNOFF (CFSM)	1.53		.81		1.10	
ANNUAL RUNOFF (INCHES)	20.83		10.97		14.97	
10 PERCENT EXCEEDS	360		291		346	
50 PERCENT EXCEEDS	59		26		64	
90 PERCENT EXCEEDS	13		7.7		11	

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

**SURFACE-WATER RECORDS
Muskingum River Basin**

03145000 SOUTH FORK LICKING RIVER NEAR HEBRON, OHIO

LOCATION.--Latitude 39°59'19", longitude 82°28'30", in NW 1/4 sec. 3, T.1 N., R.12 W., Licking County, Hydrologic Unit 05040006, on right bank at upstream side of bridge on county road, 800 ft downstream from Beaver Run, 2.3 mi north of Hebron, and 2.5 mi upstream from Ramp Creek.
 DRAINAGE AREA.--133 mi².
 PERIOD OF RECORD.--October 1939 to September 1948, July 1968 to current year.
 REVISED RECORDS.--WSP 923: 1940. WSP 1033: Drainage area.
 GAGE.--Water-stage recorder. Datum of gage is 856.08 ft above sea level. Prior to Sept. 13, 1974, nonrecording gage at same site and datum.
 REMARKS.--Records fair except for periods of estimated record, which are poor. Occasional regulation by Buckeye Lake, capacity, 27,300 acre-ft, on unnamed tributary 5.6 mi upstream from station. Occasional diversion from Buckeye Lake into Jonathan Creek, which bypasses station. Water-quality data 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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.9	21	38	e54	258	491	45	69	19	5.7	5.2	4.4
2	7.9	17	148	e50	433	320	49	64	19	44	5.3	4.0
3	9.6	23	149	e46	383	483	45	56	14	23	5.0	4.3
4	17	20	152	e43	286	531	45	43	10	9.1	4.8	4.2
5	22	21	173	e40	210	226	45	41	9.7	7.2	5.5	4.4
6	17	22	168	e38	229	735	42	49	9.9	6.5	6.1	4.6
7	78	17	177	e35	482	580	39	49	9.6	8.2	4.7	5.9
8	420	14	179	e33	904	220	36	34	10	6.1	5.3	5.9
9	89	15	151	e31	396	169	393	31	11	8.1	5.9	5.7
10	44	43	134	e30	292	147	833	29	7.6	22	6.1	4.8
11	30	133	121	e28	255	124	224	27	7.4	12	5.1	3.7
12	23	62	108	e26	265	115	136	29	7.2	7.9	5.2	3.9
13	22	40	98	e25	e320	120	92	30	7.9	6.3	5.3	4.2
14	19	32	89	e24	e260	116	73	26	10	5.8	7.2	6.5
15	15	27	71	e23	e250	109	66	23	12	5.2	5.6	5.3
16	13	89	75	e35	245	180	91	23	9.3	5.3	7.9	5.1
17	11	229	73	298	241	304	192	23	8.5	5.1	7.2	4.8
18	13	223	69	1530	225	189	393	27	7.2	5.0	5.7	3.6
19	20	216	64	1170	189	121	357	28	6.6	5.1	5.8	3.9
20	22	216	60	716	136	95	429	25	6.1	5.6	6.0	5.7
21	16	212	124	882	83	83	636	17	6.1	5.8	5.4	8.6
22	14	204	323	1230	64	73	692	31	5.8	6.5	5.5	6.2
23	13	196	e110	631	105	64	833	46	5.6	6.4	5.8	5.5
24	12	190	e90	360	119	61	638	51	5.5	6.7	12	3.8
25	12	178	e80	331	125	56	264	45	5.5	5.4	26	4.1
26	13	94	e100	426	129	52	203	33	5.3	5.1	13	4.2
27	13	77	e120	394	148	48	166	25	5.4	7.2	9.1	4.5
28	13	47	e96	378	664	46	130	19	6.0	7.2	6.5	7.2
29	13	37	e80	333	---	45	102	16	8.4	9.1	5.5	16
30	19	32	e70	219	---	42	85	14	6.2	6.8	5.3	16
31	19	---	e62	262	---	41	---	14	---	5.6	4.9	---
TOTAL	1059.4	2747	3552	9721	7696	5986	7374	1037	261.8	275.0	213.9	171.0
MEAN	34.2	91.6	115	314	275	193	246	33.5	8.73	8.87	6.90	5.70
MAX	420	229	323	1530	904	735	833	69	19	44	26	16
MIN	7.9	14	38	23	64	41	36	14	5.3	5.0	4.7	3.6

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1999, BY WATER YEAR (WY)

	41.6	182	207	197	253	257	240	173	138	100	70.6	47.0
MEAN	41.6	182	207	197	253	257	240	173	138	100	70.6	47.0
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 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1940 - 1999

ANNUAL TOTAL	55231.6	40094.1		
ANNUAL MEAN	151	110	159	
HIGHEST ANNUAL MEAN			273	1979
LOWEST ANNUAL MEAN			56.9	1941
HIGHEST DAILY MEAN	2040	Apr 17	1530	Jan 18
LOWEST DAILY MEAN	5.0	Sep 6	3.6	Sep 18
ANNUAL SEVEN-DAY MINIMUM	5.6	Sep 1	4.4	Aug 31
INSTANTANEOUS PEAK FLOW			1950	Jan 18
INSTANTANEOUS PEAK STAGE			9.88	Jan 18
INSTANTANEOUS LOW FLOW			3.6	Sep 18
10 PERCENT EXCEEDS	325		310	
50 PERCENT EXCEEDS	70		31	
90 PERCENT EXCEEDS	7.6		5.3	

e Estimated.

SURFACE-WATER RECORDS
Muskingum River Basin

03150300 MUSKINGUM RIVER NEAR BEVERLY, OHIO

LOCATION.--Latitude 39°34'50", longitude 81°40'17", Washington County, Hydrologic Unit 05040004, on right bank, 400 ft upstream from Olive Green Creek, 2.0 mi downstream from Meigs Creak and 2.5 mi northwest of Beverly.
 DRAINAGE AREA.--7,627 mi².
 PERIOD OF RECORD.--April 1993 to current year (discontinued).
 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 fair except for periods of estimated record, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1350	1580	e3250	e3200	24600	10400	e4590	9860	3610	e1250	e1460	e1400
2	1290	1570	3110	e3000	21700	13400	e3920	8930	3370	e1300	e2200	e1250
3	1290	1710	3070	e2800	21100	15400	e3650	7880	3220	e1350	e3780	e1150
4	1340	1710	3030	e2600	20600	e21000	e3500	6850	3010	e1400	e4100	e1100
5	1400	1720	3100	e2500	19900	e22000	e3420	6190	2910	e2000	e3340	e1000
6	1650	1710	3090	e2400	16600	e22700	e3300	5770	2730	e3000	e2780	e950
7	2500	1700	3100	e2400	17300	e23000	e3180	5440	2530	e3460	e2380	e900
8	8540	1710	2990	e3500	21100	e22800	e6030	5210	2330	e2340	e1900	e900
9	8570	1690	3040	e5400	21100	e22700	e6190	4970	2190	e1650	e1800	e1300
10	8190	1720	3120	e5000	e21300	e21700	e18300	e4710	2040	e2030	e2000	e1280
11	5810	1970	2980	e4500	19800	e18800	e19900	4480	1910	e1730	e1260	e1000
12	4240	2310	2780	e4000	16800	e16400	e19500	4340	1820	e1570	e1180	e950
13	3360	2830	2650	e10000	16600	e14500	e19100	4120	1730	e1480	e1100	e900
14	2700	2880	2490	e14000	15800	e13000	e17500	3900	1700	e1400	e1300	e820
15	2340	2600	2240	e15000	14700	e12200	e15300	3850	1680	e1300	e1350	e760
16	2120	2340	2140	e12000	13600	e11900	e12000	3910	1640	e1250	e1300	e740
17	2000	2300	2140	e14000	13200	e11900	11300	3740	1760	e1200	e1450	e700
18	1890	2190	2110	28700	12400	e13100	13300	3610	1640	e1150	e1400	e700
19	1880	2240	2170	35400	12000	e13400	16800	4040	1530	e1100	e1300	e710
20	2530	2570	2030	34000	11200	e13300	19200	3650	1440	e1050	e1200	e700
21	2370	2730	1990	37100	10100	e12100	19500	3660	1400	e1000	e1100	e750
22	2080	2920	7560	43700	8140	e10600	21400	3770	1330	e1100	e1000	e700
23	1910	3060	18600	36200	7750	e9220	22100	4380	1290	e1350	e960	e680
24	1840	3060	17500	33400	7210	e8090	24600	4170	1260	e1350	e1060	e720
25	1830	2950	14700	32800	6920	e6580	22900	6710	e1240	e1280	e3300	e760
26	1770	3230	8610	32800	6740	e5950	20200	9370	e1220	e1100	e3440	e750
27	1700	3570	6330	33000	6350	e5710	16200	8500	e1200	e1050	e2910	e720
28	1660	3800	5290	31900	7120	e5500	14000	6930	e1180	e1100	e2360	e720
29	1630	3880	e4500	30600	---	e5070	12400	5720	e1200	e1180	e1700	e750
30	1610	3510	e4000	29600	---	e4400	11000	4840	e1220	e1280	e2080	e960
31	1610	---	e3500	26900	---	e3840	---	4030	---	e2150	e1720	---
TOTAL	85000	73760	147210	572400	411730	410660	404280	167530	57330	46950	60210	26720
MEAN	2742	2459	4749	18460	14700	13250	13480	5404	1911	1515	1942	891
MAX	8570	3880	18600	43700	24600	23000	24600	9860	3610	3460	4100	1400
MIN	1290	1570	1990	2400	6350	3840	3180	3610	1180	1000	960	680
MED	1890	2320	3090	14000	15200	13000	14600	4710	1690	1300	1700	790
CFSM	.36	.32	.62	2.42	1.93	1.74	1.77	.71	.25	.20	.25	.12
IN.	.41	.36	.72	2.79	2.01	2.00	1.97	.82	.28	.23	.29	.13

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1999, BY WATER YEAR (WY)

	1993	1994	1995	1996	1997	1998	1999
MEAN	2189	4855	7771	13440	13370	15670	13570
MAX	3805	8783	17510	18460	20870	22380	22910
(WY)	1997	1994	1997	1999	1994	1996	1996
MIN	1275	2459	3895	8396	7624	10840	6806
(WY)	1995	1999	1996	1994	1995	1995	1997

SUMMARY STATISTICS FOR 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1993 - 1999

ANNUAL TOTAL	3400670	2463780	
ANNUAL MEAN	9317	6750	8739
HIGHEST ANNUAL MEAN			11480
LOWEST ANNUAL MEAN			6750
HIGHEST DAILY MEAN	76000	43700	76000
LOWEST DAILY MEAN	1290	e680	680
ANNUAL SEVEN-DAY MINIMUM	1430	706	706
INSTANTANEOUS PEAK FLOW		48800	98400
INSTANTANEOUS PEAK STAGE		12.16	18.49
INSTANTANEOUS LOW FLOW		e680	680
ANNUAL RUNOFF (CFSM)	1.22	.89	1.15
ANNUAL RUNOFF (INCHES)	16.59	12.02	15.57
10 PERCENT EXCEEDS	24800	19600	21800
50 PERCENT EXCEEDS	5420	3060	4970
90 PERCENT EXCEEDS	1720	1100	1600

e Estimated.

SURFACE-WATER RECORDS Hocking River Basin

03157000 CLEAR CREEK NEAR ROCKBRIDGE, OHIO

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

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 1998 TO SEPTEMBER 1999 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	22	26	e29	79	215	60	67	30	15	13	8.3
2	13	e19	24	e27	148	162	60	63	30	16	10	e8.0
3	14	e19	23	e25	138	276	58	59	30	17	9.4	e7.8
4	18	e20	24	e24	110	277	60	56	27	14	9.2	e7.7
5	16	e20	23	e23	86	190	58	55	26	13	9.0	e7.6
6	15	e18	e22	e22	84	578	56	54	24	13	9.0	e7.6
7	43	e18	e24	e21	376	282	55	51	24	12	9.0	e11
8	166	e17	e25	e30	312	186	52	47	24	12	9.6	e8.8
9	44	e17	23	e140	181	167	65	44	21	12	9.3	e8.3
10	30	e18	22	e120	142	145	83	41	21	20	9.0	e8.2
11	24	34	21	e90	121	120	97	39	21	15	e8.7	e8.0
12	21	28	e20	e72	150	108	78	38	20	13	e8.4	e7.9
13	e50	24	e19	e390	166	107	68	37	19	13	e8.4	e8.5
14	e30	23	e18	257	132	105	65	37	21	12	e8.9	e8.5
15	e21	22	e18	147	125	101	65	36	23	12	e8.4	e8.6
16	e16	21	e18	120	122	152	75	33	20	11	e8.6	e8.2
17	e15	21	e21	234	128	237	91	31	19	11	e8.4	e8.2
18	e14	20	e20	851	117	163	154	29	19	13	e8.2	e8.2
19	30	20	e19	323	101	127	184	29	18	12	e8.2	e8.2
20	23	23	23	208	89	110	144	27	17	24	e8.7	e9.0
21	20	26	29	468	79	104	293	26	17	19	e8.5	e9.6
22	e18	23	386	722	72	91	239	46	16	14	e8.2	e9.2
23	e18	22	134	311	68	83	175	63	16	13	e8.0	e9.2
24	e17	22	82	225	67	80	146	61	16	12	17	e9.0
25	e17	21	e56	164	70	73	122	52	15	11	54	e10
26	e16	51	e49	135	73	67	110	42	15	10	26	e9.0
27	e16	42	e44	119	93	65	97	37	14	10	14	e9.4
28	e15	35	e40	103	236	62	89	34	14	10	11	e11
29	e15	30	e37	86	---	61	78	31	16	12	9.9	13
30	e20	27	e33	76	---	58	71	30	16	11	9.0	25
31	25	---	e31	71	---	56	---	29	---	9.5	8.4	---
TOTAL	814	723	1354	5633	3665	4608	3048	1324	609	411.5	355.4	281.0
MEAN	26.3	24.1	43.7	182	131	149	102	42.7	20.3	13.3	11.5	9.37
MAX	166	51	386	851	376	578	293	67	30	24	54	25
MIN	13	17	18	21	67	56	52	26	14	9.5	8.0	7.6
CFSM	.30	.27	.49	2.04	1.47	1.67	1.14	.48	.23	.15	.13	.11
IN.	.34	.30	.57	2.35	1.53	1.93	1.27	.55	.25	.17	.15	.12

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1999, BY WATER YEAR (WY)

	MEAN	29.0	53.1	87.5	119	145	172	155	123	73.5	53.8	44.1	29.3
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	11.5	9.37	
(WY)	1964	1965	1964	1977	1954	1941	1941	1988	1988	1999	1999	1999	

SUMMARY STATISTICS FOR 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1940 - 1999

ANNUAL TOTAL	32705	22825.9	90.1
ANNUAL MEAN	89.6	62.5	
HIGHEST ANNUAL MEAN			164
LOWEST ANNUAL MEAN			28.8
HIGHEST DAILY MEAN	1250	851	4690
LOWEST DAILY MEAN	10	e7.6	3.5
ANNUAL SEVEN-DAY MINIMUM	11	7.9	6.3
INSTANTANEOUS PEAK FLOW		1160	16000
INSTANTANEOUS PEAK STAGE		5.03	17.68
INSTANTANEOUS LOW FLOW		e7.6	3.0
ANNUAL RUNOFF (CFSM)	1.01	.70	1.01
ANNUAL RUNOFF (INCHES)	13.67	9.54	13.75
10 PERCENT EXCEEDS	203	149	184
50 PERCENT EXCEEDS	41	25	44
90 PERCENT EXCEEDS	14	9.0	16

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

SURFACE-WATER RECORDS
Hocking River Basin

03157500 HOCKING RIVER AT ENTERPRISE, OHIO

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

DRAINAGE AREA.--459 mi².

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

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

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	73	93	130	e130	428	1110	304	334	122	64	56	43
2	66	80	116	e130	692	975	305	309	122	103	47	42
3	65	79	110	e120	702	1330	290	293	121	107	45	41
4	100	81	107	e120	597	2120	307	272	109	76	42	40
5	87	80	104	e110	495	1410	295	259	100	64	40	39
6	77	72	102	e110	468	2570	282	250	94	59	40	39
7	154	68	109	e105	1470	2220	283	235	91	56	40	54
8	1530	66	114	e100	2500	1360	264	221	129	53	39	43
9	637	66	110	e500	1370	1090	306	209	122	52	41	40
10	327	75	100	e900	918	906	386	198	91	84	39	38
11	217	176	89	e500	703	738	443	187	84	66	39	37
12	164	178	86	e350	776	655	434	178	79	60	38	36
13	300	138	85	e2300	940	646	356	174	75	55	39	36
14	175	124	83	2120	716	622	323	175	82	52	41	37
15	112	116	79	1150	669	591	313	166	91	50	38	37
16	84	110	79	752	658	742	377	154	80	48	39	36
17	75	106	97	881	701	1200	419	146	74	47	38	36
18	71	116	94	3960	677	945	604	137	69	51	36	36
19	145	108	89	3520	583	710	830	132	67	50	36	36
20	134	124	91	1910	509	602	745	127	64	54	39	39
21	99	132	114	2470	446	559	1210	120	63	59	37	42
22	88	113	1720	4940	394	497	1610	181	61	65	34	39
23	79	96	1040	3670	369	453	1100	329	60	57	33	39
24	74	90	541	2050	357	426	968	284	59	51	43	38
25	71	88	e320	1340	378	394	716	253	59	46	345	43
26	69	198	e250	976	397	368	598	202	58	44	215	39
27	68	227	e210	773	422	347	519	173	57	68	100	40
28	68	179	e190	645	926	331	468	154	60	49	66	45
29	68	153	e170	530	---	319	425	138	89	67	56	61
30	90	139	e160	456	---	295	371	125	76	62	49	152
31	103	---	e140	416	---	283	---	116	---	54	45	---
TOTAL	5470	3471	6829	38034	20261	26814	15851	6231	2508	1873	1835	1323
MEAN	176	116	220	1227	724	865	528	201	83.6	60.4	59.2	44.1
MAX	1530	227	1720	4940	2500	2570	1610	334	129	107	345	152
MIN	65	66	79	100	357	283	264	116	57	44	33	36
CFSM	.38	.25	.48	2.67	1.58	1.88	1.15	.44	.18	.13	.13	.10
IN.	.44	.28	.55	3.08	1.64	2.17	1.28	.50	.20	.15	.15	.11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1999, BY WATER YEAR (WY)

MEAN	125	250	423	652	782	949	850	613	366	279	232	155
MAX	670	1864	1844	3605	1899	2875	2228	2499	1446	1437	1686	1087
(WY)	1976	1986	1991	1937	1979	1945	1940	1968	1981	1958	1980	1979
MIN	33.4	41.1	40.5	100	58.0	181	184	95.3	68.1	60.4	39.9	30.4
(WY)	1954	1954	1964	1977	1954	1941	1941	1934	1936	1999	1932	1953

SUMMARY STATISTICS FOR 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1931 - 1999

ANNUAL TOTAL	187241	130500	
ANNUAL MEAN	513	358	471
HIGHEST ANNUAL MEAN			860
LOWEST ANNUAL MEAN			110
HIGHEST DAILY MEAN	7020	Jan 9	4940
LOWEST DAILY MEAN	45	Sep 19	33
ANNUAL SEVEN-DAY MINIMUM	50	Sep 14	36
INSTANTANEOUS PEAK FLOW			5620
INSTANTANEOUS PEAK STAGE			11.72
INSTANTANEOUS LOW FLOW			32
ANNUAL RUNOFF (CFSM)	1.12		.78
ANNUAL RUNOFF (INCHES)	15.18		10.58
10 PERCENT EXCEEDS	1200		911
50 PERCENT EXCEEDS	235		121
90 PERCENT EXCEEDS	71		40
			21.31
			23
			1.03
			13.95
			1060
			212
			58

e Estimated.

SURFACE-WATER RECORDS Hocking River Basin

03158195 SNOW FORK MONDAY CREEK AT BUCHEL, OHIO

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

DRAINAGE AREA.--24.4 mi².

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.9	4.1	3.4	e4.4	24	55	21	22	10	e5.2	11	4.3
2	3.7	4.1	3.4	e4.2	41	49	20	20	10	e4.9	3.6	4.0
3	4.3	4.5	3.2	e4.0	35	142	19	19	9.9	e4.6	2.8	3.9
4	5.6	4.3	3.1	e3.8	29	119	19	18	9.4	e4.4	2.6	3.9
5	4.3	4.1	3.1	e3.6	24	72	18	18	8.9	e4.1	2.8	3.9
6	4.0	4.1	3.1	e3.5	24	153	18	17	8.7	e3.8	2.7	4.1
7	11	3.8	3.7	e3.4	142	89	18	16	8.5	e3.7	2.7	4.1
8	39	3.7	3.8	e3.3	116	61	17	16	8.4	e5.1	3.5	4.2
9	7.1	3.7	3.5	e110	60	56	25	15	7.9	e4.5	3.1	4.2
10	5.0	6.1	3.2	e80	41	46	29	14	7.7	e4.3	2.7	4.0
11	4.2	6.5	3.2	75	33	39	80	14	7.6	e4.4	2.9	4.0
12	3.8	4.3	3.0	52	57	39	54	13	7.3	e4.3	2.8	3.9
13	3.5	3.7	3.0	134	57	44	36	13	7.2	e4.0	3.0	4.1
14	3.3	3.6	3.5	101	42	43	30	13	e6.8	e3.9	3.5	4.4
15	3.2	3.6	2.8	51	39	44	28	13	e6.8	e3.6	3.4	4.1
16	3.1	3.4	2.8	29	37	64	32	12	e6.4	e3.5	3.1	4.0
17	3.1	3.1	3.3	52	36	91	31	12	e6.4	e3.5	2.9	3.8
18	3.0	3.1	3.0	378	31	87	32	12	e6.0	e3.5	2.9	3.8
19	3.7	3.0	3.2	124	28	57	55	12	e5.8	e3.7	3.2	3.7
20	3.3	4.3	3.7	70	24	45	50	12	e5.8	e4.1	3.2	4.0
21	3.3	4.3	4.7	103	22	39	112	11	e5.5	e4.3	2.6	4.6
22	3.5	3.4	49	216	20	34	89	39	e5.4	e4.7	2.5	4.2
23	3.2	3.3	15	100	19	31	64	52	e5.4	e4.3	2.3	4.2
24	3.2	3.3	10	84	19	29	51	38	e5.4	e3.8	21	4.2
25	3.2	3.3	9.7	53	20	26	40	23	e5.4	e3.4	89	4.3
26	3.1	7.1	7.5	37	20	24	35	16	e5.2	e3.0	19	4.3
27	3.1	5.6	e6.6	31	21	23	31	14	e5.2	e3.2	8.3	4.4
28	3.1	4.5	e5.8	27	32	21	29	12	e5.0	e4.5	6.4	4.8
29	3.4	4.2	e5.3	23	---	20	26	11	e4.7	e6.2	5.5	5.4
30	4.4	3.8	e4.9	21	---	19	23	11	e4.9	8.9	4.9	5.6
31	4.4	---	e4.7	19	---	20	---	10	---	4.1	4.5	---
TOTAL	160.0	123.9	188.2	2000.2	1093	1681	1132	538	207.6	133.5	234.4	126.4
MEAN	5.16	4.13	6.07	64.5	39.0	54.2	37.7	17.4	6.92	4.31	7.56	4.21
MAX	39	7.1	49	378	142	153	112	52	10	8.9	89	5.6
MIN	3.0	3.0	2.8	3.3	19	19	17	10	4.7	3.0	2.3	3.7
MED	3.5	3.9	3.5	51	32	44	30	14	6.6	4.1	3.1	4.1
AC-FT	317	246	373	3970	2170	3330	2250	1070	412	265	465	251
CFSM	.21	.17	.25	2.64	1.60	2.22	1.55	.71	.28	.18	.31	.17
IN.	.24	.19	.29	3.05	1.67	2.56	1.73	.82	.32	.20	.36	.19

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 1999, BY WATER YEAR (WY)

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
MEAN	5.02	6.21	9.16	57.5	40.6	45.4	61.9	51.2	39.6	11.3	16.7	5.71							
MAX	5.16	8.29	12.3	64.5	42.1	54.2	82.2	71.4	87.6	14.1	48.4	10.2							
(WY)	1999	1998	1998	1999	1998	1999	1998	1981	1981	1998	1997	1997							
MIN	4.87	4.13	6.07	50.4	39.0	36.5	37.7	17.4	6.92	4.31	5.14	4.13							
(WY)	1998	1999	1999	1998	1999	1998	1999	1999	1999	1999	1998	1998							

SUMMARY STATISTICS

	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1981 - 1999	
ANNUAL TOTAL	10606.6		7618.2			
ANNUAL MEAN	29.1		20.9		25.4	
HIGHEST ANNUAL MEAN					29.9	
LOWEST ANNUAL MEAN					20.9	
HIGHEST DAILY MEAN	548	Jan 8	378	Jan 18	620	Jun 6 1981
LOWEST DAILY MEAN	2.8	Dec 15	2.3	Aug 23	2.3	Aug 23 1999
ANNUAL SEVEN-DAY MINIMUM	3.1	Dec 12	2.8	Aug 17	2.8	Aug 17 1999
INSTANTANEOUS PEAK FLOW			517		1340	
INSTANTANEOUS PEAK STAGE			7.82		11.54	
INSTANTANEOUS LOW FLOW			2.3		2.3	
ANNUAL RUNOFF (AC-FT)	21040		15110		18390	
ANNUAL RUNOFF (CFSM)	1.19		.86		1.04	
ANNUAL RUNOFF (INCHES)	16.17		11.61		14.14	
10 PERCENT EXCEEDS	62		53		60	
50 PERCENT EXCEEDS	9.9		5.8		11	
90 PERCENT EXCEEDS	3.4		3.2		3.8	

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

SURFACE-WATER RECORDS
Hocking River Basin

03158200 MONDAY CREEK AT DOANVILLE, OHIO

LOCATION.--Latitude 39°26'07", longitude 82°11'30", Athens County, Hydrologic Unit 05030204, on right bank 75 ft upstream from Lang Street Bridge in Doanville, 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 current year. Low flow site 1961-71.
GAGE.--Water stage recorder. Elevation of gage is 650 ft above sea level (from topographic map).
REMARKS.--Records fair except for period of estimated record which are poor. Four parameter monitor at site. Saltellite transmitter at site.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.5	5.8	17	e19	79	243	73	80	26	9.5	24	11
2	4.0	6.1	17	e18	157	254	83	74	26	10	14	11
3	4.3	7.4	16	e17	160	310	74	67	28	11	e9.0	10
4	6.1	e15	16	e16	125	358	74	63	26	10	6.7	10
5	5.4	e12	19	e16	99	351	72	59	23	9.7	5.7	9.9
6	5.6	e11	20	e15	92	375	69	57	21	9.0	4.8	9.9
7	13	e10	23	e15	312	346	e74	53	20	8.5	4.6	9.4
8	216	e10	22	e14	666	289	e67	50	18	7.9	4.4	9.3
9	64	e9.6	16	e100	371	228	78	47	17	7.7	5.2	9.0
10	24	e15	15	e410	216	203	109	44	16	11	4.5	8.7
11	15	e20	14	239	169	156	202	42	16	9.1	4.3	8.5
12	10	e17	14	180	228	151	196	39	15	8.9	4.1	8.4
13	8.8	e14	13	372	338	171	127	38	14	9.3	4.1	8.4
14	7.2	e13	14	792	213	168	103	38	15	8.8	4.2	8.8
15	6.3	e12	12	e350	187	166	94	36	15	8.2	4.3	8.4
16	6.1	e11	12	e170	181	232	108	34	14	7.9	4.0	8.2
17	5.9	e10	17	e300	182	345	105	32	14	7.6	3.9	7.9
18	5.8	5.6	e14	e700	170	378	132	31	13	7.3	3.7	8.0
19	6.5	5.8	e16	e1700	144	219	221	30	13	7.1	3.7	7.9
20	6.0	8.1	e19	e400	126	165	220	29	12	7.2	3.8	8.3
21	8.2	10	e25	e600	107	142	331	28	12	8.0	3.8	8.9
22	8.5	15	e160	739	93	124	478	41	12	9.0	3.6	8.2
23	6.8	14	135	703	92	112	270	191	11	9.3	3.4	8.0
24	6.5	13	e54	531	81	106	252	102	11	10	18	7.8
25	6.6	12	46	259	80	96	176	88	11	8.5	249	7.7
26	6.6	22	48	168	87	88	144	56	11	7.6	78	7.6
27	6.5	48	31	131	86	82	124	43	11	7.1	32	7.7
28	10	29	e25	112	138	77	112	37	11	6.9	22	7.8
29	10	22	e22	96	---	74	102	34	11	8.7	17	8.4
30	4.2	20	e20	82	---	68	88	30	10	18	14	11
31	4.1	---	e20	73	---	66	---	27	---	11	12	---
TOTAL	502.5	423.4	912	9337	4979	6143	4358	1620	473	279.8	575.8	264.1
MEAN	16.2	14.1	29.4	301	178	198	145	52.3	15.8	9.03	18.6	8.80
MAX	216	48	160	1700	666	378	478	191	28	18	249	11
MIN	4.0	5.6	12	14	79	66	67	27	10	6.9	3.4	7.6
MED	6.5	12	19	170	150	168	108	42	14	8.8	4.6	8.4
CFSM	.14	.12	.26	2.64	1.56	1.74	1.27	.46	.14	.08	.16	.08
IN.	.16	.14	.30	3.05	1.62	2.00	1.42	.53	.15	.09	.19	.09

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 1999, BY WATER YEAR (WY)

	1997	1998	1999	1997	1998	1999	1997	1998	1999	1997	1998	1999
MEAN	16.3	28.2	48.4	322	200	195	222	166	88.8	31.6	126	17.3
MAX	16.3	42.2	67.3	342	222	198	299	279	126	47.3	347	37.6
(WY)	1998	1998	1998	1998	1998	1999	1998	1998	1997	1997	1997	1997
MIN	16.2	14.1	29.4	301	178	192	145	52.3	15.8	9.03	13.0	5.43
(WY)	1999	1999	1999	1999	1999	1998	1999	1999	1999	1999	1998	1998

SUMMARY STATISTICS

	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1997 - 1999	
ANNUAL TOTAL	47727.5		29867.6			
ANNUAL MEAN	131		81.8		109	
HIGHEST ANNUAL MEAN					136	
LOWEST ANNUAL MEAN					81.8	
HIGHEST DAILY MEAN	3000	Jan 8	1700	Jan 19	4200	Aug 18 1997
LOWEST DAILY MEAN	4.0	Oct 2	3.4	Aug 23	3.4	Aug 23 1999
ANNUAL SEVEN-DAY MINIMUM	4.5	Sep 14	3.7	Aug 17	3.7	Aug 17 1999
INSTANTANEOUS PEAK FLOW			e2100	Jan 19a	5300	Aug 18 1997
INSTANTANEOUS PEAK STAGE			13.75	Jan 19	19.60	Aug 18 1997
INSTANTANEOUS LOW FLOW			3.3	Aug 22	3.3	Aug 22 1999
ANNUAL RUNOFF (CFSM)	1.15		.72		.96	
ANNUAL RUNOFF (INCHES)	15.57		9.75		13.00	
10 PERCENT EXCEEDS	282		224		248	
50 PERCENT EXCEEDS	44		18		42	
90 PERCENT EXCEEDS	6.1		6.4		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
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, 1,110 microsiemens Sept. 20, 1998; minimum 172 microsiemens June 8, 1998.

pH: Maximum, 7.2 units Aug. 16, 1997; minimum, 3.0 units May 30, 1998.

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

DISSOLVED OXYGEN: Maximum, 15.3 mg/L Dec. 25, 1999; minimum, 5.3 mg/L Apr. 3, 1999.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 1,020 microsiemens Oct. 2-5; minimum 319 microsiemens Jan. 22.

pH: Maximum, 7.1 units Apr. 22; minimum, 3.4 units Oct. 1-7.

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

DISSOLVED OXYGEN: Maximum, 15.3 mg/L Dec. 25; minimum, 5.3 mg/L Apr. 3.

SPECIFIC CONDUCTANCE, MICROSIEMENS/CM AT 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	1010	988	996	955	941	950	909	899	902	838	815	827
2	1020	1010	1010	941	914	922	904	895	899	849	838	846
3	1020	985	1010	936	922	929	902	893	896	854	833	844
4	1020	981	1000	949	934	942	910	897	904	857	843	850
5	1020	985	1010	964	949	958	897	887	891	883	857	872
6	1010	1000	1010	973	964	968	889	886	887	890	884	888
7	1000	779	962	986	973	979	889	882	886	---	---	---
8	902	588	686	996	986	994	884	876	880	894	875	888
9	597	582	588	1000	982	993	880	870	875	889	514	709
10	642	589	613	986	832	956	890	880	886	628	501	545
11	696	642	670	904	832	870	902	890	895	570	509	535
12	741	696	721	929	904	917	909	902	905	662	570	605
13	773	741	758	933	915	926	909	904	906	634	501	595
14	891	774	791	934	924	930	928	909	916	505	422	451
15	830	802	814	951	926	937	926	916	922	477	442	463
16	843	830	837	957	951	954	925	920	923	---	---	---
17	853	843	848	955	953	955	924	918	922	---	---	---
18	864	853	860	967	956	962	930	921	926	---	---	---
19	881	860	874	976	967	972	928	917	924	---	---	---
20	902	879	894	975	951	962	921	901	911	462	377	431
21	905	868	887	958	923	942	915	888	905	470	392	446
22	871	863	866	957	940	945	888	706	776	419	319	386
23	905	871	890	966	951	958	740	569	602	453	406	421
24	915	905	911	951	942	946	622	570	594	444	350	377
25	922	915	920	955	927	950	676	621	647	466	364	429
26	926	920	923	934	862	904	781	675	704	506	463	484
27	930	924	927	918	890	905	824	754	787	520	506	515
28	937	930	933	908	880	893	772	756	765	530	514	522
29	943	937	941	897	880	891	770	765	768	532	521	526
30	955	932	943	910	897	906	801	769	786	547	524	538
31	953	940	946	---	---	---	815	799	805	563	542	552
MONTH	1020	582	872	1000	832	941	930	569	845	894	319	598

SURFACE-WATER RECORDS
Hocking River Basin

03158200 MONDAY CREEK AT DOANVILLE, OHIO—Continued

WATER-QUALITY RECORDS—CONTINUED

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	3.4	3.4	3.4	3.9	3.8	3.8	5.2	4.9	5.0	5.0	4.8	4.9
2	3.4	3.4	3.4	4.2	3.9	4.1	4.9	4.8	4.8	5.1	4.8	4.9
3	3.5	3.4	3.4	4.2	4.1	4.2	4.9	4.8	4.8	5.1	4.7	4.8
4	3.4	3.4	3.4	4.1	4.0	4.1	4.9	4.7	4.8	5.0	4.7	4.9
5	3.4	3.4	3.4	4.0	4.0	4.0	4.9	4.8	4.8	4.9	4.9	4.9
6	3.4	3.4	3.4	4.0	4.0	4.0	4.8	4.8	4.8	4.9	4.8	4.8
7	4.3	3.4	3.5	4.1	4.0	4.0	4.8	4.7	4.8	---	---	---
8	6.8	3.5	5.2	4.1	4.0	4.0	4.8	4.7	4.7	5.0	4.4	4.7
9	7.0	6.6	6.8	4.1	3.9	4.0	4.7	4.7	4.7	5.1	4.5	4.8
10	6.6	5.9	6.3	4.2	3.9	4.0	4.7	4.7	4.7	5.8	4.5	5.1
11	5.9	5.0	5.4	4.3	4.1	4.2	4.8	4.6	4.7	5.9	5.4	5.5
12	5.0	4.8	4.9	4.8	4.1	4.4	4.7	4.6	4.7	5.6	5.5	5.5
13	4.8	4.7	4.8	4.8	4.6	4.7	4.8	4.6	4.7	6.4	5.5	6.0
14	4.7	4.6	4.7	4.6	4.5	4.6	4.8	4.5	4.6	6.4	5.7	6.1
15	4.7	4.6	4.7	4.5	4.4	4.4	4.6	4.5	4.6	6.4	5.3	5.8
16	4.6	4.5	4.6	4.5	4.4	4.4	4.8	4.6	4.6	---	---	---
17	4.5	4.4	4.5	4.5	4.4	4.5	4.7	4.6	4.6	---	---	---
18	4.4	4.3	4.4	4.5	4.4	4.5	4.6	4.5	4.6	---	---	---
19	4.3	4.2	4.2	4.4	4.2	4.3	4.7	4.6	4.6	---	---	---
20	4.2	4.0	4.1	4.4	4.2	4.3	4.8	4.6	4.7	6.2	6.0	6.1
21	4.2	3.9	4.1	4.6	4.4	4.5	4.8	4.6	4.7	6.2	6.0	6.1
22	4.5	4.2	4.4	5.0	4.4	4.8	5.6	4.6	5.1	6.6	5.9	6.1
23	4.5	4.2	4.4	5.0	4.8	4.9	5.6	5.2	5.4	6.0	5.8	5.9
24	4.2	4.1	4.2	4.9	4.6	4.7	5.3	5.1	5.2	6.2	5.8	6.0
25	4.1	4.0	4.1	4.9	4.5	4.6	5.2	5.0	5.1	6.2	5.7	5.9
26	4.1	4.0	4.0	4.9	4.5	4.6	5.2	5.0	5.1	5.7	5.6	5.7
27	4.1	4.0	4.0	5.2	4.4	4.9	5.1	5.0	5.0	5.6	5.5	5.5
28	4.0	4.0	4.0	5.1	5.0	5.0	5.0	5.0	5.0	5.5	5.4	5.5
29	4.0	3.8	3.9	5.0	4.8	4.9	5.3	5.0	5.1	5.4	5.4	5.4
30	3.9	3.8	3.9	5.0	4.9	4.9	5.1	4.8	5.0	5.4	5.3	5.3
31	3.9	3.8	3.8	---	---	---	5.1	4.8	5.0	5.3	5.2	5.2
MONTH	7.0	3.4	4.3	5.2	3.8	4.4	5.6	4.5	4.8	6.6	4.4	5.4
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	5.2	5.1	5.1	---	---	---	4.7	4.5	4.6	5.0	4.8	4.9
2	6.1	5.1	5.4	---	---	---	4.8	4.6	4.8	4.9	4.8	4.9
3	6.1	5.8	5.9	---	---	---	4.9	4.8	4.8	4.8	4.8	4.8
4	---	---	---	---	---	---	4.8	4.8	4.8	4.8	4.7	4.8
5	---	---	---	---	---	---	4.9	4.8	4.8	4.7	4.6	4.7
6	---	---	---	---	---	---	4.9	4.8	4.9	4.6	4.6	4.6
7	---	---	---	---	---	---	5.0	4.8	4.9	4.6	4.5	4.6
8	---	---	---	---	---	---	4.9	4.8	4.9	4.5	4.4	4.4
9	6.4	6.2	6.4	---	---	---	4.9	4.8	4.9	4.4	4.3	4.4
10	6.2	6.0	6.2	---	---	---	5.3	4.8	5.2	4.4	4.3	4.4
11	6.0	5.9	6.0	---	---	---	6.2	5.0	5.5	4.3	4.3	4.3
12	5.9	5.8	5.8	---	---	---	6.5	6.2	6.4	4.3	4.2	4.2
13	6.4	5.9	6.3	---	---	---	6.3	5.5	5.9	4.2	4.2	4.2
14	6.4	6.2	6.3	---	---	---	5.5	5.3	5.4	4.2	4.2	4.2
15	6.2	6.1	6.2	---	---	---	5.3	5.2	5.3	4.2	4.2	4.2
16	6.1	6.0	6.0	---	---	---	5.4	5.2	5.3	4.2	4.1	4.1
17	6.0	5.9	5.9	---	---	---	5.4	5.3	5.4	4.1	4.1	4.1
18	5.9	5.9	5.9	---	---	---	5.8	5.3	5.5	4.1	4.0	4.0
19	---	---	---	---	---	---	6.6	5.8	6.1	4.0	4.0	4.0
20	---	---	---	---	---	---	6.7	6.4	6.6	4.0	4.0	4.0
21	---	---	---	---	---	---	6.7	6.1	6.4	4.0	4.0	4.0
22	---	---	---	---	---	---	7.1	6.6	6.8	4.0	3.8	3.9
23	---	---	---	---	---	---	6.6	6.2	6.4	6.6	3.8	5.7
24	---	---	---	5.2	5.0	5.1	6.5	6.3	6.4	6.6	6.2	6.4
25	5.3	5.3	5.3	5.1	4.9	5.0	6.4	5.9	6.2	6.5	6.2	6.4
26	5.4	5.3	5.4	4.9	4.8	4.9	5.9	5.6	5.7	6.2	5.5	5.9
27	---	---	---	4.8	4.8	4.8	5.6	5.3	5.4	5.5	5.0	5.2
28	---	---	---	4.8	4.7	4.7	5.3	5.1	5.2	5.0	4.9	5.0
29	---	---	---	4.7	4.7	4.7	5.2	5.1	5.2	5.0	4.8	4.9
30	---	---	---	4.7	4.6	4.6	5.1	4.9	5.0	4.9	4.7	4.8
31	---	---	---	4.6	4.5	4.6	---	---	---	4.7	4.7	4.7
MONTH	6.4	5.1	5.9	5.2	4.5	4.8	7.1	4.5	5.5	6.6	3.8	4.7

SURFACE-WATER RECORDS
Hocking River Basin

03158200 MONDAY CREEK AT DOANVILLE, OHIO—Continued

WATER-QUALITY RECORDS—CONTINUED

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999—Continued

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	4.7	4.5	4.6	3.8	3.8	3.8	4.8	4.1	4.5	4.9	4.8	4.8
2	4.5	4.4	4.4	3.8	3.8	3.8	4.4	4.2	4.3	4.8	4.7	4.7
3	4.6	4.4	4.5	3.8	3.7	3.7	4.5	4.4	4.4	4.7	4.7	4.7
4	4.7	4.5	4.6	3.9	3.8	3.9	4.4	4.3	4.4	4.7	4.6	4.7
5	4.5	4.4	4.4	3.9	3.9	3.9	4.3	4.1	4.2	4.6	4.6	4.6
6	4.4	4.3	4.4	3.9	3.9	3.9	4.1	4.0	4.1	4.6	4.4	4.6
7	4.3	4.2	4.3	3.9	3.8	3.9	4.1	4.0	4.0	4.4	4.3	4.4
8	4.2	4.2	4.2	3.9	3.8	3.8	4.3	4.0	4.0	4.3	4.3	4.3
9	4.2	4.1	4.1	3.9	3.8	3.8	4.0	3.9	3.9	4.3	4.2	4.3
10	4.1	4.1	4.1	3.9	3.8	3.8	3.9	3.9	3.9	4.3	4.2	4.2
11	4.1	4.0	4.1	3.8	3.7	3.8	3.9	3.9	3.9	4.3	4.2	4.2
12	4.1	4.0	4.1	3.8	3.7	3.8	3.9	3.8	3.9	4.3	4.2	4.2
13	4.0	4.0	4.0	3.9	3.8	3.9	3.8	3.8	3.8	4.3	4.2	4.2
14	4.0	3.9	4.0	3.9	3.9	3.9	3.8	3.7	3.7	4.3	4.2	4.2
15	3.9	3.9	3.9	3.9	3.8	3.9	3.8	3.7	3.7	4.3	4.2	4.2
16	4.0	3.9	4.0	3.8	3.8	3.8	3.8	3.7	3.7	4.3	3.8	4.1
17	4.1	4.0	4.1	3.8	3.8	3.8	3.7	3.7	3.7	4.0	3.9	3.9
18	4.0	3.9	4.0	3.9	3.8	3.8	3.7	3.7	3.7	4.0	3.9	3.9
19	3.9	3.9	3.9	3.8	3.7	3.8	3.8	3.7	3.7	3.9	3.9	3.9
20	3.9	3.9	3.9	3.8	3.7	3.7	3.8	3.7	3.7	3.9	3.9	3.9
21	3.9	3.9	3.9	3.7	3.7	3.7	3.8	3.7	3.7	3.9	3.8	3.8
22	3.9	3.8	3.9	3.7	3.6	3.7	3.8	3.7	3.7	3.9	3.8	3.8
23	3.9	3.8	3.8	3.7	3.7	3.7	3.8	3.7	3.8	3.9	3.8	3.8
24	3.8	3.8	3.8	3.9	3.7	3.8	4.1	3.7	3.8	3.8	3.8	3.8
25	3.8	3.8	3.8	3.9	3.9	3.9	6.2	4.1	5.3	3.9	3.8	3.8
26	3.8	3.8	3.8	4.0	3.9	4.0	6.1	5.9	6.0	3.8	3.8	3.8
27	3.8	3.8	3.8	4.0	3.9	4.0	6.1	5.7	6.0	3.9	3.8	3.8
28	3.8	3.8	3.8	4.0	3.9	3.9	5.8	5.1	5.4	3.8	3.8	3.8
29	3.8	3.8	3.8	3.9	3.7	3.8	5.1	4.9	5.0	3.8	3.8	3.8
30	3.9	3.8	3.8	4.4	3.7	4.0	4.9	4.9	4.9	3.8	3.7	3.8
31	---	---	---	4.8	4.0	4.1	4.9	4.9	4.9	---	---	---
MONTH	4.7	3.8	4.1	4.8	3.6	3.8	6.2	3.7	4.2	4.9	3.7	4.1
YEAR	7.1	3.4	4.6									

TEMPERATURE, WATER, DEGREES CELSIUS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

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

SURFACE-WATER RECORDS
Hocking River Basin

03158200 MONDAY CREEK AT DOANVILLE, OHIO—Continued

WATER-QUALITY RECORDS—CONTINUED

OXYGEN, DISSOLVED, MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	10.9	9.2	10.0	9.9	9.3	9.5	11.6	10.8	11.0	14.2	13.6	14.0
2	11.8	10.1	10.9	9.7	9.1	9.4	12.3	11.2	11.7	14.0	12.7	13.5
3	11.9	10.6	11.2	9.8	9.0	9.4	11.7	10.9	11.5	13.1	12.5	12.7
4	11.8	10.4	11.0	10.2	9.2	9.7	11.1	9.9	10.5	13.1	12.8	13.0
5	11.5	10.3	10.8	10.8	10.1	10.4	10.6	9.5	9.9	13.0	12.6	12.8
6	11.2	9.7	10.4	11.4	10.6	10.9	9.5	8.6	9.1	12.6	12.2	12.5
7	10.3	8.9	9.5	11.7	11.2	11.4	8.9	8.2	8.4	---	---	---
8	8.9	8.5	8.7	11.6	11.2	11.4	9.0	8.3	8.7	11.5	10.9	11.2
9	9.6	8.9	9.3	13.2	11.3	12.1	11.5	9.0	10.2	12.9	11.5	12.4
10	10.0	9.6	9.8	12.8	11.5	12.3	12.6	11.5	11.8	13.3	12.8	13.0
11	10.0	9.7	9.9	11.5	10.5	10.9	13.1	11.8	12.5	13.9	12.4	13.2
12	9.9	9.7	9.8	12.5	10.9	11.7	13.6	12.3	12.8	13.0	12.4	12.7
13	9.8	9.4	9.6	12.4	11.8	12.0	12.8	12.0	12.4	13.2	12.5	12.9
14	10.0	9.7	9.8	11.9	11.3	11.6	14.2	12.7	13.4	13.6	12.9	13.3
15	10.2	10.0	10.1	11.3	10.6	10.8	14.6	13.4	14.1	13.1	12.9	13.0
16	10.4	10.1	10.3	11.3	10.4	10.8	14.9	13.2	14.2	---	---	---
17	10.2	9.8	10.1	11.3	7.6	9.4	13.9	12.9	13.3	---	---	---
18	9.8	9.0	9.5	8.9	7.9	8.4	14.3	13.2	13.8	---	---	---
19	9.0	8.3	8.7	9.0	8.6	8.8	13.6	12.8	13.3	---	---	---
20	9.1	8.5	8.9	9.1	8.5	8.8	12.8	12.1	12.4	10.0	8.3	9.0
21	9.6	9.1	9.5	10.2	8.7	9.5	12.1	10.9	11.7	---	---	---
22	10.1	9.6	9.9	11.3	10.2	10.8	12.3	10.6	11.3	---	---	---
23	10.6	10.1	10.4	11.5	11.2	11.3	14.6	12.2	13.4	---	---	---
24	10.9	10.5	10.7	12.3	11.0	11.5	15.2	14.5	14.9	---	---	---
25	11.0	10.6	10.8	12.7	12.0	12.4	15.3	14.9	15.2	---	---	---
26	11.1	10.8	10.9	12.2	11.3	11.6	14.9	14.2	14.6	---	---	---
27	10.9	10.5	10.8	12.7	11.7	12.2	14.7	13.8	14.3	---	---	---
28	10.6	10.1	10.4	13.0	12.3	12.6	14.4	13.6	13.9	---	---	---
29	10.5	9.9	10.1	12.5	11.8	12.2	13.8	13.3	13.6	---	---	---
30	10.2	9.7	10.0	11.8	11.2	11.6	14.5	13.3	13.9	---	---	---
31	9.7	9.3	9.5	---	---	---	14.5	13.6	14.1	---	---	---
MONTH	11.9	8.3	10.0	13.2	7.6	10.8	15.3	8.2	12.4	14.2	8.3	12.6
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	7.0	5.9	6.5	10.0	9.4	9.7
2	---	---	---	---	---	---	6.4	5.5	5.9	9.8	9.3	9.5
3	---	---	---	---	---	---	6.0	5.3	5.7	9.7	9.3	9.5
4	---	---	---	---	---	---	5.9	5.5	5.7	9.7	9.2	9.4
5	---	---	---	---	---	---	5.9	5.5	5.8	9.4	9.1	9.3
6	---	---	---	---	---	---	6.3	5.8	6.0	9.2	8.8	9.0
7	---	---	---	---	---	---	6.7	6.2	6.6	8.9	8.7	8.8
8	---	---	---	---	---	---	8.8	6.8	7.6	9.0	8.6	8.8
9	12.4	11.5	12.0	---	---	---	8.4	8.0	8.2	9.2	8.9	9.0
10	12.1	11.4	11.8	---	---	---	9.0	8.3	8.7	9.3	8.9	9.1
11	11.9	10.8	11.4	---	---	---	9.2	8.7	8.9	9.2	8.9	9.0
12	12.0	10.8	11.4	---	---	---	9.8	8.8	9.4	9.0	8.7	8.9
13	13.4	11.7	12.8	---	---	---	10.4	9.5	10.0	9.0	8.5	8.7
14	13.2	12.5	12.9	---	---	---	10.2	9.6	9.9	9.2	8.7	8.9
15	12.9	12.1	12.6	---	---	---	9.8	9.6	9.7	9.2	9.0	9.1
16	13.4	12.3	12.8	---	---	---	10.2	9.7	9.9	9.0	8.8	8.9
17	12.8	12.1	12.4	---	---	---	10.7	10.2	10.5	8.8	8.4	8.6
18	12.4	12.2	12.3	---	---	---	10.9	10.6	10.8	8.4	8.1	8.3
19	---	---	---	---	---	---	10.9	10.4	10.7	8.5	8.0	8.3
20	---	---	---	---	---	---	10.4	10.0	10.3	8.6	8.3	8.4
21	---	---	---	---	---	---	10.2	9.9	10.1	8.5	8.3	8.4
22	---	---	---	---	---	---	9.9	9.4	9.7	8.3	7.9	8.1
23	---	---	---	---	---	---	9.7	9.4	9.5	8.2	7.7	8.0
24	---	---	---	9.8	6.0	7.9	10.0	9.4	9.7	8.3	7.8	8.1
25	12.8	12.5	12.6	10.6	6.6	8.9	10.3	9.8	10.1	8.6	8.2	8.4
26	12.6	12.1	12.4	13.0	9.9	10.9	10.3	10.0	10.1	8.7	8.3	8.5
27	---	---	---	11.7	9.4	10.5	10.2	9.9	10.0	8.9	8.5	8.6
28	---	---	---	10.0	7.8	9.1	9.9	9.8	9.9	8.8	8.4	8.6
29	---	---	---	8.0	6.9	7.4	10.2	9.8	10.0	8.6	8.3	8.5
30	---	---	---	7.3	6.5	6.9	10.2	9.6	9.9	8.6	8.2	8.4
31	---	---	---	6.9	6.1	6.5	---	---	---	8.3	8.1	8.2
MONTH	13.4	10.8	12.3	13.0	6.0	8.5	10.9	5.3	8.9	10.0	7.7	8.7

SURFACE-WATER RECORDS Shade River Basin

03159540 SHADE RIVER NEAR CHESTER, OHIO

LOCATION.--Latitude 39°03'49", longitude 81°52'55", in NE 1/4 sec. 10, T.3N., R.12 W., Meigs County, Hydrologic Unit 05030202, on right bank at downstream side of bridge on Oak Hill Road, 200 ft upstream from Sugar Run, 2.8 mi southeast of Chester, 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 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 1998 TO SEPTEMBER 1999 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	5.0	13	e6.4	127	585	67	91	17	2.0	76	16
2	1.0	3.5	10	e6.2	324	429	73	81	19	2.2	54	11
3	.99	3.4	8.6	e6.0	309	470	65	74	29	2.1	34	8.7
4	1.2	3.7	7.9	e5.8	252	639	61	73	29	1.6	13	7.0
5	1.3	4.3	7.8	e5.6	190	482	59	77	19	1.6	6.4	6.2
6	1.2	5.9	e9.0	e5.6	190	560	55	74	13	1.2	4.5	6.0
7	1.2	6.1	e18	e5.4	339	545	48	70	10	1.3	3.9	5.0
8	19	8.1	e50	e15	328	359	49	67	9.0	1.2	3.5	e8.0
9	189	7.4	e150	359	330	309	65	68	8.7	1.2	3.2	e7.0
10	54	5.8	e90	321	273	418	264	58	7.7	1.5	3.9	e6.0
11	26	11	e66	111	221	350	168	39	6.3	2.3	4.2	e5.0
12	15	42	e46	42	256	356	105	38	5.7	2.0	3.4	e4.4
13	10	36	e40	263	318	409	73	35	4.7	1.9	3.4	e4.0
14	7.2	17	e34	341	298	347	80	29	3.8	1.6	4.2	e3.3
15	6.1	11	36	321	263	425	67	28	3.7	1.3	4.0	e4.7
16	5.2	7.5	29	333	243	627	79	29	4.8	1.4	3.9	e4.7
17	5.0	6.6	24	349	219	742	85	23	5.0	1.4	3.9	e4.7
18	5.4	5.9	21	386	202	740	70	23	4.2	1.5	2.9	e8.0
19	5.6	5.2	19	325	165	391	63	140	3.7	1.4	1.9	e10
20	6.1	5.2	17	346	137	282	59	105	3.4	2.8	3.2	e12
21	7.1	6.3	17	369	109	245	138	70	2.6	7.5	2.8	4.3
22	8.2	7.3	130	384	82	202	354	53	2.2	61	4.1	3.0
23	8.6	7.3	242	404	71	162	227	79	2.5	94	2.2	2.6
24	14	6.6	91	347	76	148	172	139	2.0	40	5.1	2.3
25	18	6.0	e30	334	86	129	146	185	2.2	13	509	2.5
26	24	8.9	e15	318	86	105	128	108	1.8	4.5	796	2.5
27	17	40	e11	262	111	88	119	68	1.6	1.8	269	2.5
28	9.9	48	e9.4	224	419	77	120	42	1.7	1.4	124	2.5
29	2.5	27	e8.6	178	---	70	118	31	2.2	12	71	2.6
30	3.0	17	e7.8	143	---	63	104	23	2.0	150	41	3.2
31	6.5	---	e7.0	118	---	59	---	19	---	194	24	---
TOTAL	480.49	375.0	1265.1	6634.0	6024	10813	3281	2039	227.5	612.7	2085.6	169.7
MEAN	15.5	12.5	40.8	214	215	349	109	65.8	7.58	19.8	67.3	5.66
MAX	189	48	242	404	419	742	354	185	29	194	796	16
MIN	.99	3.4	7.0	5.4	71	59	48	19	1.6	1.2	1.9	2.3
CFSM	.10	.08	.26	1.37	1.38	2.24	.70	.42	.05	.13	.43	.04
IN.	.11	.09	.30	1.58	1.44	2.58	.78	.49	.05	.15	.50	.04

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1999, BY WATER YEAR (WY)

MEAN	53.4	105	202	248	311	357	273	240	95.9	67.0	63.5	35.6
MAX	259	386	765	755	884	1088	634	912	488	384	406	262
(WY)	1976	1974	1991	1994	1994	1997	1972	1968	1998	1980	1980	1979
MIN	.42	.99	20.2	24.0	40.7	53.4	48.6	33.2	2.37	2.40	.72	.38
(WY)	1988	1988	1988	1977	1978	1969	1995	1986	1988	1987	1988	1987

SUMMARY STATISTICS FOR 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1965 - 1999

ANNUAL TOTAL	65343.39	34007.09	
ANNUAL MEAN	179	93.2	172
HIGHEST ANNUAL MEAN			272
LOWEST ANNUAL MEAN			45.4
HIGHEST DAILY MEAN	3030	Jun 29	10300
LOWEST DAILY MEAN	.99	Oct 3	.18
ANNUAL SEVEN-DAY MINIMUM	1.2	Oct 1	.21
INSTANTANEOUS PEAK FLOW			954
INSTANTANEOUS PEAK STAGE			11.01
INSTANTANEOUS LOW FLOW			.99
ANNUAL RUNOFF (CFSM)	1.15	.60	1.10
ANNUAL RUNOFF (INCHES)	15.58	8.11	14.95
10 PERCENT EXCEEDS	444	326	379
50 PERCENT EXCEEDS	49	21	56
90 PERCENT EXCEEDS	2.9	2.2	3.8

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

SURFACE-WATER RECORDS
Raccoon Creek Basin

03201980 LITTLE RACCOON CREEK NEAR EWINGTON, OHIO

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

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1984 to June 1985 and November 1998 to September 1999.
GAGE.--Water-stage recorder. Elevation of gage is 630 ft above sea level (from topographic map).
REMARKS.--Records good except for periods of estimated record, which are fair. Water-quality data collected at this site.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1270 ft³/s Mar. 31, 1985, gage height, 12.33 ft; minimum daily discharge, 2.1 ft³/s Sept. 29, 1999.
EXTREMES FOR CURRENT YEAR.--Peak discharges during period of Nov. 1998 to Sept. 1999 are greater than base discharge of 860 ft³/s.

DATE	TIME	DISCHARGE (FT ³ /S)	GAGE HEIGHT (FT)
Jan. 19	1330	973	11.29

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	14	e9.0	91	381	54	58	14	7.2	4.9	7.5
2	---	---	12	e8.8	207	348	60	52	18	7.2	4.1	6.8
3	---	---	12	e8.6	198	320	56	45	18	7.5	3.8	7.0
4	---	---	11	e8.4	152	497	53	41	15	6.7	3.3	6.5
5	---	---	8.5	e8.2	121	491	51	38	14	6.4	2.7	6.2
6	---	---	8.0	e8.0	106	441	49	37	13	6.1	2.6	5.8
7	---	---	13	e8.0	173	498	50	36	12	5.4	2.6	15
8	---	---	33	e7.8	366	416	49	34	13	4.8	2.8	14
9	---	---	45	240	352	246	64	31	12	4.8	5.4	11
10	---	---	31	325	203	251	137	29	11	6.4	6.4	8.4
11	---	---	20	150	141	221	106	27	10	7.0	4.3	6.3
12	---	23	17	98	154	200	85	24	9.5	6.2	3.4	4.8
13	---	15	15	197	217	218	71	23	9.5	5.8	3.0	4.2
14	---	11	17	385	170	204	65	23	10	5.2	4.0	3.6
15	---	11	17	433	144	205	60	23	11	4.8	5.9	3.2
16	---	9.3	15	309	134	279	71	20	10	4.6	4.4	3.0
17	---	8.3	15	271	127	443	62	19	9.7	4.6	3.7	7.4
18	---	8.1	14	687	122	472	56	20	9.5	4.3	3.2	6.5
19	---	7.3	13	903	107	362	54	43	9.0	3.9	4.4	4.2
20	---	8.0	12	714	93	218	53	26	8.4	5.2	5.6	2.8
21	---	11	13	430	80	162	81	20	8.1	7.6	6.2	3.0
22	---	10	66	528	70	131	169	20	7.6	17	5.3	2.7
23	---	8.7	79	411	63	113	123	30	7.5	16	4.9	2.7
24	---	7.2	37	502	65	101	95	42	7.6	11	7.2	3.9
25	---	6.6	e18	403	66	89	76	42	7.4	8.4	120	5.0
26	---	26	e16	220	66	78	66	26	7.4	6.8	83	3.9
27	---	43	e14	151	107	70	63	21	7.0	6.1	31	2.8
28	---	26	e13	120	319	64	74	18	7.8	5.9	17	2.3
29	---	20	e12	99	---	60	90	16	9.3	5.9	13	2.1
30	---	17	e11	84	---	56	71	15	8.0	6.5	11	2.9
31	---	---	e10	74	---	54	---	14	---	6.0	8.9	---
TOTAL	---	---	631.5	7800.8	4214	7689	2214	913	314.3	211.3	388.0	165.5
MEAN	---	---	20.4	252	150	248	73.8	29.5	10.5	6.82	12.5	5.52
MAX	---	---	79	903	366	498	169	58	18	17	120	15
MIN	---	---	8.0	7.8	63	54	49	14	7.0	3.9	2.6	2.1
CFSM	---	---	.20	2.52	1.51	2.49	.74	.30	.11	.07	.13	.06
IN.	---	---	.24	2.91	1.57	2.87	.83	.34	.12	.08	.14	.06

e Estimated.

SURFACE-WATER RECORDS
Raccoon Creek Basin

03201980 LITTLE RACCOON CREEK NEAR EWINGTON, OHIO—Continued

WATER-QUALITY RECORDS

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

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

SPECIFIC CONDUCTANCE: December 1998 to current year.

pH: December 1998 to current year.

WATER TEMPERATURE: December 1998 to current year.

DISSOLVED OXYGEN: December 1998 to current year.

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

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

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 1,310 microsiemens Sept. 19, 1999; minimum, 284 microsiemens Jan. 20, 1999.

pH: Maximum, 8.0 units Sept. 10 and 11, 1999; minimum, 5.4 units Dec. 22 and 23, 1998.

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

DISSOLVED OXYGEN: Maximum, 14.9 mg/L Jan. 1, 1999; minimum, 5.7 mg/L July 5-7, 1999.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 1,310 microsiemens Sept. 19, minimum, 284 microsiemens Jan. 20.

pH: Maximum, 8.0 units Sept. 10 and 11; minimum, 5.4 units Dec. 22 and 23.

WATER TEMPERATURE: Maximum, 29.0°C July 31; minimum 0.0°C Dec. 25, 26, 31, and Jan. 1-16.

DISSOLVED OXYGEN: Maximum, 14.9°C Jan. 1; minimum 5.7°C July 5-7.

SPECIFIC CONDUCTANCE, MICROSIEMENS/CM AT 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	847	838	841
2	---	---	---	---	---	---	---	---	---	878	846	856
3	---	---	---	---	---	---	---	---	---	878	827	854
4	---	---	---	---	---	---	---	---	---	873	817	840
5	---	---	---	---	---	---	---	---	---	873	848	857
6	---	---	---	---	---	---	---	---	---	912	863	884
7	---	---	---	---	---	---	---	---	---	913	879	901
8	---	---	---	---	---	---	---	---	---	879	823	850
9	---	---	---	---	---	---	---	---	---	865	504	675
10	---	---	---	---	---	---	---	---	---	756	523	606
11	---	---	---	---	---	---	---	---	---	535	519	525
12	---	---	---	---	---	---	---	---	---	550	535	545
13	---	---	---	---	---	---	---	---	---	652	537	566
14	---	---	---	---	---	---	---	---	---	549	411	490
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	394	367	383
17	---	---	---	---	---	---	---	---	---	427	366	397
18	---	---	---	---	---	---	---	---	---	367	331	344
19	---	---	---	---	---	---	---	---	---	333	293	318
20	---	---	---	---	---	---	---	---	---	310	284	297
21	---	---	---	---	---	---	822	811	818	330	308	318
22	---	---	---	---	---	---	972	721	796	380	330	353
23	---	---	---	---	---	---	1160	848	974	345	326	335
24	---	---	---	---	---	---	848	801	816	359	323	346
25	---	---	---	---	---	---	815	803	808	345	318	335
26	---	---	---	---	---	---	867	815	840	338	330	334
27	---	---	---	---	---	---	870	863	866	345	334	339
28	---	---	---	---	---	---	863	852	856	360	345	354
29	---	---	---	---	---	---	852	817	836	371	360	366
30	---	---	---	---	---	---	825	806	812	385	364	376
31	---	---	---	---	---	---	845	825	838	416	385	397
MONTH	---	---	---	---	---	---	1160	721	842	913	284	529

SURFACE-WATER RECORDS
Raccoon Creek Basin

03201980 LITTLE RACCOON CREEK NEAR EWINGTON, OHIO—Continued

WATER-QUALITY RECORDS—CONTINUED

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	6.6	6.6	6.6
2	---	---	---	---	---	---	---	---	---	6.7	6.5	6.6
3	---	---	---	---	---	---	---	---	---	6.7	6.5	6.6
4	---	---	---	---	---	---	---	---	---	6.7	6.6	6.6
5	---	---	---	---	---	---	---	---	---	6.6	6.5	6.6
6	---	---	---	---	---	---	---	---	---	6.6	6.6	6.6
7	---	---	---	---	---	---	---	---	---	6.6	6.6	6.6
8	---	---	---	---	---	---	---	---	---	6.8	6.6	6.7
9	---	---	---	---	---	---	---	---	---	6.8	5.9	6.5
10	---	---	---	---	---	---	---	---	---	6.9	6.6	6.8
11	---	---	---	---	---	---	---	---	---	6.6	6.4	6.4
12	---	---	---	---	---	---	---	---	---	6.4	6.4	6.4
13	---	---	---	---	---	---	---	---	---	6.6	6.2	6.4
14	---	---	---	---	---	---	---	---	---	6.7	6.5	6.6
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	6.8	6.8	6.8
17	---	---	---	---	---	---	---	---	---	6.8	6.6	6.7
18	---	---	---	---	---	---	---	---	---	6.7	6.3	6.5
19	---	---	---	---	---	---	---	---	---	6.6	6.3	6.5
20	---	---	---	---	---	---	---	---	---	6.5	6.4	6.5
21	---	---	---	---	---	---	6.7	6.6	6.7	6.4	6.2	6.3
22	---	---	---	---	---	---	6.8	5.4	6.6	6.4	6.1	6.3
23	---	---	---	---	---	---	7.2	5.4	6.7	6.3	6.1	6.2
24	---	---	---	---	---	---	7.2	7.0	7.1	6.3	6.1	6.2
25	---	---	---	---	---	---	7.0	6.8	6.9	6.3	6.1	6.2
26	---	---	---	---	---	---	6.9	6.8	6.9	6.2	6.0	6.1
27	---	---	---	---	---	---	6.8	6.8	6.8	6.4	6.2	6.3
28	---	---	---	---	---	---	6.8	6.8	6.8	6.5	6.4	6.4
29	---	---	---	---	---	---	6.8	6.8	6.8	6.5	6.4	6.4
30	---	---	---	---	---	---	6.8	6.8	6.8	6.4	6.4	6.4
31	---	---	---	---	---	---	6.8	6.6	6.7	6.4	6.4	6.4
MONTH	---	---	---	---	---	---	7.2	5.4	6.8	6.9	5.9	6.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	6.5	6.4	6.4	---	---	---	6.7	6.6	6.6	6.8	6.7	6.8
2	6.4	6.0	6.2	---	---	---	6.7	6.6	6.6	6.9	6.8	6.8
3	6.3	6.3	6.3	---	---	---	6.8	6.7	6.7	6.9	6.8	6.9
4	6.5	6.3	6.4	---	---	---	6.8	6.8	6.8	6.9	6.8	6.9
5	6.6	6.5	6.6	6.6	6.2	6.3	6.8	6.8	6.8	6.9	6.9	6.9
6	6.6	6.5	6.6	6.2	6.1	6.2	6.9	6.8	6.9	6.9	6.9	6.9
7	6.6	5.9	6.4	6.2	6.1	6.2	6.9	6.9	6.9	7.0	6.9	6.9
8	6.4	5.9	6.2	6.2	6.0	6.1	7.0	6.9	6.9	7.0	6.9	7.0
9	6.2	6.1	6.2	6.1	5.9	6.0	6.9	6.8	6.9	7.0	7.0	7.0
10	6.3	6.1	6.2	6.1	6.0	6.1	6.9	6.8	6.9	7.1	7.0	7.1
11	6.4	6.3	6.4	6.1	6.0	6.0	6.9	6.8	6.9	7.2	7.1	7.1
12	6.5	6.0	6.4	6.2	6.0	6.0	6.9	6.8	6.8	7.3	7.1	7.2
13	6.1	5.9	6.1	6.2	6.1	6.1	6.9	6.8	6.9	7.2	7.2	7.2
14	---	---	---	6.2	6.1	6.1	6.9	6.8	6.9	7.3	7.2	7.2
15	---	---	---	6.2	6.1	6.1	6.9	6.8	6.8	7.3	7.2	7.2
16	---	---	---	6.3	6.1	6.2	6.8	6.6	6.8	7.3	7.2	7.3
17	---	---	---	6.4	6.3	6.3	6.8	6.6	6.7	7.4	7.3	7.3
18	---	---	---	6.3	6.2	6.3	6.8	6.8	6.8	7.4	7.3	7.3
19	---	---	---	6.3	6.1	6.2	6.8	6.8	6.8	7.3	6.1	7.1
20	---	---	---	6.1	6.0	6.0	6.9	6.8	6.8	7.1	5.6	6.6
21	---	---	---	6.1	6.0	6.0	6.9	6.7	6.8	7.1	7.0	7.0
22	---	---	---	6.4	6.1	6.3	6.7	6.4	6.5	7.2	7.0	7.1
23	6.7	6.6	6.6	---	---	---	6.8	6.4	6.7	7.2	7.1	7.2
24	6.7	6.6	6.6	---	---	---	6.8	6.7	6.7	7.2	6.9	7.0
25	6.7	6.6	6.6	---	---	---	6.8	6.7	6.7	7.2	6.5	6.9
26	6.6	6.6	6.6	6.6	6.3	6.4	6.7	6.6	6.7	7.1	7.0	7.0
27	6.7	6.5	6.6	6.7	6.6	6.7	6.7	6.6	6.7	7.2	7.1	7.1
28	---	---	---	6.6	6.6	6.6	6.7	6.6	6.7	7.1	7.0	7.1
29	---	---	---	6.6	6.5	6.6	6.7	6.1	6.4	7.2	7.1	7.1
30	---	---	---	6.6	6.5	6.6	6.7	6.6	6.6	7.2	7.1	7.2
31	---	---	---	6.6	6.5	6.6	---	---	---	7.3	7.2	7.2
MONTH	6.7	5.9	6.4	6.7	5.9	6.2	7.0	6.1	6.8	7.4	5.6	7.1

SURFACE-WATER RECORDS
Raccoon Creek Basin

03201980 LITTLE RACCOON CREEK NEAR EWINGTON, OHIO—Continued

WATER-QUALITY RECORDS—CONTINUED

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999—Continued

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7.3	7.2	7.3	7.6	7.5	7.6	7.7	7.6	7.6	7.4	7.4	7.4
2	7.3	7.2	7.2	7.5	7.4	7.5	---	---	---	7.4	7.4	7.4
3	7.3	7.2	7.3	7.5	7.4	7.5	---	---	---	7.4	7.4	7.4
4	7.3	7.2	7.3	7.6	7.5	7.5	---	---	---	7.5	7.4	7.4
5	7.3	7.3	7.3	7.6	7.5	7.5	---	---	---	7.5	7.4	7.5
6	7.3	7.3	7.3	7.6	7.5	7.5	---	---	---	7.5	7.4	7.4
7	7.3	7.3	7.3	7.5	7.5	7.5	---	---	---	7.5	7.4	7.4
8	7.3	7.3	7.3	7.6	7.5	7.5	---	---	---	7.5	7.5	7.5
9	7.4	7.3	7.3	7.6	7.6	7.6	---	---	---	7.9	7.5	7.7
10	7.4	7.3	7.3	7.6	7.6	7.6	---	---	---	8.0	7.9	7.9
11	7.4	7.4	7.4	7.7	7.6	7.6	---	---	---	8.0	7.9	8.0
12	7.4	7.2	7.3	7.7	7.6	7.6	---	---	---	7.9	7.7	7.8
13	7.4	7.2	7.3	7.7	7.7	7.7	---	---	---	---	---	---
14	7.4	7.4	7.4	7.7	7.7	7.7	---	---	---	---	---	---
15	7.5	7.4	7.4	7.7	7.6	7.7	---	---	---	---	---	---
16	7.6	7.5	7.5	7.6	7.6	7.6	---	---	---	---	---	---
17	7.6	7.6	7.6	7.7	7.6	7.7	---	---	---	---	---	---
18	7.6	7.6	7.6	---	---	---	---	---	---	7.5	7.4	7.5
19	7.7	7.6	7.6	---	---	---	---	---	---	7.4	7.3	7.4
20	7.7	7.6	7.6	7.8	7.7	7.7	---	---	---	---	---	---
21	7.7	7.6	7.6	7.7	7.7	7.7	---	---	---	---	---	---
22	7.6	7.6	7.6	7.7	7.5	7.7	---	---	---	---	---	---
23	7.6	7.6	7.6	7.7	7.3	7.6	---	---	---	---	---	---
24	7.6	7.6	7.6	7.3	6.9	7.1	---	---	---	7.5	7.3	7.4
25	7.6	7.6	7.6	7.4	6.9	7.2	---	---	---	7.5	7.5	7.5
26	7.6	7.6	7.6	7.4	7.3	7.4	---	---	---	7.5	7.4	7.5
27	7.6	7.5	7.6	7.4	7.2	7.3	---	---	---	---	---	---
28	7.6	7.5	7.5	7.5	7.4	7.4	---	---	---	---	---	---
29	7.6	7.6	7.6	7.6	7.5	7.5	---	---	---	---	---	---
30	7.6	7.6	7.6	7.6	7.6	7.6	7.3	6.6	7.2	---	---	---
31	---	---	---	7.7	7.6	7.6	7.4	7.3	7.4	---	---	---
MONTH	7.7	7.2	7.4	7.8	6.9	7.5	7.7	6.6	7.4	8.0	7.3	7.5
YEAR	8.0	5.4	6.9									

TEMPERATURE, WATER, DEGREES CELSIUS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	.5	.0	.5
2	---	---	---	---	---	---	---	---	---	.5	.0	.5
3	---	---	---	---	---	---	---	---	---	.5	.0	.5
4	---	---	---	---	---	---	---	---	---	.5	.0	.5
5	---	---	---	---	---	---	---	---	---	.5	.0	.5
6	---	---	---	---	---	---	---	---	---	.5	.0	.5
7	---	---	---	---	---	---	---	---	---	.5	.0	.5
8	---	---	---	---	---	---	---	---	---	.5	.0	.0
9	---	---	---	---	---	---	---	---	---	.0	.0	.0
10	---	---	---	---	---	---	---	---	---	.0	.0	.0
11	---	---	---	---	---	---	---	---	---	.0	.0	.0
12	---	---	---	---	---	---	---	---	---	.5	.0	.0
13	---	---	---	---	---	---	---	---	---	.0	.0	.0
14	---	---	---	---	---	---	---	---	---	1.0	.0	.0
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	1.0	.0	.5
17	---	---	---	---	---	---	---	---	---	2.5	1.0	2.0
18	---	---	---	---	---	---	---	---	---	2.5	2.5	2.5
19	---	---	---	---	---	---	---	---	---	3.0	2.0	2.5
20	---	---	---	---	---	---	---	---	---	4.5	3.0	3.5
21	---	---	---	---	---	---	6.0	5.0	5.5	5.0	4.5	4.5
22	---	---	---	---	---	---	6.0	4.0	5.5	6.5	5.0	5.5
23	---	---	---	---	---	---	4.0	2.0	2.5	7.5	6.5	7.0
24	---	---	---	---	---	---	2.0	1.5	1.5	8.0	7.0	7.5
25	---	---	---	---	---	---	1.5	.0	.5	7.0	6.0	6.5
26	---	---	---	---	---	---	.5	.0	.5	6.0	5.0	5.5
27	---	---	---	---	---	---	.5	.5	.5	6.0	4.5	5.0
28	---	---	---	---	---	---	1.0	.5	.5	7.0	6.0	6.5
29	---	---	---	---	---	---	1.5	.5	1.0	6.5	5.5	6.0
30	---	---	---	---	---	---	1.5	.5	1.0	5.5	4.5	5.0
31	---	---	---	---	---	---	.5	.0	.5	4.5	4.0	4.0
MONTH	---	---	---	---	---	---	6.0	.0	1.8	8.0	.0	2.6

SURFACE-WATER RECORDS
Raccoon Creek Basin

03201980 LITTLE RACCOON CREEK NEAR EWINGTON, OHIO—Continued

WATER-QUALITY RECORDS

OXYGEN DISSOLVED, MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	14.9	14.6	14.7
2	---	---	---	---	---	---	---	---	---	14.8	14.4	14.6
3	---	---	---	---	---	---	---	---	---	14.4	14.2	14.3
4	---	---	---	---	---	---	---	---	---	14.4	14.3	14.4
5	---	---	---	---	---	---	---	---	---	14.7	14.4	14.6
6	---	---	---	---	---	---	---	---	---	14.5	13.7	14.2
7	---	---	---	---	---	---	---	---	---	13.7	13.4	13.4
8	---	---	---	---	---	---	---	---	---	13.4	13.0	13.2
9	---	---	---	---	---	---	---	---	---	14.6	13.0	13.9
10	---	---	---	---	---	---	---	---	---	14.2	13.6	14.0
11	---	---	---	---	---	---	---	---	---	13.7	13.4	13.5
12	---	---	---	---	---	---	---	---	---	13.4	13.2	13.3
13	---	---	---	---	---	---	---	---	---	14.0	13.3	13.6
14	---	---	---	---	---	---	---	---	---	14.3	14.0	14.3
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	13.9	13.5	13.7
17	---	---	---	---	---	---	---	---	---	13.9	13.6	13.8
18	---	---	---	---	---	---	---	---	---	13.6	12.5	13.2
19	---	---	---	---	---	---	---	---	---	12.7	12.0	12.4
20	---	---	---	---	---	---	---	---	---	12.2	10.7	11.5
21	---	---	---	---	---	---	12.3	11.8	11.9	11.1	10.4	10.7
22	---	---	---	---	---	---	12.3	11.8	12.0	10.6	9.5	10.2
23	---	---	---	---	---	---	12.9	12.2	12.6	9.5	8.3	8.8
24	---	---	---	---	---	---	13.8	12.9	13.3	10.3	8.0	8.8
25	---	---	---	---	---	---	14.5	13.8	14.3	9.5	7.4	8.0
26	---	---	---	---	---	---	14.4	14.2	14.3	10.4	7.4	8.8
27	---	---	---	---	---	---	14.2	14.1	14.2	12.4	10.4	11.6
28	---	---	---	---	---	---	14.3	14.1	14.2	12.5	12.1	12.3
29	---	---	---	---	---	---	14.3	14.1	14.2	12.8	12.2	12.5
30	---	---	---	---	---	---	14.8	14.0	14.3	13.4	12.8	13.2
31	---	---	---	---	---	---	14.8	14.6	14.7	13.8	13.4	13.6
MONTH	---	---	---	---	---	---	14.8	11.8	13.6	14.9	7.4	12.6
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	13.8	13.3	13.6	---	---	---	---	---	---	10.8	9.3	10.0
2	13.3	11.4	12.4	---	---	---	---	---	---	11.1	9.6	10.4
3	11.4	11.1	11.3	---	---	---	---	---	---	11.1	9.8	10.3
4	13.0	11.3	12.1	---	---	---	---	---	---	11.2	9.3	10.3
5	14.0	13.0	13.8	---	---	---	---	---	---	10.7	9.4	10.0
6	13.9	13.4	13.6	---	---	---	---	---	---	10.1	8.8	9.5
7	13.5	10.8	12.7	---	---	---	---	---	---	11.7	9.5	11.0
8	11.3	10.4	10.8	---	---	---	9.7	8.6	9.0	12.2	11.1	11.9
9	10.4	8.6	9.8	---	---	---	8.9	8.4	8.6	12.6	11.4	12.1
10	11.5	8.6	10.4	---	---	---	8.7	8.0	8.4	12.4	10.7	11.7
11	12.5	11.2	12.1	---	---	---	8.7	8.5	8.6	11.2	9.4	10.6
12	12.4	10.2	11.4	12.1	11.6	12.0	9.8	8.5	9.2	9.4	8.0	8.9
13	10.2	9.4	9.8	11.9	11.1	11.5	10.6	9.8	10.1	8.0	7.4	7.7
14	---	---	---	12.3	10.9	11.3	10.6	9.5	10.1	---	---	---
15	---	---	---	12.3	11.9	12.1	10.1	9.3	9.7	---	---	---
16	---	---	---	13.0	11.9	12.2	10.2	8.9	9.5	---	---	---
17	---	---	---	13.0	10.7	12.0	11.0	10.2	10.7	---	---	---
18	---	---	---	10.7	8.8	9.6	11.1	10.6	10.9	---	---	---
19	---	---	---	9.1	7.9	8.6	11.2	9.7	10.7	---	---	---
20	---	---	---	9.2	7.7	8.5	11.0	9.7	10.2	---	---	---
21	---	---	---	10.5	8.7	9.1	10.0	9.0	9.7	---	---	---
22	---	---	---	12.8	10.9	12.0	---	---	---	---	---	---
23	13.7	13.0	13.5	---	---	---	---	---	---	---	---	---
24	13.7	13.0	13.5	---	---	---	---	---	---	---	---	---
25	13.2	11.9	12.6	---	---	---	---	---	---	---	---	---
26	11.9	10.6	11.3	12.2	11.8	12.1	---	---	---	---	---	---
27	10.6	9.4	10.0	12.2	11.0	11.6	---	---	---	9.8	9.0	9.4
28	---	---	---	11.0	9.4	10.3	---	---	---	9.9	9.0	9.5
29	---	---	---	9.4	7.9	8.7	---	---	---	9.7	8.8	9.2
30	---	---	---	---	---	---	10.7	8.9	9.3	9.5	8.6	9.1
31	---	---	---	---	---	---	---	---	---	9.2	8.4	8.8
MONTH	14.0	8.6	11.9	13.0	7.7	10.8	11.2	8.0	9.6	12.6	7.4	10.0

SURFACE-WATER RECORDS
Raccoon Creek Basin

03201980 LITTLE RACCOON CREEK NEAR EWINGTON, OHIO—Continued

WATER-QUALITY RECORDS—CONTINUED

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

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)
FEB 08...	1030	381	417	6.8	5.5	6.5	11.0	16
APR 30...	0945	102	429	6.8	19.5	14.5	10.2	16
JUN 25...	0900	7.2	637	7.6	28.5	22.0	6.4	91
AUG 30...	1030	10	900	7.4	19.5	21.0	8.0	29

DATE	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)
FEB 08...	13	140	3300	240	940	955	1500	15
APR 30...	13	160	1600	170	1400	1350	850	18
JUN 25...	74	190	380	12	590	622	90	29
AUG 30...	23	400	310	E5.6	1700	1690	120	E12

SURFACE-WATER RECORDS
Scioto River Basin

03219500 SCIOTO RIVER NEAR PROSPECT, OHIO—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1998 to current year.

PERIOD OF DAILY RECORD--

SPECIFIC CONDUCTANCE: June 1998 to current year.

pH: June 1998 to current year.

WATER TEMPERATURES: June 1998 to current year.

DISSOLVED OXYGEN: June 1998 to current year.

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

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

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 1,830 microsiemens Jan. 16, 1999; minimum, 302 microsiemens Jan. 24, 1999.

pH: Maximum, 9.0 units July 14, 1999; minimum, 7.2 units Jan. 15-19, 1999.

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

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

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 1,830 microsiemens Jan. 16, 1999; minimum, 302 microsiemens Jan. 24, 1999.

pH: Maximum, 9.0 units July 14; minimum, 7.2 units Jan. 15-19.

WATER TEMPERATURES: Maximum, 32.5°C July 31; minimum, 0.0°C Dec. 25, Jan. 20, 21, and Feb. 22.

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

SPECIFIC CONDUCTANCE, MICROSIEMENS/CM AT 25 DEGREE CELSIUS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	917	857	888	---	---	---	952	936	945	917	881	899
2	870	806	847	---	---	---	945	919	933	946	917	936
3	859	741	798	---	---	---	935	912	923	974	935	944
4	765	742	757	---	---	---	913	888	898	1010	968	980
5	813	730	765	---	---	---	892	872	883	1060	1010	1040
6	875	773	823	1180	1120	1140	900	885	891	1060	1040	1050
7	880	748	840	1180	1170	1180	906	886	895	1060	1040	1050
8	748	674	722	1180	1150	1170	905	896	901	1070	1060	1070
9	698	649	675	1150	1120	1140	901	887	895	1150	1070	1090
10	776	667	717	1120	1030	1070	915	897	903	1420	1150	1300
11	801	717	751	1070	1040	1060	928	913	920	1440	1350	1410
12	832	711	765	1110	1060	1090	933	916	925	1350	1200	1270
13	834	763	792	1130	1110	1120	936	910	925	1200	1120	1150
14	772	722	746	1140	1130	1130	924	899	914	1220	1180	1210
15	---	---	---	1130	1080	1110	967	904	936	1320	1210	1270
16	883	740	782	1080	1060	1060	959	932	944	1830	1320	1580
17	879	789	833	1070	1020	1040	966	934	944	1820	1280	1630
18	863	823	842	1020	1010	1020	994	966	980	1280	763	914
19	866	791	825	1030	1020	1020	1000	989	996	779	509	628
20	872	791	827	1060	1030	1040	997	977	987	509	438	457
21	852	801	827	1060	1040	1050	996	879	966	480	452	467
22	853	789	821	1060	1030	1050	954	842	914	473	381	403
23	887	791	837	1070	1050	1060	958	776	883	392	338	373
24	917	827	869	1080	1010	1040	837	777	799	338	302	313
25	888	819	857	1040	1010	1030	885	837	858	388	315	348
26	917	842	877	1020	1010	1020	892	848	874	496	388	442
27	872	835	854	1020	984	1000	848	785	807	581	496	543
28	---	---	---	1010	985	999	797	779	786	647	581	613
29	---	---	---	997	949	971	805	790	795	696	647	674
30	---	---	---	958	937	947	851	805	831	734	696	715
31	---	---	---	---	---	---	881	851	859	764	734	747
MONTH	917	649	805	1180	937	1060	1000	776	900	1830	302	888

SURFACE-WATER RECORDS
Scioto River Basin

03219500 SCIOTO RIVER NEAR PROSPECT, OHIO—Continued

WATER-QUALITY RECORDS—CONTINUED

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	8.3	7.9	8.1	---	---	---	8.5	7.7	8.0	8.0	7.7	7.8
2	8.3	7.9	8.1	---	---	---	8.5	7.7	8.0	7.8	7.7	7.7
3	8.2	8.0	8.0	---	---	---	8.3	7.7	7.9	7.9	7.6	7.7
4	8.1	7.9	8.0	---	---	---	8.1	7.7	7.8	7.9	7.5	7.7
5	8.2	7.9	8.0	---	---	---	8.3	7.7	7.9	7.9	7.5	7.6
6	8.1	7.8	7.9	E7.7	E7.5	E7.6	8.2	7.7	7.9	7.6	7.5	7.5
7	7.9	7.8	7.8	7.7	7.4	7.5	7.9	7.7	7.8	7.6	7.5	7.5
8	7.8	7.7	7.8	7.6	7.4	7.5	7.9	7.7	7.8	7.5	7.4	7.4
9	E8.0	E7.7	E7.8	7.7	7.4	7.5	8.3	7.8	7.9	7.5	7.4	7.4
10	8.0	7.8	7.9	7.6	7.4	7.5	8.4	7.9	8.1	7.4	7.4	7.4
11	8.0	7.8	7.9	7.7	7.5	7.6	8.4	7.9	8.1	7.4	7.3	7.3
12	7.9	7.8	7.8	7.6	7.5	7.5	8.4	7.9	8.1	7.5	7.3	7.4
13	E8.0	E7.8	E7.9	7.6	7.4	7.5	8.4	7.9	8.1	7.4	7.3	7.3
14	E8.1	E7.8	E7.9	7.6	7.4	7.5	8.5	7.9	8.1	7.3	7.3	7.3
15	---	---	---	7.6	7.4	7.5	E8.4	E7.9	E8.1	7.3	7.2	7.3
16	E8.2	E7.9	E8.0	7.5	7.3	7.4	8.3	7.9	8.1	7.3	7.2	7.3
17	8.2	7.9	8.0	7.7	7.3	7.5	8.5	7.9	8.2	7.4	7.2	7.3
18	8.0	7.8	7.9	7.9	7.5	7.7	8.6	8.0	8.2	7.3	7.2	7.3
19	8.1	7.8	7.9	7.8	7.6	7.7	8.3	8.0	8.1	7.3	7.2	7.2
20	8.2	7.9	8.0	7.9	7.6	7.7	8.4	8.0	8.1	E7.5	E7.3	E7.3
21	8.2	7.9	8.0	8.0	7.6	7.8	E8.1	E7.9	E8.0	7.6	7.4	7.5
22	8.4	7.9	8.1	8.1	7.7	7.8	8.1	7.8	7.9	7.5	7.3	7.4
23	8.4	7.9	8.1	8.1	7.7	7.8	E7.9	E7.7	E7.9	7.4	7.4	7.4
24	8.3	7.9	8.1	E8.4	E7.6	E7.9	E8.0	E7.7	E7.9	7.4	7.4	7.4
25	8.2	7.8	8.0	8.3	7.7	7.9	8.1	7.9	8.0	7.4	7.4	7.4
26	8.3	7.8	8.0	8.4	7.7	7.9	8.0	7.8	7.9	7.4	7.4	7.4
27	E8.0	E7.8	E7.9	8.4	7.7	7.9	8.0	7.8	7.9	7.5	7.4	7.5
28	---	---	---	8.4	7.7	8.0	8.0	7.8	7.8	7.6	7.5	7.5
29	---	---	---	8.4	7.7	8.0	7.9	7.7	7.8	7.6	7.6	7.6
30	---	---	---	8.4	7.7	8.0	8.0	7.7	7.8	7.7	7.6	7.7
31	---	---	---	---	---	---	8.0	7.7	7.8	7.8	7.7	7.7
MONTH	8.4	7.7	8.0	8.4	7.3	7.7	8.6	7.7	8.0	8.0	7.2	7.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	7.8	7.8	7.8	8.2	8.1	8.1	8.7	8.4	8.5	8.1	7.9	8.0
2	7.8	7.8	7.8	8.1	8.1	8.1	E8.8	E8.4	E8.6	8.2	8.0	8.1
3	7.8	7.8	7.8	8.2	8.1	8.1	8.7	8.4	8.5	8.1	7.9	8.0
4	---	---	---	8.2	8.2	8.2	8.6	8.4	8.5	8.1	7.9	8.0
5	E7.6	E7.4	E7.5	E8.4	E7.8	E8.2	8.6	8.3	8.5	8.1	7.8	7.9
6	7.7	7.6	7.6	8.1	8.0	8.0	8.7	8.4	8.5	8.1	7.9	8.0
7	7.8	7.7	7.8	8.0	8.0	8.0	---	---	---	8.1	7.8	7.9
8	7.7	7.6	7.6	8.0	7.8	8.0	E8.4	E8.0	E8.2	8.0	7.8	7.9
9	7.6	7.5	7.6	8.1	8.0	8.0	8.1	7.5	7.8	8.0	7.9	7.9
10	7.7	7.6	7.6	8.1	8.1	8.1	7.7	7.4	7.6	8.0	7.8	7.9
11	7.8	7.6	7.7	8.2	8.1	8.2	7.8	7.6	7.7	8.0	7.9	7.9
12	8.0	7.7	7.9	8.2	8.2	8.2	7.8	7.7	7.7	E8.0	E7.8	E7.9
13	8.0	7.9	8.0	8.3	8.2	8.2	7.8	7.7	7.8	7.9	7.8	7.9
14	8.0	8.0	8.0	8.3	8.2	8.3	7.9	7.7	7.8	7.8	7.7	7.8
15	8.0	7.9	8.0	8.4	8.3	8.3	7.9	7.8	7.9	7.8	7.7	7.7
16	8.1	8.0	8.0	8.4	8.3	8.3	7.9	7.8	7.8	7.7	7.7	7.7
17	8.2	8.0	8.1	8.3	8.2	8.2	7.8	7.7	7.8	7.8	7.7	7.7
18	8.2	8.2	8.2	8.2	8.1	8.2	7.7	7.6	7.6	7.8	7.8	7.8
19	8.3	8.2	8.2	8.2	8.1	8.1	7.7	7.6	7.6	7.9	7.7	7.8
20	8.3	8.2	8.2	8.2	8.1	8.2	7.7	7.6	7.7	E7.9	E7.7	E7.8
21	8.3	8.1	8.2	8.3	8.2	8.2	7.7	7.6	7.7	7.9	7.7	7.8
22	8.4	8.1	8.2	8.4	8.3	8.3	7.8	7.7	7.8	7.8	7.8	7.8
23	8.4	8.3	8.3	E8.4	E8.2	E8.4	7.8	7.7	7.8	7.8	7.8	7.8
24	8.4	8.1	8.3	8.5	8.3	8.4	7.8	7.7	7.8	7.8	7.6	7.6
25	8.4	8.3	8.3	8.5	8.3	8.4	7.9	7.7	7.8	7.6	7.5	7.6
26	8.4	8.3	8.4	8.6	8.4	8.5	7.9	7.7	7.9	7.7	7.6	7.7
27	8.4	8.3	8.4	8.6	8.4	8.5	8.0	7.9	7.9	7.7	7.7	7.7
28	8.4	8.1	8.2	8.7	8.4	8.5	8.0	7.9	8.0	7.8	7.7	7.7
29	---	---	---	8.8	8.4	8.6	8.0	8.0	8.0	7.9	7.7	7.8
30	---	---	---	8.9	8.4	8.6	8.1	7.9	8.0	7.9	7.7	7.8
31	---	---	---	8.9	8.4	8.6	---	---	---	7.8	7.7	7.8
MONTH	8.4	7.4	8.0	8.9	7.8	8.3	8.8	7.4	8.0	8.2	7.5	7.8

E Estimated.

SURFACE-WATER RECORDS
Scioto River Basin

03219500 SCIOTO RIVER NEAR PROSPECT, OHIO—Continued

WATER-QUALITY RECORDS—CONTINUED

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999—Continued

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7.8	7.7	7.8	E8.2	E8.0	E8.1	8.4	8.0	8.2	8.1	7.7	7.9
2	7.9	7.7	7.8	8.1	8.0	8.0	8.5	7.9	8.2	8.0	7.7	7.8
3	7.9	7.8	7.8	8.0	7.9	7.9	E8.5	E7.9	E8.2	8.0	7.7	7.8
4	7.8	7.7	7.7	8.0	7.8	7.9	8.5	8.1	8.3	8.0	7.7	7.9
5	7.9	7.7	7.8	7.9	7.8	7.8	8.5	8.0	8.2	8.0	7.7	7.9
6	7.9	7.7	7.8	8.0	7.8	7.9	8.5	8.0	8.2	8.5	7.8	8.0
7	8.0	7.8	7.9	8.0	7.9	7.9	E8.4	E8.0	E8.2	8.5	7.5	8.0
8	8.1	7.8	8.0	8.1	7.8	8.0	8.4	8.0	8.1	8.3	7.5	7.9
9	8.2	7.9	8.0	8.2	7.9	8.0	8.2	8.0	8.1	8.3	7.9	8.1
10	8.4	7.9	8.1	8.2	7.9	8.0	8.2	7.9	8.1	8.1	7.8	7.9
11	8.6	8.0	8.3	8.5	7.9	8.2	8.3	7.9	8.1	8.2	7.8	8.0
12	8.6	8.1	8.3	8.7	8.0	8.3	8.3	8.0	8.2	8.2	7.8	8.0
13	8.1	7.7	7.8	8.9	8.1	8.5	8.2	8.0	8.0	8.1	7.8	7.9
14	7.7	7.5	7.6	9.0	8.1	8.6	8.0	7.9	8.0	8.1	7.8	8.0
15	7.6	7.4	7.5	E8.7	E8.2	E8.5	7.9	7.9	7.9	8.1	7.8	8.0
16	7.7	7.5	7.5	---	---	---	8.0	7.8	7.9	8.1	7.8	7.9
17	7.7	7.7	7.7	---	---	---	7.9	7.8	7.9	8.0	7.7	7.9
18	7.8	7.7	7.7	---	---	---	E8.6	E7.9	E8.2	8.1	7.7	7.9
19	7.8	7.7	7.8	---	---	---	8.4	7.8	8.1	8.1	7.7	7.9
20	7.9	7.8	7.8	---	---	---	8.5	7.8	8.1	8.1	7.7	7.8
21	8.0	7.8	7.9	8.9	8.6	8.7	8.5	7.8	8.1	8.0	7.7	7.9
22	8.1	7.8	7.9	8.6	8.0	8.2	8.6	7.9	8.2	E8.1	E7.7	E7.9
23	8.3	7.8	8.1	8.3	7.9	8.1	8.5	7.9	8.2	8.2	7.8	8.0
24	E8.4	E8.0	E8.2	8.4	8.0	8.2	8.3	7.8	8.0	8.2	7.8	8.0
25	8.4	7.8	8.2	8.3	7.9	8.1	8.0	7.7	7.8	8.4	7.8	8.1
26	8.5	8.0	8.2	8.4	8.0	8.2	7.8	7.7	7.8	8.4	7.8	8.2
27	8.4	8.1	8.2	E8.5	E8.1	E8.3	7.8	7.7	7.7	E8.5	E7.8	E8.2
28	8.4	8.0	8.2	E8.5	E8.2	E8.3	8.0	7.7	7.8	8.3	7.8	8.1
29	8.4	8.0	8.2	8.6	8.2	8.4	8.1	7.7	7.9	8.1	7.6	7.8
30	8.5	8.1	8.3	8.6	8.2	8.4	8.1	7.8	8.0	8.0	7.6	7.8
31	---	---	---	8.5	8.1	8.2	8.1	7.7	7.9	---	---	---
MONTH	8.6	7.4	7.9	9.0	7.8	8.2	8.6	7.7	8.1	8.5	7.5	7.9
YEAR	9.0	7.2	7.9									

TEMPERATURE, WATER, DEGREES CELSIUS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	20.5	16.5	19.0	---	---	---	11.0	8.0	9.5	.5	.5	.5
2	16.5	13.5	15.5	---	---	---	10.0	7.0	8.5	.5	.5	.5
3	16.0	13.5	14.0	---	---	---	11.0	8.0	9.5	.5	.5	.5
4	15.0	13.5	14.0	---	---	---	12.0	10.5	11.0	.5	.5	.5
5	18.5	14.0	16.0	---	---	---	13.0	10.5	11.5	.5	.5	.5
6	20.5	16.0	18.0	---	---	---	14.5	11.5	13.0	.5	.5	.5
7	18.5	17.0	18.0	9.0	5.5	7.5	13.5	10.5	12.0	.5	.5	.5
8	17.0	15.0	16.0	7.5	6.0	7.0	10.5	8.0	9.5	.5	.5	.5
9	16.5	14.0	15.0	9.0	7.0	8.0	9.0	6.0	7.5	.5	.5	.5
10	17.5	13.0	15.0	12.0	8.0	10.0	7.0	4.5	6.0	.5	.5	.5
11	18.0	12.5	15.0	10.0	7.0	8.5	7.0	4.0	5.5	.5	.5	.5
12	18.5	13.0	15.5	10.0	6.0	8.0	6.0	4.0	5.0	1.0	.5	.5
13	17.5	13.5	15.0	10.5	7.5	8.5	6.5	3.5	4.5	1.0	.5	.5
14	14.0	11.0	12.5	10.5	6.5	8.5	6.5	2.5	4.0	.5	.5	.5
15	---	---	---	10.5	7.5	8.5	6.0	2.0	3.5	.5	.5	.5
16	16.5	11.5	13.5	9.5	6.0	8.0	4.0	2.5	3.5	1.0	.5	.5
17	17.5	12.5	15.0	9.0	7.0	8.5	5.0	3.0	3.5	1.0	.5	1.0
18	16.0	14.0	15.0	9.5	5.5	7.5	4.5	2.0	3.0	1.0	.5	1.0
19	16.5	12.0	14.0	10.0	6.5	8.0	4.5	3.5	4.0	1.0	.5	.5
20	15.5	11.5	13.0	9.5	6.5	8.0	5.0	4.0	4.5	.5	.0	.5
21	13.0	10.5	12.0	7.0	5.0	6.0	7.0	5.0	6.0	1.0	.0	.5
22	13.0	9.0	11.0	7.5	3.5	5.5	6.0	1.5	3.5	3.0	1.0	1.5
23	13.0	8.0	10.5	8.5	5.0	6.5	2.5	1.0	1.5	4.0	2.5	3.0
24	13.5	8.5	11.0	9.0	5.0	7.0	1.5	.5	1.0	5.0	4.0	4.5
25	13.0	9.5	11.0	7.5	4.5	6.0	1.0	.0	.5	5.0	4.0	4.5
26	14.0	9.5	11.5	9.0	6.0	7.5	1.0	.5	.5	4.0	3.5	3.5
27	12.0	10.0	11.0	9.0	5.0	7.0	1.0	.5	.5	4.5	3.0	3.5
28	---	---	---	9.5	5.0	7.0	2.5	.5	1.0	5.0	4.5	4.5
29	---	---	---	10.5	7.0	8.5	2.5	1.0	1.5	5.0	4.0	4.5
30	---	---	---	11.5	9.0	10.5	1.0	.5	.5	4.5	3.5	4.0
31	---	---	---	---	---	---	1.0	.5	.5	3.5	3.0	3.5
MONTH	20.5	8.0	14.0	12.0	3.5	8.0	14.5	.0	5.0	5.0	.0	1.5

E Estimated.

SURFACE-WATER RECORDS
Scioto River Basin

03219500 SCIOTO RIVER NEAR PROSPECT, OHIO—Continued

WATER-QUALITY RECORDS—CONTINUED

OXYGEN, DISSOLVED, MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	11.5	5.1	7.8	---	---	---	17.5	7.1	10.9	14.6	10.3	12.1
2	11.8	5.7	8.4	---	---	---	17.0	6.6	10.8	11.2	9.9	10.5
3	9.6	6.2	7.8	---	---	---	15.2	6.7	10.0	14.5	9.4	11.3
4	9.2	6.6	7.6	---	---	---	12.5	6.6	8.9	15.6	9.7	11.9
5	10.5	6.5	7.9	---	---	---	14.8	6.2	9.5	16.2	10.0	12.4
6	10.4	5.8	7.5	E10.2	E7.1	E8.7	13.1	5.8	8.8	11.3	9.1	10.1
7	6.7	5.4	6.0	11.5	5.4	8.1	9.4	6.2	7.5	11.3	8.2	9.4
8	6.7	4.8	5.6	9.1	5.2	6.9	9.1	6.0	7.3	8.9	7.6	8.1
9	E7.8	E5.3	E6.5	10.9	4.9	7.5	14.5	7.0	9.8	8.6	6.9	7.6
10	9.0	5.8	7.1	8.9	5.9	7.2	14.8	7.3	10.3	8.2	6.4	7.2
11	8.6	5.5	6.8	10.3	6.0	7.8	15.3	7.5	10.6	7.2	5.5	6.3
12	8.5	4.9	6.1	10.2	6.6	8.1	15.0	7.5	10.5	10.4	5.1	7.3
13	E9.1	E4.1	E6.2	9.6	5.9	7.3	15.5	7.6	10.6	9.8	6.3	7.7
14	E10.2	E4.8	E7.2	9.8	5.4	7.1	16.2	8.1	11.3	7.9	6.3	7.0
15	---	---	---	9.7	5.3	6.9	E16.3	E8.7	E11.8	8.1	6.3	7.0
16	E12.4	E5.2	E8.2	9.8	5.1	6.9	14.7	9.2	11.6	8.1	5.9	6.7
17	12.4	4.8	8.0	9.2	5.3	6.9	16.8	9.4	12.4	11.0	6.5	8.5
18	7.7	3.6	5.4	12.9	6.1	8.8	16.8	9.4	12.5	9.7	8.9	9.5
19	10.9	3.8	6.5	12.3	6.6	8.8	13.3	9.4	11.1	9.8	9.2	9.5
20	11.6	4.0	7.2	13.8	6.9	9.5	15.5	9.5	11.9	E10.3	E9.8	E10.1
21	11.1	3.7	7.1	15.1	7.5	10.5	E12.4	E9.2	E10.6	10.2	10.1	10.1
22	15.8	4.7	9.4	16.7	7.8	11.6	13.0	10.0	11.1	11.3	10.2	10.8
23	15.2	5.2	9.7	15.9	8.4	11.5	E11.3	E9.0	E10.3	10.4	10.3	10.3
24	13.5	4.3	8.2	E17.9	E8.3	E12.1	E12.1	E9.3	E10.8	10.3	9.8	10.1
25	13.3	3.0	7.4	16.4	7.4	11.2	13.1	11.9	12.3	9.9	9.6	9.7
26	13.4	2.3	7.0	17.9	7.4	11.4	13.4	11.7	12.3	9.9	9.6	9.8
27	---	---	---	18.0	7.4	11.4	13.9	11.3	12.2	10.1	9.9	10.0
28	---	---	---	18.7	7.2	11.8	14.6	11.0	12.3	10.2	10.1	10.1
29	---	---	---	17.3	6.9	11.3	13.4	10.7	11.6	10.6	10.2	10.4
30	---	---	---	15.9	6.7	10.4	14.3	10.6	12.1	10.9	10.6	10.8
31	---	---	---	---	---	---	14.3	10.3	12.0	11.2	10.8	11.0
MONTH	15.8	2.3	7.3	18.7	4.9	9.2	17.5	5.8	10.8	16.2	5.1	9.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	11.3	11.1	11.2	11.0	10.9	10.9	11.9	9.1	10.2	10.2	5.6	7.7
2	11.2	11.0	11.2	11.1	10.9	11.0	E13.1	E8.6	E10.3	9.7	5.6	8.0
3	11.3	10.9	11.1	11.1	11.0	11.1	12.4	8.2	9.6	10.2	5.3	8.3
4	---	---	---	11.7	11.1	11.3	E10.2	E7.9	E8.9	10.3	7.8	8.8
5	E11.5	E11.4	E11.5	E12.0	E11.4	E11.7	11.3	8.0	9.3	9.8	7.4	8.4
6	11.8	11.4	11.6	11.5	10.8	11.0	11.2	8.0	9.4	9.1	7.0	8.1
7	11.6	11.4	11.5	12.1	10.8	11.5	E9.4	E8.5	E9.1	9.5	6.9	8.1
8	11.5	11.0	11.3	12.4	12.0	12.2	E11.8	E8.1	E9.6	8.8	6.8	7.6
9	11.4	11.2	11.4	12.0	11.6	11.8	8.9	7.5	8.0	8.9	6.9	7.8
10	11.2	10.7	10.9	12.2	11.6	11.9	8.5	7.4	7.8	9.4	6.9	7.9
11	10.9	10.7	10.8	12.8	12.0	12.4	8.8	8.4	8.7	9.6	7.0	7.9
12	11.2	10.9	11.0	13.1	12.3	12.6	9.2	8.2	8.8	9.2	6.7	7.5
13	11.7	11.2	11.4	13.3	12.4	12.8	9.5	8.8	9.2	7.4	6.4	6.9
14	11.9	11.7	11.8	13.4	12.6	13.0	9.6	9.0	9.3	7.2	6.2	6.6
15	12.1	11.9	12.0	13.9	12.9	13.3	9.6	8.9	9.2	7.8	5.9	6.8
16	12.2	11.9	12.1	13.6	12.6	13.2	10.3	5.9	8.9	7.2	5.6	6.2
17	12.1	11.8	11.9	12.8	11.8	12.4	10.7	4.7	8.4	7.4	5.5	6.3
18	12.0	11.8	11.9	12.2	11.3	11.9	13.4	3.5	7.5	6.9	5.6	6.3
19	12.2	11.7	12.0	11.9	11.3	11.6	10.5	4.5	7.3	8.0	6.4	7.0
20	12.4	11.9	12.2	12.2	11.2	11.8	10.0	3.6	7.4	E8.8	E6.3	E7.2
21	12.5	12.1	12.3	12.4	11.2	11.9	9.7	5.2	7.5	8.7	6.5	7.3
22	12.6	12.2	12.4	12.9	9.7	11.9	8.9	5.4	7.6	7.4	6.2	6.8
23	12.8	12.3	12.5	E13.3	E10.3	E11.7	8.2	4.5	7.0	7.7	6.6	7.1
24	12.8	12.2	12.5	12.1	10.6	11.2	9.8	4.8	7.4	8.2	6.2	7.2
25	12.9	12.2	12.4	12.5	10.7	11.4	10.8	3.8	7.7	9.2	8.1	8.9
26	13.0	12.1	12.4	13.2	10.8	11.7	11.1	3.5	7.6	9.6	9.1	9.4
27	12.4	11.7	12.1	13.8	10.7	11.9	9.5	3.9	7.0	9.7	9.0	9.5
28	11.7	10.8	11.2	14.1	10.7	11.9	9.7	6.4	7.7	9.5	8.5	9.0
29	---	---	---	14.1	10.6	11.7	9.6	2.6	7.3	8.9	7.5	8.3
30	---	---	---	14.1	9.9	11.5	9.4	4.0	7.1	8.5	7.3	7.7
31	---	---	---	14.2	9.7	11.1	---	---	---	8.2	7.0	7.5
MONTH	13.0	10.7	11.7	14.2	9.7	11.8	13.4	2.6	8.4	10.3	5.3	7.7

E Estimated.

SURFACE-WATER RECORDS
Scioto River Basin

03219500 SCIOTO RIVER NEAR PROSPECT, OHIO—Continued

WATER-QUALITY RECORDS—CONTINUED

OXYGEN DISSOLVED, MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999—Continued

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7.9	6.9	7.3	E8.6	E5.0	E6.2	9.0	4.4	6.4	4.9	2.7	3.8
2	8.1	6.7	7.4	7.6	4.7	5.7	9.9	4.4	6.8	4.7	2.7	3.7
3	8.2	6.8	7.5	6.4	4.6	5.3	E10.8	E5.1	E7.6	4.6	2.6	3.6
4	7.8	6.5	6.9	6.7	4.9	5.8	10.6	5.1	7.6	4.6	2.6	3.7
5	8.0	6.4	7.0	6.3	4.6	5.4	9.5	4.9	6.9	4.0	2.6	3.5
6	8.0	6.3	7.0	7.0	4.8	5.6	10.0	4.4	6.9	E4.7	E2.8	E3.6
7	8.7	6.1	7.2	7.0	5.0	6.0	E11.4	E4.9	E7.6	---	---	---
8	9.1	6.1	7.5	8.1	5.3	6.5	11.0	4.5	7.4	E5.8	E3.7	E4.4
9	10.5	5.9	8.1	8.7	4.9	6.5	10.0	4.3	6.9	6.2	2.8	4.4
10	12.6	6.0	9.2	9.1	5.3	7.0	8.6	4.0	5.9	6.2	3.3	4.8
11	14.3	6.3	9.6	11.6	5.9	8.3	9.3	3.3	5.8	7.0	3.7	5.2
12	10.3	3.5	6.9	14.4	6.5	9.8	7.4	2.9	5.1	7.0	3.3	5.2
13	3.5	1.2	2.3	16.5	6.9	11.0	5.7	2.7	3.9	5.6	2.7	4.1
14	3.4	1.6	2.5	15.8	7.0	10.9	5.4	2.7	3.9	6.1	3.6	5.0
15	4.5	3.0	3.5	E16.0	6.6	E10.3	5.8	3.2	4.2	6.4	3.8	5.2
16	5.7	4.5	5.1	15.4	5.3	9.7	7.7	3.3	5.1	6.3	3.7	5.2
17	5.7	4.9	5.3	14.8	5.4	9.7	8.9	4.1	6.0	7.2	4.4	5.8
18	5.8	5.0	5.4	12.7	5.0	8.8	E6.1	E3.9	E4.9	7.6	4.2	6.0
19	5.8	5.0	5.4	12.6	3.7	8.1	4.7	2.9	3.8	8.0	4.1	6.2
20	6.2	5.1	5.5	12.0	2.9	7.2	5.2	3.0	4.0	7.0	3.5	4.9
21	6.2	4.3	5.2	9.2	2.8	5.6	5.2	2.9	4.0	7.6	4.1	6.0
22	6.2	3.8	5.0	5.3	1.6	3.2	4.9	2.6	3.8	E8.3	E4.8	E6.7
23	6.9	4.3	5.6	5.5	.9	2.6	4.6	2.6	3.5	9.3	4.8	7.2
24	E8.8	E3.5	E6.1	E6.8	E1.0	E3.9	3.8	2.7	3.2	9.1	4.8	7.3
25	8.7	4.4	6.4	8.7	4.6	6.3	3.6	2.4	2.9	10.7	5.7	8.1
26	10.8	4.6	7.5	8.8	5.1	6.8	3.3	2.3	2.7	10.5	5.0	7.6
27	10.3	4.9	7.2	E9.9	E5.5	E7.4	3.1	2.1	2.5	E11.6	E4.8	E8.1
28	10.0	4.1	6.7	E9.3	E6.0	E7.3	3.6	2.0	2.6	10.5	4.4	7.9
29	9.6	4.2	6.6	10.0	5.6	7.5	4.2	1.9	2.9	8.2	3.5	5.2
30	11.0	4.9	7.7	9.4	5.4	7.1	4.2	2.6	3.3	8.9	4.8	6.4
31	---	---	---	9.1	4.6	6.3	4.6	2.7	3.7	---	---	---
MONTH	14.3	1.2	6.4	16.5	.9	7.0	11.4	1.9	4.9	11.6	2.6	5.5
YEAR	18.7	.9	8.3									

E Estimated.

SURFACE-WATER RECORDS Scioto River Basin

03220510 SCIOTO RIVER AT O'SHAUGHNESSY DAM, OHIO

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

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1998 to current year.

PERIOD OF DAILY RECORD--

SPECIFIC CONDUCTANCE: June 1998 to current year.

pH: June 1998 to current year.

WATER TEMPERATURES: June 1998 to September 1998.

DISSOLVED OXYGEN: June 1998 to current year.

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

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

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 1,400 microsiemens Dec. 21, 1998; minimum, 302 microsiemens Jan. 24, 1999.

pH: Maximum, 8.9 units July 18, 1998; minimum, 7.0 units Aug. 21, 1998.

WATER TEMPERATURES: Maximum, 30.5°C July 30, 1999; minimum, 0.9°C Jan. 22, 1999.

DISSOLVED OXYGEN: Maximum, 17.4 mg/L May 12, 1999; minimum, 0.2 mg/L Aug. 13, 14, 1999.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 1,400 microsiemens Dec. 21; minimum, 302 microsiemens Jan 24.

pH: Maximum, 8.4 units Apr. 8, 9, and 11; minimum, 7.1 units Apr. 14,

June 30, July 1, 16, 18, and 19.

WATER TEMPERATURES: Maximum, 30.5°C July 30; minimum, 1.0°C Jan. 21 and 22.

DISSOLVED OXYGEN: Maximum, 17.4 mg/L May 12; minimum, 0.2 mg/L Aug. 13 and 14.

SPECIFIC CONDUCTANCE, MICROSIEMENS/CM AT 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	820	777	793	835	829	831	975	957	964	1050	1030	1040
2	789	774	781	844	833	838	966	955	961	1040	977	1000
3	787	682	728	873	844	860	971	958	964	1060	977	982
4	701	693	698	854	841	848	973	962	966	1060	1040	1040
5	715	700	705	847	837	842	974	960	967	1050	1040	1040
6	742	715	734	847	838	842	973	947	966	1050	1040	1040
7	744	724	733	852	839	844	977	894	918	1050	1040	1040
8	728	717	722	883	851	867	902	897	899	1050	981	1010
9	721	717	719	913	872	883	901	895	898	994	987	989
10	727	717	720	965	863	927	901	890	896	999	989	992
11	726	717	721	863	842	849	1010	897	959	1060	990	1040
12	739	723	728	848	838	842	975	956	962	1050	998	1040
13	817	732	762	842	829	834	980	960	966	998	989	992
14	775	771	773	839	830	833	969	958	963	996	992	994
15	781	775	778	904	834	861	1010	935	983	998	993	995
16	804	781	792	913	895	900	1020	1010	1010	997	992	995
17	801	794	797	904	893	900	1020	1010	1020	998	991	995
18	804	792	798	904	894	897	1040	1000	1020	1280	994	1130
19	805	757	782	906	893	898	1040	1020	1030	1030	958	1010
20	760	754	757	901	831	855	1030	1010	1020	958	735	820
21	760	756	758	910	834	876	1400	957	1060	735	617	677
22	766	756	760	918	908	913	957	928	940	617	480	576
23	766	758	762	920	911	916	954	948	949	480	310	369
24	767	758	763	939	918	929	955	949	952	330	302	317
25	779	767	773	974	899	945	955	949	952	335	320	328
26	779	770	774	899	872	877	967	955	960	365	320	337
27	---	---	---	881	873	877	977	958	964	426	365	394
28	840	786	830	962	879	954	973	966	969	492	426	467
29	831	827	829	973	954	961	1040	969	1020	562	476	514
30	836	824	831	978	959	968	1040	1020	1030	570	521	555
31	837	829	831	---	---	---	1040	1020	1030	712	521	635
MONTH	840	682	764	978	829	882	1400	890	973	1280	302	818

SURFACE-WATER RECORDS
Scioto River Basin

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

WATER-QUALITY RECORDS—CONTINUED

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

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

SURFACE-WATER RECORDS
Scioto River Basin

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

WATER-QUALITY RECORDS—CONTINUED

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999—Continued

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

TEMPERATURE, WATER, DEGREES CELSIUS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

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

SURFACE-WATER RECORDS
Scioto River Basin

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

WATER-QUALITY RECORDS—CONTINUED

OXYGEN, DISSOLVED, MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7.7	3.6	5.8	6.7	4.4	5.4	10.6	8.5	9.2	12.8	11.6	12.2
2	7.1	4.9	5.8	6.5	4.7	5.3	10.5	8.6	9.3	13.3	12.1	12.6
3	5.5	3.7	4.5	6.4	4.7	5.3	10.1	8.5	9.0	13.5	11.6	12.9
4	4.5	3.3	3.8	6.8	4.7	5.4	10.1	8.6	9.1	12.2	11.6	11.9
5	3.3	2.3	2.8	6.8	5.0	5.7	10.3	8.5	9.2	12.5	11.8	12.1
6	3.3	1.4	2.3	7.2	5.4	6.1	9.7	8.0	8.7	12.3	11.7	12.0
7	3.1	1.4	2.6	7.5	5.6	6.3	9.8	7.7	8.9	12.7	11.8	12.1
8	4.6	2.9	3.5	7.0	5.6	6.2	10.2	9.0	9.5	12.8	11.6	12.1
9	4.9	3.1	3.8	7.4	5.8	6.4	11.5	9.2	10.0	12.7	11.7	12.2
10	4.6	2.8	3.5	7.4	5.7	6.3	11.4	9.1	10.0	12.5	11.7	11.9
11	4.8	2.3	3.4	8.0	5.8	6.7	11.0	8.6	9.4	11.7	11.1	11.3
12	4.0	1.6	2.6	8.5	6.7	7.4	10.8	8.5	9.3	11.5	11.0	11.1
13	3.8	1.6	2.7	8.4	6.7	7.3	10.1	8.3	9.0	11.8	11.4	11.6
14	4.4	2.5	3.3	8.7	6.5	7.3	11.1	8.7	9.7	11.8	11.3	11.5
15	5.2	2.7	3.4	8.9	6.5	7.4	11.8	8.9	9.8	11.6	10.9	11.2
16	5.0	2.2	3.2	9.2	6.7	7.5	10.6	8.8	9.5	11.6	10.8	11.1
17	4.8	2.2	3.4	8.1	6.7	7.3	11.2	9.0	9.8	11.9	10.8	11.1
18	4.9	2.7	3.5	9.3	7.1	7.7	12.4	9.7	10.4	13.3	10.3	11.2
19	5.2	2.9	3.5	8.4	7.0	7.5	11.1	9.7	10.1	13.6	11.6	12.7
20	5.8	3.1	4.2	9.3	7.1	8.0	11.6	9.9	10.5	12.2	11.9	12.1
21	5.8	3.5	4.4	9.6	7.5	8.3	11.1	9.8	10.3	12.5	11.9	12.0
22	6.8	4.1	5.1	9.6	7.4	8.1	12.7	10.7	11.5	14.2	12.5	13.6
23	5.6	4.2	4.7	8.7	7.4	7.9	12.6	11.2	11.7	14.0	13.1	13.5
24	6.3	4.0	4.8	9.9	7.9	8.6	12.4	11.3	11.6	13.1	12.4	12.7
25	6.8	3.9	4.8	10.5	8.0	8.8	12.5	11.2	11.8	12.5	12.1	12.2
26	6.0	3.9	4.8	10.8	8.2	9.1	12.3	11.2	11.6	12.2	11.7	11.9
27	---	---	---	10.8	8.6	9.3	12.5	11.5	11.9	11.7	11.0	11.3
28	5.1	3.4	4.2	9.6	8.0	8.5	12.9	11.7	12.2	11.0	10.8	10.9
29	5.6	3.8	4.6	9.8	8.0	8.7	12.0	10.8	11.3	10.9	10.7	10.8
30	5.0	4.0	4.5	10.2	8.3	8.9	12.3	11.3	11.9	13.1	10.9	11.3
31	6.1	4.4	5.0	---	---	---	12.4	11.6	12.0	13.5	10.7	11.3
MONTH	7.7	1.4	4.0	10.8	4.4	7.3	12.9	7.7	10.3	14.2	10.3	11.9
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY		MARCH			APRIL			MAY		
1	10.9	10.6	10.7	12.3	11.9	12.2	4.6	4.1	4.3	9.3	7.4	8.4
2	11.1	10.9	11.0	11.9	11.5	11.8	6.5	4.2	5.5	9.6	8.0	8.7
3	---	---	---	11.7	11.3	11.5	9.0	6.3	8.0	8.4	6.9	7.7
4	---	---	---	11.6	10.7	11.2	13.1	8.4	10.5	9.6	6.0	8.0
5	10.9	10.7	10.8	12.0	10.5	11.0	12.6	10.1	11.1	8.3	5.3	6.7
6	10.9	10.4	10.7	12.1	10.9	11.5	10.1	8.1	9.0	8.7	5.5	6.9
7	11.4	10.5	10.8	12.1	11.2	11.8	11.7	7.3	9.8	10.9	7.0	8.6
8	13.4	11.3	12.6	---	---	---	12.7	9.8	10.4	10.6	8.4	9.5
9	13.4	12.3	12.7	---	---	---	12.7	9.3	10.6	15.3	9.5	12.0
10	12.3	11.8	12.1	11.4	11.2	11.4	10.2	9.2	9.6	14.5	11.7	13.0
11	11.8	11.3	11.5	11.3	10.5	10.9	9.8	7.0	8.1	14.2	4.9	11.1
12	11.4	11.1	11.3	10.5	9.9	10.2	7.8	6.4	7.0	17.4	4.9	10.9
13	11.3	11.2	11.2	9.9	9.4	9.7	6.4	5.6	6.1	16.1	12.9	14.5
14	11.2	10.9	11.1	9.4	9.0	9.2	5.9	5.5	5.6	12.9	9.4	11.6
15	10.9	10.6	10.7	9.2	8.7	9.0	7.1	5.8	6.4	9.4	4.9	7.5
16	11.0	10.8	10.9	8.8	8.5	8.7	7.8	4.5	6.5	9.5	4.7	6.9
17	10.9	10.6	10.8	8.9	8.5	8.7	9.8	6.1	7.9	7.0	1.4	4.2
18	10.8	10.5	10.6	9.1	8.4	8.8	10.6	8.8	9.4	7.6	4.0	6.1
19	10.7	10.5	10.5	8.4	7.2	7.7	11.0	9.0	9.5	11.9	3.7	8.2
20	10.6	10.4	10.5	7.2	6.6	6.8	9.5	8.7	9.0	11.6	5.3	8.8
21	10.7	10.4	10.5	6.6	5.9	6.3	10.2	8.3	8.9	9.8	6.6	8.0
22	10.8	10.2	10.6	6.2	5.9	6.0	8.8	7.8	8.3	10.6	7.4	9.0
23	11.5	10.6	10.9	6.0	5.5	5.8	8.8	7.0	7.9	11.7	8.4	9.9
24	11.1	9.3	10.6	5.5	5.2	5.4	7.2	6.4	6.9	9.5	8.3	8.9
25	11.0	10.6	10.7	5.4	4.9	5.2	6.8	6.0	6.4	8.5	7.6	8.2
26	10.6	10.3	10.4	5.3	4.5	4.7	6.8	5.6	6.2	8.5	7.4	7.9
27	10.4	10.1	10.3	5.0	4.3	4.6	7.6	6.2	6.7	10.0	6.8	8.4
28	12.2	9.9	11.1	4.7	3.8	4.3	7.6	6.4	6.9	12.9	7.5	9.7
29	---	---	---	4.5	3.8	4.1	8.0	6.5	7.1	11.7	8.3	10.0
30	---	---	---	4.2	3.7	3.9	8.7	6.8	7.7	10.6	6.0	8.7
31	---	---	---	4.4	3.8	4.0	---	---	---	10.3	3.5	7.2
MONTH	13.4	9.3	11.0	12.3	3.7	8.2	13.1	4.1	7.9	17.4	1.4	8.9

SURFACE-WATER RECORDS
Scioto River Basin

03223425 WHETSTONE CREEK AT MOUNT GILEAD, OHIO

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

DRAINAGE AREA.--37.9 mi².

PERIOD OF RECORD.--October 1996 to current year.

GAGE.--Water-stage recorder. 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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.17	3.0	e9.4	e4.4	35	95	15	17	6.3	7.0	1.2	.23
2	.17	3.0	e12	e4.2	38	61	16	15	6.6	9.2	1.0	.20
3	1.7	3.5	e11	e4.0	38	180	15	14	5.8	4.5	.95	.16
4	1.9	3.3	e11	e3.8	36	131	20	12	4.6	3.2	.93	.12
5	.90	14	e10	e3.7	33	82	23	11	4.2	2.6	.94	.13
6	.53	46	e9.0	e3.5	16	364	20	10	3.9	2.9	.93	.12
7	1.9	36	e10	e3.4	67	160	16	9.7	3.8	3.3	.98	.15
8	8.2	35	e10	e3.3	131	82	14	9.1	3.5	2.7	1.6	.16
9	3.3	29	e11	e3.3	95	66	332	9.6	3.1	2.5	1.2	.13
10	2.2	7.9	e10	e3.2	86	54	209	8.9	3.4	2.7	1.3	.11
11	1.9	14	e11	e3.1	33	44	144	8.0	3.4	2.6	1.3	.11
12	1.7	17	e6.5	e3.0	37	40	96	7.5	3.0	2.4	1.0	.10
13	1.6	26	e4.7	e2.9	38	39	57	7.7	3.2	2.2	1.2	.12
14	1.4	6.3	e4.4	e2.8	28	37	42	8.9	4.5	2.1	2.3	.12
15	1.4	4.1	e4.5	e2.8	26	35	39	7.9	4.1	2.1	2.1	.10
16	1.4	3.6	e4.8	e2.7	29	46	106	7.0	3.3	2.1	1.5	.10
17	1.5	3.5	e5.3	e2.7	41	95	414	6.6	2.9	2.1	1.2	.11
18	2.7	20	e5.3	343	95	87	271	6.2	2.8	2.0	1.0	.11
19	4.0	60	e5.0	203	e20	52	199	5.9	2.7	3.7	1.4	.10
20	2.9	e7.0	4.6	175	e16	39	190	5.6	2.5	4.3	1.0	.17
21	2.4	e6.0	17	183	e14	33	117	5.5	2.5	2.8	1.0	.54
22	2.2	e5.0	114	814	e12	27	88	11	2.4	2.4	.98	.47
23	2.0	e5.0	81	339	e11	23	116	14	2.2	1.9	.95	.30
24	2.1	e6.0	30	231	e10	20	94	44	2.3	1.7	1.3	.41
25	2.2	e6.2	e8.8	155	e25	18	59	21	2.3	1.3	1.8	.62
26	2.2	e7.0	e7.4	58	e11	16	44	12	2.4	1.1	1.3	.40
27	2.2	e7.8	e6.6	50	86	15	36	8.5	2.5	1.0	1.3	.38
28	2.4	e7.8	e6.0	45	234	14	30	6.7	3.0	3.1	1.0	.49
29	2.3	e7.8	e5.4	40	---	13	24	5.8	3.1	5.3	.89	2.6
30	2.7	e7.6	e5.0	37	---	12	19	5.0	2.5	2.1	.75	3.1
31	2.8	---	e4.7	35	---	11	---	4.8	---	1.5	.42	---
TOTAL	66.97	408.4	445.4	2764.8	1341	1991	2865	325.9	102.8	90.4	36.72	11.96
MEAN	2.16	13.6	14.4	89.2	47.9	64.2	95.5	10.5	3.43	2.92	1.18	.40
MAX	8.2	60	114	814	234	364	414	44	6.6	9.2	2.3	3.1
MIN	.17	3.0	4.4	2.7	10	11	14	4.8	2.2	1.0	.42	.10

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 1999, BY WATER YEAR (WY)

	1997	1998	1999
MEAN	4.33	15.8	55.3
MAX	7.04	28.1	133
(WY)	1997	1997	1999
MIN	2.16	5.55	14.4
(WY)	1999	1998	1999

SUMMARY STATISTICS

FOR 1998 CALENDAR YEAR

FOR 1999 WATER YEAR

WATER YEARS 1997 - 1999

ANNUAL TOTAL	16857.23	10450.35	
ANNUAL MEAN	46.2	28.6	40.0
HIGHEST ANNUAL MEAN			46.0
LOWEST ANNUAL MEAN			28.6
HIGHEST DAILY MEAN	2060	814	2060
LOWEST DAILY MEAN	.07	.10	.07
ANNUAL SEVEN-DAY MINIMUM	.07	.11	.07
INSTANTANEOUS PEAK FLOW		1340	5650
INSTANTANEOUS PEAK STAGE		7.83	13.64
INSTANTANEOUS LOW FLOW		.08	.07
10 PERCENT EXCEEDS	75	82	86
50 PERCENT EXCEEDS	12	5.3	11
90 PERCENT EXCEEDS	.48	.93	1.3

e Estimated.

SURFACE-WATER RECORDS
Scioto River Basin

03225500 OLENTANGY RIVER NEAR DELAWARE, OHIO

LOCATION.--Latitude 40°21'18", longitude 83°04'02", in NE 1/4 T.5 N., R.19 W., Delaware County, Hydrologic Unit 05060001, on left bank 500 ft upstream from highway bridge, 1,000 ft downstream from Delaware Dam, 1300 ft upstream from Norfolk and Western Railway bridge, and 4.0 mi north of Delaware.
DRAINAGE AREA.--393 mi².
PERIOD OF RECORD.--October 1923 to September 1934, April 1938 to current year. Monthly discharge only for some periods, published in WSP 1305.
GAGE.--Water-stage recorder and concrete control. Datum of gage is 878.00 ft above sea level (levels by U.S. Army Corps of Engineers). Prior to Oct. 1, 1950, water-stage recorder at this site 500 ft downstream at datum 1.72 ft lower. Oct. 1, 1950 to Sept. 30, 1985, at datum 78.42 ft lower.
REMARKS.--Records good. Flow completely regulated by Delaware Lake since 1951. Water-quality data 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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	18	50	15	293	2470	105	95	53	14	32	17
2	18	18	50	15	151	2070	46	95	53	43	32	15
3	19	18	50	15	112	1300	8.0	107	63	66	32	16
4	19	18	40	15	239	1610	8.1	119	69	64	32	16
5	19	18	23	74	301	1310	7.7	120	69	64	32	17
6	18	18	22	89	116	925	7.6	122	69	64	33	17
7	17	17	123	57	144	1470	10	123	56	64	32	17
8	17	18	87	46	1160	2470	12	121	27	37	28	17
9	17	53	29	28	1890	1710	45	119	15	17	29	17
10	18	72	27	28	890	492	1420	62	11	17	32	17
11	18	71	19	28	408	329	3160	20	11	17	32	17
12	18	70	6.0	55	356	306	1600	17	12	20	32	17
13	18	70	5.7	106	357	282	784	16	20	27	32	17
14	18	456	5.5	106	351	283	266	22	19	25	32	17
15	16	477	5.5	171	231	179	113	34	35	20	31	16
16	15	108	5.5	203	114	29	419	47	43	20	31	16
17	17	121	13	204	236	513	561	94	29	22	31	16
18	18	119	16	278	285	1510	1400	115	20	22	31	16
19	18	119	13	1120	223	939	2570	114	20	22	31	16
20	17	119	13	1920	223	550	2820	87	20	22	33	16
21	19	119	130	1920	151	520	2760	40	20	23	31	15
22	19	119	570	1560	31	298	1210	40	20	28	28	14
23	19	130	500	878	31	242	1040	41	20	32	28	14
24	19	138	346	2490	214	135	1310	414	20	36	28	15
25	19	139	139	4180	173	229	951	749	18	36	23	15
26	19	138	15	4100	85	154	434	390	14	37	20	15
27	19	97	15	3390	63	118	323	113	14	32	20	12
28	18	49	15	1630	1240	118	294	39	14	31	21	9.9
29	19	49	109	539	---	60	248	39	14	31	20	13
30	19	49	86	326	---	74	146	44	14	31	18	13
31	18	---	38	326	---	138	---	50	---	31	19	---
TOTAL	559	3025	2566.2	25912	10068	22833	24078.4	3608	882	1015	886	465.9
MEAN	18.0	101	82.8	836	360	737	803	116	29.4	32.7	28.6	15.5
MAX	19	477	570	4180	1890	2470	3160	749	69	66	33	17
MIN	15	17	5.5	15	31	29	7.6	16	11	14	18	9.9

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1999, BY WATER YEAR (WY)

	76.9	281	440	492	648	764	548	401	301	252	118	66.2
MEAN	76.9	281	440	492	648	764	548	401	301	252	118	66.2
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 1998 CALENDAR YEAR

FOR 1999 WATER YEAR

WATER YEARS 1951 - 1999

ANNUAL TOTAL	123300.4	95898.5	
ANNUAL MEAN	338	263	364
HIGHEST ANNUAL MEAN			609
LOWEST ANNUAL MEAN			137
HIGHEST DAILY MEAN	4220	Jul 2	5940
LOWEST DAILY MEAN	5.5	Dec 14	1.0
ANNUAL SEVEN-DAY MINIMUM	8.2	Dec 12	3.4
INSTANTANEOUS PEAK FLOW			6000
INSTANTANEOUS PEAK STAGE			88.13
INSTANTANEOUS LOW FLOW			1.0
10 PERCENT EXCEEDS	946	822	1020
50 PERCENT EXCEEDS	72	36	91
90 PERCENT EXCEEDS	17	15	19

SURFACE-WATER RECORDS Scioto River Basin

03226800 OLENTANGY RIVER NEAR WORTHINGTON, OHIO

LOCATION.--Latitude 40°06'37", longitude 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 current year.
 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 1998 TO SEPTEMBER 1999 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	31	58	40	357	2700	174	139	66	22	56	17
2	18	26	51	23	269	2440	146	129	75	716	46	16
3	46	31	51	45	170	1900	83	127	67	151	33	16
4	66	27	51	41	186	1800	77	144	77	91	31	14
5	32	25	44	30	386	1760	60	148	81	73	30	12
6	28	24	29	66	190	1720	48	147	81	67	28	33
7	86	23	43	104	489	1580	44	146	81	71	28	90
8	131	23	160	72	1280	2460	41	142	65	63	48	30
9	36	23	63	67	2170	2330	72	138	41	56	37	21
10	24	102	37	42	1390	752	644	133	27	71	28	20
11	21	147	32	41	515	399	3430	61	21	30	30	17
12	19	98	31	53	447	386	2050	35	23	20	29	19
13	20	94	20	220	439	344	1020	32	20	17	31	21
14	18	359	14	214	407	339	480	30	25	19	51	e23
15	25	463	12	170	385	335	107	31	39	22	38	e21
16	27	180	8.7	247	186	187	365	45	37	20	32	e21
17	19	118	10	294	200	560	732	58	46	16	30	e22
18	27	117	13	1430	358	1580	1510	118	37	16	29	e18
19	73	117	13	1240	266	1500	2650	120	25	18	29	e21
20	32	131	20	2210	255	700	3020	117	23	20	29	e26
21	27	123	163	2460	248	534	3130	75	22	23	30	32
22	25	119	813	2810	110	366	2140	106	22	49	29	29
23	24	118	676	1420	66	329	1230	113	20	28	26	27
24	24	133	355	2090	91	198	1640	134	19	297	44	25
25	25	142	302	4270	299	211	1290	816	20	69	108	24
26	26	170	57	4120	148	239	657	525	20	47	102	27
27	26	140	32	3720	137	153	375	238	22	101	47	30
28	25	76	29	2110	871	152	380	69	28	68	32	32
29	26	52	29	743	---	153	307	55	30	60	24	132
30	59	55	127	354	---	76	256	53	20	40	20	173
31	51	---	87	346	---	139	---	56	---	35	19	---
TOTAL	1106	3287	3430.7	31092	12315	28322	28158	4280	1180	2396	1174	1009
MEAN	35.7	110	111	1003	440	914	939	138	39.3	77.3	37.9	33.6
MAX	131	463	813	4270	2170	2700	3430	816	81	716	108	173
MIN	18	23	8.7	23	66	76	41	30	19	16	19	12

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 1999, BY WATER YEAR (WY)

MEAN	84.1	319	555	632	755	1012	737	511	378	265	149	94.1
MAX	576	1797	1772	2352	2368	2517	2033	1219	1297	1672	801	809
(WY)	1973	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	62.7	15.6	30.7	36.6	17.6
(WY)	1965	1964	1964	1977	1964	1983	1971	1962	1962	1962	1983	1964

SUMMARY STATISTICS FOR 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1956 - 1999

ANNUAL TOTAL	148595.7	117749.7	
ANNUAL MEAN	407	323	454
HIGHEST ANNUAL MEAN			778
LOWEST ANNUAL MEAN			269
HIGHEST DAILY MEAN	4370	Jul 2	10800
LOWEST DAILY MEAN	8.7	Dec 16	6.5
ANNUAL SEVEN-DAY MINIMUM	13	Dec 13	8.0
INSTANTANEOUS PEAK FLOW			4460
INSTANTANEOUS PEAK STAGE			7.25
INSTANTANEOUS LOW FLOW			8.7
10 PERCENT EXCEEDS	1210	931	1300
50 PERCENT EXCEEDS	106	66	135
90 PERCENT EXCEEDS	21	20	25

e Estimated.

SURFACE-WATER RECORDS
Scioto River Basin

03227500 SCIOTO RIVER AT COLUMBUS, OHIO

LOCATION.--Latitude 39°54'34", longitude 83°00'33", Franklin County, Hydrologic Unit 05060001, on right bank at Jackson Pike Wastewater Treatment Plant, 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 good 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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	132	176	184	e140	1120	6900	642	759	228	135	137	112
2	129	193	184	e140	1080	7160	591	536	199	1230	149	109
3	192	208	182	e140	911	6660	430	571	187	921	134	105
4	319	185	173	e130	905	5910	529	540	209	512	122	108
5	172	154	178	e130	1040	4890	478	474	256	396	124	107
6	166	155	172	e130	967	5350	486	520	258	342	122	110
7	464	143	254	e130	1540	6050	405	609	248	281	126	338
8	864	140	222	e120	4320	5590	409	492	300	161	138	150
9	251	146	260	e120	6000	5640	972	481	228	169	159	117
10	182	253	184	e120	4480	3140	2670	473	192	400	129	103
11	174	387	165	e120	2810	1900	5180	418	169	149	124	103
12	173	211	157	e200	2080	1550	4300	248	134	122	120	103
13	175	192	156	e700	1660	1370	2820	205	120	114	134	104
14	164	192	156	e400	1610	1280	1750	264	403	109	204	106
15	124	538	168	e300	1460	1220	1180	254	921	109	143	102
16	124	570	161	e350	1100	1230	1140	239	906	111	127	101
17	143	220	196	e450	979	1890	2300	204	685	110	124	97
18	183	233	162	2820	1010	4500	5360	368	364	105	123	103
19	295	227	158	4420	962	4630	6340	273	313	107	126	102
20	204	287	163	5340	891	2900	6730	290	289	134	121	105
21	173	256	670	5630	870	2060	6920	304	188	122	118	111
22	155	242	2830	9620	741	1610	5660	458	126	141	116	109
23	153	247	1110	11000	319	1210	4060	577	118	131	112	110
24	135	249	e450	9660	249	1040	4380	402	112	405	297	106
25	121	285	e300	11100	798	909	3590	1140	115	258	479	105
26	128	521	e240	9890	792	871	2430	1450	108	178	514	103
27	146	275	e200	8250	736	457	1600	971	114	249	190	106
28	162	263	179	5100	1620	550	1390	636	257	401	154	108
29	160	187	162	2550	---	590	1020	340	369	375	131	237
30	299	176	e160	1550	---	534	1010	320	123	304	112	533
31	218	---	e150	1300	---	525	---	333	---	135	115	---
TOTAL	6480	7511	10086	92050	43050	90116	76772	15149	8239	8416	5024	4013
MEAN	209	250	325	2969	1538	2907	2559	489	275	271	162	134
MAX	864	570	2830	11100	6000	7160	6920	1450	921	1230	514	533
MIN	121	140	150	120	249	457	405	204	108	105	112	97

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 1999, BY WATER YEAR (WY)

MEAN	369	835	1485	2189	2366	2986	2482	1564	1273	830	479	335
MAX	4633	5490	7274	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 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1921 - 1999

ANNUAL TOTAL	491881	366906	
ANNUAL MEAN	1348	1005	1426
HIGHEST ANNUAL MEAN			2514
LOWEST ANNUAL MEAN			305
HIGHEST DAILY MEAN	12100	Jan 10	11100
LOWEST DAILY MEAN	121	Oct 25	97
ANNUAL SEVEN-DAY MINIMUM	129	Sep 10	102
INSTANTANEOUS PEAK FLOW			11800
INSTANTANEOUS PEAK STAGE			15.69
INSTANTANEOUS LOW FLOW			97
10 PERCENT EXCEEDS	4240	2860	3940
50 PERCENT EXCEEDS	529	254	462
90 PERCENT EXCEEDS	148	114	118

e Estimated.

SURFACE-WATER RECORDS
Scioto River Basin

03228300 BIG WALNUT CREEK AT SUNBURY, OHIO

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

DRAINAGE AREA.--101 mi².

PERIOD OF RECORD.--October 1988 to current year.

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

REMARKS.--Records fair except for periods of estimated record, and discharge above 500 ft³/s, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	1.1	8.3	e19	53	312	35	35	5.4	36	1.4	.00
2	.00	.77	13	e17	93	194	44	31	5.6	447	.67	.00
3	.05	.86	13	e16	124	722	42	28	6.4	69	.29	.00
4	.03	1.5	10	e15	93	391	50	25	7.0	24	.08	.00
5	.00	2.4	9.2	e14	71	212	53	23	5.2	8.9	.02	.00
6	.00	e3.0	8.4	e14	64	949	48	23	4.0	4.0	.00	.00
7	.97	e2.2	8.4	e13	392	376	42	20	2.8	2.4	.00	.00
8	.37	e1.7	9.2	e13	545	e150	37	18	.96	1.6	.79	.00
9	4.6	2.6	12	e13	205	e120	386	17	.48	2.9	.07	.00
10	3.9	4.7	10	e12	130	e100	345	16	.22	2.6	.01	.00
11	1.8	9.5	8.5	e12	101	e90	197	14	.10	2.4	.00	.00
12	1.6	20	7.5	e25	125	e80	145	12	.05	2.0	.00	.00
13	1.6	12	6.8	e110	159	e74	96	12	.03	1.5	.47	.00
14	.36	8.9	6.4	e250	113	e70	72	13	.09	1.1	1.0	.00
15	.14	7.2	6.0	e170	107	e66	64	13	.07	.79	.52	.00
16	.08	6.1	3.8	e120	117	212	143	12	.02	.39	.11	.00
17	.05	e4.8	3.1	e110	120	365	656	10	.00	.07	.11	.00
18	.34	e4.0	3.2	e1500	108	233	702	9.0	.00	.01	.14	.00
19	.21	e3.6	5.1	807	85	132	319	6.2	.00	.00	.06	.00
20	.08	5.0	7.1	400	69	99	278	3.6	.00	.05	.02	.00
21	.06	4.6	64	e780	e50	86	401	3.0	.00	.58	.00	.00
22	.26	e4.0	803	1250	e45	72	249	3.1	.00	.27	.00	.00
23	.33	e3.9	171	598	e41	58	392	7.9	.00	1.5	.00	.00
24	.26	e3.7	91	289	e39	52	230	37	.00	2.0	.07	.00
25	.18	e3.5	e60	171	e37	47	130	52	.00	1.2	.24	.00
26	1.5	4.3	e45	123	e36	41	96	29	.00	.80	.13	.00
27	2.5	9.7	e35	102	75	38	74	19	.16	2.3	.85	.00
28	2.4	11	e30	85	587	35	59	13	.11	2.1	.32	.00
29	2.2	10	e25	69	---	35	49	9.6	.03	1.7	.07	.13
30	3.4	9.6	e22	59	---	33	41	7.5	.00	1.2	.01	.10
31	2.4	---	e20	52	---	31	---	6.3	---	.73	.00	---
TOTAL	31.67	166.23	1525.0	7228	3784	5475	5475	528.2	38.72	621.09	7.45	0.23
MEAN	1.02	5.54	49.2	233	135	177	182	17.0	1.29	20.0	.24	.008
MAX	4.6	20	803	1500	587	949	702	52	7.0	447	1.4	.13
MIN	.00	.77	3.1	12	36	31	35	3.0	.00	.00	.00	.00
CFSM	.01	.05	.49	2.31	1.34	1.75	1.81	.17	.01	.20	.00	.00
IN.	.01	.06	.56	2.66	1.39	2.02	2.02	.19	.01	.23	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1999, BY WATER YEAR (WY)

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	
MEAN	14.1	72.1	133	202	166	178	189	152	159	102	29.9	8.08
MAX	81.2	256	585	426	424	354	334	398	338	348	167	56.4
(WY)	1991	1993	1991	1996	1990	1993	1996	1996	1989	1992	1995	1992
MIN	.002	.051	.72	16.4	46.0	46.0	36.7	17.0	1.29	.15	.007	.006
(WY)	1992	1992	1992	1992	1992	1990	1997	1999	1999	1991	1991	1991

SUMMARY STATISTICS FOR 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1989 - 1999

ANNUAL TOTAL	34645.25	24880.59	
ANNUAL MEAN	94.9	68.2	117
HIGHEST ANNUAL MEAN			159
LOWEST ANNUAL MEAN			67.4
HIGHEST DAILY MEAN	3460	1500	4790
LOWEST DAILY MEAN	.00	.00	.00
ANNUAL SEVEN-DAY MINIMUM	.00	.00	.00
INSTANTANEOUS PEAK FLOW		1800	6700
INSTANTANEOUS PEAK STAGE		8.60	11.86
INSTANTANEOUS LOW FLOW		.00	.00
ANNUAL RUNOFF (CFSM)	.94	.67	1.16
ANNUAL RUNOFF (INCHES)	12.76	9.16	15.72
10 PERCENT EXCEEDS	180	171	278
50 PERCENT EXCEEDS	23	7.2	30
90 PERCENT EXCEEDS	.17	.00	.29

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

SURFACE-WATER RECORDS
Scioto River Basin

03228805 ALUM CREEK AT AFRICA, OHIO

LOCATION.--Latitude 40°10'56", longitude 82°57'42", in SE 1/4 sec. 1, T.3 N., R.18 W., Delaware County, Hydrologic Unit 05060001, on right bank 400 ft upstream of bridge on Lewis Center Road, 1,200 ft downstream from outlet of Alum Creek Dam, 0.3 mi west of Africa, 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 fair except for periods of estimated record, 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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	22	e16	20	25	18	17	36	27	23	19	16
2	25	22	16	e20	24	12	18	36	26	23	19	16
3	25	22	15	e19	24	10	18	24	26	22	e18	16
4	25	22	15	e19	24	21	18	18	25	21	17	15
5	24	22	16	18	25	60	18	18	25	22	17	15
6	24	22	15	18	24	82	18	18	25	22	18	15
7	26	22	18	18	27	79	e18	18	24	22	18	15
8	25	22	19	18	121	458	e18	18	25	24	18	16
9	24	22	19	18	493	692	19	18	25	26	17	16
10	24	22	19	18	681	691	18	19	24	25	17	16
11	24	22	20	18	347	324	19	18	25	24	17	16
12	24	22	20	18	33	91	18	19	25	24	17	16
13	24	22	19	e20	33	45	18	17	24	24	16	16
14	24	22	19	13	33	45	18	16	24	24	17	16
15	24	22	20	3.9	33	24	18	17	24	24	16	16
16	24	22	20	3.8	32	6.2	19	17	24	23	17	16
17	23	22	20	4.7	61	5.0	19	17	25	23	17	16
18	23	22	20	9.7	80	14	20	17	25	22	17	16
19	24	22	19	4.3	81	20	19	15	25	22	17	16
20	23	22	19	3.9	81	20	55	17	25	22	17	17
21	24	22	23	5.0	81	20	149	19	34	22	17	17
22	24	22	21	24	80	21	294	20	29	20	16	17
23	24	22	19	58	80	21	384	18	22	20	16	17
24	24	23	e19	58	80	20	378	18	22	21	16	16
25	24	24	19	325	46	21	377	17	22	20	16	16
26	24	24	19	503	14	21	152	17	21	20	16	16
27	23	23	19	363	15	21	37	16	21	20	16	16
28	23	23	19	137	15	21	36	22	22	20	16	16
29	23	23	19	94	---	84	36	27	22	19	16	17
30	23	e19	20	25	---	75	36	27	22	19	16	16
31	22	---	20	24	---	17	---	27	---	19	16	---
TOTAL	742	665	581	1901.3	2693	3059.2	2282	621	735	682	523	481
MEAN	23.9	22.2	18.7	61.3	96.2	98.7	76.1	20.0	24.5	22.0	16.9	16.0
MAX	26	24	23	503	681	692	384	36	34	26	19	17
MIN	22	19	15	3.8	14	5.0	17	15	21	19	16	15

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1999, BY WATER YEAR (WY)

MEAN	47.7	110	145	133	173	198	150	142	89.0	69.8	40.2	44.0
MAX	309	482	460	437	464	573	523	651	327	364	570	618
(WY)	1987	1973	1991	1993	1990	1964	1964	1996	1973	1987	1980	1980
MIN	.000	.22	1.46	1.50	5.48	5.02	3.46	3.32	3.61	1.56	2.24	.11
(WY)	1964	1964	1964	1976	1981	1987	1981	1976	1976	1965	1971	1964

SUMMARY STATISTICS FOR 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1963 - 1999

ANNUAL TOTAL	24326.2	14965.5	
ANNUAL MEAN	66.6	41.0	
HIGHEST ANNUAL MEAN			112
LOWEST ANNUAL MEAN			243
HIGHEST DAILY MEAN	1350	Jul 2	8.54
LOWEST DAILY MEAN	4.1	Apr 5	1992
ANNUAL SEVEN-DAY MINIMUM	6.4	Apr 1	5460
INSTANTANEOUS PEAK FLOW			.00
INSTANTANEOUS PEAK STAGE			.00
INSTANTANEOUS LOW FLOW			2310
10 PERCENT EXCEEDS	133	50	27.74
50 PERCENT EXCEEDS	22	21	Sep 19 1979
90 PERCENT EXCEEDS	8.6	16	.00
			Aug 25 1992

e Estimated.

SURFACE-WATER RECORDS
Scioto River Basin

03229500 BIG WALNUT CREEK AT REES, OHIO

LOCATION.--Latitude 39°51'24", longitude 82°57'26", in NE 1/4 sec. 26, T.4 N., R.22 W., Franklin County, Hydrologic Unit 05060001, on right bank at downstream side of bridge on Reese Road, 0.5 mi southwest of 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 good except for periods of estimated record, which are poor. Flow regulated by Hoover Reservoir 26 mi upstream (see station 03228400) and Alum Creek Lake 30 mi upstream since August 1973. Beginning June 15, 1956, diversion at Morse Road Treatment Plant, 21 mi upstream from station, for municipal water supply for the City of Columbus. Water-quality data 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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66	98	92	e100	270	775	161	205	126	85	66	53
2	65	84	105	e92	441	611	172	180	149	696	80	54
3	89	157	93	e88	372	1290	142	173	136	194	62	50
4	354	140	92	e84	269	1750	183	162	103	99	56	50
5	119	110	90	e80	217	1030	163	151	83	74	54	44
6	81	99	86	e76	199	2110	152	195	79	64	49	43
7	339	91	220	e74	901	2120	151	170	78	75	48	303
8	1020	86	146	e72	1310	1250	134	146	82	72	46	112
9	185	78	95	e70	676	1420	1120	141	83	59	98	70
10	112	262	88	e70	978	1360	892	141	75	476	62	56
11	91	494	86	e68	898	1130	345	134	62	133	61	48
12	85	152	78	e130	484	533	234	131	60	84	55	44
13	78	110	80	e900	437	477	198	127	63	64	50	42
14	75	90	86	e800	302	391	182	141	100	69	126	40
15	67	82	79	e300	265	395	186	128	140	53	105	43
16	68	76	77	e250	259	380	334	112	82	57	64	45
17	76	77	138	464	325	528	373	109	64	55	52	45
18	78	90	122	2940	311	629	921	103	59	46	48	46
19	285	87	92	1480	273	539	1300	143	58	53	59	42
20	114	144	86	668	250	421	1030	130	53	65	71	38
21	83	167	497	992	230	333	1700	104	47	71	50	49
22	77	97	3990	1540	219	290	1570	300	47	152	42	63
23	80	86	547	827	205	238	2320	502	70	86	39	56
24	72	84	268	569	206	250	1710	231	64	241	182	44
25	71	85	189	402	251	248	1110	181	76	155	747	45
26	72	492	167	718	226	215	805	132	90	76	368	46
27	72	166	153	697	262	175	421	141	78	295	140	39
28	83	120	139	407	990	144	331	97	192	179	83	45
29	80	100	127	316	---	138	267	85	255	274	65	290
30	237	94	e120	237	---	222	234	82	107	107	56	534
31	191	---	e110	173	---	168	---	97	---	71	53	---
TOTAL	4565	4098	8338	15684	12026	21560	18841	4874	2761	4280	3137	2479
MEAN	147	137	269	506	430	695	628	157	92.0	138	101	82.6
MAX	1020	494	3990	2940	1310	2120	2320	502	255	696	747	534
MIN	65	76	77	68	199	138	134	82	47	46	39	38
(+)	106	97.0	94.0	111	101	94.5	96.9	127	159	146	139	144

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 1999, BY WATER YEAR (WY)

	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
MEAN	209	395	521	558	708	786	674	545	507	382	283	222														
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 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1974 - 1999

ANNUAL TOTAL	146625	102643																								
ANNUAL MEAN	402(+111)	281(+118)																								
HIGHEST ANNUAL MEAN										600#																1979
LOWEST ANNUAL MEAN										221																1992
HIGHEST DAILY MEAN				4820	Apr 16		3990	Dec 22		14000																Sep 15 1979
LOWEST DAILY MEAN				49	Sep 14		38	Sep 20		22																Jul 10 1988
ANNUAL SEVEN-DAY MINIMUM				54	Sep 13		43	Sep 14		25																Jul 4 1988
INSTANTANEOUS PEAK FLOW							6330	Dec 22		21700																Sep 15 1979
INSTANTANEOUS PEAK STAGE							10.54	Dec 22		17.75																Sep 15 1979
INSTANTANEOUS LOW FLOW							38	Sep 20		22																Jul 10 1988
10 PERCENT EXCEEDS				1030			730			1200																
50 PERCENT EXCEEDS				168			126			188																
90 PERCENT EXCEEDS				70			53			58																

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

SURFACE-WATER RECORDS
Scioto River Basin

03230310 LITTLE DARBY CREEK AT WEST JEFFERSON, OHIO

LOCATION.--Latitude 39°57'04", longitude 83°16'10", Madison County, Hydrologic Unit 05060001, at bridge on Middle Pike, 0.4 mi north of West Jefferson, and 7.2 mi upstream from Big Darby Creek.
 DRAINAGE AREA.--162 mi².
 PERIOD OF RECORD.--October 1992 to current year.
 GAGE.--Water-stage recorder. Datum of gage is 785 ft above sea level. Prior to 1992, low-flow partial-record site.
 REMARKS.--Records fair except for periods of estimated record, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	19	16	e22	136	700	82	111	26	9.9	7.3	1.3
2	4.3	15	15	e19	168	e473	83	103	28	13	6.1	.93
3	5.7	13	15	e17	178	423	77	97	28	81	6.1	.49
4	7.9	12	14	e16	163	e445	76	92	27	44	5.2	.16
5	9.8	13	14	e15	e113	290	74	88	23	26	4.1	.04
6	10	15	14	e14	120	e500	70	86	21	18	3.3	.00
7	13	13	e17	e13	242	e361	68	80	20	14	2.9	.00
8	24	12	e17	e13	926	e295	65	72	18	12	2.7	.00
9	16	12	e16	e12	678	e285	74	67	17	10	2.6	.00
10	14	13	e16	e12	357	e236	92	60	16	13	2.9	.18
11	11	16	e15	e11	255	e185	90	56	16	15	2.9	.06
12	8.8	18	e15	e11	222	e158	83	54	15	18	3.2	.00
13	6.8	23	e14	e80	e206	e149	70	55	18	12	3.3	.00
14	5.8	22	e14	e110	e187	150	66	57	30	10	3.1	.00
15	5.7	16	e13	e90	e160	e133	69	53	31	8.5	3.0	.00
16	5.8	15	e13	e76	156	e140	86	48	26	7.5	2.8	.00
17	5.5	14	e12	e74	147	404	159	45	21	6.5	2.7	.00
18	6.4	14	12	e600	129	491	261	42	18	5.6	2.3	.00
19	8.3	13	12	e950	e116	284	278	41	16	5.2	2.5	.00
20	7.3	14	12	779	e100	e215	252	39	15	5.1	2.4	.00
21	9.8	15	23	710	e95	192	358	36	14	5.9	1.8	.00
22	9.9	15	e100	1180	e90	165	763	38	13	11	1.7	.00
23	8.8	16	e80	1520	e85	138	556	40	12	20	2.1	.00
24	8.0	15	e70	1150	79	125	582	41	12	26	2.5	.00
25	7.9	15	e60	630	80	113	322	41	11	29	3.8	.00
26	7.8	22	e50	e422	77	100	244	37	11	31	6.2	.00
27	7.9	19	e43	310	120	94	202	33	11	18	5.8	.00
28	7.8	20	e37	253	545	90	174	30	15	14	4.7	.00
29	7.8	18	e30	199	---	87	151	28	15	12	3.9	.00
30	10	17	e28	e158	---	80	125	26	12	10	2.6	.00
31	11	---	e23	e150	---	76	---	25	---	9.3	1.9	---
TOTAL	276.6	474	830	9616	5930	7577	5652	1721	556	520.5	108.4	3.16
MEAN	8.92	15.8	26.8	310	212	244	188	55.5	18.5	16.8	3.50	.11
MAX	24	23	100	1520	926	700	763	111	31	81	7.3	1.3
MIN	3.8	12	12	11	77	76	65	25	11	5.1	1.7	.00
CFSM	.06	.10	.17	1.91	1.31	1.51	1.16	.34	.11	.10	.02	.00
IN.	.06	.11	.19	2.21	1.36	1.74	1.30	.40	.13	.12	.02	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1999, BY WATER YEAR (WY)

	1993	1994	1995	1996	1997	1998	1999
MEAN	22.1	104	119	288	209	271	270
MAX	81.0	312	349	485	273	503	493
(WY)	1996	1994	1997	1996	1994	1993	1996
MIN	4.67	8.59	22.7	160	91.7	147	70.2
(WY)	1995	1995	1995	1995	1995	1998	1997

SUMMARY STATISTICS FOR 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1993 - 1999

ANNUAL TOTAL	52372.3	33264.66	
ANNUAL MEAN	143	91.1	174
HIGHEST ANNUAL MEAN			256
LOWEST ANNUAL MEAN			91.1
HIGHEST DAILY MEAN	1850	Jun 30	4910
LOWEST DAILY MEAN	3.6	Sep 16	.00
ANNUAL SEVEN-DAY MINIMUM	4.0	Sep 12	.00
INSTANTANEOUS PEAK FLOW			1560
INSTANTANEOUS PEAK STAGE			10.02
INSTANTANEOUS LOW FLOW			.00
ANNUAL RUNOFF (CFSM)	.89	.56	1.07
ANNUAL RUNOFF (INCHES)	12.03	7.64	14.60
10 PERCENT EXCEEDS	298	247	438
50 PERCENT EXCEEDS	62	18	66
90 PERCENT EXCEEDS	7.7	2.5	9.0

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

SURFACE-WATER RECORDS
Scioto River Basin

03230450 HELLBRANCH RUN NEAR HARRISBURG, OHIO

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

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1992 to current year.
GAGE.--Water-stage recorder. Elevation of gage is 785 ft above sea level(from topographic map).
REMARKS.--Records fair except for periods of estimated record, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	3.7	.80	e5.8	30	132	12	15	.82	1.2	.00	.00
2	.00	1.8	.57	e5.0	47	79	12	13	.85	1.8	.00	.00
3	.12	1.1	.49	e4.5	40	191	11	12	.77	2.0	.00	.00
4	.07	.94	.45	e4.0	33	141	13	11	.68	.84	.00	.00
5	.68	.85	.39	e3.7	23	78	12	11	.60	.38	.00	.00
6	.54	1.5	.38	e3.4	23	383	11	10	.52	.14	.00	.00
7	2.5	1.6	.55	e3.2	209	169	10	8.7	.40	.03	.00	.00
8	28	1.3	1.1	e3.0	232	89	9.2	7.9	.31	.00	.00	.00
9	8.2	1.1	1.2	e2.8	101	67	45	7.1	.27	.02	.00	.00
10	3.3	2.1	.67	e2.6	64	53	52	6.2	.22	.06	.00	.00
11	1.9	6.0	.50	e2.5	49	45	32	5.5	.20	1.7	.00	.00
12	1.1	6.2	.48	e2.8	48	40	22	5.2	.19	.83	.00	.00
13	.81	3.0	.77	e60	50	e36	17	5.2	.17	.34	.00	.00
14	.69	1.9	.65	e80	39	34	14	5.3	.18	.10	.00	.00
15	.54	1.1	.62	e50	38	33	14	4.6	.13	.00	.00	.00
16	.41	.81	.63	e40	37	67	19	4.0	.11	.00	.00	.00
17	.34	.57	.94	e50	36	118	23	3.6	.08	.00	.00	.00
18	.31	.44	.96	811	31	75	30	3.1	.07	.00	.00	.00
19	.32	.35	.89	470	26	49	36	2.9	.04	.00	.00	.00
20	3.4	.42	.93	248	22	38	43	2.5	.02	.00	.00	.00
21	2.2	.72	.61	304	19	33	247	2.1	.00	.00	.00	.00
22	1.7	.98	401	424	16	26	162	2.2	.00	.00	.00	.00
23	.99	.85	83	193	15	22	141	3.5	.00	.00	.00	.00
24	.70	.62	46	120	15	20	92	3.5	.00	.00	.00	.00
25	.58	.60	26	83	17	18	58	3.4	.00	.00	.00	.00
26	.46	7.2	18	62	19	16	44	2.6	.00	.00	.00	.00
27	.44	6.8	13	51	56	15	34	1.9	.00	.00	.00	.00
28	.44	3.0	e10	40	186	14	27	1.4	.17	.00	.00	.00
29	.44	1.6	e8.4	30	---	13	21	1.2	1.7	.00	.00	.00
30	.82	1.1	e7.4	24	---	11	17	1.0	2.3	.00	.00	.00
31	3.1	---	e6.6	21	---	11	---	.82	---	.00	.00	---
TOTAL	65.10	60.25	694.37	3204.3	1521	2116	1280.2	167.42	10.80	9.44	0.00	0.00
MEAN	2.10	2.01	22.4	103	54.3	68.3	42.7	5.40	.36	.30	.000	.000
MAX	.28	7.2	401	811	232	383	247	15	2.3	2.0	.00	.00
MIN	.00	.35	.38	2.5	15	11	9.2	.82	.00	.00	.00	.00
CFSM	.06	.05	.61	2.79	1.47	1.84	1.15	.15	.01	.01	.00	.00
IN.	.07	.06	.70	3.22	1.53	2.13	1.29	.17	.01	.01	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1999, BY WATER YEAR (WY)

	1993	1994	1995	1996	1997	1998	1999
MEAN	3.09	17.2	27.4	86.2	47.9	64.1	74.4
MAX	16.0	46.2	82.0	143	65.9	109	157
(WY)	1996	1993	1997	1996	1998	1993	1996
MIN	.000	1.34	5.86	43.7	23.6	36.0	12.7
(WY)	1995	1995	1995	1997	1995	1998	1997

SUMMARY STATISTICS FOR 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1993 - 1999

ANNUAL TOTAL	14999.79	9128.88	
ANNUAL MEAN	41.1	25.0	39.6
HIGHEST ANNUAL MEAN			66.8
LOWEST ANNUAL MEAN			25.0
HIGHEST DAILY MEAN	2000	811	2000
LOWEST DAILY MEAN	.00	.00	.00
ANNUAL SEVEN-DAY MINIMUM	.00	.00	.00
INSTANTANEOUS PEAK FLOW		964	3180
INSTANTANEOUS PEAK STAGE		7.61	14.19
INSTANTANEOUS LOW FLOW		.00	.00
ANNUAL RUNOFF (CFSM)	1.11	.68	1.07
ANNUAL RUNOFF (INCHES)	15.08	9.18	14.54
10 PERCENT EXCEEDS	84	57	91
50 PERCENT EXCEEDS	8.5	1.6	11
90 PERCENT EXCEEDS	.10	.00	.04

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

SURFACE-WATER RECORDS
Scioto River Basin

03230450 HELLBRANCH RUN NEAR HARRISBURG, OHIO—Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

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

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

REMARKS.--Water-quality samples were collected by equal-width-increment (EWI) sampling method, approximately once per month. Suspended-sediment samples and seasonal-event water-quality samples were collected by pumping sampler. Pumped samples were collected for every 0.5-ft rise and 1-ft drop in stage. Sediment samples were also collected by a local observer approximately once per day through July 7, 1999, after which there was no flow or the stream was dry. Suspended-sediment loads were calculated using the mean-interval method (Porterfield, George, 1972, Computation of Fluvial-Sediment Discharge: U.S. Geological Survey, Techniques of Water-Resources Investigations, book 3, chap. C3, 66 p.). For days with unsteady concentration, discharge, or both, the day was subdivided into quarter-hour intervals and the daily load was calculated by summing the loads for these quarter-hour intervals. This required interpolation between measured and estimated concentrations.

EXTREMES FOR PERIOD OF DAILY RECORD.--

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

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

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 284 mg/L, Jan. 18; minimum daily mean, 1 mg/L, on Nov. 13.

SEDIMENT LOADS: Maximum daily, 611 tons, Jan. 18; minimum daily, 0.00 ton, on many days during the year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	TIME	DIS-CHARGE, INST. FEET PER SECOND (00061)	OXYGEN, DIS-SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SILICA, DIS-SOLVED (MG/L AS SiO2) (00955)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
OCT 19...	1235	.34	8.9	7.6	770	16.0	15.0	67	4.1	53
NOV 17...	1035	.56	10.8	8.2	800	9.0	8.5	90	3.2	61
DEC 21...	1045	.85	10.5	8.2	710	11.0	7.5	98	4.0	31
JAN 19...	1300	400	11.9	8.7	450	5.0	2.5	51	6.0	25
FEB 24...	1130	15	15.0	8.2	790	3.5	3.0	80	2.7	56
MAR 22...	1300	26	15.5	8.6	694	4.0	6.0	60	2.7	47
MAY 04...	1245	11	11.4	8.6	730	27.0	19.0	68	.4	50
JUN 16...	1425	.10	13.2	8.6	640	22.5	23.0	73	8.4	50
JUL 14...	1245	.10	11.5	8.7	820	30.0	24.5	100	4.4	56

DATE	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NO2+NO3 SOLVED (MG/L AS N) (00631)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SAM-PLING METHOD, CODES* (82398)
OCT 19...	.07	.3	--	<.18	.04	.01	.03	3	11	10
NOV 17...	.13	.3	<.18	--	<.02	<.01	.03	2	13	10
DEC 21...	.13	.2	.19	--	<.02	<.01	<.02	2	10	10
JAN 19...	.46	2.0	5.1	--	<.02	.10	.24	48	64	10
FEB 24...	.26	.7	3.5	--	.04	<.01	<.02	2	3	10
MAR 22...	.05	.4	4.0	--	<.02	<.01	<.02	5	4	10
MAY 04...	<.03	.3	3.0	--	<.02	.01	<.02	4	1	10
JUN 16...	<.03	.5	<.18	--	<.02	<.01	.03	<2	1	10
JUL 14...	<.03	.4	<.18	--	<.02	.02	.06	--	1	10

* 10-Stream cross-section sample collected by equal-width-increment (EWI) sampling method.

SURFACE-WATER RECORDS
Scioto River Basin

03230450 HELLBRANCH RUN NEAR HARRISBURG, OHIO—Continued

WATER-QUALITY RECORDS—CONTINUED

SEDIMENT DISCHARGE, SUSPENDED, TONS PER DAY, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	OCTOBER			NOVEMBER			DECEMBER		
				MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	.00	5	.00	3.7	6	.06	.80	5	.01			
2	.00	5	.00	1.8	4	.02	.57	5	.01			
3	.12	5	.00	1.1	4	.01	.49	6	.01			
4	.07	5	.00	.94	6	.01	.45	5	.01			
5	.68	5	.01	.85	5	.01	.39	7	.01			
6	.54	5	.01	1.5	5	.02	.38	6	.01			
7	2.5	30	.87	1.6	5	.02	.55	7	.01			
8	28	37	2.8	1.3	4	.01	1.1	3	.01			
9	8.2	5	.12	1.1	5	.01	1.2	2	.00			
10	3.3	3	.03	2.1	6	.04	.67	2	.00			
11	1.9	4	.02	6.0	4	.06	.50	2	.00			
12	1.1	6	.02	6.2	2	.03	.48	3	.00			
13	.81	5	.01	3.0	1	.01	.77	3	.01			
14	.69	6	.01	1.9	2	.01	.65	4	.01			
15	.54	9	.01	1.1	3	.01	.62	4	.01			
16	.41	8	.01	.81	4	.01	.63	3	.01			
17	.34	12	.01	.57	9	.01	.94	4	.01			
18	.31	8	.01	.44	10	.01	.96	3	.01			
19	.32	9	.01	.35	6	.01	.89	4	.01			
20	3.4	4	.04	.42	6	.01	.93	4	.01			
21	2.2	2	.01	.72	6	.01	61	102	101			
22	1.7	2	.01	.98	4	.01	401	244	339			
23	.99	4	.01	.85	4	.01	83	63	15			
24	.70	5	.01	.62	5	.01	46	35	4.5			
25	.58	5	.01	.60	4	.01	26	20	1.5			
26	.46	6	.01	7.2	3	.06	18	11	.56			
27	.44	5	.01	6.8	2	.04	13	8	.29			
28	.44	6	.01	3.0	2	.02	E10	6	.17			
29	.44	4	.00	1.6	2	.01	E8.4	5	.11			
30	.82	3	.01	1.1	3	.01	E7.4	5	.10			
31	3.1	5	.05	---	---	---	E6.6	6	.10			
TOTAL	65.10	---	4.13	60.25	---	0.57	694.37	---	462.49			

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	JANUARY			FEBRUARY			MARCH		
				MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	E5.8	5	.09	30	10	.92	132	54	20			
2	E5.0	5	.07	47	12	1.5	79	29	6.2			
3	E4.5	5	.06	40	8	.85	191	70	46			
4	E4.0	5	.05	33	6	.57	141	58	24			
5	E3.7	4	.04	23	3	.21	78	24	5.2			
6	E3.4	4	.04	23	2	.12	383	221	282			
7	E3.2	4	.03	209	134	146	169	103	51			
8	E3.0	4	.03	232	112	77	89	40	9.7			
9	E2.8	4	.03	101	49	14	67	20	3.7			
10	E2.6	3	.02	64	20	3.7	53	14	2.1			
11	E2.5	3	.02	49	11	1.4	45	12	1.4			
12	E2.8	3	.02	48	9	1.2	40	8	.86			
13	E60	11	1.8	50	9	1.2	E36	7	.68			
14	E80	49	11	39	6	.67	34	6	.53			
15	E50	28	3.7	38	6	.61	33	5	.49			
16	E40	17	1.8	37	5	.46	67	16	4.7			
17	E50	31	4.2	36	5	.49	118	55	18			
18	811	284	611	31	4	.32	75	31	6.6			
19	470	80	113	26	2	.17	49	15	2.1			
20	248	39	26	22	3	.19	38	11	1.1			
21	304	132	123	19	2	.09	33	6	.56			
22	424	143	191	16	3	.11	26	4	.29			
23	193	38	20	15	5	.19	22	4	.22			
24	120	28	9.3	15	3	.14	20	9	.46			
25	83	18	4.1	17	3	.15	18	12	.57			
26	62	14	2.4	19	3	.15	16	7	.28			
27	51	11	1.5	56	34	8.3	15	8	.32			
28	40	8	.88	186	133	72	14	8	.30			
29	30	6	.48	---	---	---	13	6	.22			
30	24	5	.33	---	---	---	11	7	.22			
31	21	4	.24	---	---	---	11	8	.24			
TOTAL	3204.3	---	1126.23	1521	---	332.71	2116	---	490.04			

E Estimated.

SURFACE-WATER RECORDS
Scioto River Basin

03230450 HELLBRANCH RUN NEAR HARRISBURG, OHIO—Continued

WATER-QUALITY RECORDS—CONTINUED

SEDIMENT DISCHARGE, SUSPENDED, TONS PER DAY, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999—Continued

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)
1	12	10	.32	15	3	.14	.82	8	.02
2	12	10	.32	13	3	.11	.85	9	.02
3	11	9	.26	12	3	.10	.77	8	.02
4	13	7	.26	11	2	.05	.68	9	.02
5	12	7	.22	11	5	.13	.60	13	.02
6	11	6	.17	10	5	.13	.52	17	.02
7	10	4	.12	8.7	4	.09	.40	13	.01
8	9.2	5	.11	7.9	5	.11	.31	11	.01
9	45	101	25	7.1	5	.10	.27	11	.01
10	52	53	8.2	6.2	3	.05	.22	8	.00
11	32	15	1.3	5.5	3	.05	.20	7	.00
12	22	8	.46	5.2	5	.06	.19	7	.00
13	17	6	.29	5.2	6	.08	.17	7	.00
14	14	7	.25	5.3	6	.09	.18	6	.00
15	14	10	.37	4.6	6	.08	.13	14	.00
16	19	7	.37	4.0	10	.11	.11	6	.00
17	23	6	.34	3.6	10	.10	.08	12	.00
18	30	8	.67	3.1	5	.04	.07	11	.00
19	36	13	1.5	2.9	6	.04	.04	11	.00
20	43	19	2.4	2.5	14	.09	.02	7	.00
21	247	260	257	2.1	14	.08	.00	9	.00
22	162	96	48	2.2	8	.04	.00	9	.00
23	141	99	42	3.5	5	.05	.00	6	.00
24	92	46	12	3.5	5	.04	.00	7	.00
25	58	16	2.6	3.4	4	.04	.00	6	.00
26	44	14	1.6	2.6	5	.04	.00	6	.00
27	34	12	1.1	1.9	4	.02	.00	8	.00
28	27	7	.54	1.4	4	.01	.17	11	.00
29	21	5	.30	1.2	7	.02	1.7	8	.03
30	17	4	.19	1.0	6	.02	2.3	5	.03
31	---	---	---	.82	6	.01	---	---	---
TOTAL	1280.2	---	408.26	167.42	---	2.12	10.80	---	0.21
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)
1	1.2	8	.03	.00	---	.00	.00	---	.00
2	1.8	6	.03	.00	---	.00	.00	---	.00
3	2.0	2	.01	.00	---	.00	.00	---	.00
4	.84	3	.00	.00	---	.00	.00	---	.00
5	.38	3	.00	.00	---	.00	.00	---	.00
6	.14	3	.00	.00	---	.00	.00	---	.00
7	.03	8	.00	.00	---	.00	.00	---	.00
8	.00	14	.00	.00	---	.00	.00	---	.00
9	.02	11	.00	.00	---	.00	.00	---	.00
10	.06	8	.00	.00	---	.00	.00	---	.00
11	1.7	6	.03	.00	---	.00	.00	---	.00
12	.83	5	.01	.00	---	.00	.00	---	.00
13	.34	4	.00	.00	---	.00	.00	---	.00
14	.10	2	.00	.00	---	.00	.00	---	.00
15	.00	---	.00	.00	---	.00	.00	---	.00
16	.00	---	.00	.00	---	.00	.00	---	.00
17	.00	---	.00	.00	---	.00	.00	---	.00
18	.00	---	.00	.00	---	.00	.00	---	.00
19	.00	---	.00	.00	---	.00	.00	---	.00
20	.00	---	.00	.00	---	.00	.00	---	.00
21	.00	---	.00	.00	---	.00	.00	---	.00
22	.00	---	.00	.00	---	.00	.00	---	.00
23	.00	---	.00	.00	---	.00	.00	---	.00
24	.00	---	.00	.00	---	.00	.00	---	.00
25	.00	---	.00	.00	---	.00	.00	---	.00
26	.00	---	.00	.00	---	.00	.00	---	.00
27	.00	---	.00	.00	---	.00	.00	---	.00
28	.00	---	.00	.00	---	.00	.00	---	.00
29	.00	---	.00	.00	---	.00	.00	---	.00
30	.00	---	.00	.00	---	.00	.00	---	.00
31	.00	---	.00	.00	---	.00	---	---	---
TOTAL	9.44	---	0.11	0.00	---	0.00	0.00	---	0.00
YEAR	9128.88	---	2826.87						

SURFACE-WATER RECORDS
Scioto River Basin

03231500 SCIOTO RIVER AT CHILLICOTHE, OHIO—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1950-51, 1965-1981, November 1985 to current year.
PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: May 1965 to October 1981, November 1985 to current year.
pH: June 1971 to October 1981, November 1985 to current year.

WATER TEMPERATURES: October 1950 to September 1951, October 1953 to October 1981, November 1985 to current year.
DISSOLVED OXYGEN: May 1965 to October 1981, November 1985 to current year.

INSTRUMENTATION.--Water-quality monitor. Electronic data logger replaced digital recorder since July 12, 1991. Set for 1-hour interval.

REMARKS.--Interruptions in the water-quality record were due to malfunction of the instrument.
EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 1,210 microsiemens Jan. 13, 1976, Jan. 14 and 15, 1999; 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, 1,210 microsiemens Jan. 14 and 15; minimum, 350 microsiemens Dec. 23.

pH: Maximum, 9.1 units Aug. 3; minimum recorded, 7.2 units Jan. 18-20.

WATER TEMPERATURES: Maximum, 32.0°C July 31; minimum, 0.0°C Jan. 4-6.

DISSOLVED OXYGEN: Maximum, 17.6 mg/L Aug. 22; minimum, 3.0 mg/L Aug. 15.

SPECIFIC CONDUCTANCE, MICROSIEMENS/CM AT 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	784	690	748	---	---	---	647	627	633	768	746	757
2	690	667	673	---	---	---	666	647	660	785	768	780
3	714	667	686	---	---	---	687	666	673	801	783	795
4	745	714	722	---	---	---	709	687	697	805	786	792
5	776	737	760	714	680	691	733	709	721	824	805	817
6	784	769	774	723	714	720	746	733	738	827	819	824
7	784	627	721	723	697	711	773	746	762	858	820	844
8	659	620	633	699	692	694	787	773	780	945	858	891
9	682	455	531	706	692	701	789	780	784	945	869	914
10	525	455	488	713	690	708	802	782	793	908	865	889
11	580	518	554	720	698	713	801	750	775	932	904	923
12	627	580	606	758	699	740	750	735	741	963	923	938
13	682	627	656	730	613	658	778	742	760	952	689	817
14	722	674	697	613	588	597	780	773	776	1210	694	904
15	761	722	743	601	587	593	785	774	782	1210	1030	1120
16	784	761	773	648	601	619	---	---	---	1050	1020	1030
17	800	776	788	697	648	668	---	---	---	1020	927	963
18	808	784	797	707	662	691	842	827	834	967	779	868
19	816	800	811	663	648	653	830	823	826	856	635	751
20	824	816	820	672	662	669	842	825	832	767	612	679
21	847	816	832	691	671	679	852	813	840	766	652	698
22	847	776	830	719	691	708	813	394	709	652	481	561
23	776	651	697	724	717	721	394	350	365	505	485	495
24	659	643	652	724	681	702	526	383	461	494	433	472
25	682	659	668	681	651	675	585	526	560	433	421	425
26	706	682	694	693	651	680	616	585	597	421	410	413
27	714	698	709	736	691	710	656	616	641	423	415	418
28	698	682	690	740	644	705	672	656	666	449	415	428
29	708	682	698	644	610	621	683	672	677	498	449	473
30	712	698	704	627	611	619	721	683	705	559	498	534
31	---	---	---	---	---	---	746	721	736	605	559	584
MONTH	847	455	705	758	587	679	852	350	708	1210	410	735

SURFACE-WATER RECORDS
Scioto River Basin

03231500 SCIOTO RIVER AT CHILLICOTHE, OHIO—Continued

WATER-QUALITY RECORDS—CONTINUED

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	8.0	7.8	7.9	---	---	---	8.3	8.2	8.2	7.7	7.7	7.7
2	8.0	7.8	7.9	---	---	---	8.3	8.2	8.3	7.7	7.7	7.7
3	7.9	7.8	7.8	---	---	---	8.2	8.1	8.1	7.7	7.7	7.7
4	7.9	7.8	7.8	---	---	---	8.1	8.0	8.1	7.8	7.7	7.8
5	7.9	7.8	7.8	8.1	8.0	8.0	8.0	7.9	8.0	7.8	7.6	7.7
6	7.8	7.6	7.7	8.0	8.0	8.0	7.9	7.9	7.9	7.7	7.6	7.6
7	7.7	7.5	7.6	8.1	8.0	8.0	7.9	7.8	7.9	7.6	7.6	7.6
8	7.7	7.6	7.6	8.1	8.0	8.1	7.8	7.8	7.8	7.6	7.6	7.6
9	7.7	7.6	7.7	8.3	8.1	8.2	7.9	7.8	7.8	7.6	7.5	7.6
10	7.8	7.7	7.7	8.3	8.2	8.2	8.0	7.9	7.9	7.6	7.6	7.6
11	7.8	7.8	7.8	8.2	8.1	8.2	7.9	7.8	7.9	7.6	7.6	7.6
12	7.9	7.8	7.9	8.2	8.1	8.1	8.0	7.9	8.0	7.6	7.6	7.6
13	8.0	7.9	7.9	8.1	8.0	8.1	8.1	7.9	8.0	7.6	7.4	7.5
14	8.1	8.0	8.0	8.1	8.0	8.1	8.2	8.0	8.1	7.4	7.3	7.3
15	8.2	8.0	8.1	8.2	8.0	8.1	8.2	8.1	8.1	7.4	7.3	7.3
16	8.2	8.1	8.1	8.3	8.1	8.2	---	---	---	7.4	7.4	7.4
17	8.2	8.1	8.2	8.3	8.2	8.2	---	---	---	7.4	7.4	7.4
18	8.3	8.1	8.2	8.3	8.2	8.2	8.2	8.0	8.1	7.4	7.2	7.3
19	8.2	8.1	8.1	8.3	8.2	8.2	8.2	8.0	8.1	7.2	7.2	7.2
20	8.2	8.1	8.2	8.2	8.1	8.2	8.0	7.9	8.0	7.8	7.2	7.5
21	8.2	8.1	8.1	8.2	8.1	8.2	8.0	7.8	7.9	7.9	7.8	7.8
22	8.2	8.1	8.2	8.3	8.2	8.2	7.9	7.3	7.7	7.9	7.7	7.8
23	9.0	8.2	8.3	8.3	8.2	8.2	7.3	7.3	7.3	7.7	7.6	7.6
24	8.2	8.1	8.2	8.2	8.1	8.2	7.5	7.3	7.4	7.6	7.6	7.6
25	8.3	8.2	8.2	8.2	8.1	8.2	7.5	7.5	7.5	7.7	7.6	7.7
26	8.3	8.2	8.2	8.3	8.1	8.2	7.6	7.5	7.6	7.7	7.6	7.7
27	8.2	8.1	8.1	8.3	8.1	8.2	7.6	7.6	7.6	7.8	7.6	7.7
28	8.3	8.0	8.1	8.2	8.0	8.1	7.7	7.6	7.6	7.8	7.7	7.7
29	8.2	8.1	8.2	8.1	8.1	8.1	7.7	7.6	7.7	7.8	7.7	7.8
30	8.2	8.0	8.1	8.2	8.1	8.1	7.7	7.6	7.7	7.8	7.8	7.8
31	---	---	---	---	---	---	7.7	7.7	7.7	7.9	7.8	7.8
MONTH	9.0	7.5	8.0	8.3	8.0	8.1	8.3	7.3	7.9	7.9	7.2	7.6
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7.9	7.9	7.9	8.1	8.1	8.1	8.3	8.2	8.2	8.3	8.2	8.2
2	7.9	7.9	7.9	8.2	8.1	8.1	8.3	8.1	8.2	8.3	8.2	8.2
3	7.9	7.9	7.9	8.2	8.1	8.2	8.2	8.1	8.2	8.3	8.1	8.2
4	7.9	7.9	7.9	8.1	7.7	7.9	8.2	8.0	8.1	8.6	8.1	8.4
5	7.9	7.9	7.9	7.8	7.7	7.7	8.2	8.0	8.1	8.6	8.3	8.5
6	7.9	7.9	7.9	7.8	7.7	7.8	8.2	7.9	8.0	8.6	8.3	8.4
7	7.9	7.8	7.9	7.7	7.6	7.7	8.3	7.9	8.1	8.5	8.1	8.3
8	7.8	7.7	7.7	7.7	7.7	7.7	8.4	8.0	8.2	8.3	8.0	8.2
9	7.8	7.7	7.8	7.8	7.7	7.7	8.3	7.9	8.1	8.4	7.9	8.1
10	7.8	7.8	7.8	7.8	7.7	7.7	8.2	7.7	8.0	8.4	8.0	8.2
11	7.9	7.8	7.9	7.7	7.7	7.7	7.8	7.5	7.6	8.2	7.9	8.0
12	7.9	7.9	7.9	7.7	7.7	7.7	8.0	7.7	7.8	8.1	7.8	8.0
13	7.9	7.9	7.9	7.7	7.7	7.7	8.0	7.9	8.0	8.1	7.8	7.9
14	7.9	7.9	7.9	7.7	7.7	7.7	8.0	7.9	7.9	8.1	7.9	8.0
15	7.9	7.9	7.9	7.8	7.7	7.7	8.2	7.9	8.0	8.0	7.8	7.9
16	8.0	7.9	7.9	7.8	7.7	7.8	8.2	7.9	8.0	8.1	7.9	8.0
17	8.0	8.0	8.0	7.8	7.7	7.8	7.9	7.9	7.9	8.1	7.9	8.0
18	8.1	8.0	8.0	7.8	7.7	7.7	7.9	7.9	7.9	8.2	8.0	8.1
19	8.1	8.0	8.1	8.1	7.8	7.9	7.9	7.8	7.9	8.2	8.0	8.1
20	8.1	8.1	8.1	8.1	8.1	8.1	7.9	7.8	7.8	8.2	7.8	8.0
21	8.1	8.1	8.1	8.1	8.1	8.1	7.9	7.8	7.8	8.2	7.7	7.9
22	8.1	8.1	8.1	8.1	8.1	8.1	7.9	7.7	7.8	8.4	7.9	8.1
23	8.1	8.1	8.1	8.1	8.1	8.1	7.8	7.7	7.8	8.3	7.7	7.9
24	8.1	8.1	8.1	8.1	8.1	8.1	7.9	7.7	7.8	8.3	7.6	7.9
25	8.2	8.1	8.1	8.1	8.1	8.1	7.9	7.8	7.9	8.0	7.7	7.8
26	8.2	8.2	8.2	8.1	8.1	8.1	7.9	7.9	7.9	8.1	7.9	8.0
27	8.2	8.2	8.2	8.1	8.1	8.1	8.0	7.9	7.9	8.1	7.8	7.9
28	8.2	8.1	8.2	8.1	8.1	8.1	8.2	8.0	8.1	8.0	7.7	7.8
29	---	---	---	8.2	8.1	8.1	8.2	8.1	8.2	8.0	7.4	7.7
30	---	---	---	8.3	8.1	8.2	8.2	8.2	8.2	8.2	7.6	7.9
31	---	---	---	8.3	8.2	8.2	---	---	---	8.5	7.8	8.1
MONTH	8.2	7.7	8.0	8.3	7.6	7.9	8.4	7.5	8.0	8.6	7.4	8.1

SURFACE-WATER RECORDS
Scioto River Basin

03231500 SCIOTO RIVER AT CHILLICOTHE, OHIO—Continued

WATER-QUALITY RECORDS—CONTINUED

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999—Continued

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	8.4	7.7	8.0	8.6	7.9	8.4	8.6	8.0	8.4	8.7	8.4	8.5
2	7.9	7.6	7.7	8.4	8.2	8.3	8.9	8.3	8.6	8.6	8.3	8.4
3	7.7	7.5	7.6	8.3	7.9	8.2	9.1	8.5	8.8	8.7	8.3	8.5
4	7.8	7.5	7.6	8.4	7.9	8.0	9.0	8.7	8.9	8.7	8.4	8.5
5	7.9	7.7	7.8	8.5	8.0	8.2	9.0	8.7	8.8	8.6	8.3	8.5
6	8.1	7.8	7.9	8.6	8.1	8.3	9.0	8.6	8.8	8.6	8.2	8.4
7	8.1	7.9	8.0	8.9	8.3	8.6	8.8	8.5	8.7	8.5	8.1	8.3
8	8.2	7.9	8.0	9.0	8.6	8.8	8.6	8.2	8.4	8.4	8.2	8.3
9	8.1	8.0	8.0	8.9	8.6	8.8	8.7	8.1	8.4	8.3	8.1	8.2
10	8.1	8.0	8.1	9.0	8.7	8.8	8.6	8.3	8.4	8.2	8.0	8.1
11	8.1	7.9	8.0	8.9	8.6	8.7	8.7	8.3	8.5	8.1	7.9	8.0
12	8.0	7.9	8.0	8.6	8.2	8.3	8.8	8.4	8.5	8.0	7.9	7.9
13	7.9	7.8	7.9	8.2	8.1	8.2	8.8	8.4	8.6	8.7	7.9	8.3
14	7.9	7.8	7.8	8.3	8.2	8.2	8.6	8.2	8.4	8.6	7.9	8.2
15	8.1	7.7	7.9	8.2	8.1	8.2	8.3	8.0	8.1	8.7	8.0	8.3
16	8.6	8.1	8.2	8.8	8.1	8.4	8.4	8.0	8.1	8.6	8.3	8.5
17	8.5	8.0	8.2	8.9	8.5	8.7	8.4	8.0	8.2	8.7	8.3	8.5
18	8.6	8.1	8.4	9.0	8.6	8.8	8.5	8.0	8.3	8.6	8.4	8.5
19	8.7	8.3	8.5	9.0	8.6	8.8	8.6	8.2	8.4	8.5	8.3	8.4
20	8.7	8.4	8.5	9.0	8.4	8.7	8.5	8.2	8.4	8.5	8.2	8.3
21	---	---	---	8.8	8.4	8.6	8.6	8.2	8.4	8.5	8.2	8.3
22	8.8	8.4	8.6	8.9	8.4	8.6	8.6	8.3	8.4	8.5	8.2	8.3
23	8.9	8.3	8.6	8.6	8.2	8.4	8.6	8.2	8.4	8.3	8.2	8.3
24	8.8	8.6	8.7	8.5	8.1	8.3	8.4	8.1	8.2	8.3	8.2	8.2
25	8.6	8.4	8.6	8.6	8.0	8.3	8.1	7.9	8.0	8.3	8.2	8.3
26	8.5	8.3	8.4	8.4	7.9	8.1	8.0	7.8	7.9	8.3	8.1	8.2
27	8.5	8.3	8.3	8.8	7.9	8.3	7.8	7.7	7.8	8.5	8.1	8.3
28	8.3	8.1	8.2	8.6	8.2	8.4	8.0	7.8	7.8	8.6	8.2	8.3
29	8.4	8.1	8.2	8.6	8.1	8.3	8.3	7.8	8.0	8.5	8.2	8.4
30	8.4	8.1	8.2	8.5	8.1	8.3	8.6	8.0	8.2	8.4	8.2	8.3
31	---	---	---	8.6	8.0	8.3	8.7	8.3	8.5	---	---	---
MONTH	8.9	7.5	8.1	9.0	7.9	8.4	9.1	7.7	8.4	8.7	7.9	8.3
YEAR	9.1	7.2	8.1									

TEMPERATURE, WATER, DEGREES CELSIUS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	24.0	21.0	22.5	---	---	---	11.5	10.5	11.0	2.0	1.0	1.5
2	21.0	19.0	19.5	---	---	---	10.5	9.5	10.0	1.5	.5	1.0
3	19.0	17.0	18.0	---	---	---	11.5	10.0	10.5	1.5	1.0	1.5
4	17.5	16.5	17.0	---	---	---	13.0	11.5	12.5	1.0	.0	.5
5	19.0	17.0	17.5	10.5	10.0	10.0	13.5	12.5	13.0	.5	.0	.5
6	21.0	18.5	19.5	10.0	9.5	9.5	15.0	13.5	14.0	.5	.0	.5
7	21.0	20.0	20.5	10.0	9.0	9.5	15.0	14.0	14.5	.5	.5	.5
8	20.0	18.5	19.0	9.5	9.0	9.5	14.0	12.5	13.5	.5	.5	.5
9	19.5	17.5	18.5	10.0	9.0	9.5	12.5	10.5	11.5	.5	.5	.5
10	18.0	16.5	17.5	12.0	10.0	11.0	10.5	9.5	10.0	.5	.5	.5
11	18.0	16.5	17.0	11.5	10.5	11.0	9.5	8.5	9.0	.5	.5	.5
12	18.0	16.5	17.0	11.0	10.0	10.5	8.5	8.0	8.0	2.0	.5	1.0
13	17.5	16.5	17.0	11.0	10.0	10.5	8.0	7.0	7.5	2.5	2.0	2.5
14	17.0	15.5	16.0	10.5	9.5	10.0	7.5	6.5	7.0	2.5	1.0	2.0
15	16.0	14.5	15.5	10.5	10.0	10.0	6.5	5.5	6.0	1.0	.5	1.0
16	16.5	14.5	15.5	10.0	9.0	9.5	---	---	---	2.0	1.0	1.5
17	17.5	15.5	16.5	10.0	9.5	10.0	---	---	---	4.0	2.0	3.0
18	18.0	16.5	17.0	10.0	9.0	9.5	6.0	5.0	5.5	4.5	3.5	4.0
19	17.5	16.5	17.0	10.0	9.0	9.5	6.5	5.5	6.0	3.5	2.0	2.5
20	17.0	15.5	16.5	10.0	9.5	10.0	7.0	6.5	7.0	3.0	2.0	2.5
21	16.5	14.5	15.5	9.5	8.5	8.5	8.5	7.0	8.0	4.0	3.0	3.5
22	14.5	13.5	14.0	8.5	7.0	8.0	8.5	7.0	7.5	5.5	4.0	5.0
23	13.5	12.0	13.0	9.0	7.5	8.0	7.5	4.0	5.5	6.0	5.5	6.0
24	13.5	12.0	12.5	9.5	8.5	9.0	4.0	3.5	3.5	6.0	5.0	5.5
25	13.5	12.0	13.0	9.0	8.0	8.5	3.5	2.5	3.0	5.0	4.5	5.0
26	14.0	12.0	13.0	9.0	8.0	9.0	2.5	1.5	2.0	4.5	4.5	4.5
27	14.5	13.0	13.5	9.5	8.5	9.0	3.0	2.0	2.5	5.5	4.5	5.0
28	14.5	13.5	14.0	10.0	9.0	9.5	3.5	3.0	3.0	6.0	5.5	6.0
29	15.5	14.5	15.0	10.0	9.0	9.5	4.5	3.5	4.0	6.0	6.0	6.0
30	---	---	---	11.0	9.5	10.0	4.0	2.5	3.0	6.0	5.0	5.5
31	---	---	---	---	---	---	3.0	2.0	2.5	5.5	5.0	5.5
MONTH	24.0	12.0	16.5	12.0	7.0	9.5	15.0	1.5	7.5	6.0	.0	3.0

SURFACE-WATER RECORDS
Scioto River Basin

03231500 SCIOTO RIVER AT CHILLICOTHE, OHIO—Continued

WATER-QUALITY RECORDS—CONTINUED

OXYGEN, DISSOLVED, MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999												
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	8.5	6.6	7.4	---	---	---	11.2	10.0	10.7	11.2	10.5	10.8
2	10.1	7.2	8.3	---	---	---	11.2	10.1	10.7	11.2	10.6	10.9
3	9.6	8.0	8.7	---	---	---	11.1	10.0	10.5	11.1	10.7	10.9
4	8.9	7.5	8.0	---	---	---	10.8	9.4	10.1	11.2	10.7	10.9
5	8.3	7.8	8.0	10.3	9.5	9.9	9.9	8.8	9.4	11.3	10.9	11.2
6	8.3	7.3	7.7	10.9	10.0	10.4	9.6	8.3	8.8	11.5	11.0	11.2
7	7.8	6.7	7.1	11.4	10.1	10.8	8.6	6.9	8.0	11.3	11.0	11.1
8	7.1	6.8	6.9	11.8	10.7	11.1	7.7	6.6	7.2	11.3	10.9	11.1
9	7.3	6.1	6.5	12.2	10.8	11.4	9.1	7.3	8.1	11.4	10.8	11.1
10	7.3	6.6	7.0	11.7	10.2	11.1	10.1	8.6	9.2	11.3	10.7	11.0
11	7.7	7.1	7.4	10.8	9.9	10.4	11.1	9.4	10.0	11.5	10.9	11.1
12	8.0	7.6	7.8	10.7	9.7	10.1	11.4	10.2	10.6	11.6	11.1	11.3
13	8.2	7.8	7.9	10.3	9.3	9.8	11.7	10.1	10.7	11.4	10.9	11.1
14	8.8	7.9	8.2	10.6	9.6	10.1	12.3	10.3	11.1	11.2	11.0	11.1
15	9.6	8.6	8.9	11.2	9.8	10.5	11.7	10.8	11.4	11.3	11.0	11.2
16	9.8	8.9	9.3	11.2	10.2	10.8	---	---	---	11.4	11.1	11.2
17	---	---	---	10.6	9.7	10.0	---	---	---	11.4	11.0	11.2
18	---	---	---	11.6	9.6	10.5	12.3	10.9	11.8	11.2	10.8	11.0
19	---	---	---	11.0	10.2	10.6	10.9	10.2	10.6	11.2	10.7	10.9
20	---	---	---	11.3	9.7	10.4	11.4	10.2	10.6	11.7	11.1	11.4
21	---	---	---	11.6	10.5	11.1	11.2	10.1	10.6	11.7	11.1	11.4
22	---	---	---	11.7	10.6	11.2	10.3	8.6	9.8	11.2	10.4	10.8
23	---	---	---	11.5	10.7	11.1	10.8	9.2	10.1	10.4	10.2	10.3
24	---	---	---	11.5	10.2	10.9	11.2	10.8	11.0	10.5	10.2	10.4
25	---	---	---	11.7	10.8	11.3	11.1	10.9	11.0	10.5	10.3	10.4
26	---	---	---	11.6	10.5	11.2	11.1	10.9	11.0	10.6	10.5	10.5
27	---	---	---	11.6	10.4	10.9	11.1	10.8	10.9	10.5	10.2	10.4
28	---	---	---	10.9	9.9	10.4	11.2	10.8	11.0	10.2	10.0	10.1
29	---	---	---	10.9	10.1	10.6	11.1	10.8	10.9	10.1	9.9	10.0
30	---	---	---	11.1	9.9	10.6	10.9	10.5	10.7	10.2	10.0	10.1
31	---	---	---	---	---	---	11.0	10.5	10.8	10.3	10.1	10.2
MONTH	10.1	6.1	7.8	12.2	9.3	10.7	12.3	6.6	10.3	11.7	9.9	10.8
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	10.3	10.2	10.2	---	---	---	11.3	10.1	10.6	10.5	9.5	9.9
2	10.3	10.2	10.2	---	---	---	11.1	9.1	9.7	10.8	9.3	9.9
3	10.4	10.1	10.2	---	---	---	10.7	6.4	7.6	12.2	9.4	10.6
4	10.4	10.3	10.3	11.7	11.5	11.6	---	---	---	12.8	9.6	11.0
5	10.6	10.3	10.5	12.1	11.7	11.9	11.5	9.6	10.1	12.6	9.2	10.7
6	10.7	10.6	10.6	11.9	11.7	11.8	11.3	8.4	9.9	13.6	8.2	10.5
7	10.7	10.5	10.6	12.3	11.7	11.8	12.7	8.8	10.7	15.5	7.8	11.3
8	10.7	10.4	10.5	12.9	12.3	12.7	14.0	9.1	11.4	13.2	9.3	11.3
9	11.1	10.5	10.8	13.0	12.9	12.9	12.5	9.1	10.9	15.9	8.7	11.7
10	11.2	11.1	11.1	13.0	12.9	12.9	11.8	6.9	8.3	15.8	9.4	12.3
11	11.1	10.8	11.0	12.9	12.6	12.7	---	---	---	14.5	8.0	11.1
12	10.8	10.5	10.6	12.6	12.3	12.4	9.8	8.9	9.5	14.3	7.2	10.5
13	10.9	10.5	10.7	12.3	12.2	12.3	9.6	8.9	9.2	11.9	7.0	9.2
14	11.2	10.9	11.1	12.2	12.1	12.1	10.0	9.2	9.5	10.0	7.0	8.5
15	11.2	11.1	11.2	12.3	12.1	12.2	9.2	6.6	7.7	9.8	6.3	8.1
16	11.1	10.5	10.9	12.3	12.0	12.2	8.9	8.6	8.8	8.6	6.2	7.5
17	10.6	10.1	10.3	12.1	11.8	12.0	9.4	8.8	9.1	7.4	5.2	6.3
18	10.1	9.9	10.0	11.8	11.4	11.5	9.7	9.2	9.4	6.5	4.5	5.4
19	10.1	10.0	10.0	13.1	11.6	12.4	10.0	9.7	9.8	---	---	---
20	10.0	9.9	9.9	13.4	13.0	13.2	9.8	9.6	9.7	15.1	7.1	9.4
21	9.9	9.8	9.8	13.0	12.4	12.7	9.6	9.4	9.5	15.2	9.6	12.2
22	9.8	9.7	9.8	12.5	12.1	12.3	9.4	8.6	8.9	14.2	10.1	11.5
23	9.7	9.4	9.6	12.4	12.1	12.2	8.7	8.6	8.6	14.1	8.1	10.8
24	9.4	8.8	9.1	12.3	12.0	12.2	8.7	8.1	8.4	12.8	7.3	9.1
25	8.8	8.2	8.5	12.1	11.7	11.9	9.2	8.4	8.9	12.5	7.6	9.5
26	8.2	7.3	7.8	12.1	11.6	11.8	9.1	8.9	9.0	14.4	10.3	12.1
27	7.3	6.1	6.6	12.0	11.6	11.8	9.0	8.6	8.9	12.7	9.9	11.0
28	---	---	---	11.8	11.4	11.6	9.6	8.5	9.1	---	---	---
29	---	---	---	12.0	11.0	11.4	9.9	9.3	9.6	---	---	---
30	---	---	---	12.3	10.9	11.5	10.2	9.5	9.8	---	---	---
31	---	---	---	12.2	10.6	11.5	---	---	---	---	---	---
MONTH	11.2	6.1	10.1	13.4	10.6	12.1	14.0	6.4	9.4	15.9	4.5	10.1

SURFACE-WATER RECORDS
Scioto River Basin

03232000 PAINT CREEK NEAR GREENFIELD, OHIO

LOCATION.--Latitude 39°22'45", longitude 83°22'32", Fayette County, Hydrologic Unit 05060003, on right bank at upstream side of bridge on State Highway 753, 0.6 mi upstream from Stone Run, 2 mi north of Greenfield, 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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	9.2	8.6	e29	221	870	113	144	33	3.5	1.6	1.2
2	1.8	4.8	7.5	e26	313	622	111	130	37	13	12	1.3
3	2.3	6.4	7.2	e22	325	725	106	123	39	14	4.3	1.5
4	6.6	5.9	8.0	e20	280	715	104	116	32	10	1.9	2.4
5	9.5	7.0	6.8	e18	222	479	103	112	29	6.9	1.1	2.3
6	4.0	5.6	6.7	e17	197	1050	97	109	27	4.0	.83	.95
7	7.0	4.7	7.5	e15	1040	1240	90	100	24	3.5	.49	1.0
8	35	4.9	8.2	e15	1690	735	85	93	34	3.3	.42	.92
9	16	4.8	9.8	e14	1130	493	100	87	22	2.3	.43	.95
10	6.1	5.8	6.9	e13	682	371	122	80	16	2.6	.47	.92
11	4.3	20	6.7	e13	474	279	150	75	13	17	.56	.92
12	3.5	18	6.0	e12	399	234	131	71	12	4.7	.45	.92
13	3.9	8.4	5.7	e250	382	211	111	76	12	2.5	.37	.88
14	2.3	5.5	7.3	e200	318	200	102	120	15	2.1	.38	.64
15	2.4	5.4	5.2	e150	287	191	104	94	28	1.6	.90	.51
16	2.7	5.7	5.6	e100	273	239	121	79	18	1.5	.71	.44
17	2.7	5.1	8.8	e200	274	725	120	71	17	1.3	.77	.44
18	2.5	4.8	7.5	e800	246	1050	158	65	13	1.1	.77	.44
19	4.0	4.4	7.6	1750	216	733	221	62	9.8	1.2	.52	.44
20	10	6.2	5.9	1250	187	461	226	60	8.0	2.0	1.2	.45
21	4.9	12	41	1240	163	354	321	51	7.4	1.6	2.1	.85
22	3.8	9.6	375	1560	144	279	753	51	8.3	1.7	2.3	.96
23	3.7	7.0	331	1790	133	227	590	68	7.5	2.1	1.3	1.5
24	2.7	5.9	201	1120	129	194	376	75	6.0	1.9	3.1	1.3
25	2.6	7.7	122	705	132	170	278	68	5.4	1.8	36	1.3
26	3.7	8.4	e90	496	126	150	232	54	4.2	1.3	30	1.1
27	5.0	18	e70	400	293	138	197	45	4.6	1.3	15	1.2
28	3.0	9.2	e52	336	883	129	346	39	4.4	1.3	5.4	1.4
29	3.6	7.8	e45	271	---	123	222	34	4.9	2.4	2.3	2.6
30	9.8	8.6	e40	220	---	113	167	32	4.6	2.1	2.0	8.2
31	34	---	e33	190	---	107	---	33	---	1.4	1.8	---
TOTAL	205.1	236.8	1543.5	13242	11159	13607	5957	2417	496.1	117.0	131.47	39.93
MEAN	6.62	7.89	49.8	427	399	439	199	78.0	16.5	3.77	4.24	1.33
MAX	35	20	375	1790	1690	1240	753	144	39	17	36	8.2
MIN	1.7	4.4	5.2	12	126	107	85	32	4.2	1.1	.37	.44
MED	3.8	6.3	8.0	200	277	279	126	75	13	2.1	1.2	.95
CFSM	.03	.03	.20	1.72	1.60	1.76	.80	.31	.07	.02	.02	.01
IN.	.03	.04	.23	1.98	1.67	2.03	.89	.36	.07	.02	.02	.01

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1927 - 1999, BY WATER YEAR (WY)

	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
MEAN	46.4	109	243	380	421	495	396	323	220	99.4	73.4	56.3																																																													
MAX	606	827	784	1510	1078	1712	1190	1731	791	519	633	830																																																													
(WY)	1927	1973	1951	1949	1951	1945	1940	1968	1981	1973	1980	1979																																																													
MIN	.59	1.11	2.08	2.97	8.06	28.9	57.3	20.6	2.48	.82	.47	.16																																																													
(WY)	1931	1954	1995	1995	1954	1931	1941	1941	1993	1930	1930	1953																																																													

SUMMARY STATISTICS

	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1927 - 1999	
ANNUAL TOTAL	97653.0		49151.90			
ANNUAL MEAN	268		135		240	
HIGHEST ANNUAL MEAN					442	
LOWEST ANNUAL MEAN					56.1	
HIGHEST DAILY MEAN	6310		1790		14400	
LOWEST DAILY MEAN	1.7		.37		.00	
ANNUAL SEVEN-DAY MINIMUM	2.3		.44		.04	
INSTANTANEOUS PEAK FLOW			2140		21700	
INSTANTANEOUS PEAK STAGE			6.47		14.28	
INSTANTANEOUS LOW FLOW			.31		.00	
ANNUAL RUNOFF (CFSM)	1.07		.54		.97	
ANNUAL RUNOFF (INCHES)	14.59		7.34		13.11	
10 PERCENT EXCEEDS	672		361		572	
50 PERCENT EXCEEDS	117		14		70	
90 PERCENT EXCEEDS	3.7		1.2		2.8	

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

SURFACE-WATER RECORDS
Scioto River Basin

03232500 ROCKY FORK NEAR BARRETT'S MILLS, OHIO

LOCATION.--Latitude 39°13'06", longitude 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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	15	42	e38	152	328	78	65	12	5.6	5.0	6.8
2	12	15	35	e35	257	291	80	53	17	5.5	4.1	6.7
3	12	17	33	e32	253	432	78	46	22	5.1	4.4	6.5
4	13	17	31	e29	221	458	81	44	18	4.9	4.7	6.2
5	12	16	30	e26	173	350	74	41	15	4.7	4.9	5.8
6	12	16	30	e24	165	509	84	42	14	4.7	4.7	6.2
7	84	17	35	e23	968	489	76	40	13	4.5	4.6	6.1
8	195	17	39	e21	1100	355	68	35	12	4.2	5.0	6.2
9	114	17	36	e20	440	319	84	29	11	4.6	4.9	6.3
10	78	34	30	e19	152	282	88	26	9.3	5.8	4.9	6.3
11	55	77	27	e18	154	221	172	23	8.1	5.6	4.9	6.1
12	41	51	25	e25	205	192	154	21	7.6	5.2	4.9	6.0
13	35	42	26	e1030	236	188	130	19	7.3	4.9	5.0	6.3
14	28	36	27	1010	203	192	112	17	8.3	4.8	4.9	6.4
15	21	32	25	344	181	192	102	15	9.0	4.9	4.9	6.0
16	19	28	24	304	165	247	118	16	7.5	5.0	4.9	5.3
17	17	26	25	373	166	515	100	18	6.7	5.0	4.8	5.9
18	17	23	23	715	157	540	91	21	6.6	5.0	4.9	5.5
19	19	22	21	594	145	387	87	21	6.8	5.1	5.4	5.1
20	15	30	21	512	150	285	79	17	6.7	5.9	5.2	5.3
21	14	34	52	514	115	223	147	15	6.9	5.7	5.4	5.4
22	15	30	595	787	102	178	207	17	6.6	5.6	5.5	5.2
23	15	28	411	643	92	149	178	26	6.5	5.4	5.9	4.8
24	65	26	283	559	91	135	173	37	6.3	5.6	15	4.4
25	9.7	26	192	241	96	119	111	27	6.2	5.2	23	4.5
26	8.8	76	147	24	90	106	96	20	6.0	4.8	7.5	4.3
27	9.5	72	118	46	302	96	89	16	6.0	4.9	6.3	4.4
28	12	61	96	66	1300	88	100	13	6.1	4.7	6.9	4.6
29	13	53	e64	75	---	80	92	11	6.2	4.6	7.0	5.3
30	17	49	e50	77	---	70	77	10	5.7	4.7	6.8	7.8
31	17	---	e42	74	---	66	---	9.9	---	4.7	6.8	---
TOTAL	1007.0	1003	2635	8298	7831	8082	3206	810.9	280.4	156.9	193.1	171.7
MEAN	32.5	33.4	85.0	268	280	261	107	26.2	9.35	5.06	6.23	5.72
MAX	195	77	595	1030	1300	540	207	65	22	5.9	23	7.8
MIN	8.8	15	21	18	90	66	68	9.9	5.7	4.2	4.1	4.3

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 1999, BY WATER YEAR (WY)

	54.1	101	167	187	245	296	261	208	109	75.7	56.6	59.4
MEAN	54.1	101	167	187	245	296	261	208	109	75.7	56.6	59.4
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	26.2	6.22	3.69	4.95	1.88
(WY)	1965	1964	1954	1977	1954	1983	1971	1999	1988	1964	1986	1964

SUMMARY STATISTICS FOR 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1952 - 1999

ANNUAL TOTAL		55633.9		33675.0								
ANNUAL MEAN		152		92.3						151		
HIGHEST ANNUAL MEAN										259		1979
LOWEST ANNUAL MEAN										56.5		1953
HIGHEST DAILY MEAN				2070	Jan 8	1300	Feb 28	9520	Mar 10	1964		
LOWEST DAILY MEAN		8.8	Oct 26			4.1	Aug 2		.50	Oct 6	1964	
ANNUAL SEVEN-DAY MINIMUM		10	Sep 13			4.6	Jul 28		.69	Oct 6	1964	
INSTANTANEOUS PEAK FLOW						1760	Jan 13	13400		Mar 10	1964	
INSTANTANEOUS PEAK STAGE						6.27	Jan 13		15.56	Mar 6	1945	
INSTANTANEOUS LOW FLOW						3.4	Aug 2		.40	Oct 6	1964	
10 PERCENT EXCEEDS		332				249			348			
50 PERCENT EXCEEDS		64				24			60			
90 PERCENT EXCEEDS		14				5.0			8.5			

e Estimated.

SURFACE-WATER RECORDS
Scioto River Basin

03234300 PAINT CREEK AT CHILLICOTHE, OHIO

LOCATION.--Latitude 39°19'13", longitude 82°58'42", Ross County, Hydrologic Unit 05060003, on left bank at downstream side of bridge on State Highway 772, 4.3 mi downstream from North Fork Paint Creek and 3.8 mi upstream from mouth.
DRAINAGE AREA.--1,136 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1985 to current year.
REVISED RECORDS.--WDR-OH-88-1: 1986(M), 1987(M).
GAGE.--Water-stage recorder. Elevation of gage is 600 ft above sea level (from topographic map).
REMARKS.--Records fair except for periods of estimated record, which are poor. Flow regulated by Paint Creek Lake, 35 mi upstream, capacity 145,000 acre-ft, and Rocky Fork Lake 41 mi upstream, capacity 34,100 acre-ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	310	306	e180	1140	4690	740	1180	326	84	66	63
2	34	294	235	e230	1860	4080	641	1090	327	83	82	64
3	40	290	180	476	2160	3730	581	1020	327	79	66	64
4	41	286	172	826	2010	4590	575	825	323	78	43	65
5	37	281	159	1390	1590	3490	559	839	306	75	33	63
6	36	277	125	1550	1310	4140	539	776	293	72	55	67
7	72	273	115	1570	4510	4140	563	803	285	67	67	78
8	968	270	119	1530	6070	4210	524	713	248	65	73	67
9	460	274	115	2350	5220	3400	520	640	196	62	79	65
10	295	290	144	1330	5100	2860	546	618	173	66	71	60
11	224	337	196	1210	4620	2030	1030	593	156	65	54	58
12	179	399	198	1470	2280	1630	985	573	146	62	57	59
13	147	372	199	5020	2140	1460	737	566	136	62	59	58
14	122	355	197	6090	1880	1430	643	566	136	62	58	58
15	106	342	153	4020	1780	1410	593	548	136	61	56	59
16	91	333	97	2360	1690	1750	603	528	119	59	54	58
17	83	324	89	2300	1420	3580	586	522	112	60	53	57
18	74	310	85	5740	1550	4810	564	510	104	58	52	58
19	72	303	86	5850	1390	4340	577	507	97	57	54	58
20	538	322	85	5670	1250	3000	578	488	96	60	55	58
21	386	337	94	6060	e900	2610	991	435	92	76	51	59
22	252	683	2500	7780	e800	1890	2090	386	88	71	48	58
23	245	678	3880	6590	e760	1450	1920	413	84	102	46	58
24	242	401	3060	5660	e740	1370	1760	468	84	73	94	58
25	733	388	1260	4230	e800	1210	1650	465	86	61	262	58
26	787	456	e800	2320	944	1140	1580	406	86	56	195	58
27	315	513	e580	1910	1570	1000	1550	372	86	59	124	60
28	286	404	e400	1780	5280	955	2310	341	91	57	92	64
29	281	342	e320	1480	---	944	2290	328	90	55	84	73
30	295	324	e250	1320	---	909	1460	314	86	52	72	80
31	319	---	e210	1250	---	791	---	308	---	51	65	---
TOTAL	7795	10768	16409	91542	62764	79039	30285	18141	4915	2050	2320	1863
MEAN	251	359	529	2953	2242	2550	1010	585	164	66.1	74.8	62.1
MAX	968	683	3880	7780	6070	4810	2310	1180	327	102	262	80
MIN	34	270	85	180	740	791	520	308	84	51	33	57

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 1999, BY WATER YEAR (WY)

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
MEAN	339	744	1305	1846	2228	2433	2153	2238	1381	617	339	138		
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	66.1	61.5	62.1		
(WY)	1988	1988	1988	1988	1987	1987	1986	1988	1988	1999	1986	1999		

SUMMARY STATISTICS FOR 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1986 - 1999

ANNUAL TOTAL	586620	327891		
ANNUAL MEAN	1607	898		
HIGHEST ANNUAL MEAN			1309	
LOWEST ANNUAL MEAN			2178	1996
HIGHEST DAILY MEAN	10800	7780	483	1988
LOWEST DAILY MEAN	34	33	25300	May 29 1990
ANNUAL SEVEN-DAY MINIMUM	38	42	33	Aug 5 1999
INSTANTANEOUS PEAK FLOW		8780	38	Sep 30 1998
INSTANTANEOUS PEAK STAGE		14.18	30100	May 29 1990
INSTANTANEOUS LOW FLOW		33	24.67	May 29 1990
10 PERCENT EXCEEDS	4320	2350	33	Aug 5 1999
50 PERCENT EXCEEDS	968	320	3750	
90 PERCENT EXCEEDS	84	58	550	
			72	

e Estimated.

SURFACE-WATER RECORDS
Scioto River Basin

03234300 PAINT CREEK AT CHILLICOTHE, OHIO—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years October 1985 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1985 to current year.

pH: October 1985 to current year.

WATER TEMPERATURES: October 1985 to current year.

DISSOLVED OXYGEN: October 1985 to current year.

INSTRUMENTATION.--Water-quality monitor since Oct. 1985. Electronic data logger. Set for 1-hour intervals.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 980 microsiemens Dec. 9, 11, 1989; minimum, 110 microsiemens Oct. 17, 1989.

pH: Maximum, 9.0 units May 24, 1986; minimum, 7.1 units July 26, 1992.

WATER TEMPERATURES: Maximum, 34.0°C July 30, 1999; minimum 0.0°C on many days during winters.

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

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 689 microsiemens Jan. 8; minimum, 259 microsiemens Feb. 7.

pH: Maximum, 8.7 units Sept. 23, Nov. 30, Dec. 1, and 2; minimum 7.7 units Dec. 22, Jan. 26, Sept. 29, and 30.

WATER TEMPERATURE: Maximum, 28.5°C July 22, Aug. 7, and 8; minimum, 1.0°C Jan. 1.

DISSOLVED OXYGEN: Maximum, 16.1 mg/L Sept. 10; minimum, 4.1 mg/L May 31, July 14, and Sept. 20.

SPECIFIC CONDUCTANCE, MICROSIEMENS/CM AT 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	521	511	517	492	475	482	489	476	483	548	528	540
2	515	508	511	493	482	488	485	473	481	587	523	541
3	514	491	505	485	478	482	512	459	494	588	497	516
4	524	502	512	482	469	476	469	439	452	546	506	520
5	535	521	528	478	470	475	484	428	460	572	546	563
6	539	533	536	479	473	476	458	428	441	564	528	547
7	540	414	507	478	468	474	520	442	494	632	524	540
8	497	343	396	474	464	470	542	520	533	689	538	573
9	406	369	392	477	464	470	545	540	543	612	388	501
10	433	406	417	477	448	468	545	537	543	417	392	399
11	443	433	437	471	461	467	537	512	527	491	417	461
12	451	441	446	462	452	458	512	496	504	521	491	505
13	453	447	449	465	457	461	501	488	495	508	317	387
14	469	445	457	469	464	467	514	501	510	448	336	414
15	478	464	470	474	463	469	521	513	517	430	405	412
16	490	472	481	469	462	466	530	521	526	457	421	441
17	499	486	492	472	464	468	546	522	532	463	433	450
18	502	492	497	471	466	469	553	544	548	441	340	380
19	513	493	502	472	466	469	560	551	556	403	365	394
20	517	418	484	472	457	466	563	557	560	392	378	384
21	444	418	434	466	461	464	570	535	559	384	349	369
22	456	444	450	462	432	440	577	327	423	359	341	347
23	462	453	458	479	433	446	473	335	439	384	344	366
24	465	457	462	468	449	458	475	377	419	395	384	389
25	463	425	434	461	436	456	411	392	403	405	385	391
26	436	419	427	475	446	460	440	411	420	435	405	422
27	466	436	448	475	464	467	446	437	440	464	435	450
28	476	460	469	467	461	465	445	441	443	489	464	474
29	479	471	476	480	464	469	490	444	467	496	489	494
30	480	463	473	487	474	480	520	490	509	515	495	506
31	478	471	475	---	---	---	539	520	529	523	515	520
MONTH	540	343	469	493	432	468	577	327	492	689	317	458

SURFACE-WATER RECORDS
Scioto River Basin

03234300 PAINT CREEK AT CHILLICOTHE, OHIO—Continued

WATER-QUALITY RECORDS—CONTINUED

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

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

SURFACE-WATER RECORDS
Scioto River Basin

03234300 PAINT CREEK AT CHILLICOTHE, OHIO—Continued

WATER-QUALITY RECORDS—CONTINUED

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999—Continued

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

TEMPERATURE, WATER, DEGREES CELSIUS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	25.0	18.5	21.5	14.5	13.5	14.0	11.5	10.5	11.0	1.5	.0	.5
2	20.5	15.5	18.0	14.0	12.5	13.0	10.5	8.5	9.5	.5	.0	.5
3	17.0	15.5	16.0	12.5	10.5	11.5	11.0	9.0	9.5	.5	.0	.5
4	16.5	15.5	16.0	10.5	9.5	10.0	13.0	11.0	12.0	.0	.0	.0
5	20.0	16.0	17.5	9.5	9.0	9.0	13.5	12.0	13.0	.0	.0	.0
6	23.0	18.0	20.0	9.0	8.0	8.5	15.5	13.5	14.5	.0	.0	.0
7	21.0	19.0	20.0	9.5	8.0	8.5	15.5	13.5	15.0	.0	.0	.0
8	19.0	17.5	18.0	9.0	8.0	8.5	13.5	11.5	12.5	.0	.0	.0
9	17.5	16.0	17.0	10.0	8.5	9.5	11.5	9.0	10.0	.0	.0	.0
10	17.5	14.5	16.0	12.5	10.0	11.0	9.0	7.0	7.5	.0	.0	.0
11	17.0	14.5	16.0	12.0	10.0	11.0	7.5	6.0	7.0	.0	.0	.0
12	17.5	14.5	16.0	10.5	8.0	9.5	6.5	5.5	6.0	.0	.0	.0
13	17.5	15.5	16.5	10.0	8.5	9.5	7.0	6.5	6.5	2.0	.0	.5
14	16.0	13.5	15.0	10.0	8.0	9.5	6.5	5.0	6.0	2.0	1.0	1.5
15	15.5	12.5	14.0	11.0	9.0	10.0	6.0	4.0	5.0	1.0	.0	.5
16	17.0	12.5	14.5	9.5	8.0	9.0	6.5	3.5	4.5	2.0	.5	1.0
17	17.0	13.5	15.0	9.5	8.5	9.0	5.5	4.0	4.5	3.0	1.5	2.0
18	17.0	15.0	16.0	9.0	7.0	8.5	7.0	3.5	4.5	4.0	3.0	3.5
19	19.5	14.5	16.5	9.5	7.5	8.5	5.0	4.5	5.0	3.5	2.0	2.5
20	16.0	13.5	14.5	10.0	8.5	9.5	6.5	5.0	5.5	4.0	2.5	3.0
21	14.5	13.5	14.0	8.5	7.0	8.0	8.5	6.5	7.5	4.0	3.0	3.5
22	13.5	11.5	12.5	8.0	6.5	7.0	8.5	5.0	7.0	6.5	4.0	5.0
23	12.5	10.0	11.5	9.0	6.5	8.0	5.0	4.0	4.5	7.5	6.5	7.0
24	12.5	10.0	11.5	9.5	8.0	8.5	4.5	4.0	4.5	7.5	7.0	7.5
25	13.5	11.0	12.5	8.5	7.0	8.0	4.0	1.5	2.5	7.0	6.5	7.0
26	14.5	12.5	13.5	9.5	8.0	8.5	2.0	1.0	1.5	6.5	5.5	6.5
27	14.5	12.5	13.5	9.5	8.0	8.5	2.5	1.5	2.0	8.0	5.5	6.5
28	14.5	13.0	14.0	9.5	7.5	8.0	4.0	2.5	3.0	8.5	7.5	8.0
29	15.5	13.5	14.5	10.0	7.5	9.0	5.0	3.5	4.0	7.5	6.0	6.5
30	14.5	13.5	14.0	11.5	9.0	10.0	5.0	2.5	3.0	6.0	4.5	5.5
31	15.5	14.0	14.5	---	---	---	2.5	1.0	1.5	5.5	4.5	5.0
MONTH	25.0	10.0	15.5	14.5	6.5	9.5	15.5	1.0	7.0	8.5	.0	2.5

SURFACE-WATER RECORDS
Scioto River Basin

03234300 PAINT CREEK AT CHILLICOTHE, OHIO—Continued

WATER-QUALITY RECORDS—CONTINUED

OXYGEN, DISSOLVED, MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7.5	6.7	7.1	11.6	10.3	10.8	---	---	---	12.2	11.8	12.0
2	8.7	6.8	7.6	10.6	10.0	10.2	---	---	---	12.2	11.9	12.1
3	7.8	7.5	7.6	10.0	9.6	9.7	13.8	10.4	11.4	11.9	11.8	11.8
4	8.2	7.6	7.8	10.1	9.4	9.8	13.7	9.4	11.2	12.0	11.9	12.0
5	9.7	8.0	8.5	10.0	9.5	9.7	12.3	9.0	10.5	12.1	12.0	12.0
6	10.0	8.0	8.8	10.4	9.3	9.8	11.3	8.7	9.8	12.0	11.8	11.9
7	8.9	7.9	8.2	11.9	10.0	10.7	10.6	8.6	9.1	11.8	11.7	11.8
8	7.9	7.4	7.7	10.5	9.9	10.2	9.6	8.6	9.0	11.8	11.7	11.7
9	8.8	7.2	7.9	11.6	9.9	10.7	11.7	9.4	10.2	11.7	11.5	11.6
10	9.7	7.8	8.5	12.3	10.8	11.3	12.4	10.8	11.4	11.6	11.4	11.5
11	10.2	8.1	8.8	11.1	9.7	10.3	12.7	11.2	11.8	11.5	11.4	11.5
12	10.9	8.5	9.4	11.0	9.1	9.9	12.4	11.4	11.9	11.4	11.1	11.3
13	10.7	9.2	9.8	11.1	9.8	10.2	12.3	11.2	11.7	11.1	10.8	10.9
14	11.9	9.2	10.5	11.1	9.3	10.1	12.8	11.4	11.9	11.4	10.8	11.3
15	12.8	10.5	11.3	12.1	9.9	10.7	13.0	11.8	12.3	11.4	11.3	11.3
16	13.6	10.7	11.8	10.9	9.5	10.1	13.5	12.1	12.6	11.3	11.0	11.1
17	13.1	10.7	11.7	10.2	9.4	10.0	13.3	11.8	12.4	11.0	10.8	10.9
18	12.3	11.0	11.7	11.2	8.9	9.8	13.3	11.9	12.5	10.8	10.5	10.6
19	12.7	10.8	11.6	11.4	9.5	10.5	12.5	11.9	12.1	11.0	10.7	10.9
20	12.1	10.4	11.1	10.7	8.8	9.5	12.5	11.5	11.9	12.0	9.5	11.1
21	10.9	10.2	10.6	---	---	---	11.9	10.9	11.4	11.5	11.2	11.4
22	11.3	9.9	10.5	---	---	---	11.1	10.1	10.7	11.2	10.9	11.1
23	12.2	9.8	10.7	---	---	---	11.9	11.0	11.6	10.9	10.8	10.9
24	12.4	9.9	10.9	---	---	---	11.9	11.7	11.8	10.9	10.8	10.9
25	11.8	10.1	10.8	---	---	---	12.1	11.8	12.0	10.9	10.9	10.9
26	12.9	10.2	11.2	---	---	---	12.1	11.9	12.0	10.9	10.8	10.9
27	12.0	10.4	11.1	---	---	---	12.0	11.8	11.9	10.9	10.6	10.8
28	12.0	10.6	11.2	---	---	---	11.8	11.4	11.6	10.7	10.5	10.6
29	13.0	10.9	11.6	---	---	---	11.4	11.0	11.2	11.0	10.7	10.9
30	11.5	10.7	11.0	---	---	---	11.8	10.9	11.3	11.3	11.0	11.1
31	12.3	10.8	11.3	---	---	---	12.0	11.7	11.8	11.2	11.1	11.1
MONTH	13.6	6.7	9.9	12.3	8.8	10.2	13.8	8.6	11.4	12.2	9.5	11.3

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	11.1	11.0	11.0	10.1	9.6	9.8	8.3	6.9	7.5	12.3	10.2	11.0
2	11.0	10.6	10.8	9.9	9.6	9.8	8.3	6.6	7.2	12.6	9.7	11.0
3	10.7	10.5	10.6	9.9	8.9	9.5	7.3	5.8	6.5	12.1	9.3	10.6
4	10.6	10.5	10.5	9.2	8.8	9.0	6.7	5.2	5.9	12.5	8.7	10.4
5	10.8	10.5	10.6	9.3	8.9	9.1	11.5	4.7	7.8	11.4	8.5	9.8
6	10.7	10.5	10.6	9.3	8.5	9.0	11.0	8.3	9.5	11.1	8.0	9.3
7	10.5	9.9	10.3	8.5	8.1	8.3	11.2	8.0	9.5	10.8	7.5	8.9
8	10.3	10.0	10.2	8.4	8.1	8.2	10.8	8.1	9.4	10.2	7.8	9.0
9	10.3	8.1	9.7	8.2	7.5	7.8	9.9	7.5	8.7	11.3	8.1	9.5
10	---	---	---	7.6	7.3	7.5	10.7	8.0	9.1	11.4	7.9	9.6
11	---	---	---	7.5	7.2	7.3	9.6	8.4	8.7	10.9	7.9	9.3
12	---	---	---	7.7	7.3	7.5	9.7	8.4	8.9	10.4	7.5	8.9
13	---	---	---	7.9	7.6	7.7	11.3	9.6	10.3	9.6	7.4	8.5
14	---	---	---	8.1	7.8	7.9	11.5	9.4	10.3	10.4	8.0	9.1
15	---	---	---	9.0	8.1	8.5	11.1	8.9	9.8	10.8	8.4	9.5
16	---	---	---	10.2	9.0	9.6	12.0	9.5	10.6	10.8	8.3	9.4
17	13.1	12.7	12.9	12.5	10.2	11.2	13.0	10.6	11.6	10.5	8.0	9.0
18	13.6	13.1	13.4	12.4	11.8	12.0	12.6	10.5	11.5	9.9	7.4	8.5
19	13.6	13.1	13.4	12.5	12.0	12.4	11.8	9.6	10.5	10.8	7.8	9.1
20	13.3	13.0	13.1	12.2	11.6	12.0	11.1	8.4	9.5	11.1	8.3	9.5
21	13.0	12.6	12.9	11.8	11.4	11.6	8.9	7.5	8.0	11.2	8.2	9.5
22	13.2	12.5	12.9	12.0	11.4	11.7	7.9	7.2	7.5	9.4	7.5	8.4
23	12.9	12.5	12.8	12.3	11.6	11.9	8.1	7.3	7.6	10.5	7.7	8.8
24	12.6	12.1	12.4	11.9	11.1	11.7	8.4	7.3	7.7	10.1	7.0	8.5
25	12.1	11.8	12.0	11.4	10.7	11.0	8.0	6.8	7.3	11.1	8.5	9.7
26	14.7	11.7	13.0	11.2	10.4	10.8	7.8	6.6	7.1	11.2	8.7	9.8
27	13.2	11.0	12.1	10.8	10.0	10.4	7.5	6.7	7.0	10.9	8.5	9.6
28	11.0	9.9	10.3	10.4	9.6	9.9	10.8	6.6	8.2	10.5	7.9	9.1
29	---	---	---	9.8	8.9	9.3	10.8	10.0	10.4	10.4	7.0	8.6
30	---	---	---	9.3	8.4	8.8	12.1	10.1	10.8	9.8	5.7	7.7
31	---	---	---	8.7	7.8	8.2	---	---	---	7.7	4.1	5.9
MONTH	14.7	8.1	11.7	12.5	7.2	9.7	13.0	4.7	8.8	12.6	4.1	9.2

SURFACE-WATER RECORDS
Scioto River Basin

03234500 SCIOTO RIVER AT HIGBY, OHIO

LOCATION.--Latitude 39°12'44", longitude 82°51'50", in sec. 6, T.7 N., R.20 W., Ross County, Hydrologic Unit 05060002, on left bank at 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 for periods of estimated record, 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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	864	1440	1210	1370	4400	12300	2440	3270	1270	1040	957	694
2	779	1210	1150	1250	5330	15900	2370	2860	1290	879	819	672
3	761	1150	1070	1320	6100	15000	2250	2470	1210	1780	744	660
4	773	1180	1050	1430	5510	18100	2060	2330	1230	1890	758	648
5	1140	1210	1030	1440	4700	16200	2050	2260	1150	1460	717	633
6	1040	1140	1030	1400	4210	14200	2020	2200	1140	1210	691	624
7	929	1090	1030	1460	7670	18700	1990	2250	1150	1080	706	705
8	2100	1080	1030	1450	16300	18700	1880	2220	1110	1030	700	768
9	3940	1060	1020	2650	17900	14600	1850	2030	1100	918	703	937
10	1900	1070	1020	2560	16800	12900	3410	1940	1050	869	700	729
11	1320	1220	1020	2200	12600	8870	6000	1890	999	1200	742	658
12	1120	2060	1020	2300	8280	6820	7210	1820	943	1080	684	628
13	1040	1650	1020	6660	7320	5690	5830	1700	905	862	699	608
14	975	1370	920	11500	6510	5350	4400	1550	876	810	684	597
15	936	1300	859	8250	5780	5040	3330	1590	840	786	729	600
16	929	1450	822	5110	5270	5450	2810	1600	1200	768	800	587
17	892	1560	822	5280	4780	8360	2890	1490	1620	742	735	573
18	876	1360	834	12700	4790	11200	4250	1450	e1550	716	695	582
19	878	1200	910	20100	4500	12600	8090	1460	e1250	711	668	569
20	1220	1210	874	19900	4110	10300	9310	1550	e950	719	680	578
21	1280	1250	868	18100	3830	7840	10100	1450	e800	769	686	578
22	1070	1530	5330	23400	3490	6240	13800	1450	e700	787	670	587
23	1130	1480	13700	25600	3290	4970	12700	1520	e600	910	638	581
24	1100	1290	7000	26000	2950	4310	10900	2340	e550	958	675	578
25	1320	1280	3650	23600	2800	3820	10200	1810	e580	1080	954	567
26	1390	1380	2640	18700	3200	3500	7710	2070	e600	1230	1670	555
27	1120	1970	2260	17000	3900	3200	6120	2470	e650	976	1520	556
28	1090	1670	1950	14100	8420	2700	5440	2070	740	989	1090	557
29	1070	1400	1710	9200	---	2600	5300	1740	860	1150	874	597
30	1110	1300	1510	6180	---	2560	3820	1410	1390	1190	773	631
31	1230	---	1440	4900	---	2460	---	1280	---	1090	715	---
TOTAL	37322	40560	61799	297110	184740	280480	162530	59540	30303	31679	24876	18837
MEAN	1204	1352	1994	9584	6598	9048	5418	1921	1010	1022	802	628
MAX	3940	2060	13700	26000	17900	18700	13800	3270	1620	1890	1670	937
MIN	761	1060	822	1250	2800	2460	1850	1280	550	711	638	555

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1999, BY WATER YEAR (WY)

	1931	1935	1935	1931	1954	1941	1941	1941	1934	1944	1936	1953
MEAN	1195	2406	4306	6792	7785	9705	8354	5981	4229	2871	1976	1332
MAX	6524	15460	17190	39500	18620	28220	19600	25070	13580	11430	10070	13230
(WY)	1991	1973	1991	1937	1951	1963	1957	1996	1997	1992	1980	1979
MIN	263	304	349	433	518	1375	1485	809	718	518	457	301
(WY)	1931	1935	1935	1931	1954	1941	1941	1941	1934	1944	1936	1953

SUMMARY STATISTICS FOR 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1931 - 1999

ANNUAL TOTAL	1851498	1229776	
ANNUAL MEAN	5073	3369	
HIGHEST ANNUAL MEAN			4729
LOWEST ANNUAL MEAN			8178
HIGHEST DAILY MEAN	31900	Apr 17	26000
LOWEST DAILY MEAN	581	Sep 20	550
ANNUAL SEVEN-DAY MINIMUM	602	Sep 14	569
INSTANTANEOUS PEAK FLOW			26400
INSTANTANEOUS PEAK STAGE			14.11
INSTANTANEOUS LOW FLOW			550
10 PERCENT EXCEEDS	14600		9240
50 PERCENT EXCEEDS	2740		1360
90 PERCENT EXCEEDS	851		684

e Estimated.

SURFACE-WATER RECORDS Scioto River Basin

03234500 SCIOTO RIVER AT HIGBY, OHIO—Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: March 1967 to September 1993, 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, 35.0°C June 13, 1999; minimum, 0.0°C on many days during winter.

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

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 967 microsiemens Aug. 15; minimum, 332 microsiemens Feb. 2.

pH: Maximum, 8.9 units July 25; minimum 6.8 units Jan. 7, 11, and 12.

WATER TEMPERATURE: Maximum, 35.0°C June 13; minimum, 0.0°C Jan. 5, and 9-11.

DISSOLVED OXYGEN: Maximum, 18.3 mg/L July 25; minimum, 3.4 mg/L Aug. 23 and Sept. 7.

SPECIFIC CONDUCTANCE, MICROSIEMENS/CM AT 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	804	789	800	761	737	746	671	654	662	803	779	793
2	833	797	809	800	754	786	694	671	681	814	803	807
3	797	760	777	799	762	789	720	694	712	814	798	804
4	---	---	---	762	713	733	747	720	735	808	799	802
5	---	---	---	713	700	705	768	747	758	853	808	825
6	---	---	---	740	711	726	789	768	780	852	822	830
7	---	---	---	745	740	743	803	789	796	824	799	811
8	---	---	---	746	727	736	822	803	814	840	822	830
9	640	501	596	730	715	725	822	818	821	836	600	702
10	516	493	500	715	699	706	821	816	818	700	605	664
11	574	516	547	730	709	719	827	816	821	786	700	750
12	623	574	600	749	707	725	816	781	800	780	732	755
13	658	623	642	756	697	737	781	767	773	732	456	558
14	720	658	690	697	650	666	825	767	799	763	456	585
15	748	720	734	650	640	644	832	823	828	825	751	794
16	797	748	778	650	642	647	855	832	844	770	751	763
17	822	797	812	687	649	668	885	855	873	755	614	728
18	826	820	822	730	687	709	903	885	896	614	509	554
19	829	822	825	730	696	712	902	887	898	657	590	636
20	869	777	827	724	690	709	892	877	886	676	584	616
21	777	729	745	723	717	720	881	869	879	684	596	642
22	805	770	793	730	674	704	870	536	704	598	471	532
23	806	749	790	724	669	695	575	401	420	510	471	495
24	749	672	701	725	697	720	483	427	450	502	463	488
25	676	595	635	721	692	709	554	483	524	467	457	461
26	668	588	620	692	674	683	597	554	578	---	---	---
27	663	604	646	707	683	694	634	597	614	---	---	---
28	823	661	744	734	707	724	653	634	644	---	---	---
29	814	794	802	732	662	694	707	653	679	---	---	---
30	799	788	794	662	651	655	754	707	731	---	---	---
31	788	761	781	---	---	---	779	754	765	---	---	---
MONTH	869	493	723	800	640	711	903	401	741	853	456	689

SURFACE-WATER RECORDS
Scioto River Basin

03234500 SCIOTO RIVER AT HIGBY, OHIO—Continued

WATER-QUALITY RECORDS—CONTINUED

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

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

SURFACE-WATER RECORDS
Scioto River Basin

03234500 SCIOTO RIVER AT HIGBY, OHIO—Continued

WATER-QUALITY RECORDS—CONTINUED

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999—Continued

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	8.2	7.0	7.7	8.2	7.9	8.1	8.5	8.2	8.3	8.4	7.8	8.1
2	8.1	7.3	7.8	8.1	7.9	8.0	8.6	8.2	8.3	8.7	7.9	8.4
3	8.1	7.2	7.8	8.2	7.9	8.0	8.8	8.3	8.5	8.7	8.3	8.5
4	7.9	7.2	7.6	8.0	7.6	7.8	8.8	8.4	8.6	8.7	8.4	8.6
5	7.8	6.8	7.5	8.4	7.8	8.0	8.8	8.3	8.5	8.6	8.3	8.4
6	---	---	---	8.3	7.9	8.1	8.7	8.3	8.5	8.3	8.1	8.2
7	8.1	7.1	7.7	8.2	7.8	8.0	8.7	8.2	8.5	8.1	7.9	8.0
8	8.2	6.8	7.6	8.4	7.9	8.1	8.5	8.1	8.3	8.1	7.7	7.9
9	8.3	7.2	7.8	8.4	7.9	8.1	8.3	7.9	8.1	8.2	7.9	8.1
10	8.3	7.8	8.0	8.1	7.8	7.9	8.3	8.0	8.1	8.3	8.1	8.2
11	8.2	7.6	7.9	8.8	7.9	8.3	8.4	8.1	8.2	8.3	8.0	8.2
12	8.0	7.3	7.7	8.6	8.2	8.4	8.5	8.1	8.3	8.3	8.1	8.2
13	7.7	7.2	7.5	8.4	7.7	7.9	8.5	8.1	8.4	8.3	7.9	8.2
14	8.4	7.4	7.6	8.1	7.4	7.7	8.5	8.0	8.2	8.2	8.0	8.1
15	8.6	7.6	8.0	7.9	7.5	7.7	8.0	7.8	7.9	8.5	8.0	8.3
16	8.6	8.1	8.2	---	---	---	8.2	7.7	7.9	8.5	8.3	8.4
17	---	---	---	---	---	---	8.2	7.9	8.1	8.4	8.0	8.3
18	---	---	---	---	---	---	8.4	8.0	8.1	8.4	8.0	8.2
19	---	---	---	---	---	---	8.3	8.0	8.1	8.4	8.0	8.2
20	---	---	---	---	---	---	8.3	8.0	8.2	8.3	8.0	8.1
21	---	---	---	---	---	---	8.4	7.9	8.1	8.0	7.9	7.9
22	---	---	---	---	---	---	8.6	8.1	8.4	8.0	7.8	7.9
23	---	---	---	8.7	8.4	8.5	8.7	8.3	8.5	8.0	7.9	8.0
24	---	---	---	8.7	8.3	8.5	8.6	8.0	8.2	8.0	7.9	8.0
25	---	---	---	8.9	8.4	8.6	8.1	7.9	8.0	8.0	7.8	7.9
26	---	---	---	8.7	8.3	8.4	8.2	7.8	8.0	8.2	8.0	8.1
27	---	---	---	8.3	8.0	8.1	8.1	7.6	7.8	8.1	8.0	8.1
28	7.8	7.7	7.7	8.3	8.1	8.1	7.7	7.4	7.6	8.1	8.0	8.0
29	7.9	7.8	7.8	8.4	8.0	8.1	7.9	7.5	7.7	8.0	7.9	8.0
30	8.0	7.8	7.9	8.4	7.9	8.1	8.2	7.7	7.9	8.0	7.9	8.0
31	---	---	---	8.6	8.1	8.3	8.4	7.8	8.1	---	---	---
MONTH	8.6	6.8	7.8	8.9	7.4	8.1	8.8	7.4	8.2	8.7	7.7	8.1
YEAR	8.9	6.8	8.0									

TEMPERATURE, WATER, DEGREES CELSIUS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	23.0	21.0	22.5	15.5	14.5	15.0	12.0	11.0	11.5	2.5	1.5	2.0
2	21.0	18.5	19.5	15.0	14.0	14.5	11.5	10.0	10.5	2.0	1.0	1.5
3	19.0	17.5	18.0	14.0	12.5	13.5	12.0	10.0	11.0	2.0	1.0	2.0
4	---	---	---	12.5	11.5	12.0	13.5	12.0	12.5	1.0	.5	.5
5	---	---	---	11.5	10.0	10.5	14.0	12.5	13.5	.5	.0	.5
6	---	---	---	10.0	9.5	10.0	15.5	14.0	14.5	1.0	.5	.5
7	---	---	---	10.5	9.5	10.0	15.0	14.5	15.0	1.5	.5	1.0
8	---	---	---	10.0	9.5	9.5	14.5	12.5	13.5	1.5	.5	1.0
9	---	---	---	10.5	9.5	10.0	12.5	11.0	11.5	1.5	.0	.5
10	18.5	16.5	17.5	12.0	10.5	11.5	11.0	10.0	10.0	.5	.0	.5
11	18.5	16.0	17.0	12.5	11.0	11.5	10.0	9.0	9.5	.5	.0	.5
12	18.5	16.0	17.5	11.0	10.0	10.5	9.0	8.5	8.5	1.5	.5	1.0
13	18.5	16.5	17.5	11.0	10.5	10.5	8.5	7.5	8.0	1.5	.5	1.0
14	17.0	15.5	16.5	11.0	10.0	10.5	8.5	7.0	7.5	2.0	1.0	1.5
15	16.5	15.0	15.5	11.5	10.5	11.0	8.0	6.5	7.0	1.5	.5	1.0
16	17.0	14.5	15.5	10.5	9.5	10.0	7.0	5.5	6.5	3.0	1.5	2.0
17	17.5	15.0	16.0	10.0	9.5	10.0	7.0	6.0	6.5	4.0	2.5	3.0
18	17.5	16.0	17.0	10.5	9.0	9.5	7.0	5.5	6.0	5.0	4.0	4.5
19	18.0	16.5	17.5	10.5	9.5	10.0	6.5	6.0	6.5	4.0	2.5	3.5
20	17.0	15.5	16.5	10.5	9.5	10.0	7.5	6.5	7.0	4.0	2.5	3.5
21	16.0	14.5	15.0	9.5	8.5	9.0	9.0	7.5	8.5	5.0	3.5	4.0
22	14.5	13.5	14.0	8.5	7.5	8.0	9.0	6.5	7.5	6.0	4.5	5.0
23	14.5	12.5	13.5	9.0	7.5	8.0	7.5	4.5	5.5	7.5	6.0	7.0
24	14.0	12.0	13.0	10.0	8.5	9.0	4.5	3.5	4.0	7.0	6.0	6.5
25	13.0	12.0	12.5	9.0	8.5	8.5	3.5	2.5	3.0	6.5	6.0	6.0
26	14.0	12.5	13.0	10.0	8.5	9.5	2.5	2.0	2.5	---	---	---
27	14.0	13.0	13.5	9.5	8.5	9.0	3.0	2.0	2.5	---	---	---
28	14.5	13.5	14.0	10.0	8.5	9.5	4.0	3.0	3.5	---	---	---
29	16.0	14.0	15.0	10.5	9.5	10.0	5.0	4.0	4.5	---	---	---
30	15.0	14.5	15.0	11.5	10.0	10.5	4.5	3.0	3.5	---	---	---
31	16.0	15.0	15.0	---	---	---	3.0	2.5	3.0	---	---	---
MONTH	23.0	12.0	16.0	15.5	7.5	10.5	15.5	2.0	8.0	7.5	.0	2.5

SURFACE-WATER RECORDS
Scioto River Basin

03234500 SCIOTO RIVER AT HIGBY, OHIO—Continued

WATER-QUALITY RECORDS—CONTINUED

OXYGEN, DISSOLVED, MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	12.2	7.3	9.6	9.1	8.1	8.7	12.3	11.2	11.8	12.8	12.1	12.4
2	10.3	7.6	9.0	8.8	7.5	8.1	12.0	10.0	11.3	12.9	12.4	12.6
3	---	---	---	8.2	7.9	8.0	11.4	10.0	10.8	12.7	12.1	12.3
4	---	---	---	8.8	7.9	8.2	10.6	9.5	9.9	12.2	10.5	12.0
5	---	---	---	9.5	7.5	8.3	10.1	9.1	9.6	12.0	10.8	11.5
6	---	---	---	10.0	8.2	9.3	9.1	7.2	8.6	11.7	11.1	11.5
7	---	---	---	10.5	8.6	9.8	8.4	7.2	7.7	11.6	11.2	11.3
8	---	---	---	10.4	9.4	10.1	8.3	6.5	7.0	11.5	11.2	11.3
9	10.0	7.4	8.4	10.7	8.4	10.0	9.3	7.9	8.6	11.3	11.0	11.2
10	9.6	9.0	9.2	10.5	9.1	9.9	9.4	8.4	9.1	11.0	10.7	10.8
11	9.7	9.2	9.4	10.0	8.9	9.4	9.6	8.2	9.1	11.1	9.7	10.4
12	10.5	9.3	9.8	10.0	9.3	9.7	9.5	7.7	8.9	11.1	10.6	10.9
13	10.6	9.5	10.2	10.1	9.3	9.7	---	---	---	11.1	10.5	10.8
14	10.6	9.4	10.1	10.0	8.4	9.7	---	---	---	10.9	10.5	10.7
15	11.8	9.9	10.7	10.4	9.3	9.9	10.1	8.4	9.5	11.2	10.8	11.0
16	12.0	10.5	11.1	10.8	9.4	10.1	10.9	9.8	10.2	11.4	10.9	11.1
17	10.9	9.6	10.3	10.5	8.6	9.9	11.1	9.5	10.4	11.9	11.3	11.5
18	9.7	8.0	8.8	10.9	9.6	10.2	11.9	10.4	11.1	12.5	11.1	11.7
19	8.3	7.1	7.7	10.8	8.4	10.1	11.7	10.5	11.0	12.6	12.0	12.3
20	7.5	6.3	7.0	12.4	9.3	10.8	10.6	10.2	10.4	15.2	11.5	13.6
21	6.6	5.7	6.0	13.3	12.2	12.7	11.2	10.3	10.7	14.0	12.7	13.2
22	5.8	5.2	5.5	13.8	12.7	13.3	10.9	9.6	10.3	14.8	13.0	14.2
23	5.3	4.2	4.6	13.6	12.7	13.1	10.4	9.5	10.0	14.4	11.4	12.5
24	---	---	---	13.9	12.6	13.3	11.4	10.4	11.1	13.3	11.1	12.0
25	---	---	---	13.5	12.8	13.2	12.2	11.3	11.7	12.3	10.8	11.2
26	---	---	---	13.3	12.3	12.9	12.8	12.2	12.4	---	---	---
27	---	---	---	13.6	12.3	13.0	12.7	12.4	12.5	---	---	---
28	9.8	9.1	9.3	13.3	12.1	12.7	12.5	12.1	12.3	---	---	---
29	11.4	9.4	10.4	12.8	11.7	12.3	12.1	11.5	11.9	---	---	---
30	10.9	9.5	9.9	12.6	11.8	12.2	12.1	11.0	11.7	---	---	---
31	9.5	8.5	9.0	---	---	---	12.4	12.0	12.2	---	---	---
MONTH	12.2	4.2	8.9	13.9	7.5	10.6	12.8	6.5	10.4	15.2	9.7	11.8
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	10.0	8.3	9.0	11.9	9.5	10.7
2	12.2	11.8	11.9	---	---	---	9.5	7.6	8.6	14.2	10.3	12.1
3	12.7	12.1	12.4	---	---	---	9.2	7.5	8.4	---	---	---
4	12.7	11.7	12.5	---	---	---	8.6	6.2	7.4	---	---	---
5	12.9	11.7	12.5	---	---	---	12.5	6.0	9.2	15.1	9.7	12.6
6	12.9	12.4	12.6	---	---	---	13.2	8.1	10.4	---	---	---
7	12.6	11.9	12.3	---	---	---	15.4	8.9	11.9	16.1	11.5	13.2
8	12.6	11.9	12.3	---	---	---	17.3	9.8	13.2	14.1	9.4	12.1
9	12.8	12.3	12.5	---	---	---	13.9	8.0	9.7	16.5	10.0	12.6
10	12.9	12.5	12.6	---	---	---	8.8	7.1	7.9	16.1	9.7	12.9
11	12.7	10.9	11.7	---	---	---	7.4	6.1	6.4	16.2	8.1	12.3
12	12.1	11.5	11.8	---	---	---	9.8	6.3	8.4	12.9	9.2	10.8
13	11.7	11.2	11.5	---	---	---	10.0	9.2	9.5	---	---	---
14	11.7	10.2	11.3	---	---	---	9.7	8.2	8.9	---	---	---
15	11.6	8.5	10.7	---	---	---	9.4	7.7	8.6	---	---	---
16	11.4	10.2	10.8	---	---	---	8.9	8.4	8.6	---	---	---
17	10.2	10.0	10.1	11.6	10.8	11.3	8.6	7.5	7.9	---	---	---
18	10.0	9.4	9.7	---	---	---	7.5	6.7	7.0	---	---	---
19	9.4	9.1	9.3	11.9	11.1	11.5	6.7	6.2	6.4	---	---	---
20	9.1	8.6	8.9	12.2	11.3	11.8	6.5	6.0	6.2	13.5	9.1	10.8
21	8.7	8.3	8.5	11.8	11.1	11.3	6.4	6.1	6.2	12.5	9.4	10.5
22	8.8	8.2	8.4	11.2	10.8	11.1	6.2	5.6	5.9	12.3	8.1	10.5
23	8.8	8.2	8.5	10.8	10.6	10.8	5.6	4.1	4.9	13.3	9.3	11.1
24	9.5	8.4	8.9	12.2	10.4	11.5	4.4	3.8	4.1	---	---	---
25	---	---	---	11.9	11.4	11.7	4.0	3.6	3.9	---	---	---
26	---	---	---	11.6	11.3	11.4	---	---	---	---	---	---
27	---	---	---	11.5	10.9	11.1	---	---	---	---	---	---
28	---	---	---	11.0	10.2	10.6	---	---	---	14.5	8.9	10.7
29	---	---	---	10.5	9.8	10.1	---	---	---	12.7	8.6	10.5
30	---	---	---	10.1	9.3	9.7	---	---	---	12.2	7.5	10.1
31	---	---	---	10.3	9.1	9.7	---	---	---	---	---	---
MONTH	12.9	8.2	10.9	12.2	9.1	11.0	17.3	3.6	7.9	16.5	7.5	11.5

SURFACE-WATER RECORDS
Scioto River Basin

RESERVOIRS IN SCIOTO RIVER BASIN

03220500 O'Shaughnessy Reservoir near Dublin.--Latitude 40°09'14", longitude 83°07'33", Delaware County, Hydrologic Unit 0506001, in gate house of dam on Scioto River, 4.0 mi north of Dublin, Ohio.

DRAINAGE AREA.--979 mi².

PERIOD OF RECORD.--October 1924 to current year.

GAGE.--water-stage recorder. Monthend contents only for some periods published in WSP 1305. Datum of gage is sea level (levels by city of Columbus). Prior to Dec. 2, 1940, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by concrete dam; dam completed and storage begun in 1924. Usable capacity, 14,500 acre-ft, between elevations 789.5 ft (sill of outlet gate) and 845 ft (crest of spillway), based on survey made in 1942. Flashboards installed May 8, 1945, additional capacity, 2,480 acre-ft, between elevations 845 ft (crest of spillway) and 847.9 ft (crest of flashboards). Dead storage below elevation 789.5 ft, 55 acre-ft. Figures given herein represent usable contents. Water used for municipal supply of city of Columbus and recreational purposes. Reservoir also used for power generation since July 1987. Capacity table computed from data furnished by city of Columbus.

EXTREMES FOR PERIOD OF RECORD.-- Maximum contents, 24,240 acre-ft Jan. 22, 1959, elevation, 854.40 ft; minimum, 43 acre-ft Feb. 11, 1945, elevation, 791.97 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 18,340 acre-ft Feb. 29, elevation, 849.27 ft; minimum, 11,790 acre-ft Sept. 30, elevation, 841.23 ft.

03221500 Griggs Reservoir near Columbus.--Latitude 40°00'54", longitude 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, Ohio, and 6.5 mi upstream from Olentangy River.

DRAINAGE AREA.--1,044 mi².

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

GAGE.--Water-stage recorder. Monthend contents only for some periods, published in WSP 1305. Daily readings have been obtained by city of Columbus, Division of Water, since 1908. Datum of gage is 680.38 ft above sea level (levels by city of Columbus). Prior to Oct. 4, 1940, nonrecording gage at same site and datum.

REMARKS.--Reservoir formed by concrete dam; dam completed and storage begun in 1905. Usable capacity, 3,700 acre-ft between elevations 735.4 ft (lowest outlets) and 753.4 ft (crest of spillway), based on survey made in 1935. Flashboards installed July 28, 1945, additional capacity, 750 acre-ft, between elevations 753.4 ft (crest of spillway) and 755.6 ft (crest of flashboards). Dead storage below elevation 735.4 ft, 239 acre-ft. Figures given herein represent usable contents. Water is used for municipal supply of city of Columbus and recreational purposes. Capacity table computed from data furnished by city of Columbus.

EXTREMES FOR PERIOD OF RECORD.-- Maximum contents, 7,490 acre-ft Jan. 22, 1959, elevation, 763.91 ft; minimum, 38 acre-ft Jan. 24, 1945, elevation, 735.78 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 5,140 acre-ft Feb. 29, elevation 757.56 ft; minimum, 4,220 acre-ft Aug. 31, elevation 754.94.

03228400 Hoover Reservoir at Central College.--Latitude 40°06'30", longitude 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, Ohio.

DRAINAGE AREA.--190 mi².

PERIOD OF RECORD.--March 1955 to current year.

REVISED RECORDS.--WRD OH-78-1: 1975 (M).

GAGE.--Water-stage recorder. Datum of gage is sea level. Prior to Sept. 10, 1956, nonrecording gage at same site and datum.

REMARKS.--Reservoir formed by earthfill dam with concrete spillway; dam completed in 1954 and storage begun in March 1955. Usable capacity, 60,130 acre-ft between elevations 830.0 ft (lowest outlet) and 890.0 ft (crest of spillway). Additional flood-control storage above elevation 890.0 ft by bascule gates installed in May 1970, 25,750 acre-ft. Dead storage below elevation 830.0 ft, 214 acre-ft. Figures given herein represent usable contents. Reservoir is used for municipal supply of city of Columbus and for recreational purposes. Outflow is controlled mostly by operation of valves in tunnel through dam, but above spillway level bascule gates can be used. Capacity table computed from data furnished by city of Columbus.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 87,480 acre-ft, June 2, 1997, elevation, 898.45 ft; minimum, 19,010 acre-ft Mar. 1, 1964, elevation, 868.58 ft.

EXTREMES FOR CURRENT YEAR: 76,280 acre-ft Mar. 6, elevation, 895.34 ft; minimum, 36,320 acre-ft Sept. 30, elevation, 880.08 ft.

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	O'SHAUGHNESSY RESERVOIR			GRIGGS RESERVOIR			HOOVER RESERVOIR		
	Elevation (ft)	Contents (acre-ft)	Change in Contents (acre-ft)	Elevation (ft)	Contents (acre-ft)	Change in Contents (acre-ft)	Elevation (ft)	Contents (acre-ft)	Change in Contents (acre-ft)
Sept. 30	844.30	13,980		756.12	4,620		884.84	46,710	
Oct. 31	843.68	13,520	-460	756.22	4,660	+40	882.13	40,460	-6,250
Nov. 30	842.97	12,990	-530	755.66	4,470	-190	881.87	39,910	-550
Dec. 31	845.59	14,960	+1,970	756.01	4,590	+120	883.84	44,310	+4400
Calendar Year 1998			-2,770			-160			-8,890
Jan. 31	848.36	17,420	+2,460	756.63	4,800	+210	891.87	65,300	+20,990
Feb. 29	849.27	18,340	+920	757.56	5,140	+340	894.33	73,010	+7,710
Mar. 31	848.32	17,380	-960	756.48	4,750	-390	893.34	69,750	-3,260
Apr. 30	848.50	17,560	+180	756.53	4,760	+10	893.60	70,590	+840
May 31	848.51	17,570	+10	756.37	4,710	-50	890.61	61,800	-8,790
June 30	848.67	17,730	+160	755.61	4,450	-260	887.52	53,540	-8,260
July 31	847.80	16,880	-850	755.11	4,280	-170	885.53	48,430	-5,110
Aug. 31	844.71	14,280	-2,600	754.94	4,220	-60	882.57	41,420	-7,010
Sept. 30	841.23	11,790	-2,490	755.42	4,380	+160	880.08	36,320	-5,100
Water Year 1999			-2,190			-240			-10,390

SURFACE-WATER RECORDS
Upper Twin Creek Basin

03237280 UPPER TWIN CREEK AT MCGAW, OHIO
Hydrologic Benchmark Station

LOCATION.--Latitude 38°38'37", longitude 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.

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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e.11	e.50	.09	e.30	20	30	6.7	14	e.90	.13	.00	.00
2	e.11	e.60	.09	e5.0	31	23	6.9	11	e.80	.12	.00	.00
3	e.11	e.50	.06	e10	25	32	6.5	e8.0	e.70	.12	.00	.00
4	e.12	e.70	.03	e12	22	33	7.1	e6.4	e.80	.10	.00	.00
5	e.15	e.80	.02	e9.0	18	25	6.3	e5.8	e.80	.09	.00	.00
6	e.40	e.60	e.02	e7.0	15	39	6.5	e5.4	e.70	.09	.00	.00
7	e1.2	e.50	e.03	e6.0	24	32	6.0	e5.0	e.64	.07	.00	.00
8	e5.0	e.45	e.04	226	26	22	5.7	e4.5	e.64	.06	.00	.00
9	e4.0	e.60	.11	84	21	26	6.2	e4.2	e.56	.06	.00	.00
10	e2.0	e1.0	.12	29	18	36	5.4	e3.8	e.50	.04	.00	.00
11	e1.6	e4.0	e.06	24	14	26	4.9	e3.6	e.49	.03	.00	.00
12	e1.2	e2.0	e.05	22	19	21	3.9	e3.4	.46	.03	.00	.00
13	e.80	e1.0	e.04	35	23	18	2.9	e3.1	.37	.01	.00	.00
14	e.60	e.60	e.04	44	20	19	2.9	e2.9	.37	.00	.00	.00
15	e.50	e.40	e.05	37	19	23	3.6	e2.6	.37	.00	.00	.00
16	e.30	e.20	e.06	31	17	39	4.5	e2.6	.32	.00	.00	.00
17	e.25	e.12	e.06	38	17	54	3.4	e2.8	.32	.00	.00	.00
18	e.24	e.08	e.05	59	16	39	2.9	e2.7	.32	.00	.00	.00
19	e.24	e.06	e.05	34	15	24	3.1	e2.5	.28	.00	.00	.00
20	e.23	.05	e.04	27	12	20	3.4	e2.1	.27	.00	.00	.00
21	e.20	.06	e.04	86	9.6	17	7.1	e1.9	.27	.00	.00	.00
22	e.20	.06	e.05	50	7.5	14	11	e1.7	.24	.00	.00	.00
23	e.20	.02	e.10	48	6.2	12	10	e1.5	.23	.00	.00	.00
24	e.20	.02	e.90	38	5.6	13	7.8	e1.4	.23	.00	.00	.00
25	e.20	.04	e.60	26	6.6	11	6.8	e1.4	.19	.00	.00	.00
26	e.19	.08	e.40	23	8.0	9.6	6.1	e1.4	.19	.00	.00	.00
27	e.19	.06	e.20	20	14	8.6	6.3	e1.4	.19	.00	.00	.00
28	e.23	.04	e.15	17	27	7.5	15	e1.3	.16	.00	.00	.00
29	e.25	.06	e.12	14	---	6.9	20	e1.2	.15	.00	.00	.00
30	e.27	.10	e.10	11	---	6.1	17	e1.1	.15	.00	.00	.00
31	e.35	---	e.09	9.1	---	5.6	---	e1.0	---	.00	.00	---
TOTAL	21.64	15.30	3.86	1081.40	476.5	692.3	205.9	111.7	12.61	0.95	0.00	0.00
MEAN	.70	.51	.12	34.9	17.0	22.3	6.86	3.60	.42	.031	.000	.000
MAX	5.0	4.0	.90	226	31	54	20	14	.90	.13	.00	.00
MIN	.11	.02	.02	.30	5.6	5.6	2.9	1.0	.15	.00	.00	.00
CFSM	.06	.04	.01	2.86	1.39	1.83	.56	.30	.03	.00	.00	.00
IN.	.07	.05	.01	3.30	1.45	2.11	.63	.34	.04	.00	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1999, BY WATER YEAR (WY)

	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999			
MEAN	2.33	6.11	16.2	18.4	23.8	30.6	28.5	20.7	7.48	3.75	3.06	2.89																												
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	.031	.000	.000																												
(WY)	1964	1964	1964	1981	1978	1969	1971	1991	1988	1999	1999	1999																												

SUMMARY STATISTICS

FOR 1998 CALENDAR YEAR

FOR 1999 WATER YEAR

WATER YEARS 1963 - 1999

ANNUAL TOTAL		4051.35		2622.16																																				
ANNUAL MEAN		11.1		7.18																																				
HIGHEST ANNUAL MEAN																																								
LOWEST ANNUAL MEAN																																								
HIGHEST DAILY MEAN				217	Apr 30		226	Jan 8		850	May 15																													
LOWEST DAILY MEAN				.02	Nov 23		.00	Jul 14		.00	Jul 12																													
ANNUAL SEVEN-DAY MINIMUM				.04	Dec 2		.00	Jul 14		.00	Sep 21																													
INSTANTANEOUS PEAK FLOW							1540	Jan 8a		4430	Mar 2																													
INSTANTANEOUS PEAK STAGE							6.88	Jan 8		10.20	Mar 4																													
INSTANTANEOUS LOW FLOW							.00	Jul 14		.00	Jul 12																													
ANNUAL RUNOFF (CFSM)				.91			.59			1.12																														
ANNUAL RUNOFF (INCHES)				12.35			8.00			15.18																														
10 PERCENT EXCEEDS				25			23			31																														
50 PERCENT EXCEEDS				1.8			.50			3.1																														
90 PERCENT EXCEEDS				.11			.00			.07																														

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.--Latitude 38°51'29", longitude 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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.1	8.1	24	e29	1090	1090	50	40	.00	.00	.00	e4.0
2	5.1	8.6	21	e27	1270	414	71	30	2.1	e.00	.00	e2.7
3	5.9	21	19	e50	568	912	84	26	5.1	e.00	.00	e.48
4	7.0	e17	18	e350	292	932	73	22	2.6	e.00	.00	.00
5	7.0	e25	18	e320	183	305	67	19	.00	e.00	.00	.00
6	7.0	e31	15	e250	142	1150	67	18	.00	e.00	.00	.00
7	13	e21	16	e210	2980	692	67	18	2.7	e.00	.00	.00
8	1750	e16	34	e180	1800	252	62	14	1.6	e.00	.00	.00
9	212	e13	59	e1800	352	213	100	14	.00	e.00	.00	.00
10	59	21	48	702	219	330	153	13	.00	e.00	.00	.00
11	25	67	32	288	162	350	86	13	.00	e.00	.00	.00
12	13	91	26	292	389	299	72	11	.00	e.00	.00	.00
13	8.5	45	23	5020	818	371	63	9.6	.00	.00	.00	.00
14	5.5	27	23	2430	274	290	40	29	.00	.00	.00	.00
15	3.7	20	23	393	197	240	41	26	.00	.00	.00	.00
16	2.3	14	24	264	171	604	42	19	.00	.00	.00	.00
17	2.2	14	23	887	185	1910	51	12	.00	.00	.00	.00
18	2.3	12	21	3760	254	1070	57	8.7	.00	.00	.00	.00
19	2.9	11	21	798	168	281	54	7.0	.00	.00	.00	.00
20	2.9	11	21	330	124	182	54	7.1	.00	.00	.00	.00
21	2.9	11	27	1770	100	142	140	6.6	.00	.00	.00	.00
22	2.9	15	3970	1750	82	121	446	6.8	.00	.00	.00	.00
23	5.2	21	450	756	73	102	166	6.0	.00	.00	.00	.00
24	7.0	21	160	768	72	96	99	6.7	.00	.00	.00	.00
25	7.0	18	79	293	72	87	59	7.0	.00	.00	e159	.00
26	7.0	216	66	186	77	72	44	7.0	.00	.00	e240	.00
27	7.0	207	51	143	1820	63	40	7.0	.00	.00	e92	.00
28	7.9	80	45	126	4070	57	43	7.7	.00	.00	e32	.00
29	8.4	38	e40	108	---	54	69	5.0	.00	.00	e19	.00
30	8.1	29	e36	90	---	52	63	2.0	.00	.00	e12	.00
31	8.1	---	e32	75	---	47	---	.14	---	.00	e8.3	---
TOTAL	2210.9	1149.7	5465	24445	18004	12780	2523	418.34	14.10	0.00	562.30	7.18
MEAN	71.3	38.3	176	789	643	412	84.1	13.5	.47	.000	18.1	.24
MAX	1750	216	3970	5020	4070	1910	446	40	5.1	.00	240	4.0
MIN	2.2	8.1	15	27	72	47	40	.14	.00	.00	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 1999, BY WATER YEAR (WY)

MEAN	62.2	160	294	443	490	559	437	291	166	96.1	86.3	79.6
MAX	580	1103	1427	1487	1281	1822	1134	1646	996	598	531	1220
(WY)	1984	1986	1991	1950	1955	1963	1973	1996	1998	1980	1926	1979
MIN	.071	.17	1.64	1.67	12.2	41.5	31.6	10.9	.47	.000	1.28	.17
(WY)	1941	1931	1964	1977	1934	1941	1971	1934	1999	1999	1993	1985

SUMMARY STATISTICS FOR 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1925 - 1999

ANNUAL TOTAL	129682.59	67579.52	
ANNUAL MEAN	355	185	263
HIGHEST ANNUAL MEAN			583
LOWEST ANNUAL MEAN			82.4
HIGHEST DAILY MEAN	7930	Apr 30	19400
LOWEST DAILY MEAN	.00	Aug 24	.00
ANNUAL SEVEN-DAY MINIMUM	.00	Sep 11	.00
INSTANTANEOUS PEAK FLOW		7300	22400
INSTANTANEOUS PEAK STAGE		6.72	20.87
INSTANTANEOUS LOW FLOW		.00	.00
10 PERCENT EXCEEDS	694	351	536
50 PERCENT EXCEEDS	47	18	43
90 PERCENT EXCEEDS	7.0	.00	2.4

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

03240000 LITTLE MIAMI RIVER NEAR OLDTOWN, OHIO

LOCATION.--Latitude 39°44'54", longitude 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.

REVISED RECORDS.--WRD-OH-98-1; 1991(M), 1993(M), and 1994(M).

GAGE.--Water-stage recorder. Datum of gage is 816.56 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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	20	16	e20	101	402	89	123	46	30	16	9.0
2	14	18	15	e18	117	282	86	112	47	32	16	9.1
3	19	19	15	e17	117	235	83	104	45	29	15	8.4
4	24	19	15	e16	108	229	84	99	42	27	14	8.3
5	22	18	15	e15	94	180	79	94	41	26	13	8.0
6	20	17	15	e15	91	485	77	91	40	25	14	8.1
7	23	17	18	e14	254	454	74	86	38	28	13	7.8
8	29	17	17	e14	493	267	72	82	39	24	11	7.7
9	26	17	16	e13	291	221	89	80	38	23	11	8.3
10	24	20	15	e13	201	182	114	75	36	25	10	6.2
11	24	24	15	e12	163	154	100	72	35	26	10	5.8
12	15	25	15	e12	171	141	88	71	36	23	10	5.8
13	17	20	15	e70	168	133	79	74	43	23	10	5.8
14	18	19	15	e180	143	129	77	71	47	22	10	5.6
15	25	18	14	e150	135	123	80	67	44	21	9.6	5.3
16	16	18	14	e120	131	137	98	65	39	21	8.3	5.4
17	18	17	16	e110	130	272	136	63	36	20	11	5.5
18	18	16	15	e500	123	331	195	62	35	20	10	5.6
19	24	16	15	716	112	213	170	61	33	20	11	5.5
20	22	19	14	375	103	171	150	57	32	20	10	5.8
21	19	18	32	423	95	154	349	56	31	20	8.8	7.0
22	18	17	227	671	87	137	472	60	30	20	8.8	6.6
23	18	17	112	545	84	124	293	65	29	21	8.0	6.6
24	19	17	63	375	83	117	225	61	29	19	7.3	6.6
25	19	17	e45	253	84	108	177	58	29	44	13	6.3
26	20	23	e35	194	81	101	154	56	28	31	15	6.1
27	18	23	e30	165	149	98	138	53	29	28	13	5.3
28	19	19	e27	144	512	94	154	51	30	22	14	5.8
29	18	17	e24	123	---	90	174	49	39	21	11	8.8
30	28	17	e22	109	---	86	138	47	34	19	9.6	12
31	21	---	e21	99	---	84	---	46	---	17	8.9	---
TOTAL	629	559	943	5501	4421	5934	4294	2211	1100	747	350.3	208.1
MEAN	20.3	18.6	30.4	177	158	191	143	71.3	36.7	24.1	11.3	6.94
MAX	29	25	227	716	512	485	472	123	47	44	16	12
MIN	14	16	14	12	81	84	72	46	28	17	7.3	5.3
CFSM	.16	.14	.24	1.38	1.22	1.48	1.11	.55	.28	.19	.09	.05
IN.	.18	.16	.27	1.59	1.27	1.71	1.24	.64	.32	.22	.10	.06

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 1999, BY WATER YEAR (WY)

	1952	1954	1954	1954	1954	1954	1954	1954	1954	1954	1954	1954
MEAN	35.0	69.6	109	142	181	213	199	173	132	87.1	62.6	37.0
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	6.94
(WY)	1954	1954	1954	1977	1954	1954	1971	1954	1988	1954	1999	1999

SUMMARY STATISTICS FOR 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1952 - 1999

ANNUAL TOTAL	41796	26897.4	
ANNUAL MEAN	115	73.7	
HIGHEST ANNUAL MEAN			228 1980
LOWEST ANNUAL MEAN			28.6 1954
HIGHEST DAILY MEAN	1930	May 8	716 Jan 19 6140 Jan 21 1959
LOWEST DAILY MEAN	14	Sep 11	5.3 Sep 15 3.5 Sep 2 1988
ANNUAL SEVEN-DAY MINIMUM	15	Sep 26	5.5 Sep 13 5.5 Sep 13 1999
INSTANTANEOUS PEAK FLOW			909 Jan 19a 14800 Jan 21 1959
INSTANTANEOUS PEAK STAGE			5.38 Jan 18b 12.20 Jan 21 1959
INSTANTANEOUS LOW FLOW			5.3 Sep 15 2.8 Sep 2 1988
ANNUAL RUNOFF (CFSM)	.89	.57	.93
ANNUAL RUNOFF (INCHES)	12.05	7.76	12.62
10 PERCENT EXCEEDS	227	172	254
50 PERCENT EXCEEDS	70	28	62
90 PERCENT EXCEEDS	17	9.6	17

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

SURFACE-WATER RECORDS
Little Miami River Basin

03245500 LITTLE MIAMI RIVER AT MILFORD, OHIO

LOCATION.--Latitude 39°10'17", longitude 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 record, which are poor. 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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	141	315	235	232	2160	4730	661	674	246	210	162	98
2	145	249	216	293	2490	3610	684	596	265	208	134	96
3	162	257	208	472	1860	2320	667	553	266	207	e113	93
4	231	246	194	404	1650	2570	e730	533	257	190	107	92
5	230	230	184	307	1080	2130	720	510	236	173	105	89
6	186	220	182	288	1070	6660	644	594	226	163	100	89
7	320	189	250	258	4640	4770	e606	640	218	156	e96	87
8	541	186	242	295	2850	3680	e567	551	214	157	159	87
9	392	186	243	634	2050	3120	1220	488	210	158	128	85
10	223	289	210	635	1250	2150	1220	442	209	213	104	81
11	181	498	195	537	1320	1890	916	400	610	267	100	81
12	165	478	184	701	1860	1310	772	381	242	191	98	81
13	156	373	191	3010	1840	1440	661	479	492	159	96	83
14	148	351	191	1460	1220	1350	595	502	1340	147	95	82
15	138	341	186	613	1180	1290	581	410	649	142	93	81
16	139	349	184	591	1110	2160	647	372	353	137	92	81
17	141	370	189	1050	1410	4260	743	348	268	132	92	80
18	150	364	185	4680	1440	3820	1110	374	237	129	91	79
19	229	353	188	3360	1270	3510	1130	365	218	127	101	80
20	245	419	189	2620	1130	2290	1010	343	207	137	112	80
21	212	388	1260	1850	1030	1970	2260	307	194	144	109	81
22	188	304	7760	3360	847	1730	3490	292	187	164	108	81
23	177	251	2150	4080	785	1020	2190	344	183	146	95	84
24	172	208	e1530	2210	771	893	1670	505	184	171	309	84
25	170	213	1250	1760	791	822	1430	399	185	159	450	80
26	e175	409	797	1400	802	759	1090	348	179	140	403	80
27	e171	368	514	1220	2030	715	988	306	343	216	193	79
28	218	302	394	1590	5440	708	1200	284	352	182	152	85
29	213	245	356	1050	---	719	962	269	335	160	125	205
30	254	231	322	1040	---	695	824	256	222	141	113	169
31	399	---	306	908	---	669	---	246	---	127	103	---
TOTAL	6612	9182	20685	42908	47376	69760	31988	13111	9327	5153	4338	2733
MEAN	213	306	667	1384	1692	2250	1066	423	311	166	140	91.1
MAX	541	498	7760	4680	5440	6660	3490	674	1340	267	450	205
MIN	138	186	182	232	771	669	567	246	179	127	91	79
CFSM	.18	.25	.55	1.15	1.41	1.87	.89	.35	.26	.14	.12	.08
IN.	.20	.28	.64	1.33	1.46	2.16	.99	.41	.29	.16	.13	.08

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 1999, BY WATER YEAR (WY)

	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
MEAN	343	790	1291	1886	2089	2422	2129	1655	1039	692	471	354																																																																								
MAX	2775	4189	4836	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 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1916 - 1999

ANNUAL TOTAL	561298	263173	
ANNUAL MEAN	1538	721	
HIGHEST ANNUAL MEAN			2364
LOWEST ANNUAL MEAN			301
HIGHEST DAILY MEAN	30600	Apr 16	7760
LOWEST DAILY MEAN	138	Oct 15	79
ANNUAL SEVEN-DAY MINIMUM	148	Oct 12	80
INSTANTANEOUS PEAK FLOW			11700
INSTANTANEOUS PEAK STAGE			11.72
INSTANTANEOUS LOW FLOW			79
ANNUAL RUNOFF (CFSM)	1.28		.60
ANNUAL RUNOFF (INCHES)	17.36		8.14
10 PERCENT EXCEEDS	4250		1870
50 PERCENT EXCEEDS	664		302
90 PERCENT EXCEEDS	177		98

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

03246500 EAST FORK LITTLE MIAMI RIVER AT WILLIAMSBURG, OHIO

LOCATION.--Latitude 39°03'09", longitude 84°03'02", Clermont County, Hydrologic Unit 05090202, on right bank at downstream side of Main Street bridge in Williamsburg, 1.1 mi upstream from Todd Run, and 2.4 mi downstream from Crane Run.

DRAINAGE AREA.--237 mi².

PERIOD OF RECORD.--March 1949 to September 1953, July 1960 to September 1974, January 1999 to September 1999.

REVISIONS.--WSP 1908: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 784.09 ft above sea level.

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period of Jan. 27 to Sept. 30, 5,470 ft³/s Feb. 7, gage height 8.05 ft Feb.7; minimum, no flow many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	---	---	---	---	712	968	60	71	15	10	2.0	1.3	
2	---	---	---	---	925	450	65	55	17	11	1.9	.92	
3	---	---	---	---	618	543	72	47	14	11	e1.6	.63	
4	---	---	---	---	325	784	68	43	12	11	1.3	.41	
5	---	---	---	---	204	308	67	36	11	10	1.2	.12	
6	---	---	---	---	161	2220	67	36	12	7.3	1.3	.01	
7	---	---	---	---	3170	925	e68	34	13	e5.5	e1.1	.00	
8	---	---	---	---	2110	309	e63	32	13	4.8	2.4	.00	
9	---	---	---	---	447	220	62	30	11	4.5	3.1	.00	
10	---	---	---	---	277	236	64	26	11	5.3	2.1	.00	
11	---	---	---	---	202	224	231	24	11	3.8	1.7	.00	
12	---	---	---	---	449	209	259	23	11	3.2	2.6	.00	
13	---	---	---	---	707	233	118	23	11	3.4	3.1	.00	
14	---	---	---	---	295	212	82	50	15	3.3	2.7	.00	
15	---	---	---	---	225	193	73	37	62	3.0	1.8	.00	
16	---	---	---	---	204	487	116	27	45	2.6	1.5	.00	
17	---	---	---	---	223	1260	150	22	27	2.7	.90	.00	
18	---	---	---	---	259	1140	123	21	18	2.6	.79	.00	
19	---	---	---	---	183	318	125	19	14	2.6	1.2	.00	
20	---	---	---	---	144	193	116	18	11	2.8	1.0	.00	
21	---	---	---	---	123	151	349	17	11	2.4	.83	.00	
22	---	---	---	---	e107	126	667	18	11	2.0	.52	.00	
23	---	---	---	---	e96	104	224	18	10	1.9	.41	.00	
24	---	---	---	---	88	92	132	19	10	2.1	.99	.00	
25	---	---	---	---	88	82	94	19	10	1.8	1.9	.00	
26	---	---	---	---	94	75	74	24	9.6	2.7	15	.02	
27	---	---	---	---	163	1520	69	68	33	11	3.4	14	.10
28	---	---	---	---	144	2930	63	75	23	11	2.6	15	.18
29	---	---	---	---	131	---	61	82	20	11	3.2	7.7	.89
30	---	---	---	---	112	---	58	112	17	10	2.7	4.1	.36
31	---	---	---	---	102	---	55	---	16	---	2.3	2.3	---
TOTAL	---	---	---	---	16886	12368	3926	898	458.6	137.5	98.04	4.94	
MEAN	---	---	---	---	603	399	131	29.0	15.3	4.44	3.16	.16	
MAX	---	---	---	---	3170	2220	667	71	62	11	15	1.3	
MIN	---	---	---	---	88	55	60	16	9.6	1.8	.41	.00	
MED	---	---	---	---	242	220	82	24	11	3.2	1.8	.00	
AC-FT	---	---	---	---	33490	24530	7790	1780	910	273	194	9.8	
CFSM	---	---	---	---	2.54	1.68	.55	.12	.06	.02	.01	.00	
IN.	---	---	---	---	2.65	1.94	.62	.14	.07	.02	.02	.00	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 1999, BY WATER YEAR (WY)

	44.7	182	308	509	474	637	462	274	114	68.8	68.3	102
MEAN	44.7	182	308	509	474	637	462	274	114	68.8	68.3	102
MAX	213	1187	837	1412	1172	1897	1154	1530	441	494	290	672
(WY)	1966	1973	1973	1950	1971	1964	1970	1968	1972	1973	1974	1950
MIN	.048	.34	2.02	50.3	30.1	135	28.8	15.6	8.14	3.76	.79	.000
(WY)	1965	1965	1964	1967	1964	1969	1971	1949	1966	1964	1953	1953

SUMMARY STATISTICS

WATER YEARS 1949 - 1999

ANNUAL MEAN	277
HIGHEST ANNUAL MEAN	465
LOWEST ANNUAL MEAN	156
HIGHEST DAILY MEAN	18200
LOWEST DAILY MEAN	.00
ANNUAL SEVEN-DAY MINIMUM	.00
INSTANTANEOUS PEAK FLOW	19800
INSTANTANEOUS PEAK STAGE	15.23
INSTANTANEOUS LOW FLOW	.00
ANNUAL RUNOFF (AC-FT)	200900
ANNUAL RUNOFF (CFSM)	1.17
ANNUAL RUNOFF (INCHES)	15.90
10 PERCENT EXCEEDS	585
50 PERCENT EXCEEDS	44
90 PERCENT EXCEEDS	1.5

e Estimated.

SURFACE-WATER RECORDS
Little Miami River Basin

03247500 EAST FORK LITTLE MIAMI RIVER AT PERINTOWN, OHIO

LOCATION.--Latitude 39°08'13", longitude 84°14'17", Clermont County, Hydrologic Unit 05090202, on right bank at upstream wingwall of highway bridge at Perintown, 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 except for periods of estimated record, which are poor. Occasional regulation by Stonelick Lake 14 mi upstream. Surface area at spillway level, 171 acres. Flow regulated by William H. Harsha Reservoir, formerly East Fork Lake, since 1977. Water-quality data 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 1998 TO SEPTEMBER 1999
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	57	106	60	1320	1770	100	70	44	42	41	37
2	43	55	65	66	1520	2830	530	66	51	43	37	37
3	50	53	59	492	1760	2740	967	62	52	41	e37	37
4	50	54	49	607	1590	3190	338	60	45	39	37	36
5	48	48	52	480	1280	2280	209	56	46	38	37	36
6	47	44	51	239	569	2410	203	66	43	37	36	37
7	78	44	65	164	2980	1520	e196	63	44	37	e37	37
8	271	43	66	297	2190	1600	e142	55	44	36	72	37
9	188	43	58	1420	3210	1590	156	52	44	38	74	36
10	267	51	54	1000	2860	1400	e148	50	43	43	43	36
11	262	84	52	1340	1730	936	e142	48	44	40	39	36
12	262	53	50	1640	969	1100	e125	47	47	38	38	38
13	244	47	52	3690	919	1080	e105	111	44	37	39	37
14	148	46	61	2320	819	666	e85	165	74	37	38	37
15	103	76	56	3220	787	710	e91	69	52	37	39	36
16	96	79	51	3150	771	936	104	57	41	38	39	35
17	98	78	52	2820	807	1610	89	53	41	38	e39	36
18	100	78	50	3120	778	1840	104	52	39	38	e38	36
19	81	78	50	3260	743	2050	99	53	41	38	e41	36
20	75	125	50	3030	717	1360	88	51	38	42	e44	36
21	75	118	275	2780	544	400	395	49	37	38	e40	36
22	76	108	e3100	1210	181	177	298	43	39	37	e38	36
23	74	104	e2500	1560	230	196	144	49	37	36	e50	35
24	74	102	e2000	2730	143	188	99	57	40	37	e90	32
25	74	106	1340	2770	191	164	80	53	41	36	e140	32
26	e68	275	259	1360	176	159	73	50	39	38	69	39
27	e63	367	249	897	1270	153	88	49	54	50	52	40
28	59	344	240	574	1930	113	137	47	67	40	44	43
29	57	170	156	327	---	91	104	45	62	39	41	52
30	58	108	92	243	---	84	82	43	45	37	39	52
31	59	---	68	203	---	80	---	43	---	37	38	---
TOTAL	3292	3038	11428	47069	32984	35423	5521	1834	1378	1202	1486	1126
MEAN	106	101	369	1518	1178	1143	184	59.2	45.9	38.8	47.9	37.5
MAX	271	367	3100	3690	3210	3190	967	165	74	50	140	52
MIN	43	43	49	60	143	80	73	43	37	36	36	32

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 1999, BY WATER YEAR (WY)

	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	
MEAN	245	392	697	820	1011	1108	915	936	538	243	180	200												
MAX (WY)	1984	1446	2108	1637	2162	2432	1789	3657	2165	947	1220	1869												
MIN (WY)	18.5	49.3	54.1	15.3	168	138	73.5	48.4	35.6	32.4	38.6	30.1												

SUMMARY STATISTICS

	FOR 1998 CALENDAR YEAR	FOR 1999 WATER YEAR	FOR 1998 CALENDAR YEAR	FOR 1999 WATER YEAR	FOR 1998 CALENDAR YEAR	FOR 1999 WATER YEAR
ANNUAL TOTAL	250813	145781				
ANNUAL MEAN	687	399				
HIGHEST ANNUAL MEAN			605		1058	1996
LOWEST ANNUAL MEAN			266		266	1977
HIGHEST DAILY MEAN	5420	Apr 16	3690	Jan 13	10800	Sep 14 1979
LOWEST DAILY MEAN	43	Oct 2	32	Sep 24	14	Jan 21 1977
ANNUAL SEVEN-DAY MINIMUM	47	Sep 30	35	Sep 19	14	Jan 28 1977
INSTANTANEOUS PEAK FLOW			6800	Feb 7	29000	Sep 14 1979
INSTANTANEOUS PEAK STAGE			10.00	Feb 7	21.00	Sep 14 1979
INSTANTANEOUS LOW FLOW			32	Sep 24	14	Jan 21 1977
10 PERCENT EXCEEDS	2750	1520	2060			
50 PERCENT EXCEEDS	145	65	151			
90 PERCENT EXCEEDS	50	37	37			

e Estimated.

SURFACE-WATER RECORDS Mill Creek Basin

03259000 MILL CREEK AT CARTHAGE, OHIO

LOCATION.--Latitude 39°12'07", longitude 84°28'16", in SW 1/4 sec. 1, R.1, T.3, Hamilton County, Hydrologic Unit 05090203, on right bank at Anthony Wayne Avenue Bridge in Carthage, 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, 4,330 ft³/s Dec. 22, gage height, 12.88 ft; minimum daily, 13.0 ft³/s Nov. 8.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	16	29	43	580	247	63	53	28	46	119	23
2	21	16	25	65	373	152	62	49	65	70	36	23
3	101	43	24	297	356	161	100	47	36	28	29	24
4	75	35	24	143	123	123	137	46	27	21	20	21
5	53	34	24	113	97	120	105	49	24	30	19	21
6	44	16	23	67	114	915	110	127	23	24	18	19
7	403	15	95	68	1380	373	56	54	21	26	17	22
8	267	13	81	104	598	236	55	61	21	17	e94	22
9	109	14	35	232	374	253	573	78	20	30	e27	20
10	54	173	29	131	327	287	253	42	21	184	e15	19
11	37	89	25	108	112	202	140	40	70	32	e15	20
12	33	52	23	262	347	185	113	39	135	21	e15	19
13	e26	33	33	1080	216	181	87	126	129	18	e15	18
14	e25	25	28	371	152	168	59	64	300	18	e15	15
15	24	22	25	398	116	167	86	63	90	19	e15	16
16	23	22	26	341	92	276	87	72	52	18	e15	16
17	21	21	27	327	143	325	86	33	25	17	e15	15
18	81	20	24	557	122	203	88	73	22	17	e15	14
19	69	21	32	247	107	167	90	71	20	17	e16	13
20	38	88	26	177	69	128	62	65	18	19	e15	14
21	19	36	999	309	61	88	396	32	20	21	e15	14
22	18	24	1310	541	58	78	217	33	19	18	e15	14
23	15	23	404	764	58	71	153	75	19	18	e15	14
24	14	21	130	462	64	68	75	156	42	17	e430	14
25	14	100	112	355	106	66	65	93	214	16	e300	13
26	14	141	96	156	82	63	63	67	126	116	109	13
27	15	66	54	144	320	61	126	34	228	161	48	14
28	67	43	53	135	562	64	126	32	141	28	27	60
29	31	33	53	87	---	63	107	29	97	28	23	202
30	55	33	53	86	---	58	71	26	50	29	23	65
31	23	---	48	84	---	51	---	24	---	30	22	---
TOTAL	1810	1288	3970	8254	7109	5600	3811	1853	2103	1154	1572	797
MEAN	58.4	42.9	128	266	254	181	127	59.8	70.1	37.2	50.7	26.6
MAX	403	173	1310	1080	1380	915	573	156	300	184	430	202
MIN	14	13	23	43	58	51	55	24	18	16	15	13

e Estimated.

SURFACE-WATER RECORDS
Great Miami River Basin

03261500 GREAT MIAMI RIVER AT SIDNEY, OHIO

LOCATION.--Latitude 40°17'13", longitude 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.

DRAINAGE AREA.--541 mi².

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 is 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 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 5.38 ft³/s in 1999 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 record and 9 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	71	72	e68	404	3090	196	493	125	80	329	39
2	59	72	70	e68	486	2470	206	385	131	147	358	39
3	75	74	68	e66	508	2130	203	316	129	150	159	39
4	90	73	67	e64	436	1830	201	267	129	109	100	36
5	85	74	66	e62	396	1370	213	244	112	83	76	34
6	70	74	68	e60	317	2130	209	229	99	74	66	33
7	70	65	76	e60	1020	2250	188	211	94	90	60	34
8	82	63	83	e60	2780	1600	168	193	87	90	64	35
9	81	63	80	e60	1950	1180	336	185	80	84	66	33
10	72	77	77	e60	1320	887	629	179	77	113	58	31
11	65	98	68	e58	894	648	413	166	80	115	53	31
12	62	97	65	e58	936	536	387	162	96	84	52	31
13	59	90	63	e58	1060	479	323	186	116	67	60	31
14	56	77	62	e270	737	443	238	150	204	59	69	31
15	e58	71	61	e210	522	456	228	165	242	54	69	31
16	58	68	62	e200	451	451	387	144	167	50	62	28
17	57	69	67	e190	436	1120	1660	136	120	47	53	30
18	62	64	66	e250	421	1260	1770	133	106	47	48	32
19	74	63	65	e1900	365	935	1370	130	89	49	48	31
20	72	65	64	e1500	342	644	989	128	78	57	49	28
21	68	64	82	e1700	308	518	1020	117	72	84	49	27
22	64	64	277	e2500	292	497	986	116	69	402	48	27
23	66	66	267	e4500	211	392	1150	151	64	279	44	27
24	64	64	147	4570	196	305	1310	205	62	195	52	26
25	62	65	e120	3540	199	311	866	251	62	124	67	27
26	61	74	e100	2470	202	280	616	183	60	95	63	26
27	60	85	e90	1790	459	267	502	155	67	109	57	24
28	66	76	e80	1290	3130	234	1910	130	79	182	52	24
29	69	72	e74	910	---	217	1280	116	77	138	48	34
30	74	73	e72	593	---	221	746	111	71	102	42	39
31	75	---	e70	460	---	193	---	116	---	90	40	---
TOTAL	2089	2171	2749	29645	20778	29344	20700	5853	3044	3449	2461	938
MEAN	67.4	72.4	88.7	956	742	947	690	189	101	111	79.4	31.3
MAX	90	98	277	4570	3130	3090	1910	493	242	402	358	39
MIN	53	63	61	58	196	193	168	111	60	47	40	24

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1926 - 1999, BY WATER YEAR (WY)

	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
MEAN	151	315	502	742	771	965	876	539	437	309	176	128																																																														
MAX	1717	1876	2373	3846	2186	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																																																														

SUMMARY STATISTICS

	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1926 - 1999	
ANNUAL TOTAL	189067		123221			
ANNUAL MEAN	518		338			
HIGHEST ANNUAL MEAN					491	
LOWEST ANNUAL MEAN					963	1927
HIGHEST DAILY MEAN	5680		Jan 8	4570	Jan 24	17400
LOWEST DAILY MEAN	53		Oct 1	24	Sep 27	8.0
ANNUAL SEVEN-DAY MINIMUM	56		Sep 13	26	Sep 22	15
INSTANTANEOUS PEAK FLOW			5160		Jan 23a	20700
INSTANTANEOUS PEAK STAGE			9.37		Jan 22b	15.91
INSTANTANEOUS LOW FLOW			24		Sep 27	1.5
10 PERCENT EXCEEDS	1460		987		1260	
50 PERCENT EXCEEDS	225		90		180	
90 PERCENT EXCEEDS	63		48		45	

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

SURFACE-WATER RECORDS
Great Miami River Basin

03261950 LORAMIE CREEK NEAR NEWPORT, OHIO

LOCATION.--Latitude 40°18'25", longitude 84°23'02", in SE 1/4 sec, 24, T.11 N., R.4 E., Shelby County, Hydrologic Unit 05080001, right bank at downstream side of bridge on Cardo Roman Road, 1.1 mi northwest of Newport, 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 good except for discharge over 300 ft³/s and estimated record, which are fair. Some regulation by Lake Loramie 5 mi upstream, capacity, 13,000 acre-ft. Sediment data collected at this site.

COOPERATION.--Gage-height record and 8 discharge measurements furnished by Miami Conservancy District.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 25, 1913, reached a stage of 17.0 ft and flood of Jan. 21, 1959, a stage of 14.2 ft, from flood profile furnished by Miami Conservancy District.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	4.6	5.0	e3.6	59	1030	26	186	18	4.0	18	2.7
2	2.6	4.1	4.4	e3.4	85	573	41	117	30	10	4.3	2.7
3	19	11	4.0	e3.2	101	559	69	90	51	7.7	2.7	2.4
4	20	14	3.7	e28	85	354	71	71	37	5.0	2.1	2.2
5	7.2	8.6	3.2	e16	63	210	56	23	24	3.3	1.8	2.0
6	3.9	5.4	2.7	e13	54	698	13	22	18	2.7	1.6	2.2
7	6.1	4.1	9.4	e11	410	697	11	20	12	3.2	1.5	2.4
8	8.2	3.7	8.1	e11	1110	345	8.6	17	11	2.8	2.6	3.3
9	4.5	3.2	5.2	e10	605	231	20	17	9.7	2.6	1.8	2.9
10	3.3	6.8	3.9	e9.4	288	154	31	16	7.5	9.7	1.2	2.6
11	2.5	30	3.3	e9.0	167	106	21	16	8.8	5.4	1.7	2.6
12	2.3	18	2.8	e8.8	526	86	16	15	6.5	3.8	2.5	2.2
13	2.2	8.1	2.5	e8.6	385	78	11	54	7.4	2.9	6.5	1.8
14	2.8	4.8	2.4	e20	194	80	11	37	26	2.5	15	2.4
15	3.4	4.3	2.4	e50	131	60	24	23	37	2.3	4.9	2.5
16	3.4	3.5	2.5	e45	106	107	116	16	18	1.8	2.6	2.3
17	2.7	3.6	3.3	e40	113	526	315	13	9.6	1.7	1.9	2.1
18	4.1	3.4	3.0	1100	110	398	315	19	5.9	2.2	1.6	3.0
19	11	2.8	2.7	1280	89	223	221	19	5.0	2.4	2.0	3.6
20	5.0	4.8	3.1	669	67	142	153	13	3.0	1.9	2.8	3.8
21	4.8	5.4	5.6	797	50	111	170	9.1	2.6	2.0	1.9	4.2
22	4.6	3.5	54	2440	e37	82	194	20	2.7	11	1.7	3.7
23	3.1	3.0	28	3050	e34	66	253	47	2.7	3.2	1.5	3.5
24	3.9	3.6	19	2110	e33	60	242	86	2.6	2.0	2.3	3.6
25	4.3	3.5	11	934	e32	47	152	53	3.2	1.9	5.2	3.9
26	4.3	13	e7.0	425	35	21	115	34	3.1	2.5	3.4	4.0
27	3.9	8.0	e5.6	243	220	20	98	22	3.3	11	2.8	3.5
28	5.3	4.6	e5.0	173	1230	22	465	15	7.1	6.0	2.5	3.0
29	7.5	3.2	e4.5	119	---	22	745	11	14	5.7	2.7	8.7
30	13	2.8	e4.2	86	---	21	388	9.5	5.7	3.5	2.6	15
31	7.9	---	e3.8	68	---	20	---	10	---	4.6	2.7	---
TOTAL	179.4	199.4	225.3	13784.0	6419	7149	4371.6	1120.6	392.4	131.3	108.4	104.8
MEAN	5.79	6.65	7.27	445	229	231	146	36.1	13.1	4.24	3.50	3.49
MAX	20	30	54	3050	1230	1030	745	186	51	11	18	15
MIN	2.2	2.8	2.4	3.2	32	20	8.6	9.1	2.6	1.7	1.2	1.8

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1999, BY WATER YEAR (WY)

	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999						
MEAN	34.3	109	182	178	218	278	237	130	119	110	46.0	23.2																													
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 1998 CALENDAR YEAR

FOR 1999 WATER YEAR

WATER YEARS 1965 - 1999

ANNUAL TOTAL	56464.2	34185.2	
ANNUAL MEAN	155	93.7	138
HIGHEST ANNUAL MEAN			249
LOWEST ANNUAL MEAN			39.6
HIGHEST DAILY MEAN	2800	Jun 12	5100
LOWEST DAILY MEAN	1.6	Sep 12	.10
ANNUAL SEVEN-DAY MINIMUM	1.9	Sep 9	.13
INSTANTANEOUS PEAK FLOW			3170
INSTANTANEOUS PEAK STAGE			12.36
INSTANTANEOUS LOW FLOW			1.2
10 PERCENT EXCEEDS	403	220	357
50 PERCENT EXCEEDS	27	8.7	23
90 PERCENT EXCEEDS	2.7	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.--Latitude 40°12'35", longitude 84°14'32", in NE 1/4 sec. 30, T.7 N., R.6 E., Shelby County, Hydrologic Unit 05080001, on left bank at downstream side of county road bridge, 1,300 ft downstream from Lockington Dam, 0.5 mi northwest of Lockington, and at mile 1.9.
 DRAINAGE AREA.--257 mi².
 PERIOD OF RECORD.--October 1915 to current year.
 REVISED RECORDS.--WSP 923: 1916. WSP 1908: Drainage area.
 GAGE.--Water-stage recorder and concrete control. Datum of gage is 800.03 ft above sea level. Prior to July 3, 1924, nonrecording gage at same site at datum 75.96 ft higher. July 3, 1924, to Aug. 17, 1926, nonrecording gage, and Aug. 18 to Sept. 30, 1926, water-stage recorder, at same site at datum 74.96 ft higher.
 REMARKS.--Records good except for periods of estimated record, which are poor. Slight regulation by Lake Loramie 18 mi upstream, capacity, 13,000 acre-ft. Flood flow regulated by Lockington retarding basin beginning in 1921.
 COOPERATION.--Gage-height record and 8 discharge measurements furnished by Miami Conservancy District.
 EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,400 ft³/s May 7, 1916, gage height, 86.4 ft, present datum, from rating curve extended above 5,400 ft³/s.
 EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 25, 1913, reached a stage of 91.6 ft, present datum; discharge, 25,600 ft³/s, at site upstream from Turtle Creek, drainage area, 211 mi², computed by Miami Conservancy District.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	18	11	e8.0	121	1440	52	231	34	15	17	8.9
2	14	15	11	e7.4	168	783	60	141	42	20	30	13
3	17	18	11	e7.0	180	770	88	106	66	20	18	13
4	37	15	14	e15	157	510	102	101	62	15	15	13
5	27	17	17	e33	124	311	95	60	45	13	16	12
6	19	16	17	e27	110	1060	61	42	37	11	15	9.4
7	17	15	17	e24	843	941	41	39	30	10	14	7.8
8	18	14	16	e22	1780	478	36	29	26	12	14	5.8
9	19	13	14	e21	882	327	39	26	23	15	14	3.9
10	17	12	10	e20	470	243	59	26	22	28	15	2.1
11	15	13	17	e19	300	176	51	26	19	25	14	.53
12	14	22	14	e18	751	e150	42	25	18	19	14	.65
13	12	17	6.7	e23	613	e140	36	40	18	10	16	3.3
14	11	12	6.3	e30	329	e130	33	52	83	8.7	26	7.9
15	13	9.7	8.0	e80	242	e120	36	33	87	7.9	30	7.8
16	15	13	16	e68	205	e160	124	25	55	7.5	21	7.5
17	14	17	16	e60	213	699	460	21	36	7.4	16	5.9
18	13	17	14	e400	230	544	467	20	24	7.1	14	5.5
19	15	17	13	e1400	211	319	316	24	15	7.5	13	4.3
20	18	16	12	e800	174	214	223	22	14	8.0	13	.92
21	15	16	11	e1000	142	176	332	18	12	7.9	13	3.7
22	13	15	79	e2000	124	143	345	17	9.3	27	12	.97
23	13	14	e45	e3400	117	120	488	31	11	16	8.8	.51
24	12	10	e25	e2600	112	108	397	129	10	13	20	3.5
25	12	10	e20	1260	113	98	239	111	11	11	37	4.7
26	12	13	e15	566	115	73	179	63	11	9.6	37	4.6
27	12	14	e14	351	497	59	152	50	12	9.9	18	4.4
28	12	14	e12	263	2340	58	978	36	17	16	11	4.3
29	12	12	e11	197	---	57	891	31	15	9.7	15	4.9
30	14	11	e10	153	---	51	478	28	18	8.8	14	8.0
31	18	---	e9.0	131	---	46	---	32	---	7.6	11	---
TOTAL	484	435.7	512.0	15003.4	11663	10504	6900	1635	882.3	403.6	541.8	172.78
MEAN	15.6	14.5	16.5	484	417	339	230	52.7	29.4	13.0	17.5	5.76
MAX	37	22	79	3400	2340	1440	978	231	87	28	37	13
MIN	11	9.7	6.3	7.0	110	46	33	17	9.3	7.1	8.8	.51

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 1999, BY WATER YEAR (WY)

	48.2	125	226	338	349	455	388	208	185	128	65.3	47.4
MEAN	48.2	125	226	338	349	455	388	208	185	128	65.3	47.4
MAX	540	1025	1203	1728	1119	1235	1301	1017	1754	1088	682	1092
(WY)	1987	1973	1991	1937	1950	1978	1922	1933	1958	1992	1995	1926
MIN	2.92	4.64	4.59	4.35	9.19	21.4	43.0	11.9	9.23	5.35	3.37	2.46
(WY)	1964	1964	1964	1977	1964	1941	1971	1941	1988	1936	1936	1983

SUMMARY STATISTICS

FOR 1998 CALENDAR YEAR

FOR 1999 WATER YEAR

WATER YEARS 1921 - 1999

ANNUAL TOTAL	82730.5	49137.58	
ANNUAL MEAN	227	135	213
HIGHEST ANNUAL MEAN			413
LOWEST ANNUAL MEAN			53.0
HIGHEST DAILY MEAN	3580	Jun 12	3400
LOWEST DAILY MEAN	5.6	Sep 27	.51
ANNUAL SEVEN-DAY MINIMUM	10	Sep 10	2.7
INSTANTANEOUS PEAK FLOW			e3640
INSTANTANEOUS PEAK STAGE			82.75
INSTANTANEOUS LOW FLOW			.51
10 PERCENT EXCEEDS	534	330	540
50 PERCENT EXCEEDS	55	18	43
90 PERCENT EXCEEDS	12	8.0	7.2

b Ice jam.
e Estimated.

SURFACE-WATER RECORDS Great Miami River Basin

03262700 GREAT MIAMI RIVER AT TROY, OHIO

LOCATION.--Latitude 40°02'25", longitude 84°11'52", Miami County, Hydrologic Unit 05080001, 400 ft downstream from B & O Railroad bridge, 1,300 ft downstream from bridge on State Highway 55 at Troy, 1.2 mi upstream from small left bank tributary, 2.3 mi downstream from Spring Creek, and at mile 105.

DRAINAGE AREA.--926 mi².

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1961, 1962 (published as Miami River at Troy). October 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 810.67 ft above sea level.

REMARKS.--Records fair except for periods of estimated record, which are poor. Flood flow regulated by retarding basin on 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 8.2 ft³/s in 1999 and is returned as sewage 1 mi downstream from the station. Water-quality and sediment data collected at this site.

COOPERATION.--Gage-height record and 10 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 1998 TO SEPTEMBER 1999 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	93	92	107	e70	583	5320	338	872	216	113	236	53
2	81	89	76	e68	635	3740	339	623	230	333	455	56
3	165	104	86	e66	709	3150	362	516	230	227	292	53
4	109	89	84	e64	609	2600	376	449	249	165	185	57
5	124	85	88	e64	524	1850	359	403	232	113	156	51
6	111	86	89	e62	471	3250	370	353	208	114	135	e43
7	130	86	105	e62	1630	3820	305	327	183	128	145	e45
8	105	80	94	e60	5480	2360	299	303	164	128	107	e45
9	107	77	100	e60	3320	1690	420	291	158	116	100	e42
10	116	107	93	e60	1960	1250	736	287	141	162	96	e41
11	112	108	92	e60	1300	897	602	283	137	156	90	e40
12	109	107	89	e62	1440	729	488	291	149	142	86	e39
13	102	111	87	e66	1680	659	475	301	179	114	106	e38
14	97	99	86	e80	1090	612	390	312	305	96	103	e38
15	95	89	86	e200	751	586	373	259	364	85	112	e37
16	e90	87	85	e230	615	612	466	258	285	73	95	e37
17	e100	88	88	e200	587	1550	1800	229	218	53	78	e37
18	e110	89	86	e300	581	1930	2490	236	177	59	67	e39
19	e110	88	84	e2800	517	1360	1920	229	164	70	69	e41
20	e100	88	80	e2500	464	922	1380	223	135	104	66	e40
21	e92	86	106	e2800	424	706	1560	213	120	91	68	e39
22	87	86	225	e5000	412	632	1740	222	112	203	71	e36
23	86	86	346	e8800	382	558	1620	221	104	429	72	e36
24	89	86	227	9000	345	476	1940	355	101	234	89	e36
25	89	90	140	5740	352	405	1290	395	101	213	110	e35
26	87	96	e110	3500	342	400	881	324	96	164	112	36
27	86	90	e100	2380	564	390	722	270	112	167	84	31
28	100	99	e90	1720	5950	338	2610	229	111	204	74	30
29	e84	91	e82	1200	---	336	2730	208	112	218	68	47
30	95	89	e76	807	---	341	1490	210	91	177	64	69
31	91	---	e72	636	---	318	---	209	---	157	60	---
TOTAL	3152	2748	3359	48717	33717	43787	30871	9901	5184	4808	3651	1267
MEAN	102	91.6	108	1572	1204	1412	1029	319	173	155	118	42.2
MAX	165	111	346	9000	5950	5320	2730	872	364	429	455	69
MIN	81	77	72	60	342	318	299	208	91	53	60	30

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1999, BY WATER YEAR (WY)

	241	635	1011	962	1234	1654	1525	956	783	639	342	172
MEAN	241	635	1011	962	1234	1654	1525	956	783	639	342	172
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 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1963 - 1999

ANNUAL TOTAL	329693	191162	
ANNUAL MEAN	903	524	844
HIGHEST ANNUAL MEAN			1662 1973
LOWEST ANNUAL MEAN			300 1988
HIGHEST DAILY MEAN	10900	9000	18900 Aug 9 1995
LOWEST DAILY MEAN	72	30	4.3 Jul 17 1977
ANNUAL SEVEN-DAY MINIMUM	85	34	19 Sep 22 Oct 6 1963
INSTANTANEOUS PEAK FLOW		e9400	21700 Aug 8 1995
INSTANTANEOUS PEAK STAGE		11.27	16.02 Aug 8 1995
INSTANTANEOUS LOW FLOW		30	4.3 Jul 17 1977
10 PERCENT EXCEEDS	2470	1510	2190
50 PERCENT EXCEEDS	363	137	304
90 PERCENT EXCEEDS	89	61	71

e Estimated.

**SURFACE-WATER RECORDS
Great Miami River Basin**

03263000 GREAT MIAMI RIVER AT TAYLORSVILLE, OHIO

LOCATION.--Latitude 39°52'27", longitude 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 fair except for periods of estimated record, which are poor. 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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	117	155	128	e130	970	7460	497	1370	303	168	200	80
2	100	156	133	e120	1050	5080	496	991	340	636	427	75
3	124	159	109	e110	1110	4000	504	825	325	417	354	78
4	155	168	118	e110	1030	3450	535	726	309	299	206	77
5	157	146	118	e100	858	2500	496	643	293	221	159	68
6	e220	136	131	e100	789	3960	498	566	255	178	137	67
7	208	137	155	e98	1880	5190	440	516	224	171	126	66
8	130	133	148	e96	7170	3180	405	466	205	164	121	64
9	143	120	141	e94	4790	2330	561	433	191	180	111	61
10	144	178	146	e92	2860	1810	1040	406	180	216	115	57
11	138	202	133	e90	1940	1390	948	393	184	204	113	47
12	128	174	139	e90	1920	1140	728	369	171	196	105	54
13	120	177	131	e200	2340	1030	673	422	233	172	111	60
14	109	167	120	e500	1680	960	567	414	347	152	125	60
15	106	154	117	e400	1220	918	556	368	522	134	133	41
16	107	144	115	e360	e980	976	709	354	412	124	130	52
17	118	139	127	e320	e900	1940	2000	316	303	118	105	58
18	125	145	123	e450	e860	2540	3260	318	233	113	90	46
19	157	141	116	e3000	e820	1940	2610	314	206	115	85	61
20	133	135	114	3990	e780	1450	1970	294	187	128	91	64
21	128	134	155	4230	e700	1160	2610	282	174	146	79	62
22	119	124	517	12100	e600	1010	2850	312	165	151	89	45
23	114	123	558	14800	560	916	2190	311	156	509	86	50
24	113	136	393	12200	518	781	2570	435	150	308	101	38
25	124	123	e300	8340	510	685	1910	555	151	220	149	34
26	122	150	e200	4770	498	676	1410	478	149	185	153	52
27	109	137	e190	3300	798	615	1160	369	167	194	128	62
28	114	138	e170	2440	7250	576	2490	321	196	185	106	62
29	138	142	e150	1810	---	537	3870	264	205	260	96	67
30	102	132	e140	1360	---	512	2110	247	167	196	93	75
31	164	---	e130	1040	---	489	---	272	---	164	88	---
TOTAL	4086	4405	5465	76840	47381	61201	42663	14350	7103	6624	4212	1783
MEAN	132	147	176	2479	1692	1974	1422	463	237	214	136	59.4
MAX	220	202	558	14800	7250	7460	3870	1370	522	636	427	80
MIN	100	120	109	90	498	489	405	247	149	113	79	34
CFSM	.11	.13	.15	2.16	1.47	1.72	1.24	.40	.21	.19	.12	.05
IN.	.13	.14	.18	2.49	1.53	1.98	1.38	.46	.23	.21	.14	.06

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 1999, BY WATER YEAR (WY)

MEAN	296	610	1021	1538	1584	1971	1828	1149	980	648	376	253
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 1998 CALENDAR YEAR	FOR 1999 WATER YEAR	FOR WATER YEARS 1922 - 1999
ANNUAL TOTAL	427842	276113	
ANNUAL MEAN	1172	756	1018
HIGHEST ANNUAL MEAN			2005
LOWEST ANNUAL MEAN			292
HIGHEST DAILY MEAN	11000	Jan 9	30200
LOWEST DAILY MEAN	100	Oct 2	25
ANNUAL SEVEN-DAY MINIMUM	116	Oct 12	31
INSTANTANEOUS PEAK FLOW			15700
INSTANTANEOUS PEAK STAGE			19.50
INSTANTANEOUS LOW FLOW			34
ANNUAL RUNOFF (CFSM)	1.02	.66	.89
ANNUAL RUNOFF (INCHES)	13.85	8.94	12.04
10 PERCENT EXCEEDS	3210	1950	2470
50 PERCENT EXCEEDS	558	190	394
90 PERCENT EXCEEDS	125	90	94

e Estimated.

SURFACE-WATER RECORDS
Great Miami River Basin

03264000 GREENVILLE CREEK NEAR BRADFORD, OHIO

LOCATION.--Latitude 40°06'08", longitude 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 record and 10 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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	44	45	e25	175	841	97	127	62	68	38	13
2	23	42	42	e24	186	484	97	124	69	308	33	12
3	26	43	44	e24	191	390	93	119	68	149	29	10
4	52	44	44	e23	176	309	95	115	63	84	26	11
5	41	47	42	e23	150	240	93	110	58	63	23	15
6	35	43	41	e22	137	488	91	126	56	54	22	8.9
7	33	40	46	e22	532	564	86	157	52	46	21	11
8	41	38	44	e22	1540	314	84	117	48	42	20	9.6
9	39	38	45	e21	737	260	94	102	44	38	25	9.2
10	36	42	44	e21	411	215	102	94	58	39	23	7.7
11	35	80	41	e21	302	178	94	90	55	40	21	8.4
12	34	76	40	e20	492	160	87	84	78	37	19	7.8
13	e33	59	38	e20	457	150	82	82	210	35	22	8.1
14	31	51	38	e80	279	141	80	82	197	32	21	7.4
15	28	48	37	e250	229	135	86	77	152	29	20	8.5
16	28	44	34	e160	203	155	140	73	97	27	19	8.1
17	28	41	34	e110	194	379	364	71	77	27	18	7.8
18	29	38	35	e250	184	359	418	70	65	31	17	7.9
19	42	37	36	1530	164	241	313	76	56	34	13	8.9
20	34	37	33	568	146	194	240	69	53	e52	18	9.2
21	31	39	37	725	131	178	504	65	50	e45	18	9.1
22	29	39	94	2420	118	157	797	67	46	37	18	8.5
23	28	38	114	3240	113	140	424	72	43	110	16	7.9
24	28	37	74	2370	110	131	309	82	43	43	18	7.8
25	29	35	e54	934	110	121	232	83	43	34	22	8.4
26	30	51	e46	554	105	113	198	75	40	31	26	13
27	31	47	e36	415	204	107	177	65	41	30	23	9.6
28	33	47	e31	320	1110	104	163	62	52	34	19	7.4
29	36	45	e28	249	---	103	152	60	57	33	17	11
30	43	44	e27	206	---	96	133	57	51	31	15	12
31	45	---	e26	181	---	94	---	56	---	30	14	---
TOTAL	1035	1354	1370	14850	8886	7541	5925	2709	2084	1693	654	284.2
MEAN	33.4	45.1	44.2	479	317	243	198	87.4	69.5	54.6	21.1	9.47
MAX	52	80	114	3240	1540	841	797	157	210	308	38	15
MIN	23	35	26	20	105	94	80	56	40	27	13	7.4
CFSM	.17	.23	.23	2.48	1.64	1.26	1.02	.45	.36	.28	.11	.05
IN.	.20	.26	.26	2.86	1.71	1.45	1.14	.52	.40	.33	.13	.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1999, BY WATER YEAR (WY)

MEAN	55.5	110	175	252	276	329	319	217	186	110	69.5	47.7
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	9.47
(WY)	1964	1935	1964	1945	1935	1941	1935	1941	1934	1934	1988	1999

SUMMARY STATISTICS FOR 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1931 - 1999

ANNUAL TOTAL	67010	48385.2	
ANNUAL MEAN	184	133	178
HIGHEST ANNUAL MEAN			302
LOWEST ANNUAL MEAN			52.8
HIGHEST DAILY MEAN	2160	Apr 10	7920
LOWEST DAILY MEAN	23	Oct 2	7.4
ANNUAL SEVEN-DAY MINIMUM	26	Sep 27	7.9
INSTANTANEOUS PEAK FLOW			3460
INSTANTANEOUS PEAK STAGE			7.45
INSTANTANEOUS LOW FLOW			7.4
ANNUAL RUNOFF (CFSM)	.95		.69
ANNUAL RUNOFF (INCHES)	12.92		9.33
10 PERCENT EXCEEDS	407		268
50 PERCENT EXCEEDS	81		47
90 PERCENT EXCEEDS	33		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
Great Miami River Basin

03265000 STILLWATER RIVER AT PLEASANT HILL, OHIO

LOCATION.--Latitude 40°03'28", longitude 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.

DRAINAGE AREA.--503 mi².

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.

REVISED RECORDS.--WSP 523: 1917. WSP 1305: 1920(M). WSP 1908: Drainage area.

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 fair except for periods of estimated record, which are poor. Sediment data collected at this site. COOPERATION.--Gage-height record and 9 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	64	72	e42	405	2580	210	253	124	99	97	18
2	29	63	69	e41	467	1350	208	240	143	647	88	18
3	37	65	71	e40	466	1130	198	229	186	320	61	16
4	62	67	74	e39	418	853	200	216	153	190	53	17
5	74	69	73	e38	334	619	192	212	126	139	46	17
6	56	74	71	e37	316	1780	186	218	116	115	40	22
7	54	66	74	e36	1630	1720	e173	287	105	99	38	12
8	57	63	71	e36	4340	827	e169	223	94	e88	38	13
9	61	59	66	e35	2010	678	276	192	85	e83	35	13
10	56	65	66	e35	1080	528	260	176	107	89	36	9.5
11	50	107	61	e35	755	409	240	167	116	82	37	9.1
12	46	130	59	e34	1300	364	195	166	241	74	31	9.6
13	42	104	57	e34	1210	339	174	391	636	69	34	15
14	42	83	53	e85	675	329	168	213	712	67	33	13
15	40	72	53	e263	536	313	183	172	463	62	33	10
16	37	67	55	e200	480	381	301	154	242	60	33	11
17	37	64	57	e150	454	1270	1040	149	171	58	31	14
18	40	60	56	e1000	435	1100	1150	142	135	57	28	14
19	54	59	58	e3410	373	630	812	145	112	83	28	15
20	62	60	55	1760	327	483	583	138	104	97	22	17
21	55	60	68	2380	278	443	1350	128	100	95	27	19
22	50	62	149	8860	246	371	2040	133	95	84	28	20
23	48	63	221	8730	239	322	1150	164	87	143	26	19
24	45	61	e124	5450	232	301	878	362	85	131	31	18
25	44	60	e90	2320	231	267	581	281	84	85	36	18
26	e42	75	e70	1360	220	240	478	191	79	70	39	22
27	e44	76	e62	1020	467	229	412	149	80	66	41	32
28	49	78	e55	789	4090	226	355	129	92	74	37	32
29	52	77	e50	590	---	222	316	121	109	75	31	34
30	58	74	e47	465	---	208	273	111	101	70	23	48
31	71	---	e45	404	---	200	---	113	---	64	19	---
TOTAL	1525	2147	2252	39718	24014	20712	14751	5965	5083	3535	1180	545.2
MEAN	49.2	71.6	72.6	1281	858	668	492	192	169	114	38.1	18.2
MAX	74	130	221	8860	4340	2580	2040	391	712	647	97	48
MIN	29	59	45	34	220	200	168	111	79	57	19	9.1
CFSM	.10	.14	.14	2.55	1.71	1.33	.98	.38	.34	.23	.08	.04
IN.	.11	.16	.17	2.94	1.78	1.53	1.09	.44	.38	.26	.09	.04

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1917 - 1999, BY WATER YEAR (WY)

	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
MEAN	131	289	446	628	720	924	837	476	468	272	148	116	1313	1909	2437	3961	2177	2433	2513	1700	3334	1295	1823	2127	1927	1994	1991	1937	1950	1963	1922	1996	1958	1993	1979	1926	11.7	19.3	16.0	21.5	44.0	79.8	131	44.6	33.7	22.2	14.1	14.9	1964	1964	1964	1964	1977	1964	1941	1971	1941	1988	1977	1988	1954																						

SUMMARY STATISTICS FOR 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1917 - 1999

ANNUAL TOTAL	167843	121427.2	
ANNUAL MEAN	460	333	
HIGHEST ANNUAL MEAN			775
LOWEST ANNUAL MEAN			99.3
HIGHEST DAILY MEAN	5590	Jun 12	8860
LOWEST DAILY MEAN	29	Oct 2	9.1
ANNUAL SEVEN-DAY MINIMUM	36	Sep 27	11
INSTANTANEOUS PEAK FLOW			9750
INSTANTANEOUS PEAK STAGE			12.67
INSTANTANEOUS LOW FLOW			9.1
ANNUAL RUNOFF (CFSM)	.91		.66
ANNUAL RUNOFF (INCHES)	12.41		8.98
10 PERCENT EXCEEDS	1220		692
50 PERCENT EXCEEDS	163		88
90 PERCENT EXCEEDS	48		31

e Estimated.

SURFACE-WATER RECORDS
Great Miami River Basin

03266000 STILLWATER RIVER AT ENGLEWOOD, OHIO

LOCATION.--Latitude 39°52'10", longitude 84°16'57", in NW 1/4 sec. 23, T.5 N., R.5 E., Montgomery County, Hydrologic Unit 05080001, on right bank 1,000 ft downstream from Englewood Dam, 1 mi southeast of Englewood, and at mile 8.9.
 DRAINAGE AREA.--650 mi².
 PERIOD OF RECORD.--October 1925 to current year (monthly discharge only, October 1925, published in WSP 1305).
 REVISED RECORDS.--WSP 1908: Drainage area.
 GAGE.--Water-stage recorder and concrete control. Datum of gage is 699.82 ft above sea level.
 REMARKS.--Records good except for periods of estimated record, which are poor. Flood flow regulated by Englewood retarding basin.
 COOPERATION.--Gage-height tapes and 8 discharge measurements furnished by Miami Conservancy District.
 EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1913 reached a discharge of 85,400 ft³/s at site 1 mi downstream, computed by Miami Conservancy District.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49	81	81	e68	632	4450	e260	335	170	138	63	31
2	49	78	81	e64	740	3000	e265	310	206	549	92	28
3	61	80	78	e62	750	1820	264	297	237	492	91	26
4	71	79	76	e60	680	1530	e310	284	235	271	72	25
5	80	74	76	e58	537	1010	257	272	194	190	59	23
6	99	75	75	e56	458	1880	247	273	172	151	52	21
7	101	79	83	e54	1180	3080	241	299	157	128	47	20
8	103	75	82	e53	4290	1550	232	316	146	110	47	23
9	86	71	82	e52	4340	1110	286	265	135	104	43	21
10	82	89	81	e50	2490	864	444	239	141	128	41	18
11	79	103	84	e50	1280	630	360	223	174	123	42	e16
12	72	126	81	e48	1430	528	325	213	223	104	41	e20
13	68	149	77	e48	2080	482	273	357	543	88	39	e18
14	63	123	74	e80	1120	455	254	329	747	80	40	e16
15	62	101	73	e150	790	433	257	251	742	73	41	e15
16	59	88	74	e300	675	444	354	215	370	68	39	e16
17	56	81	74	e240	622	1520	1100	196	250	63	40	e18
18	62	76	69	1160	588	1860	1890	197	204	60	38	e18
19	72	73	70	3400	527	1100	1350	194	175	61	38	e20
20	68	74	70	2770	450	734	963	194	155	94	38	e21
21	78	72	89	2360	386	617	1530	182	142	109	34	e24
22	68	71	182	4740	337	532	3150	189	133	98	31	e22
23	61	73	235	6870	318	450	1970	192	123	111	33	e20
24	58	73	213	7320	309	399	1530	278	114	187	43	e20
25	55	75	148	6930	308	e350	959	398	115	133	54	e28
26	57	81	e110	6120	296	e330	711	276	110	89	58	e35
27	55	83	e96	4990	514	e300	590	220	118	77	47	e35
28	63	88	e86	2440	3500	e290	509	188	135	78	48	e40
29	61	87	e80	990	---	e280	446	172	166	83	43	e46
30	82	86	e74	729	---	e260	380	160	155	77	37	e60
31	75	---	e70	594	---	e250	---	157	---	69	32	---
TOTAL	2155	2564	2924	52906	31627	32538	21707	7671	6687	4186	1463	744
MEAN	69.5	85.5	94.3	1707	1130	1050	724	247	223	135	47.2	24.8
MAX	103	149	235	7320	4340	4450	3150	398	747	549	92	60
MIN	49	71	69	48	296	250	232	157	110	60	31	15
CFSM	.11	.13	.15	2.63	1.74	1.61	1.11	.38	.34	.21	.07	.04
IN.	.12	.15	.17	3.03	1.81	1.86	1.24	.44	.38	.24	.08	.04

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1926 - 1999, BY WATER YEAR (WY)

	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
MEAN	168	348	565	900	941	1150	1076	683	580	365	206	141																																																														
MAX	1781	2215	2495	5129	2840	3147	3015	2931	4244	1582	2438	1993																																																														
(WY)	1987	1973	1991	1937	1950	1963	1964	1933	1958	1993	1979	1926																																																														
MIN	15.6	27.3	27.9	28.6	63.0	111	180	61.1	52.2	30.0	19.7	17.9																																																														
(WY)	1964	1945	1945	1945	1964	1941	1941	1941	1934	1988	1988	1963																																																														

SUMMARY STATISTICS FOR 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1926 - 1999

ANNUAL TOTAL	232213	167172	
ANNUAL MEAN	636	458	592
HIGHEST ANNUAL MEAN			1027
LOWEST ANNUAL MEAN			130
HIGHEST DAILY MEAN	5210	Jun 13	9980
LOWEST DAILY MEAN	49	Oct 1	4.8
ANNUAL SEVEN-DAY MINIMUM	54	Sep 27	9.7
INSTANTANEOUS PEAK FLOW			7430
INSTANTANEOUS PEAK STAGE			79.34
INSTANTANEOUS LOW FLOW			e15
ANNUAL RUNOFF (CFSM)	.98	.70	.91
ANNUAL RUNOFF (INCHES)	13.29	9.57	12.37
10 PERCENT EXCEEDS	1850	1100	1420
50 PERCENT EXCEEDS	240	115	200
90 PERCENT EXCEEDS	68	39	43

e Estimated.

SURFACE-WATER RECORDS
Great Miami River Basin

03266560 MAD RIVER AT WEST LIBERTY, OHIO

LOCATION.--Latitude 40°15'08", longitude 83°44'59", Logan County, Hydrologic Unit 05080001, on left bank upstream from the 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 1998 TO SEPTEMBER 1999
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	13	18	e12	33	67	31	43	27	20	26	14
2	13	13	17	e12	34	51	29	40	27	22	19	14
3	15	14	17	e12	33	68	30	39	25	19	18	14
4	16	13	17	e12	31	50	31	37	24	18	18	14
5	15	14	17	e12	28	42	32	36	23	17	18	13
6	15	14	16	e12	28	175	33	35	22	21	19	13
7	17	14	18	e12	110	76	32	34	23	22	19	13
8	18	14	18	e12	96	53	34	34	21	18	23	14
9	16	14	17	e13	49	48	61	32	21	19	21	13
10	15	17	16	e14	39	44	56	32	22	21	21	13
11	15	20	16	e15	36	e40	55	30	22	18	20	13
12	14	17	16	15	42	38	47	30	22	17	20	13
13	14	16	16	20	34	38	42	30	23	17	21	13
14	14	15	15	18	31	36	40	30	34	16	23	12
15	14	15	15	16	32	35	40	30	26	16	21	12
16	14	15	16	17	32	41	67	29	23	16	18	12
17	14	15	16	18	31	78	167	28	22	16	16	12
18	15	15	15	57	29	61	106	28	21	16	16	12
19	16	15	16	41	28	45	90	28	21	17	17	12
20	14	15	16	30	26	40	66	27	21	19	17	12
21	14	15	21	56	25	39	73	27	20	91	16	13
22	14	15	38	377	23	36	65	29	20	79	16	13
23	14	15	21	159	24	34	106	29	20	30	15	13
24	14	15	18	82	25	34	78	32	20	27	17	13
25	14	17	e16	52	25	32	60	28	19	22	20	12
26	14	19	e15	42	25	32	52	27	19	21	19	12
27	13	17	e14	39	44	31	50	26	20	20	17	12
28	14	17	e14	36	164	31	48	25	19	21	16	12
29	14	17	e13	33	---	30	45	25	19	20	15	14
30	15	17	e13	31	---	30	48	24	19	19	14	15
31	14	---	e13	31	---	29	---	26	---	19	14	---
TOTAL	451	462	524	1308	1157	1484	1714	950	665	734	570	387
MEAN	14.5	15.4	16.9	42.2	41.3	47.9	57.1	30.6	22.2	23.7	18.4	12.9
MAX	18	20	38	377	164	175	167	43	34	91	26	15
MIN	13	13	13	12	23	29	29	24	19	16	14	12
CFSM	.40	.42	.46	1.15	1.13	1.31	1.56	.84	.61	.65	.50	.35
IN.	.46	.47	.53	1.33	1.18	1.51	1.74	.97	.68	.75	.58	.39

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 1999, BY WATER YEAR (WY)

MEAN	21.5	23.8	34.7	46.6	44.7	52.4	64.0	70.1	55.9	35.5	26.7	19.9
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	30.6	22.2	20.6	16.6	12.9
(WY)	1995	1995	1995	1995	1995	1995	1995	1999	1999	1994	1994	1999

SUMMARY STATISTICS FOR 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1995 - 1999

ANNUAL TOTAL	13709	10406										
ANNUAL MEAN	37.6	28.5								42.2		
HIGHEST ANNUAL MEAN										56.6		1996
LOWEST ANNUAL MEAN										28.5		1999
HIGHEST DAILY MEAN	355	Jan 8	377	Jan 22						704	Jun 2	1997
LOWEST DAILY MEAN	13	Oct 1	12	Jan 1						7.2	Jan 9	1995
ANNUAL SEVEN-DAY MINIMUM	14	Oct 31	12	Jan 1						7.7	Jan 3	1995
INSTANTANEOUS PEAK FLOW			819	Jan 22						1200	Jun 2	1997
INSTANTANEOUS PEAK STAGE			6.91	Jan 22						8.43	Jun 2	1997
INSTANTANEOUS LOW FLOW			7.9	Jan 1						5.0	Jan 10	1995
ANNUAL RUNOFF (CFSM)	1.03		.78							1.15		
ANNUAL RUNOFF (INCHES)	13.93		10.58							15.68		
10 PERCENT EXCEEDS	70		48							74		
50 PERCENT EXCEEDS	29		20							31		
90 PERCENT EXCEEDS	15		13							15		

e Estimated.

SURFACE-WATER RECORDS
Great Miami River Basin

03267900 MAD RIVER AT ST. PARIS PIKE AT EAGLE CITY, OHIO

LOCATION.--Latitude 39°57'51", longitude 83°49'54", in W 1/2 sec. 1, R.10, T.4, Clark County, Hydrologic Unit 05080001, on left bank at downstream side of bridge on St. Paris Pike, 0.8 mi southeast of Eagle City, 1.1 mi downstream from Moore Run, 3.1 mi upstream from Buck Creek, 3.3 mi south of Tremont City, and at mile 29.5.

DRAINAGE AREA.--310 mi².

PERIOD OF RECORD.--October 1965 to September 1996, October 1998 to September 1999.

GAGE.--Water-stage recorder. Datum of gage is 904.66 ft above sea level.

REMARKS.--Records fair except for periods of estimated record, which are poor. Water supply for city of Springfield is pumped from wells, adjacent to Mad River, just upstream from station. Recharge to the well field is largely by induced infiltration from Mad River and Moore Run. Pumpage, averaging 20.6 ft³/s. in 1999, is returned as sewage 1.4 mi upstream from gaging station near Springfield (station 03269500). Water-quality data collected at this site in 1966 to 1977. Satellite telemeter at station operated for U.S. Army Corps of Engineers.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in Mar., 1913 reached a stage of 19.8 ft, from data furnished by Miami Conservancy District. Flood of Jan. 21, 1959 reached a stage of 15.7 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	113	126	128	e110	329	978	253	386	199	175	156	e110
2	118	127	126	e110	354	607	240	349	215	300	148	e105
3	144	133	125	e110	329	635	236	326	201	193	e146	e104
4	132	127	124	e110	306	521	235	309	190	172	144	102
5	126	127	123	e110	278	426	224	299	181	165	145	101
6	127	126	123	e110	271	1300	223	292	177	173	141	104
7	146	124	137	e110	985	765	e221	281	176	189	140	105
8	143	124	124	e110	1190	522	e220	268	174	164	143	109
9	128	123	122	e110	604	474	336	262	170	163	140	109
10	124	147	121	e110	464	422	386	253	165	266	136	103
11	123	150	120	e100	404	379	299	245	182	188	138	104
12	122	135	120	e100	474	358	270	237	186	169	134	103
13	123	132	119	e100	415	346	250	236	259	164	134	103
14	122	130	119	e100	352	335	240	232	253	160	135	105
15	123	127	118	e100	337	321	251	226	260	155	127	102
16	122	127	120	e100	327	356	316	218	209	154	127	98
17	120	127	120	e100	313	676	755	211	197	154	125	102
18	136	126	116	e800	293	581	671	213	186	154	118	100
19	133	126	108	e600	278	411	587	212	179	158	124	103
20	124	132	109	e380	261	366	452	203	173	315	e121	105
21	120	127	150	793	242	347	961	199	170	194	121	107
22	120	126	294	4070	231	322	674	213	166	434	e118	108
23	119	127	182	1980	225	306	726	208	162	203	e117	108
24	122	124	e160	1180	224	296	561	215	162	180	e126	108
25	e122	127	e138	775	224	283	445	211	159	157	e131	102
26	e122	135	e131	596	217	275	402	196	156	169	e125	101
27	e123	127	e125	509	397	267	370	200	162	188	e120	101
28	e124	126	e120	439	1730	262	1520	205	167	169	e119	103
29	122	126	e118	386	---	253	645	177	160	163	e119	119
30	140	125	e116	349	---	244	452	173	154	152	e117	103
31	128	---	e113	322	---	239	---	179	---	142	e116	---
TOTAL	3911	3866	4069	14979	12054	13873	13421	7434	5550	5882	4051	3137
MEAN	126	129	131	483	430	448	447	240	185	190	131	105
MAX	146	150	294	4070	1730	1300	1520	386	260	434	156	119
MIN	113	123	108	100	217	239	220	173	154	142	116	98

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1999, BY WATER YEAR (WY)

	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
MEAN	129	161	236	300	392	371	373	403	271	198	174	129
MAX	151	214	378	548	718	655	682	629	368	298	287	171
(WY)	1970	1970	1968	1969	1971	1967	1970	1968	1969	1969	1969	1968
MIN	101	116	114	139	188	183	196	184	155	134	120	99.5
(WY)	1967	1971	1966	1971	1967	1966	1971	1971	1966	1966	1971	1966

SUMMARY STATISTICS

FOR 1999 WATER YEAR

WATER YEARS 1966 - 1999

ANNUAL TOTAL	92227	
ANNUAL MEAN	253	261
HIGHEST ANNUAL MEAN		327
LOWEST ANNUAL MEAN		169
HIGHEST DAILY MEAN	4070	4240
LOWEST DAILY MEAN	98	94
ANNUAL SEVEN-DAY MINIMUM	100	96
INSTANTANEOUS PEAK FLOW	5660	9700
INSTANTANEOUS PEAK STAGE	13.52	16.68
INSTANTANEOUS LOW FLOW	98	60
10 PERCENT EXCEEDS	448	440
50 PERCENT EXCEEDS	162	179
90 PERCENT EXCEEDS	109	111

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

SURFACE-WATER RECORDS
Great Miami River Basin

03269500 MAD RIVER NEAR SPRINGFIELD, OHIO

LOCATION.--Latitude 39°55'23", longitude 83°52'13", in NW 1/4 sec. 16, R.9, T.4, Clark County, Hydrologic Unit 05080001, on right bank 150 ft downstream from Rock Run, 300 ft downstream from bridge on Lower Valley Pike, 2 mi downstream from Buck Creek, 3 mi west of Springfield, and at mile 24.1.

DRAINAGE AREA.--490 mi².

PERIOD OF RECORD.--January 1904 to March 1906 (fragmentary), February 1914 to current year. Monthly discharge only for some periods, published in WSP 1305.

REVISED RECORDS.--WSP 603: 1924. WSP 823: 1929(M). WSP 1305: 1914(M), 1916-17(M), 1922-23(M), 1925(M). WSP 1625: 1924(M). WSP 1908: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 881.42 ft above sea level. Jan. 1, 1904, to Mar. 31, 1906, nonrecording gage at site 0.3 mi downstream at different datum. Feb. 1, 1914, to Feb. 29, 1924, nonrecording gage at site 1.8 mi upstream at datum 6.39 ft higher. Mar. 1, 1924, to July 31, 1925, nonrecording gage at site 300 ft upstream at same datum.

REMARKS.--Records good except for periods of estimated record, which is poor. Some regulation by C.J. Brown Reservoir, 8.3 mi upstream on Buck Creek, since 1972. Occasional low-flow regulation by powerplant 2.3 mi upstream; daily flows are not affected appreciably. Water-quality data collected at this site.

COOPERATION.--Gage-height charts, record, and 8 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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	229	232	204	e195	541	1310	375	526	290	333	260	182
2	236	236	201	e190	564	962	349	475	313	473	246	177
3	300	245	197	e185	533	1060	351	446	291	373	230	176
4	258	237	191	e182	500	951	353	424	279	312	221	175
5	251	233	189	e180	460	779	339	409	265	246	216	170
6	259	232	188	e180	448	1640	340	402	257	291	211	172
7	332	230	230	e180	1220	1190	328	382	257	312	208	173
8	277	230	193	e181	1600	955	325	365	274	278	211	181
9	264	231	189	e181	1060	889	474	355	251	280	211	184
10	258	287	188	e198	836	773	532	345	255	391	206	181
11	256	265	187	e224	632	595	424	338	269	308	207	243
12	255	246	185	266	756	561	384	329	282	287	203	164
13	254	241	184	398	660	530	360	336	326	278	203	158
14	253	238	185	363	566	513	350	323	350	268	207	161
15	255	234	185	327	543	497	384	311	347	259	196	161
16	254	236	186	319	529	548	461	301	288	252	196	178
17	246	235	188	352	510	950	955	294	273	256	193	176
18	287	234	183	1380	472	893	931	296	261	245	186	174
19	268	234	175	1140	451	638	822	294	253	257	213	173
20	250	257	176	753	424	631	634	280	246	402	191	173
21	245	235	381	1180	397	630	1420	275	242	308	187	176
22	243	233	678	3900	384	514	1070	329	237	500	185	180
23	242	232	367	2150	373	488	999	326	230	334	185	177
24	244	231	311	1580	366	472	807	376	225	323	212	173
25	244	255	283	1490	377	451	630	364	222	270	222	171
26	245	253	e260	1330	360	436	564	315	219	266	202	165
27	245	234	e243	907	698	420	517	270	222	315	193	165
28	254	231	e230	641	1990	400	1580	281	247	307	190	168
29	245	226	e218	582	---	392	857	251	241	304	195	269
30	286	204	e210	545	---	382	617	248	219	287	190	188
31	238	---	e200	514	---	346	---	254	---	268	192	---
TOTAL	7973	7147	7185	22193	18250	21796	18532	10520	7931	9583	6368	5364
MEAN	257	238	232	716	652	703	618	339	264	309	205	179
MAX	332	287	678	3900	1990	1640	1580	526	350	500	260	269
MIN	229	204	175	180	360	346	325	248	219	245	185	158
CFSM	.52	.49	.47	1.46	1.33	1.43	1.26	.69	.54	.63	.42	.36
IN.	.61	.54	.55	1.68	1.39	1.65	1.41	.80	.60	.73	.48	.41

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 1999, BY WATER YEAR (WY)

	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
MEAN	353	426	541	596	687	720	714	673	595	496	356	323														
MAX	1081	904	1583	1177	1409	1279	1174	2106	1371	1284	947	1279														
(WY)	1987	1986	1991	1991	1975	1978	1996	1996	1980	1993	1979	1979														
MIN	176	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 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1974 - 1999

ANNUAL TOTAL	168290	142842																								
ANNUAL MEAN	461	391								539																
HIGHEST ANNUAL MEAN										792																1996
LOWEST ANNUAL MEAN										279																1977
HIGHEST DAILY MEAN			3900	May 8		3900	Jan 22		8200		Jan 31	1982														
LOWEST DAILY MEAN			174	Sep 14		158	Sep 13		100		Jan 26	1977														
ANNUAL SEVEN-DAY MINIMUM			182	Sep 13		167	Sep 12		103		Jan 24	1977														
INSTANTANEOUS PEAK FLOW						5000	Jan 22		12200		Jun 29	1980														
INSTANTANEOUS PEAK STAGE							7.88	Jan 22		11.88		Jun 29	1980													
INSTANTANEOUS LOW FLOW							158	Sep 13		100		Jan 26	1977													
ANNUAL RUNOFF (CFSM)		.94				.80				1.10																
ANNUAL RUNOFF (INCHES)		12.78				10.84				14.95																
10 PERCENT EXCEEDS		795				754				997																
50 PERCENT EXCEEDS		332				268				388																
90 PERCENT EXCEEDS		204				184				220																

e Estimated.

SURFACE-WATER RECORDS
Great Miami River Basin

03270000 MAD RIVER NEAR DAYTON, OHIO

LOCATION.--Latitude 39°47'50", longitude 84°05'19", in SW 1/4 sec. 7, R. 8, T.2, Greene County, Hydrologic Unit 05080001, on left bank in retarding basin 300 ft upstream from Huffman Dam, 2.3 mi downstream from Mud Run, 6.2 mi northeast of Dayton 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 records which are poor. Flood flows affected by backwater from Huffman retarding dam beginning in 1921, some regulation by C. J. Brown Reservoir 26 mi upstream on Buck Creek since 1974. Also see REMARKS for station 03269500.

COOPERATION.--Gage-height record and 8 discharge measurements furnished by Miami Conservancy District.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,200 ft³/s Jan. 22, 1959 (based on Huffman retarding basin outflow records); maximum gage height, 87.9 ft Feb. 26, 1929, at site and datum then in use; minimum daily discharge, 94 ft³/s Aug. 6, 1934, but may have been less during 1921-24.

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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	254	284	245	e210	703	2130	485	730	325	288	267	178
2	257	277	245	e200	752	1490	475	654	382	608	261	177
3	331	276	245	e200	725	1500	463	611	359	477	241	176
4	324	276	240	e200	676	1410	474	577	340	423	229	175
5	271	276	237	e190	623	1150	452	544	323	320	220	174
6	271	276	235	e190	592	2230	437	533	312	306	213	173
7	366	273	289	e190	1330	1910	425	502	302	354	207	173
8	372	271	253	e190	2690	1310	416	477	312	302	208	174
9	304	271	238	e180	1550	1170	490	470	303	293	209	175
10	289	305	233	e180	1200	1070	699	453	289	374	202	173
11	282	354	229	e180	901	840	551	441	306	340	198	192
12	280	310	222	e300	1030	777	498	428	346	298	197	188
13	e279	293	220	567	976	740	461	429	367	283	194	168
14	276	286	220	562	810	710	445	411	447	266	198	167
15	276	281	220	470	765	684	454	399	414	257	190	167
16	276	276	220	438	734	724	562	385	349	251	183	170
17	274	276	218	472	715	1190	1050	376	317	243	183	173
18	299	276	216	1860	664	1300	1290	375	304	247	179	173
19	359	276	210	1970	626	911	1130	380	290	241	186	172
20	291	305	205	1140	592	800	884	361	278	311	195	174
21	276	291	358	1580	550	856	1940	355	272	379	179	174
22	269	278	1020	4110	529	701	1870	416	263	476	179	175
23	265	273	528	3850	518	657	1320	422	258	e380	178	175
24	265	271	417	2330	506	625	1190	435	253	e300	208	175
25	265	277	366	e1500	506	598	891	443	249	e270	233	174
26	265	341	e320	e1200	502	574	790	418	241	e300	216	173
27	265	294	e300	e1000	869	557	726	345	242	e340	192	173
28	279	283	e270	895	3150	530	1650	336	268	321	182	173
29	272	273	e260	792	---	516	1360	321	295	338	181	195
30	381	254	e250	732	---	504	878	304	245	309	181	258
31	305	---	e220	685	---	473	---	302	---	286	180	---
TOTAL	9038	8553	8949	28563	25784	30637	24756	13633	9251	10181	6269	5337
MEAN	292	285	289	921	921	988	825	440	308	328	202	178
MAX	381	354	1020	4110	3150	2230	1940	730	447	608	267	258
MIN	254	254	205	180	502	473	416	302	241	241	178	167
CFSM	.46	.45	.45	1.45	1.45	1.56	1.30	.69	.49	.52	.32	.28
IN.	.53	.50	.52	1.67	1.51	1.79	1.45	.80	.54	.60	.37	.31

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 1999, BY WATER YEAR (WY)

	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
MEAN	426	529	698	774	898	956	943	889	754	617	442	390														
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	178														
(WY)	1989	1995	1977	1977	1992	1983	1976	1988	1988	1988	1988	1999														

SUMMARY STATISTICS FOR 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1974 - 1999

ANNUAL TOTAL	223945	180951	
ANNUAL MEAN	614	496	692
HIGHEST ANNUAL MEAN			1029
LOWEST ANNUAL MEAN			336
HIGHEST DAILY MEAN	7120	May 8	4110
LOWEST DAILY MEAN	205	Dec 20	167
ANNUAL SEVEN-DAY MINIMUM	216	Dec 14	170
INSTANTANEOUS PEAK FLOW			5250
INSTANTANEOUS PEAK STAGE			11.39
INSTANTANEOUS LOW FLOW			164
ANNUAL RUNOFF (CFSM)	.97	.78	1.09
ANNUAL RUNOFF (INCHES)	13.12	10.60	14.80
10 PERCENT EXCEEDS	1090	1020	1300
50 PERCENT EXCEEDS	423	305	492
90 PERCENT EXCEEDS	245	182	254

e Estimated.

SURFACE-WATER RECORDS
Great Miami River Basin

03270500 GREAT MIAMI RIVER AT DAYTON, OHIO

LOCATION.--Latitude 39°45'55", longitude 84°11'51", in sec. 10, R.7, T.1, Montgomery County, Hydrologic Unit 05080002, on left bank 1,000 ft downstream from Main Street Bridge in Dayton, 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 fair 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 record and 8 discharge measurements furnished by Miami Conservancy District.

EXTREMS FOR PERIOD OF RECORD.--Maximum discharge, 60,900 ft³/s Jan. 22, 1959, gage height, 36.00 ft Jan. 22, 1959; minimum discharge 109 ft³/s Aug. 8, 1934.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 26, 1913, reached a stage of 29.0 ft, site and datum then in use; discharge, 250,000 ft³/s, computed by Miami Conservancy District.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	355	509	397	e330	2440	14400	1200	2540	825	654	402	225
2	343	480	393	e300	2570	10100	1210	1950	947	1500	572	210
3	494	472	364	e290	2630	7280	1240	1700	914	1430	600	201
4	543	485	360	e280	2450	6520	1260	1510	886	951	420	194
5	444	454	347	e270	2060	4820	1170	1400	828	678	378	188
6	476	449	354	e260	1870	7650	1120	1320	758	550	e400	173
7	666	449	454	e260	4080	10800	1080	1220	729	539	e390	171
8	699	449	402	e250	14200	6490	1020	1180	705	477	e350	167
9	501	421	371	e250	11400	4920	1250	1090	672	509	e320	159
10	466	581	376	e240	7100	3990	2140	1020	606	661	e290	147
11	445	665	358	e240	4560	3050	1910	971	649	581	e260	136
12	412	507	352	e350	4570	2550	1550	921	914	499	e240	133
13	393	539	342	e1000	5700	2310	1370	1030	1090	439	e233	136
14	384	527	318	e900	4010	2150	1220	1090	1590	408	232	139
15	370	487	312	e780	3160	2080	1190	960	1690	374	233	139
16	365	469	314	e820	2700	2160	1520	869	1190	362	214	146
17	390	448	320	e1100	2470	4300	3630	819	923	338	230	e140
18	483	440	310	4900	2300	5850	6550	813	771	326	207	e140
19	542	446	300	11200	2100	4180	5300	816	684	325	202	137
20	411	484	289	8450	1860	3130	3980	781	611	389	219	200
21	397	447	747	8300	1670	2700	6110	754	572	487	223	254
22	388	417	1840	19300	1530	2220	8460	854	534	513	212	220
23	373	418	1230	25500	1470	2040	5670	902	483	933	199	172
24	362	420	1020	22200	1380	1810	5480	958	459	788	293	165
25	374	438	700	18200	1370	1640	3940	1320	432	606	356	157
26	372	507	606	13800	1330	1540	2960	1150	414	486	348	148
27	381	443	e520	10600	2340	1460	2450	919	459	498	288	155
28	442	437	e480	6550	13000	1390	4020	823	543	461	242	153
29	433	436	e440	3990	---	1300	6180	741	675	580	230	244
30	818	425	e400	3170	---	1250	3670	685	498	503	222	299
31	561	---	e360	2510	---	1200	---	704	---	427	238	---
TOTAL	14083	14149	15376	166590	108320	127280	89850	33810	23051	18272	9243	5248
MEAN	454	472	496	5374	3869	4106	2995	1091	768	589	298	175
MAX	818	665	1840	25500	14200	14400	8460	2540	1690	1500	600	299
MIN	343	417	289	240	1330	1200	1020	685	414	325	199	133

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 1999, BY WATER YEAR (WY)

	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
MEAN	950	1745	2683	3112	3696	4261	3948	3007	2663	2097	1172	743														
MAX	5792	6233	9210	7217	8926	10140	7410	11030	7357	7510	5727	2862														
(WY)	1987	1994	1991	1996	1975	1978	1989	1996	1981	1993	1979	1979														
MIN	237	336	296	270	636	890	1069	583	259	299	196	175														
(WY)	1989	1992	1977	1977	1992	1992	1976	1988	1988	1977	1988	1999														

SUMMARY STATISTICS

	FOR 1998 CALENDAR YEAR		FOR 1999 WATER YEAR		WATER YEARS 1974 - 1999	
ANNUAL TOTAL	890899		625272			
ANNUAL MEAN	2441		1713		2500	
HIGHEST ANNUAL MEAN					3765	
LOWEST ANNUAL MEAN					881	
HIGHEST DAILY MEAN	19600		25500		39700	
LOWEST DAILY MEAN	289		133		111	
ANNUAL SEVEN-DAY MINIMUM	309		138		125	
INSTANTANEOUS PEAK FLOW			26900		43800	
INSTANTANEOUS PEAK STAGE			31.07		33.15	
INSTANTANEOUS LOW FLOW			133		111	
10 PERCENT EXCEEDS	6100		4230		5850	
50 PERCENT EXCEEDS	1270		580		1280	
90 PERCENT EXCEEDS	375		230		375	

e Estimated.

SURFACE-WATER RECORDS
Great Miami River Basin

03271510 GREAT MIAMI RIVER NEAR LINDEN AVENUE AT MIAMISBURG, OHIO

WATER-QUALITY RECORDS

LOCATION.--Latitude 39°38'14", longitude 84°17'33", Montgomery County, Hydrologic Unit 05080002, on left bank at Miamisburg, 1.0 mi downstream from Bear Creek, 0.6 mi downstream from discharge station at Miamisburg, 0.65 mi downstream from discharge station below Miamisburg, and at mile 65.75.

DRAINAGE AREA.--2,713 mi².

PERIOD OF RECORD.--June 1978 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: June 1978 to current year.

pH: June 1978 to current year.

WATER TEMPERATURES: June 1978 to current year.

DISSOLVED OXYGEN: June 1978 to current year.

INSTRUMENTATION.--Water-quality monitor since June 1978. Electronic data logger replaced digital recorder since June 19, 1991. Set for 1-hour interval.

REMARKS.--Interruptions in the water-quality record were due to malfunction of the instrument. Prior to June 1978, records published as 03271600, Great Miami River near Miamisburg, Ohio. See records of discharge for gaging station below Miamisburg (station 03271601).

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 2,080 microsiemens Jan. 13, 1999; minimum 206 microsiemens Feb. 18, 1982.

pH: Maximum, 9.8 units Oct. 12, 1992; minimum, 7.0 units July 30, Aug. 30, 1979.

WATER TEMPERATURES: Maximum, 33.0°C July 20, 22, 1978; minimum, 0.0°C on many days during winters.

DISSOLVED OXYGEN: Maximum, >20.0 mg/L on several days in water year 1978-1994; minimum, 0.4 mg/L Aug. 27, 1981, Aug. 2, 1982.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 2,080 microsiemens Jan. 13; minimum, 387 microsiemens Dec. 21.

pH: Maximum, 9.3 units Aug. 4 and 6; minimum, 7.5 units Dec. 23.

WATER TEMPERATURES: Maximum, 31.5°C Aug. 7; minimum, 0.0°C Jan. 4, 5, and 11.

DISSOLVED OXYGEN: Maximum, 20.0 mg/L June 22 and 23; minimum, 1.8 mg/L June 26.

SPECIFIC CONDUCTANCE, MICROSIEMENS/CM AT 25 DEGREES CELSIUS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	940	909	928	780	662	720	945	905	921	976	929	954
2	950	921	934	815	773	793	957	929	943	1120	967	992
3	959	734	891	864	809	832	971	949	960	1330	1030	1130
4	872	772	824	895	847	867	977	948	963	1220	1060	1150
5	824	748	772	912	883	898	992	964	971	1180	1100	1140
6	859	824	839	918	900	910	992	953	971	1110	1040	1070
7	853	509	778	935	897	913	975	913	930	1140	1100	1120
8	775	652	702	931	890	910	961	875	914	1240	1110	1150
9	778	652	714	916	885	901	939	875	903	1330	1210	1270
10	829	778	809	905	758	868	948	916	934	1630	1330	1540
11	853	796	819	871	763	806	958	927	941	1490	1280	1410
12	855	824	838	861	763	817	971	943	958	1500	1200	1300
13	874	835	854	876	840	857	973	932	954	2080	1360	1690
14	924	873	886	856	830	844	968	918	946	1700	1530	1630
15	930	893	915	881	837	853	967	925	942	1530	1240	1380
16	943	905	928	909	856	876	957	913	936	1300	1140	1200
17	927	898	915	916	887	903	944	898	925	1360	1150	1270
18	944	758	894	926	895	910	947	903	930	1170	751	1000
19	858	760	812	931	890	914	948	906	929	751	488	574
20	824	752	774	920	870	893	948	925	936	540	473	500
21	891	817	847	934	868	898	960	387	793	597	509	570
22	892	869	882	931	871	885	590	432	505	---	---	---
23	897	874	882	931	897	912	635	546	583	---	---	---
24	912	874	893	922	895	909	740	623	700	---	---	---
25	919	877	900	922	825	901	823	735	786	---	---	---
26	917	887	904	919	825	894	846	810	826	476	443	463
27	926	900	914	894	833	862	862	826	844	543	473	502
28	929	861	895	914	865	886	894	843	864	586	531	562
29	907	875	892	918	877	899	917	880	897	649	575	622
30	875	591	770	925	890	908	923	883	907	689	636	656
31	662	546	581	---	---	---	977	904	941	707	667	688
MONTH	959	509	845	935	662	875	992	387	886	2080	443	1020

SURFACE-WATER RECORDS
Great Miami River Basin

03271510 GREAT MIAMI RIVER NEAR LINDEN AVENUE AT MIAMISBURG, OHIO—Continued

WATER-QUALITY RECORDS—CONTINUED

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	8.7	8.2	8.4	8.2	7.9	8.0	8.7	8.3	8.5	8.2	8.0	8.1
2	8.4	8.2	8.3	8.2	8.0	8.1	8.7	8.3	8.5	8.2	8.1	8.1
3	8.3	8.1	8.2	8.2	8.0	8.1	8.6	8.3	8.4	8.3	8.1	8.2
4	8.1	8.0	8.1	8.3	8.0	8.1	8.5	8.3	8.4	8.2	8.1	8.1
5	8.1	7.9	8.0	8.3	8.1	8.2	8.5	8.2	8.4	8.2	8.0	8.1
6	8.2	7.9	8.1	8.4	8.1	8.3	8.4	8.2	8.3	8.2	7.9	8.1
7	8.1	7.9	8.0	8.5	8.1	8.3	8.3	8.1	8.3	8.1	7.9	8.0
8	8.0	7.9	8.0	8.4	8.2	8.3	8.3	8.2	8.2	8.1	7.9	8.0
9	8.1	7.9	7.9	8.5	8.2	8.3	8.4	8.1	8.2	8.1	7.8	8.0
10	8.1	7.9	8.0	8.4	8.1	8.3	8.4	8.2	8.3	8.2	7.8	8.0
11	8.2	7.9	8.1	8.3	8.1	8.3	8.5	8.2	8.3	8.2	7.9	8.0
12	8.3	8.0	8.1	8.3	8.0	8.2	8.6	8.3	8.4	8.1	7.9	8.0
13	8.3	8.0	8.2	8.4	8.2	8.2	8.6	8.2	8.4	7.9	7.8	7.8
14	8.5	8.1	8.3	8.4	8.1	8.3	8.7	8.3	8.5	7.9	7.7	7.8
15	8.5	8.2	8.3	8.6	8.2	8.4	8.8	8.5	8.6	8.1	7.9	8.0
16	8.5	8.2	8.4	8.7	8.3	8.5	8.9	8.6	8.7	8.2	8.0	8.1
17	8.6	8.2	8.4	8.7	8.4	8.5	8.9	8.5	8.7	8.1	8.0	8.1
18	8.5	8.2	8.3	8.8	8.3	8.5	8.9	8.6	8.7	8.0	7.8	7.9
19	8.4	8.2	8.3	8.7	8.4	8.5	8.8	8.5	8.7	7.9	7.6	7.7
20	8.3	8.0	8.1	8.8	8.4	8.6	8.6	8.4	8.5	7.8	7.6	7.7
21	8.4	8.1	8.2	8.8	8.4	8.5	8.5	7.8	8.2	7.8	7.8	7.8
22	8.4	8.1	8.2	8.8	8.3	8.5	8.0	7.7	7.9	---	---	---
23	8.4	8.1	8.3	8.7	8.4	8.6	7.9	7.5	7.8	---	---	---
24	8.4	8.1	8.3	8.8	8.4	8.6	8.1	7.7	8.0	---	---	---
25	8.4	8.1	8.3	8.7	8.4	8.5	8.2	8.0	8.1	---	---	---
26	8.5	8.2	8.4	8.7	8.4	8.5	8.2	8.0	8.1	8.0	7.9	7.9
27	8.5	8.1	8.3	8.6	8.3	8.4	8.2	8.1	8.1	8.1	8.0	8.0
28	8.4	8.1	8.3	8.7	8.3	8.5	8.2	8.1	8.1	8.1	8.0	8.1
29	8.4	8.1	8.2	8.6	8.3	8.5	8.2	8.1	8.1	8.2	8.1	8.1
30	8.2	8.0	8.1	8.7	8.3	8.5	8.2	8.1	8.2	8.2	8.1	8.2
31	8.0	7.8	7.9	---	---	---	8.2	8.1	8.2	8.3	8.2	8.3
MONTH	8.7	7.8	8.2	8.8	7.9	8.4	8.9	7.5	8.3	8.3	7.6	8.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	8.3	8.2	8.2	---	---	---	9.0	8.7	8.8	8.4	8.3	8.3
2	8.3	8.2	8.2	---	---	---	9.0	8.6	8.8	8.6	8.4	8.5
3	8.3	8.3	8.3	---	---	---	8.9	8.6	8.7	8.7	8.4	8.5
4	8.4	8.3	8.4	---	---	---	9.0	8.6	8.8	8.7	8.5	8.6
5	8.4	8.4	8.4	---	---	---	9.1	8.7	8.9	8.7	8.5	8.6
6	8.4	8.3	8.4	---	---	---	9.1	8.7	8.9	8.7	8.5	8.6
7	---	---	---	---	---	---	9.1	8.7	8.9	8.8	8.4	8.6
8	---	---	---	---	---	---	9.0	8.7	8.8	8.8	8.6	8.7
9	8.1	8.0	8.0	---	---	---	8.8	8.5	8.6	8.8	8.5	8.6
10	8.2	8.1	8.1	---	---	---	8.8	8.4	8.5	8.9	8.5	8.7
11	8.3	8.2	8.2	---	---	---	8.6	8.4	8.5	8.8	8.5	8.6
12	8.4	8.2	8.3	---	---	---	8.8	8.4	8.6	8.8	8.4	8.6
13	8.4	7.9	8.1	---	---	---	8.9	8.6	8.7	8.6	8.4	8.5
14	8.1	7.8	7.9	---	---	---	9.0	8.5	8.7	8.5	8.3	8.4
15	8.2	7.9	8.0	---	---	---	8.9	8.4	8.6	8.6	8.3	8.4
16	8.3	8.1	8.2	---	---	---	8.8	8.6	8.6	8.7	8.3	8.5
17	8.4	8.3	8.4	8.3	8.2	8.3	8.6	8.5	8.6	8.8	8.4	8.6
18	8.5	8.4	8.4	8.2	8.1	8.2	8.5	8.2	8.3	8.7	8.3	8.5
19	8.5	8.4	8.4	8.2	8.1	8.1	8.3	8.2	8.3	8.6	8.2	8.4
20	8.4	8.3	8.4	8.3	8.2	8.2	8.4	8.3	8.4	8.9	8.3	8.6
21	8.4	8.3	8.3	8.4	8.2	8.3	8.4	8.1	8.3	8.9	8.4	8.6
22	8.5	8.3	8.4	8.5	8.3	8.4	8.2	8.1	8.1	8.7	8.3	8.4
23	8.5	8.4	8.4	8.5	8.4	8.4	8.2	8.1	8.1	8.5	8.2	8.3
24	8.5	8.4	8.4	8.7	8.4	8.5	8.2	8.1	8.1	8.4	8.2	8.3
25	8.5	8.4	8.4	8.8	8.5	8.6	8.2	8.1	8.1	8.5	8.1	8.3
26	8.4	8.3	8.4	8.8	8.5	8.6	8.4	8.2	8.3	8.6	8.3	8.4
27	8.4	8.1	8.3	8.9	8.5	8.7	8.4	8.3	8.4	8.9	8.4	8.7
28	---	---	---	8.9	8.5	8.7	8.4	8.4	8.4	9.0	8.6	8.7
29	---	---	---	9.0	8.6	8.8	8.4	8.0	8.1	9.0	8.5	8.7
30	---	---	---	9.1	8.7	8.9	8.3	8.1	8.2	9.1	8.5	8.8
31	---	---	---	9.1	8.7	8.9	---	---	---	8.9	8.6	8.8
MONTH	8.5	7.8	8.3	9.1	8.1	8.5	9.1	8.0	8.5	9.1	8.1	8.5

SURFACE-WATER RECORDS
Great Miami River Basin

03271510 GREAT MIAMI RIVER NEAR LINDEN AVENUE AT MIAMISBURG, OHIO—Continued

WATER-QUALITY RECORDS—CONTINUED

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999—Continued

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	8.8	8.5	8.6	8.5	8.2	8.4	8.8	8.4	8.6	9.0	8.8	8.9
2	8.7	8.4	8.6	8.2	8.0	8.1	9.0	8.4	8.7	8.9	8.7	8.8
3	9.0	8.4	8.7	8.5	8.0	8.2	9.0	8.4	8.7	8.9	8.6	8.7
4	9.2	8.6	8.9	8.7	8.1	8.4	9.3	8.4	8.9	8.7	8.5	8.6
5	9.2	8.7	9.0	8.8	8.0	8.4	9.2	8.6	8.9	8.7	8.5	8.6
6	9.2	8.7	8.9	8.5	8.0	8.3	9.3	8.8	9.0	9.0	8.5	8.7
7	9.1	8.6	8.9	9.0	8.4	8.6	---	---	---	8.9	8.6	8.7
8	9.2	8.6	8.9	8.7	8.3	8.5	---	---	---	8.6	8.3	8.5
9	8.8	8.3	8.5	8.7	8.0	8.4	---	---	---	8.7	8.3	8.5
10	8.3	8.2	8.3	8.2	7.7	7.9	---	---	---	8.6	8.3	8.4
11	8.8	8.1	8.4	8.3	7.6	7.8	---	---	---	8.5	8.2	8.3
12	8.5	8.2	8.4	8.3	8.0	8.2	---	---	---	8.6	8.2	8.4
13	8.2	7.6	7.8	8.3	8.1	8.2	---	---	---	8.6	8.3	8.5
14	8.2	7.6	7.8	9.0	7.9	8.4	---	---	---	8.7	8.3	8.5
15	8.1	7.9	8.0	8.9	8.2	8.6	---	---	---	8.7	8.4	8.5
16	8.4	7.9	8.1	8.7	8.0	8.4	---	---	---	8.6	8.4	8.5
17	8.6	8.1	8.3	8.8	7.9	8.4	9.2	8.6	8.8	8.5	8.3	8.4
18	8.8	8.2	8.5	8.7	8.2	8.4	9.1	8.6	8.8	8.9	8.3	8.5
19	8.7	8.2	8.5	8.7	8.2	8.4	8.8	8.7	8.7	8.9	8.5	8.7
20	8.6	8.2	8.4	8.8	8.2	8.5	8.8	8.6	8.7	8.7	8.5	8.6
21	9.2	8.3	8.8	8.7	8.2	8.4	8.6	8.4	8.5	8.6	8.4	8.5
22	9.2	8.7	8.9	8.5	8.1	8.3	8.5	8.2	8.4	8.5	8.3	8.3
23	9.2	8.6	8.9	8.5	8.0	8.2	8.7	8.3	8.5	---	---	---
24	9.0	8.6	8.8	8.1	7.7	7.9	8.5	8.0	8.2	---	---	---
25	9.0	8.3	8.7	8.5	7.7	8.0	8.1	8.0	8.1	---	---	---
26	8.8	8.3	8.6	8.5	8.2	8.4	8.1	7.8	8.0	---	---	---
27	8.6	8.0	8.2	8.3	8.0	8.1	8.2	7.9	8.0	---	---	---
28	8.5	8.1	8.2	8.5	8.0	8.2	8.5	8.1	8.2	---	---	---
29	8.4	8.0	8.2	8.7	8.2	8.4	8.8	8.4	8.5	---	---	---
30	8.6	7.9	8.2	8.7	8.4	8.5	8.8	8.5	8.7	8.8	8.6	8.7
31	---	---	---	8.9	8.2	8.5	9.0	8.7	8.8	---	---	---
MONTH	9.2	7.6	8.5	9.0	7.6	8.3	9.3	7.8	8.6	9.0	8.2	8.6
YEAR	9.3	7.5	8.4									

TEMPERATURE, WATER, DEGREES CELSIUS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	23.0	20.5	21.5	16.5	15.5	16.0	13.0	11.5	12.0	2.5	1.0	2.0
2	21.0	18.5	19.5	15.5	14.0	15.0	12.5	11.0	12.0	2.0	.5	1.0
3	19.5	16.0	18.0	14.0	12.0	13.0	13.0	12.0	12.5	1.0	.5	1.0
4	17.0	16.0	16.0	12.0	10.5	11.0	14.0	13.0	13.5	.5	.0	.5
5	18.0	15.5	16.5	10.5	9.5	10.0	15.0	13.5	14.5	.5	.0	.5
6	20.0	17.5	18.5	10.0	9.5	10.0	16.5	15.0	15.5	1.0	.5	.5
7	20.0	19.0	19.5	10.5	9.0	9.5	16.0	14.5	15.0	1.5	.5	1.0
8	19.0	17.5	18.5	10.5	9.5	10.0	14.5	12.5	13.5	1.5	.5	1.0
9	18.5	16.5	17.5	11.0	10.0	10.5	12.5	11.0	11.5	2.0	1.0	1.5
10	18.5	16.0	17.5	13.0	11.0	12.0	11.0	10.0	10.0	1.0	.5	.5
11	18.5	16.5	17.5	12.0	10.5	11.0	10.0	8.5	9.0	1.0	.0	.5
12	18.5	16.5	17.5	11.0	9.5	10.5	9.0	8.5	8.5	3.0	1.0	2.0
13	18.5	17.0	17.5	11.0	10.0	10.5	9.0	8.0	8.5	3.0	1.0	2.0
14	17.5	15.5	17.0	11.5	10.0	10.5	8.5	7.0	8.0	1.0	1.0	1.0
15	17.0	15.5	16.0	11.5	10.0	11.0	8.0	6.5	7.5	1.5	1.0	1.0
16	17.5	15.0	16.5	11.5	10.0	11.0	7.5	6.5	7.0	3.0	1.5	2.0
17	18.0	16.0	17.0	11.5	10.5	11.0	7.5	6.5	7.0	4.0	2.5	3.0
18	18.0	17.0	17.5	11.5	9.5	10.5	7.0	6.0	6.5	4.0	2.0	3.5
19	17.5	16.0	17.0	12.0	10.5	11.0	7.0	6.5	7.0	2.0	.5	1.0
20	17.0	15.5	16.0	11.5	10.5	11.0	8.0	7.0	7.5	2.5	1.0	2.0
21	16.0	15.0	15.0	10.5	9.5	10.0	10.0	7.5	8.5	4.0	2.5	3.0
22	15.0	13.0	14.0	9.5	8.0	9.0	8.5	5.0	6.5	4.5	3.5	4.0
23	14.0	12.0	13.5	10.0	8.5	9.5	5.0	3.5	4.5	6.0	4.5	5.5
24	14.0	12.0	13.5	10.0	9.0	9.5	3.5	2.0	3.0	6.0	5.5	6.0
25	14.5	12.5	13.5	10.5	9.0	9.5	2.5	1.5	2.0	5.5	5.0	5.0
26	15.0	12.5	14.0	10.5	9.0	10.0	3.0	1.5	2.0	5.0	4.5	5.0
27	15.0	13.0	14.0	10.5	9.0	10.0	3.5	2.0	3.0	5.5	4.5	5.0
28	15.0	14.0	14.5	11.0	9.0	10.0	4.0	3.0	3.5	6.0	5.5	6.0
29	16.0	14.5	15.0	12.0	10.5	11.0	5.0	4.0	4.5	6.0	6.0	6.0
30	16.0	15.0	15.5	13.0	11.5	12.0	4.0	2.5	3.5	6.0	5.0	5.5
31	16.5	15.5	16.0	---	---	---	3.5	2.0	3.0	5.5	4.5	5.0
MONTH	23.0	12.0	16.5	16.5	8.0	11.0	16.5	1.5	8.0	6.0	.0	2.5

SURFACE-WATER RECORDS
Great Miami River Basin

03271510 GREAT MIAMI RIVER NEAR LINDEN AVENUE AT MIAMISBURG, OHIO—Continued

WATER-QUALITY RECORDS—CONTINUED

OXYGEN, DISSOLVED, MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	11.9	7.1	9.6	9.9	7.4	8.4	12.9	8.3	10.1	15.3	12.1	13.5
2	11.9	7.6	9.8	9.5	7.7	8.5	12.7	8.5	10.4	14.5	12.6	13.6
3	10.2	7.6	8.6	9.5	8.3	8.8	12.0	8.6	10.2	15.1	12.9	13.9
4	9.9	8.4	9.0	10.7	8.6	9.5	11.7	8.5	9.9	15.4	13.2	14.1
5	10.3	8.2	9.1	10.6	8.3	9.4	12.2	8.5	10.1	15.9	13.1	14.3
6	9.9	8.0	9.0	10.6	8.4	9.4	11.0	8.2	9.6	15.0	12.8	13.7
7	8.7	7.5	8.1	11.5	8.5	9.8	9.6	8.0	8.8	15.2	12.3	13.5
8	8.7	7.9	8.3	11.5	8.7	9.9	9.8	8.3	8.8	14.0	12.1	13.0
9	10.1	8.1	8.9	11.8	8.8	10.1	12.6	8.7	10.2	15.2	12.0	13.4
10	10.5	8.2	9.3	10.2	8.6	9.3	13.1	9.6	11.1	15.9	12.4	13.9
11	10.6	8.3	9.4	10.0	8.7	9.3	11.5	8.7	10.4	16.1	12.7	14.2
12	11.3	8.3	9.7	10.7	8.6	9.4	12.0	7.6	9.4	14.6	11.4	13.1
13	11.4	8.1	9.7	10.9	8.8	9.7	12.8	8.0	10.1	11.6	11.0	11.3
14	11.9	7.9	9.9	11.0	8.9	9.9	14.9	8.9	11.5	12.6	11.6	12.0
15	11.9	8.0	9.9	11.7	8.8	10.0	15.7	10.0	12.8	13.8	11.8	12.4
16	12.5	8.4	10.4	11.6	8.9	10.2	17.0	10.9	13.7	13.9	12.2	12.8
17	11.6	7.8	9.9	11.9	8.7	10.0	18.4	10.1	14.1	13.3	11.4	12.3
18	10.0	7.2	8.4	12.2	8.9	10.4	19.4	11.4	14.8	12.1	11.3	11.6
19	10.5	7.7	9.1	11.4	8.7	10.0	15.4	10.9	13.4	12.6	11.7	12.3
20	11.2	7.9	9.4	11.8	8.6	9.9	15.4	10.7	12.8	12.2	11.5	11.9
21	10.9	8.4	9.7	12.7	7.5	9.6	13.8	9.9	11.4	11.5	10.8	11.2
22	12.0	8.8	10.2	12.8	7.6	9.9	11.4	10.0	10.9	---	---	---
23	12.0	9.1	10.6	11.7	8.3	9.9	12.2	11.2	11.7	---	---	---
24	11.9	9.1	10.5	13.4	8.1	10.3	13.3	12.0	12.6	---	---	---
25	11.8	8.7	10.4	11.9	8.3	9.8	13.9	12.6	13.2	---	---	---
26	12.6	8.9	10.5	11.8	8.3	9.9	14.0	12.6	13.3	11.8	11.0	11.3
27	---	---	---	11.6	8.2	9.7	13.8	12.3	13.0	11.3	10.7	11.0
28	---	---	---	12.4	8.6	10.3	13.0	11.9	12.4	10.8	10.2	10.5
29	---	---	---	11.6	8.4	10.0	12.4	11.1	11.7	10.5	10.1	10.3
30	8.9	7.5	8.2	11.3	8.2	9.7	13.5	11.1	12.2	10.7	10.4	10.5
31	8.2	7.1	7.6	---	---	---	14.1	11.2	12.7	11.6	10.6	11.2
MONTH	12.6	7.1	9.4	13.4	7.4	9.7	19.4	7.6	11.5	16.1	10.1	12.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	11.1	10.4	10.8	---	---	---	11.2	7.1	8.5	10.7	9.2	9.8
2	10.4	10.0	10.1	---	---	---	11.9	7.2	9.1	11.7	9.0	10.0
3	10.7	10.0	10.4	---	---	---	10.1	7.8	8.9	11.9	8.6	9.9
4	10.9	10.4	10.6	---	---	---	11.4	7.8	9.2	11.9	8.5	9.9
5	11.3	10.8	11.0	---	---	---	13.8	7.4	9.8	11.8	8.2	9.7
6	10.9	10.4	10.7	---	---	---	13.2	7.4	9.9	11.1	7.7	9.2
7	---	---	---	---	---	---	13.6	7.1	9.8	12.6	7.6	9.7
8	---	---	---	---	---	---	13.0	7.1	9.7	11.2	8.0	9.5
9	12.5	10.0	10.6	---	---	---	9.5	7.1	8.4	13.8	8.1	10.3
10	10.2	8.9	9.7	---	---	---	11.1	7.0	8.7	13.3	8.3	10.5
11	9.1	8.3	8.7	---	---	---	10.8	7.7	9.1	12.8	8.1	10.2
12	10.0	8.3	9.1	---	---	---	12.4	7.8	9.7	13.5	7.8	10.1
13	10.1	6.4	8.4	---	---	---	12.3	8.8	10.4	11.2	7.2	8.8
14	8.1	6.3	7.2	---	---	---	11.0	7.6	9.2	10.0	7.4	8.5
15	9.1	7.3	8.0	---	---	---	11.2	5.2	8.7	12.1	7.5	9.3
16	9.8	7.5	8.6	---	---	---	12.0	9.1	10.4	12.8	7.4	9.9
17	10.9	9.0	10.2	9.2	8.6	9.0	11.7	9.9	10.8	12.9	7.2	9.6
18	11.7	10.7	11.1	9.0	8.6	8.8	11.1	10.7	10.9	10.1	6.5	8.1
19	12.1	11.2	11.7	9.1	8.4	8.9	11.0	10.4	10.8	11.8	6.5	8.8
20	12.0	11.2	11.6	8.6	8.2	8.3	10.9	10.1	10.5	14.3	6.4	9.8
21	12.4	11.6	12.0	9.1	8.2	8.6	10.1	8.8	9.6	13.6	6.4	9.7
22	12.6	9.1	10.9	9.6	8.2	8.9	9.0	8.8	8.9	8.8	4.9	6.6
23	9.6	8.8	9.1	10.4	8.8	9.4	8.8	8.5	8.7	8.6	4.4	6.0
24	9.3	8.7	8.9	10.6	8.8	9.6	9.7	8.8	9.3	6.7	4.8	5.7
25	9.5	8.6	9.0	10.9	8.4	9.5	9.9	9.4	9.6	9.1	5.0	7.2
26	10.1	8.7	9.3	12.0	8.8	10.1	10.6	9.2	9.7	11.6	6.0	8.6
27	9.1	7.3	8.4	12.4	9.0	10.2	10.2	9.2	9.7	17.2	7.9	11.4
28	---	---	---	12.8	8.7	10.2	10.6	9.2	9.8	16.7	8.0	11.7
29	---	---	---	13.3	8.5	10.3	9.8	9.4	9.5	16.3	7.2	11.3
30	---	---	---	13.7	8.3	10.4	10.1	9.4	9.8	18.4	6.8	11.6
31	---	---	---	12.4	7.8	9.5	---	---	---	15.0	6.4	10.2
MONTH	12.6	6.3	9.8	13.7	7.8	9.4	13.8	5.2	9.6	18.4	4.4	9.4

SURFACE-WATER RECORDS
Great Miami River Basin

03271601 GREAT MIAMI RIVER BELOW MIAMISBURG, OHIO

LOCATION.--Latitude 39°36'24", longitude 84°17'13", in sec. 23, R.5, T.2, Montgomery County, Hydrologic Unit 05080002, on right bank 50 ft below outflow and dam of Hutchings Power station, 0.3 mi upstream of Crains Run at south edge of Miamisburg 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 poor. Diurnal fluctuation caused by powerplant at gage. Flood flow regulated by retarding dams on Mad River 22 mi upstream, on Stillwater River 26 mi upstream, on Great Miami River 26 mi upstream, and on Loramie Creek 55 mi upstream.

COOPERATION.--Eight discharge measurements furnished by Miami Conservancy District.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	483	634	554	e520	2850	14900	1430	2960	982	810	593	418
2	470	615	540	e520	2940	10900	1500	2300	e1400	1660	648	e370
3	677	608	511	e500	2970	7710	1550	2020	e1200	1810	848	e330
4	788	616	511	e490	2800	7010	1640	1820	e1100	1260	637	e270
5	605	585	500	e480	2450	5350	1430	1700	e1000	957	514	326
6	616	565	499	e480	2220	8010	1340	1660	e960	773	555	324
7	913	562	661	e470	5240	11400	1310	1530	e940	754	552	371
8	1080	562	593	e460	13900	7340	1210	1440	832	689	428	274
9	672	549	534	e450	12100	5500	1540	1360	845	680	438	e270
10	608	724	527	e450	8000	4610	2290	1290	780	1110	374	271
11	585	944	525	e500	5010	3650	2250	1220	757	864	474	286
12	557	679	509	e600	4980	3050	1880	1170	1190	754	324	e280
13	532	677	504	e1000	6110	2810	1650	1220	1320	697	398	e320
14	508	672	494	e1700	4510	2620	1530	1360	e2100	655	380	e300
15	500	633	483	e1400	3510	2480	1480	1230	e1800	538	286	e280
16	501	606	485	e1300	3040	2690	1850	1090	e1400	559	341	e260
17	494	594	494	e1500	2840	4460	3420	1050	e1000	483	e370	288
18	628	579	494	e4000	2640	6290	6760	1060	e900	498	e400	e260
19	826	573	480	e9600	2460	4760	5740	1060	866	543	e450	e270
20	584	681	470	e8600	2200	3650	4430	991	781	603	e410	298
21	526	619	1200	e8000	2010	3120	6550	959	785	670	e410	330
22	530	557	3350	18800	1850	2600	9010	1100	648	703	e410	301
23	503	559	1510	28100	1740	2330	6200	1200	647	1160	e440	e280
24	490	555	e1000	24100	1640	2140	5770	1110	635	1120	482	e270
25	491	582	e800	19400	1650	1960	4430	1470	617	887	e700	e260
26	496	748	e740	14200	1600	1830	3410	1400	597	785	e600	e260
27	508	619	e680	11000	2730	1760	2860	1140	702	869	e440	e250
28	632	584	e640	7410	12700	1670	3250	999	783	709	e360	e260
29	578	579	e600	4320	---	1590	6770	930	1020	767	e360	273
30	1300	582	e560	3460	---	1510	4150	846	765	807	389	e400
31	759	---	e540	2820	---	1450	---	855	---	626	373	---
TOTAL	19440	18642	21988	176630	118690	141150	98630	41540	29352	25800	14384	8950
MEAN	627	621	709	5698	4239	4553	3288	1340	978	832	464	298
MAX	1300	944	3350	28100	13900	14900	9010	2960	2100	1810	848	418
MIN	470	549	470	450	1600	1450	1210	846	597	483	286	250
CFSM	.23	.23	.26	2.10	1.56	1.68	1.21	.49	.36	.31	.17	.11
IN.	.27	.26	.30	2.42	1.63	1.93	1.35	.57	.40	.35	.20	.12

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1999, BY WATER YEAR (WY)

	1992	1993	1994	1995	1996	1997	1998	1999
MEAN	816	2306	2201	4100	2926	4126	4545	3922
MAX	1814	6603	7690	7884	4820	6894	7343	11920
(WY)	1996	1994	1997	1996	1997	1993	1996	1997
MIN	434	475	613	867	842	1143	2124	1239
(WY)	1992	1992	1992	1992	1992	1992	1997	1999

SUMMARY STATISTICS FOR 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1992 - 1999

ANNUAL TOTAL	984528	715196	
ANNUAL MEAN	2697	1959	2844
HIGHEST ANNUAL MEAN			4283
LOWEST ANNUAL MEAN			1795
HIGHEST DAILY MEAN	20200	28100	32000
LOWEST DAILY MEAN	436	250	250
ANNUAL SEVEN-DAY MINIMUM	454	265	265
INSTANTANEOUS PEAK FLOW		30000	33800
INSTANTANEOUS PEAK STAGE		16.51	17.27
INSTANTANEOUS LOW FLOW		e250	250
ANNUAL RUNOFF (CFSM)	.99	.72	1.05
ANNUAL RUNOFF (INCHES)	13.49	9.80	14.23
10 PERCENT EXCEEDS	6340	4670	6630
50 PERCENT EXCEEDS	1490	785	1440
90 PERCENT EXCEEDS	510	378	518

e Estimated.

SURFACE-WATER RECORDS
Great Miami River Basin

03272100 GREAT MIAMI RIVER AT MIDDLETOWN, OHIO

LOCATION.--Latitude 39°31'12", longitude 84°24'51", Butler County, Hydrologic Unit 05080002, on downstream side of Central Avenue Bridge on State Route 122, 1.9 mi downstream from Browns Run, on northwest side of city of Middletown.

DRAINAGE AREA.--3,134 mi².

PERIOD OF RECORD.--July 1994 to current year.

GAGE.--Water-stage recorder. Datum of gage is 626 ft above sea level (levels by Miami Conservancy District).

REMARKS.--Records fair except for periods of estimated record, which are poor. Some regulation and diversion at low flow by industrial plants upstream from station. Flood flow regulated by five retarding basins upstream from station (see REMARKS for station numbers 03271500 and 03272000). Water-temperature data 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 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	474	658	572	e580	3550	17400	2000	3490	1030	827	626	378
2	489	612	541	e580	3830	13000	2040	2790	1470	1740	639	361
3	541	618	539	e560	3760	9390	2050	2480	1410	2140	848	365
4	885	614	519	e540	3500	8590	2300	2240	1280	1520	718	e250
5	655	594	516	e540	3070	6610	2060	2080	1180	1170	571	273
6	629	570	514	e520	2740	10300	1950	2040	1070	949	552	269
7	799	567	633	e500	7220	13600	e1900	1910	1010	898	583	335
8	1250	566	604	e500	17400	9190	1780	1820	995	794	436	e270
9	743	560	547	e490	14400	6880	2000	1730	925	753	429	e250
10	643	623	529	e480	9980	5770	2880	1620	959	1160	394	256
11	618	1000	533	e700	6430	4570	2930	1540	e1000	939	404	e260
12	594	730	511	e740	6290	3840	2550	1470	e1200	829	273	254
13	559	685	505	e1500	7510	3550	2240	1480	e1800	746	368	310
14	541	690	505	e2200	5730	3310	2090	1660	2630	708	438	279
15	521	661	503	e1700	4440	3180	1970	1550	2340	659	226	239
16	514	626	500	e1500	3840	3550	2420	1380	1850	613	275	e220
17	510	614	509	e1800	3560	5940	3970	1310	1380	571	335	224
18	546	598	513	e5000	3290	8000	8070	1310	1160	562	e370	225
19	911	592	495	e11000	3070	6170	7150	1340	1020	582	411	223
20	640	674	480	e9000	2780	4650	5550	1230	914	673	432	254
21	548	645	871	e10000	2530	3990	8030	1170	908	759	357	267
22	540	574	4200	21300	2320	3480	11500	1280	800	727	372	258
23	524	574	1770	32400	2200	3100	7850	1490	785	1230	434	254
24	511	580	1440	28100	2090	2880	6790	1320	750	1290	403	254
25	504	578	1050	21100	2050	2630	5360	1630	731	987	681	221
26	510	759	868	15800	2000	2440	4130	1660	684	825	647	226
27	522	651	e760	12500	3110	2330	3480	1410	771	e800	515	269
28	640	598	e700	9080	15400	2220	3380	1210	902	789	377	285
29	610	589	e640	5390	---	2140	7580	1120	1140	748	359	322
30	1180	593	e620	4260	---	2040	4830	1010	937	801	380	623
31	822	---	e600	3500	---	2020	---	985	---	666	293	---
TOTAL	19973	18993	24087	203860	148090	176760	122830	50755	35031	28455	14146	8474
MEAN	644	633	777	6576	5289	5702	4094	1637	1168	918	456	282
MAX	1250	1000	4200	32400	17400	17400	11500	3490	2630	2140	848	623
MIN	474	560	480	480	2000	2020	1780	985	684	562	226	220
CFSM	.21	.20	.25	2.10	1.69	1.82	1.31	.52	.37	.29	.15	.09
IN.	.24	.23	.29	2.42	1.76	2.10	1.46	.60	.42	.34	.17	.10

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 1999, BY WATER YEAR (WY)

	1994	1995	1996	1997	1998	1999
MEAN	848	1247	2526	5003	3673	5231
MAX	1759	2585	8508	8581	5289	7590
(WY)	1996	1996	1997	1996	1999	1997
MIN	458	583	777	1567	1370	3415
(WY)	1995	1995	1999	1995	1995	1997

SUMMARY STATISTICS

	FOR 1998 CALENDAR YEAR	FOR 1999 WATER YEAR	WATER YEARS 1994 - 1999
ANNUAL TOTAL	1152035	851454	
ANNUAL MEAN	3156	2333	3334
HIGHEST ANNUAL MEAN			4724
LOWEST ANNUAL MEAN			2333
HIGHEST DAILY MEAN	24200	32400	36900
LOWEST DAILY MEAN	430	e220	220
ANNUAL SEVEN-DAY MINIMUM	447	236	236
INSTANTANEOUS PEAK FLOW		34600	38500
INSTANTANEOUS PEAK STAGE		11.96	12.72
INSTANTANEOUS LOW FLOW		e220	220
ANNUAL RUNOFF (CFSM)	1.01	.74	1.06
ANNUAL RUNOFF (INCHES)	13.67	10.11	14.46
10 PERCENT EXCEEDS	6890	6030	7910
50 PERCENT EXCEEDS	1770	885	1610
90 PERCENT EXCEEDS	522	369	513

e Estimated.

SURFACE-WATER RECORDS
Great Miami River Basin

03272700 SEVENMILE CREEK AT CAMDEN, OHIO

LOCATION.--Latitude 39°37'45", longitude 84°38'40", Preble County, Hydrologic Unit 05080002, on right bank at downstream side of bridge on State Highway 725 in Camden, 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 record and 9 discharge measurements furnished by Miami Conservancy District.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	4.4	4.2	e1.9	47	240	32	44	52	32	6.5	1.8
2	2.1	3.7	4.2	e1.8	58	141	30	41	97	72	6.0	1.6
3	3.2	3.8	4.2	e1.7	54	119	31	38	68	36	5.7	1.6
4	5.6	4.0	4.2	e1.6	49	92	37	36	39	25	5.7	1.4
5	3.8	3.9	4.2	e1.6	37	73	32	34	32	21	5.5	1.3
6	3.5	3.9	4.2	e1.5	37	422	32	36	27	18	5.2	1.2
7	4.9	3.9	5.1	e1.5	590	200	30	32	24	17	4.6	1.2
8	7.1	3.8	6.0	e1.5	466	117	28	29	22	15	4.7	1.3
9	3.7	3.7	5.0	e1.4	195	104	48	27	21	15	4.6	1.5
10	2.6	9.1	4.5	e1.4	121	75	63	25	27	22	4.2	1.3
11	2.3	15	4.0	e1.4	94	60	47	24	81	18	3.9	1.2
12	2.1	6.3	4.4	e4.0	168	53	41	23	71	15	3.9	1.5
13	1.9	5.1	4.0	e8.0	120	51	34	26	51	14	3.6	1.6
14	e2.1	4.7	3.6	e25	87	50	32	26	120	13	4.0	1.6
15	2.1	4.3	3.7	e15	78	48	37	23	57	13	3.4	1.6
16	2.1	3.9	4.1	e10	69	90	57	21	38	12	3.0	1.8
17	2.5	3.8	4.2	e13	68	173	165	21	31	12	2.8	1.8
18	3.1	3.9	4.2	e200	61	127	145	22	26	12	2.6	1.7
19	7.3	3.7	4.2	e130	54	87	118	23	24	12	3.1	1.8
20	3.7	4.6	4.2	e90	46	70	90	19	22	15	3.8	2.1
21	2.9	5.3	7.4	e200	40	64	423	19	22	14	2.8	2.0
22	2.5	4.8	52	1060	36	52	280	20	21	12	2.3	2.2
23	2.5	4.4	9.9	884	35	46	151	22	20	11	2.3	2.1
24	2.5	4.2	e5.0	363	35	43	100	20	20	9.7	3.4	1.9
25	3.0	4.5	e3.4	179	34	39	78	19	21	9.2	7.3	1.8
26	3.0	6.6	e2.8	118	32	36	67	18	19	9.1	3.9	1.8
27	3.1	6.3	e2.6	93	156	35	60	18	26	14	3.2	1.6
28	3.8	4.8	e2.4	69	545	33	71	17	27	10	2.9	1.6
29	4.7	4.6	e2.2	52	---	32	58	17	41	8.6	2.4	2.2
30	7.9	4.3	e2.1	43	---	30	48	16	27	7.9	1.9	2.9
31	7.0	---	e2.0	39	---	29	---	19	---	7.3	1.9	---
TOTAL	110.7	149.3	178.2	3612.3	3412	2831	2465	775	1174	521.8	121.1	51.0
MEAN	3.57	4.98	5.75	117	122	91.3	82.2	25.0	39.1	16.8	3.91	1.70
MAX	7.9	15	52	1060	590	422	423	44	120	72	7.3	2.9
MIN	1.9	3.7	2.0	1.4	32	29	28	16	19	7.3	1.9	1.2
CFSM	.05	.07	.08	1.69	1.77	1.32	1.19	.36	.57	.24	.06	.02
IN.	.06	.08	.10	1.95	1.84	1.53	1.33	.42	.63	.28	.07	.03

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1999, 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	1998	1999
MEAN	18.1	55.4	86.3	89.1	112	138	129	112	61.0	34.0	18.3	8.98																	
MAX	126	266	281	265	276	344	323	421	269	138	91.6	40.9																	
(WY)	1987	1986	1991	1982	1975	1978	1996	1989	1998	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)	1998	1972	1977	1977	1978	1992	1976	1976	1988	1975	1975	1991																	

SUMMARY STATISTICS

	FOR 1998 CALENDAR YEAR				FOR 1999 WATER YEAR				WATER YEARS 1971 - 1999			
ANNUAL TOTAL	29063.1				15401.4							
ANNUAL MEAN	79.6				42.2				72.2			
HIGHEST ANNUAL MEAN									117			
LOWEST ANNUAL MEAN									28.0			
HIGHEST DAILY MEAN	1400				Jun 15				5520			
LOWEST DAILY MEAN	1.9				Oct 13				1.2			
ANNUAL SEVEN-DAY MINIMUM	2.2				Oct 11				1.3			
INSTANTANEOUS PEAK FLOW									1440			
INSTANTANEOUS PEAK STAGE									7.21			
INSTANTANEOUS LOW FLOW									1.2			
ANNUAL RUNOFF (CFSM)	1.15								.61			
ANNUAL RUNOFF (INCHES)	15.67								8.30			
10 PERCENT EXCEEDS	170								92			
50 PERCENT EXCEEDS	25								14			
90 PERCENT EXCEEDS	2.6								1.9			

e Estimated.

SURFACE-WATER RECORDS
Great Miami River Basin

03274000 GREAT MIAMI RIVER AT HAMILTON, OHIO

LOCATION.--Latitude 39°23'28", longitude 84°34'20", in NE 1/4 sec. 6, T.1 N., R.3 E., Butler County, Hydrologic Unit 05080002, on right bank 1,000 ft downstream from Columbia Bridge at Hamilton, 3 mi downstream from Four Mile Creek, 4.3 mi upstream from Pleasant Run, and at mile 34.8.

DRAINAGE AREA.--3,630 mi².

PERIOD OF RECORD.--January 1907 to June 1909 (fragmentary), January 1910 to September 1918, April 1927 to current year. Monthly discharge only for some periods, published in WSP 1305. Gage-height records collected at site 0.7 mi upstream since 1911 are contained in reports of National Weather Service. Prior to October 1962, published as Miami River at Hamilton.

REVISED RECORDS.--WSP 803: 1936. WSP 1908: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 499.98 ft above sea level. Prior to Apr. 12, 1927, nonrecording gage at site 0.7 mi upstream at datum 64.65 ft higher.

REMARKS.--Records good except for periods of estimated record, which are fair. Some regulation and diversion at low flow by industrial plants upstream from station. Flood flow regulated by five retarding basins upstream from station beginning in 1920 (see REMARKS for station numbers 03271500 and 03272000). The Miami and Erie Canal diverted water from the basin 1.7 mi upstream from station until Nov. 1, 1930, when the canal was abandoned; amount of diversion not known. Water-quality and water-temperature data collected at this site.

COOPERATION.--Gage-height charts, record, and 9 discharge measurements furnished by Miami Conservancy District.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 352,000 ft³/s Mar. 26, 1913, gage height 38.5 ft, site and datum then in use, computed by Miami Conservancy District.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	662	752	654	700	4040	17700	1900	3670	1030	991	671	396
2	661	687	626	694	4300	13100	1970	2930	1580	1540	644	425
3	660	700	616	e660	4020	9100	1970	2560	1750	2150	808	413
4	1040	635	591	e660	3700	8120	2350	2310	1470	1650	794	392
5	922	634	600	e640	3280	6420	2100	2180	1340	1280	652	294
6	812	596	593	e620	2940	10800	1960	2170	1240	993	583	344
7	991	608	700	e600	8980	13700	1910	2000	1170	912	613	351
8	1560	606	743	e600	18500	9250	e1740	1850	1180	868	560	402
9	926	594	674	e600	15000	6840	1940	1750	1070	817	470	345
10	731	656	634	e580	10200	5870	2650	1610	1090	1190	465	322
11	677	1040	639	e600	6570	4750	2910	1490	1130	1020	384	327
12	629	893	594	e800	6490	3980	2560	1430	1250	896	421	323
13	596	779	594	3020	7290	3690	2200	1430	1790	818	366	325
14	568	775	594	3300	5980	3450	2000	1570	2720	757	423	367
15	550	749	591	e2000	4680	3300	1940	1530	2450	731	389	336
16	550	715	579	e1900	4030	3910	2390	1370	1980	656	303	309
17	547	688	556	e1800	3800	6090	3490	1310	1440	633	347	267
18	565	683	595	9700	3510	7610	7360	1300	1190	598	402	294
19	873	665	594	13600	3270	6170	6910	1340	1030	616	439	294
20	734	713	568	11200	2970	4710	5510	1260	979	653	489	301
21	595	772	1100	11300	2690	4020	7910	1200	935	764	429	321
22	569	681	5590	22700	2490	3560	12300	1210	933	803	422	328
23	543	652	2160	33700	2350	3160	8150	1430	807	1100	425	314
24	527	611	1640	29600	2260	2930	6530	1350	795	1310	572	307
25	513	648	1280	21500	2170	2680	5460	1470	782	1060	814	308
26	e514	851	1030	16000	2150	2450	4270	1600	804	935	717	294
27	e526	779	936	12400	3040	2360	3640	1430	802	1110	572	296
28	605	694	874	9080	15700	2260	3490	1230	1070	893	460	340
29	678	681	835	5510	---	2160	6710	1130	1120	777	393	426
30	931	669	799	4350	---	2050	4970	1060	1120	833	417	456
31	1060	---	769	3630	---	1970	---	1000	---	766	383	---
TOTAL	22315	21206	29348	224044	156400	178160	121190	51170	38047	30120	15827	10217
MEAN	720	707	947	7227	5586	5747	4040	1651	1268	972	511	341
MAX	1560	1040	5590	33700	18500	17700	12300	3670	2720	2150	814	456
MIN	513	594	556	580	2150	1970	1740	1000	782	598	303	267
CFSM	.20	.19	.26	1.99	1.54	1.58	1.11	.45	.35	.27	.14	.09
IN.	.23	.22	.30	2.30	1.60	1.83	1.24	.52	.39	.31	.16	.10

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1927 - 1999, BY WATER YEAR (WY)

	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
MEAN	1025	1945	3254	5020	5205	6122	5860	4236	3212	2195	1396	942	6728	10060	13280	29460	14410	15590	13760	17390	14860	7995	7613	4382	1987	1973	1991	1937	1950	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999									
MIN	279	286	323	434	502	826	1219	602	445	335	391	319	1964	1935	1935	1977	1964	1941	1941	1934	1934	1936	1936	1963	1987	1973	1991	1937	1950	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999									

SUMMARY STATISTICS

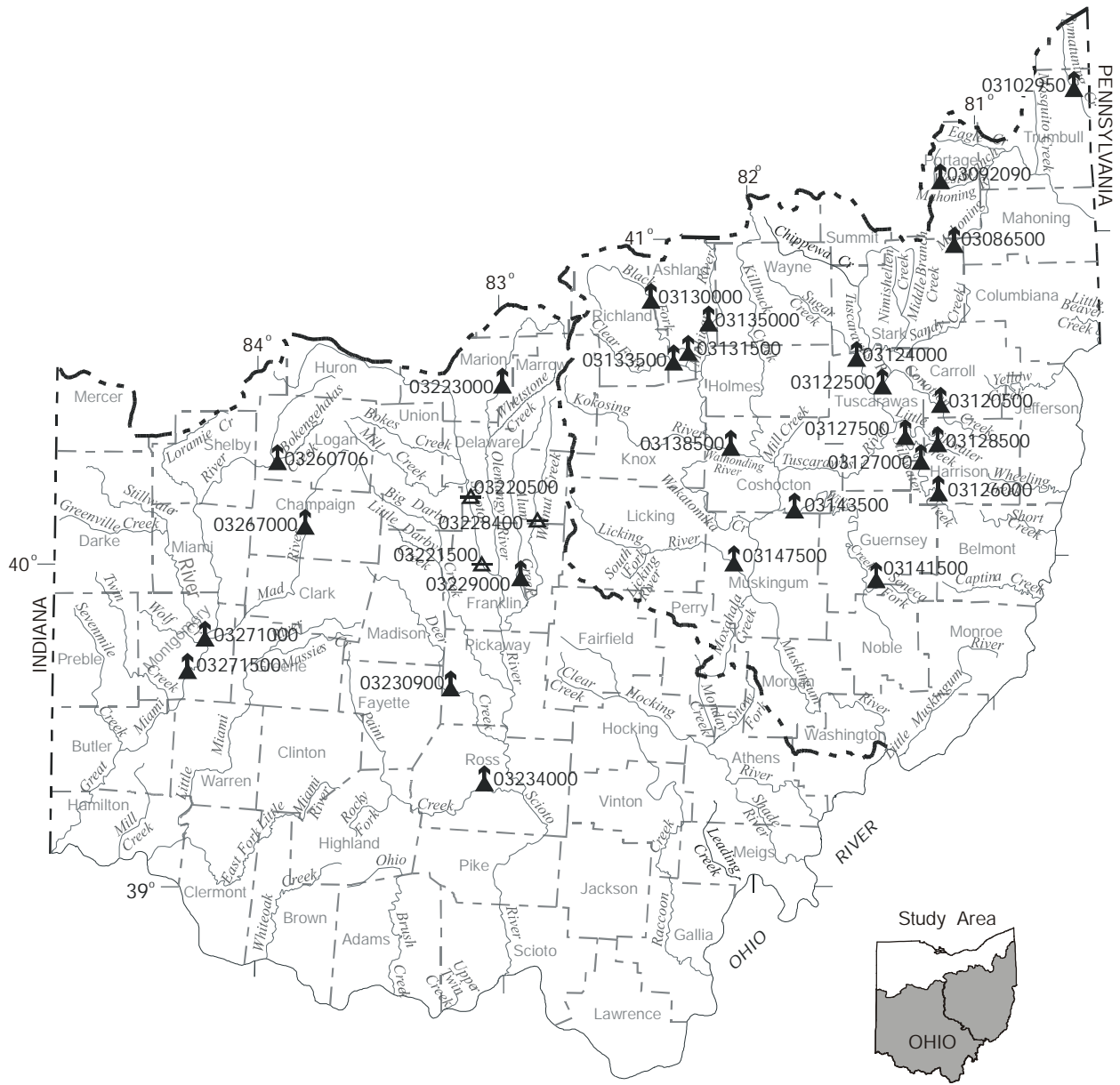
	FOR 1998 CALENDAR YEAR	FOR 1999 WATER YEAR	WATER YEARS 1927 - 1999
ANNUAL TOTAL	1292828	898044	
ANNUAL MEAN	3542	2460	3354
HIGHEST ANNUAL MEAN			5778
LOWEST ANNUAL MEAN			931
HIGHEST DAILY MEAN	36500	Apr 16	73900
LOWEST DAILY MEAN	513	Oct 25	155
ANNUAL SEVEN-DAY MINIMUM	541	Oct 21	201
INSTANTANEOUS PEAK FLOW			36000
INSTANTANEOUS PEAK STAGE		70.90	Jan 23
INSTANTANEOUS LOW FLOW		255	Aug 16
ANNUAL RUNOFF (CFSM)	.98	.68	.92
ANNUAL RUNOFF (INCHES)	13.25	9.20	12.55
10 PERCENT EXCEEDS	7630	6270	7740
50 PERCENT EXCEEDS	2080	991	1610
90 PERCENT EXCEEDS	635	419	507

e Estimated.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

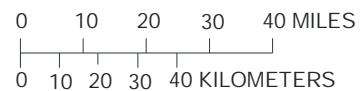
As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the USGS collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic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

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



EXPLANATION

- ▲ SURFACE-WATER GAGING STATION--Eight-digit number is downstream-order number
- ▲ Stage
- ▲ Peak-flow discharge



DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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

MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS

[≠, operated as a continuous-record gaging station]

LOCATION	DRAINAGE AREA (MI ²)	PERIOD OF RECORD	WATER YEAR 1999 MAXIMUM			PERIOD OF RECORD MAXIMUM		
			DATE	GAGE HEIGHT (FT)	DISCHARGE (FT ³ /S)	DATE	GAGE HEIGHT (FT)	DISCHARGE (FT ³ /S)
OHIO RIVER BASIN								
BEAVER RIVER BASIN								
03086500 MAHONING RIVER AT ALLIANCE, OHIO								
Latitude 40°55'58", longitude 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	89.2	1941-93≠ 1994-99	1/19/99	3.42	1,060	1/21/59	9.11	9,740
03092090 WEST BRANCH MAHONING RIVER NR RAVENNA, OHIO								
Latitude 41°09'41", longitude 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	21.8	1965-93≠ 1994-99	1/23/99	5.15	723	9/14/79	8.63	2,810
03102950 PYMATUNING CREEK AT KINSMAN, OHIO								
Latitude 41°26'34", longitude 80°35'18", Trumbull County, Hydrologic Unit 05030102, on left bank at downstream side of bridge on State Highway 7 at Kinsman, 0.8 mi. downstream from Sugar Creek, and 1.2 mi. upstream from Stratton Creek	96.7	1966-94≠ 1995-99	1/24/99	11.71	1,820	11/6/85	12.40	2,740
MUSKINGUM RIVER BASIN								
03120500 MCGUIRE CREEK BELOW LEESVILLE DAM, NEAR LEESVILLE, OHIO								
Latitude 40°28'13", longitude 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	48.3	1938-91≠ 1992-99	1/23/99	4.40	245	3/4/40	7.88	740
03122500 TUSCARAWAS RIVER BELOW DOVER DAM, NEAR DOVER, OHIO								
Latitude 40°31'47", longitude 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	1,405	1923-91≠ 1992-99	3/4/99	7.19	5,680	1/26/37	15.51	26,400

**DISCHARGE AT PARTIAL-RECORD STATIONS
AND MISCELLANEOUS SITES**

MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS-Continued

[#, operated as a continuous-record gaging station]

LOCATION	DRAINAGE AREA (MI ²)	PERIOD OF RECORD	WATER YEAR 1999 MAXIMUM			PERIOD OF RECORD MAXIMUM		
			DATE	GAGE HEIGHT (FT)	DISCHARGE (FT ³ /S)	DATE	GAGE HEIGHT (FT)	DISCHARGE (FT ³ /S)
03124000 SUGAR CREEK BELOW BEACH CITY DAM, NEAR BEACH CITY, OHIO								
Latitude 40°38'08", longitude 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	300	1938-91 # 1992-99	4/10/99	7.35	2,810	7/6/69	11.26	7,520
03126000 STILLWATER CREEK AT PIEDMONT, OHIO								
Latitude 40°11'41", longitude 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	122	1938-91 # 1992-99	1/18/99	7.92	826	12/4/50	11.44	1,470
03127000 STILLWATER CREEK AT TIPPECANOE, OHIO								
Latitude 40°16'13", longitude 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	282	1938-91 # 1992-99	1/23/99	14.49	2,180	3/5/63	17.29	4,410
03127500 STILLWATER CREEK AT UHRICHSVILLE, OHIO								
Latitude 40°23'10", longitude 81°20'50" Tuscarawas County, Hydrologic Unit 05040001, on left bank at concrete dam of Dennison Water Supply Co. at Uhrichsville, 2.2 mi. upstream from Little Stillwater Creek	367	1922-91 # 1992-99	1/24/99	6.01	3,670	8/8/35	12.80	7,650
03128500 LITTLE STILLWATER CREEK BELOW TAPPAN DAM, AT TAPPAN, OHIO								
Latitude 40°21'25", longitude 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	71.1	1938-91 # 1992-99	2/5/99	6.52	399	3/13/39	10.00	1,050
03130000 BLACK FORK BELOW CHARLES MILL DAM, NEAR MIFFLIN, OHIO								
Lat 40°44'16", longitude 82°21'48", in NE 1/4 sec. 35, T.23 N., R.17 W., Ashland County, Hydrologic Unit 05040002, on left bank 700 f.t downstream from Charles Mill Dam, 2.5 mi. south of Mifflin, and 4 mi. upstream from Rocky Fork	217	1938-91 # 1992-99	1/26/99	5.62	1,310	3/13/64	8.45	2,800

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS—Continued

[#, operated as a continuous-record gaging station]

LOCATION	DRAINAGE AREA (MI ²)	PERIOD OF RECORD	WATER YEAR 1999 MAXIMUM			PERIOD OF RECORD MAXIMUM		
			DATE	GAGE HEIGHT (FT)	DISCHARGE (FT ³ /S)	DATE	GAGE HEIGHT (FT)	DISCHARGE (FT ³ /S)
03131500 BLACK FORK AT LOUDONVILLE, OHIO								
Latitude 40°38'09", longitude 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	349	1931-91# 1992-99	1/23/99	9.84	2,970	7/5/69	14.11	8,460
03133500 CLEAR FORK BELOW PLEASANT HILL DAM, NEAR PERRYVILLE, OHIO								
Latitude 40°37'13", longitude 82°19'28", in NE 1/4 sec. 7, T.19 N., R.16 W., Ashland County, Hydrologic Unit 05040002, on left bank 0.2 mi downstream from Pleasant Hill Dam, 2.8 mi. south of Perryville, and 4.7 mi. upstream from the confluence of Clear Fork and Black Fork	198	1938-91# 1992-99	4/18/99	3.36	1,020	1/23/59	4.89	2,340
03135000 LAKE FORK BELOW MOHICANVILLE DAM, NEAR MOHICANVILLE, OHIO								
Latitude 40°43'24", longitude 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	271	1938-93# 1994-99	4/21/99	12.46	2,510	7/5/69	14.32	5,490
03138500 WALHONDING RIVER BELOW MOHAWK DAM, AT NELLIE, OHIO								
Latitude 40°20'29", longitude 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	1,505	1910-13 1921-91# 1992-99	1/28/99	11.21	7,160	1/25/37	18.80	43,800
03141500 SENECA FORK BELOW SENECAVILLE DAM, NEAR SENECAVILLE, OHIO								
Latitude 39°55'28", longitude 81°26'17", Guernsey County, Hydrologic Unit 05040005, on left bank 650 ft. downstream from Senecaville Dam and 1.5 mi. southeast of Senecaville	118	1938-91# 1992-99	2/2/99	8.94	877	8/24/80	9.69	985
03143500 WILLS CREEK BELOW WILLS CREEK DAM AT WILLS CREEK, OHIO								
Latitude 40°09'34", longitude 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	842	1938-91# 1992-99	2/3/99	15.28	5,910	3/7/40	17.40	6,930

**DISCHARGE AT PARTIAL-RECORD STATIONS
AND MISCELLANEOUS SITES**

MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS—Continued

[#, operated as a continuous-record gaging station]

LOCATION	DRAINAGE AREA (MI ²)	PERIOD OF RECORD	WATER YEAR 1999 MAXIMUM			PERIOD OF RECORD MAXIMUM		
			DATE	GAGE HEIGHT (FT)	DISCHARGE (FT ³ /S)	DATE	GAGE HEIGHT (FT)	DISCHARGE (FT ³ /S)
03147500 LICKING RIVER BELOW DILLON DAM, NEAR DILLON FALLS, OHIO								
Latitude 39°59'18", longitude 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	742	1939-91# 1992-99	1/26/99	9.68	4,820	1/22/59	32.46	47,000
SCIOTO RIVER BASIN								
03223000 OLENTANGY RIVER NEAR CLARIDON, OHIO								
Latitude 40°34'58", longitude 82°59'20", Marion County, Hydrologic Unit 05060001, on left bank 900 ft downstream from bridge on State Highway 95, 0.5 mi. east of Claridon, 0.8 mi downstream from Otter Creek, and 1.4 mi. upstream from Beaver Run	157	1946-98# 1999	1/23/99	9.35	1,950	1/22/59	16.77	14,900
03229000 ALUM CREEK AT COLUMBUS, OHIO								
Latitude 39°56'42", longitude 82°56'28", Franklin County, Hydrologic Unit 05060001, on left bank 0.2 mi. downstream from Livingston Avenue bridge in Columbus, and 6 mi. upstream from mouth	189	1963-98# 1999	12/21/98	6.64	2,400	1/22/59	19.59	26,400
03230900 DEER CREEK NEAR PANCOASTBURG, OHIO								
Latitude 39°37'14", longitude 83°12'47", Pickaway County, Hydrologic Unit 05060002, on left bank 200 ft. downstream from bridge on Crownover Mill Road, 1,200 ft. downstream from Deer Creek Dam, and 2.8 mi. east of Pancoastburg	277	1964-66 1966-97# 1998-99	1/19/99 1/20/99	5.74	2,050	3/10/64	12.93	19,500
03234000 PAINT CREEK NEAR BOURNEVILLE, OHIO								
Latitude 39°15'49", longitude 83°10'01", Ross County, Hydrologic Unit 05060001, on upstream side of left abutment of highway bridge, 0.2 mi. downstream from Sulfer Lick, 1.2 mi. southwest of Bourneville	807	1921-37 1938-98# 1999	1/22/99	8.32	5,040	3/10/64	20.50	56,900
GREAT MIAMI RIVER BASIN								
03260706 BOKENGAHALAS CREEK AT DEGRAFF, OHIO								
Latitude 40°18'40", longitude 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	40.4	1993-96# 1998-99	1/22/99	4.75	490	6/2/97	5.68	753

**DISCHARGE AT PARTIAL-RECORD STATIONS
AND MISCELLANEOUS SITES**

MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS—Continued

[#, operated as a continuous-record gaging station]

LOCATION	DRAINAGE AREA (MI ²)	PERIOD OF RECORD	WATER YEAR 1999 MAXIMUM			PERIOD OF RECORD MAXIMUM		
			DATE	GAGE HEIGHT (FT)	DISCHARGE (FT ³ /S)	DATE	GAGE HEIGHT (FT)	DISCHARGE (FT ³ /S)
03267000 MAD RIVER NEAR URBANA, OHIO								
Latitude 40°06'27", longitude 83°47'57", Champaign County, Hydrologic Unit 05080001, on left bank at downstream side of bridge on U.S. Highway 36, 1.8 mi. upstream from Dugan Run, 1.8 mi. downstream from Muddy Creek, 2.5 mi. west of Urbana	162	1925-31 1939-98# 1999	1/22/99	7.28	2,620	1/22/59	12.05	8,000
03271000 WOLF CREEK AT DAYTON, OHIO								
Latitude 39°46'00", longitude 84°14'10", Montgomery County, Hydrologic Unit 05080002, on right bank, at West Riverview Avenue Bridge, in Dayton, 1.8 mi. upstream from mouth	68.7	1938-50# 1986-96# 1998-99	2/28/99	5.70	1,940	3/19/43	13.50	9,950
03271500 GREAT MIAMI RIVER AT MIAMISBURG, OHIO								
Latitude 39°38'40", longitude 84°17'32", Montgomery County, Hydrologic Unit 05080002, on left bank 600 ft downstream from bridge on U.S. Highway 725, at Miamisburg, 0.3 mi. downstream from Bear Creek, 3.2 mi. upstream from Craine Run, and at mile 66.4	2,711	1916-20# 1924-35# 1952-95# 1996-99	1/23/99	14.06	29,300	1/21/59	21.30	61,800

**PEAK DISCHARGE AND STAGE
AT CONTINUOUS-RECORD SURFACE DISCHARGE STATIONS**

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

PEAK DISCHARGES EQUAL TO OR GREATER THAN BASE DISCHARGES, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

[---, no data; b, ice jam.]

DATE	TIME	DISCHARGE (FT ³ /S)	GAGE HEIGHT (FT)	DATE	TIME	DISCHARGE (FT ³ /S)	GAGE HEIGHT (FT)
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OHIO RIVER BASIN

BEAVER RIVER BASIN

03093000 EAGLE CREEK AT PHALANX STATION, OHIO (Base discharge: 1,300 ft³/s)

Jan. 24	2200	*2,570	*11.87				No other peaks greater than base discharge
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LITTLE BEAVER CREEK BASIN

03109500 LITTLE BEAVER CREEK NEAR EAST LIVERPOOL, OHIO (Base discharge: 5,000 ft³/s)

Jan. 18	2200	5,550	9.10	Jan. 24	0100	*7,780	*10.44
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YELLOW CREEK BASIN

03110000 YELLOW CREEK NEAR HAMMONDSVILLE, OHIO (Base discharge: 2,000 ft³/s)

Jan. 18	2400	*2,460	*6.58	Jan. 23	0600	2,400	6.50
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SHORT CREEK BASIN

03111500 SHORT CREEK NEAR DILLONVALE, OHIO (Base discharge: 1,200 ft³/s)

Jan. 13	1900	---	*7.16b	Jan. 22	2300	1,290	5.46
Jan. 18	2100	*1,800	6.51				

WHEELING CREEK BASIN

03111548 WHEELING CREEK BELOW BLAINE, OHIO (Base discharge: 1,500 ft³/s)

Jan. 18	1900	*1,940	*5.02				No other peaks greater than base discharge
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CAPTINA CREEK BASIN

03114000 CAPTINA CREEK AT ARMSTRONGS MILLS, OHIO (Base discharge: 3,000 ft³/s)

Jan. 18	2100	3,260	7.51	July 2	1330	*5,730	*9.54
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LITTLE MUSKINGUM RIVER BASIN

03115400 LITTLE MUSKINGUM RIVER AT BLOOMFIELD, OHIO (Base discharge: 3,000 ft³/s)

Jan. 9	1830	---	*18.91b	Jan. 22	1700	3,170	15.45
Jan. 19	0330	*3,830	16.68				

MUSKINGUM RIVER BASIN

03115973 SCHOCALOG RUN AT COPLEY JUNCTION, OHIO (Base discharge: 90 ft³/s)

Jan. 23	1845	*64	*11.99				
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03117500 SANDY CREEK AT WAYNESBURG, OHIO (Base discharge: 1,800 ft³/s)

Jan. 24	0900	*3,960	*7.37				No other peaks greater than base discharge
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03118000 MIDDLE BRANCH NIMISHILLEN CREEK AT CANTON, OHIO (Base discharge: 400 ft³/s)

Jan. 24	0930	*598	*5.26				No other peaks greater than base discharge
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**PEAK DISCHARGE AND STAGE
AT CONTINUOUS-RECORD SURFACE DISCHARGE STATIONS**

PEAK DISCHARGES EQUAL TO OR GREATER THAN BASE DISCHARGES, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999—Continued

[---, no data; b, ice jam.]

DATE	TIME	DISCHARGE (FT ³ /S)	GAGE HEIGHT (FT)	DATE	TIME	DISCHARGE (FT ³ /S)	GAGE HEIGHT (FT)
03118500 NIMISHILLEN CREEK AT NORTH INDUSTRY, OHIO (Base discharge: 2,000 ft ³ /s)							
Jan. 23	0300	*2,680	*7.33	July 29	0400	2,210	6.65
July 1	2330	2,010	6.31				
03121850 HUFF RUN AT MINERAL CITY, OHIO (Base discharge: 100 ft ³ /s)							
Dec. 22	0900	133	3.04	Jan. 22	1900	*401	*4.07
Jan. 18	2400	188	3.29	Apr. 9	2200	101	2.86
03139000 KILLBUCK CREEK AT KILLBUCK, OHIO (Base discharge: 2,000 ft ³ /s)							
Jan. 19	1600	2,170	15.69	Jan. 24	0200	*2,370	*16.02
03140000 MILL CREEK NEAR COSHOCTON, OHIO (Base discharge: 700 ft ³ /s)							
Dec. 22	0815	*890	*9.31	No other peaks greater than base discharge			
03144000 WAKATOMIKA CREEK NEAR FRAZEYSBURG, OHIO (Base discharge: 1,600 ft ³ /s)							
Dec. 22	1200	*2,470	*5.96	Jan. 23	0100	2,270	5.71
Jan. 19	0400	1,900	5.21	Apr. 9	1800	1,700	4.93
03146500 LICKING RIVER NEAR NEWARK, OHIO (Base discharge: 6,500 ft ³ /s)							
Dec. 22	0500	7,260	10.03	Jan. 18	2200	*7,720	*10.27
HOCKING RIVER BASIN							
03157000 CLEAR CREEK NEAR ROCKBRIDGE, OHIO (Base discharge: 1,900 ft ³ /s)							
Mar. 6	1245	*1,160	*5.03				
03157500 HOCKING RIVER AT ENTERPRISE, OHIO (Base discharge: 3,500 ft ³ /s)							
Jan. 18	1900	4,620	10.42	Mar. 6	1800	3,830	9.19
Jan. 22	2000	*5,620	*11.72				
03158195 SNOW FORK MONDAY CREEK AT BUCHTEL, OHIO (Base discharge: 250 ft ³ /s)							
Jan. 18	1430	*517	*7.82	Mar. 3	1830	272	6.31
Jan. 22	0315	475	7.59	Mar. 6	1215	269	6.29
Feb. 7	1530	324	6.67				
03158200 MONDAY CREEK AT DOANVILLE, OHIO (Base discharge: 600 ft ³ /s)							
Jan. 10	0115	679	8.36	Jan. 22	1645	895	9.29
Jan. 14	0400	974	9.60	Feb. 7	2115	853	9.12
Jan. 19	---	*e2100	*e13.75	Apr. 21	2215	730	8.59
SHADE RIVER BASIN							
03159540 SHADE RIVER NEAR CHESTER, OHIO (Base discharge: 2,400 ft ³ /s)							
Aug. 26	1800	*954	*11.01				
RACoon CREEK BASIN							
03202000 RACoon CREEK NEAR ADAMSVILLE, OHIO (Base discharge: 3,000 ft ³ /s)							
Jan. 22	1400	4,560	*16.21	Mar. 6	1800	3,190	13.41
SCIOTO RIVER BASIN							
03219500 SCIOTO RIVER NEAR PROSPECT, OHIO (Base discharge: 3,600 ft ³ /s)							
Jan. 25	0200	*5,580	*11.34	Mar. 2	1100	3,610	8.88

**PEAK DISCHARGE AND STAGE
AT CONTINUOUS-RECORD SURFACE DISCHARGE STATIONS**

PEAK DISCHARGES EQUAL TO OR GREATER THAN BASE DISCHARGES, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999—Continued

[---, no data; b, ice jam.]

DATE	TIME	DISCHARGE (FT ³ /S)	GAGE HEIGHT (FT)	DATE	TIME	DISCHARGE (FT ³ /S)	GAGE HEIGHT (FT)
03220000 MILL CREEK NEAR BELLEPOINT, OHIO (Base discharge: 2,500 ft ³ /s)							
Jan. 23	0300	*3,580	*7.54	No other peaks greater than base discharge			
03228300 BIG WALNUT CREEK AT SUNBURY, OHIO (Base discharge: 2,200 ft ³ /s)							
Jan. 18	1200	*1,800	*8.06b				
03230310 LITTLE DARBY CREEK AT WEST JEFFERSON, OHIO (Base discharge: 1000 ft ³ /s)							
Jan. 19	1115	1,100	9.17	Feb. 8	1830	1,080	8.87
Jan. 23	1015	*1,560	*10.02				
03230450 HELLBRANCH RUN NEAR HARRISBURG, OH (Base discharge: 300 ft ³ /s)							
Dec. 22	0115	719	7.07	Mar. 3	1730	313	6.07
Jan. 18	1715	*964	*7.61	Mar. 6	1415	647	6.91
Jan. 22	0245	601	6.80	Apr. 21	1645	495	6.55
Feb. 7	1915	463	6.47				
03230500 BIG DARBY CREEK AT DARBYVILLE, OHIO (Base discharge: 4,500 ft ³ /s)							
Jan. 24	0445	*6,630	*10.33	No other peaks greater than base discharge			
03230800 DEER CREEK AT MOUNT STERLING, OHIO (Base discharge: 1,900 ft ³ /s)							
Jan. 19	0030	*3,390	*8.99	Feb. 8	0130	2,040	7.80
Jan. 22	0730	2,590	8.33	Mar. 6	1900	2,100	7.86
03232000 PAINT CREEK NEAR GREENFIELD, OHIO (Base discharge: 2,000 ft ³ /s)							
Jan. 23	0400	*2,140	*6.47	No other peaks greater than base discharge			
UPPER TWIN CREEK BASIN							
03237280 UPPER TWIN CREEK AT MCGAW, OHIO (Base discharge: 450 ft ³ /s)							
Jan. 8	1415	*7,540	*6.88	No other peaks greater than base discharge			
OHIO BRUSH CREEK BASIN							
03237500 OHIO BRUSH CREEK NEAR WEST UNION, OHIO (Base discharge: 11,000 ft ³ /s)							
Jan. 9	0930	*9,050	*10.38				
WHITEOAK CREEK BASIN							
03238500 WHITEOAK CREEK NEAR GEORGETOWN, OHIO (Base discharge: 5,500 ft ³ /s)							
Dec. 22	1200	6,600	6.49	Feb. 7	2200	6,780	6.55
Jan. 13	2230	*7,300	*6.72	Feb. 27	2400	6,540	6.47
Jan. 18	0830	5,830	6.22				
LITTLE MIAMI RIVER BASIN							
03240000 LITTLE MIAMI RIVER NEAR OLDTOWN, OHIO (Base discharge: 800 ft ³ /s)							
Jan. 18	0900	---	*5.38b	Jan. 19	0400	*909	4.74
03241500 MASSIES CREEK AT WILBERFORCE, OHIO (Base discharge: 600 ft ³ /s)							
Jan. 18	1630	*579	*5.40				
03245500 LITTLE MIAMI RIVER AT MILFORD, OHIO (Base discharge: 15,000 ft ³ /s)							
Dec. 22	0300	*11,700	*11.72				

**PEAK DISCHARGE AND STAGE
AT CONTINUOUS-RECORD SURFACE DISCHARGE STATIONS**

PEAK DISCHARGES EQUAL TO OR GREATER THAN BASE DISCHARGES, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999—Continued

[---, no data; b, ice jam.]

DATE	TIME	DISCHARGE (FT ³ /S)	GAGE HEIGHT (FT)	DATE	TIME	DISCHARGE (FT ³ /S)	GAGE HEIGHT (FT)
03246500 EAST FORK LITTLE MIAMI RIVER AT WILLIAMSBURG, OHIO (Base discharge: 5,000 ft ³ /s)							
FEB. 7	2000	*5,470	*8.05	No other peaks greater than base discharge			
GREAT MIAMI RIVER BASIN							
03261500 GREAT MIAMI RIVER AT SIDNEY, OHIO (Base discharge: 4,000 ft ³ /s)							
Jan. 22	1230	---	*9.37b	Jan. 23	1200	*5,160	8.77
03261950 LORAMIE CREEK NEAR NEWPORT, OHIO (Base discharge: 1,500 ft ³ /s)							
Jan. 18	2230	1,700	9.94	Jan. 23	0230	*3,170	*12.36
03264000 GREENVILLE CREEK NEAR BRADFORD, OHIO (Base discharge: 1,500 ft ³ /s)							
Jan. 19	0800	1,800	5.45	Feb. 8	1400	1,720	5.20
Jan. 23	1600	*3,460	*7.45				
03265000 STILLWATER RIVER AT PLEASANT HILL, OH (Base discharge: 5,000 ft ³ /s)							
Jan. 22	1900	*9.750	12.67	Feb. 8	0230	5.060	8.60
03267900 MAD RIVER AT ST. PARIS PIKE AT EAGLE CITY, OHIO (Base discharge: 2,500 ft ³ /s)							
Jan. 22	1100	*5,660	*13.52	Apr. 28	0900	4,090	11.76
Feb. 28	0400	2,630	9.84				
03271800 TWIN CREEK NEAR INGOMAR, OH (Base discharge: 4,700 ft ³ /s)							
Jan. 22	1315	*13,000	*12.48	No other peaks greater than base discharge			
03272700 SEVENMILE CREEK AT CAMDEN, OHIO (Base discharge: 1,500 ft ³ /s)							
Jan. 22	1145	*1,440	*7.21				

GROUND-WATER RECORDS
Ashland County

405303082170700. LOCAL NUMBER, AS-2

LOCATION.--Latitude 40°53'03", longitude 82°17'07", Hydrologic Unit 05040002, Jerome Fork well field 2 mi northeast of Ashland, Ohio.

Owner: Ashland Water Department.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled test water table well, diameter 6 in., depth 64 ft, cased.

INSTRUMENTATION.--Digital recorder--60 minute punch.

DATUM.--Elevation of land-surface datum is 980 ft above sea level, from topographic map.

Measuring point: Floor of instrument shelter 2.00 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

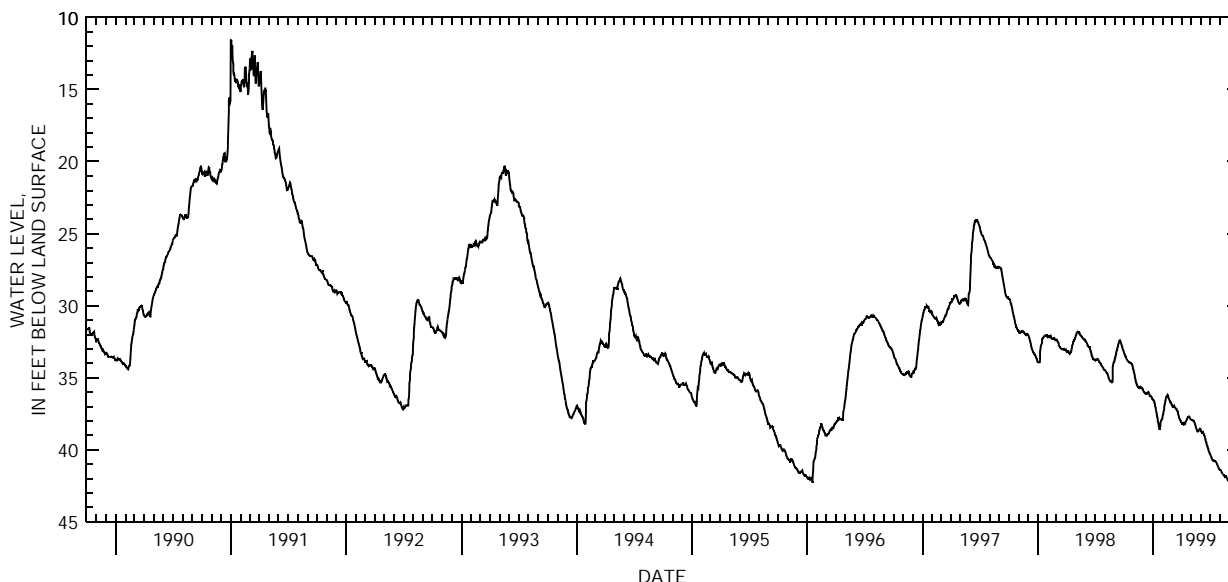
PERIOD OF RECORD.--March 1964 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 42.62 ft below land-surface datum, Sept. 28, 1999; minimum daily low, 11.56 ft below land-surface datum, Jan. 1, 1991.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33.22	34.55	35.90	36.54	37.68	36.88	38.14	37.90	38.61	40.30	41.41	42.06
2	33.32	34.64	35.94	36.54	37.54	36.90	38.16	37.92	38.70	40.36	41.41	42.03
3	33.38	34.73	35.99	36.57	37.47	36.93	38.15	37.94	38.75	40.42	41.42	41.99
4	33.44	34.85	36.01	36.62	37.29	37.00	38.17	37.93	38.76	40.45	41.46	42.01
5	33.47	34.96	36.02	36.66	37.22	37.00	38.19	37.94	38.78	40.51	41.51	42.04
6	33.53	35.10	36.04	36.79	37.02	37.05	38.19	37.96	38.83	40.57	41.55	42.09
7	33.55	35.20	36.09	36.86	36.91	37.05	38.19	37.96	38.83	40.63	41.60	42.16
8	33.64	35.31	36.12	36.95	36.84	36.98	38.18	37.97	38.82	40.68	41.64	42.21
9	33.69	35.36	36.15	37.07	36.66	36.94	38.25	38.00	38.83	40.73	41.66	42.26
10	33.75	35.43	36.15	37.20	36.60	37.03	38.23	38.03	38.88	40.74	41.71	42.29
11	33.79	35.49	36.15	37.28	36.44	37.06	38.18	38.04	38.93	40.76	41.74	42.31
12	33.81	35.53	36.13	37.43	36.35	37.11	38.20	38.10	38.98	40.78	41.75	42.32
13	33.83	35.56	36.07	37.55	36.34	37.12	38.15	38.15	39.03	40.78	41.79	42.32
14	33.87	35.63	36.07	37.67	36.31	37.15	38.09	38.22	39.12	40.76	41.79	42.31
15	33.91	35.66	36.05	37.79	36.22	37.18	38.03	38.28	39.19	40.79	41.82	42.31
16	33.93	35.64	36.01	37.93	36.19	37.18	37.97	38.35	39.27	40.81	41.83	42.34
17	33.94	35.69	35.99	38.02	36.23	37.24	37.97	38.45	39.35	40.81	41.86	42.34
18	33.95	35.71	36.00	38.21	36.29	37.30	37.95	38.53	39.42	40.81	41.87	42.31
19	33.95	35.73	36.08	38.29	36.37	37.32	37.88	38.59	39.50	40.84	41.86	42.33
20	33.93	35.73	36.13	38.39	36.44	37.32	37.83	38.64	39.58	40.87	41.86	42.36
21	33.97	35.72	36.16	38.53	36.51	37.44	37.78	38.68	39.67	40.92	41.89	42.39
22	34.00	35.71	36.26	38.63	36.58	37.53	37.73	38.73	39.75	40.97	41.93	42.41
23	34.02	35.69	36.28	38.57	36.61	37.60	37.75	38.74	39.79	41.01	41.96	42.45
24	34.02	35.69	36.29	38.34	36.64	37.72	37.72	38.73	39.88	41.07	42.01	42.51
25	34.04	35.67	36.29	38.13	36.73	37.79	37.69	38.72	39.95	41.12	42.06	42.53
26	34.07	35.70	36.31	38.08	36.77	37.87	37.71	38.68	40.02	41.17	42.08	42.56
27	34.10	35.73	36.33	37.96	36.74	37.91	37.76	38.63	40.09	41.23	42.14	42.60
28	34.19	35.73	36.36	37.94	36.79	37.95	37.82	38.57	40.16	41.27	42.16	42.62
29	34.28	35.75	36.47	37.92	---	38.00	37.85	38.54	40.24	41.33	42.15	42.59
30	34.37	35.82	36.50	37.87	---	38.03	37.88	38.54	40.26	41.37	42.13	42.59
31	34.47	---	36.51	37.81	---	38.07	---	38.56	---	41.40	42.09	---
MAX	34.47	35.82	36.51	38.63	37.68	38.07	38.25	38.74	40.26	41.40	42.16	42.62

CAL YR 1998 LOW 36.51
WTR YR 1999 LOW 42.62



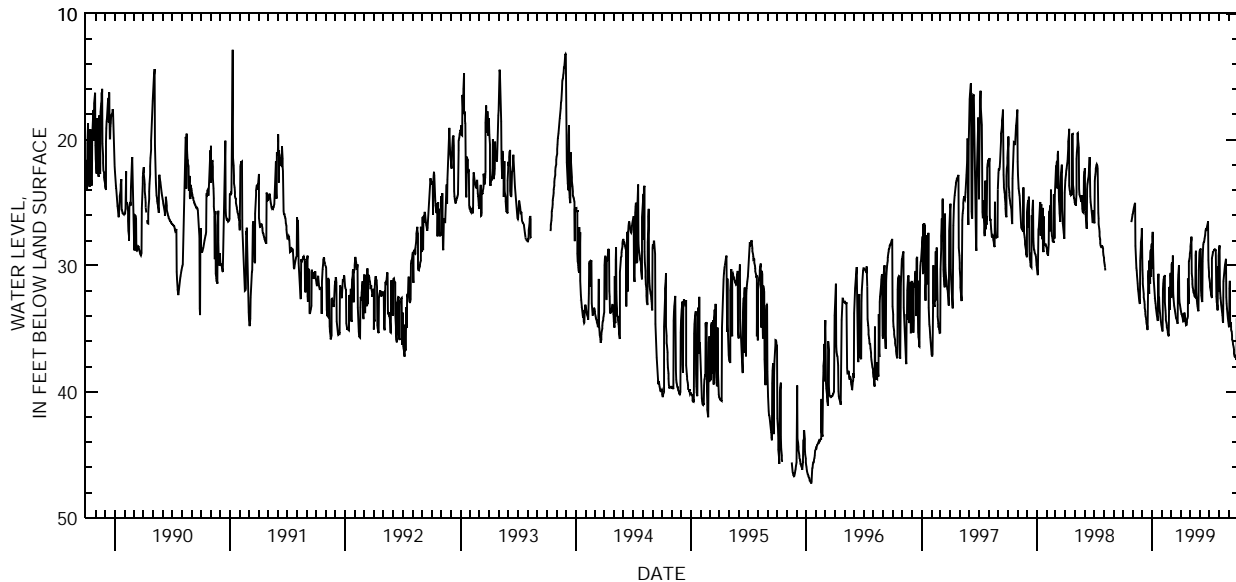
GROUND-WATER RECORDS
Ashland County

405425082173000. LOCAL NUMBER, AS-3

LOCATION.--Latitude 40°54'25", longitude 82°17'30", Hydrologic Unit 05040002, Ashland Bates well field along Jerome Fork near Ashland, Ohio.
 Owner: Ashland Water Department.
 AQUIFER.--Sand and gravel of Pleistocene Age.
 WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 8 in., depth 78 ft, cased.
 INSTRUMENTATION.--Digital recorder--60-minute punch.
 DATUM.--Elevation of land-surface datum is 990 ft above sea level, from topographic map.
 Measuring point: Floor of instrument shelter 5.00 ft above land-surface datum.
 REMARKS.--Station operated by Ohio Department of Natural Resources, 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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	25.87	30.34	30.22	34.98	30.55	33.40	29.04	28.76	30.84	28.81	34.80
2	---	25.70	31.01	27.71	35.18	32.53	33.57	28.73	28.71	31.15	28.59	34.88
3	---	25.56	31.44	27.33	35.22	31.38	33.69	28.46	28.70	31.41	28.40	31.80
4	---	25.42	31.95	29.10	31.86	29.92	33.83	28.20	28.68	31.67	31.64	31.21
5	---	25.31	32.24	30.31	31.38	29.74	33.83	27.94	31.98	31.94	32.17	34.47
6	---	25.20	32.51	31.01	31.11	31.35	34.00	27.69	32.35	32.12	32.52	34.85
7	---	25.10	32.83	31.41	30.95	31.64	34.06	30.60	32.59	32.28	32.79	34.47
8	---	24.99	33.12	31.86	30.87	29.18	34.20	31.09	32.81	32.49	33.09	34.83
9	---	28.44	33.35	32.21	30.78	32.13	34.40	31.42	32.87	32.55	33.32	35.10
10	---	29.19	33.60	32.56	30.76	32.57	34.37	31.70	29.68	29.40	33.52	35.23
11	---	29.76	33.82	32.81	32.91	32.86	34.39	31.95	28.81	29.15	33.73	35.54
12	---	30.16	34.02	33.01	33.56	33.16	34.44	32.07	28.32	28.99	33.94	35.85
13	---	30.38	34.26	33.30	34.03	33.30	33.71	32.17	28.15	28.89	34.35	35.97
14	---	30.78	34.44	33.51	34.31	33.46	33.94	32.21	28.13	28.81	34.52	36.19
15	---	31.10	34.62	33.71	34.52	33.65	34.05	32.33	28.06	28.78	31.23	36.23
16	---	31.41	34.81	33.95	34.70	33.80	34.32	32.45	27.86	28.76	30.96	36.45
17	---	31.83	35.04	34.02	34.87	33.97	34.52	32.50	27.70	28.72	30.68	36.63
18	---	32.02	35.08	34.26	35.05	34.13	34.65	32.42	27.54	28.71	30.41	36.95
19	---	32.27	31.50	34.36	35.17	34.21	34.71	29.17	27.22	28.70	30.16	37.23
20	---	32.56	30.84	31.12	35.33	34.25	34.68	28.81	27.15	28.75	29.92	37.25
21	---	32.77	30.38	30.65	35.46	34.41	34.50	32.03	27.18	28.76	29.77	37.21
22	---	32.95	32.23	32.53	35.55	34.53	34.28	32.45	27.12	28.76	29.60	37.17
23	---	33.02	29.80	32.53	35.58	34.59	34.13	32.72	27.01	31.95	29.45	37.23
24	---	29.60	29.56	33.18	32.23	31.30	33.98	32.99	26.87	32.45	32.49	37.36
25	---	28.94	31.43	33.55	31.68	30.73	31.02	33.21	26.76	32.86	32.99	37.44
26	---	28.47	29.52	33.75	33.52	30.33	32.89	33.38	26.63	33.17	33.36	37.48
27	26.53	28.13	28.91	34.04	31.06	29.94	33.03	33.55	26.48	33.42	33.64	34.18
28	26.43	27.76	28.74	34.30	30.76	32.51	29.65	33.60	29.55	33.53	33.91	37.07
29	26.28	27.32	30.90	34.49	---	32.97	29.41	30.37	30.16	30.06	34.16	37.47
30	26.12	27.04	28.49	34.67	---	33.06	29.23	29.54	30.53	32.03	34.37	37.85
31	25.96	---	28.25	34.83	---	33.23	---	28.96	---	29.23	34.57	---
MAX	26.53	33.02	35.08	34.83	35.58	34.59	34.71	33.60	32.87	33.53	34.57	37.85
CAL YR 1998	LOW	35.08										
WTR YR 1999	LOW	37.85										



GROUND-WATER RECORDS
Athens County

211

32004082071600. LOCAL NUMBER, AT-2A

LOCATION.--Latitude 39°20'04", longitude 82°07'16", Hydrologic Unit 05030204, 1.1 mi west of city hall in Athens, Ohio.
Owner: City of Athens.
AQUIFER.--Sand and gravel of Quaternary Age.
WELL CHARACTERISTICS.--Drilled unused water table well, diameter 12 in., depth 48 ft, cased.
INSTRUMENTATION.--Periodic measurement with chalked tape by Ohio Department of Natural Resources personnel.
DATUM.--Elevation of land-surface datum is 641.81 ft above sea level.
Measuring point: Floor of instrument shelter, 5.80 ft above land-surface datum.
REMARKS.--Station operated by Ohio Department of Natural Resources, 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 OBSERVATION

DATE	WATER LEVEL
Oct. 16, 1998	19.75
Apr. 22, 1999	18.18

GROUND-WATER RECORDS
Athens County

392009082072200. LOCAL NUMBER, AT-5

LOCATION.--Latitude 39°20'09", longitude 82°07'22", Hydrologic Unit 05030204, well field along Hocking River in Athens, Ohio.

Owner: Athens Water Department.

AQUIFER.--Sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled unused water table well, diameter 12 in., depth 48 ft, cased.

INSTRUMENTATION.--Digital recorder--60-minute punch.

DATUM.--Elevation of land surface datum is 640 ft above sea level, from topographic map.

Measuring point: Floor of instrument shelter, 4.75 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

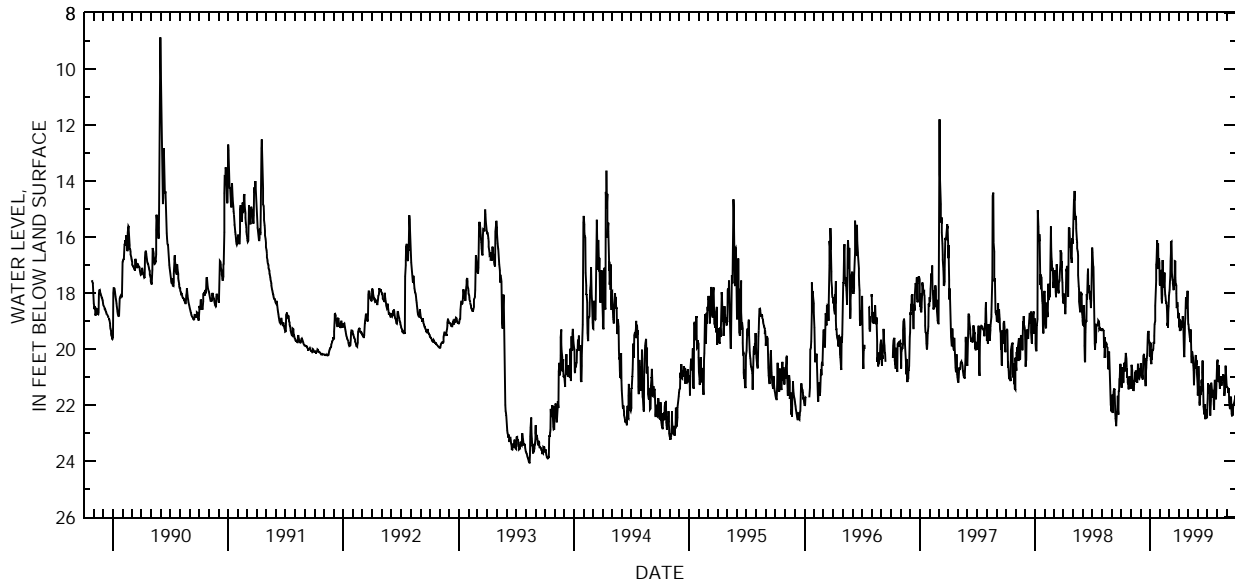
PERIOD OF RECORD.--July 1982 to current year.

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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.19	21.41	20.68	19.84	17.73	18.09	18.71	19.10	21.66	22.00	20.51	21.36
2	21.38	21.27	20.51	19.77	17.25	17.98	18.93	19.12	20.94	21.78	20.38	21.36
3	20.88	20.56	20.75	20.38	17.18	17.88	19.22	19.25	20.60	21.23	20.85	21.37
4	20.96	20.73	20.92	20.54	17.21	17.60	18.94	19.36	21.21	21.28	21.13	21.40
5	20.65	20.76	21.01	20.16	17.78	17.43	19.35	19.48	21.57	21.49	21.14	21.53
6	20.94	21.06	20.91	20.39	18.20	16.85	18.97	19.58	21.89	21.59	20.57	21.57
7	21.21	21.20	21.03	20.08	18.37	16.56	19.34	19.65	22.01	21.58	21.06	21.40
8	21.15	21.34	21.08	20.00	18.07	16.18	19.21	19.75	21.58	21.64	21.17	21.90
9	20.71	21.50	20.53	20.02	16.82	16.16	19.16	19.30	21.33	22.11	21.42	21.98
10	20.49	21.25	20.22	20.02	17.41	16.77	19.00	19.70	21.63	22.37	21.41	22.11
11	20.70	21.28	20.19	19.97	17.70	17.26	19.04	20.27	21.49	22.11	21.06	22.14
12	20.80	21.14	20.17	19.75	17.80	17.54	19.03	20.50	21.17	21.85	20.97	21.73
13	20.50	21.14	20.47	19.80	17.76	17.56	19.24	20.07	21.10	21.20	21.02	21.73
14	20.35	20.82	20.52	19.53	17.58	17.65	18.83	20.12	21.41	21.33	21.20	21.72
15	20.16	20.95	20.34	19.11	17.27	17.87	19.11	20.21	20.84	21.46	21.31	22.15
16	20.14	20.77	21.14	19.00	17.81	17.90	19.26	20.28	20.41	21.58	21.06	22.30
17	20.34	20.88	21.33	18.46	18.03	17.86	19.82	20.58	21.27	21.73	20.99	22.40
18	20.67	21.00	20.84	18.21	18.11	17.63	20.22	20.77	21.76	21.60	21.11	22.14
19	20.99	21.12	20.68	17.56	18.25	17.24	20.29	21.27	22.05	21.47	21.04	22.38
20	20.98	21.16	20.40	16.98	18.34	16.85	19.51	21.29	22.17	21.50	21.00	22.20
21	21.00	21.20	20.30	16.89	18.35	16.87	19.06	20.66	22.15	21.97	20.95	21.99
22	21.21	20.82	20.16	16.12	18.42	17.45	18.90	20.67	22.34	22.17	20.95	21.94
23	21.26	20.53	19.74	16.85	18.68	17.67	18.55	20.69	21.97	21.42	21.37	21.92
24	21.44	20.76	19.43	17.15	19.16	17.73	18.15	20.25	22.42	21.13	21.67	21.90
25	21.39	20.94	19.41	16.86	19.06	18.01	18.26	20.22	22.50	21.13	21.54	21.84
26	21.09	21.05	19.35	16.23	19.24	18.53	18.32	20.21	22.16	21.42	21.04	21.85
27	21.11	21.06	19.47	16.91	18.64	18.47	18.55	20.55	22.23	21.62	21.07	21.66
28	21.11	21.01	19.68	17.13	18.48	18.32	18.23	20.41	22.18	21.63	20.59	21.78
29	20.97	20.70	19.76	16.77	---	18.52	17.92	20.83	22.43	21.79	20.86	21.82
30	21.10	20.87	19.87	16.93	---	18.86	18.62	21.18	22.47	20.95	21.06	21.82
31	21.16	---	20.27	17.70	---	18.90	---	21.56	---	20.63	21.26	---
MAX	21.44	21.50	21.33	20.54	19.24	18.90	20.29	21.56	22.50	22.37	21.67	22.40

CAL YR 1998 LOW 22.76
WTR YR 1999 LOW 22.50



GROUND-WATER RECORDS
Auglaize County

213

403233083574500. LOCAL NUMBER, AU-3

LOCATION.--Latitude 40°32'33", longitude 83°57'45", Hydrologic Unit 05080001, 1.0 mi Southwest of New Hampshire, Ohio.
Owner: State of Ohio.
AQUIFER.--Limestone of Silurian Age.
WELL CHARACTERISTICS.--Drilled test artesian well, diameter 12 in., depth 380 ft, cased to 52 ft.
INSTRUMENTATION.--Periodic measurements with chalked tape by Ohio Department of Natural Resources personnel.
DATUM.--Elevation of land-surface datum is 1,020 ft above sea level, from topographic map.
Measuring point: Floor of instrument shelter, 3.00 ft above land-surface datum.
REMARKS.--Station operated by Ohio Department of Natural Resources, 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 OBSERVATION

DATE	WATER LEVEL
Oct. 30, 1998	7.36
Apr. 16, 1999	5.90

GROUND-WATER RECORDS
Belmont County

400118081082200. LOCAL NUMBER, B-3

LOCATION.--Latitude 40°01'18", longitude 81°08'22", Hydrologic Unit 05040001, Mt. Olivett Public Square, Mt. Olivett, Ohio.

Owner: Village of Mt. Olivett.

AQUIFER.--Shale of Pennsylvanian Age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 119 ft.

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

DATUM.--Elevation of land-surface datum is 1,265 ft above sea level, from topographic map.

Measuring point: Floor of instrument shelter, 1.5 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

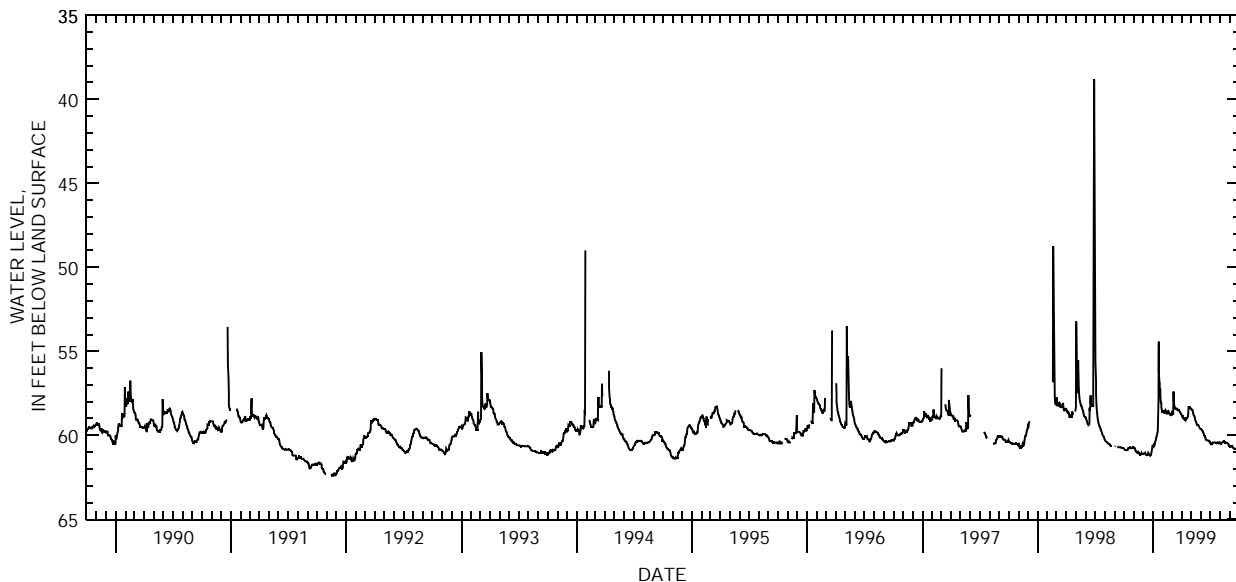
PERIOD OF RECORD.--July 19, 1984, to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 62.94 ft below land-surface datum, Dec. 26, 1988; minimum daily low, 38.81 ft below land-surface datum, June 28, 1998.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60.78	60.72	61.11	60.71	58.59	58.68	58.74	58.41	59.60	60.41	60.45	60.68
2	60.83	60.74	61.11	60.71	58.54	58.76	58.77	58.43	59.60	60.47	60.49	60.68
3	60.84	60.74	61.08	60.54	58.52	58.76	58.82	58.44	59.63	60.51	60.51	60.68
4	60.86	60.78	61.07	60.54	58.59	58.68	58.83	58.46	59.67	60.54	60.51	60.68
5	60.87	60.79	61.07	60.56	58.68	58.73	58.93	58.47	59.70	60.54	60.47	60.68
6	60.89	60.86	61.04	60.54	58.67	58.73	58.95	58.49	59.72	60.53	60.45	60.66
7	60.89	60.93	61.02	60.45	58.64	57.39	59.01	58.53	59.74	60.49	60.43	60.64
8	60.89	60.95	61.07	60.43	58.54	57.95	59.01	58.62	59.76	60.49	60.41	60.64
9	60.89	60.96	61.13	60.29	58.50	58.13	58.99	58.73	59.81	60.48	60.38	60.64
10	60.89	60.96	61.16	60.26	58.62	58.26	58.98	58.79	59.87	60.43	60.38	60.64
11	60.89	60.96	61.18	60.18	58.62	58.35	58.99	58.83	59.94	60.43	60.35	60.72
12	60.89	61.04	61.18	60.08	58.59	58.41	59.07	58.86	59.99	60.43	60.36	60.75
13	60.84	61.05	61.17	59.99	58.67	58.44	59.10	58.88	60.02	60.43	60.36	60.77
14	60.77	61.04	61.16	59.96	58.70	58.44	59.09	59.01	60.03	60.43	60.36	60.78
15	60.75	60.99	61.17	59.82	58.70	58.41	59.07	59.10	60.09	60.43	60.41	60.78
16	60.77	60.99	61.14	59.70	58.64	58.41	58.92	59.14	60.12	60.43	60.45	60.78
17	60.77	61.05	61.05	59.58	58.56	58.41	58.93	59.18	60.18	60.43	60.45	60.79
18	60.75	61.10	61.08	58.02	58.54	58.44	58.99	59.21	60.26	60.43	60.42	60.81
19	60.71	61.10	61.13	54.42	58.54	58.50	58.99	59.28	60.27	60.43	60.42	60.81
20	60.71	61.08	61.17	56.16	58.61	58.52	58.98	59.36	60.27	60.45	60.42	60.81
21	60.71	61.14	61.18	56.79	58.65	58.52	58.92	59.39	60.29	60.47	60.43	60.81
22	60.75	61.17	61.20	56.94	58.73	58.46	58.85	59.39	60.30	60.47	60.45	60.81
23	60.77	61.16	61.22	57.24	58.74	58.47	58.70	59.40	60.30	60.45	60.45	60.81
24	60.77	61.13	61.20	57.26	58.77	58.47	58.32	59.37	60.30	60.43	60.45	60.81
25	60.77	61.13	61.18	57.69	58.76	58.53	58.31	59.39	60.30	60.42	60.45	60.83
26	60.77	61.05	61.11	57.99	58.80	58.58	58.31	59.45	60.32	60.42	60.45	60.87
27	60.75	61.08	61.01	58.10	58.80	58.59	58.31	59.51	60.33	60.43	60.48	60.92
28	60.72	61.10	60.90	58.29	58.74	58.61	58.31	59.54	60.33	60.47	60.51	60.93
29	60.68	61.10	60.81	58.44	---	58.67	58.35	59.58	60.33	60.47	60.56	60.93
30	60.68	61.10	60.66	58.56	---	58.74	58.41	59.60	60.39	60.45	60.62	60.87
31	60.69	---	60.66	58.59	---	58.74	---	59.60	---	60.43	60.66	---
MAX	60.89	61.17	61.22	60.71	58.80	58.76	59.10	59.60	60.39	60.54	60.66	60.93

CAL YR 1998 LOW 61.22
WTR YR 1999 LOW 61.22



GROUND-WATER RECORDS
Brown County

385932083412400. LOCAL NUMBER, BR-20

LOCATION.--Latitude 38°59'32", longitude 83°41'24", Hydrologic Unit 05090201, near Fincastle, Ohio.
Owner: Davon Inc.

AQUIFER.--Limestone of Silurian Age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 40 ft, cased to 25 ft.

INSTRUMENTATION.--Digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 1,026.27 ft above sea level.

Measuring point: Floor of instrument shelter, 3.00 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

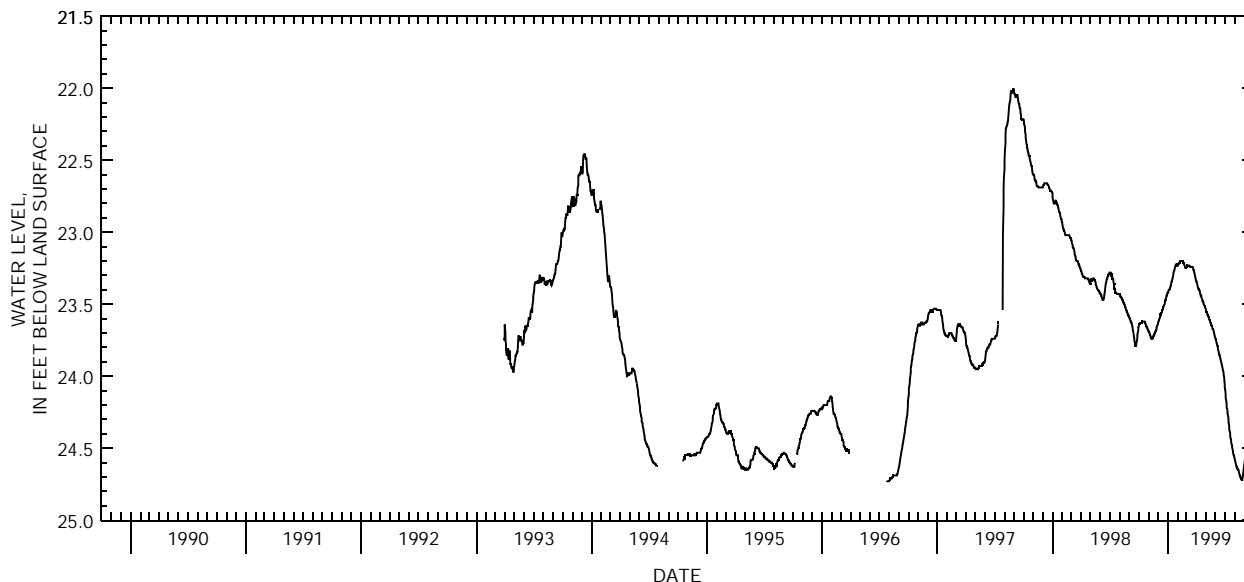
PERIOD OF RECORD.--March 1993 to current year.

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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.65	23.69	23.63	23.42	23.23	23.24	23.34	23.53	23.74	24.07	24.57	24.60
2	23.64	23.69	23.62	23.42	23.23	23.24	23.34	23.54	23.74	24.10	24.58	24.58
3	23.64	23.69	23.62	23.41	23.22	23.23	23.35	23.55	23.75	24.13	24.59	24.56
4	23.64	23.70	23.61	23.40	23.22	23.23	23.36	23.55	23.76	24.15	24.60	24.54
5	23.63	23.71	23.60	23.40	23.21	23.23	23.37	23.55	23.77	24.17	24.61	24.53
6	23.63	23.71	23.60	23.40	23.21	23.23	23.38	23.56	23.78	24.19	24.62	24.50
7	23.63	23.72	23.59	23.39	23.21	23.23	23.39	23.57	23.79	24.22	24.63	24.48
8	23.63	23.73	23.58	23.39	23.20	23.23	23.39	23.57	23.79	24.23	24.63	24.46
9	23.63	23.73	23.57	23.38	23.20	23.23	23.39	23.58	23.81	24.25	24.64	24.44
10	23.63	23.74	23.57	23.37	23.20	23.23	23.40	23.59	23.82	24.26	24.64	24.43
11	23.62	23.74	23.56	23.37	23.20	23.23	23.40	23.59	23.83	24.28	24.65	24.41
12	23.62	23.74	23.56	23.35	23.20	23.24	23.41	23.60	23.84	24.30	24.65	24.40
13	23.62	23.74	23.55	23.34	23.20	23.24	23.42	23.61	23.85	24.32	24.65	24.38
14	23.62	23.73	23.54	23.34	23.20	23.24	23.43	23.61	23.85	24.34	24.66	24.37
15	23.62	23.73	23.54	23.33	23.20	23.24	23.44	23.62	23.86	24.36	24.67	24.36
16	23.62	23.72	23.53	23.32	23.20	23.24	23.44	23.63	23.87	24.38	24.68	24.34
17	23.62	23.72	23.52	23.31	23.20	23.24	23.44	23.63	23.88	24.39	24.69	24.33
18	23.62	23.71	23.52	23.30	23.20	23.24	23.46	23.64	23.89	24.41	24.69	24.33
19	23.62	23.71	23.51	23.28	23.20	23.24	23.46	23.64	23.90	24.43	24.70	24.32
20	23.62	23.70	23.51	23.27	23.21	23.24	23.47	23.65	23.91	24.44	24.70	24.31
21	23.63	23.70	23.50	23.27	23.21	23.24	23.48	23.65	23.92	24.45	24.71	24.29
22	23.63	23.69	23.49	23.26	23.22	23.25	23.48	23.66	23.93	24.47	24.71	24.28
23	23.64	23.69	23.48	23.25	23.23	23.26	23.48	23.67	23.94	24.48	24.72	24.27
24	23.65	23.68	23.47	23.24	23.24	23.26	23.49	23.67	23.95	24.49	24.72	24.26
25	23.65	23.68	23.47	23.23	23.24	23.27	23.50	23.67	23.96	24.50	24.72	24.25
26	23.66	23.67	23.46	23.23	23.25	23.28	23.51	23.68	23.97	24.52	24.70	24.24
27	23.66	23.66	23.45	23.23	23.25	23.29	23.51	23.69	23.99	24.53	24.69	24.23
28	23.66	23.65	23.44	23.22	23.25	23.30	23.52	23.70	24.00	24.54	24.67	24.23
29	23.67	23.64	23.44	23.22	---	23.31	23.52	23.71	24.03	24.55	24.65	24.22
30	23.68	23.63	23.43	23.23	---	23.32	23.53	23.72	24.05	24.55	24.63	24.21
31	23.68	---	23.42	23.23	---	23.33	---	23.73	---	24.56	24.62	---
MAX	23.68	23.74	23.63	23.42	23.25	23.33	23.53	23.73	24.05	24.56	24.72	24.60

CAL YR 1998 LOW 23.79
WTR YR 1999 LOW 24.72



GROUND-WATER RECORDS
Butler County

391805084261800. LOCAL NUMBER, BU-9

LOCATION.--Latitude 39°18'05", longitude 84°26'18", Hydrologic Unit 05090203, 2.5 mi northwest of Sharonville, Ohio.
 Owner: Olinkraft, Inc.
 AQUIFER.--Sand and gravel of Pleistocene Age.
 WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 8 in., depth 85 ft.
 INSTRUMENTATION.--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 OBSERVATION

DATE	WATER LEVEL
Oct. 22, 1998	8.42
Apr. 19.1999	8.60

GROUND-WATER RECORDS
Butler County

391904084371800. LOCAL NUMBER, BU-12

LOCATION.--Latitude 39°19'04", longitude 84°37'18", Hydrologic Unit 05080002, Cincinnati well field 1.5 mi east of Ross, Ohio.

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.

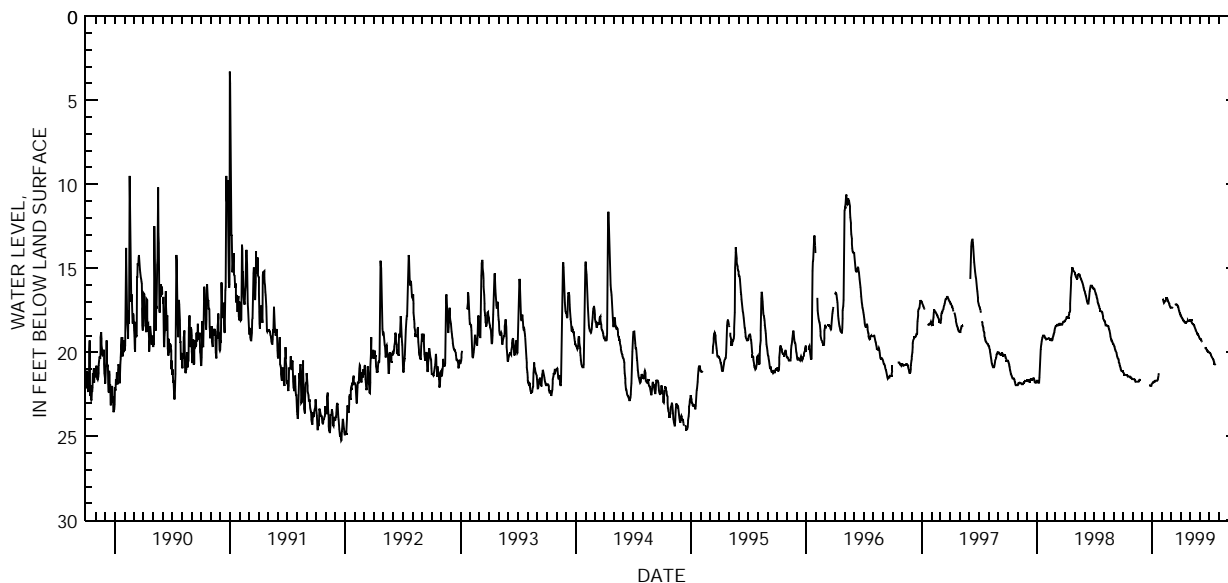
PERIOD OF RECORD.--April 1968 to current year.

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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.20	21.60	---	21.85	---	17.35	17.80	18.10	19.20	20.00	---	---
2	21.20	21.60	---	21.80	---	17.35	17.80	18.10	19.20	20.05	---	---
3	21.25	21.60	---	21.80	16.80	17.35	17.85	18.10	19.20	20.05	---	---
4	21.30	21.60	---	21.80	16.85	17.35	17.90	18.10	19.25	20.05	---	---
5	21.35	21.60	---	21.80	16.90	17.35	17.95	18.10	19.25	20.10	---	---
6	21.35	21.65	---	21.75	17.00	17.35	18.00	18.15	19.30	20.15	---	---
7	21.35	21.65	---	21.75	17.05	17.30	18.00	18.25	19.35	20.20	---	---
8	21.35	21.70	---	21.75	17.05	---	18.05	18.30	19.40	20.25	---	---
9	21.35	21.75	---	21.75	17.00	---	18.10	18.30	---	20.30	---	---
10	21.35	21.75	---	21.75	16.95	---	18.10	18.30	---	20.30	---	---
11	21.35	21.75	---	21.70	16.95	---	18.15	18.30	---	20.35	---	---
12	21.35	21.75	---	21.70	16.95	---	18.15	18.35	---	20.40	---	---
13	21.35	21.75	---	21.70	16.90	---	18.20	18.40	---	20.40	---	---
14	21.35	21.75	---	21.70	16.80	---	18.20	18.40	---	20.45	---	---
15	21.40	21.75	---	21.70	16.80	---	18.25	18.45	---	20.50	---	---
16	21.45	21.75	---	21.70	16.80	17.10	18.25	18.50	---	20.55	---	---
17	21.45	21.75	---	21.70	16.85	17.15	18.25	18.60	---	20.60	---	---
18	21.45	21.75	---	21.65	16.85	17.15	18.25	18.60	19.70	20.70	---	---
19	21.45	21.75	---	21.60	16.90	17.15	18.20	18.65	19.75	20.70	---	---
20	21.45	21.70	---	21.50	16.95	17.15	18.20	18.70	19.75	20.75	---	---
21	21.45	21.70	---	21.40	17.00	17.20	18.20	18.75	19.80	---	---	---
22	21.45	21.65	---	21.25	17.00	17.20	18.20	18.80	19.85	---	---	---
23	21.45	21.65	21.95	---	17.05	17.25	18.15	18.85	19.85	---	---	---
24	21.50	21.65	21.95	---	17.10	17.30	18.15	18.90	19.90	---	---	---
25	21.50	21.65	22.00	---	17.15	17.30	18.10	18.90	19.90	---	---	---
26	21.50	---	22.00	---	17.25	17.40	18.15	18.95	19.95	---	---	---
27	21.50	---	22.00	---	17.30	17.50	18.15	18.95	19.95	---	---	---
28	21.55	---	22.00	---	17.30	17.55	18.15	19.00	20.00	---	---	---
29	21.60	---	22.00	---	---	17.65	18.15	19.05	20.00	---	---	---
30	21.60	---	21.95	---	---	17.70	18.15	19.10	20.00	---	---	---
31	21.60	---	21.90	---	---	17.70	---	19.15	---	---	---	---
MAX	21.60	21.75	22.00	21.85	17.30	17.70	18.25	19.15	20.00	20.75	---	---

CAL YR 1998 LOW 22.00
WTR YR 1999 LOW 22.00



GROUND-WATER RECORDS
Butler County

391942084345700. LOCAL NUMBER, BU-18

LOCATION.--Latitude 39°19'42", longitude 84°34'57", Hydrologic Unit 05080002, in Fairfield, Ohio.

Owner: City of Hamilton.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled unused observation well, diameter 6 in., depth 210 ft, cased.

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

DATUM.--Elevation of land-surface datum is 570 ft above sea level from topographic map.

Measuring point: Floor of instrument shelter 3.5 ft above land-surface datum.

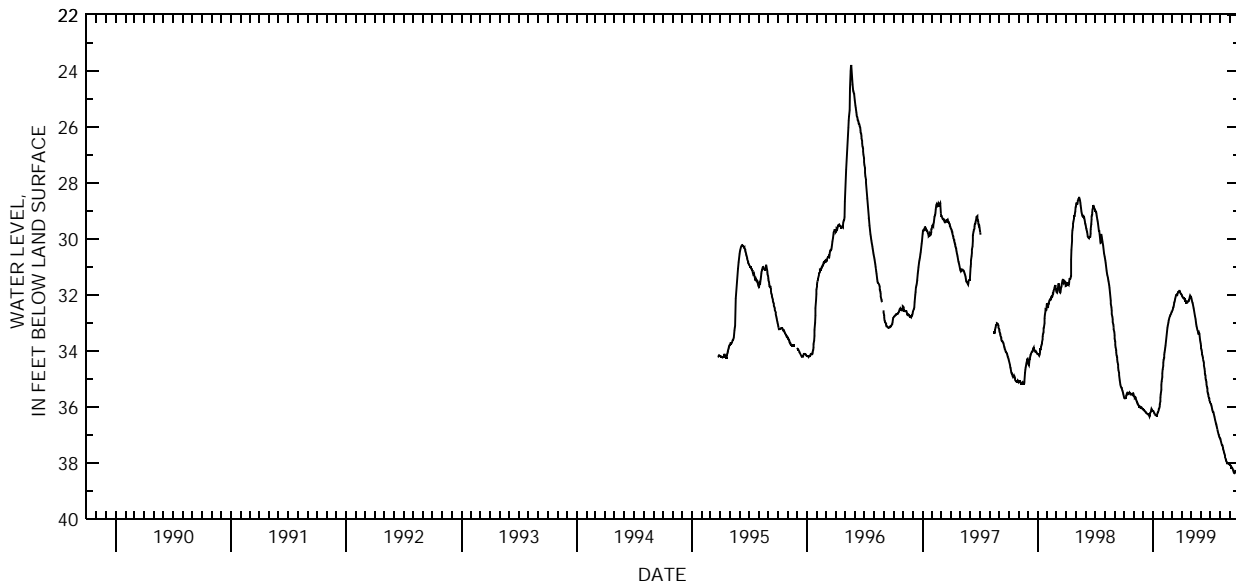
REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

PERIOD OF RECORD.--March 24, 1995, to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 38.74 ft below land-surface datum, Sept. 29-30, 1999; minimum daily low, 23.79 ft below land surface, May 20, 1996.

DAY	DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35.64	35.59	36.09	36.16	34.67	32.62	31.99	32.08	33.74	35.83	37.12	38.07
2	35.69	35.63	36.11	36.16	34.54	32.60	32.01	32.09	33.83	35.87	37.14	38.08
3	35.71	35.66	36.12	36.18	34.43	32.57	32.04	32.13	33.91	35.90	37.18	38.09
4	35.70	35.68	36.14	36.21	34.33	32.54	32.07	32.18	33.99	35.91	37.22	38.10
5	35.70	35.69	36.13	36.23	34.25	32.51	32.08	32.23	34.07	35.93	37.27	38.12
6	35.69	35.67	36.15	36.26	34.14	32.46	32.10	32.28	34.13	35.98	37.31	38.15
7	35.69	35.71	36.17	36.29	34.06	32.44	32.11	32.31	34.19	36.03	37.36	38.17
8	35.62	35.73	36.19	36.29	33.99	32.38	32.12	32.36	34.25	36.09	37.38	38.17
9	35.59	35.77	36.21	36.28	33.90	32.30	32.14	32.42	34.31	36.16	37.39	38.18
10	35.52	35.80	36.21	36.30	33.82	32.26	32.14	32.48	34.38	36.19	37.43	38.21
11	35.50	35.82	36.22	36.31	33.72	32.22	32.15	32.55	34.43	36.19	37.47	38.23
12	35.50	35.85	36.23	36.32	33.61	32.15	32.18	32.62	34.52	36.21	37.52	38.26
13	35.53	35.88	36.24	36.32	33.49	32.10	32.21	32.69	34.64	36.26	37.57	38.30
14	35.55	35.91	36.26	36.28	33.39	32.05	32.22	32.76	34.75	36.31	37.62	38.33
15	35.54	35.93	36.26	36.24	33.28	32.01	32.22	32.81	34.82	36.36	37.65	38.37
16	35.51	35.95	36.27	36.20	33.18	32.01	32.25	32.87	34.89	36.41	37.70	38.38
17	35.51	35.96	36.27	36.18	33.11	32.00	32.27	32.97	34.96	36.47	37.75	38.37
18	35.49	35.98	36.29	36.15	33.05	32.01	32.27	33.05	35.04	36.51	37.81	38.34
19	35.51	36.00	36.29	36.11	32.99	31.99	32.26	33.12	35.12	36.56	37.86	38.31
20	35.54	36.00	36.31	36.07	32.92	31.95	32.27	33.17	35.19	36.61	37.90	38.32
21	35.57	36.00	36.34	36.03	32.87	31.91	32.25	33.22	35.27	36.65	37.93	38.31
22	35.57	36.00	36.30	35.98	32.83	31.90	32.23	33.28	35.35	36.70	37.95	38.30
23	35.57	36.03	36.22	35.91	32.78	31.88	32.23	33.31	35.44	36.75	38.00	38.33
24	35.54	36.02	36.20	35.80	32.75	31.87	32.23	33.36	35.51	36.80	38.02	38.39
25	35.54	36.05	36.18	35.68	32.72	31.87	32.21	33.40	35.57	36.86	38.03	38.47
26	35.55	36.06	36.13	35.55	32.71	31.87	32.17	33.41	35.61	36.91	38.03	38.55
27	35.57	36.06	36.08	35.39	32.68	31.88	32.12	33.37	35.67	36.95	38.03	38.62
28	35.58	36.06	36.10	35.22	32.65	31.90	32.07	33.40	35.71	36.99	38.03	38.69
29	35.53	36.07	36.12	35.08	---	31.96	32.04	33.51	35.76	37.03	38.05	38.74
30	35.50	36.09	36.15	34.94	---	31.98	32.06	33.61	35.80	37.07	38.06	38.74
31	35.54	---	36.15	34.81	---	31.98	---	33.68	---	37.11	38.06	---
MAX	35.71	36.09	36.34	36.32	34.67	32.62	32.27	33.68	35.80	37.11	38.06	38.74

CAL YR 1998 LOW 36.34
WTR YR 1999 LOW 38.74



GROUND-WATER RECORDS
Butler County

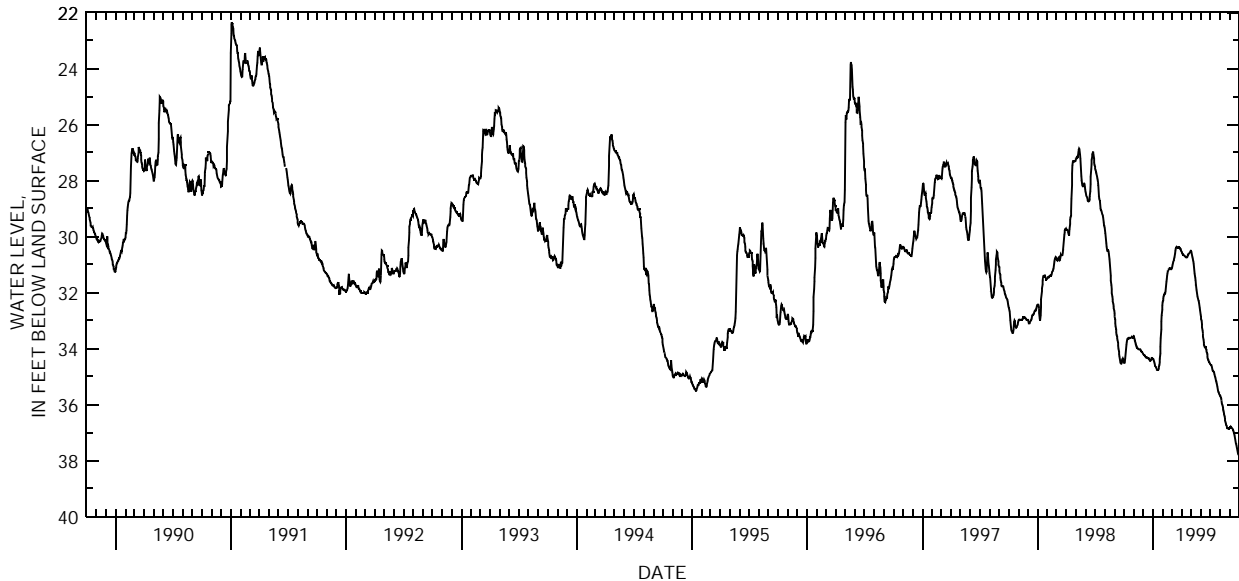
392017084345200. LOCAL NUMBER, BU-7

LOCATION.--Latitude 39°20'17", longitude 84°34'52", Hydrologic Unit 05080002, 5584 East River Road in Fairfield, Ohio.
 Owner: C. E. Schiering.
 AQUIFER.--Sand and gravel of Pleistocene Age.
 WELL CHARACTERISTICS.--Drilled unused water table well, diameter 6 in., depth 176 ft, cased.
 INSTRUMENTATION.--Electronic data logger--60-minute log interval.
 DATUM.--Elevation of land-surface datum is 572.54 ft above sea level.
 Measuring point: Floor of instrument shelter 1.93 ft above land-surface datum.
 REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.
 PERIOD OF RECORD.--August 1943 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 37.81 ft below land-surface datum, Sept. 30, 1999; minimum daily low, 11.45 ft below land-surface datum, June 6, 1947.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
 DAILY MAXIMUM VALUE

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34.50	33.56	34.19	34.38	32.35	31.16	30.53	30.50	32.79	34.55	35.68	36.81
2	34.51	33.59	34.21	34.38	32.27	31.12	30.55	30.52	32.86	34.56	35.68	36.81
3	34.51	33.64	34.23	34.41	32.20	31.07	30.58	30.55	32.94	34.57	35.71	36.78
4	34.45	33.68	34.23	34.45	32.14	31.01	30.61	30.61	33.01	34.58	35.75	36.78
5	34.35	33.72	34.24	34.49	32.09	30.96	30.62	30.66	33.12	34.58	35.79	36.80
6	34.22	33.78	34.25	34.53	32.07	30.91	30.63	30.72	33.23	34.62	35.86	36.81
7	34.09	33.82	34.28	34.58	32.04	30.86	30.65	30.77	33.35	34.66	35.94	36.83
8	33.97	33.86	34.29	34.62	32.03	30.83	30.66	30.83	33.46	34.71	35.99	36.84
9	33.85	33.90	34.31	34.64	32.01	30.78	30.67	30.88	33.57	34.77	36.02	36.85
10	33.77	33.94	34.32	34.66	31.96	30.73	30.68	30.96	33.68	34.80	36.06	36.86
11	33.70	33.95	34.32	34.68	31.85	30.66	30.68	31.08	33.79	34.81	36.12	36.88
12	33.65	33.97	34.32	34.72	31.73	30.59	30.69	31.20	33.87	34.81	36.19	36.90
13	33.64	33.99	34.31	34.74	31.61	30.49	30.71	31.31	33.92	34.82	36.26	36.94
14	33.65	34.00	34.32	34.76	31.51	30.42	30.72	31.40	33.95	34.86	36.31	36.97
15	33.65	34.02	34.34	34.77	31.40	30.38	30.73	31.47	33.95	34.91	36.36	37.01
16	33.65	34.03	34.34	34.77	31.31	30.36	30.74	31.57	33.96	34.96	36.43	37.05
17	33.61	34.03	34.34	34.76	31.25	30.37	30.74	31.70	33.98	35.01	36.50	37.11
18	33.61	34.03	34.34	34.74	31.21	30.38	30.74	31.81	34.00	35.04	36.58	37.18
19	33.62	34.03	34.34	34.71	31.19	30.39	30.74	31.90	34.04	35.10	36.64	37.25
20	33.62	34.03	34.39	34.66	31.18	30.39	30.73	31.98	34.08	35.15	36.69	37.32
21	33.62	34.03	34.42	34.58	31.15	30.39	30.70	32.06	34.14	35.19	36.72	37.38
22	33.62	34.03	34.43	34.49	31.13	30.38	30.65	32.14	34.20	35.24	36.75	37.42
23	33.61	34.06	34.43	34.37	31.13	30.37	30.64	32.19	34.29	35.29	36.80	37.46
24	33.59	34.08	34.42	34.18	31.14	30.37	30.62	32.23	34.36	35.35	36.83	37.53
25	33.57	34.10	34.42	33.93	31.15	30.38	30.61	32.27	34.40	35.42	36.86	37.59
26	33.58	34.12	34.40	33.63	31.16	30.39	30.60	32.31	34.43	35.49	36.86	37.65
27	33.60	34.12	34.35	33.32	31.17	30.40	30.57	32.38	34.46	35.54	36.86	37.71
28	33.61	34.13	34.33	33.03	31.17	30.42	30.55	32.46	34.49	35.56	36.86	37.77
29	33.61	34.15	34.33	32.80	---	30.44	30.52	32.54	34.51	35.59	36.84	37.80
30	33.59	34.17	34.35	32.61	---	30.47	30.50	32.63	34.53	35.63	36.83	37.81
31	33.55	---	34.36	32.46	---	30.50	---	32.71	---	35.66	36.83	---
MAX	34.51	34.17	34.43	34.77	32.35	31.16	30.74	32.71	34.53	35.66	36.86	37.81

CAL YR 1998 LOW 34.54
 WTR YR 1999 LOW 37.81



GROUND-WATER RECORDS
Butler County

392048084311400. LOCAL NUMBER, BU-8

LOCATION.--Latitude 39°20'48", longitude 84°31'14", Hydrologic Unit 05080002, Symmes and Gilmore Road, east of Hamilton, Ohio.

Owner: Hamilton Water Department.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled test artesian well, diameter 6 in., depth 200 ft, cased.

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

DATUM.--Elevation of land-surface datum is 630 ft above sea level, from topographic map.

Measuring point: Floor of instrument shelter 4.13 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

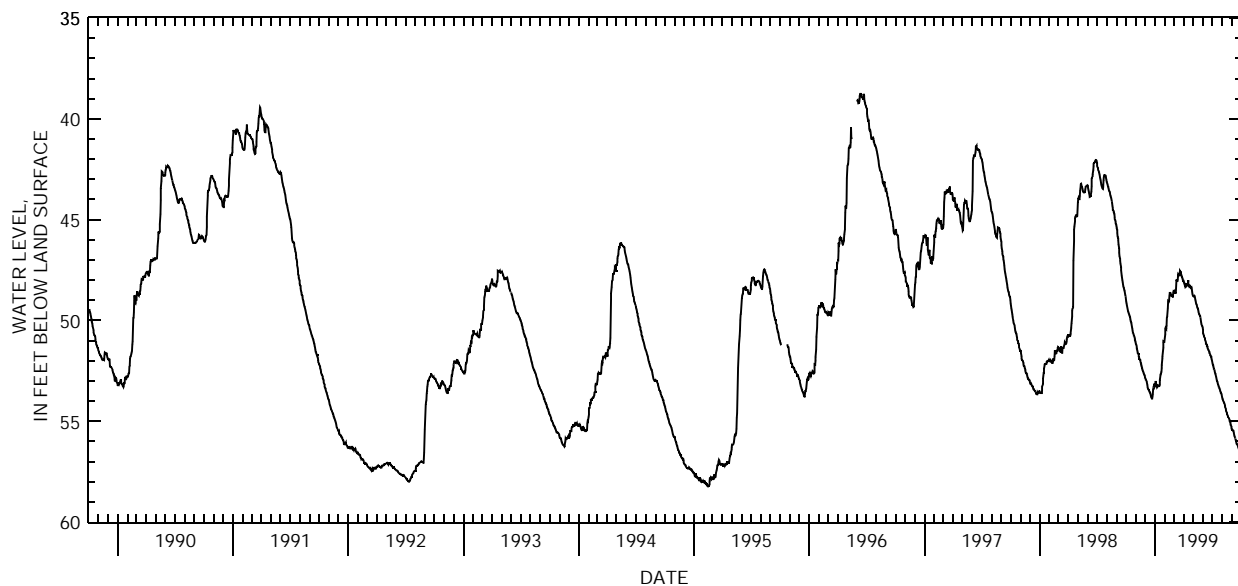
PERIOD OF RECORD.--April 1944 to current year.

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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48.94	51.13	52.85	53.24	50.93	48.55	48.02	48.75	50.35	51.98	53.74	55.33
2	49.07	51.18	52.89	53.24	50.68	48.57	48.08	48.79	50.46	52.06	53.83	55.39
3	49.14	51.23	52.91	53.00	50.41	48.54	48.11	48.81	50.62	52.14	53.90	55.42
4	49.24	51.32	52.97	53.14	50.36	48.60	48.14	48.80	50.72	52.21	53.93	55.44
5	49.32	51.40	53.00	53.23	50.42	48.64	48.22	48.79	50.76	52.26	53.97	55.45
6	49.40	51.50	53.03	53.23	50.40	48.64	48.26	48.77	50.81	52.31	54.03	55.47
7	49.48	51.59	53.10	53.29	50.26	48.64	48.35	48.81	50.86	52.40	54.06	55.52
8	49.55	51.63	53.19	53.29	49.86	48.64	48.35	48.88	50.90	52.45	54.09	55.56
9	49.60	51.67	53.31	53.23	49.80	48.27	48.33	48.97	50.96	52.48	54.14	55.63
10	49.65	51.67	53.38	53.25	49.60	47.97	48.24	49.04	51.02	52.55	54.18	55.71
11	49.70	51.77	53.43	53.28	49.39	48.03	48.23	49.13	51.08	52.62	54.24	55.77
12	49.75	51.89	53.45	53.24	49.03	48.05	48.22	49.19	51.15	52.67	54.32	55.81
13	49.80	51.92	53.44	53.25	49.05	48.05	48.25	49.20	51.18	52.73	54.37	55.86
14	49.83	51.92	53.51	53.25	49.06	47.98	48.25	49.28	51.20	52.80	54.44	55.92
15	49.93	51.95	53.56	53.24	48.99	47.75	48.22	49.35	51.27	52.88	54.51	55.96
16	50.03	51.98	53.57	53.18	48.77	47.77	48.00	49.39	51.29	52.95	54.56	56.05
17	50.08	52.09	53.60	52.95	48.63	47.76	48.14	49.42	51.33	53.01	54.61	56.12
18	50.12	52.18	53.66	52.71	48.63	47.71	48.27	49.48	51.42	53.04	54.67	56.14
19	50.22	52.22	53.72	52.67	48.63	47.76	48.30	49.57	51.46	53.10	54.70	56.15
20	50.32	52.28	53.80	52.66	48.67	47.76	48.28	49.65	51.47	53.17	54.76	56.18
21	50.39	52.38	53.81	52.56	48.72	47.64	48.28	49.69	51.51	53.23	54.80	56.23
22	50.51	52.43	53.87	52.37	48.77	47.54	48.27	49.73	51.56	53.28	54.83	56.29
23	50.60	52.46	53.87	52.21	48.77	47.59	48.30	49.76	51.61	53.32	54.85	56.33
24	50.65	52.54	53.78	51.87	48.77	47.61	48.38	49.78	51.66	53.35	54.87	56.38
25	50.69	52.55	53.67	51.79	48.78	47.69	48.39	49.86	51.71	53.40	54.92	56.43
26	50.75	52.58	53.43	51.63	48.82	47.77	48.38	49.96	51.75	53.45	54.97	56.48
27	50.80	52.64	53.31	51.35	48.82	47.82	48.37	50.09	51.77	53.51	55.04	56.54
28	50.83	52.68	53.24	51.05	48.60	47.84	48.45	50.17	51.79	53.56	55.09	56.58
29	50.90	52.70	53.20	51.07	---	47.91	48.57	50.24	51.85	53.59	55.15	56.62
30	50.96	52.74	53.12	51.07	---	48.00	48.68	50.28	51.92	53.63	55.21	56.68
31	51.06	---	53.27	51.06	---	48.02	---	50.29	---	53.67	55.27	---
MAX	51.06	52.74	53.87	53.29	50.93	48.64	48.68	50.29	51.92	53.67	55.27	56.68

CAL YR 1998 LOW 53.87
WTR YR 1999 LOW 56.68



GROUND-WATER RECORDS
Butler County

392737084291300. LOCAL NUMBER, BU-16

LOCATION.--Latitude 39°27'37", longitude 84°29'13", Hydrologic Unit 05080002, Wayne - Madison Rd. 2 mi southwest of Trenton, Ohio.

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.--Electronic data logger--60-minute log interval.

DATUM.--Elevation of land-surface datum is 640 ft above sea level, from topographic map.

Measuring point: Floor of instrument shelter, 4.5 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water. Prior to 1992 published as 392733084293000.

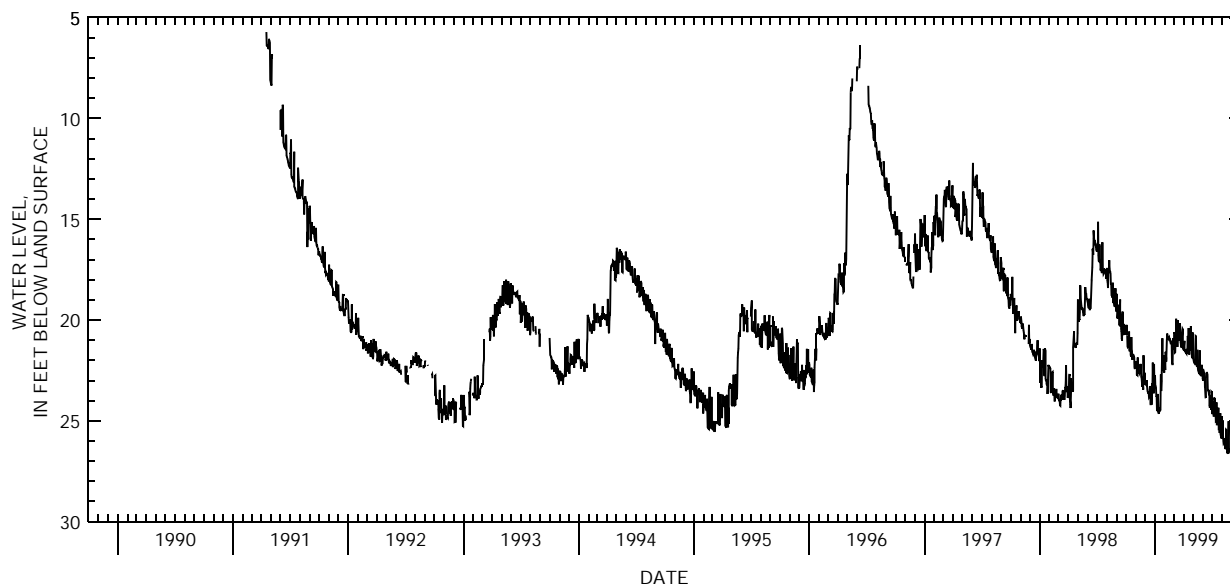
PERIOD OF RECORD.--May 1982 to July 1987. Reactivated April 17, 1991.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 27.98 ft below land-surface datum, Sept. 27, 1999; minimum daily low, 5.71 ft below land-surface datum, April. 17, 1991.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.72	22.05	23.22	22.74	21.74	21.44	21.48	20.63	22.89	23.57	24.77	26.63
2	20.55	22.13	23.10	23.27	22.49	21.44	21.48	20.93	23.00	24.68	25.86	26.68
3	20.25	22.14	23.13	23.30	22.46	20.61	21.42	21.93	22.44	24.15	24.97	26.68
4	20.46	22.13	23.21	23.36	21.57	20.66	21.03	22.02	22.52	24.03	25.59	26.27
5	20.76	22.72	23.22	23.76	21.90	21.62	21.39	22.11	22.59	24.20	25.89	26.33
6	21.30	22.74	22.98	23.76	22.07	21.60	21.53	22.14	22.61	24.75	26.08	26.36
7	21.35	21.86	23.28	24.45	21.66	21.15	21.51	22.14	22.65	24.74	26.06	26.49
8	21.33	22.29	23.43	24.48	20.97	21.22	21.50	22.17	23.33	23.84	25.86	26.45
9	21.06	22.31	23.55	24.51	20.67	19.94	21.62	22.16	23.28	23.93	26.15	26.93
10	21.09	22.19	23.58	23.72	20.76	20.43	21.68	20.79	23.85	23.90	26.25	26.99
11	20.57	22.31	23.64	23.67	20.85	20.43	21.62	20.81	23.84	24.14	26.27	26.99
12	21.51	22.67	23.58	24.60	20.91	20.49	21.57	22.17	22.86	24.51	26.40	27.00
13	21.50	22.59	23.81	24.66	20.94	21.33	21.69	22.28	22.67	25.02	26.34	27.02
14	21.24	22.64	23.78	24.35	20.88	20.01	21.68	22.29	22.67	25.01	25.44	27.02
15	21.27	22.52	23.76	24.42	20.85	20.25	20.79	21.48	22.58	24.08	25.43	26.63
16	21.72	22.58	23.30	24.45	20.94	20.43	20.88	21.51	22.72	25.17	25.46	26.68
17	21.81	22.17	23.36	24.50	20.94	20.33	20.82	22.41	22.83	25.17	26.61	26.72
18	20.85	22.80	24.18	24.45	21.00	20.97	20.40	22.50	23.46	24.47	26.54	26.75
19	21.48	22.83	24.18	22.71	21.08	20.99	20.81	22.55	23.52	24.77	26.60	27.24
20	21.54	22.86	23.28	23.49	21.05	21.03	21.72	22.61	23.47	24.80	26.60	27.20
21	21.97	23.31	24.21	23.49	21.09	20.16	20.79	22.65	23.60	24.35	25.93	27.56
22	21.69	22.97	23.82	23.03	21.15	20.20	20.67	22.68	23.55	25.37	25.02	27.75
23	21.71	23.01	23.13	22.62	21.17	21.09	21.53	21.51	24.22	25.35	25.88	27.87
24	21.75	23.39	23.27	20.91	22.08	21.24	20.75	22.52	24.32	25.55	26.37	27.87
25	21.74	23.46	22.11	21.03	22.19	21.27	20.30	22.71	24.32	25.55	26.48	27.95
26	21.83	21.74	23.01	22.07	22.20	21.36	20.78	22.74	23.93	25.59	26.49	27.36
27	21.87	22.59	23.00	22.32	20.91	20.91	20.88	22.74	23.87	24.63	26.52	27.98
28	22.32	23.07	23.64	22.44	21.48	20.91	21.78	22.22	23.93	25.67	26.52	27.95
29	22.43	22.65	22.20	22.50	---	20.45	21.86	22.26	24.47	25.77	26.63	27.06
30	22.05	22.65	23.15	22.61	---	20.49	21.90	22.56	23.55	25.82	26.01	27.09
31	22.13	---	23.15	21.84	---	21.42	---	22.59	---	25.88	26.12	---
MAX	22.43	23.46	24.21	24.66	22.49	21.62	21.90	22.74	24.47	25.88	26.63	27.98

CAL YR 1998 LOW 24.37
WTR YR 1999 LOW 27.98



GROUND-WATER RECORDS
Butler County

392743084295500. LOCAL NUMBER, BU-17

LOCATION.--Latitude 39°27'43", longitude 84°29'55", Hydrologic Unit 05080002, southwest of Trenton, Ohio.

Owner: Southwest Regional Water District.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled test water table well, diameter 8 in., depth 212 ft, cased.

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

DATUM.--Elevation of land-surface datum is 635.28 ft above sea level.

Measuring point: Floor of instrument shelter, 2.2 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water. Prior to 1992 published as 392733084293000.

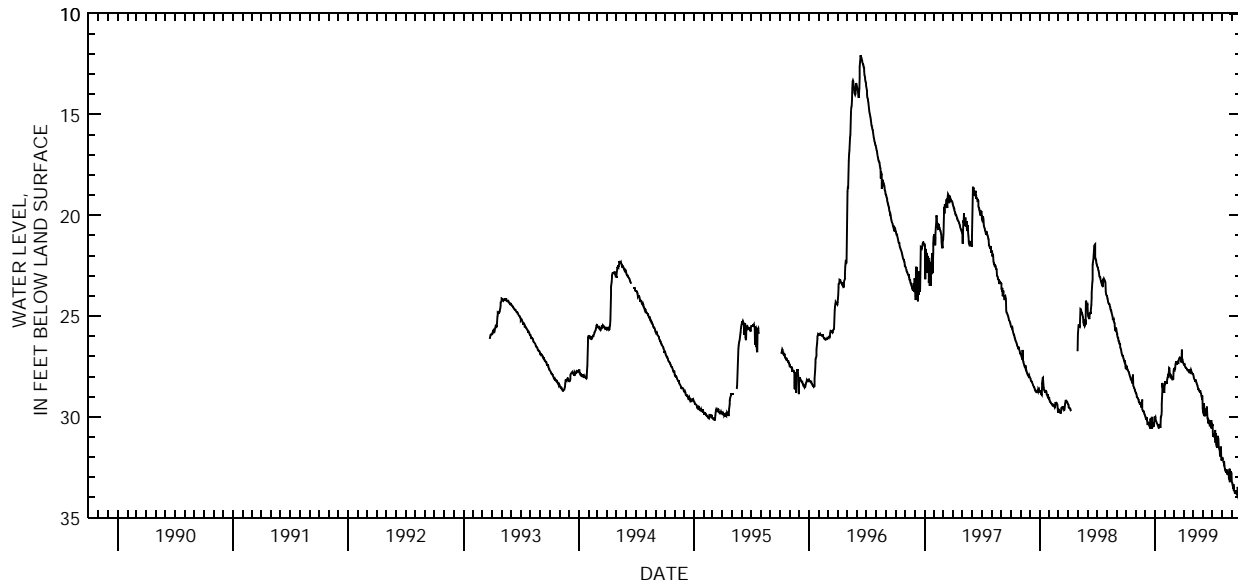
PERIOD OF RECORD.--March 1993 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 34.31 ft below land-surface datum, Sept. 27, 1999; minimum daily low, 12.06 ft below land-surface datum, June 12, 1996.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27.60	28.79	29.93	30.03	28.41	27.72	27.36	27.87	29.57	30.33	32.10	32.84
2	27.50	28.83	30.00	29.99	28.37	27.62	27.39	27.88	29.70	30.42	31.98	33.24
3	27.54	28.86	30.05	30.13	28.29	27.60	27.39	27.93	29.76	30.36	32.04	33.30
4	27.51	28.95	30.11	30.20	28.29	27.62	27.38	28.02	29.85	30.98	32.09	33.36
5	27.58	29.01	30.12	30.24	28.29	27.65	27.42	28.11	29.91	30.80	32.16	33.41
6	27.65	29.04	30.02	30.27	28.35	27.57	27.48	28.14	29.31	30.87	32.24	33.56
7	27.69	29.08	30.18	30.33	28.28	27.38	27.51	28.17	29.97	30.92	32.28	33.33
8	27.72	29.07	30.24	30.33	28.35	27.32	27.54	28.20	29.82	30.98	32.22	33.66
9	27.75	29.13	30.40	30.38	28.13	27.23	27.56	28.25	29.88	31.01	32.43	33.62
10	27.77	29.15	30.26	30.42	28.07	27.30	27.58	28.13	29.93	30.90	32.55	33.69
11	27.83	29.24	30.30	30.45	28.01	27.32	27.58	28.20	29.58	30.65	32.58	33.72
12	27.90	29.25	30.36	30.50	28.07	27.39	27.60	28.28	29.58	31.28	32.66	33.80
13	27.95	29.28	30.40	30.56	27.87	27.29	27.68	28.33	29.93	30.81	32.70	33.63
14	27.99	29.33	30.42	30.42	27.83	27.27	27.69	28.38	29.54	31.35	32.70	33.71
15	28.02	29.31	30.48	30.39	27.57	27.32	27.69	28.43	29.49	31.43	32.75	33.75
16	28.11	29.34	30.51	30.39	27.58	27.33	27.72	28.47	30.12	31.50	32.60	33.80
17	28.17	29.40	30.56	30.40	27.87	27.18	27.68	28.53	30.21	31.52	32.78	33.84
18	28.07	29.45	30.08	30.53	27.90	27.09	27.68	28.61	30.21	30.99	32.82	33.87
19	28.18	29.49	30.58	30.09	27.98	27.06	27.72	28.62	30.27	30.98	32.84	33.88
20	28.25	29.54	30.11	30.02	27.95	27.05	27.75	28.67	30.32	31.01	32.82	33.47
21	28.31	29.13	30.60	29.93	27.99	27.06	27.78	28.71	30.17	31.08	32.84	33.51
22	28.35	29.64	29.99	29.72	27.98	27.06	27.69	28.74	30.24	31.50	32.84	33.59
23	27.90	29.67	30.39	29.36	28.05	27.11	27.68	28.74	30.33	31.53	33.05	34.05
24	28.44	29.73	30.40	28.67	28.04	27.17	27.72	28.67	30.42	31.62	33.09	34.10
25	28.50	29.76	30.35	28.31	28.14	27.20	27.66	28.76	30.43	31.65	32.57	34.10
26	28.53	29.72	30.42	28.55	28.13	27.30	27.71	28.80	30.47	31.89	33.15	33.74
27	28.56	29.72	30.39	28.44	28.04	26.67	27.75	28.86	30.45	31.90	33.23	34.31
28	28.62	29.81	30.48	28.49	28.14	27.06	27.81	28.95	30.15	31.98	32.70	33.77
29	28.65	29.85	30.38	28.74	---	27.17	27.86	29.01	30.57	31.47	32.72	33.80
30	28.71	29.90	30.03	28.79	---	27.27	27.86	28.98	30.30	32.09	32.72	33.88
31	28.77	---	30.03	28.80	---	27.29	---	28.98	---	32.15	32.79	---
MAX	28.77	29.90	30.60	30.56	28.41	27.72	27.86	29.01	30.57	32.15	33.23	34.31

CAL YR 1998 LOW 30.60
WTR YR 1999 LOW 34.31



GROUND-WATER RECORDS
Butler County

392939084231700. LOCAL NUMBER, BU-3

LOCATION.--Latitude 39°29'39", longitude 84°23'17", Hydrologic Unit 05080002, Armco Steel Corp., Rt. 122 in Middletown, Ohio.

Owner: Armco Steel Corp.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 24 in., depth 250 ft, cased.

INSTRUMENTATION.--Digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 668 ft above sea level, from topographic map.

Measuring point: Floor of instrument shelter 1.08 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

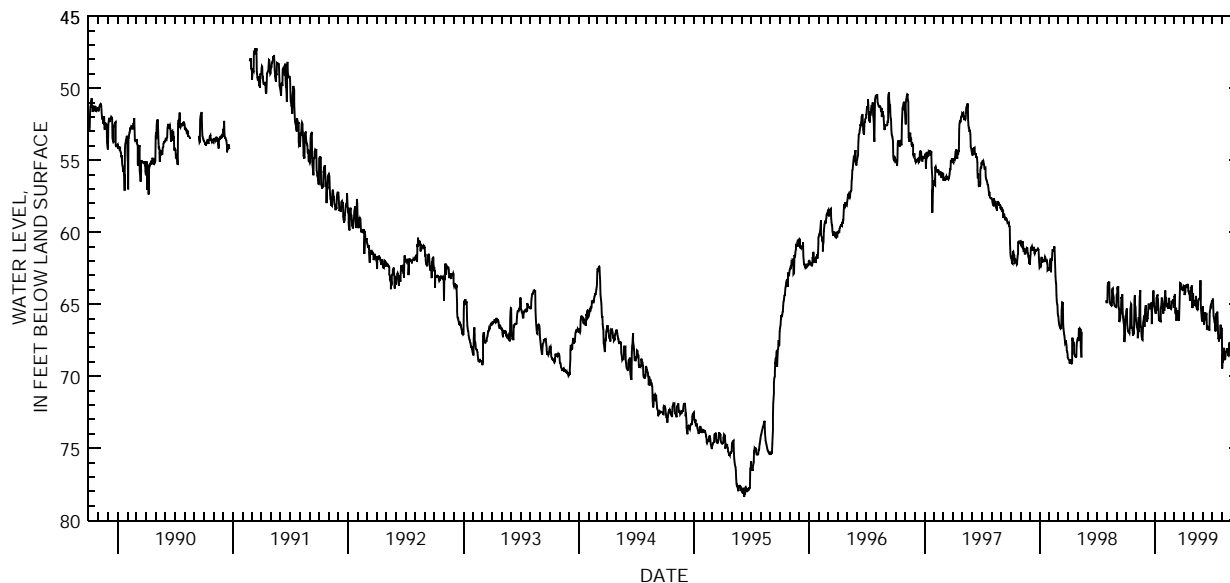
PERIOD OF RECORD.--July 1938 to current year.

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 1998 TO SEPTEMBER 1999

DAY	DAILY MAXIMUM VALUES											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65.86	65.74	65.37	65.44	64.68	65.18	63.72	64.41	65.41	64.71	66.81	68.50
2	65.52	65.95	65.26	65.58	64.08	65.25	63.73	64.22	65.16	64.77	69.47	68.56
3	65.37	66.36	65.07	65.59	64.05	64.48	63.88	64.88	65.55	64.76	68.47	68.76
4	65.29	66.52	65.69	65.65	64.51	64.49	63.92	64.94	65.71	64.60	69.05	68.93
5	66.32	66.63	65.94	64.91	64.60	64.31	64.34	64.80	65.96	65.31	68.31	69.01
6	66.59	66.71	65.93	64.50	64.69	65.53	64.28	64.84	66.43	65.81	68.57	69.12
7	66.84	66.83	66.22	64.60	65.01	65.66	64.15	65.05	66.01	65.94	68.26	69.25
8	66.92	67.35	65.98	64.37	64.97	65.68	63.81	65.06	65.55	66.04	68.02	69.39
9	66.93	66.89	65.99	64.34	64.99	65.24	63.68	65.02	66.10	66.29	68.88	69.54
10	66.90	65.89	65.62	65.41	65.05	66.14	63.68	65.09	65.57	66.34	68.26	69.35
11	66.99	66.91	65.30	64.60	65.11	65.69	63.73	64.43	65.68	66.34	68.49	68.55
12	67.02	65.85	64.95	65.49	65.24	65.56	63.87	65.03	65.69	66.88	68.86	68.39
13	66.66	65.78	65.02	65.94	65.31	65.61	63.66	65.28	65.67	65.79	68.36	68.43
14	66.57	64.52	65.24	66.13	64.89	65.40	63.70	65.33	66.57	65.67	68.31	68.37
15	65.35	64.02	65.26	65.97	64.55	65.93	63.58	65.32	66.75	65.65	68.27	68.33
16	65.20	65.70	65.03	66.20	65.02	65.99	63.83	65.36	66.50	65.64	68.18	68.38
17	64.98	66.42	65.10	66.22	65.20	66.08	64.04	65.27	66.62	65.55	68.04	69.21
18	65.02	66.62	65.16	66.13	65.22	66.13	64.13	64.73	66.79	65.51	68.17	68.93
19	66.44	66.90	64.98	66.16	65.25	65.54	64.07	64.65	66.65	66.31	68.31	68.95
20	66.69	67.18	64.96	65.32	65.31	64.57	64.23	64.62	66.67	67.05	68.41	69.63
21	66.61	67.45	64.87	64.95	65.33	63.81	64.16	64.60	66.75	67.41	68.53	69.53
22	66.83	67.47	66.38	64.62	65.26	63.52	64.76	64.62	66.77	67.33	68.57	69.58
23	67.17	67.49	65.14	64.53	64.76	63.54	64.17	64.62	66.71	67.58	68.47	69.70
24	66.89	66.32	64.92	64.81	64.83	63.63	64.11	64.71	65.53	67.21	67.93	69.80
25	67.05	66.20	64.87	65.08	64.90	63.88	64.00	63.33	65.29	67.16	67.65	69.88
26	67.08	66.14	64.41	65.17	64.90	63.95	63.85	65.00	65.17	67.38	67.72	69.87
27	66.05	65.96	64.04	65.65	64.64	63.97	63.83	65.42	65.08	66.70	67.68	70.13
28	64.67	66.00	64.57	65.27	64.76	63.93	63.68	65.70	65.16	66.42	67.61	70.17
29	64.37	66.58	65.07	65.14	---	63.98	64.16	65.95	65.00	66.78	67.68	70.19
30	65.07	65.98	65.18	64.95	---	63.99	65.26	66.14	64.89	66.71	68.32	70.15
31	65.17	---	65.30	65.47	---	63.90	---	66.14	---	66.62	68.50	---
MAX	67.17	67.49	66.38	66.22	65.33	66.14	65.26	66.14	66.79	67.58	69.47	70.19

CAL YR 1998 LOW 69.12
WTR YR 1999 LOW 70.19



GROUND-WATER RECORDS
Butler County

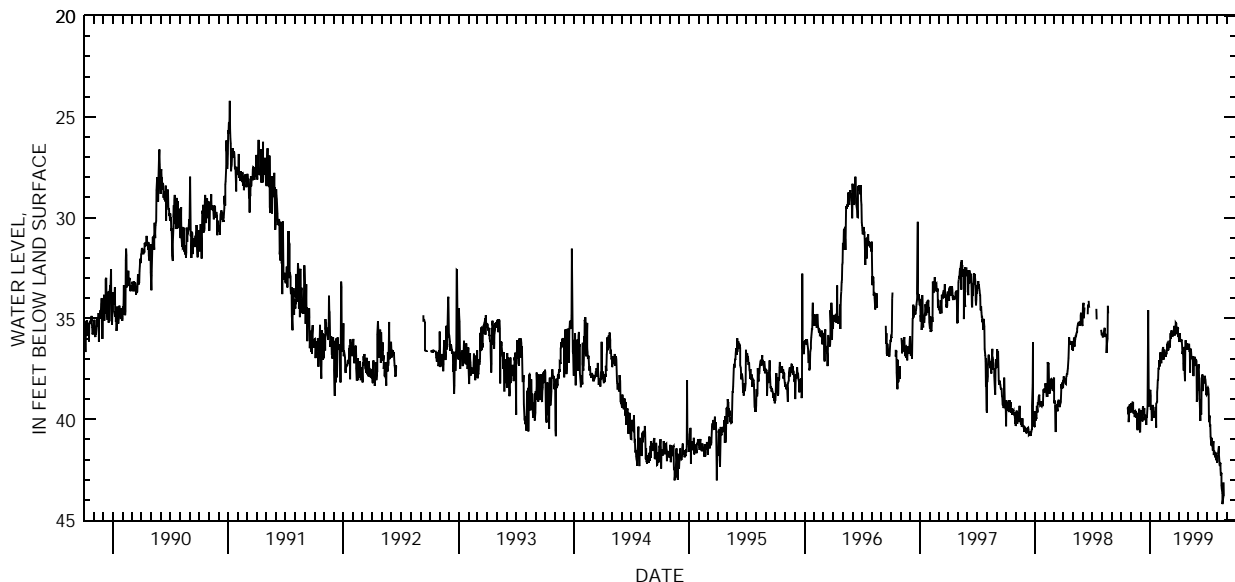
393103084240900. LOCAL NUMBER, BU-2

LOCATION.--Latitude 39°31'03", longitude 84°24'09", Hydrologic Unit 05080002, in basement of YMCA in Middletown, Ohio.
 Owner: Middletown YMCA.
 AQUIFER.--Sand and gravel of Pleistocene Age.
 WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 12 in., depth 88 ft, cased.
 INSTRUMENTATION.--Digital recorder--60-minute punch.
 DATUM.--Elevation of land-surface datum is 636.27 ft above sea level.
 Measuring point: Top of platform 14.77 ft below land-surface datum.
 REMARKS.--Station operated by Ohio Department of Natural Resources, 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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	39.22	39.79	38.53	37.33	36.30	35.85	36.41	37.57	38.45	42.15	---
2	---	39.66	39.55	38.84	36.69	36.11	36.15	36.40	37.38	38.42	42.08	---
3	---	39.19	39.75	39.52	37.09	36.44	36.13	36.29	37.45	38.46	41.77	---
4	---	39.40	39.73	39.42	36.95	36.31	36.03	36.26	37.27	38.49	41.74	---
5	---	39.31	40.01	39.86	37.22	36.06	35.73	36.66	38.50	38.76	41.46	---
6	---	39.16	39.92	40.07	36.72	35.72	36.03	36.60	38.98	40.14	41.33	---
7	---	39.17	40.11	39.88	36.80	36.00	36.11	37.68	39.08	39.89	41.73	---
8	---	39.47	39.46	39.67	36.80	35.90	36.12	36.57	40.08	39.81	42.19	---
9	---	39.71	39.34	39.29	36.55	35.59	36.10	36.49	39.66	40.35	42.32	---
10	---	39.56	39.54	39.63	36.47	35.92	36.04	36.60	39.57	40.25	42.24	---
11	---	39.58	39.54	39.82	36.46	35.80	36.10	36.87	39.76	40.84	42.16	---
12	---	39.75	39.56	39.69	37.05	35.81	36.37	36.94	38.99	41.02	42.47	---
13	---	39.90	39.44	39.91	36.84	35.83	36.76	37.02	37.96	41.30	42.79	---
14	---	39.64	40.05	39.75	36.59	35.74	36.65	36.91	37.90	40.96	42.66	---
15	---	39.61	39.81	39.60	36.58	35.66	36.60	36.88	37.78	40.92	43.28	---
16	---	39.68	39.82	39.81	36.70	35.73	37.24	37.20	37.83	41.32	43.44	---
17	---	39.58	39.99	39.71	36.78	35.57	37.59	37.86	38.60	41.34	43.68	---
18	---	39.94	39.84	39.39	36.76	35.37	36.99	37.81	38.06	41.56	44.21	---
19	---	39.70	40.29	40.42	36.89	35.85	36.41	37.18	38.24	41.17	44.06	---
20	---	39.84	39.87	39.21	36.78	35.82	37.73	37.12	38.04	41.08	43.82	---
21	---	40.46	39.94	39.18	36.75	35.64	38.11	36.90	38.14	41.78	43.14	---
22	39.41	40.53	39.67	39.12	36.72	35.72	36.52	37.07	38.04	41.53	43.81	---
23	39.74	39.68	39.35	38.65	36.30	35.21	36.08	37.13	37.85	41.62	---	---
24	39.37	39.93	38.28	38.44	36.26	35.26	36.43	37.29	37.96	41.66	---	---
25	40.14	39.96	34.59	38.04	36.31	35.57	36.35	37.27	38.05	41.80	---	---
26	39.60	39.76	38.60	38.07	36.60	35.78	36.23	37.01	38.28	41.89	---	---
27	39.37	39.48	39.36	37.49	36.54	35.41	36.54	37.12	38.76	41.65	---	---
28	39.28	40.04	39.34	37.49	36.50	35.66	36.26	39.10	38.80	42.04	---	---
29	39.68	40.60	38.93	37.37	---	35.45	36.43	39.14	38.73	41.93	---	---
30	39.46	40.65	39.29	37.07	---	35.52	36.54	38.36	38.69	41.96	---	---
31	39.45	---	38.61	37.37	---	35.84	---	38.55	---	41.92	---	---
MAX	40.14	40.65	40.29	40.42	37.33	36.44	38.11	39.14	40.08	42.04	44.21	---

CAL YR 1998 LOW 40.65
 WTR YR 1999 LOW 44.21



GROUND-WATER RECORDS
Butler County

225

393202084241500. LOCAL NUMBER, BU-15

LOCATION.--Latitude 39°32'02", longitude 84°24'15", Hydrologic Unit 05080002, at Hook Field (municipal airport) at Middletown, Ohio.

Owner: City of Middletown.

AQUIFER.--Sand and gravel of Pleistocene Age.

INSTRUMENTATION.--Periodic measurement with chalked tape by Ohio Department of Natural Resources personnel.

WELL CHARACTERISTICS.--Drilled observation water table well, diameter 6 in., depth 23 ft, cased.

DATUM.--Elevation of land-surface datum is 641 ft, from topographic map.

Measuring point: Floor of instrument shelter 3.50 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, 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 OBSERVATION

DATE	WATER LEVEL
Oct. 22, 1998	15.31
Apr. 19, 1999	12.79

GROUND-WATER RECORDS
Carroll County

403709081052800. LOCAL NUMBER, C-1

LOCATION.--Latitude 40°37'09", longitude 81°05'28", Hydrologic Unit 05040001, Carrollton well field, State Route 171, 3 mi north of Carrollton, Ohio.

Owner: Carrollton Water Department.

AQUIFER.--Sandstone of Pennsylvanian Age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 10 in., depth 70 ft, cased.

INSTRUMENTATION.--Digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 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.

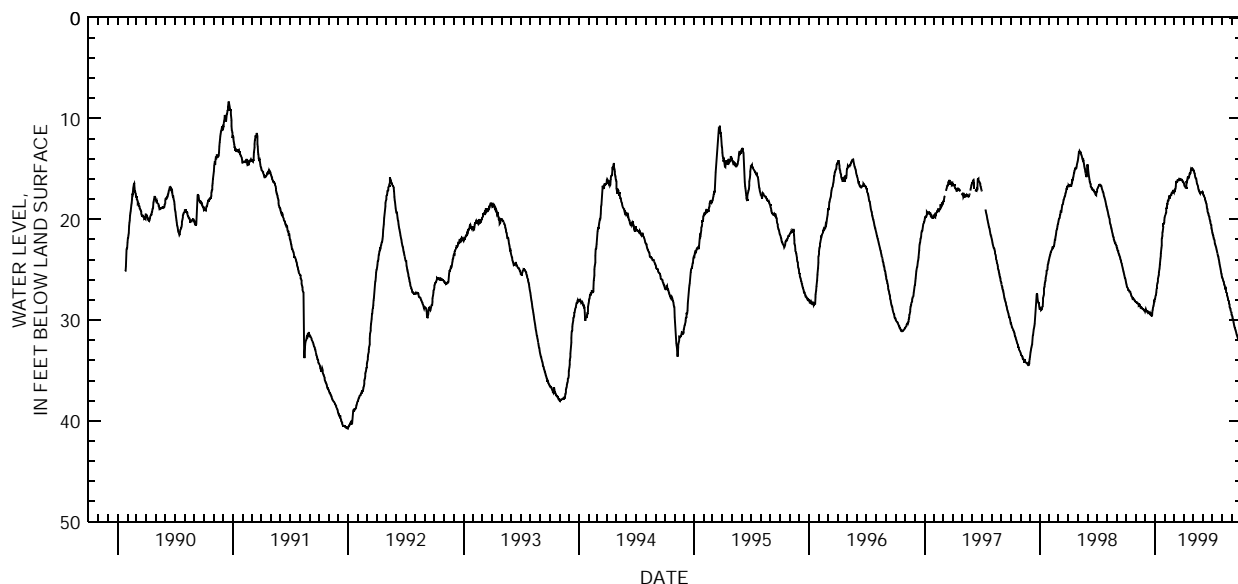
PERIOD OF RECORD.--August 1951 to current year.

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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26.20	28.21	29.15	27.91	19.79	17.28	16.34	15.05	17.32	21.09	25.69	29.42
2	26.34	28.21	29.02	27.70	19.55	17.31	16.40	15.11	17.37	21.32	25.80	29.52
3	26.46	28.22	28.92	27.51	19.56	17.08	16.43	15.12	17.55	21.42	25.82	29.65
4	26.62	28.28	29.01	27.45	19.49	17.30	16.60	15.15	17.58	21.55	25.93	29.78
5	26.75	28.26	29.03	27.23	19.34	17.10	16.71	15.28	17.66	21.65	26.09	29.86
6	26.80	28.29	29.06	26.85	18.95	17.01	16.72	15.42	17.75	21.83	26.20	29.98
7	26.81	28.36	29.18	26.79	18.83	16.99	16.79	15.46	17.82	21.92	26.22	30.16
8	27.00	28.37	29.16	26.52	18.93	16.68	16.70	15.67	17.88	22.02	26.48	30.27
9	27.00	28.38	29.23	26.33	18.48	16.19	16.84	15.85	18.03	22.08	26.49	30.48
10	27.06	28.38	29.19	26.16	18.46	16.33	16.84	15.92	18.17	22.41	26.60	30.60
11	27.14	28.57	29.24	25.91	18.16	16.30	16.23	15.96	18.27	22.49	26.75	30.75
12	27.11	28.53	29.24	25.62	18.14	16.30	16.31	16.04	18.39	22.59	26.81	30.80
13	27.12	28.46	29.28	25.51	18.13	16.23	16.13	16.23	18.48	22.68	26.79	30.94
14	27.18	28.47	29.34	25.26	17.97	16.01	16.04	16.44	18.75	22.80	27.07	31.03
15	27.28	28.64	29.28	24.89	17.71	16.14	15.84	16.53	18.87	22.96	27.24	31.12
16	27.39	28.60	29.22	24.58	17.72	16.07	15.84	16.63	18.99	23.07	27.30	31.28
17	27.46	28.75	29.36	24.50	17.93	16.01	15.92	16.71	19.19	23.22	27.36	31.41
18	27.60	28.72	29.40	23.87	17.77	16.12	15.91	16.87	19.31	23.38	27.55	31.51
19	27.64	28.69	29.49	23.64	17.64	16.13	15.80	17.02	19.41	23.50	27.69	31.61
20	27.70	28.76	29.52	23.43	17.61	16.00	15.71	17.13	19.57	23.65	27.84	31.71
21	27.77	28.87	29.46	22.82	17.56	15.92	15.45	17.18	19.66	23.76	28.00	31.79
22	27.87	28.87	29.62	22.60	17.57	15.98	15.40	17.33	19.75	23.94	28.06	31.85
23	27.84	28.89	29.45	21.95	17.38	15.99	15.46	17.39	19.84	24.06	28.15	31.85
24	27.88	28.87	29.08	21.66	17.38	16.03	15.43	17.44	20.05	24.27	28.32	32.02
25	27.92	28.85	28.92	21.32	17.35	16.07	15.13	17.36	20.20	24.47	28.46	32.19
26	27.96	28.97	28.66	21.20	17.38	16.10	14.94	17.34	20.34	24.63	28.64	32.38
27	27.96	29.03	28.59	20.70	17.18	16.11	14.98	17.32	20.47	24.80	28.79	32.47
28	28.03	29.02	28.45	20.45	17.16	16.12	14.99	17.31	20.56	24.94	28.88	32.55
29	28.07	29.05	28.12	20.45	---	16.25	15.04	17.32	20.84	25.12	28.98	32.76
30	28.12	29.04	28.16	20.30	---	16.31	15.00	17.32	20.95	25.36	29.13	32.84
31	28.19	---	27.95	20.10	---	16.24	---	17.25	---	25.46	29.23	---
MAX	28.19	29.05	29.62	27.91	19.79	17.31	16.84	17.44	20.95	25.46	29.23	32.84

CAL YR 1998 LOW 29.62
WTR YR 1999 LOW 32.84



GROUND-WATER RECORDS Champaign County

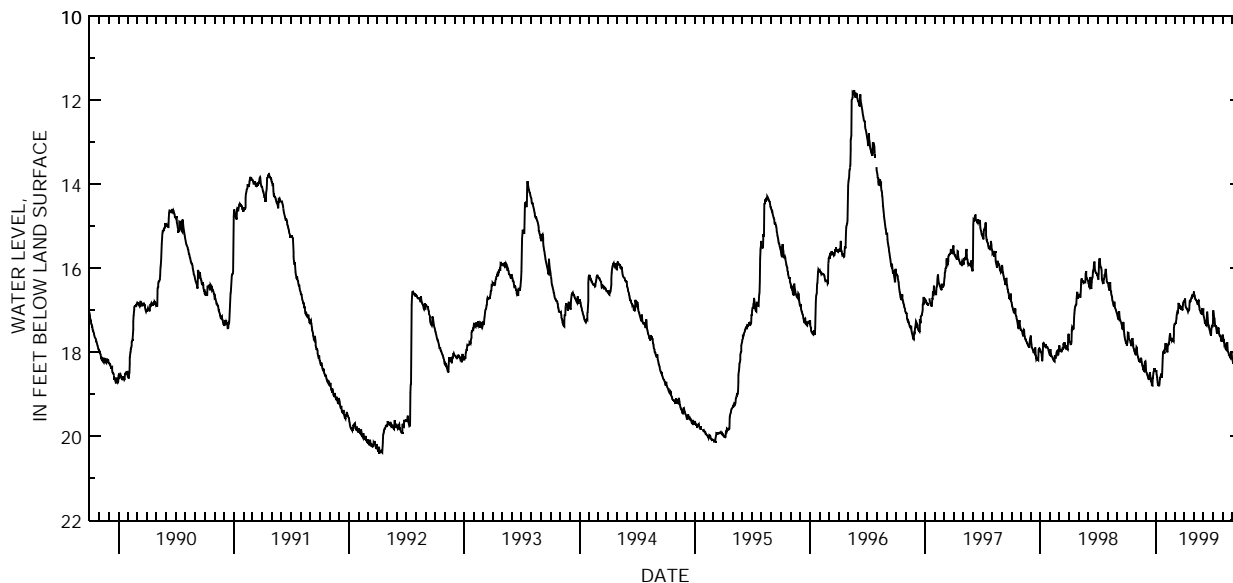
400638083453900. LOCAL NUMBER, CH-3

LOCATION.--Latitude 40°06'38", longitude 83°45'39", Hydrologic Unit 05080001, in Urbana, Ohio.
 Owner: Howard Paper Company.
 AQUIFER.--Sand and gravel of Pleistocene Age.
 WELL CHARACTERISTICS.--Drilled test water table well, diameter 8 in., depth 40 ft, cased.
 INSTRUMENTATION.--Digital recorder--60-minute punch.
 DATUM.--Elevation of land-surface datum is 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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.82	17.88	18.44	18.45	17.78	17.32	16.77	16.57	17.09	17.30	17.58	18.18
2	17.84	17.89	18.48	18.44	17.83	17.31	16.76	16.55	17.13	17.00	17.60	18.21
3	17.75	17.99	18.50	18.43	17.86	17.32	16.76	16.62	17.16	17.08	17.70	18.26
4	17.56	18.06	18.52	18.52	17.92	17.31	16.72	16.65	17.20	17.14	17.75	18.27
5	17.53	18.09	18.54	18.60	17.93	17.31	16.87	16.69	17.24	17.18	17.75	18.14
6	17.54	18.11	18.57	18.64	17.98	17.29	16.91	16.73	17.32	17.20	17.80	18.10
7	17.63	18.14	18.59	18.70	17.98	17.20	16.94	16.74	17.30	17.31	17.84	18.22
8	17.67	18.18	18.63	18.77	17.84	17.16	16.95	16.75	17.32	17.37	17.83	18.28
9	17.71	18.22	18.64	18.77	17.83	17.11	16.96	16.76	17.33	17.39	17.88	18.30
10	17.72	18.20	18.63	18.79	17.79	17.06	16.96	16.77	17.36	17.35	17.90	18.32
11	17.72	18.17	18.64	18.79	17.78	17.05	16.98	16.80	17.37	17.41	17.92	18.36
12	17.75	18.22	18.53	18.79	17.79	17.06	17.00	16.82	17.12	17.45	17.94	18.39
13	17.77	18.24	18.49	18.75	17.66	16.92	17.03	16.85	17.03	17.53	17.95	18.42
14	17.79	18.15	18.48	18.66	17.60	16.85	17.01	16.87	17.11	17.49	17.78	18.44
15	17.84	18.14	18.61	18.59	17.55	16.83	17.01	16.78	17.24	17.54	17.78	18.47
16	17.86	18.15	18.66	18.61	17.62	16.91	16.99	16.76	17.33	17.54	17.78	18.47
17	17.74	18.20	18.69	18.56	17.69	16.91	16.97	16.77	17.34	17.44	17.94	18.47
18	17.68	18.26	18.71	18.52	17.68	16.94	16.82	16.88	17.37	17.42	17.99	18.35
19	17.66	18.31	18.74	18.52	17.69	16.95	16.75	16.93	17.41	17.43	18.01	18.30
20	17.69	18.32	18.78	18.60	17.72	16.94	16.80	16.97	17.44	17.53	18.02	18.33
21	17.82	18.36	18.79	18.56	17.70	16.92	16.79	17.00	17.48	17.55	18.05	18.49
22	17.87	18.40	18.60	18.38	17.72	16.93	16.73	17.03	17.50	17.61	18.08	18.52
23	17.91	18.40	18.62	18.15	17.72	16.99	16.71	17.03	17.55	17.63	18.09	18.55
24	17.94	18.44	18.49	18.01	17.74	16.96	16.70	17.06	17.57	17.60	18.06	18.59
25	17.96	18.45	18.44	18.01	17.72	16.95	16.68	17.04	17.60	17.63	18.10	18.61
26	17.99	18.30	18.40	17.98	17.74	16.99	16.71	17.05	17.45	17.67	18.12	18.63
27	18.02	18.25	18.40	18.00	17.59	17.00	16.67	17.06	17.40	17.70	18.10	18.65
28	18.04	18.22	18.43	18.02	17.41	16.87	16.66	17.10	17.37	17.74	18.00	18.69
29	18.05	18.21	18.44	18.02	---	16.82	16.62	16.98	17.37	17.72	17.97	18.69
30	18.07	18.27	18.45	17.90	---	16.80	16.67	16.98	17.38	17.75	18.07	18.71
31	17.93	---	18.46	17.83	---	16.78	---	16.97	---	17.64	18.17	---
MAX	18.07	18.45	18.79	18.79	17.98	17.32	17.03	17.10	17.60	17.75	18.17	18.71

CAL YR 1998 LOW 18.79
 WTR YR 1999 LOW 18.79



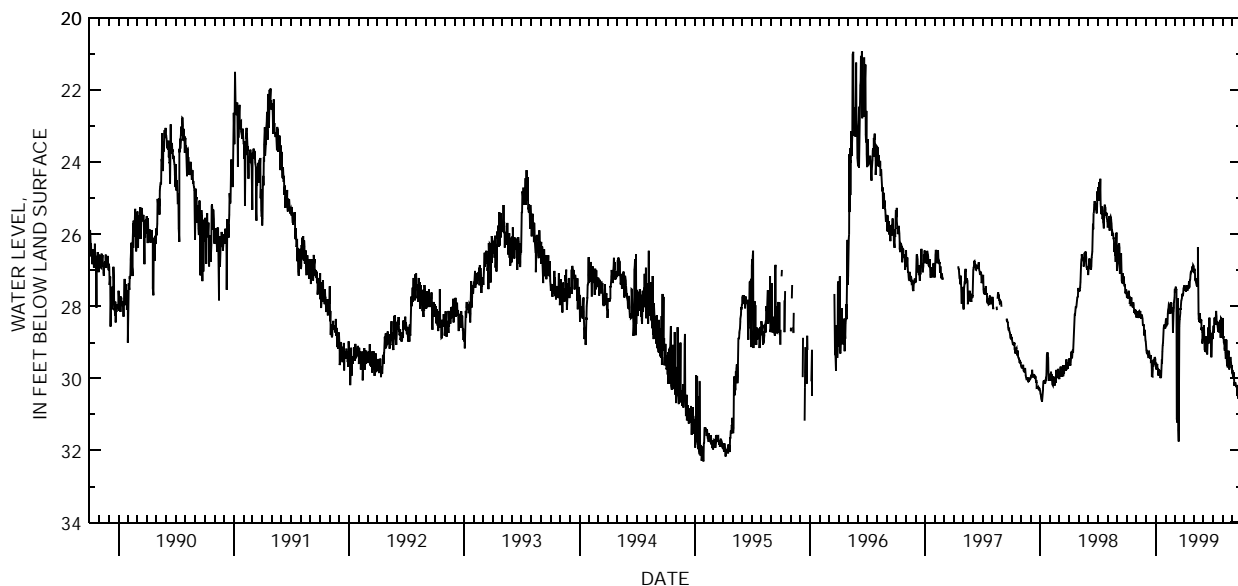
GROUND-WATER RECORDS
Clark County

395639084012200. LOCAL NUMBER, CL-9

LOCATION.--Latitude 39°56'39", longitude 84°01'22", Hydrologic Unit 05080001, at north edge of New Carlisle, Ohio.
 Owner: New Carlisle Water Department.
 AQUIFER.--Sand and gravel of Pleistocene Age.
 WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 12 in., depth 113 ft, cased.
 INSTRUMENTATION.--Digital recorder--60-minute punch.
 DATUM.--Elevation of land-surface datum is 900 ft above sea level, from topographic map.
 Measuring point: Top of platform 2.50 ft above land-surface datum.
 REMARKS.--Station operated by Ohio Department of Natural Resources, 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.

DAY	DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
	DAILY MAXIMUM VALUES											
1	27.72	28.31	29.09	29.63	28.46	27.75	27.42	26.90	28.73	28.73	28.32	29.76
2	27.75	28.18	29.20	29.57	28.37	27.51	27.44	27.08	28.59	28.66	28.86	29.88
3	27.62	28.26	29.27	29.75	28.34	27.61	27.56	26.99	28.53	28.54	28.85	29.96
4	27.78	28.15	29.32	29.66	28.47	27.52	27.50	26.98	28.85	28.74	28.83	29.98
5	27.70	28.32	29.29	29.61	28.41	27.45	27.55	27.11	29.22	28.48	29.02	29.83
6	27.67	28.14	29.33	29.60	28.49	27.55	27.52	27.24	29.20	28.31	29.05	29.99
7	27.57	28.24	29.35	29.73	28.47	27.51	27.59	27.30	29.26	28.47	29.16	30.21
8	27.59	28.32	29.41	29.75	28.20	30.23	27.46	27.22	29.05	28.51	29.23	30.10
9	27.76	28.14	29.43	29.89	28.07	31.12	27.47	27.33	28.83	28.36	28.91	30.16
10	27.73	28.12	29.29	29.92	28.06	31.23	27.41	27.41	28.93	28.28	29.28	30.11
11	27.93	28.16	29.23	29.76	27.95	28.11	27.56	27.40	29.28	28.13	29.45	30.20
12	27.78	28.16	29.35	29.77	27.96	27.77	27.49	27.45	29.16	28.27	29.41	30.21
13	27.90	28.12	29.44	29.79	28.11	30.73	27.47	27.32	29.34	28.52	28.93	30.24
14	27.99	28.24	29.36	29.90	28.09	31.44	27.49	27.13	29.09	28.47	29.44	30.18
15	27.75	28.34	29.43	29.78	28.16	31.75	27.49	26.36	28.88	28.41	29.64	30.22
16	27.76	28.22	29.35	29.99	28.21	29.77	27.31	28.20	28.87	28.57	29.59	30.49
17	27.91	28.27	29.53	29.91	27.89	28.56	27.47	28.38	28.58	28.71	29.69	30.23
18	27.92	28.23	29.52	29.97	27.91	28.37	27.46	28.31	29.01	28.54	29.62	30.38
19	27.89	28.30	29.78	29.76	27.90	28.18	27.27	28.41	29.00	28.43	29.33	30.56
20	28.03	28.34	29.94	29.53	28.10	28.06	27.25	28.44	28.31	28.47	29.23	30.32
21	27.96	28.52	29.95	29.54	28.17	28.09	27.11	28.19	28.83	28.72	29.58	30.18
22	27.89	28.53	29.76	29.26	28.03	27.97	27.03	28.46	28.67	28.54	29.75	30.37
23	27.99	28.53	29.64	29.08	28.12	27.84	27.02	28.38	28.87	28.38	29.63	30.38
24	28.10	28.50	29.65	29.00	28.64	27.81	27.04	28.40	28.75	28.40	29.43	30.41
25	28.14	28.72	29.46	28.82	28.73	27.77	27.03	28.37	28.76	28.87	29.49	30.51
26	28.14	28.81	29.59	28.62	28.12	27.65	26.89	28.66	29.42	28.63	29.40	30.75
27	28.22	28.65	29.46	28.54	28.04	27.72	26.94	28.58	29.03	28.32	29.52	30.69
28	28.08	28.79	29.56	28.60	27.90	27.69	26.96	28.73	28.81	28.35	29.60	30.51
29	28.12	28.93	29.41	28.49	---	27.65	26.86	29.03	28.79	28.52	29.71	30.64
30	28.12	28.97	29.47	28.59	---	27.50	26.87	28.93	28.91	28.64	29.64	30.47
31	28.16	---	29.54	28.62	---	27.49	---	28.93	---	28.87	29.86	---
MAX	28.22	28.97	29.95	29.99	28.73	31.75	27.59	29.03	29.42	28.87	29.86	30.75

CAL YR 1998 LOW 30.64
 WTR YR 1999 LOW 31.75



GROUND-WATER RECORDS
Clark County

395840083495200. LOCAL NUMBER, CL-7

LOCATION.--Latitude 39°58'40", longitude 83°49'52", Hydrologic Unit 05080001. Eagle City Road northwest of Springfield, Ohio.
Owner: State of Ohio.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled test water table well, diameter 6 in., depth 50 ft, cased.

INSTRUMENTATION.--Digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 928.02 ft.

Measuring point: Floor of instrument shelter 2.00 ft above land-surface datum.

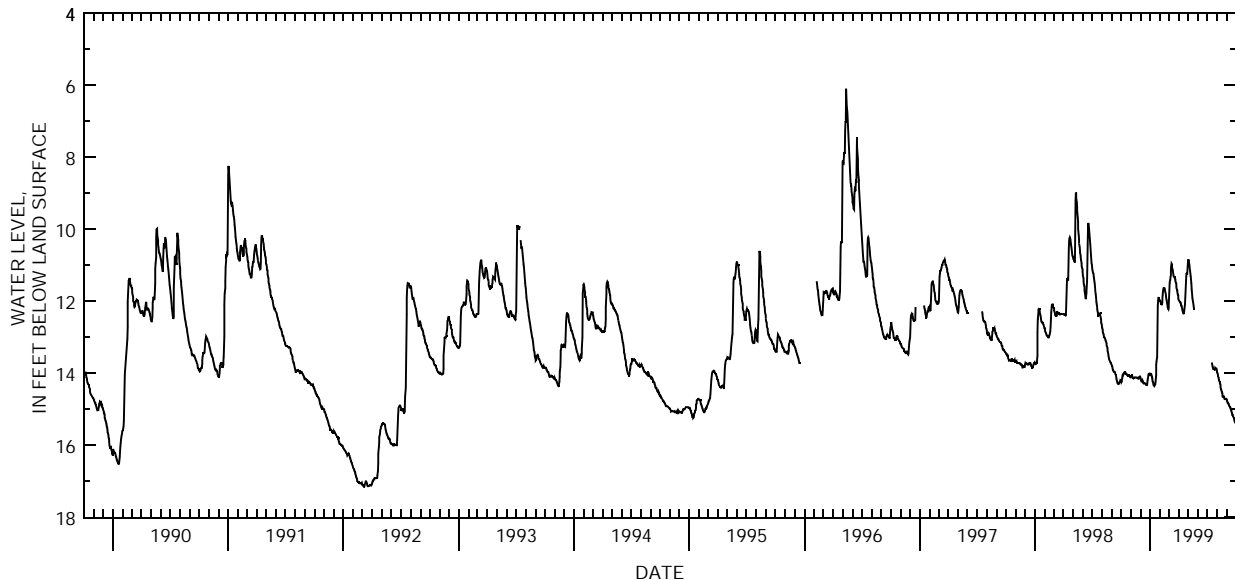
REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.24	14.07	14.13	14.04	12.00	11.95	11.96	10.86	---	---	13.97	14.74
2	14.22	14.06	14.16	14.04	12.01	11.73	11.99	10.83	---	---	14.01	14.79
3	14.17	14.05	14.21	14.00	12.02	11.50	11.99	10.88	---	---	14.05	14.82
4	14.12	14.05	14.23	14.05	12.08	11.42	12.01	10.95	---	---	14.08	14.82
5	14.05	14.09	14.23	14.07	12.08	11.40	12.02	11.00	---	---	14.12	14.84
6	14.03	14.12	14.23	14.09	12.09	11.32	12.03	11.10	---	---	14.17	14.84
7	14.05	14.14	14.21	14.14	12.09	11.27	12.03	11.15	---	---	14.21	14.86
8	14.02	14.14	14.23	14.16	12.04	11.11	12.06	11.23	---	---	14.23	14.90
9	14.01	14.13	14.26	14.24	11.84	10.96	12.11	11.31	---	---	14.24	14.93
10	13.98	14.13	14.26	14.26	11.74	10.98	12.11	11.42	---	---	14.27	14.94
11	13.98	14.13	14.29	14.29	11.68	11.06	12.15	11.51	---	---	14.32	14.95
12	13.97	14.11	14.29	14.34	11.64	11.11	12.19	11.67	---	---	14.37	14.95
13	13.97	14.11	14.29	14.35	11.63	11.14	12.25	11.77	---	---	14.43	14.99
14	13.98	14.11	14.29	14.35	11.63	11.16	12.28	11.89	---	---	14.48	15.02
15	14.00	14.11	14.29	14.33	11.63	11.27	12.29	11.95	---	13.70	14.48	15.05
16	14.02	14.11	14.29	14.31	11.67	11.31	12.34	12.00	---	13.75	14.51	15.09
17	14.03	14.11	14.30	14.30	11.72	11.32	12.34	12.06	---	13.81	14.56	15.11
18	14.03	14.12	14.32	14.24	11.76	11.33	12.30	12.13	---	13.83	14.63	15.15
19	14.03	14.12	14.33	14.05	11.79	11.33	12.22	12.19	---	13.88	14.66	15.16
20	14.03	14.13	14.33	13.76	11.89	11.35	12.15	12.25	---	13.88	14.66	15.20
21	14.06	14.13	14.33	13.67	11.95	11.39	12.08	---	---	13.89	14.65	15.22
22	14.08	14.13	14.30	13.54	11.98	11.43	11.88	---	---	13.89	14.64	15.23
23	14.08	14.12	14.20	13.00	12.05	11.47	11.61	---	---	13.90	14.69	15.25
24	14.08	14.15	14.14	12.44	12.09	11.51	11.43	---	---	13.90	14.71	15.29
25	14.07	14.15	14.10	12.12	12.16	11.59	11.30	---	---	13.86	14.72	15.34
26	14.07	14.13	14.04	11.98	12.21	11.66	11.21	---	---	13.88	14.72	15.36
27	14.09	14.13	14.00	11.91	12.22	11.69	11.23	---	---	13.88	14.72	15.38
28	14.09	14.10	14.01	11.89	12.17	11.73	11.23	---	---	13.86	14.72	15.39
29	14.11	14.09	14.00	11.95	---	11.79	11.10	---	---	13.85	14.72	15.41
30	14.11	14.09	14.02	11.97	---	11.84	10.94	---	---	13.89	14.71	15.41
31	14.11	---	14.04	11.97	---	11.91	---	---	---	13.96	14.72	---
MAX	14.24	14.15	14.33	14.35	12.22	11.95	12.34	12.25	---	13.96	14.72	15.41
CAL YR 1998	LOW 14.33											
WTR YR 1999	LOW 15.41											



GROUND-WATER RECORDS
Coshocton County

401256081525100. LOCAL NUMBER, CS-3

LOCATION.--Latitude 40°12'56", longitude 81°52'51", Hydrologic Unit 05040004, 1.5 mi north of Conesville, Ohio.

Owner: Universal Cyclops Corp.

AQUIFER.--Sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled test water table well, diameter 8 in., depth 110 ft, cased.

INSTRUMENTATION.--Digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 745 ft above sea level, from topographic map.

Measuring point: Floor of instrument shelter 2.80 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

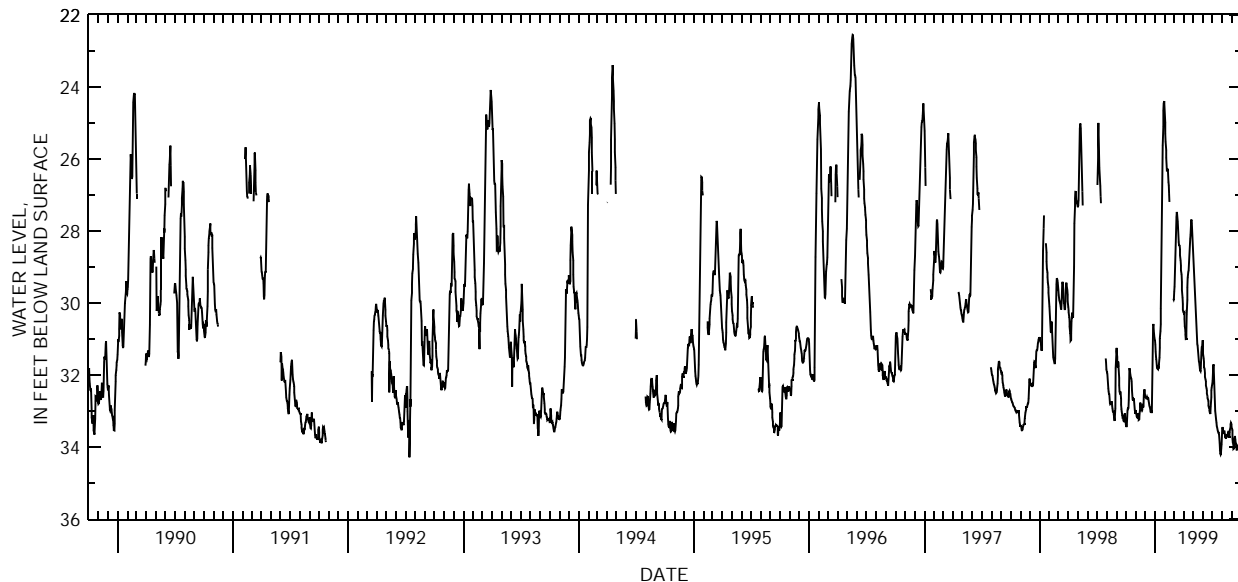
PERIOD OF RECORD.--April 1958 to current year.

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 1998 TO SEPTEMBER 1999

DAY	DAILY MAXIMUM VALUES											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33.38	32.97	32.57	31.04	24.66	29.91	30.27	28.47	31.03	32.28	33.69	33.43
2	33.42	33.03	32.62	31.16	24.99	29.87	30.28	28.70	31.24	32.24	33.49	33.48
3	33.44	33.10	32.63	31.35	25.30	29.68	30.29	28.95	31.41	32.15	33.44	33.53
4	33.37	33.16	32.65	31.48	25.52	29.55	30.26	29.16	31.53	31.97	33.49	33.77
5	33.20	33.17	32.65	31.56	25.75	29.33	30.45	29.37	31.64	31.74	33.57	33.88
6	32.98	33.19	32.64	31.67	25.97	28.98	30.63	29.58	31.78	31.70	33.60	33.92
7	32.93	33.19	32.62	31.79	26.16	28.63	30.78	29.83	31.83	32.03	33.61	34.06
8	32.93	33.06	32.65	31.81	26.32	28.30	30.88	30.02	31.95	32.37	33.57	34.05
9	32.91	33.10	32.65	31.83	26.32	27.92	31.01	30.20	32.05	32.61	33.57	33.86
10	32.70	33.20	32.61	31.84	26.30	27.61	31.01	30.38	32.13	32.80	33.62	33.77
11	32.27	33.24	32.65	31.83	26.27	27.47	30.78	30.56	32.17	32.99	33.71	33.72
12	31.80	33.23	32.71	31.77	26.43	27.53	30.32	30.71	32.29	33.08	33.74	33.72
13	31.84	33.17	32.77	31.78	26.63	27.64	29.91	30.88	32.36	33.16	33.75	33.79
14	31.92	33.06	32.83	31.72	26.72	27.74	29.56	31.02	32.42	33.24	33.75	33.88
15	31.99	32.85	32.87	31.51	26.97	27.93	29.30	31.13	32.51	33.32	33.65	33.94
16	32.05	32.77	32.90	31.25	27.19	28.11	29.13	31.18	32.59	33.42	33.68	33.99
17	32.09	32.89	32.94	30.98	---	28.30	29.13	31.27	32.63	33.45	33.69	34.07
18	32.10	32.95	33.01	30.78	---	28.39	29.10	31.39	32.67	33.50	33.66	34.07
19	32.18	32.95	33.04	30.59	---	28.39	28.96	31.50	32.72	33.54	33.63	33.98
20	32.43	32.93	32.97	30.15	---	28.40	28.80	31.61	32.85	33.58	33.64	33.99
21	32.57	32.96	33.03	29.51	---	28.50	28.62	31.65	32.89	33.60	33.63	33.99
22	32.68	32.96	33.03	28.88	---	28.67	28.42	31.72	32.94	33.60	33.55	33.97
23	32.70	32.86	32.68	28.18	---	28.82	28.22	31.80	32.98	33.65	33.66	33.96
24	32.70	32.88	31.80	27.16	---	28.96	28.10	31.88	33.04	33.78	33.71	34.00
25	32.66	32.90	31.10	26.26	---	29.09	27.93	31.90	33.08	33.89	33.71	34.00
26	32.67	32.86	30.64	25.62	---	29.20	27.71	31.82	33.06	34.08	33.60	33.96
27	32.79	32.55	30.58	25.10	---	29.42	27.68	31.59	32.87	34.18	33.51	34.03
28	32.90	32.46	30.76	24.66	29.90	29.64	27.79	31.36	32.62	34.21	33.44	34.06
29	32.99	32.39	30.86	24.46	---	29.85	28.00	31.22	32.42	34.18	33.36	34.07
30	33.05	32.48	30.95	24.39	---	30.03	28.24	31.21	32.35	34.04	33.33	34.07
31	33.05	---	31.00	24.45	---	30.19	---	31.16	---	33.93	33.37	---
MAX	33.44	33.24	33.04	31.84	29.90	30.19	31.01	31.90	33.08	34.21	33.75	34.07

CAL YR 1998 LOW 33.44
WTR YR 1999 LOW 34.21



GROUND-WATER RECORDS
Coshocton County

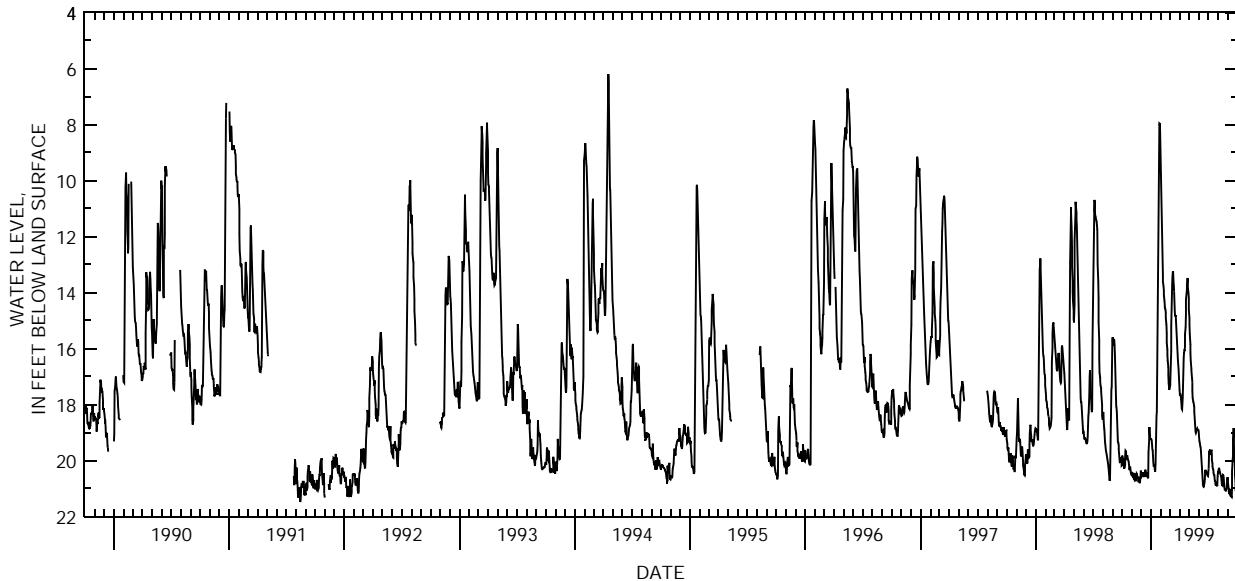
401735081523800. LOCAL NUMBER, CS-2

LOCATION.--Latitude 40°17'35", longitude 81°52'38", Hydrologic Unit 05040003, 1.7 mi northwest of courthouse in Coshocton, Ohio.
 Owner: City of Coshocton.
 AQUIFER.--Sand and gravel of Quaternary Age.
 WELL CHARACTERISTICS.--Drilled test well, diameter 6 in., depth 40 ft, cased.
 INSTRUMENTATION.--Digital recorder--60-minute punch.
 DATUM.--Elevation of land-surface datum is 740 ft above sea level, from topographic map.
 Measuring point: Floor of instrument shelter 8.50 ft above land-surface datum.
 REMARKS.--Station operated by Ohio Department of Natural Resources, 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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.16	20.53	20.47	19.23	9.79	17.39	17.46	14.61	18.97	20.56	20.43	20.71
2	19.82	20.40	20.54	19.25	10.48	17.30	17.65	14.92	19.16	20.28	20.43	20.86
3	19.89	20.48	20.54	19.28	11.08	17.21	17.66	15.14	19.30	19.84	20.30	20.95
4	20.01	20.55	20.50	19.42	11.77	16.92	17.65	15.48	19.34	19.67	20.27	21.09
5	20.02	20.54	20.41	19.61	12.42	16.09	17.70	15.85	19.42	19.62	20.29	21.17
6	19.91	20.52	20.41	19.62	12.98	15.19	17.83	16.16	19.49	19.60	20.34	21.19
7	20.15	20.64	20.53	19.86	13.38	14.72	17.99	16.44	19.53	19.72	20.40	21.08
8	20.25	20.66	20.58	20.05	13.61	14.25	18.16	16.73	19.69	19.78	20.44	21.01
9	20.26	20.55	20.58	20.18	13.78	13.68	18.18	16.78	19.93	19.77	20.49	21.06
10	20.15	20.46	20.52	20.18	13.92	13.41	18.00	16.91	20.14	19.65	20.54	21.11
11	19.85	20.61	20.41	20.17	14.09	13.27	17.75	17.20	20.35	19.64	20.57	21.20
12	19.65	20.71	20.46	20.24	14.30	13.27	17.15	17.51	20.53	19.81	20.68	21.29
13	19.68	20.71	20.48	20.34	14.48	13.58	16.65	17.76	20.69	19.97	20.80	21.30
14	19.83	20.63	20.33	20.39	14.54	13.74	16.33	17.89	20.82	20.11	20.88	21.05
15	19.95	20.54	20.40	20.12	14.61	13.96	16.15	17.92	20.92	20.21	20.89	20.38
16	19.98	20.47	20.55	19.32	14.71	14.33	16.06	17.95	20.94	20.28	20.79	19.97
17	19.84	20.50	20.58	18.75	14.89	14.64	16.06	18.07	20.93	20.36	20.52	19.83
18	19.84	20.60	20.55	18.40	15.15	14.83	15.92	18.25	20.84	20.43	20.53	19.23
19	19.92	20.58	20.43	18.26	15.46	14.84	15.49	18.44	20.78	20.49	20.62	18.84
20	19.97	20.61	20.49	17.64	15.78	14.81	15.23	18.63	20.68	20.52	20.79	19.15
21	20.00	20.73	20.59	15.84	16.04	14.98	14.77	18.82	20.39	20.56	20.93	19.47
22	20.03	20.77	20.63	14.75	16.23	15.18	14.26	18.96	20.33	20.70	21.02	19.87
23	20.13	20.69	20.44	12.60	16.41	15.42	14.01	19.00	20.41	20.76	21.02	20.17
24	20.31	20.66	19.69	9.78	16.67	15.68	13.89	18.97	20.41	20.82	21.07	20.49
25	20.31	20.75	19.28	8.70	16.97	15.93	13.76	18.87	20.40	20.87	21.08	20.80
26	20.24	20.80	18.96	8.24	17.24	16.19	13.48	18.87	20.44	20.88	21.08	21.04
27	20.24	20.80	18.80	7.96	17.46	16.43	13.61	18.85	20.48	20.80	21.03	21.09
28	20.35	20.57	18.99	7.97	17.46	16.57	13.82	18.91	20.53	20.84	20.99	21.06
29	20.45	20.36	19.21	8.08	---	16.74	14.02	18.91	20.55	20.88	20.82	21.09
30	20.48	20.36	19.23	8.49	---	17.00	14.20	18.91	20.56	20.88	20.68	21.20
31	20.51	---	19.23	9.11	---	17.21	---	18.90	---	20.55	20.59	---
MAX	20.51	20.80	20.63	20.39	17.46	17.39	18.18	19.00	20.94	20.88	21.08	21.30

CAL YR 1998 LOW 20.80
 WTR YR 1999 LOW 21.30



GROUND-WATER RECORDS Darke County

400514084345700. LOCAL NUMBER, D-2

LOCATION.--Latitude 40°05'14", longitude 84°34'57", Hydrologic Unit 05080001, State Route 571, 3 mi east of Greenville, Ohio.

Owner: Greenville Water Department.

AQUIFER.--Sand and gravel of Pleistocene Age.

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

INSTRUMENTATION.--Digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 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.

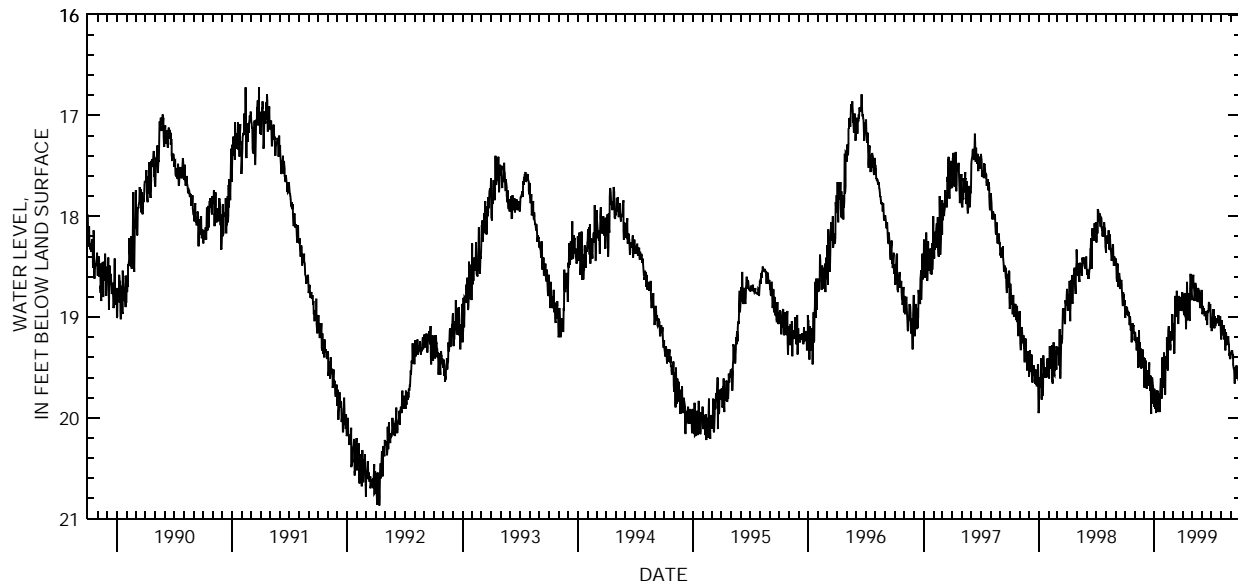
PERIOD OF RECORD.--August 1977 to current year.

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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.01	19.19	19.70	19.89	19.35	19.09	18.78	18.71	18.73	19.00	19.18	19.36
2	18.95	19.15	19.46	19.71	19.42	19.08	18.82	18.67	18.92	19.14	19.22	19.35
3	18.90	19.19	19.41	19.80	19.44	19.12	18.77	18.62	18.97	19.10	19.16	19.34
4	18.96	19.25	19.51	19.91	19.77	19.23	18.89	18.60	18.95	19.07	19.03	19.34
5	18.90	19.22	19.45	19.87	19.76	19.12	18.96	18.58	18.89	18.99	19.10	19.33
6	18.90	19.32	19.43	19.78	19.39	19.35	18.95	18.65	18.96	18.92	19.13	19.35
7	18.91	19.33	19.64	19.95	19.48	19.35	18.98	18.67	18.93	18.99	19.12	19.41
8	18.98	19.24	19.61	19.73	19.51	19.12	18.76	18.77	18.91	18.97	19.17	19.37
9	18.97	19.24	19.71	19.86	19.41	18.79	18.98	18.84	18.96	18.92	19.18	19.47
10	18.97	19.20	19.62	19.85	19.45	18.98	18.99	18.80	18.99	19.08	19.08	19.51
11	18.99	19.50	19.59	19.83	19.20	18.99	18.98	18.74	18.98	19.11	19.22	19.52
12	18.95	19.49	19.53	19.73	19.30	18.99	19.12	18.66	18.98	18.99	19.21	19.50
13	18.96	19.25	19.55	19.94	19.53	18.93	18.89	18.69	18.94	19.00	19.12	19.66
14	18.98	19.13	19.68	19.90	19.44	18.74	18.86	18.82	18.97	19.05	19.31	19.56
15	19.07	19.38	19.62	19.76	19.13	18.92	18.65	18.84	19.03	19.09	19.33	19.52
16	19.08	19.25	19.45	19.86	19.09	18.90	18.91	18.77	18.95	19.05	19.27	19.52
17	18.99	19.49	19.61	19.87	19.19	18.82	19.02	18.71	18.99	19.02	19.15	19.61
18	19.04	19.49	19.63	19.82	19.21	19.06	19.03	18.81	19.08	19.01	19.20	19.50
19	19.13	19.31	19.72	19.94	19.23	19.06	18.93	18.85	18.96	19.02	19.21	19.48
20	19.11	19.41	19.73	19.76	19.26	18.91	18.90	18.84	18.93	19.03	19.27	19.54
21	19.13	19.51	19.58	19.69	19.28	18.79	18.76	18.71	18.95	19.04	19.27	19.58
22	19.25	19.43	19.96	19.61	19.33	18.86	18.76	18.76	18.94	19.06	19.24	19.57
23	19.15	19.44	19.81	19.66	19.14	18.86	19.03	18.76	18.86	19.02	19.21	19.50
24	19.09	19.47	19.69	19.81	19.18	18.89	19.03	18.73	18.85	18.98	19.19	19.58
25	19.06	19.32	19.65	19.80	19.22	18.93	18.83	18.77	18.92	19.02	19.25	19.63
26	19.08	19.42	19.60	19.77	19.23	18.93	18.57	18.86	18.93	19.06	19.27	19.67
27	19.09	19.50	19.63	19.40	19.00	18.89	18.64	18.91	18.88	19.09	19.38	19.67
28	19.08	19.42	19.67	19.66	18.97	18.80	18.73	18.88	18.88	19.03	19.36	19.63
29	19.16	19.40	19.69	19.70	---	18.94	18.83	18.90	19.10	19.00	19.41	19.67
30	19.14	19.49	19.86	19.65	---	18.92	18.82	18.89	19.09	19.00	19.41	19.69
31	19.23	---	19.74	19.52	---	18.75	---	18.76	---	19.08	19.36	---
MAX	19.25	19.51	19.96	19.95	19.77	19.35	19.12	18.91	19.10	19.14	19.41	19.69

CAL YR 1998 LOW 19.96
WTR YR 1999 LOW 19.96



GROUND-WATER RECORDS
Delaware County

402126083040400. LOCAL NUMBER, DL-3

LOCATION.--Latitude 40°21'26", longitude 83°04'04", Hydrologic Unit 05060001, east bank of Olentangy River at toe of Delaware dam.

Owner: U.S. Army Corps of Engineers.

AQUIFER.--Limestone of Devonian Age.

WELL CHARACTERISTICS.--Drilled test artesian well, diameter 12 in., depth 135 ft, cased.

INSTRUMENTATION.--Type F continuous recorder.

DATUM.--Elevation of land-surface datum is 900 ft above sea level, from topographic map.

Measuring point: Floor of instrument shelter 2.60 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

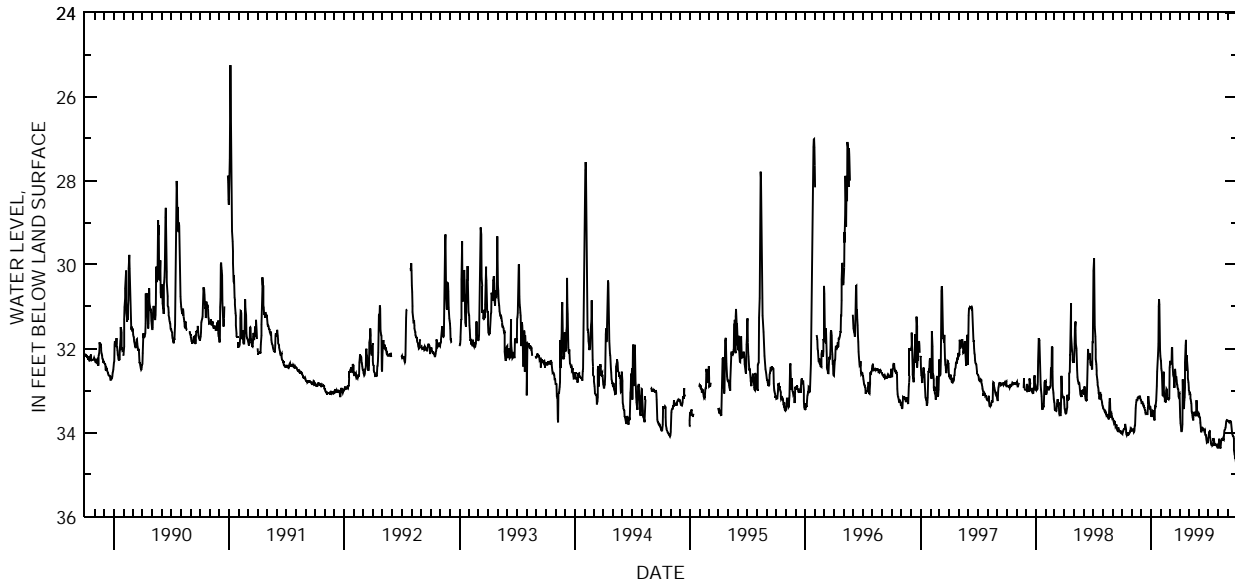
PERIOD OF RECORD.--October 1948 to current year.

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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34.04	33.95	33.25	33.62	32.29	32.45	33.06	33.00	33.55	34.14	34.34	33.72
2	34.03	33.94	33.32	33.57	32.47	32.29	33.40	33.03	33.57	34.08	34.35	33.73
3	34.00	33.93	33.30	33.58	32.52	32.36	33.63	33.07	33.62	34.00	34.31	33.73
4	33.97	33.92	33.26	33.61	32.61	32.37	33.77	33.06	33.64	33.98	34.22	33.74
5	33.95	33.94	33.31	33.61	32.81	32.35	33.83	33.09	33.65	33.96	34.14	33.75
6	33.93	33.95	33.33	33.48	33.11	32.34	33.93	33.18	33.75	33.97	34.22	33.74
7	33.91	33.98	33.33	33.49	33.12	32.30	33.98	33.21	33.84	34.08	34.30	33.73
8	33.92	33.97	33.38	33.49	33.07	31.99	33.96	33.31	33.94	34.19	34.36	33.71
9	33.90	33.95	33.35	33.50	32.55	31.97	33.92	33.31	33.99	34.22	34.38	33.72
10	33.89	33.84	33.41	33.50	32.94	32.36	33.80	33.50	33.93	34.26	34.28	33.73
11	33.79	33.83	33.40	33.69	33.00	32.50	32.73	33.55	33.93	34.30	34.20	33.75
12	33.85	33.65	33.45	33.69	33.11	32.61	33.01	33.58	33.93	34.30	34.19	33.75
13	33.93	33.42	33.47	33.42	33.20	32.64	33.17	33.64	33.89	34.27	34.16	33.91
14	33.99	33.31	33.52	33.37	33.23	32.63	33.42	33.71	33.90	34.29	34.17	33.99
15	34.04	33.26	33.55	33.38	33.21	32.91	33.42	33.65	33.95	34.31	34.16	34.02
16	34.06	33.20	33.53	33.30	33.28	32.93	33.23	33.57	33.93	34.30	34.16	34.06
17	34.04	33.23	33.53	33.24	33.17	32.88	33.15	33.53	33.93	34.18	34.14	34.09
18	34.03	33.23	33.54	33.08	32.96	32.48	32.93	33.50	33.95	34.15	34.16	34.08
19	34.05	33.17	33.57	32.89	32.98	32.56	32.33	33.53	33.94	34.15	34.17	34.10
20	34.05	33.16	33.58	32.55	33.00	32.67	31.92	33.57	33.93	34.25	34.05	34.15
21	34.03	33.18	33.55	32.40	33.14	32.68	31.80	33.58	34.04	34.29	33.95	34.41
22	34.04	33.18	33.31	32.23	33.19	32.68	32.49	33.59	34.06	34.27	33.93	34.52
23	34.01	33.15	33.15	32.10	33.19	32.75	32.49	33.59	34.06	34.28	33.91	34.55
24	34.00	33.15	33.15	31.89	33.20	32.85	32.15	33.50	34.10	34.29	33.90	34.60
25	34.00	33.15	33.33	31.00	33.16	32.87	32.23	33.23	34.16	34.29	33.88	34.61
26	33.98	33.13	33.40	30.83	33.19	32.93	32.44	33.37	34.21	34.31	33.80	34.63
27	33.96	33.12	33.41	30.95	33.18	32.96	32.55	33.51	34.20	34.30	33.72	34.69
28	33.91	33.20	33.44	31.63	33.05	32.97	32.70	33.55	34.20	34.30	33.70	34.70
29	33.93	33.22	33.38	32.01	---	33.15	32.81	33.59	34.25	34.29	33.71	34.70
30	33.91	33.24	33.39	32.17	---	33.17	32.94	33.60	34.20	34.30	33.72	34.68
31	33.95	---	33.51	32.24	---	33.07	---	33.57	---	34.35	33.72	---
MAX	34.06	33.98	33.58	33.69	33.28	33.17	33.98	33.71	34.25	34.35	34.38	34.70

CAL YR 1998 LOW 34.06
WTR YR 1999 LOW 34.70



GROUND-WATER RECORDS
Fairfield County

393450082403600. LOCAL NUMBER, F-7

LOCATION.--Latitude 39°34'50", longitude 82°40'36", Hydrologic Unit 05030204, southeast of Amanda, Ohio.

Owner: Pine Grove Springs Water Co. Inc.

AQUIFER.--Sandstone of Mississippian Age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 5 in., depth 120 ft, cased to 31 ft.

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

DATUM.--Elevation of land-surface datum is 980 ft above sea level, from topographic map.

Measuring point: Floor of instrument shelter 0.60 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

PERIOD OF RECORD.--August 1988 to current year.

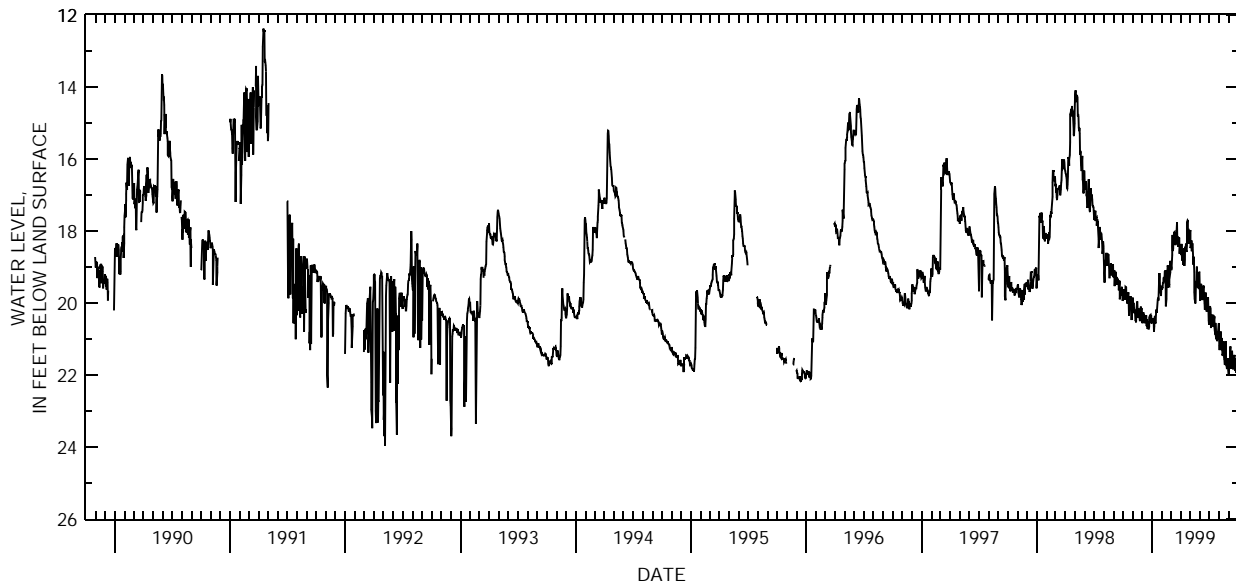
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 25.36 ft below land-surface datum, Sept. 20, 1988; minimum daily low, 12.38 ft below land-surface datum, Apr. 17, 1991.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	DAILY MAXIMUM VALUES											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.75	19.87	20.56	20.54	19.63	18.99	18.62	18.03	19.64	20.44	20.56	22.02
2	19.91	20.14	20.30	20.53	19.56	18.99	18.55	17.98	19.93	20.48	21.18	21.61
3	19.72	19.99	20.48	20.42	19.56	19.09	18.67	18.47	19.88	20.18	21.31	21.72
4	19.62	20.26	20.26	20.54	19.42	19.03	18.36	18.43	19.66	20.08	21.17	21.68
5	19.91	20.14	20.50	20.55	19.47	18.67	18.67	18.39	19.47	20.15	21.21	21.28
6	19.71	20.29	20.31	20.50	19.31	18.44	18.82	18.26	19.50	20.70	20.93	21.20
7	19.84	20.18	20.42	20.80	19.27	18.11	18.72	18.56	19.67	20.70	20.79	21.83
8	19.82	20.30	20.56	20.65	19.36	18.55	18.63	18.34	19.84	20.33	21.09	21.62
9	19.55	20.50	20.46	20.38	19.39	18.48	18.94	18.34	19.91	20.60	21.31	21.68
10	19.56	20.48	20.40	20.36	19.11	18.15	18.75	18.46	19.89	20.55	20.97	21.51
11	19.58	20.54	20.40	20.55	19.36	18.28	18.53	18.87	19.70	20.32	21.22	21.41
12	19.91	20.35	20.38	20.55	19.09	18.04	18.47	18.94	19.58	20.37	21.46	21.33
13	19.84	20.11	20.34	20.38	19.86	18.03	18.97	18.71	19.51	20.65	21.41	21.77
14	20.01	19.98	20.42	20.18	20.09	18.23	18.79	19.14	19.72	20.34	21.47	21.58
15	19.92	19.98	20.64	20.27	19.89	18.13	18.44	19.70	19.89	20.66	21.07	21.84
16	19.83	20.26	20.45	20.24	19.26	18.39	18.57	19.88	20.01	20.49	21.27	21.59
17	19.76	20.41	20.60	20.12	19.27	18.17	18.45	19.99	20.19	20.37	21.51	21.64
18	19.70	20.26	20.72	20.00	19.09	18.30	18.35	20.01	19.83	20.67	21.57	21.50
19	20.04	20.36	20.50	19.88	18.95	18.13	18.51	19.94	19.76	20.77	21.72	21.44
20	20.36	20.18	20.56	19.86	18.98	17.97	18.58	19.51	19.71	20.87	21.70	21.89
21	20.13	20.18	20.73	19.93	19.03	17.76	18.40	19.39	20.09	20.55	21.24	21.69
22	19.94	20.42	20.66	19.66	19.57	18.34	17.76	19.37	20.22	20.90	21.06	21.57
23	19.90	20.50	20.41	19.34	19.47	18.26	17.71	18.99	20.22	21.01	21.53	21.87
24	19.84	20.43	20.38	19.17	19.50	18.44	17.73	19.28	19.99	20.98	21.71	21.93
25	19.80	20.21	20.38	19.28	19.32	18.28	17.98	19.35	20.21	20.81	21.75	21.83
26	20.10	20.10	20.34	19.62	19.27	18.19	17.97	19.56	19.88	21.06	21.83	21.54
27	20.16	20.16	20.33	19.72	19.15	18.20	18.36	19.58	19.83	20.99	21.73	21.67
28	20.47	20.15	20.56	19.68	18.83	18.18	18.15	19.49	20.21	20.99	21.73	21.66
29	20.12	20.16	20.33	19.80	---	18.63	17.99	19.16	20.48	20.79	21.54	21.61
30	19.88	20.18	20.44	19.55	---	18.48	18.28	19.15	20.61	20.72	21.87	21.68
31	19.87	---	20.47	19.52	---	18.56	---	19.15	---	20.59	21.96	---
MAX	20.47	20.54	20.73	20.80	20.09	19.09	18.97	20.01	20.61	21.06	21.96	22.02

CAL YR 1998 LOW 20.73

WTR YR 1999 LOW 22.02



GROUND-WATER RECORDS
Fairfield County

394257082362900. LOCAL NUMBER, F-6

LOCATION.--Latitude 39°42'57", longitude 82°36'29", Hydrologic Unit 05030204, near Hocking River in well field at Lancaster, Ohio.

Owner: Lancaster Water Department.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled unused water table well, diameter 12 in., depth 108 ft, cased.

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

DATUM.--Elevation of land-surface datum is 820 ft above sea level, from topographic map.

Measuring point: Floor of instrument shelter 3.00 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

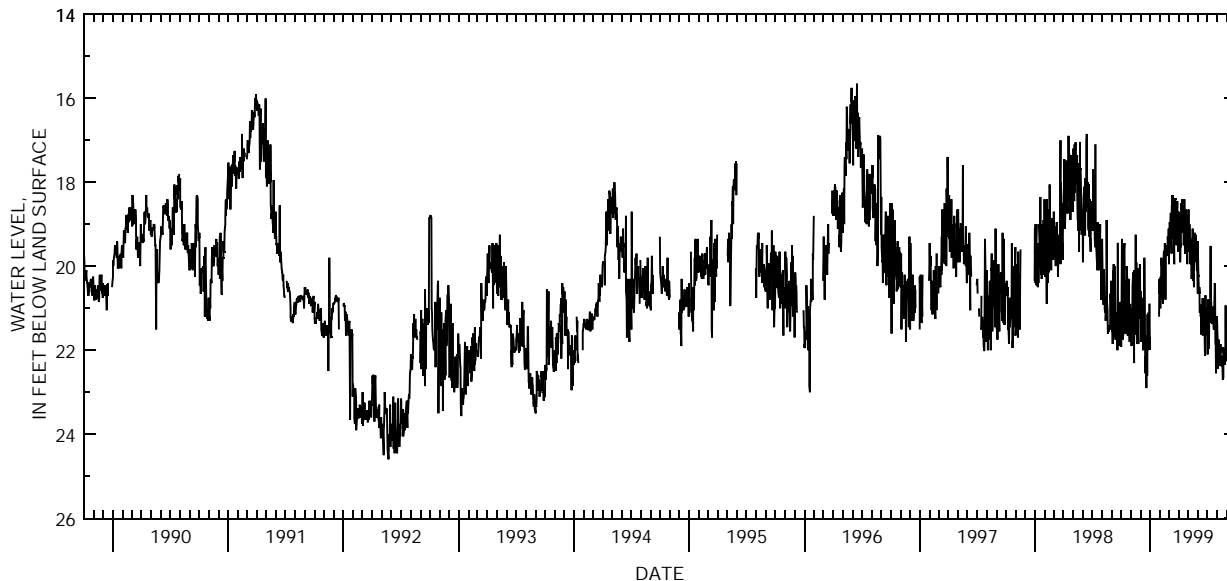
PERIOD OF RECORD.--June 1978 to current year.

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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.90	21.20	21.25	---	20.40	19.95	18.70	19.45	19.40	21.78	21.18	22.04
2	20.25	21.65	20.60	---	21.00	19.20	19.65	18.65	20.25	22.10	21.86	22.22
3	19.35	21.90	21.80	---	20.25	18.95	19.05	19.60	20.20	21.32	22.05	22.11
4	19.95	21.00	20.80	---	20.50	19.00	19.15	19.60	20.50	20.79	22.44	21.44
5	21.75	21.60	20.80	---	19.80	19.05	18.75	19.00	20.65	21.83	21.97	21.97
6	21.50	20.50	20.75	---	19.95	18.75	19.90	19.35	20.50	21.97	22.17	21.87
7	21.65	20.15	21.20	---	20.00	18.75	19.45	19.50	21.10	21.02	21.75	22.07
8	20.50	21.50	21.35	---	20.80	19.05	19.55	19.95	21.05	21.02	22.35	22.19
9	19.70	20.20	22.00	---	20.40	19.70	18.50	19.65	21.10	21.35	22.35	22.13
10	19.55	22.30	21.80	---	20.90	18.55	18.55	19.35	21.20	20.45	21.86	22.13
11	19.45	20.10	20.95	---	20.00	19.35	18.65	20.25	21.15	19.52	22.07	21.50
12	21.45	20.35	21.80	---	19.80	18.30	18.40	20.30	21.63	20.75	21.86	22.91
13	20.90	21.60	19.80	---	19.65	18.65	18.70	20.15	20.91	20.87	22.29	22.53
14	21.60	21.60	20.35	---	19.65	18.30	19.20	19.40	21.54	21.11	22.38	22.61
15	20.35	20.65	21.85	---	19.75	18.80	18.70	19.10	21.41	21.08	22.17	23.01
16	20.80	19.25	22.55	---	19.45	19.35	19.10	20.20	20.76	21.33	22.13	22.91
17	20.65	20.70	22.15	---	19.75	18.70	19.50	20.35	21.65	21.38	22.29	22.55
18	21.50	19.90	22.60	---	20.80	19.95	19.30	20.20	21.33	21.14	22.34	22.76
19	20.00	21.50	22.90	---	19.70	18.50	18.40	20.50	21.21	20.96	22.70	22.17
20	20.40	21.85	22.85	---	19.50	18.40	18.80	20.15	21.03	21.35	22.65	22.50
21	21.60	21.40	21.65	---	19.55	18.40	19.70	19.70	20.85	21.51	21.92	22.23
22	21.65	20.05	22.60	---	19.75	18.50	19.65	19.60	21.33	21.20	22.07	22.88
23	20.50	21.55	21.15	---	19.70	18.85	19.40	19.20	21.99	20.93	22.07	23.10
24	20.60	21.85	22.00	---	19.75	19.40	18.65	19.85	22.13	20.40	22.13	22.53
25	20.30	21.80	21.10	---	19.30	19.50	19.60	19.35	20.69	20.57	22.11	22.31
26	20.95	20.30	---	---	19.40	18.80	19.35	19.25	21.62	21.81	22.35	22.43
27	21.80	20.50	---	---	19.50	18.55	18.80	19.90	21.65	21.87	22.22	22.37
28	21.50	21.00	21.70	---	19.10	18.45	19.95	19.55	21.56	22.55	20.93	21.90
29	21.30	19.95	20.90	21.20	---	19.00	19.30	20.10	21.65	21.35	22.05	22.23
30	20.90	20.50	21.70	20.30	---	19.35	19.65	20.05	20.99	22.26	22.26	23.24
31	21.55	---	22.00	20.65	---	19.65	---	20.65	---	21.84	22.08	---
MAX	21.90	22.30	22.90	21.20	21.00	19.95	19.95	20.65	22.13	22.55	22.70	23.24

CAL YR 1998 LOW 22.90
WTR YR 1999 LOW 23.24



GROUND-WATER RECORDS
Fairfield County

394544082271000. LOCAL NUMBER, F-1

LOCATION.--Latitude 39°45'44", longitude 82°27'10", Hydrologic Unit 05030204, near the west edge of West Rushville, Ohio.

Owner: State of Ohio.

AQUIFER.--Sandstone of Mississippian Age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 84 ft, cased.

INSTRUMENTATION.--Type F continuous recorder.

DATUM.--Elevation of land-surface datum is 980 ft above sea level, from topographic map.

Measuring point: Floor of instrument shelter 8.02 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

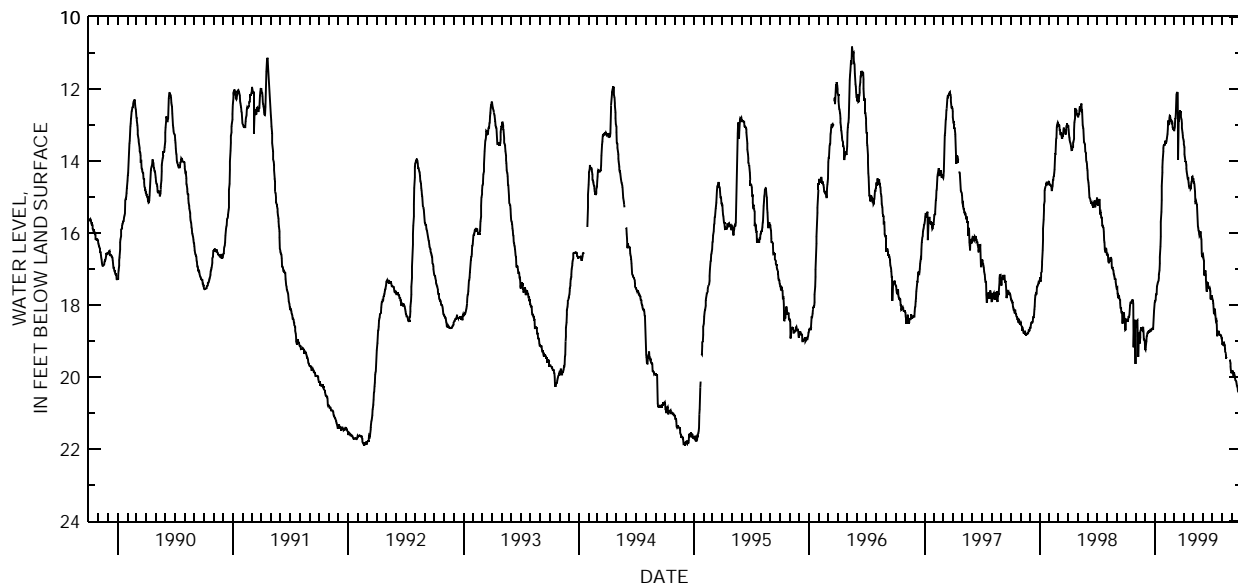
PERIOD OF RECORD.--March 1946 to current year.

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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.40	19.10	19.23	17.89	13.55	13.13	13.41	14.50	16.62	17.77	18.93	19.90
2	18.40	18.64	19.24	17.89	13.45	13.15	13.46	14.50	16.60	17.80	19.09	19.85
3	18.40	18.59	19.18	17.85	13.43	13.15	13.53	14.50	16.60	17.86	19.10	19.85
4	18.45	18.51	19.08	17.70	13.50	13.10	13.61	14.60	16.73	17.88	19.06	19.82
5	18.45	18.44	19.01	17.70	13.50	13.05	13.80	14.60	16.78	17.95	19.06	19.85
6	18.45	18.42	18.87	17.70	13.47	12.83	13.88	14.63	17.16	18.10	19.05	19.99
7	18.45	18.89	18.85	17.50	13.44	12.82	14.00	14.73	17.17	18.23	19.11	20.00
8	18.40	19.42	18.79	17.48	13.37	12.68	14.03	14.85	17.08	18.24	19.12	20.00
9	18.33	19.42	18.77	17.40	13.31	12.37	14.00	15.15	17.06	18.18	19.10	19.87
10	18.33	18.97	18.77	17.35	13.25	12.15	14.11	15.14	17.06	18.10	19.13	19.94
11	18.31	18.90	18.75	17.35	13.11	12.11	14.21	15.11	17.17	18.20	19.22	19.97
12	18.27	18.89	18.74	17.32	12.87	12.11	14.30	15.15	17.29	18.32	19.30	20.02
13	18.12	18.76	18.70	17.25	12.94	12.08	14.41	15.20	17.60	18.42	19.34	20.09
14	18.00	19.07	18.74	17.15	13.00	12.14	14.41	15.21	17.60	18.45	19.42	20.10
15	17.94	18.90	18.74	17.03	12.94	13.96	14.48	15.44	17.50	18.43	19.45	20.11
16	17.94	18.73	18.72	16.85	12.80	13.35	14.47	15.61	17.40	18.55	19.45	20.12
17	17.92	18.70	18.68	16.67	12.74	12.87	14.53	15.81	17.38	18.85	19.44	20.19
18	17.90	18.70	18.68	16.38	12.75	12.87	14.60	15.85	17.39	18.85	---	20.24
19	17.88	18.66	18.71	16.10	12.80	12.80	14.69	15.94	17.50	18.81	---	20.27
20	17.86	18.66	18.71	15.69	12.87	12.67	14.73	15.95	17.51	18.80	---	20.29
21	17.86	18.70	18.69	15.42	12.87	12.59	14.72	16.02	17.53	18.74	---	20.39
22	17.88	18.70	18.66	15.09	12.89	12.64	14.72	16.07	17.55	18.71	---	20.41
23	17.88	18.66	18.66	14.70	12.95	12.65	14.71	16.06	17.54	18.77	---	20.42
24	17.96	18.61	18.66	14.32	12.95	12.65	14.77	16.00	17.52	18.82	---	20.43
25	19.18	18.64	18.67	14.17	12.94	12.78	14.75	15.95	17.61	18.83	---	20.50
26	18.85	18.72	18.67	13.98	13.05	12.84	14.63	16.02	17.80	18.83	19.53	20.70
27	18.47	18.95	18.47	13.74	13.10	12.95	14.57	16.13	17.83	18.83	19.53	20.76
28	19.06	18.95	18.31	13.64	13.10	13.08	14.56	16.17	17.83	18.85	19.61	20.76
29	18.75	18.97	18.15	13.57	---	13.21	14.44	16.55	17.80	18.85	19.71	20.76
30	18.41	19.01	18.05	13.55	---	13.30	14.43	16.65	17.73	18.87	19.81	20.80
31	19.64	---	17.93	13.56	---	13.34	---	16.66	---	18.93	19.88	---
MAX	19.64	19.42	19.24	17.89	13.55	13.96	14.77	16.66	17.83	18.93	19.88	20.80

CAL YR 1998 LOW 19.64
WTR YR 1999 LOW 20.80



GROUND-WATER RECORDS
Fairfield County

395053082361900. LOCAL NUMBER, F-5

LOCATION.--Latitude 39°50'53", longitude 82°36'19", Hydrologic Unit 05060001, Gaylord Paper Co., Baltimore, Ohio.
Owner: Crown Zellerbach--Gaylord Paper Division.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 12 in., depth 180 ft, cased.

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

DATUM.--Elevation of land-surface datum is 850 ft above sea level, from topographic map.

Measuring point: Floor of instrument shelter 3.5 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

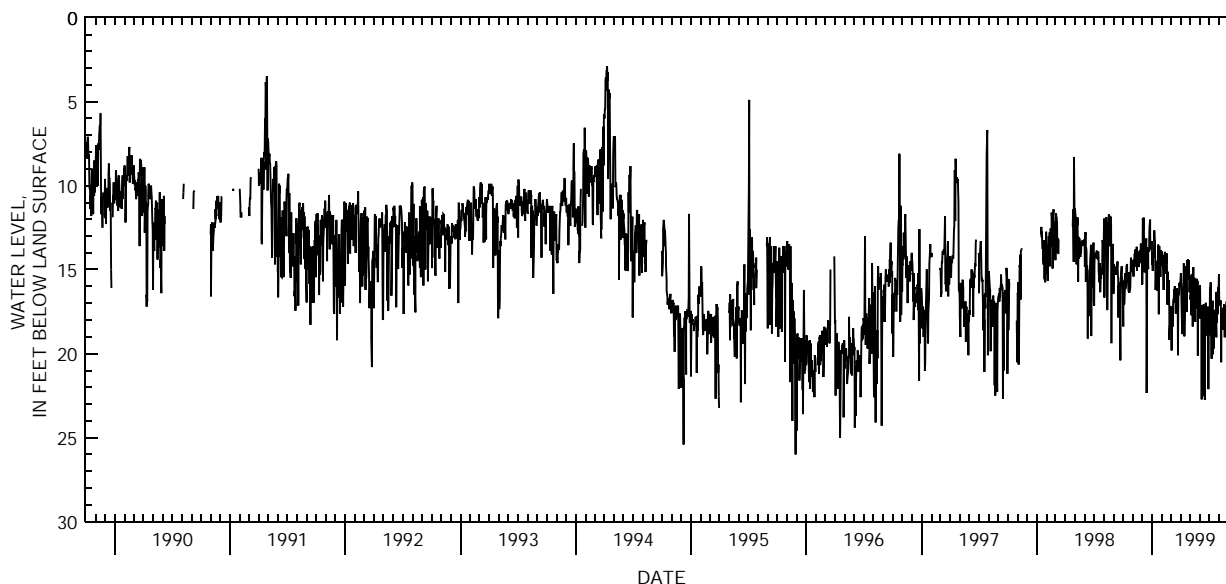
PERIOD OF RECORD.--June 1971 to current year.

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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.39	14.87	15.82	14.69	13.92	18.11	15.58	15.33	17.38	18.55	15.28	17.83
2	17.10	14.44	14.36	14.32	14.79	18.71	15.22	16.29	15.93	18.01	17.13	19.44
3	15.67	15.42	11.92	15.06	14.43	18.80	15.70	16.79	17.92	16.08	16.93	20.90
4	15.98	14.40	12.62	14.16	14.83	19.80	16.27	16.49	17.16	18.90	16.81	21.40
5	17.07	14.66	11.91	14.25	14.91	17.74	17.40	17.72	17.17	15.75	17.00	22.12
6	16.41	14.11	12.08	14.22	16.22	17.19	18.84	16.18	17.48	16.57	16.89	23.42
7	15.62	14.13	13.97	13.79	14.44	18.41	17.82	15.99	22.73	17.66	16.84	24.01
8	15.20	13.81	15.17	12.67	14.14	17.32	16.46	15.44	17.46	20.31	20.53	19.34
9	16.14	14.67	14.97	13.25	14.27	16.89	16.08	15.27	17.37	17.66	17.66	19.35
10	15.95	14.82	13.37	13.29	13.96	16.73	15.75	18.39	18.30	17.02	17.36	19.50
11	15.40	14.55	14.63	15.14	14.28	16.69	14.63	14.87	17.49	17.26	18.08	19.48
12	14.74	14.70	13.53	16.20	14.34	16.15	14.78	15.30	17.20	16.87	18.09	19.26
13	14.66	13.65	13.14	15.50	15.24	16.55	18.98	16.16	17.08	20.04	18.13	19.54
14	15.76	15.06	13.40	15.30	14.71	15.99	17.58	16.03	18.56	17.71	18.57	18.99
15	15.48	14.56	22.34	14.56	14.50	16.97	16.67	15.63	22.54	19.73	17.26	20.18
16	15.58	14.31	16.00	14.58	14.24	16.63	16.20	15.50	17.77	17.72	17.86	19.59
17	15.38	13.98	13.84	14.80	14.03	17.61	17.01	18.13	22.75	17.39	17.07	17.95
18	15.88	14.08	14.14	16.28	17.09	16.66	14.81	16.46	17.58	17.47	17.37	16.87
19	16.31	13.95	14.98	16.16	15.12	17.60	15.03	15.88	17.43	17.75	19.03	16.86
20	15.15	14.84	13.67	13.51	16.34	16.12	17.52	17.34	16.98	18.56	17.47	17.14
21	16.39	14.42	13.85	13.58	16.41	16.16	14.43	16.14	18.44	17.57	17.11	17.82
22	15.17	13.87	13.92	17.67	15.88	17.14	15.39	15.54	17.61	17.80	17.91	17.69
23	16.28	13.96	13.34	13.66	15.62	16.39	15.35	16.17	18.92	19.04	17.41	16.95
24	16.02	13.88	12.47	13.61	17.60	20.10	14.38	16.81	18.43	16.33	17.65	17.19
25	14.88	14.33	12.02	14.00	19.18	16.63	15.60	15.67	18.49	18.17	16.89	17.39
26	14.29	13.45	12.96	14.24	18.54	16.37	15.45	20.11	17.39	16.53	17.47	16.75
27	14.49	14.60	13.76	15.43	17.93	16.52	15.43	16.21	17.21	17.22	18.47	16.72
28	14.78	14.32	13.31	13.83	17.16	15.80	14.43	16.13	22.11	17.66	19.99	18.45
29	15.15	14.60	13.79	14.26	---	15.94	16.36	16.18	17.57	16.04	17.57	18.41
30	14.45	15.81	13.64	14.13	---	15.82	15.81	16.00	18.44	16.13	20.20	17.69
31	14.60	---	13.30	14.61	---	15.82	---	16.33	---	16.02	16.95	---
MAX	18.39	15.81	22.34	17.67	19.18	20.10	18.98	20.11	22.75	20.31	20.53	24.01

CAL YR 1998 LOW 22.34
WTR YR 1999 LOW 24.01



GROUND-WATER RECORDS
Fayette County

393153083322000. LOCAL NUMBER, FA-1

LOCATION.--Latitude 39°31'53", longitude 83°32'20", Hydrologic Unit 05060003, Burnett-Perill Road about 6 mi west of Washington Court House, Ohio.
Owner: Martha Slagle.

AQUIFER.--Limestone of Silurian Age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 5 in., depth 78 ft, cased.

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

DATUM.--Elevation of land-surface datum is 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.

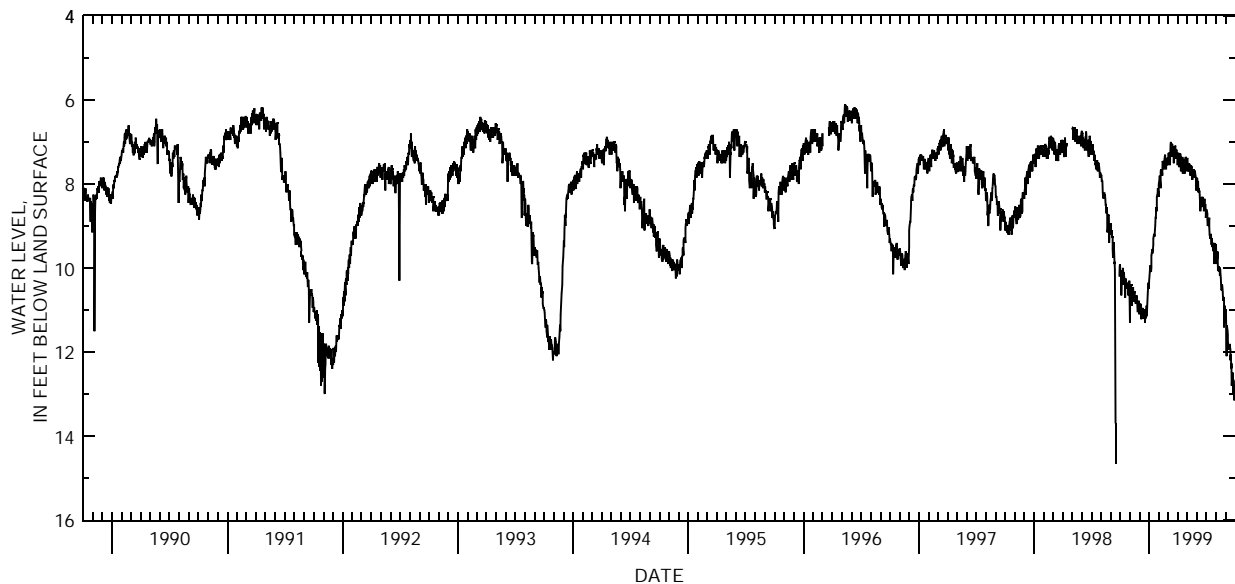
PERIOD OF RECORD.--February 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 14.65 ft below land-surface datum, Sept. 16, 1998; minimum daily low, 3.26 ft below land-surface datum, Apr. 28, 1964.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.10	10.85	10.95	10.20	7.90	7.55	7.35	7.40	7.85	8.60	9.90	10.98
2	10.20	10.45	10.85	10.10	7.80	7.30	7.25	7.40	7.95	8.65	9.65	12.10
3	10.10	10.40	10.90	9.95	7.80	7.25	7.30	7.70	7.95	8.70	9.70	11.50
4	10.65	10.40	10.90	9.95	8.00	7.30	7.30	7.50	7.95	8.85	9.79	11.37
5	10.35	10.60	10.85	9.95	8.10	7.25	7.60	7.70	8.20	9.00	9.61	11.48
6	10.15	10.90	11.20	10.10	7.70	7.40	7.50	7.60	8.10	8.90	10.07	11.59
7	10.05	10.85	11.20	10.00	7.65	7.55	7.35	7.50	8.20	9.00	9.98	11.75
8	10.30	10.50	10.95	9.70	7.80	7.25	7.30	7.55	8.15	8.95	9.98	11.83
9	10.00	10.50	11.00	9.60	7.65	7.05	7.30	7.55	8.25	8.80	9.95	11.95
10	10.10	10.45	11.00	9.55	7.75	7.00	7.35	7.60	8.45	9.05	10.08	11.85
11	10.40	10.50	10.95	9.65	7.80	7.05	7.70	7.80	8.65	9.20	9.98	11.84
12	10.10	10.80	11.20	9.55	7.45	7.05	7.60	7.70	8.55	9.30	10.18	11.85
13	10.20	10.70	11.10	9.45	7.50	7.35	7.50	7.55	8.35	9.20	10.03	11.84
14	10.30	10.60	11.10	9.30	7.55	7.05	7.45	7.60	8.35	9.20	10.15	11.94
15	10.25	10.55	11.20	9.20	7.45	7.10	7.35	7.60	8.35	9.20	10.23	12.20
16	10.70	10.70	11.00	9.20	7.50	7.25	7.55	7.65	8.30	9.30	10.44	12.06
17	10.30	10.65	11.00	9.25	7.65	7.25	7.75	7.90	8.55	9.45	10.53	12.39
18	10.25	10.85	11.30	9.10	7.40	7.20	7.55	7.70	8.30	9.30	10.50	12.27
19	10.30	10.65	11.10	9.00	7.30	7.50	7.45	7.70	8.35	9.50	10.39	12.80
20	10.50	10.75	11.20	8.80	7.35	7.20	7.50	7.80	8.40	9.40	10.46	12.53
21	10.35	10.70	11.00	8.80	7.40	7.10	7.40	7.75	8.45	9.50	10.57	12.63
22	10.45	10.65	11.05	8.55	7.50	7.15	7.45	7.65	8.45	9.40	10.77	12.49
23	10.40	10.70	10.90	8.65	7.65	7.10	7.75	7.85	8.65	9.60	10.73	12.98
24	10.45	11.05	11.15	8.60	7.40	7.10	7.60	7.70	8.35	9.40	10.71	12.66
25	10.50	10.85	10.90	8.30	7.40	7.40	7.45	7.70	8.60	9.90	10.69	12.70
26	10.65	10.85	10.75	8.25	7.55	7.20	7.35	7.75	8.50	9.65	11.41	12.91
27	10.50	10.90	10.55	8.15	7.40	7.20	7.40	7.80	8.50	9.40	10.90	13.15
28	10.40	10.80	10.45	8.10	7.40	7.20	7.40	7.85	8.65	9.45	11.04	12.92
29	10.35	10.80	10.35	8.20	---	7.25	7.70	8.15	8.80	9.60	10.99	12.88
30	10.30	11.10	10.50	8.30	---	7.30	7.50	8.10	8.60	9.45	11.04	12.87
31	11.30	---	10.30	8.00	---	7.55	---	7.90	---	9.45	10.99	---
MAX	11.30	11.10	11.30	10.20	8.10	7.55	7.75	8.15	8.80	9.90	11.41	13.15

CAL YR 1998 LOW 14.65
WTR YR 1999 LOW 13.15



GROUND-WATER RECORDS
Franklin County

394956083002700. LOCAL NUMBER, FR-18

LOCATION.--Latitude 39°49'56", longitude 83°00'27", Hydrologic Unit 05060001, south of State Rt. 665 at Shadeville, Ohio.

Owner: City of Columbus.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled test water table well, diameter 6 in., depth 86.4 ft, cased.

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

DATUM.--Elevation of land-surface datum is 690 ft above sea level, from topographic map.

Measuring point: Floor of instrument shelter 3.80 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

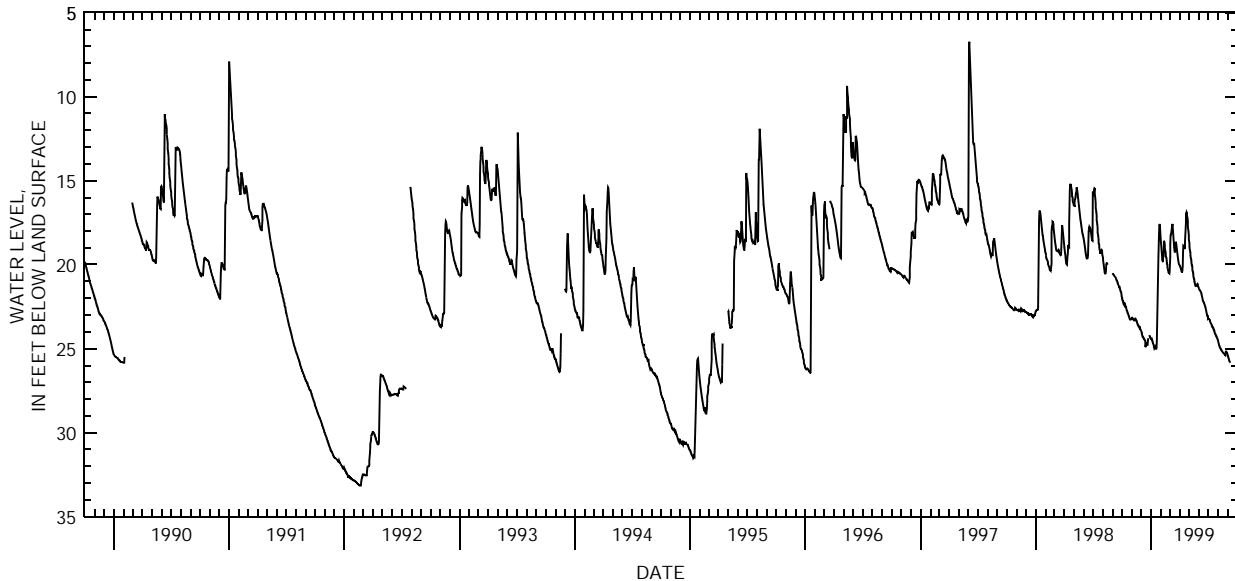
PERIOD OF RECORD.--November 22, 1985, to March 26, 1986, periodic, continuous thereafter.

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 1998 TO SEPTEMBER 1999

DAY	DAILY MAXIMUM VALUES											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.00	23.18	24.00	24.44	18.70	20.43	20.05	18.49	21.40	23.24	24.51	25.43
2	22.10	23.21	24.03	24.45	18.92	19.54	20.08	18.72	21.44	23.21	24.59	25.49
3	22.14	23.20	24.12	24.41	19.20	18.77	20.13	18.92	21.49	23.22	24.66	25.55
4	22.15	23.23	24.23	24.49	19.45	18.28	20.17	19.10	21.53	23.24	24.74	25.62
5	22.26	23.26	24.29	24.55	19.67	18.16	20.24	19.27	21.56	23.28	24.80	25.70
6	22.36	23.29	24.33	24.61	19.81	18.13	20.30	19.43	21.59	23.33	24.86	25.76
7	22.40	23.31	24.34	24.68	19.85	17.99	20.37	19.58	21.62	23.39	24.92	25.80
8	22.26	23.32	24.37	24.74	19.62	17.78	20.43	19.72	21.65	23.45	24.96	25.83
9	22.30	23.33	24.40	24.78	19.50	17.66	20.43	19.87	21.70	23.51	24.99	---
10	22.37	23.33	24.43	24.87	18.80	17.58	20.33	20.00	21.78	23.52	25.04	---
11	22.44	23.21	24.46	24.96	18.59	17.84	20.10	20.13	21.86	23.57	25.07	---
12	22.48	23.21	24.50	24.93	18.68	18.15	19.22	20.26	21.96	23.61	25.11	---
13	22.51	23.25	24.53	24.91	18.85	18.45	18.88	20.39	22.05	23.66	25.14	---
14	22.57	23.30	24.83	24.87	19.05	18.70	18.90	20.53	22.14	23.69	25.17	---
15	22.63	23.33	24.91	24.93	19.22	18.95	18.94	20.65	22.20	23.72	25.20	---
16	22.71	23.36	24.62	24.98	19.35	19.14	19.02	20.78	22.23	23.75	25.22	---
17	22.78	23.42	24.68	25.05	19.49	19.24	19.05	20.88	22.26	23.79	25.25	---
18	22.82	23.49	24.74	24.94	19.62	19.24	19.04	20.98	22.31	23.84	25.28	---
19	22.86	23.56	24.77	24.58	19.74	18.99	18.63	21.04	22.37	23.90	25.29	---
20	22.92	23.60	24.78	23.88	19.88	18.65	17.92	21.13	22.43	23.94	25.31	---
21	22.97	23.62	24.78	23.30	20.01	18.68	17.50	21.20	22.49	24.00	25.33	---
22	23.03	23.66	24.37	22.60	20.13	18.81	17.01	21.26	22.56	24.06	25.37	---
23	23.10	23.70	---	20.90	20.24	18.98	16.90	21.26	22.64	24.12	25.38	---
24	23.16	23.74	---	19.49	20.35	19.14	16.97	21.26	22.72	24.17	25.40	---
25	23.22	23.78	---	18.90	20.44	19.31	17.07	21.25	22.82	24.20	25.23	---
26	23.26	23.77	---	18.09	20.50	19.46	17.23	21.24	22.91	24.24	25.17	---
27	23.28	23.81	24.19	17.63	20.53	19.60	17.45	21.18	23.00	24.29	25.17	---
28	23.28	23.86	24.28	17.63	20.50	19.74	17.75	21.16	23.07	24.32	25.22	---
29	23.28	23.91	24.34	17.80	---	19.87	18.03	21.22	23.07	24.36	25.25	---
30	23.25	23.94	24.40	18.13	---	19.97	18.25	21.29	23.16	24.39	25.31	---
31	23.19	---	24.41	18.45	---	20.02	---	21.35	---	24.45	25.37	---
MAX	23.28	23.94	24.91	25.05	20.53	20.43	20.43	21.35	23.16	24.45	25.40	25.83

CAL YR 1998 LOW 24.91
WTR YR 1999 LOW 25.83



GROUND-WATER RECORDS
Franklin County

395055083000600. LOCAL NUMBER, FR-19

LOCATION.--Latitude 39°50'55", longitude 83°00'06", Hydrologic Unit 05060001, adjacent to State Rt. 23 near Shadeville, Ohio.
Owner: City of Columbus.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 73 ft., present depth 72 ft., cased.

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

DATUM.--Elevation of land-surface datum is 741.95 ft above sea level.

Measuring point: Floor of instrument shelter 2.5 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

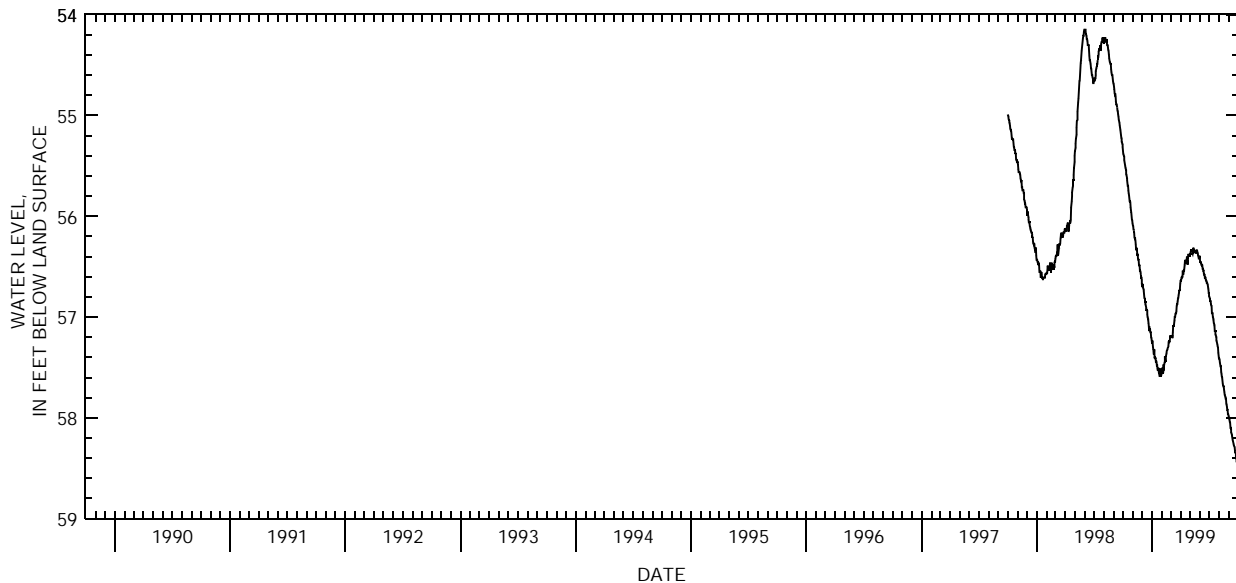
PERIOD OF RECORD.--September 1997 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 58.49 ft below land-surface datum, Sept. 29-30, 1999; minimum daily low, 54.15 ft below land-surface datum, May 31 to June 4, 1998.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55.38	56.09	56.70	57.26	57.51	57.20	56.64	56.37	56.40	56.79	57.41	57.99
2	55.38	56.10	56.67	57.23	57.51	57.18	56.64	56.37	56.45	56.81	57.41	58.01
3	55.39	56.13	56.70	57.27	57.51	57.18	56.63	56.36	56.45	56.82	57.42	58.02
4	55.41	56.14	56.72	57.30	57.56	57.20	56.61	56.34	56.46	56.84	57.45	58.04
5	55.44	56.16	56.73	57.32	57.54	57.18	56.61	56.33	56.46	56.84	57.47	58.05
6	55.46	56.21	56.74	57.36	57.47	57.21	56.60	56.34	56.48	56.87	57.49	58.10
7	55.50	56.22	56.81	57.36	57.53	57.20	56.60	56.34	56.48	56.88	57.49	58.10
8	55.50	56.22	56.82	57.32	57.49	57.15	56.54	56.34	56.49	56.89	57.54	58.11
9	55.52	56.24	56.85	57.41	57.45	57.08	56.58	56.36	56.49	56.96	57.56	58.14
10	55.54	56.28	56.85	57.39	57.45	57.09	56.57	56.37	56.52	56.96	57.59	58.16
11	55.58	56.33	56.87	57.41	57.39	57.09	56.54	56.34	56.52	56.96	57.60	58.17
12	55.59	56.33	56.88	57.41	57.43	57.06	56.54	56.31	56.54	57.00	57.63	58.18
13	55.62	56.31	56.91	57.45	57.43	57.03	56.51	56.33	56.54	57.00	57.66	58.22
14	55.64	56.34	56.94	57.43	57.39	56.99	56.48	56.36	56.57	57.02	57.68	58.23
15	55.67	56.39	56.93	57.45	57.36	57.00	56.43	56.36	56.58	57.03	57.69	58.23
16	55.70	56.37	56.93	57.48	57.33	56.97	56.46	56.34	56.58	57.06	57.69	58.26
17	55.70	56.42	56.97	57.48	57.33	56.96	56.46	56.34	56.61	57.08	57.72	58.28
18	55.74	56.43	57.00	57.51	57.32	56.96	56.46	56.34	56.61	57.09	57.74	58.28
19	55.77	56.43	57.02	57.53	57.30	56.94	56.45	56.36	56.61	57.14	57.77	58.29
20	55.79	56.48	57.03	57.51	57.30	56.89	56.43	56.36	56.63	57.14	57.78	58.32
21	55.82	56.49	57.06	57.51	57.29	56.87	56.40	56.34	56.64	57.17	57.79	58.34
22	55.85	56.49	57.14	57.54	57.29	56.87	56.42	56.34	56.64	57.18	57.81	58.35
23	55.85	56.54	57.09	57.56	57.24	56.84	56.48	56.33	56.66	57.20	57.81	58.35
24	55.86	56.54	57.12	57.57	57.26	56.82	56.46	56.34	56.66	57.23	57.86	58.39
25	55.91	56.55	57.12	57.59	57.24	56.81	56.42	56.36	56.67	57.24	57.87	58.41
26	55.94	56.58	57.14	57.57	57.24	56.78	56.37	56.37	56.68	57.27	57.89	58.43
27	55.96	56.61	57.15	57.51	57.18	56.76	56.39	56.39	56.70	57.27	57.92	58.44
28	56.00	56.61	57.15	57.59	57.18	56.73	56.39	56.40	56.72	57.29	57.92	58.46
29	56.03	56.63	57.20	57.57	---	56.74	56.39	56.42	56.76	57.30	57.96	58.49
30	56.04	56.67	57.21	57.57	---	56.72	56.39	56.42	56.76	57.35	57.96	58.49
31	56.07	---	57.23	57.54	---	56.67	---	56.40	---	57.38	57.98	---
MAX	56.07	56.67	57.23	57.59	57.56	57.21	56.64	56.42	56.76	57.38	57.98	58.49

CAL YR 1998 LOW 57.23
WTR YR 1999 LOW 58.49



GROUND-WATER RECORDS
Franklin County

395118082573300. LOCAL NUMBER, FR-3

LOCATION.--Latitude 39°51'14", longitude 82°57'32", Hydrologic Unit 05060001, 0.7 mi southwest of Rees, Ohio.
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.--Electronic data logger--60-minute log interval

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.

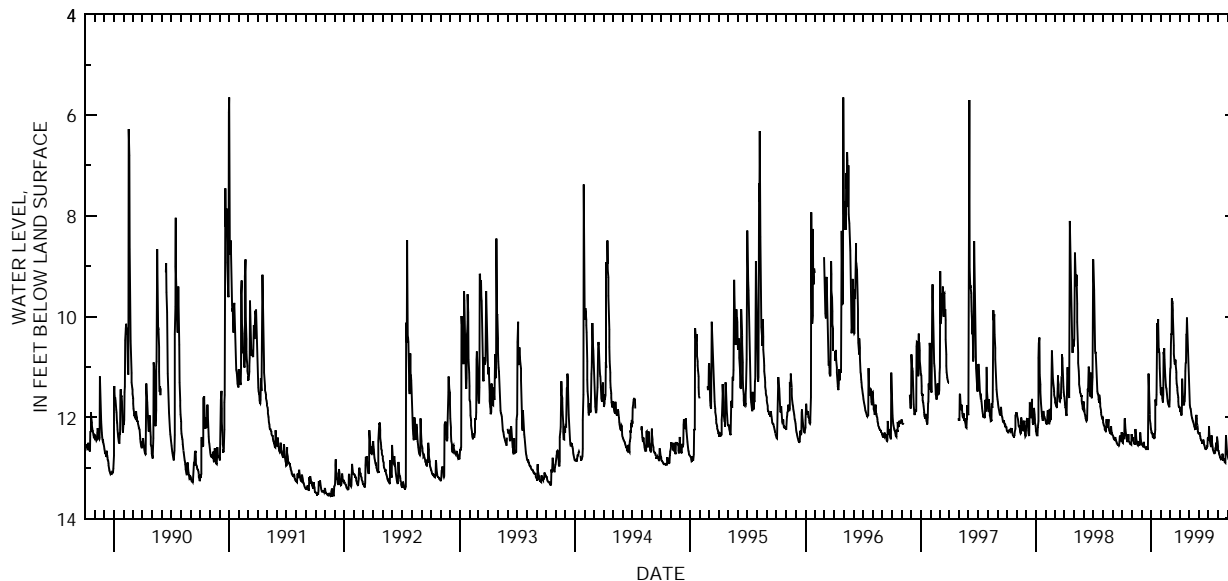
PERIOD OF RECORD.--April 1946 to September 1982 continuous, periodic October 1982 to September 1989, continuous thereafter.

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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.47	12.41	12.53	12.27	11.56	11.18	11.81	11.50	12.32	12.45	12.65	12.78
2	12.50	12.45	12.53	12.32	11.49	11.03	11.83	11.64	12.30	12.41	12.66	12.80
3	12.51	12.45	12.55	12.29	11.41	11.00	11.86	11.75	12.29	12.18	12.69	12.83
4	12.38	12.39	12.55	12.34	11.53	10.53	11.86	11.80	12.33	12.32	12.72	12.84
5	12.32	12.44	12.56	12.34	11.62	10.34	11.90	11.82	12.38	12.41	12.75	12.87
6	12.41	12.48	12.58	12.39	11.66	10.36	11.95	11.84	12.42	12.47	12.77	12.89
7	12.43	12.50	12.58	12.40	11.70	9.64	11.95	11.90	12.43	12.51	12.78	12.89
8	12.05	12.51	12.48	12.37	11.55	9.74	11.93	11.95	12.45	12.54	12.81	12.69
9	12.01	12.53	12.54	12.38	10.70	9.73	11.23	11.98	12.46	12.57	12.80	12.77
10	12.15	12.53	12.57	12.39	10.75	9.87	11.38	12.01	12.47	12.57	12.78	12.83
11	12.24	12.40	12.59	12.41	10.63	9.98	11.53	12.03	12.48	12.36	12.81	12.87
12	12.29	12.23	12.60	12.40	10.85	10.37	11.63	12.06	12.51	12.47	12.81	12.90
13	12.35	12.30	12.61	12.24	10.98	10.57	11.71	12.08	12.51	12.53	12.83	12.92
14	12.39	12.35	12.62	11.67	11.15	10.74	11.75	12.09	12.51	12.57	12.83	12.95
15	12.44	12.44	12.63	11.64	11.25	10.88	11.75	12.12	12.44	12.63	12.72	12.95
16	12.47	12.47	12.62	11.76	11.35	10.93	11.68	12.15	12.47	12.65	12.78	12.96
17	12.47	12.53	12.62	11.73	11.41	10.95	11.67	12.17	12.53	12.67	12.83	12.96
18	12.49	12.54	12.57	11.55	11.43	10.85	11.52	12.20	12.54	12.69	12.84	12.96
19	12.49	12.53	12.62	10.13	11.49	10.91	11.08	12.18	12.56	12.71	12.84	12.96
20	12.33	12.54	12.63	10.41	11.57	10.97	10.91	12.19	12.59	12.71	12.83	12.98
21	12.41	12.49	12.63	10.45	11.63	11.10	10.92	12.22	12.62	12.69	12.85	12.98
22	12.47	12.47	12.20	10.05	11.68	11.22	10.36	12.24	12.63	12.69	12.89	12.96
23	12.49	12.52	11.13	10.08	11.72	11.33	10.35	11.98	12.63	12.62	12.90	12.95
24	12.50	12.55	11.44	10.43	11.75	11.40	10.02	11.95	12.60	12.63	12.90	12.99
25	12.51	12.55	11.64	10.71	11.75	11.45	10.31	12.02	12.62	12.50	12.67	12.99
26	12.53	12.53	11.81	10.69	11.77	11.52	10.60	12.12	12.59	12.59	12.36	12.99
27	12.54	12.30	11.94	10.72	11.80	11.60	10.89	12.16	12.57	12.59	12.44	13.00
28	12.53	12.38	12.03	11.02	11.65	11.68	11.11	12.23	12.57	12.45	12.54	13.00
29	12.54	12.44	12.12	11.17	---	11.77	11.26	12.28	12.41	12.38	12.65	12.99
30	12.53	12.49	12.19	11.37	---	11.81	11.38	12.32	12.39	12.48	12.71	12.74
31	12.33	---	12.23	11.50	---	11.78	---	12.33	---	12.57	12.74	---
MAX	12.54	12.55	12.63	12.41	11.80	11.81	11.95	12.33	12.63	12.71	12.90	13.00

CAL YR 1998 LOW 12.63
WTR YR 1999 LOW 13.00



GROUND-WATER RECORDS
Franklin County

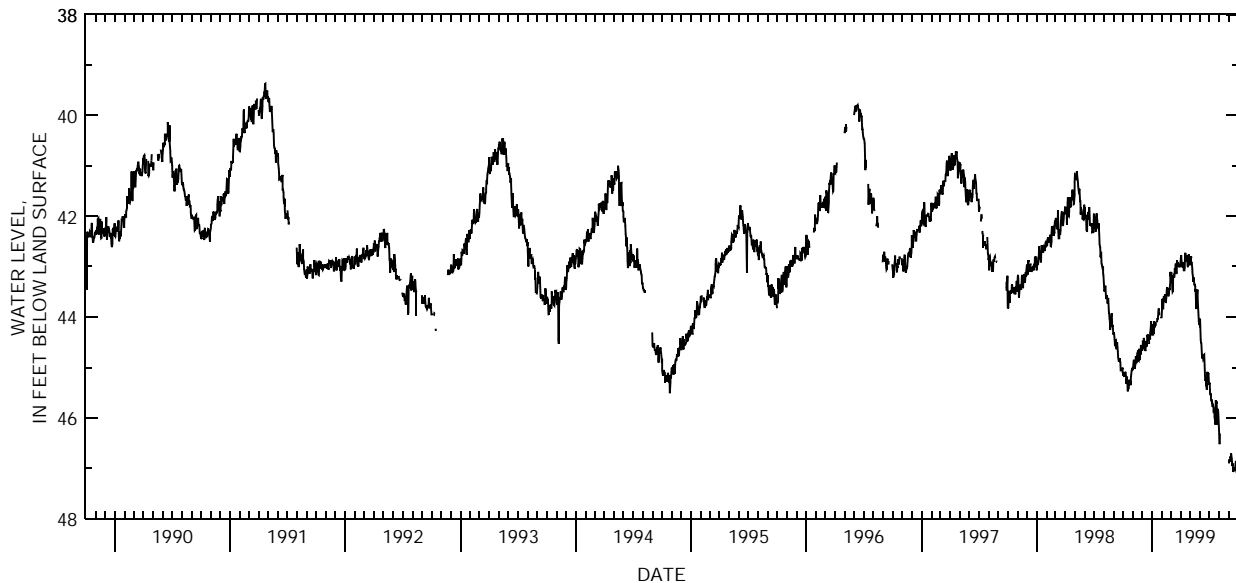
400101083021800. LOCAL NUMBER, FR-10

LOCATION.--Latitude 40°01'01", longitude 83°02'18", Hydrologic Unit 05060001, Kenny and Ackerman Roads, Columbus, Ohio.
 Owner: Ohio State University.
 AQUIFER.--Sand and gravel of Pleistocene Age.
 WELL CHARACTERISTICS.--Drilled test artesian well, diameter 4 in., depth 75 ft, cased.
 INSTRUMENTATION.--Type F continuous recorder.
 DATUM.--Elevation of land-surface datum is 775 ft above sea level, from topographic map.
 Measuring point: Floor of instrument shelter 4.00 ft above land-surface datum.
 REMARKS.--Station operated by Ohio Department of Natural Resources, 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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45.13	45.03	44.63	44.36	43.85	43.18	42.90	42.86	44.05	45.34	46.16	46.90
2	45.16	44.98	44.61	44.33	43.64	43.21	42.82	42.84	44.03	45.30	46.35	46.87
3	45.10	44.90	44.47	44.14	43.65	43.10	42.77	42.90	44.26	45.45	46.52	46.82
4	45.19	44.84	44.50	44.31	43.84	43.30	42.88	42.87	44.44	45.53	46.31	46.87
5	45.15	44.89	44.46	44.32	43.83	43.31	42.91	42.80	44.50	45.55	---	46.85
6	45.14	44.92	44.41	44.26	43.63	43.40	43.00	42.92	44.52	45.54	---	46.76
7	45.11	45.03	44.48	44.32	43.58	43.49	43.00	42.92	44.64	45.62	---	46.80
8	45.08	44.97	44.54	44.08	43.60	43.48	42.91	43.05	44.78	45.67	---	46.71
9	45.10	44.94	44.65	44.18	43.66	43.18	42.98	43.10	44.82	45.65	---	46.70
10	45.19	44.78	44.66	44.20	43.67	43.17	42.97	43.16	44.76	45.64	---	46.80
11	45.32	44.80	44.67	44.12	43.55	43.18	43.07	43.25	44.76	45.78	---	46.88
12	45.29	44.91	44.60	44.10	43.60	43.21	43.07	43.30	44.83	45.75	---	46.95
13	45.18	44.85	44.48	44.17	43.72	43.19	43.07	43.21	44.82	45.75	---	46.90
14	45.24	44.77	44.57	---	43.72	43.03	43.02	43.35	44.75	45.79	---	47.03
15	45.32	44.72	44.59	---	43.58	43.05	42.79	43.35	44.74	45.86	---	47.07
16	45.47	44.72	44.41	44.10	43.44	43.03	42.72	43.35	44.88	45.85	---	47.01
17	45.40	44.65	44.35	44.07	43.42	42.94	42.85	43.39	45.07	45.91	---	47.03
18	45.43	44.86	44.38	44.02	43.42	43.09	42.90	43.49	45.26	46.00	---	47.00
19	45.40	44.87	44.45	44.04	43.43	43.14	42.87	43.44	45.25	46.01	---	47.04
20	45.32	44.65	44.45	43.97	43.47	43.11	42.86	43.68	45.24	46.13	---	47.05
21	45.24	44.63	44.35	43.86	43.53	42.87	42.79	43.84	45.37	45.99	---	47.04
22	45.32	44.85	44.52	43.82	43.59	42.95	42.77	43.60	45.32	45.65	---	46.90
23	45.31	44.83	44.51	43.89	43.52	42.95	42.97	43.63	45.44	45.72	---	46.85
24	45.26	44.65	---	43.96	43.46	42.91	43.01	43.50	45.13	45.66	---	46.85
25	45.35	44.75	44.45	---	43.43	42.99	42.99	43.45	45.08	45.76	---	46.95
26	45.18	44.60	44.31	---	43.45	43.00	42.83	43.70	45.28	46.03	---	47.07
27	45.13	44.55	44.28	---	43.30	42.99	42.89	43.84	45.15	45.90	---	47.09
28	45.07	44.65	44.20	---	43.10	42.94	42.75	43.96	45.10	46.14	---	47.09
29	45.04	44.65	44.08	44.00	---	42.98	42.94	44.07	45.22	45.82	---	46.99
30	45.00	44.60	44.25	44.02	---	43.01	42.97	44.14	45.32	45.90	---	46.79
31	45.05	---	44.22	43.98	---	42.95	---	44.15	---	46.01	---	---
MAX	45.47	45.03	44.67	44.36	43.85	43.49	43.07	44.15	45.44	46.14	46.52	47.09

CAL YR 1998 LOW 45.47
 WTR YR 1999 LOW 47.09



GROUND-WATER RECORDS
Gallia County

243

383638082103300. LOCAL NUMBER, G-2

LOCATION.--Latitude 38°36'38", longitude 82°10'33", Hydrologic Unit 05090101, 5.9 mi east of Crown City, Ohio.
Owner: State of Ohio.

AQUIFER.--Sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled test water-table well, diameter 12 in., depth 65 ft, cased.

INSTRUMENTATION.--Periodic measurement with chalked tape by Ohio Department of Natural Resources personnel.

DATUM.--Elevation of land-surface datum is 552 ft above sea level, from topographic map.

Measuring point: Floor of instrument shelter 3.00 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, 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 OBSERVATION

DATE	WATER LEVEL
Oct. 23, 1998	32.62
Apr. 22, 1999	27.77

GROUND-WATER RECORDS
Greene County

394411083561300. LOCAL NUMBER, GR-1

LOCATION.--Latitude 39°44'11", longitude 83°56'13", Hydrologic Unit 05090202, along Massies Creek near U.S. 68 north of Xenia, Ohio.

Owner: Xenia Water Department.

AQUIFER.--Sand and Gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 30 in., depth 77 ft, cased.

INSTRUMENTATION.--Digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 818.88 ft above sea level.

Measuring point: Floor of instrument shelter 4.50 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

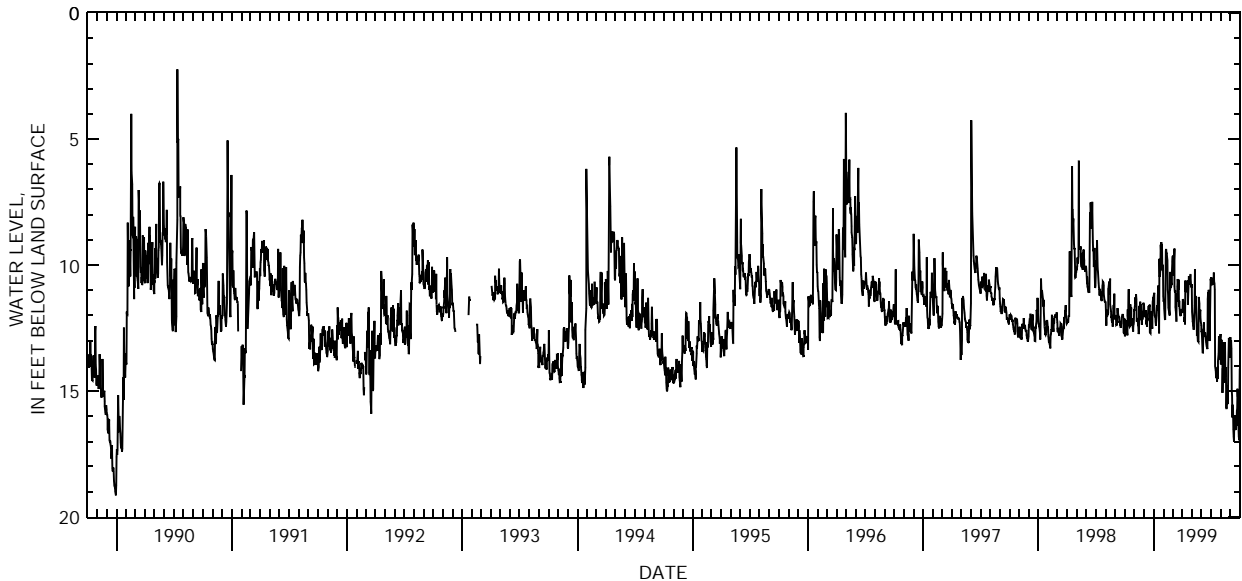
PERIOD OF RECORD.--August 1944 to current year.

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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.68	11.82	11.60	11.22	11.45	9.65	11.88	10.75	12.66	10.63	13.69	12.87
2	12.83	11.66	11.93	11.10	11.39	9.62	11.80	11.85	12.64	10.48	13.94	13.10
3	12.70	11.54	11.89	11.70	11.73	9.89	11.35	11.86	12.82	10.64	12.96	12.99
4	12.66	11.28	12.04	12.00	11.91	9.79	11.39	12.22	13.17	10.62	13.48	13.32
5	12.45	11.57	12.07	12.07	12.14	10.42	11.60	12.33	13.49	10.54	13.93	14.98
6	12.67	11.16	11.79	12.03	12.18	10.03	11.65	12.39	13.47	10.76	13.71	15.18
7	12.19	11.35	11.89	12.26	10.37	9.34	11.84	12.56	12.83	10.74	15.07	16.05
8	12.57	12.24	12.36	12.40	9.43	10.84	12.25	12.49	12.83	10.55	14.10	15.54
9	12.79	12.20	12.18	12.23	9.36	11.05	12.07	12.29	12.28	10.72	14.08	15.69
10	11.76	12.24	12.45	12.01	9.52	11.04	12.35	11.60	12.69	10.29	14.37	16.52
11	12.00	12.14	12.29	11.68	9.54	11.66	10.62	10.17	12.82	10.67	13.07	16.81
12	12.24	12.38	12.12	11.61	9.71	11.78	11.08	11.48	12.78	10.72	14.68	17.00
13	10.96	12.40	12.19	11.81	9.80	12.14	11.04	11.58	12.68	10.97	14.46	16.18
14	12.34	12.73	11.99	11.17	10.97	12.24	11.03	11.22	12.83	13.27	14.16	16.01
15	12.29	12.67	11.63	11.11	11.15	11.12	11.04	11.42	12.95	14.01	13.07	16.18
16	12.38	11.62	11.94	10.80	11.68	11.44	10.93	12.26	13.07	14.19	14.43	16.33
17	12.43	12.19	11.62	11.77	11.77	10.86	10.99	12.64	13.15	14.46	14.06	16.42
18	12.38	11.84	11.62	12.72	11.76	10.55	10.62	12.80	13.26	14.48	14.43	16.55
19	11.56	11.45	11.57	9.75	11.90	10.81	11.57	12.68	13.28	14.19	15.68	16.22
20	11.85	11.72	12.67	10.47	12.00	10.98	11.16	12.78	13.33	14.56	15.69	16.38
21	11.69	11.57	12.72	10.36	10.27	10.58	10.83	13.01	11.35	14.64	14.97	15.77
22	12.22	11.88	12.46	10.18	11.01	11.66	10.44	13.06	11.09	14.04	14.79	15.70
23	12.26	11.99	11.83	9.20	10.85	11.41	10.56	12.84	11.86	14.50	14.89	14.90
24	12.11	12.37	12.17	9.48	10.62	11.72	10.77	11.26	10.98	13.82	15.52	15.23
25	12.38	12.01	12.38	9.09	10.89	11.91	10.66	11.53	12.38	13.52	14.07	15.19
26	12.39	12.17	12.38	9.45	10.76	11.92	10.46	11.86	12.11	12.82	13.61	16.06
27	12.63	11.82	12.52	9.17	10.78	12.02	10.36	11.90	13.01	13.75	12.88	16.80
28	12.51	12.06	12.02	10.07	10.27	11.88	10.64	11.77	12.29	13.08	13.01	16.95
29	12.34	11.50	11.45	10.22	---	11.89	10.80	12.05	11.57	13.09	12.97	16.62
30	12.29	11.58	11.26	9.99	---	11.80	10.88	12.22	10.54	13.11	13.69	14.11
31	11.75	---	11.58	11.24	---	11.79	---	12.39	---	12.74	12.91	---
MAX	12.83	12.73	12.72	12.72	12.18	12.24	12.35	13.06	13.49	14.64	15.69	17.00

CAL YR 1998 LOW 13.30
WTR YR 1999 LOW 17.00



GROUND-WATER RECORDS
Greene County

394425083551100. LOCAL NUMBER, GR-10

LOCATION.--Latitude 39°44'25", longitude 83°55'11", Hydrologic Unit 05090202, in well field along Massies Creek north of Xenia, Ohio.

Owner: Xenia Water Department.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in., depth 100 ft, cased.

INSTRUMENTATION.--Digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 835 ft above sea level, from topographic map.

Measuring point: Floor of instrument shelter at land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

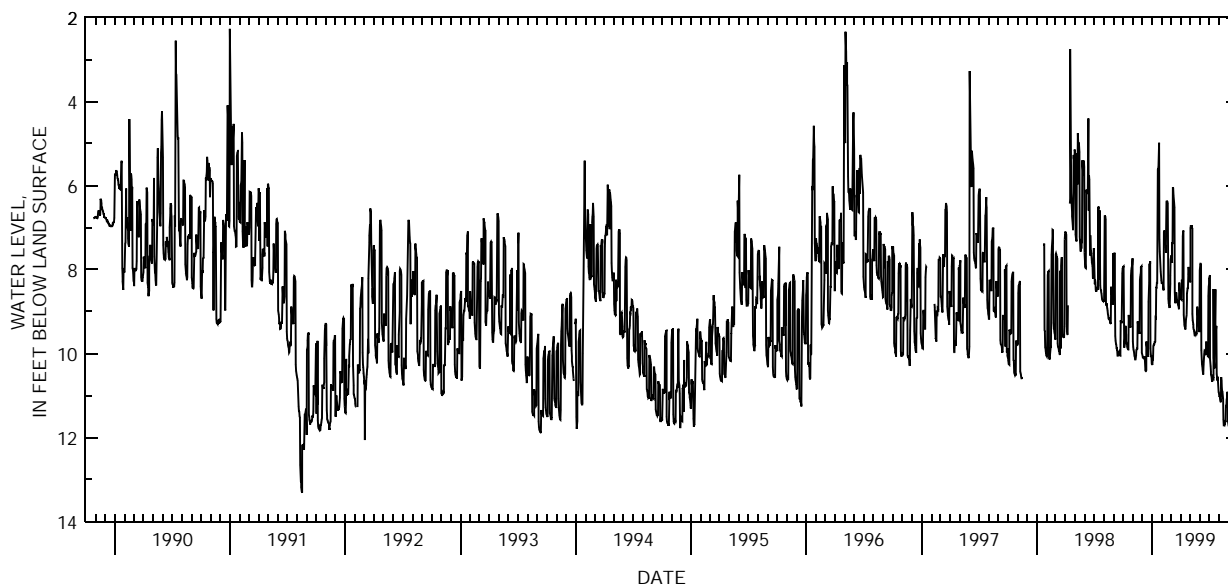
PERIOD OF RECORD.--March 1976 to current year.

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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.94	9.71	10.04	10.25	8.32	7.75	8.60	8.27	8.02	8.21	10.94	11.73
2	7.93	9.83	10.07	10.27	8.33	7.66	8.69	8.30	7.94	8.15	11.01	11.80
3	7.92	9.90	10.09	10.14	8.33	7.71	8.71	7.01	7.86	8.15	11.01	11.86
4	9.83	9.93	10.10	10.14	8.35	7.77	8.72	6.96	7.86	10.12	11.04	11.88
5	9.86	9.98	10.12	9.82	8.44	7.83	8.24	6.96	7.90	10.30	11.10	11.89
6	9.78	10.06	10.12	9.79	8.49	7.37	8.28	6.97	9.92	10.43	11.14	11.89
7	9.56	10.07	10.12	9.79	7.26	7.37	8.33	7.00	10.08	10.50	11.16	11.88
8	9.59	10.14	10.08	9.78	7.11	6.04	7.20	7.02	10.25	10.55	10.56	11.88
9	9.34	10.14	10.07	9.73	7.07	6.06	7.10	9.06	10.30	10.63	10.65	11.84
10	9.55	10.10	10.38	9.73	7.28	6.23	7.07	9.20	10.38	10.64	10.82	11.84
11	9.70	10.04	10.40	9.72	7.37	6.33	9.08	9.31	10.45	10.64	10.89	11.84
12	9.75	9.91	10.41	9.14	7.48	6.41	9.19	9.37	10.50	10.59	10.91	11.85
13	9.79	9.90	10.39	9.15	7.57	6.52	9.31	9.43	10.27	10.56	10.99	11.50
14	9.84	9.88	9.71	8.43	7.60	8.54	9.36	9.46	10.13	10.58	11.08	11.56
15	9.86	9.88	9.79	8.43	6.39	8.75	9.37	9.50	10.01	8.46	11.57	11.64
16	9.89	9.23	9.89	8.32	6.36	8.80	9.42	9.56	9.92	10.11	11.71	11.70
17	9.90	9.31	9.91	8.32	6.37	8.77	9.34	9.55	9.93	10.34	11.71	11.75
18	9.90	9.35	10.00	6.76	6.38	8.56	9.18	9.54	10.00	10.35	11.67	11.82
19	9.08	9.38	10.07	5.62	6.42	8.56	9.18	9.55	10.02	9.88	11.68	12.35
20	9.20	9.45	10.08	5.60	6.48	8.65	9.08	9.51	10.03	8.47	11.65	12.39
21	9.23	9.49	8.77	5.55	8.52	8.73	8.73	9.52	9.71	9.37	11.61	12.39
22	9.27	9.53	8.30	5.28	8.70	8.74	8.57	9.53	9.80	9.50	11.61	12.43
23	9.36	8.25	7.88	4.98	8.80	8.77	8.45	9.48	9.83	9.34	11.22	12.40
24	9.36	8.17	7.87	7.28	8.86	8.84	8.42	8.88	9.96	9.65	11.28	12.42
25	9.36	8.12	7.87	7.57	8.89	8.85	8.46	8.96	9.95	10.48	11.10	12.43
26	8.15	8.05	7.80	7.74	8.91	8.88	7.94	9.07	10.06	10.61	11.05	12.45
27	8.03	7.94	9.87	7.92	8.34	8.94	8.04	9.12	10.07	10.64	10.91	12.39
28	7.96	7.91	10.01	8.05	8.14	8.31	8.12	9.22	8.63	10.55	10.97	12.34
29	7.92	9.87	10.06	8.15	---	8.47	8.16	9.31	8.40	10.66	11.60	12.28
30	7.88	9.98	10.06	8.25	---	8.52	8.24	9.47	8.34	10.77	11.65	11.86
31	7.73	---	10.24	8.32	---	8.55	---	9.47	---	10.92	11.70	---
MAX	9.90	10.14	10.41	10.27	8.91	8.94	9.42	9.56	10.50	10.92	11.71	12.45

CAL YR 1998 LOW 10.41
WTR YR 1999 LOW 12.45



GROUND-WATER RECORDS
Hamilton County

391039084291500. LOCAL NUMBER, H-11

LOCATION.--Latitude 39°10'39", longitude 84°29'15", Hydrologic Unit 05090203, 5.6 mi north of Riverfront Stadium in Cincinnati, Ohio.

Owner: Procter and Gamble Company.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled test artesian well, diameter 6 in., depth 148 ft, cased.

INSTRUMENTATION.--Biyearly measurement with chalked tape by Ohio Department of Natural Resources personnel.

DATUM.--Elevation of land-surface datum is 539 ft above sea level, from topographic map.

Measuring point: Floor of instrument shelter 2.23 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, 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, 45.24 ft below land-surface datum, Apr. 19, 1999.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM
INSTANTANEOUS OBSERVATION

DATE	WATER LEVEL
Oct. 22, 1998	46.24
Apr. 19, 1999	45.24

GROUND-WATER RECORDS Hamilton County

391101084172100. LOCAL NUMBER, H-3

LOCATION.--Latitude 39°11'01", longitude 84°17'21", Hydrologic Unit 05090202, southeast of Miami, Ohio.
 Owner: Indian Hills Water Department.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled test water table well, diameter 4 in., depth 60 ft, cased.

INSTRUMENTATION.--Digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 532.22 ft above sea level.

Measuring point: Floor of instrument shelter 3.00 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

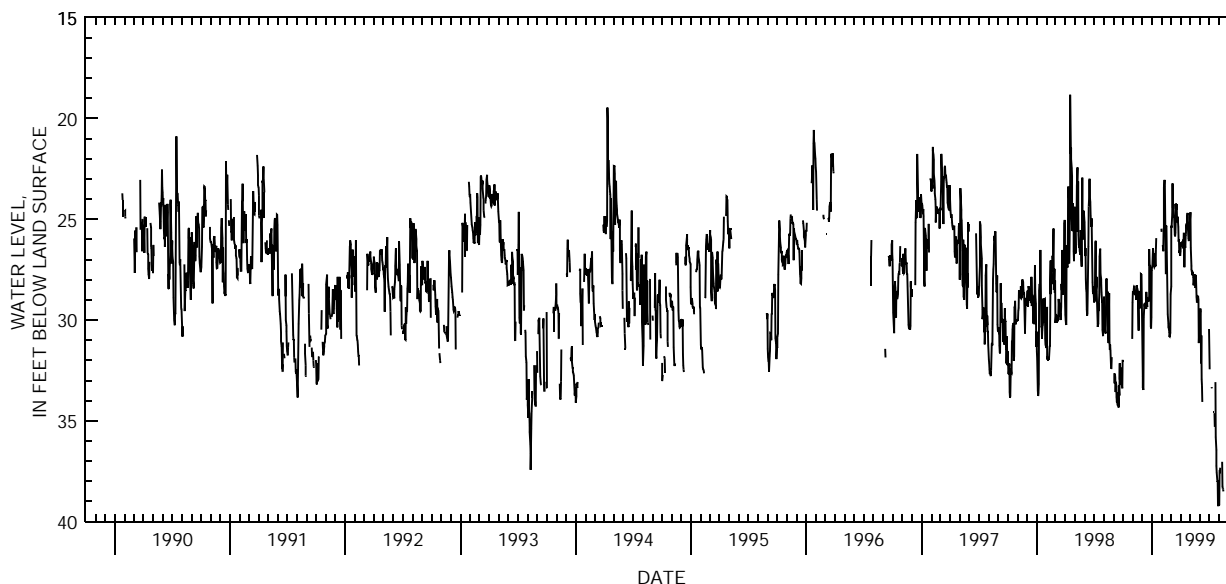
PERIOD OF RECORD.--August 1952 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 39.20 ft below land-surface datum, July 29-31, 1999; minimum daily low, 15.60 ft below land-surface datum, Feb. 28, 1962.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	28.63	32.06	27.35	---	28.72	26.60	25.17	29.66	30.45	39.14	---
2	---	28.62	32.79	27.32	---	28.34	26.31	24.66	29.67	32.45	39.14	---
3	---	28.64	33.34	26.84	26.30	25.31	26.23	25.44	29.43	---	37.45	---
4	---	28.44	33.47	26.44	26.35	25.41	26.13	26.42	29.56	---	37.49	---
5	---	28.33	31.01	26.72	26.59	24.74	26.33	27.31	32.15	---	37.32	---
6	---	28.35	29.88	27.19	25.50	24.67	26.12	27.49	30.76	---	---	---
7	---	28.66	29.21	27.32	25.44	23.23	26.10	27.57	32.94	---	---	---
8	---	28.74	29.20	27.36	23.43	24.41	26.18	27.59	33.28	33.31	---	---
9	---	28.60	29.24	27.32	23.06	24.49	26.33	27.78	34.07	33.39	---	---
10	---	28.80	29.23	26.70	23.36	24.25	26.45	27.63	---	---	---	---
11	---	28.74	29.23	27.25	23.47	24.78	25.71	27.90	---	---	37.04	---
12	---	29.00	29.25	27.34	27.08	24.89	25.71	28.21	---	---	38.24	---
13	---	28.28	29.45	26.52	27.71	25.42	27.38	28.27	---	---	38.35	---
14	---	28.39	28.61	25.93	25.37	25.77	26.26	27.95	---	---	38.40	---
15	---	28.45	29.03	---	25.37	25.84	26.31	27.94	---	34.57	38.50	---
16	---	28.52	29.35	---	26.30	25.67	26.41	27.73	---	34.57	---	---
17	---	28.96	28.89	---	26.64	25.06	25.82	28.37	---	---	---	---
18	---	29.72	29.00	---	28.24	24.23	25.66	28.40	---	34.63	---	---
19	---	30.53	29.04	---	29.40	24.53	25.35	28.23	---	35.30	---	---
20	---	28.80	29.05	---	29.71	24.26	25.21	27.77	---	---	---	---
21	---	28.55	29.05	---	30.18	24.98	25.45	28.40	---	33.08	---	---
22	---	29.44	28.83	---	30.37	25.14	24.87	28.86	---	35.81	---	---
23	---	28.94	26.48	---	30.38	24.88	24.69	29.10	---	36.45	---	---
24	---	28.89	27.28	---	30.61	25.13	24.89	29.10	---	37.25	---	---
25	---	29.00	27.34	---	30.82	25.39	25.48	28.83	---	37.57	---	---
26	---	29.00	27.35	---	30.83	26.11	25.92	28.85	---	37.98	---	---
27	---	27.72	27.80	---	30.64	25.99	26.09	28.85	---	37.99	---	---
28	---	27.74	30.30	---	29.99	26.67	25.86	28.99	---	37.99	---	---
29	---	28.67	30.42	---	---	26.56	25.90	31.15	---	39.20	---	---
30	30.93	28.79	29.86	25.47	---	26.73	26.07	30.83	---	39.20	---	---
31	29.13	---	27.53	25.63	---	26.81	---	30.39	---	39.20	---	---
MAX	30.93	30.53	33.47	27.36	30.83	28.72	27.38	31.15	34.07	39.20	39.14	---

CAL YR 1998 LOW 34.34
 WTR YR 1999 LOW 39.20



GROUND-WATER RECORDS Hamilton County

391201084281600. LOCAL NUMBER, H-10

LOCATION.--Latitude 39°12'01", longitude 84°28'16", Hydrologic Unit 05090203, Section Road, Cincinnati, Ohio.

Owner: National Distillers.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 8 in., depth 170 ft, cased.

INSTRUMENTATION.--Digital recorder--60-minute.

DATUM.--Elevation of land-surface datum is 544.7 ft above sea level.

Measuring point: Floor of instrument shelter 8.13 ft above land-surface datum.

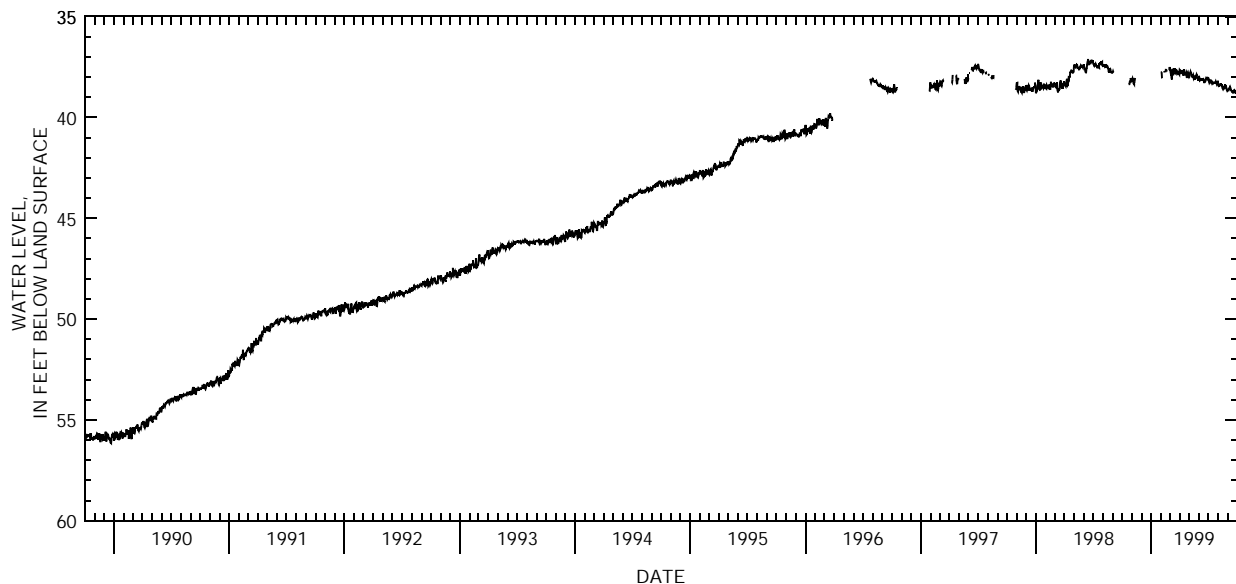
REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

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, 37.10 ft below land-surface datum, July 15, 1998.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	38.16	---	---	37.77	37.64	37.63	37.96	37.94	38.06	38.39	38.66
2	---	38.12	---	---	37.76	37.67	37.68	37.89	38.03	38.17	38.45	38.64
3	---	38.07	---	---	37.77	37.74	37.65	37.84	38.08	38.22	38.48	38.59
4	---	38.16	---	---	38.03	37.86	37.68	37.80	38.12	38.27	38.36	38.57
5	---	38.16	---	---	38.05	37.85	37.78	37.73	38.06	38.24	38.35	38.53
6	---	38.31	---	---	---	38.02	37.80	37.78	38.14	38.16	38.40	38.51
7	---	38.36	---	---	---	38.10	37.85	37.79	38.12	38.17	38.40	38.55
8	---	38.25	---	---	---	37.99	37.65	37.90	38.07	38.20	38.38	38.51
9	---	38.22	---	---	---	37.59	37.70	37.97	38.08	38.13	38.41	38.55
10	---	38.04	---	---	---	37.78	37.74	37.97	38.14	38.26	38.32	38.59
11	---	---	---	---	37.68	37.80	37.76	37.96	38.14	38.29	38.40	38.66
12	---	---	---	---	37.76	37.84	37.89	37.90	38.16	38.21	38.44	38.69
13	---	---	---	---	---	37.79	37.89	37.87	38.11	38.22	38.35	38.69
14	---	---	---	---	---	37.57	37.80	38.01	38.10	38.25	38.52	38.73
15	---	---	---	---	37.74	37.69	37.60	38.06	38.15	38.28	38.56	38.72
16	---	---	---	---	37.63	37.68	37.69	38.02	38.12	38.31	38.58	38.71
17	---	---	---	---	37.63	37.56	37.86	37.98	38.21	38.30	38.49	38.79
18	---	---	---	---	37.66	37.81	37.87	38.04	38.29	38.29	38.49	38.72
19	---	---	---	---	37.71	37.83	37.86	38.08	38.23	38.28	38.48	38.67
20	---	---	---	---	---	37.79	37.85	38.12	38.21	38.27	38.53	38.66
21	---	---	---	---	---	37.61	37.77	38.02	38.21	38.29	38.56	38.72
22	38.35	---	---	---	---	37.69	37.75	37.97	38.18	38.29	38.53	38.75
23	38.35	---	---	---	---	37.69	37.98	37.96	38.11	38.28	38.48	38.68
24	38.29	---	---	---	---	37.71	38.03	37.87	38.05	38.22	38.41	38.64
25	38.22	---	---	---	---	37.77	37.95	37.92	38.07	38.27	38.42	38.71
26	38.18	---	---	---	---	37.82	37.77	38.01	38.09	38.29	38.43	38.78
27	38.19	---	---	---	37.65	37.80	37.75	38.07	38.03	38.33	38.52	38.80
28	38.05	---	---	---	37.49	37.75	37.83	38.08	37.98	38.29	38.58	38.78
29	38.12	---	---	---	---	37.83	37.96	38.12	38.09	38.22	38.67	38.76
30	38.10	---	---	---	---	37.88	38.00	38.12	38.07	38.20	38.70	38.77
31	38.18	---	---	---	---	37.73	---	38.00	---	38.26	38.69	---
MAX	38.35	38.36	---	---	38.05	38.10	38.03	38.12	38.29	38.33	38.70	38.80
CAL YR 1998	LOW	38.80										
WTR YR 1999	LOW	38.80										



**GROUND-WATER RECORDS
Hamilton County**

391214084470100. LOCAL NUMBER, H-1

LOCATION.--Latitude 39°12'14", longitude 84°47'01", Hydrologic Unit 05080003, Kilby Road 4 mi southeast of Harrison, Ohio.

Owner: Robert Weber.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled test water-table well, diameter 6 in., depth 124 ft, cased.

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

DATUM.--Elevation of land-surface datum is 500 ft above sea level, from topographic map.

Measuring point: Floor of instrument shelter 2.70 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

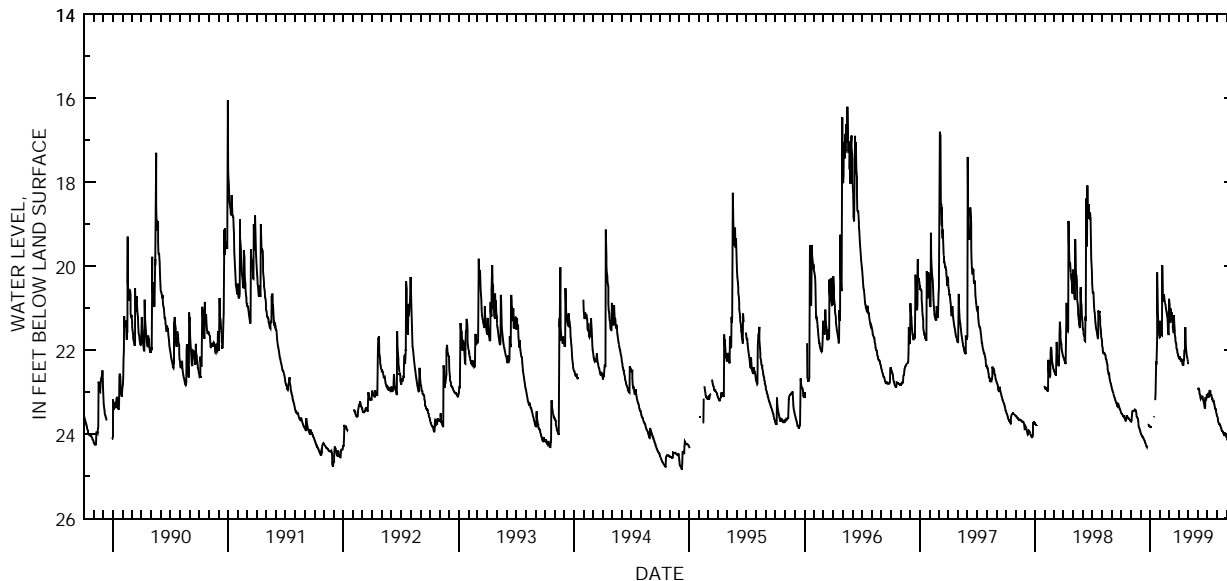
PERIOD OF RECORD.--February 1948 to current year.

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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.50	23.70	23.95	23.84	21.69	20.77	22.17	22.33	22.95	23.11	23.57	24.10
2	23.52	23.70	23.98	23.84	21.30	20.82	22.19	---	22.95	23.11	23.60	24.11
3	23.52	23.67	24.00	23.80	21.41	20.92	22.21	---	22.89	23.01	23.64	24.14
4	23.53	23.49	24.01	---	21.51	21.09	22.16	---	22.92	23.05	23.69	24.15
5	23.55	23.47	24.03	---	21.58	21.33	22.16	---	22.96	23.09	23.72	24.18
6	23.56	23.45	24.05	---	21.64	21.33	22.20	---	23.00	23.10	23.74	24.20
7	23.57	23.45	24.05	---	21.65	21.01	22.21	---	23.05	23.12	23.75	24.22
8	23.54	23.45	24.07	---	19.97	21.15	22.25	---	23.07	22.94	23.75	24.25
9	23.57	23.45	24.08	---	20.55	21.24	22.25	---	23.12	23.01	23.77	24.25
10	23.59	23.44	24.09	---	20.83	21.28	22.20	---	23.15	22.96	23.78	24.28
11	23.61	23.42	24.11	---	20.83	21.10	22.25	---	23.12	23.05	23.80	24.30
12	23.63	23.41	24.13	23.59	20.82	21.27	22.28	---	23.11	23.08	23.82	24.31
13	23.65	23.41	24.14	23.57	20.67	21.30	22.32	---	23.12	23.05	23.84	24.33
14	23.67	23.42	24.15	---	20.71	21.46	22.35	---	23.12	23.08	23.88	24.35
15	23.69	23.43	24.19	---	20.80	21.57	22.35	---	23.08	23.12	23.88	24.38
16	23.69	23.43	24.21	23.19	20.85	21.57	22.35	---	23.12	23.16	23.91	24.41
17	23.60	23.45	24.23	23.19	20.88	21.16	22.25	---	23.15	23.16	23.92	24.43
18	23.55	23.50	24.25	23.03	20.91	21.41	22.23	---	23.19	23.21	23.94	24.44
19	23.57	23.58	24.27	22.27	20.97	21.53	22.00	---	23.21	23.21	23.95	24.46
20	23.58	23.59	24.29	22.35	21.02	21.62	21.99	---	23.24	23.23	23.96	24.49
21	23.59	23.61	24.31	22.30	21.08	21.70	22.00	---	23.29	23.22	23.98	24.49
22	23.60	23.62	24.27	21.70	21.10	21.76	21.45	---	23.33	23.26	23.99	24.50
23	23.61	23.64	---	20.15	21.16	21.81	21.76	---	23.37	23.30	24.03	24.53
24	23.62	23.68	23.76	20.73	21.20	21.86	21.93	---	23.37	23.34	24.04	24.55
25	23.63	23.80	23.77	21.13	21.32	21.92	22.02	---	23.12	23.37	23.97	24.57
26	23.64	23.83	23.78	21.27	21.57	21.96	22.09	---	23.17	23.41	23.97	24.58
27	23.65	23.85	23.79	21.38	21.62	22.00	22.14	---	23.17	23.39	23.99	24.60
28	23.65	23.87	23.80	21.48	21.62	22.04	22.18	---	23.14	23.45	24.00	24.61
29	23.66	23.90	23.80	21.58	---	22.08	22.21	---	23.07	23.48	24.03	24.62
30	23.68	23.91	23.81	21.65	---	22.12	22.26	---	23.07	23.52	24.05	24.62
31	23.69	---	23.82	21.70	---	22.15	---	---	23.57	24.08	---	---
MAX	23.69	23.91	24.31	23.84	21.69	22.15	22.35	22.33	23.37	23.57	24.08	24.62

CAL YR 1998 LOW 24.31
WTR YR 1999 LOW 24.62



GROUND-WATER RECORDS
Hamilton County

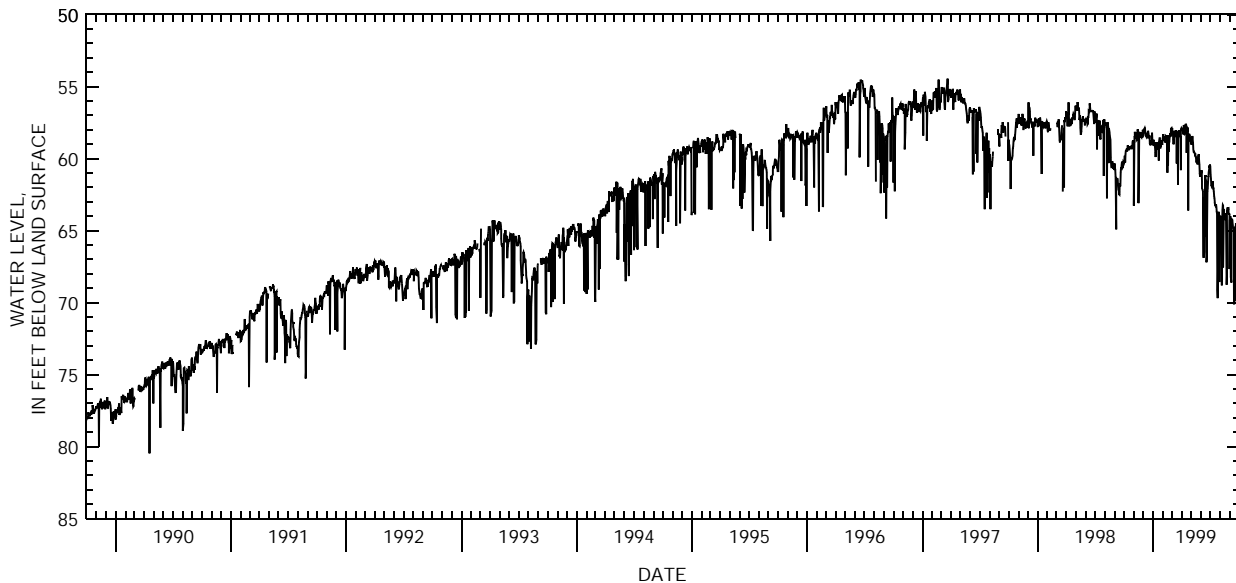
391341084275300. LOCAL NUMBER, H-8

LOCATION.--Latitude 39°13'41", longitude 84°27'53", Hydrologic Unit 05090203, Vine and Water Streets, Wyoming, Ohio.
 Owner.--Wyoming Water Department.
 AQUIFER.--Sand and gravel of Pleistocene Age.
 WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 8 in., depth 194 ft, cased.
 INSTRUMENTATION.--Electronic data logger--60-minute log interval.
 DATUM.--Elevation of land-surface datum is 576.2 ft above sea level.
 Measuring point: Top of platform 3.30 ft above land-surface datum.
 REMARKS.--Station operated by Ohio Department of Natural Resources, 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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60.33	59.16	58.43	59.06	58.61	57.86	57.90	58.77	60.96	60.39	64.32	67.67
2	60.27	63.27	58.20	58.70	58.29	57.98	57.93	58.97	61.26	60.53	64.07	64.27
3	59.87	58.44	57.95	58.73	58.34	57.87	57.87	58.97	61.05	61.11	64.02	63.99
4	59.78	58.49	58.02	59.06	58.62	58.24	58.05	58.86	60.78	61.38	64.07	65.02
5	60.26	58.13	57.90	59.09	58.76	58.17	58.05	58.61	61.58	61.83	64.26	68.19
6	59.70	58.31	57.84	58.85	58.46	58.70	57.95	58.43	62.09	61.88	64.39	68.60
7	59.42	58.50	57.96	59.14	58.68	58.99	58.31	58.67	62.16	61.79	68.79	64.59
8	59.37	58.43	58.22	59.13	58.80	58.82	58.07	58.89	62.25	61.88	64.43	64.22
9	59.42	58.61	58.38	59.89	58.86	58.05	57.66	59.39	62.31	61.88	63.56	64.22
10	59.39	58.16	58.37	59.54	58.74	58.32	57.79	59.51	66.88	61.56	63.23	64.27
11	59.48	58.67	58.44	59.60	58.43	58.38	58.13	59.51	62.66	62.06	63.27	64.55
12	59.37	58.59	58.38	58.85	58.44	58.29	58.24	59.57	66.75	62.06	67.55	64.74
13	59.06	58.38	58.46	58.97	58.88	58.23	58.17	59.58	66.47	62.28	63.53	64.83
14	59.27	57.96	58.53	59.09	58.83	58.04	58.07	59.70	65.40	62.60	63.56	64.80
15	59.34	58.41	58.50	58.99	59.27	58.22	57.57	59.61	61.18	62.74	64.02	70.07
16	59.34	63.08	58.07	59.39	60.98	58.04	57.68	59.84	61.20	63.02	64.07	70.11
17	59.24	63.02	58.11	59.14	58.43	60.33	58.14	59.88	61.31	63.24	64.13	69.38
18	59.24	58.31	58.28	58.89	60.47	58.34	59.58	60.14	61.50	63.29	64.25	64.89
19	59.29	58.13	58.52	60.14	58.37	58.41	58.17	60.26	61.64	63.26	64.16	69.88
20	59.24	58.32	58.56	58.89	59.51	58.26	58.08	60.12	67.19	63.14	63.78	69.47
21	59.13	58.52	58.37	58.65	58.82	61.79	57.87	60.02	66.83	63.35	64.11	64.50
22	59.27	58.44	58.97	58.59	58.83	58.29	57.90	60.38	62.25	63.66	68.75	64.52
23	59.27	58.43	58.88	58.53	58.49	58.11	63.59	59.99	62.25	63.79	68.14	64.52
24	59.12	58.49	59.07	59.28	58.39	58.10	58.56	59.81	62.04	69.11	63.60	64.71
25	59.13	58.16	58.89	59.16	58.22	58.44	58.59	59.76	61.24	69.68	63.42	64.89
26	59.33	58.37	58.71	59.14	58.47	58.31	58.26	59.70	61.26	66.52	63.38	69.05
27	59.21	58.41	58.82	58.74	57.96	58.24	58.35	60.14	60.93	64.53	63.54	65.28
28	58.86	58.31	58.77	58.91	57.89	58.37	58.39	60.43	60.62	63.68	63.49	64.92
29	58.86	58.52	58.18	58.86	---	58.54	58.56	61.01	60.45	66.71	63.77	64.07
30	58.73	57.99	58.73	59.04	---	60.79	58.71	61.24	60.63	68.43	63.81	63.64
31	58.97	---	58.91	58.98	---	57.99	---	60.96	---	68.55	63.84	---
MAX	60.33	63.27	59.07	60.14	60.98	61.79	63.59	61.24	67.19	69.68	68.79	70.11

CAL YR 1998 LOW 64.91
 WTR YR 1999 LOW 70.11



GROUND-WATER RECORDS
Hamilton County

391442084262900. LOCAL NUMBER, H-7

LOCATION.--Latitude 39°14'42", longitude 84°26'29", Hydrologic Unit 05090203, at Evendale, Ohio.
Owner: General Electric Corp.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled test artesian well, diameter 6 in., depth 180 ft, cased.

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

DATUM.--Elevation of land-surface datum is 555.40 ft above sea level.

Measuring point: Floor of instrument shelter 7.78 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

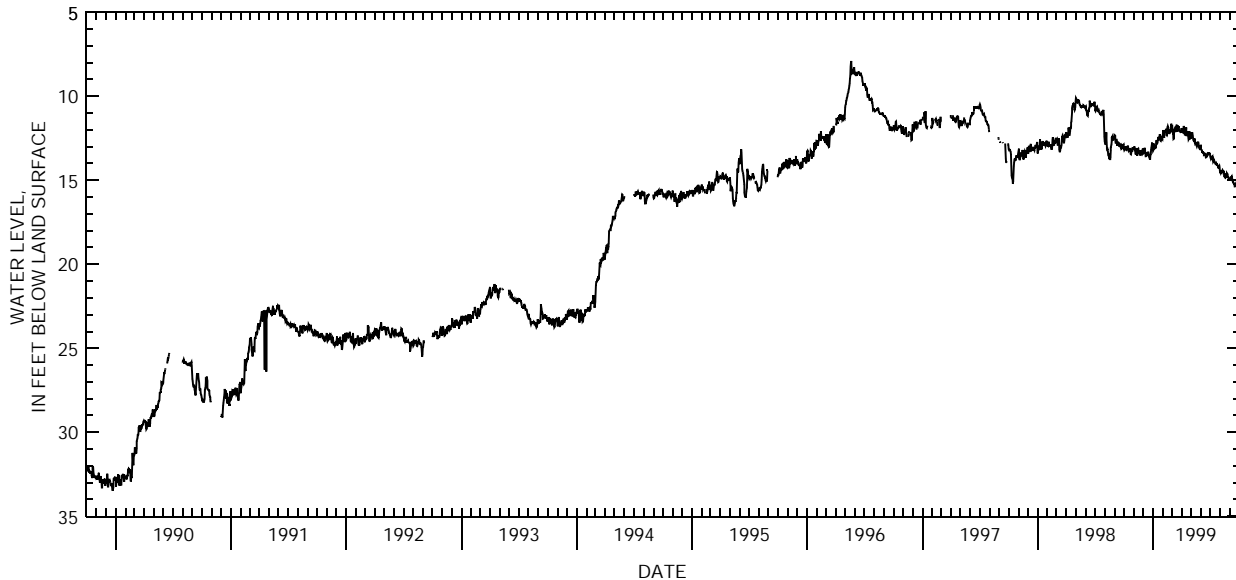
PERIOD OF RECORD.--April 1941 to current year.

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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.14	13.15	13.42	13.23	12.38	11.79	11.89	12.48	12.90	13.43	14.43	14.92
2	13.20	13.10	13.40	13.19	12.04	11.85	11.96	12.39	12.95	13.59	14.56	14.91
3	13.15	12.99	13.10	12.81	12.01	11.82	11.95	12.31	13.15	13.67	14.59	14.87
4	13.16	13.16	13.16	13.10	12.32	12.15	11.95	12.23	13.22	13.73	14.49	14.85
5	13.13	13.18	13.14	13.16	12.47	12.17	12.08	12.14	13.23	13.70	14.41	14.83
6	13.05	13.34	13.07	12.98	12.21	12.27	12.04	12.21	13.33	13.61	14.50	14.77
7	12.99	13.46	13.21	13.11	12.08	12.55	12.20	12.31	13.34	13.59	14.52	14.82
8	13.18	13.42	13.36	13.07	12.07	12.53	12.04	12.47	13.28	13.63	14.47	14.79
9	13.19	13.27	13.57	12.98	12.05	12.04	11.77	12.62	13.30	13.59	14.53	14.86
10	13.10	13.08	13.57	13.00	12.14	11.97	12.02	12.66	13.38	13.77	14.44	14.95
11	13.11	13.42	13.56	12.98	12.01	12.05	12.01	12.64	13.45	13.88	14.47	15.06
12	13.10	13.54	13.51	12.60	11.94	12.10	12.28	12.60	13.48	13.83	14.53	15.13
13	12.98	13.44	13.33	12.81	12.32	12.09	12.29	12.51	13.46	13.77	14.44	15.11
14	12.99	13.16	13.49	12.81	12.34	11.88	12.16	12.76	13.37	13.80	14.66	15.19
15	13.17	13.12	13.50	12.76	12.15	11.83	11.97	12.85	13.46	13.88	14.76	15.22
16	13.23	13.11	13.36	12.58	11.86	11.84	11.86	12.83	13.45	13.94	14.80	15.22
17	13.19	13.35	13.30	12.63	11.78	11.69	12.21	12.77	13.51	14.00	14.72	15.35
18	13.08	13.44	13.39	12.42	11.83	11.96	12.32	12.80	13.64	14.03	14.65	15.32
19	13.17	13.24	13.49	12.61	11.88	12.08	12.32	12.93	13.61	14.02	14.62	15.24
20	13.21	13.32	13.58	12.55	12.06	12.07	12.19	12.99	13.57	13.98	14.75	15.19
21	13.19	13.52	13.53	12.44	12.17	11.75	12.16	12.92	13.54	14.03	14.81	15.28
22	13.44	13.52	13.72	12.29	12.25	11.82	12.09	12.79	13.51	14.07	14.79	15.33
23	13.46	13.35	13.72	12.26	12.16	11.85	12.35	12.82	13.46	14.09	14.74	15.27
24	13.37	13.40	13.48	12.52	12.03	11.84	12.55	12.70	13.38	14.07	14.59	15.17
25	13.27	13.33	13.45	12.65	12.02	12.01	12.51	12.80	13.41	14.14	14.64	15.30
26	13.21	13.22	13.18	12.67	12.12	12.09	12.29	12.98	13.45	14.18	14.68	15.42
27	13.29	13.31	13.04	12.40	12.01	12.10	12.09	13.08	13.42	14.26	14.77	15.45
28	13.15	13.31	12.93	12.35	11.63	12.04	12.23	13.11	13.34	14.26	14.84	15.45
29	13.08	13.21	12.76	12.54	---	12.11	12.42	13.15	13.38	14.17	14.88	15.39
30	13.05	13.12	12.98	12.59	---	12.19	12.51	13.15	13.44	14.13	14.95	15.45
31	13.15	---	13.06	12.54	---	12.09	---	13.06	---	14.24	14.94	---
MAX	13.46	13.54	13.72	13.23	12.47	12.55	12.55	13.15	13.64	14.26	14.95	15.45

CAL YR 1998 LOW 13.78
WTR YR 1999 LOW 15.45



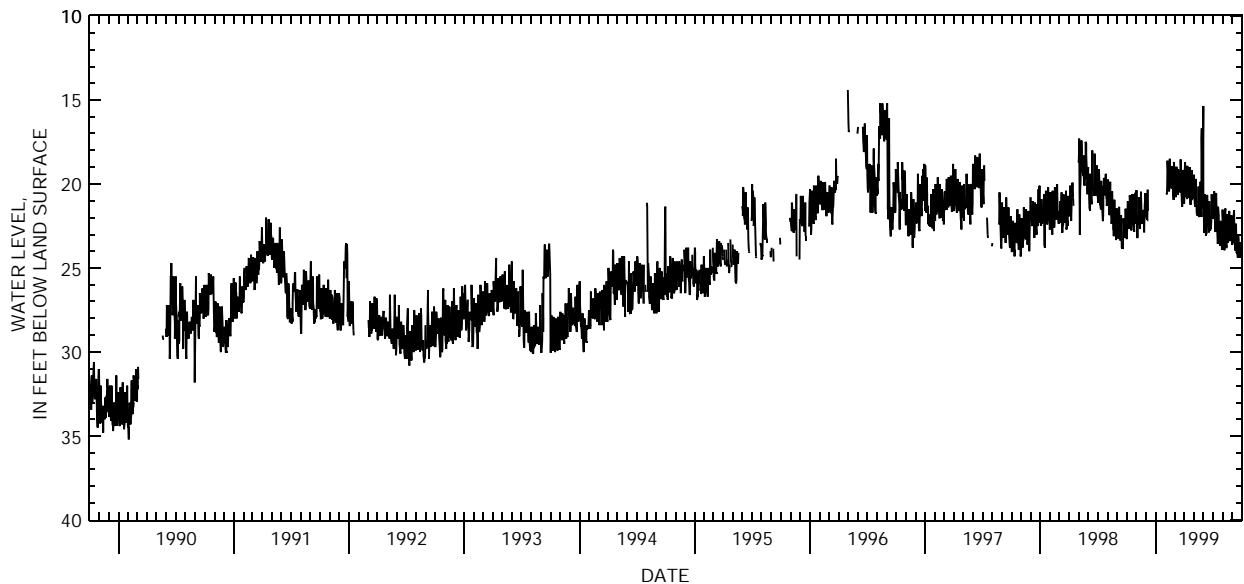
GROUND-WATER RECORDS
Hamilton County

391608084254400. LOCAL NUMBER, H-6

LOCATION.--Latitude 39°16'08", longitude 84°25'44", Hydrologic Unit 05090203, Water Treatment Plant in Glendale, Ohio.
 Owner: Glendale Water Department.
 AQUIFER.--Sand and gravel of Pleistocene Age.
 WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 8 in., depth 167 ft, cased.
 INSTRUMENTATION.--Electronic data logger--60-minute log interval.
 DATUM.--Elevation of land-surface datum is 570.65 ft above sea level.
 Measuring point: Floor of instrument shelter 4.05 ft above land-surface datum.
 REMARKS.--Station operated by Ohio Department of Natural Resources, 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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.27	20.36	21.87	---	---	19.20	21.18	20.57	20.34	21.93	21.53	23.49
2	22.98	21.57	21.86	---	---	19.81	20.66	19.45	21.38	21.53	22.02	23.24
3	22.43	22.59	22.05	---	---	20.04	19.10	20.25	22.44	21.57	22.97	23.51
4	21.02	23.22	22.10	---	20.52	20.25	18.70	21.11	22.91	21.18	23.01	23.31
5	21.51	22.19	22.11	---	20.60	20.78	20.06	21.35	22.22	20.45	23.49	21.78
6	22.19	22.37	20.34	---	20.13	20.19	20.72	21.22	20.60	21.54	23.94	21.56
7	22.38	22.37	21.60	---	18.61	19.10	20.73	21.32	21.39	21.92	23.33	22.92
8	22.65	20.79	---	---	19.06	18.97	20.58	21.02	22.77	22.31	21.72	23.09
9	22.41	21.60	---	---	19.49	19.52	20.46	19.70	23.06	22.86	21.44	23.55
10	22.26	22.28	---	---	19.90	19.83	20.90	21.63	22.92	22.10	22.86	23.97
11	20.66	22.68	---	---	20.07	20.22	18.92	21.81	22.91	20.55	22.77	23.64
12	21.66	22.61	---	---	20.45	20.63	19.97	21.86	22.26	21.38	23.19	22.35
13	22.22	22.05	---	---	20.16	20.39	20.78	21.42	20.64	22.10	23.82	23.10
14	22.58	21.69	---	---	18.50	19.13	20.79	21.48	21.15	21.95	23.60	24.11
15	22.70	20.46	---	---	18.90	19.22	20.57	21.84	21.99	22.62	21.78	24.00
16	22.77	21.20	---	---	19.61	20.20	20.36	20.16	21.72	23.57	22.77	24.08
17	22.23	21.78	---	---	19.65	20.39	20.34	21.00	21.95	23.25	23.49	24.33
18	20.58	22.17	---	---	19.83	20.22	19.00	21.96	22.88	21.35	23.27	24.39
19	21.39	22.37	---	---	19.83	20.49	20.09	21.74	22.74	21.84	23.04	23.07
20	22.13	22.19	---	---	20.28	20.03	20.88	21.24	21.03	23.13	23.15	23.27
21	22.10	22.35	---	---	19.19	18.53	21.24	21.54	21.81	22.95	23.09	23.91
22	22.32	21.54	---	---	18.96	19.68	20.64	21.62	22.79	23.37	21.60	24.05
23	22.55	21.60	---	---	19.65	20.33	20.96	19.86	22.70	23.66	23.04	24.11
24	22.85	22.40	---	---	20.31	20.70	20.79	20.82	22.58	23.27	23.22	24.39
25	20.63	22.88	---	---	20.66	21.12	19.15	21.96	22.59	22.19	23.19	23.75
26	21.36	22.22	---	---	20.94	21.35	19.81	17.28	22.14	23.27	23.34	23.45
27	22.34	21.15	---	---	20.78	20.57	20.72	16.68	20.60	23.51	23.39	23.69
28	21.09	20.99	---	---	18.69	19.15	20.55	21.48	21.12	22.70	23.12	24.22
29	20.51	20.54	---	---	---	20.04	20.75	18.08	21.81	23.03	21.86	24.03
30	21.09	20.85	---	---	---	20.78	20.73	19.62	22.08	23.90	22.74	24.02
31	21.41	---	---	---	---	20.88	---	15.36	---	23.58	23.61	---
MAX	23.27	23.22	22.11	---	20.94	21.35	21.24	21.96	23.06	23.90	23.94	24.39
CAL YR 1998	LOW	23.88										
WTR YR 1999	LOW	24.39										



GROUND-WATER RECORDS
Hamilton County

391733084392400. LOCAL NUMBER, H-2

LOCATION.--Latitude 39°17'33", longitude 84°39'24", Hydrologic Unit 05080002, East Miami River Road 1.5 mi south of Ross, Ohio.

Owner: Lee Wilhelm.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled test water table well, diameter 6 in., depth 89 ft, cased.

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

DATUM.--Elevation of land-surface datum is 534.21 ft above sea level.

Measuring point: Floor of instrument shelter 8.97 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

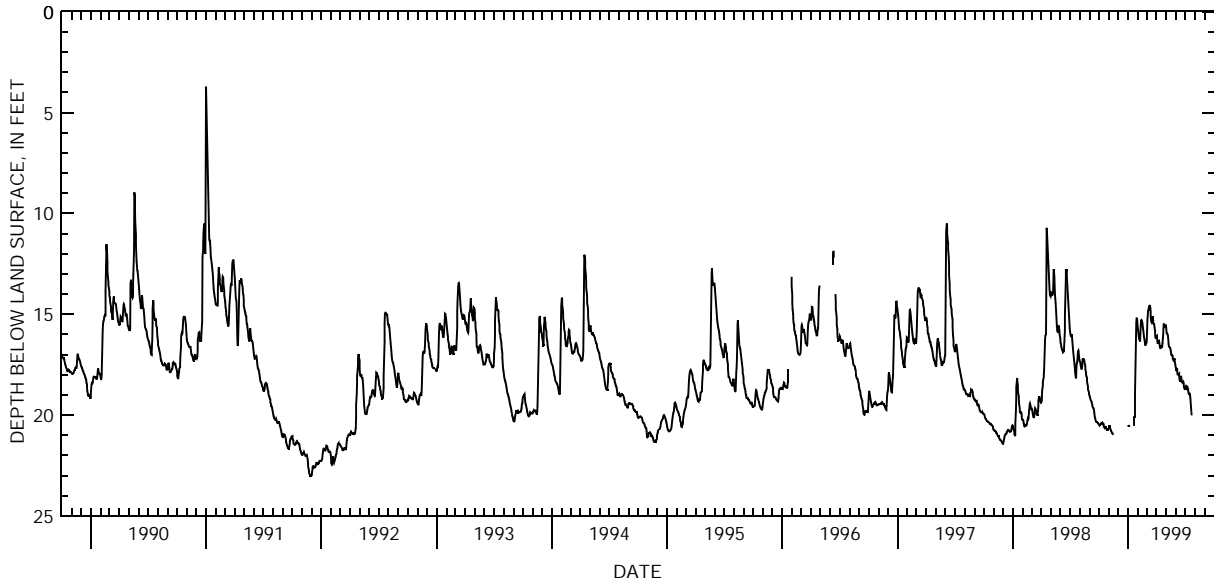
PERIOD OF RECORD.--August 1952 to current year.

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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.49	20.63	---	20.54	15.69	16.23	16.10	15.57	17.78	18.66	---	---
2	20.51	20.55	---	20.54	15.84	15.76	16.08	15.78	17.79	18.59	---	---
3	20.49	20.54	---	20.55	15.95	15.25	16.20	15.95	17.79	18.56	---	---
4	20.49	20.55	---	20.55	16.13	15.01	16.35	15.98	17.72	18.59	---	---
5	20.46	20.61	---	20.57	16.23	14.81	16.43	15.98	17.72	18.63	---	---
6	20.42	20.70	---	---	16.29	14.81	16.43	16.00	17.85	18.72	---	---
7	20.43	20.76	---	---	16.32	14.81	16.43	16.08	17.99	18.74	---	---
8	20.43	20.79	---	---	16.32	14.69	16.34	16.25	18.00	18.72	---	---
9	20.42	20.84	---	---	15.98	14.57	16.32	16.45	18.00	18.68	---	---
10	20.39	20.87	---	---	15.57	14.55	16.41	16.61	17.97	18.74	---	---
11	20.43	20.90	---	---	15.30	14.57	16.53	16.64	17.94	18.86	---	---
12	20.45	20.90	---	---	15.29	14.67	16.64	16.65	18.06	18.96	---	---
13	20.45	20.91	---	---	15.32	14.88	16.70	16.67	18.22	18.97	---	---
14	20.43	20.94	---	---	15.35	15.12	16.70	16.70	18.33	18.97	---	---
15	20.47	20.99	---	---	15.42	15.38	16.64	16.71	18.33	18.96	---	---
16	20.55	---	---	---	15.56	15.42	16.55	16.83	18.27	19.00	---	---
17	20.63	---	---	---	15.69	15.42	16.62	16.98	18.14	19.15	---	---
18	20.66	---	---	---	15.80	15.30	16.62	17.03	18.06	19.36	---	---
19	20.66	---	---	20.54	15.96	15.17	16.59	17.03	18.18	19.56	---	---
20	20.63	---	---	20.10	16.10	15.10	16.43	17.04	18.31	19.81	---	---
21	20.55	---	---	20.09	16.19	15.32	16.22	17.06	18.39	20.03	---	---
22	20.63	---	---	20.09	16.29	15.47	16.04	17.10	18.40	---	---	---
23	20.69	---	---	19.00	16.41	15.48	15.69	17.19	18.40	---	---	---
24	20.72	---	---	18.17	16.52	15.48	15.47	17.30	18.38	---	---	---
25	20.72	---	---	16.98	16.52	15.50	15.53	17.31	18.36	---	---	---
26	20.70	---	---	16.06	16.47	15.66	15.63	17.31	18.44	---	---	---
27	20.72	---	---	15.44	16.40	15.84	15.63	17.25	18.57	---	---	---
28	20.75	---	---	15.21	16.40	16.02	15.62	17.20	18.69	---	---	---
29	20.75	---	---	15.21	---	16.16	15.62	17.34	18.72	---	---	---
30	20.72	---	---	15.30	---	16.17	15.51	17.49	18.72	---	---	---
31	20.70	---	20.51	15.54	---	16.14	---	17.64	---	---	---	---
MAX	20.75	20.99	20.51	20.57	16.52	16.23	16.70	17.64	18.72	20.03	---	---

CAL YR 1998 LOW 21.02
WTR YR 1999 LOW 20.99



GROUND-WATER RECORDS
Hamilton County

391748084393800. LOCAL NUMBER, H-19

LOCATION.--Latitude 39°17'48", longitude 84°39'38", Hydrologic Unit 05080002, on left bank of Great Miami River, 1.3 mi southwest of Venice, Ohio.

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 1998 TO SEPTEMBER 1999

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)	ANC UNFLTRD CARBON- ATE IT-FLD (MG/L - CAC03) (99430)
NOV 23...	0900	746	7.5	12.5	16.2	<10	82	27	31	3.6	266	214
AUG 18...	0830	767	7.3	19.0	16.6	<10	75	28	35	3.8	242	195

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 23...	65	55	.30	8.6	451	.018	1.32	.050	.014	<1	<1
AUG 18...	67	60	.29	8.7	438	.016	1.32	.038	<.010	<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 23...	<1.0	<1	1	2.1	16	<1	<1.0	235	<10	<20	1.5
AUG 18...	<1.0	<1	3	2.7	15	<1	<1.0	257	<40	e12	1.5

e Estimated.

GROUND-WATER RECORDS
Hamilton County

391817084393300. LOCAL NUMBER, H-4

LOCATION.--Latitude 39°18'17", longitude 84°39'33", Hydrologic Unit 05080002, 0.7 mi southwest of Ross, Ohio.

Owner: Southwestern Ohio Water Company.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled test water table well, diameter 6 in., depth 100 ft, cased.

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

DATUM.--Elevation of land-surface datum is 541.57 ft above sea level. (Levels by Miami Conservancy District).

Measuring point: Floor of instrument shelter 3.00 ft above land-surface datum.

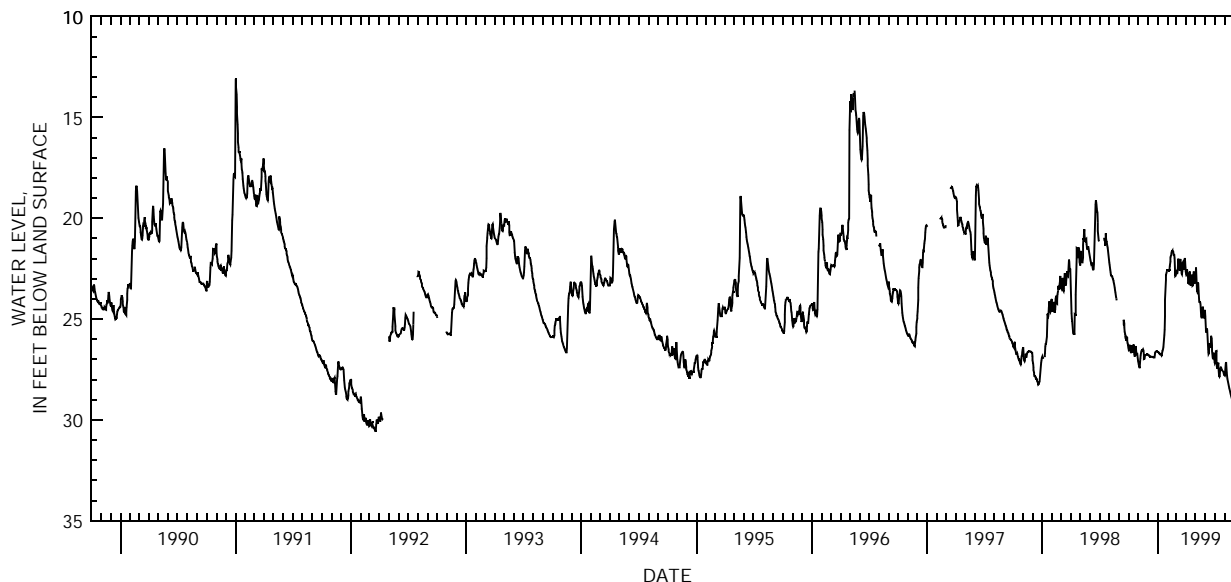
PERIOD OF RECORD.--December 1954 to current year.

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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26.46	27.16	26.75	26.63	22.59	22.64	22.76	23.09	24.87	27.13	27.80	29.31
2	26.54	27.24	26.78	26.64	22.59	22.65	22.83	22.71	25.26	27.20	27.81	29.34
3	26.52	27.33	26.79	26.65	22.58	22.61	22.82	22.46	25.55	27.13	27.63	29.37
4	26.28	27.40	26.82	26.67	22.56	22.76	22.52	22.92	25.67	26.90	27.38	29.42
5	26.37	27.40	26.82	26.68	22.56	22.68	22.55	23.25	25.63	26.60	27.20	29.46
6	26.51	27.18	26.82	26.70	22.59	22.53	22.79	23.60	25.47	26.58	27.13	29.49
7	26.61	26.95	26.83	26.73	22.59	22.13	22.97	23.64	25.55	27.05	27.42	29.54
8	26.65	26.80	26.85	26.75	22.58	22.01	23.22	23.58	25.86	27.36	27.65	29.58
9	26.70	26.70	26.87	26.73	22.37	22.25	23.25	23.19	26.21	27.47	27.81	29.61
10	26.59	26.62	26.87	26.75	22.14	22.28	23.16	23.24	26.51	27.43	27.95	29.65
11	26.31	26.58	26.88	26.76	21.96	22.41	22.76	23.61	26.72	27.23	28.04	29.70
12	26.41	26.58	26.88	26.79	21.86	22.59	22.67	23.85	26.70	27.17	28.11	29.73
13	26.59	26.53	26.88	26.81	21.81	22.52	22.64	24.15	26.45	27.40	28.20	29.75
14	26.67	26.52	26.88	26.78	21.74	22.02	23.07	24.15	26.21	27.60	28.28	29.76
15	26.62	26.50	26.88	26.68	21.65	22.32	23.30	24.17	26.30	27.83	28.35	29.76
16	26.38	26.50	26.88	26.60	21.60	22.46	23.36	24.17	26.42	27.87	28.43	29.75
17	26.26	26.57	26.90	26.55	21.62	22.50	23.31	24.26	26.38	27.81	28.50	29.78
18	26.53	26.79	26.90	26.48	21.63	22.77	22.98	24.60	26.28	27.60	28.56	29.79
19	26.73	26.97	26.91	26.38	21.68	22.80	22.80	24.86	25.97	27.47	28.62	29.72
20	26.84	26.96	26.91	26.21	21.74	22.64	22.95	24.92	25.83	27.40	28.70	29.79
21	26.84	26.87	26.91	26.00	21.78	22.19	23.16	24.93	25.95	27.40	28.77	29.83
22	26.65	26.81	26.91	25.80	21.83	22.16	23.36	24.93	26.31	27.45	28.83	29.88
23	26.46	26.78	26.81	25.53	21.84	22.32	23.34	24.78	26.58	27.50	28.89	29.91
24	26.34	26.78	26.70	24.87	21.97	22.44	23.18	24.39	26.88	27.54	28.95	29.96
25	26.61	26.78	26.65	24.06	22.53	22.52	22.77	24.48	26.99	27.56	29.00	30.00
26	26.77	26.78	26.63	23.46	22.88	22.52	22.65	24.78	26.96	27.58	29.06	30.00
27	26.76	26.78	26.61	23.07	22.86	22.22	22.89	24.84	26.73	27.60	29.08	30.03
28	26.68	26.78	26.60	22.82	22.58	21.97	23.07	24.95	26.68	27.63	29.13	30.09
29	26.82	26.76	26.60	22.70	---	22.17	23.19	24.89	26.93	27.66	29.18	30.13
30	26.95	26.75	26.61	22.62	---	22.44	23.18	24.60	27.05	27.72	29.22	30.18
31	27.09	---	26.61	22.59	---	22.62	---	24.59	---	27.78	29.28	---
MAX	27.09	27.40	26.91	26.81	22.88	22.80	23.36	24.95	27.05	27.87	29.28	30.18

CAL YR 1998 LOW 27.40
WTR YR 1999 LOW 30.18



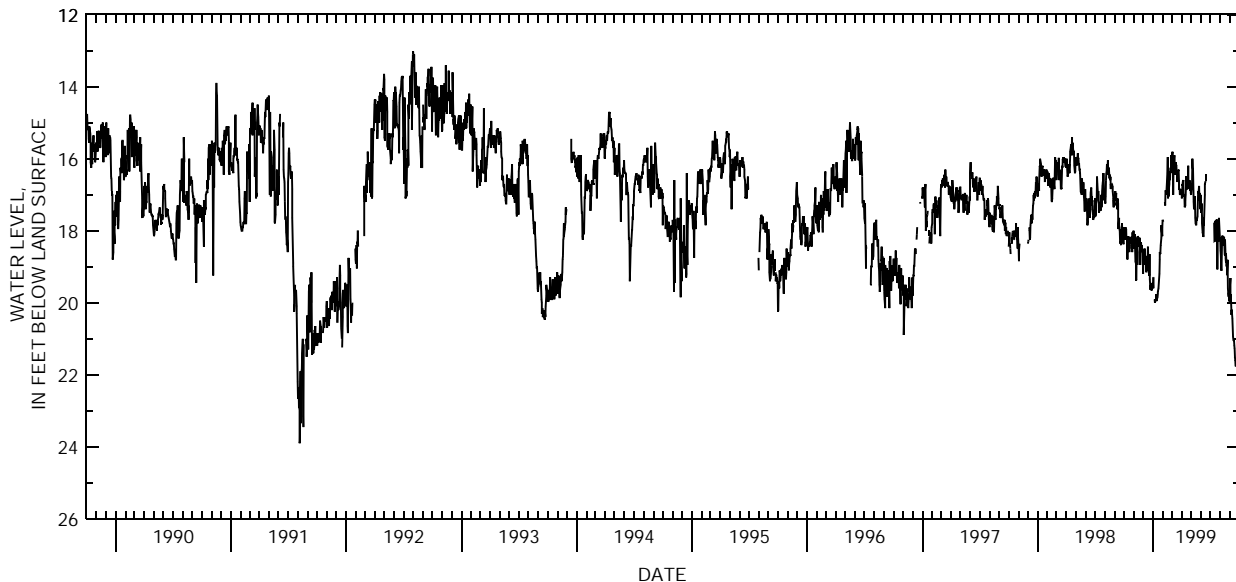
GROUND-WATER RECORDS
Hardin County

404218083503700. LOCAL NUMBER, HN-1

LOCATION.--Latitude 40°42'18", longitude 83°50'37", Hydrologic Unit 05060001, at grain elevator in Alger.
 Owner: Village of Alger.
 AQUIFER.--Limestone of Silurian Age.
 WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in., depth 40 ft, cased.
 INSTRUMENTATION.--Electronic data logger--60-minute log interval.
 DATUM.--Elevation of land-surface datum is 975 ft above sea level, from topographic map.
 Measuring point: Floor of instrument shelter 1.5 ft above land-surface datum.
 REMARKS.--Station operated by Ohio Department of Natural Resources, 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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.90	18.20	19.20	19.50	17.70	16.30	16.85	16.95	17.00	---	18.21	19.94
2	18.10	18.50	18.55	19.30	17.75	16.10	17.00	17.00	17.40	---	18.21	19.59
3	18.25	18.20	18.85	19.60	---	15.85	17.10	16.85	17.50	---	18.56	19.32
4	18.15	18.10	18.80	---	---	15.80	16.70	16.85	17.25	---	18.70	19.94
5	18.20	18.20	18.95	---	---	16.10	16.75	16.65	17.60	---	19.06	19.77
6	17.90	18.85	18.50	19.90	---	17.00	16.65	16.00	17.80	---	19.11	20.24
7	18.05	18.90	18.90	20.00	---	16.20	16.60	16.25	18.05	---	18.59	20.34
8	17.95	19.35	18.70	20.00	17.20	16.30	16.95	16.30	18.10	---	18.14	20.19
9	18.25	19.35	18.80	19.90	17.30	15.95	17.05	16.70	18.15	---	18.38	20.33
10	18.15	18.20	19.00	19.95	16.90	15.90	17.00	17.20	18.15	---	18.14	20.45
11	18.25	18.40	19.15	19.80	16.90	16.25	17.00	17.40	17.65	---	18.42	20.70
12	18.80	18.60	18.70	19.80	17.00	16.20	17.35	17.15	17.85	---	18.33	20.94
13	18.20	18.95	19.10	19.95	16.90	16.45	17.30	17.15	17.25	---	18.21	21.00
14	18.20	18.15	18.70	19.90	16.70	16.10	17.15	17.05	17.00	17.78	18.25	21.06
15	18.15	18.20	18.85	19.85	16.55	16.20	17.00	17.65	16.70	18.29	18.17	21.03
16	18.25	18.40	18.45	19.75	16.40	16.20	16.50	17.80	16.62	18.27	18.66	21.18
17	18.45	18.35	18.75	19.70	15.95	16.40	16.85	17.80	16.45	18.27	18.68	21.27
18	18.60	18.45	19.00	19.60	17.10	16.35	16.85	17.85	---	17.73	18.25	21.51
19	18.20	18.40	19.15	19.45	16.60	16.65	16.80	17.70	---	18.20	18.78	21.60
20	18.35	18.20	19.25	19.45	17.05	16.45	16.75	17.70	---	17.79	18.89	21.77
21	18.30	18.60	18.65	19.20	16.80	16.45	16.70	17.65	---	17.82	18.63	21.75
22	18.20	18.95	19.35	18.80	16.70	16.35	16.65	17.60	---	17.69	18.99	21.74
23	18.20	18.35	19.50	18.60	16.35	16.30	16.20	17.15	---	17.99	18.84	21.54
24	18.40	18.35	19.65	18.65	16.60	16.60	16.85	16.90	---	19.08	19.23	21.62
25	18.50	18.50	19.50	18.60	16.35	16.85	16.65	16.95	---	18.18	18.81	21.72
26	18.40	18.60	19.60	18.40	16.25	16.85	16.70	16.85	---	17.94	19.04	21.86
27	18.60	18.40	19.65	18.20	16.40	17.00	16.60	16.75	---	18.30	19.61	21.84
28	18.05	18.55	19.65	17.85	15.90	16.95	16.65	17.15	---	17.78	19.83	21.81
29	18.30	18.50	19.50	18.00	---	17.00	16.90	16.95	---	17.65	19.72	21.83
30	18.35	18.70	19.45	18.15	---	16.95	16.70	17.25	---	17.82	19.80	21.63
31	18.00	---	19.60	17.90	---	16.95	---	17.40	---	18.05	19.97	---
MAX	18.80	19.35	19.65	20.00	17.75	17.00	17.35	17.85	18.15	19.08	19.97	21.86
CAL YR 1998	LOW	19.65										
WTR YR 1999	LOW	21.86										



GROUND-WATER RECORDS
Hocking County

257

393200082235300. LOCAL NUMBER, HK-1

LOCATION.--Latitude 39°32'00", longitude 82°23'53", Hydrologic Unit 05060002, at railroad yards southeast edge of Logan, Ohio.

Owner: Chessie System.

AQUIFER.--Sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled unused water table well, diameter 6 in., depth 88 ft, cased.

INSTRUMENTATION.--Periodic measurement with chalked tape by Ohio Department of Natural Resources personnel.

DATUM.--Elevation of land-surface datum is 710 ft above sea level, from topographic map.

Measuring point: Top of gage platform 4.90 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, 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 OBSERVATION

DATE	WATER LEVEL
Oct. 16, 1998	18.60
Apr. 22, 1999	16.31

GROUND-WATER RECORDS
Knox County

402344082300700. LOCAL NUMBER, K-1

LOCATION.--Latitude 40°23'44", longitude 82°30'07", Hydrologic Unit 05040003, in city park, Mt. Vernon, Ohio.

Owner: Mt. Vernon Water Department.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled unused water table well, diameter 8 in., depth 90 ft, cased.

INSTRUMENTATION.--Digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 1,000 ft above sea level, from topographic map.

Measuring point: Floor of instrument shelter 3.50 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

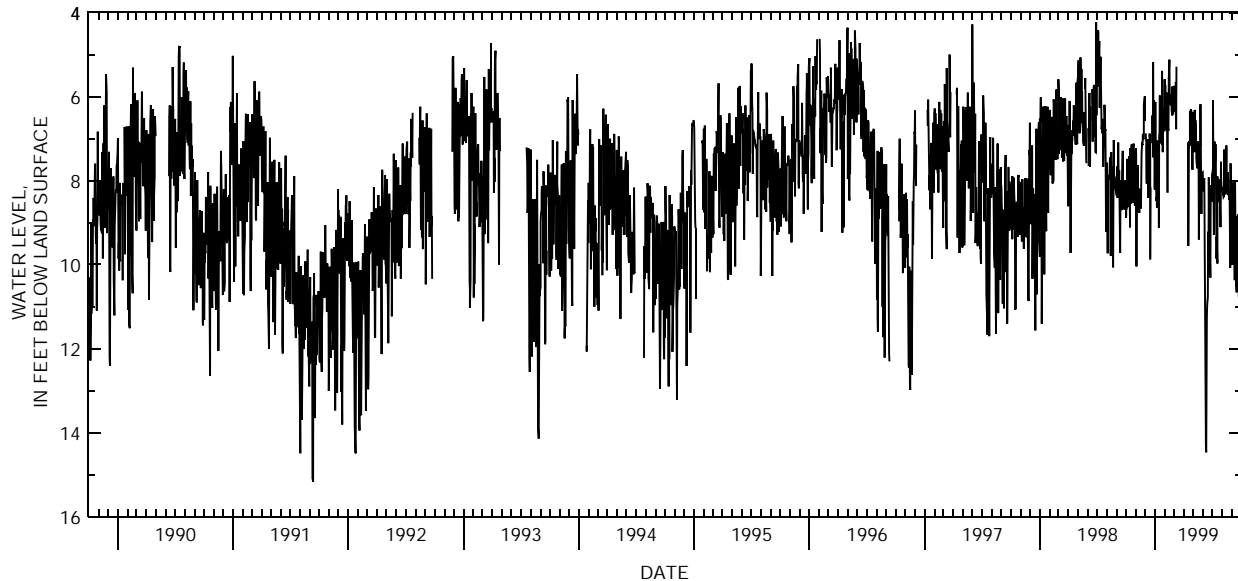
PERIOD OF RECORD.- April 1946 to current year.

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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.85	7.23	---	6.52	6.35	6.28	---	6.37	7.80	7.86	8.19	8.36
2	8.67	7.36	6.87	6.12	5.72	6.35	---	7.06	8.04	7.78	8.17	8.40
3	8.68	10.04	6.91	6.81	6.22	5.74	---	7.21	8.25	7.79	8.25	9.97
4	7.48	7.78	7.13	7.25	6.71	6.10	---	6.64	8.05	6.09	8.27	8.74
5	8.46	8.57	8.07	8.48	6.80	---	---	7.17	7.97	7.32	8.33	8.04
6	8.63	8.73	7.19	8.39	6.23	---	---	7.32	7.94	9.29	8.38	8.29
7	7.84	7.63	7.01	8.65	6.55	5.64	---	6.32	10.68	7.36	8.36	8.74
8	7.77	8.40	7.09	7.05	5.90	5.73	---	7.26	11.69	7.07	7.26	8.42
9	8.37	8.47	7.17	7.14	8.28	6.77	---	6.55	12.11	7.63	7.89	8.47
10	7.41	8.32	8.20	7.11	6.58	5.29	---	6.66	13.69	7.80	8.18	10.37
11	7.78	8.67	8.41	7.18	6.70	---	---	7.33	14.32	7.13	8.21	9.33
12	8.50	8.77	7.07	7.11	6.81	---	---	7.46	14.47	7.42	8.33	7.98
13	9.11	8.19	7.62	9.12	6.04	---	---	7.57	11.97	7.77	7.71	9.62
14	7.23	8.59	7.90	6.90	5.54	---	---	7.70	11.22	9.22	8.04	10.51
15	7.77	8.60	6.88	6.89	5.12	---	7.08	7.42	10.96	9.86	7.16	10.14
16	8.52	8.47	7.08	5.97	6.12	---	9.55	7.06	10.85	9.34	8.17	10.66
17	8.52	8.66	9.87	6.98	6.13	---	8.80	7.49	10.77	9.97	8.29	9.19
18	7.30	7.79	8.16	7.01	6.03	---	7.34	7.61	9.22	7.90	8.30	8.84
19	7.14	7.34	---	7.09	6.20	---	7.06	7.29	9.92	8.15	8.31	10.53
20	7.75	7.19	---	7.10	5.95	---	7.15	9.40	7.92	8.26	7.80	9.29
21	8.51	7.14	---	6.75	6.20	---	7.14	7.97	9.81	8.27	8.04	8.81
22	8.52	7.15	---	6.75	6.03	---	6.34	7.83	10.23	8.51	8.31	10.38
23	7.27	6.89	7.11	5.39	6.34	---	7.03	7.13	9.55	7.97	8.39	10.76
24	7.18	6.99	6.44	6.30	6.44	---	7.15	7.19	9.98	8.10	8.45	10.78
25	7.12	7.00	7.44	7.32	5.76	---	6.29	6.18	10.31	8.23	8.29	8.84
26	8.00	6.95	5.18	6.84	6.37	---	6.36	6.74	8.11	8.92	9.30	8.72
27	8.47	6.18	6.65	6.28	6.38	---	6.44	7.50	8.27	9.08	10.07	8.73
28	8.18	6.02	6.84	6.65	6.33	---	6.50	8.79	8.36	9.10	7.59	8.71
29	8.60	6.02	6.09	6.79	---	---	7.74	7.94	8.48	7.55	8.09	8.68
30	8.03	6.58	7.76	6.80	---	---	6.55	7.82	8.48	8.06	8.25	8.58
31	7.34	---	8.21	5.58	---	---	---	7.81	---	8.19	8.33	---
MAX	9.11	10.04	9.87	9.12	8.28	6.77	9.55	9.40	14.47	9.97	10.07	10.78

CAL YR 1998 LOW 11.40
WTR YR 1999 LOW 14.47



GROUND-WATER RECORDS Knox County

402747082374300. LOCAL NUMBER, K-4

LOCATION.--Latitude 40°27'47", longitude 82°37'43", Hydrologic Unit 05040003, near Fredericktown, Ohio.

Owner: Delco Water Company.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled unused observation well, diameter 6 in., depth 151 ft, cased.

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

DATUM.--Elevation of land-surface datum is 1,085 ft above sea level, from topographic map.

Measuring point: Floor of instrument shelter 1.5 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

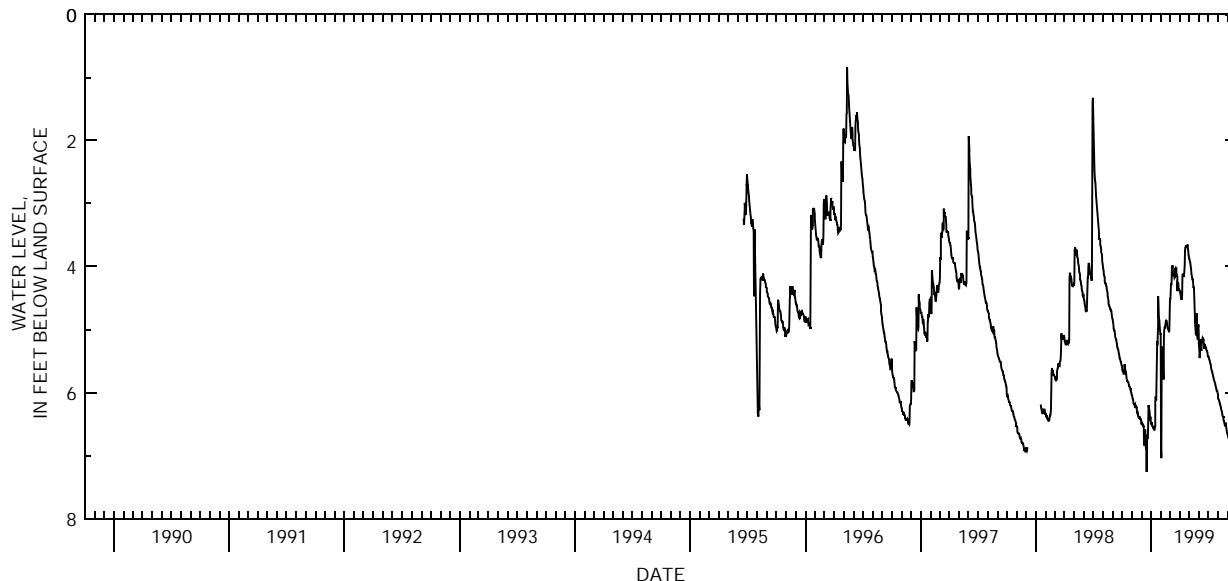
PERIOD OF RECORD.- June 19, 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 7.26 ft below land-surface datum, Dec. 17, 1998; minimum daily low 0.84 ft below land-surface datum, May 12, 1996.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.64	6.06	6.50	6.51	6.86	4.50	4.38	3.87	5.22	5.43	6.08	6.68
2	5.66	6.06	6.48	6.51	7.04	4.53	4.41	3.89	5.33	5.43	6.11	6.71
3	5.66	6.09	6.48	6.47	5.61	4.44	4.41	3.92	5.42	5.46	6.12	6.72
4	5.67	6.12	6.51	6.53	5.37	4.27	4.44	3.93	5.45	5.48	6.12	6.74
5	5.70	6.12	6.51	6.54	5.37	4.29	4.47	3.96	5.24	5.49	6.15	6.75
6	5.70	6.17	6.51	6.53	5.28	4.25	4.50	4.01	5.15	5.52	6.18	6.75
7	5.70	6.18	6.54	6.57	5.28	4.02	4.53	4.04	5.28	5.54	6.18	6.74
8	5.55	6.18	6.54	6.56	5.67	4.04	4.50	4.11	5.33	5.55	6.21	6.75
9	5.58	6.20	6.84	6.57	5.79	3.98	4.44	4.14	5.34	5.58	6.23	6.78
10	5.63	6.18	6.81	6.57	5.12	4.08	4.13	4.17	5.21	5.63	6.24	6.81
11	5.67	6.23	6.78	6.60	5.01	4.11	4.11	4.20	5.16	5.64	6.29	6.84
12	5.67	6.23	6.60	6.57	4.97	4.14	4.14	4.20	5.15	5.66	6.30	6.84
13	5.70	6.21	6.60	6.53	4.97	4.14	4.14	4.23	5.13	5.67	6.30	6.87
14	5.75	6.20	6.84	6.14	4.95	4.11	4.16	4.32	5.15	5.70	6.35	6.89
15	5.79	6.24	6.90	6.06	4.91	4.17	4.14	4.32	5.16	5.72	6.36	6.90
16	5.82	6.24	6.75	6.12	4.88	4.16	4.05	4.35	5.16	5.75	6.38	6.92
17	5.82	6.32	7.26	6.12	4.84	4.04	3.98	4.55	5.31	5.76	6.38	6.93
18	5.82	6.33	6.78	5.94	4.86	4.02	3.74	4.69	5.24	5.79	6.42	6.94
19	5.82	6.32	6.71	5.18	4.88	4.05	3.69	4.82	5.24	5.81	6.44	6.96
20	5.84	6.35	6.72	5.25	4.91	4.05	3.68	4.89	5.25	5.82	6.47	6.98
21	5.87	6.38	6.71	5.21	4.95	4.04	3.66	5.00	5.25	5.84	6.48	6.99
22	5.90	6.38	6.44	4.92	4.98	4.09	3.68	5.09	5.28	5.85	6.51	7.01
23	5.90	6.39	6.20	4.47	4.98	4.13	3.68	5.07	5.28	5.88	6.51	7.01
24	5.91	6.41	6.24	4.65	5.00	4.16	3.69	4.74	5.30	5.90	6.54	7.04
25	5.91	6.39	6.26	4.80	5.02	4.39	3.66	4.88	5.33	5.93	6.48	7.05
26	5.94	6.39	6.30	4.83	5.04	4.25	3.66	5.04	5.34	5.94	6.53	7.08
27	5.94	6.42	6.33	4.86	5.01	4.26	3.71	5.12	5.34	5.97	6.56	7.08
28	5.97	6.42	6.44	4.97	4.74	4.27	3.75	5.16	5.36	5.99	6.59	7.08
29	6.00	6.42	6.38	5.02	---	4.35	3.81	5.00	5.42	5.96	6.63	7.08
30	6.00	6.45	6.44	5.07	---	4.38	3.84	4.92	5.43	6.00	6.65	7.10
31	6.03	---	6.47	5.07	---	4.37	---	5.10	---	6.03	6.66	---
MAX	6.03	6.45	7.26	6.60	7.04	4.53	4.53	5.16	5.45	6.03	6.66	7.10

CAL YR 1998 LOW 7.26
WTR YR 1999 LOW 7.26



GROUND-WATER RECORDS
Licking County

400848082251100. LOCAL NUMBER, LI-4

LOCATION.--Latitude 40°08'48", longitude 82°25'11", Hydrologic Unit 05040006, near St. Louisville, Ohio.

Owner: City of Newark

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 79 ft, cased.

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

DATUM.--Elevation of land-surface datum is 885 ft above sea level, from topographic map.

Measuring point: Floor of instrument shelter 4.00 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

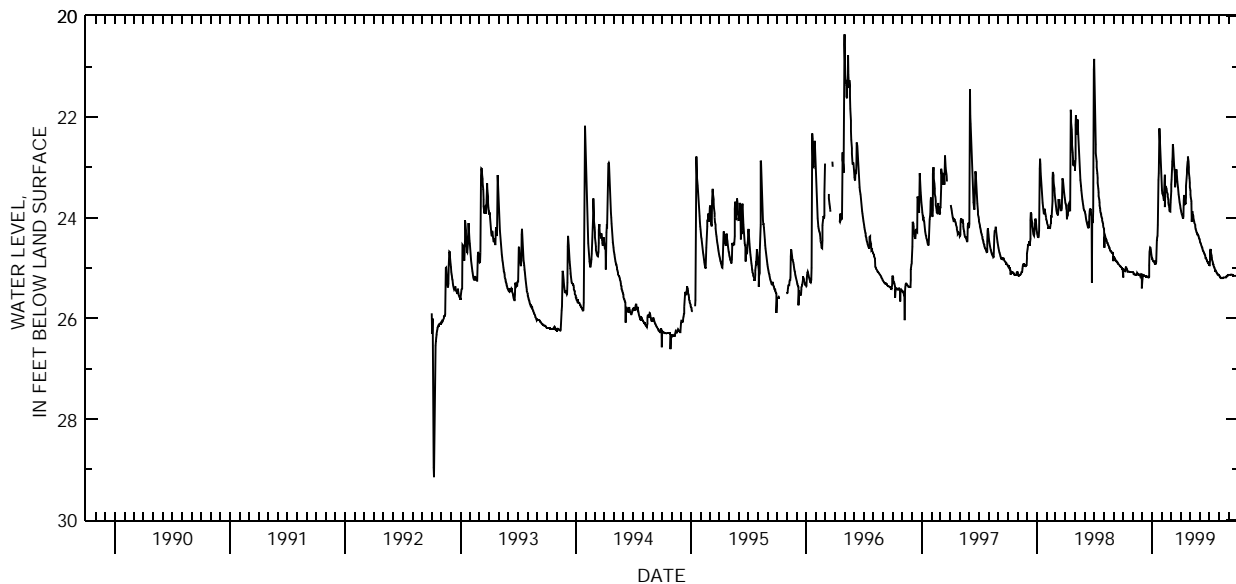
PERIOD OF RECORD.--October 1992 to current year.

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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.19	25.08	25.22	24.81	23.45	23.70	23.81	23.39	24.44	24.95	25.14	25.14
2	25.07	25.08	25.17	24.81	23.52	23.47	23.84	23.46	24.48	24.95	25.16	25.14
3	25.05	25.11	25.14	24.84	23.54	23.34	23.87	23.54	24.50	24.86	25.17	25.14
4	25.05	25.11	25.14	24.86	23.55	23.24	23.91	23.60	24.51	24.66	25.17	25.14
5	25.05	25.11	25.14	24.86	23.57	22.95	23.93	23.67	24.53	24.62	25.19	25.14
6	25.04	25.13	25.14	24.86	23.61	22.89	23.96	23.73	24.56	24.65	25.19	25.14
7	25.05	25.13	25.16	24.87	23.66	22.82	23.97	24.08	24.57	24.69	25.20	25.13
8	25.04	25.13	25.16	24.87	23.66	22.55	24.00	23.87	24.59	24.75	25.20	25.13
9	25.01	25.13	25.16	24.90	23.28	22.61	24.02	23.91	24.60	24.80	25.20	25.13
10	24.97	25.13	25.16	24.92	23.15	22.76	23.97	23.94	24.63	24.84	25.20	25.13
11	24.99	25.14	25.16	24.92	23.79	22.86	23.66	23.97	24.65	24.86	25.20	25.13
12	25.01	25.14	25.16	24.90	23.37	22.97	23.55	24.00	24.66	24.89	25.20	25.13
13	25.02	25.13	25.16	24.92	23.39	23.04	23.58	24.03	24.68	24.92	25.20	25.14
14	25.04	25.10	25.17	24.87	23.39	23.10	23.63	24.08	24.69	24.93	25.19	25.14
15	25.05	25.11	25.17	24.63	23.42	23.40	23.67	24.11	24.71	24.95	25.19	25.16
16	25.07	25.11	25.17	24.45	23.45	23.28	23.73	24.12	24.72	24.97	25.19	25.16
17	25.07	25.13	25.17	24.39	23.49	23.27	23.72	24.15	24.74	24.99	25.19	25.16
18	25.07	25.13	25.17	24.36	23.51	23.12	23.60	24.18	24.75	25.01	25.19	25.16
19	25.07	25.13	25.19	24.15	23.54	23.04	23.37	24.22	24.80	25.02	25.19	25.16
20	25.07	25.13	25.19	23.51	23.58	23.10	23.21	24.24	24.80	25.04	25.19	25.16
21	25.07	25.14	25.19	23.25	23.64	23.19	23.13	24.26	24.81	25.05	25.19	25.16
22	25.08	25.14	25.17	23.12	23.70	23.28	23.04	24.29	24.83	25.05	25.19	25.16
23	25.08	25.13	24.95	22.70	23.75	23.34	22.89	24.30	24.84	25.08	25.19	25.16
24	25.08	25.16	24.68	22.23	23.79	23.40	22.86	24.33	24.86	25.08	25.17	25.16
25	25.08	25.14	24.59	22.38	23.84	23.47	22.79	24.33	24.87	25.10	25.17	25.16
26	25.08	25.14	24.59	22.56	23.87	23.54	22.88	24.33	24.89	25.11	25.16	25.16
27	25.08	25.14	24.60	22.74	23.88	23.58	23.00	24.35	24.89	25.11	25.16	25.17
28	25.08	25.13	24.63	22.92	23.88	23.63	23.10	24.36	24.90	25.13	25.16	25.17
29	25.08	25.11	24.69	23.09	---	23.69	23.21	24.38	24.92	25.13	25.14	25.17
30	25.08	25.40	24.74	23.22	---	23.73	23.31	24.41	24.93	25.13	25.14	25.16
31	25.08	---	24.78	23.34	---	23.76	---	24.42	---	25.14	25.14	---
MAX	25.19	25.40	25.22	24.92	23.88	23.76	24.02	24.42	24.93	25.14	25.20	25.17

CAL YR 1998 LOW 25.40
WTR YR 1999 LOW 25.40



GROUND-WATER RECORDS Logan County

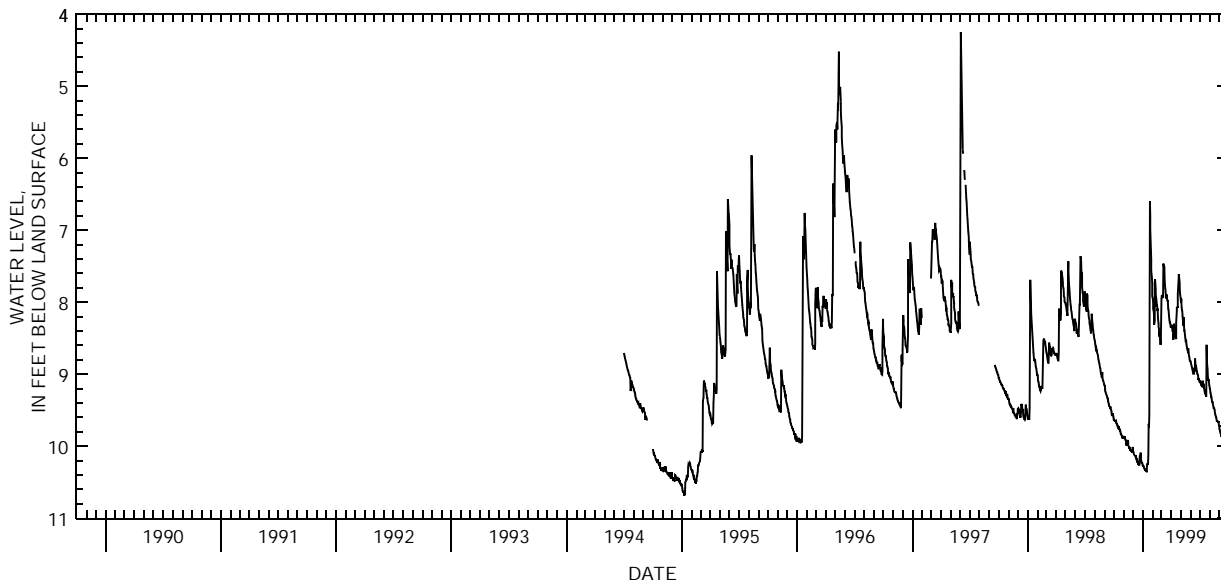
401510083444400. LOCAL NUMBER, LO-3

LOCATION.--Latitude 40°15'10", longitude 83°44'44", Hydrologic Unit 05080001, at West Liberty, Ohio.
 Owner: City of West Liberty
 AQUIFER.--Sand and gravel of Pleistocene Age.
 WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 71 ft, cased.
 INSTRUMENTATION.--Electronic data logger--60-minute log interval.
 DATUM.--Elevation of land-surface datum is 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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.63	9.87	10.05	10.28	7.95	7.95	8.33	7.95	8.82	9.12	9.20	9.76
2	9.63	9.86	10.09	10.26	8.01	7.91	8.31	8.01	8.84	9.09	9.21	9.78
3	9.65	9.89	10.09	10.28	8.09	7.91	8.34	7.95	8.87	9.12	9.26	9.80
4	9.63	9.86	10.11	10.29	8.13	7.91	8.36	8.07	8.88	9.12	9.27	9.81
5	9.65	9.90	10.13	10.31	8.24	7.94	8.40	8.10	8.90	9.15	9.31	9.83
6	9.65	9.91	10.13	10.32	8.31	7.92	8.41	8.12	8.91	9.15	9.31	9.84
7	9.66	9.91	10.13	10.32	8.25	7.46	8.49	8.19	8.94	9.15	9.34	9.86
8	9.65	9.93	10.13	10.32	7.73	7.49	8.52	8.24	8.96	9.16	9.38	9.86
9	9.67	9.98	10.14	10.34	7.68	7.51	8.43	8.28	8.99	9.18	9.39	9.87
10	9.69	9.98	10.16	10.32	7.81	7.51	8.30	8.33	8.99	9.09	9.39	9.89
11	9.69	9.95	10.17	10.34	7.88	7.69	8.37	8.21	8.99	9.12	9.42	9.93
12	9.71	9.93	10.19	10.35	7.92	7.77	8.36	8.39	8.99	9.14	9.44	9.95
13	9.71	9.96	10.20	10.35	8.00	7.81	8.46	8.39	8.91	9.18	9.47	9.95
14	9.74	9.91	10.19	10.25	8.06	7.86	8.49	8.43	8.96	9.18	9.47	9.96
15	9.75	9.93	10.22	10.25	8.03	7.94	8.49	8.48	8.78	9.21	9.48	9.99
16	9.75	9.99	10.22	10.25	8.12	7.94	8.51	8.51	8.84	9.24	9.49	10.01
17	9.72	10.01	10.25	10.25	8.09	7.89	8.28	8.55	8.87	9.26	9.53	10.01
18	9.76	10.01	10.25	10.11	8.22	7.92	8.12	8.52	8.88	9.26	9.56	10.02
19	9.76	10.02	10.26	9.69	8.30	7.97	8.06	8.58	8.91	9.29	9.57	10.05
20	9.78	10.02	10.26	9.74	8.34	7.98	8.07	8.61	8.92	9.30	9.59	10.05
21	9.78	10.04	10.26	9.57	8.36	7.98	8.07	8.63	8.96	9.31	9.60	10.04
22	9.80	10.05	10.14	8.91	8.45	8.09	7.89	8.66	8.99	8.59	9.62	10.08
23	9.83	10.05	10.14	6.60	8.48	8.10	7.79	8.67	9.00	8.81	9.65	10.09
24	9.83	10.05	10.14	6.80	8.41	8.16	7.65	8.66	9.01	8.88	9.65	10.11
25	9.84	10.06	10.09	6.98	8.54	8.21	7.61	8.64	9.05	8.92	9.65	10.11
26	9.86	10.08	10.19	7.25	8.59	8.25	7.64	8.70	9.06	9.03	9.65	10.13
27	9.86	10.04	10.20	7.40	8.55	8.28	7.74	8.74	9.06	9.08	9.66	10.09
28	9.89	10.09	10.23	7.56	8.36	8.28	7.80	8.76	9.08	9.08	9.67	10.13
29	9.86	10.05	10.23	7.65	---	8.31	7.88	8.79	9.09	9.08	9.65	10.14
30	9.89	10.01	10.23	7.74	---	8.34	7.94	8.82	9.12	9.14	9.72	10.13
31	9.87	---	10.26	7.91	---	8.34	---	8.82	---	9.16	9.72	---
MAX	9.89	10.09	10.26	10.35	8.59	8.34	8.52	8.82	9.12	9.31	9.72	10.14

CAL YR 1998 LOW 10.26
 WTR YR 1999 LOW 10.35



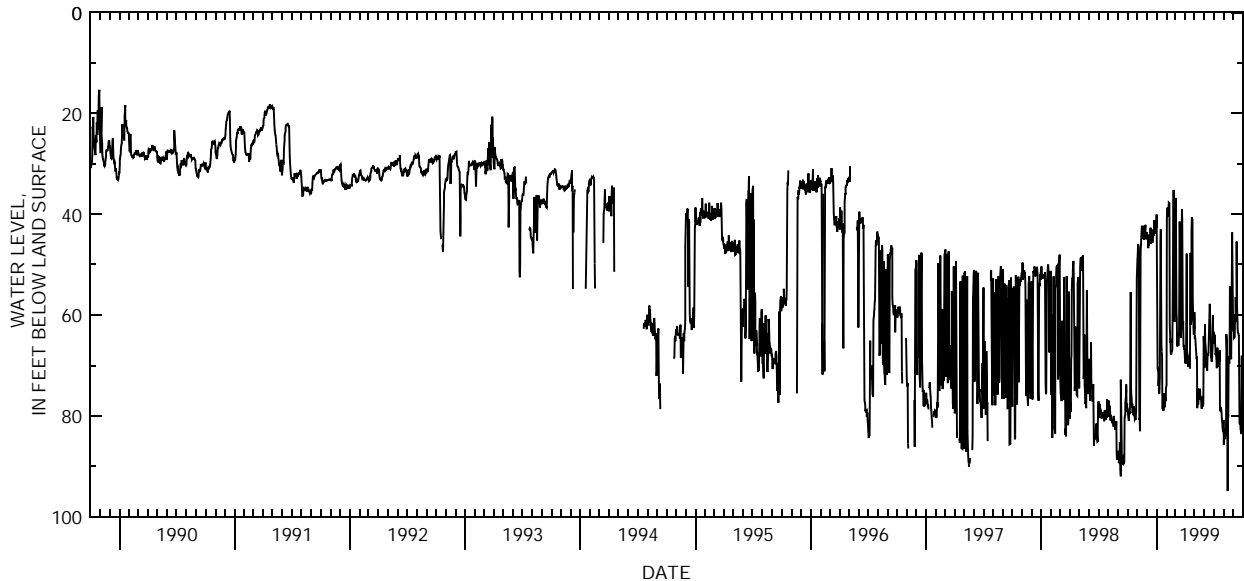
GROUND-WATER RECORDS
Madison County

395301083272200. LOCAL NUMBER, M-2

LOCATION.--Latitude 39°53'01", longitude 83°27'22", Hydrologic Unit 05060002, U.S. 42 and Westmore Dr., London, Ohio.
 Owner: State of Ohio
 AQUIFER.--Limestone of Silurian Age.
 WELL CHARACTERISTICS.--Drilled test artesian well, diameter 12 in., depth 350 ft, cased.
 INSTRUMENTATION.--Digital recorder--60-minute punch.
 DATUM.--Elevation of land-surface datum is 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, 94.88 ft below land-surface datum, Aug. 14, 1999; minimum daily low, 0.55 ft above land-surface, Apr. 13, 1980.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	79.00	48.91	43.56	40.07	73.91	40.27	69.52	59.38	70.38	63.31	80.79	62.89
2	78.92	47.89	44.23	51.87	46.92	38.05	67.31	64.33	70.38	63.53	85.67	63.32
3	79.91	45.89	44.58	65.90	40.84	36.72	69.71	64.32	61.82	65.65	82.57	62.66
4	80.27	46.15	44.52	70.56	38.68	46.92	67.39	64.64	65.44	63.88	83.02	64.40
5	80.99	46.51	46.69	70.56	39.87	59.22	66.16	65.87	66.09	65.05	83.34	64.28
6	79.63	72.57	45.18	71.02	40.42	60.69	47.77	66.65	67.07	66.82	84.65	60.19
7	79.23	80.81	46.21	74.04	38.77	65.58	63.01	67.62	67.86	67.88	83.77	61.57
8	79.29	80.46	45.67	72.65	38.84	66.20	67.00	68.78	70.26	67.56	83.98	60.20
9	78.00	83.05	43.98	75.59	37.65	63.75	68.04	68.21	69.98	68.70	81.65	56.42
10	60.20	54.97	44.64	74.54	37.77	65.19	69.06	78.42	71.01	68.81	63.76	61.32
11	55.44	47.62	44.38	72.40	54.08	66.08	70.22	76.00	68.65	70.52	65.00	60.02
12	74.41	45.89	45.35	61.70	61.84	65.17	68.08	74.51	67.53	66.49	67.41	45.36
13	75.94	46.16	42.66	45.70	65.44	63.46	68.87	77.66	68.08	66.51	86.96	57.69
14	76.62	43.88	45.84	42.96	64.61	45.50	69.26	76.16	67.44	67.79	94.88	61.70
15	78.32	42.26	44.23	54.87	67.55	41.43	68.55	76.81	65.02	68.50	80.88	62.58
16	77.59	44.70	44.73	65.55	67.78	54.46	70.59	75.58	62.48	69.64	80.01	63.52
17	79.40	44.64	45.04	67.22	67.67	60.57	66.96	75.95	62.13	70.29	68.86	63.70
18	78.15	43.65	44.29	68.13	67.08	63.20	47.68	74.59	57.80	67.99	68.10	63.96
19	79.28	44.52	45.62	78.18	67.10	64.48	54.33	75.25	59.73	69.29	69.62	64.12
20	79.86	44.28	44.64	78.59	65.22	62.55	61.91	76.71	59.53	66.90	68.12	76.58
21	78.04	42.30	44.06	77.69	47.33	43.67	60.72	76.65	64.55	78.52	54.25	81.18
22	78.64	45.04	42.96	78.96	40.54	38.96	43.62	76.78	67.20	78.87	60.49	81.65
23	80.08	44.72	44.32	78.65	37.47	40.95	40.66	77.88	68.23	79.12	66.69	81.32
24	80.61	42.33	43.49	75.54	35.15	57.89	41.05	78.58	69.19	78.21	67.84	82.62
25	80.50	44.19	41.11	77.98	52.76	62.68	45.01	76.60	68.73	78.71	68.75	82.78
26	80.76	42.10	43.15	77.23	60.97	61.19	57.22	76.31	68.85	79.54	67.17	83.60
27	80.20	43.71	42.97	78.27	61.30	66.09	61.53	76.34	66.20	80.77	53.01	80.53
28	79.00	44.76	43.81	77.03	57.17	66.10	62.42	78.11	60.08	81.06	45.58	68.02
29	62.07	44.79	42.44	76.75	---	66.84	63.83	77.54	64.15	82.27	43.60	76.27
30	52.77	43.95	42.76	77.08	---	66.64	62.54	64.20	64.00	83.00	54.27	81.00
31	50.98	---	42.64	74.43	---	67.88	---	65.96	---	83.17	60.69	---
MAX	80.99	83.05	46.69	78.96	73.91	67.88	70.59	78.58	71.01	83.17	94.88	83.60
CAL YR 1998	LOW 91.98											
WTR YR 1999	LOW 94.88											



GROUND-WATER RECORDS
Madison County

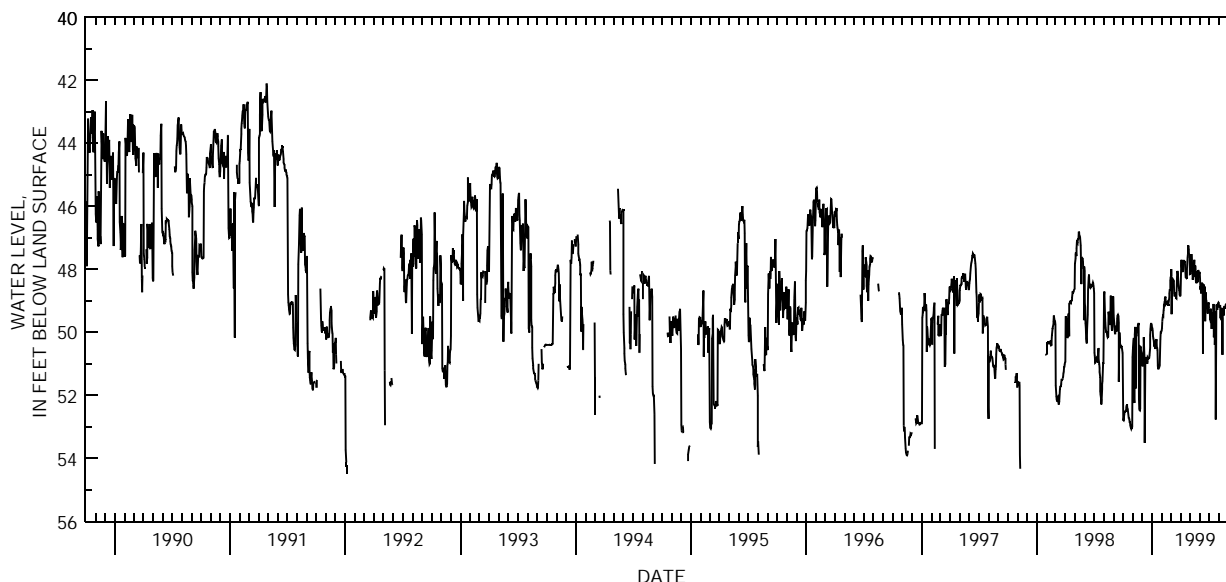
395352083292100. LOCAL NUMBER, M-5

LOCATION.--Latitude 39°53'52", longitude 83°29'21", Hydrologic Unit 05060002, at London Correctional Institute near London, Ohio.
 Owner: State of Ohio.
 AQUIFER.--Sand and gravel of Pleistocene Age.
 WELL CHARACTERISTICS.--Drilled unused water table well, diameter 8 in., depth 55 ft, cased.
 INSTRUMENTATION.--Electronic data logger--60-minute log interval.
 DATUM.--Elevation of land-surface datum is 1,090 ft above sea level, from topographic map.
 Measuring point: Floor of instrument shelter 3.50 ft above land-surface datum.
 REMARKS.--Station operated by Ohio Department of Natural Resources, 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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52.62	50.57	51.09	49.89	49.86	48.26	48.82	48.15	48.12	49.29	49.14	48.51
2	52.79	50.42	50.94	49.88	49.65	48.21	48.30	48.14	48.32	49.28	49.20	48.71
3	52.80	50.27	50.88	49.94	49.53	47.99	47.88	48.00	48.65	49.50	49.20	48.54
4	52.62	50.18	50.81	50.13	49.49	49.43	47.70	48.05	48.54	49.59	49.16	48.50
5	52.61	52.14	50.31	50.19	49.50	48.27	47.91	47.91	48.77	49.64	49.16	48.48
6	52.54	52.24	50.16	50.24	49.31	48.36	48.03	47.52	48.63	49.70	49.56	48.44
7	52.52	50.07	50.73	50.36	49.23	48.51	48.09	47.93	48.47	49.26	49.26	48.66
8	52.49	49.86	52.58	50.34	49.13	48.51	48.06	47.88	48.42	49.89	49.23	49.04
9	52.50	49.83	53.51	50.43	49.05	48.36	47.99	48.02	48.48	49.65	49.62	49.46
10	52.47	51.79	51.26	50.46	49.02	48.35	47.81	48.33	48.45	49.38	49.40	49.74
11	52.41	50.09	50.94	50.52	48.93	48.39	47.70	48.14	50.67	49.43	49.57	50.57
12	52.35	50.10	50.85	50.43	48.87	48.75	47.79	47.97	48.48	49.38	50.72	49.31
13	52.29	50.01	50.79	50.40	49.08	48.84	47.78	48.23	48.50	49.62	49.38	49.38
14	52.34	49.89	50.85	50.25	49.10	48.84	47.73	47.70	48.51	49.62	49.26	49.07
15	52.43	49.88	50.94	50.22	49.07	48.78	47.85	47.99	48.57	49.10	49.26	48.72
16	52.44	49.85	50.93	50.48	49.04	48.78	48.09	48.06	48.78	50.16	49.47	48.92
17	52.54	49.74	51.00	50.49	49.10	48.72	48.26	48.09	48.56	49.53	49.20	49.02
18	52.62	49.77	50.79	50.57	49.05	48.92	48.27	47.88	49.65	49.50	49.19	49.07
19	52.71	49.70	50.82	51.06	49.08	48.93	48.23	48.26	49.19	50.40	49.19	49.10
20	52.74	52.11	50.84	51.15	49.14	48.56	48.27	48.39	48.74	49.77	49.22	49.14
21	52.76	52.43	50.84	51.17	49.14	48.24	48.27	48.42	48.98	49.35	49.22	50.88
22	52.85	52.47	50.82	51.09	49.11	48.05	48.00	48.42	49.01	52.77	49.14	50.15
23	52.85	52.49	50.82	51.06	49.02	48.09	47.63	48.23	49.23	50.10	49.11	49.62
24	52.95	52.41	50.73	51.07	48.89	48.18	47.52	48.06	49.17	49.16	49.11	49.74
25	53.01	50.46	50.49	51.03	48.77	48.39	47.28	48.15	49.23	49.11	49.14	49.76
26	53.04	50.48	50.09	50.58	48.66	48.51	47.27	48.41	49.41	49.29	49.14	49.65
27	53.07	50.58	49.89	50.22	48.66	48.60	47.39	48.02	49.13	49.16	49.13	49.61
28	53.04	50.64	49.76	50.00	48.36	48.66	47.48	48.06	49.07	49.13	48.87	49.59
29	53.06	50.70	49.70	50.00	---	48.80	47.60	48.11	49.07	49.07	48.66	49.56
30	52.98	50.82	49.74	49.98	---	48.84	48.03	48.14	49.25	49.05	48.81	49.29
31	50.79	---	49.77	49.94	---	48.84	---	48.09	---	49.07	48.53	---
MAX	53.07	52.49	53.51	51.17	49.86	49.43	48.82	48.42	50.67	52.77	50.72	50.88

CAL YR 1998 LOW 53.51
 WTR YR 1999 LOW 53.51



GROUND-WATER RECORDS
MadisonCounty

395357083304400. LOCAL NUMBER, M-4

LOCATION.--Latitude 39°53'57", longitude 83°30'44" Hydrologic Unit 05060002, 3.5 mi northwest of London, Ohio.
Owner.--State of Ohio.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled unused water table well, diameter 10 in., depth 49 ft, cased.

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

DATUM.--Elevation of land-surface datum is 1,112 ft above sea level, from topographic map.

Measuring point: Floor of instrument shelter 4.00 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

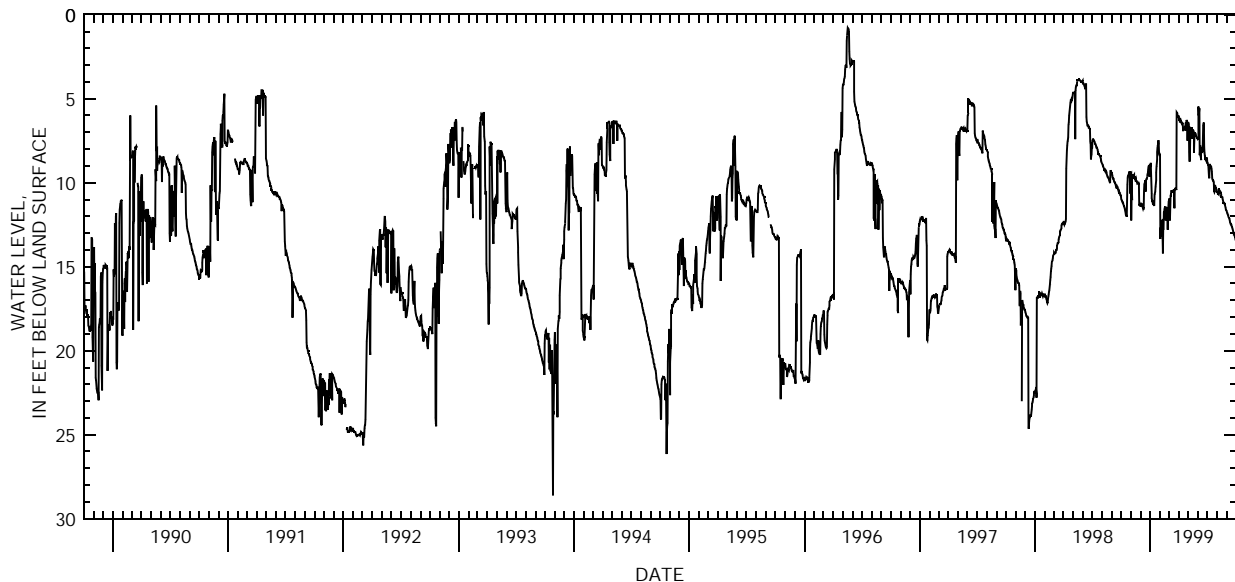
PERIOD OF RECORD.--June 1983 to current year.

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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.00	9.42	11.42	9.00	8.37	11.06	6.03	6.44	7.36	8.81	10.56	11.75
2	11.04	12.24	11.33	8.92	13.35	11.04	6.30	6.44	7.36	8.85	10.56	11.79
3	11.06	9.51	11.28	8.82	12.66	10.92	6.15	6.54	5.46	8.94	10.71	11.84
4	11.13	11.03	11.31	10.14	13.20	12.24	6.24	8.17	6.00	9.00	10.67	11.91
5	11.19	9.56	11.27	10.65	12.69	11.49	6.35	8.70	5.57	9.36	10.70	11.94
6	11.19	9.57	11.30	10.92	12.27	10.79	6.35	8.70	5.61	9.66	10.32	12.06
7	11.25	9.62	11.42	11.10	12.24	10.79	6.39	7.68	8.36	9.72	10.38	12.09
8	11.34	9.57	11.46	11.07	12.35	10.68	6.30	6.74	7.80	8.96	10.47	12.11
9	11.37	9.57	11.54	11.22	13.40	10.44	6.36	6.76	8.27	8.88	10.50	12.15
10	11.43	9.51	11.49	11.27	14.22	10.53	6.41	6.76	8.45	9.01	10.53	12.24
11	11.49	9.74	11.51	11.33	12.78	10.55	6.41	6.75	8.64	9.03	10.59	12.35
12	11.54	9.76	10.49	11.30	12.74	10.56	6.50	6.74	7.98	9.03	10.64	12.42
13	11.66	9.67	10.09	11.37	11.76	10.56	6.47	6.74	7.98	9.06	10.62	12.47
14	11.73	9.60	10.05	11.27	11.73	10.44	6.47	7.38	8.12	9.16	10.76	12.48
15	11.84	9.75	9.98	10.71	11.55	10.53	6.93	6.87	8.17	9.33	10.83	12.50
16	11.91	9.71	9.84	10.53	11.48	10.53	6.69	6.89	8.16	9.71	10.85	12.59
17	11.94	9.90	10.52	10.53	11.46	10.40	6.75	6.89	7.46	9.83	10.86	12.65
18	12.02	9.90	9.83	10.25	11.43	11.52	6.74	6.96	6.57	9.87	10.89	12.71
19	12.05	9.90	9.78	9.84	12.24	10.44	6.71	7.01	6.47	9.86	10.98	12.75
20	10.11	9.96	9.78	9.39	11.51	10.38	6.71	8.21	6.42	9.90	11.16	12.85
21	9.76	10.05	9.72	9.05	11.55	10.31	6.66	7.02	7.89	9.96	11.21	12.93
22	9.67	10.02	9.63	8.61	11.60	10.37	6.90	7.05	8.21	10.50	11.21	12.99
23	9.57	10.02	9.45	8.17	11.52	10.38	6.47	7.05	8.37	10.56	11.24	13.08
24	9.47	10.06	9.42	7.92	11.54	10.41	6.47	7.08	8.64	10.50	11.22	13.14
25	9.42	10.02	9.20	7.79	12.80	10.44	6.41	7.14	8.59	10.13	11.25	13.19
26	9.41	10.08	9.03	7.74	11.57	5.82	6.27	7.22	8.67	10.22	11.33	13.22
27	9.39	11.37	9.00	7.46	11.48	5.88	6.32	7.26	8.70	10.31	11.42	13.28
28	9.31	11.34	8.97	7.68	11.13	5.88	6.39	7.29	8.48	10.32	11.49	13.37
29	10.61	11.28	9.65	8.25	---	6.03	7.50	7.34	8.59	10.35	11.61	13.44
30	10.64	11.28	9.34	8.33	---	6.06	6.47	7.38	8.61	10.44	11.64	13.50
31	9.44	---	8.97	8.31	---	6.00	---	7.34	---	10.53	11.66	---
MAX	12.05	12.24	11.54	11.37	14.22	12.24	7.50	8.70	8.70	10.56	11.66	13.50

CAL YR 1998 LOW 22.80
WTR YR 1999 LOW 14.22



GROUND-WATER RECORDS
Madison County

265

395740083255700. LOCAL NUMBER, M-3

LOCATION.--Latitude 39°57'40", longitude 83°25'57", Hydrologic Unit 05060002, 5.2 mi north of London, Ohio.
Owner: State of Ohio.

AQUIFER.--Limestone of Silurian Age.

WELL CHARACTERISTICS.--Drilled test artesian well, diameter 12 in., depth 290 ft, cased to 145 ft.

INSTRUMENTATION.--Periodic measurement with chalked tape by Ohio Department of Natural Resources personnel.

DATUM.--Elevation of land-surface datum is 1,020 ft above sea level, from topographic map.

Measuring point: Floor of instrument shelter 3.00 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, 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 OBSERVATION

DATE	WATER LEVEL
Oct. 28, 1998	9.64
Apr. 20, 1999	6.24

GROUND-WATER RECORDS
Mahoning County

410042080453800. LOCAL NUMBER, MA-1

LOCATION.--Latitude 41°00'42", longitude 80°45'38", Hydrologic Unit, 05030103, in county fairgrounds at south edge of Canfield, Ohio.

Owner: Canfield Water Department.

AQUIFER.--Sandstone of Pennsylvanian Age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 8 in., depth 170 ft, cased to 99.5 ft.

INSTRUMENTATION.--Periodic measurement with chalked tape by Ohio Department of Natural Resources personnel.

DATUM.--Elevation of land-surface datum is 1,160 ft above sea level, from topographic map.

Measuring point: Floor of instrument shelter at land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, 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 OBSERVATION

DATE	WATER LEVEL
Oct. 28, 1998	34.81
Apr. 28, 1999	32.82

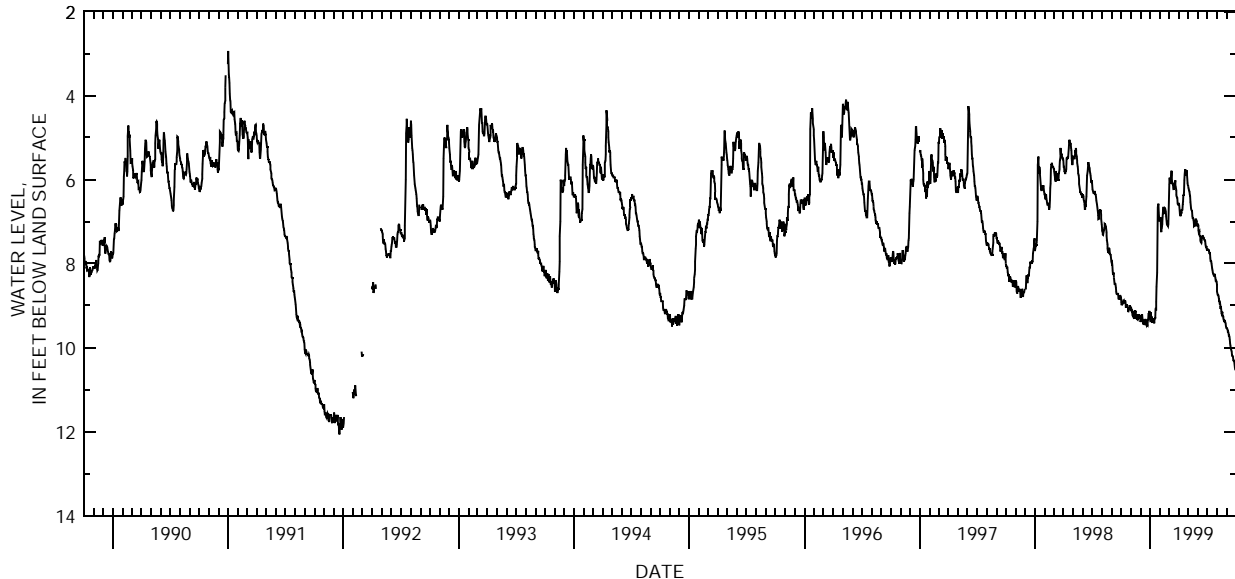
GROUND-WATER RECORDS
Marion County

403413083170500. LOCAL NUMBER, MN-4

LOCATION.--Latitude 40°34'13", longitude 83°17'05", Hydrologic Unit 05060001, 1.9 mi southeast of New Bloomington, Ohio.
 Owner: State of Ohio.
 AQUIFER.--Limestone of Silurian Age.
 WELL CHARACTERISTICS.--Drilled test artesian well, diameter 12 in., depth drilled 290 ft, present depth 286 ft, cased to 33 ft.
 INSTRUMENTATION.--Electronic data logger--60-minute log interval.
 DATUM.--Elevation of land-surface datum is 915.96 ft above sea level.
 Measuring point: Floor of shelter 3.00 ft above land-surface datum.
 REMARKS.--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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.92	9.12	9.39	9.38	6.96	6.44	6.56	6.15	7.05	7.65	8.66	9.54
2	8.99	9.11	9.36	9.38	6.89	6.12	6.61	6.20	7.10	7.67	8.74	9.56
3	8.96	9.09	9.26	9.16	6.94	5.96	6.61	6.23	7.20	7.67	8.76	9.57
4	8.97	9.15	9.27	9.31	7.19	6.05	6.71	6.27	7.25	7.68	8.73	9.62
5	8.96	9.16	9.29	9.36	7.25	6.05	6.80	6.29	7.23	7.68	8.78	9.62
6	8.92	9.24	9.21	9.26	7.16	6.06	6.80	6.35	7.31	7.68	8.84	9.65
7	8.90	9.27	9.30	9.41	7.13	6.09	6.87	6.39	7.34	7.74	8.90	9.71
8	8.91	9.27	9.34	9.38	7.05	5.96	6.80	6.53	7.36	7.77	8.90	9.71
9	8.92	9.24	9.44	9.38	6.89	5.79	6.78	6.61	7.43	7.73	8.97	9.74
10	8.90	9.12	9.42	9.36	6.78	5.91	6.81	6.69	7.49	7.86	8.91	9.81
11	8.92	9.27	9.44	9.41	6.71	6.00	6.71	6.72	7.51	7.94	9.01	9.90
12	8.92	9.31	9.39	9.31	6.65	6.11	6.74	6.74	7.51	7.94	9.08	9.95
13	8.87	9.23	9.34	9.42	6.80	6.12	6.71	6.75	7.44	7.95	9.01	10.01
14	8.91	9.11	9.44	9.42	6.80	6.08	6.60	6.86	7.34	8.00	9.14	10.05
15	9.00	9.14	9.44	9.31	6.72	6.23	6.51	6.92	7.40	8.06	9.18	10.06
16	9.05	9.12	9.34	9.30	6.68	6.23	6.36	6.92	7.34	8.12	9.20	10.09
17	9.00	9.30	9.34	9.31	6.69	6.18	6.38	6.93	7.34	8.16	9.15	10.19
18	8.96	9.30	9.36	9.08	6.72	6.11	6.30	6.98	7.38	8.21	9.20	10.19
19	9.00	9.20	9.44	9.09	6.76	6.14	6.02	7.08	7.38	8.24	9.24	10.20
20	9.01	9.24	9.47	8.91	6.86	6.12	5.87	7.11	7.40	8.25	9.27	10.22
21	9.05	9.33	9.44	8.55	6.94	6.02	5.79	7.10	7.43	8.28	9.31	10.29
22	9.14	9.34	9.47	8.22	7.02	6.14	5.75	7.10	7.44	8.27	9.34	10.32
23	9.14	9.26	9.48	7.74	7.01	6.17	5.88	7.10	7.44	8.28	9.39	10.29
24	9.09	9.30	9.34	6.98	7.02	6.26	5.90	6.96	7.46	8.24	9.39	10.34
25	9.06	9.29	9.33	6.66	7.10	6.36	5.84	6.93	7.53	8.30	9.34	10.40
26	9.05	9.20	9.20	6.61	7.11	6.41	5.77	6.94	7.59	8.34	9.38	10.47
27	9.08	9.29	9.20	6.57	7.06	6.44	5.85	6.98	7.61	8.41	9.39	10.52
28	8.99	9.27	9.20	6.78	6.75	6.44	5.96	6.99	7.58	8.40	9.42	10.52
29	9.06	9.26	9.12	6.90	---	6.57	6.08	7.06	7.65	8.40	9.49	10.52
30	9.03	9.26	9.24	6.98	---	6.61	6.14	7.11	7.69	8.43	9.53	10.50
31	9.11	---	9.26	6.98	---	6.59	---	7.08	---	8.51	9.53	---
MAX	9.14	9.34	9.48	9.42	7.25	6.61	6.87	7.11	7.69	8.51	9.53	10.52
CAL YR 1998	LOW	9.48										
WTR YR 1999	LOW	10.52										



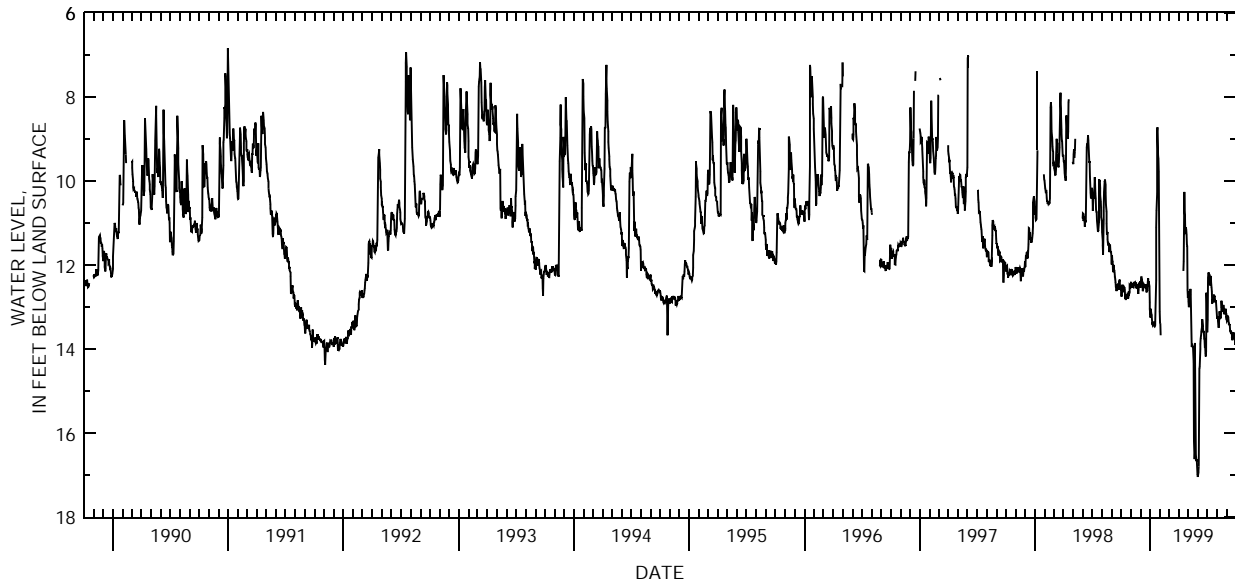
GROUND-WATER RECORDS
Marion County

403443083230400. LOCAL NUMBER, MN-1

LOCATION.--Latitude 40°34'43, longitude 83°23'04", Hydrologic Unit 05060001, SR 37 at Baptist Church in LaRue, Ohio.
 Owner: Village of LaRue.
 AQUIFER.--Limestone of Silurian Age.
 WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 4 in., depth 100 ft, cased.
 INSTRUMENTATION.--Electronic data logger--60-minute log interval.
 DATUM.--Elevation of land-surface datum is 930 ft above sea level, from topographic map.
 Measuring point: Floor of instrument shelter 3.30 ft above land-surface datum.
 REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.
 PERIOD OF RECORD.--March 1946 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 17.04 ft below land-surface datum, June 1, 1999; minimum daily low, 5.67 ft below land-surface datum, Jan. 23, 1959.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.71	12.40	12.54	13.25	13.37	---	---	12.62	17.04	13.58	13.28	13.32
2	12.75	12.53	12.42	13.23	13.40	---	---	12.87	16.94	13.31	13.22	13.31
3	12.60	12.43	12.30	13.04	13.67	---	---	13.00	16.92	12.30	13.28	13.20
4	12.47	12.52	12.27	13.17	---	---	---	12.96	16.80	12.20	13.32	13.32
5	12.65	12.47	12.41	13.19	---	---	---	12.81	14.65	12.17	13.49	13.23
6	12.50	12.52	12.38	13.22	---	---	---	12.74	14.46	12.23	13.47	13.31
7	12.57	12.47	12.41	13.41	---	---	---	12.69	14.42	12.21	13.43	13.40
8	12.53	12.52	12.62	13.37	---	---	---	12.57	14.00	12.26	13.10	13.40
9	12.59	12.53	12.59	13.41	---	---	---	12.71	13.88	12.48	13.19	13.43
10	12.53	12.40	12.51	13.38	---	---	---	13.13	13.75	12.32	13.20	13.43
11	12.54	12.45	12.50	13.37	---	---	---	13.60	13.62	12.26	13.26	13.56
12	12.59	12.49	12.47	13.41	---	---	---	13.95	13.58	12.33	13.26	13.58
13	12.80	12.42	12.48	13.34	---	---	---	13.89	13.53	12.45	13.25	13.56
14	12.71	12.41	12.54	13.46	---	---	---	13.90	13.43	12.53	13.02	13.62
15	12.83	12.47	12.51	13.47	---	---	---	13.95	13.29	12.63	12.85	13.62
16	12.81	12.42	12.50	13.43	---	---	12.14	13.95	13.40	12.92	13.02	13.59
17	12.77	12.48	12.45	13.34	---	---	11.91	14.15	13.46	12.83	12.96	13.71
18	12.69	12.47	12.50	13.05	---	---	10.79	14.31	13.60	12.89	13.10	13.79
19	12.75	12.53	12.54	12.36	---	---	10.26	15.80	13.59	12.83	13.00	13.74
20	12.75	12.45	12.65	11.10	---	---	10.73	16.14	13.59	12.80	13.10	13.68
21	12.66	12.57	12.54	10.70	---	---	10.82	16.62	13.75	12.72	12.95	13.70
22	12.77	12.50	12.62	10.29	---	---	11.24	16.47	13.77	12.72	13.08	13.60
23	12.77	12.59	12.48	8.82	---	---	11.24	13.86	13.95	12.75	13.17	13.64
24	12.67	12.69	12.38	8.72	---	---	11.10	14.96	13.95	12.75	13.14	13.68
25	12.63	12.60	12.32	9.06	---	---	11.16	16.23	14.09	12.84	13.10	13.68
26	12.67	12.44	12.50	9.39	---	---	11.28	16.52	14.18	12.89	13.15	13.79
27	12.63	12.47	12.38	9.47	---	---	11.51	16.67	14.06	12.85	13.15	13.90
28	12.48	12.41	12.42	9.78	---	---	11.55	16.62	12.66	12.85	13.04	13.77
29	12.51	12.44	12.50	11.48	---	---	12.59	16.67	12.87	12.89	13.15	13.68
30	12.49	12.38	12.89	12.27	---	---	12.78	16.98	13.58	13.10	13.23	13.64
31	12.45	---	13.05	13.11	---	---	---	17.04	---	13.23	13.22	---
MAX	12.83	12.69	13.05	13.47	13.67	---	12.78	17.04	17.04	13.58	13.49	13.90
CAL YR 1998	LOW	13.05										
WTR YR 1999	LOW	17.04										



GROUND-WATER RECORDS
Marion County

403601083110400. LOCAL NUMBER, MN-2

LOCATION.--Latitude 40°36'01", longitude 83°11'04", Hydrologic Unit 05060001, water treatment plant 2 mi west of Marion, Ohio.

Owner: Marion Water Department.

AQUIFER.--Limestone of Silurian Age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 12 in., depth 67 ft, cased.

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

DATUM.--Elevation of land-surface datum is 910 ft above sea level, from topographic map.

Measuring point: Floor of instrument shelter 2.00 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

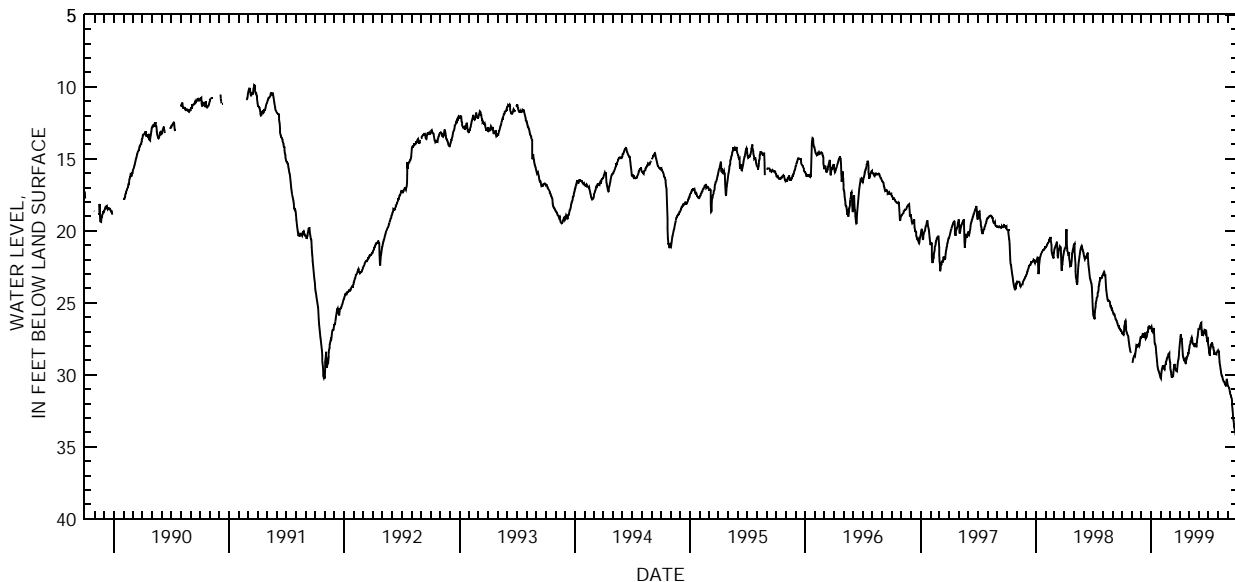
PERIOD OF RECORD.--May 1959 to current year.

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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27.08	---	27.32	26.67	30.26	28.93	27.99	28.29	26.83	27.83	28.29	30.72
2	27.12	---	27.30	26.61	29.90	29.16	27.77	28.13	26.82	28.07	28.35	30.78
3	27.15	29.15	27.32	26.79	29.73	29.46	27.54	28.01	26.81	28.28	28.37	30.81
4	27.15	29.01	27.33	26.96	29.58	29.67	27.33	27.90	26.70	28.44	28.37	30.87
5	27.20	28.89	27.24	26.99	29.52	29.83	27.18	27.80	26.61	28.59	28.77	30.92
6	27.21	28.82	27.08	26.87	29.46	29.94	27.39	27.69	26.55	28.65	29.07	30.96
7	26.87	28.76	27.30	26.94	29.33	30.06	27.53	27.62	26.48	28.31	29.25	31.15
8	26.67	28.67	27.40	26.94	29.42	30.20	27.47	27.53	26.40	28.11	29.37	31.23
9	26.55	28.65	27.36	26.73	29.49	30.13	27.84	27.45	26.37	27.99	29.55	31.32
10	26.42	28.63	27.33	26.90	29.54	30.13	28.18	27.39	26.93	27.88	29.70	31.40
11	26.27	28.65	27.35	27.27	29.55	30.06	28.50	27.60	27.26	27.84	29.85	31.47
12	26.22	28.47	27.17	27.72	29.61	30.06	28.73	27.71	27.02	27.78	29.97	31.56
13	26.63	28.33	27.06	27.84	29.42	29.82	28.80	27.78	27.06	27.75	30.06	31.62
14	26.85	28.15	27.38	27.86	29.33	29.55	28.88	27.84	27.20	27.88	30.09	31.77
15	26.97	27.93	27.47	27.95	29.25	29.37	28.97	27.88	27.21	27.98	30.15	32.07
16	27.05	27.96	27.38	28.11	29.25	29.24	29.04	27.93	27.15	28.04	30.27	32.49
17	27.12	27.99	27.35	28.41	29.10	29.31	28.90	27.96	27.02	28.10	30.35	32.79
18	27.18	28.01	27.36	28.65	29.01	29.51	28.89	27.99	26.96	28.15	30.40	33.03
19	27.26	27.96	27.15	28.89	28.92	29.60	29.08	28.01	26.90	28.31	30.47	33.17
20	27.30	27.93	26.99	29.10	28.86	29.61	29.19	28.02	26.91	28.41	30.50	33.39
21	27.35	27.98	27.05	29.37	28.79	29.65	29.24	27.80	27.08	28.52	30.53	33.57
22	27.60	27.99	26.82	29.49	28.74	29.72	29.04	27.86	27.12	28.53	30.57	33.74
23	27.75	27.93	26.73	29.61	28.68	29.73	28.90	27.87	26.94	28.50	30.65	33.87
24	27.93	27.98	26.67	29.68	28.62	29.75	28.83	27.98	26.85	28.53	30.71	33.95
25	28.08	27.92	26.65	29.75	28.56	29.48	28.76	28.01	27.11	28.56	30.74	34.02
26	28.20	27.80	26.58	29.79	28.52	29.25	28.70	27.74	27.38	28.58	30.74	34.11
27	28.32	27.69	26.75	29.88	28.46	29.10	28.63	27.54	27.57	28.50	30.57	34.19
28	28.43	27.45	26.72	29.97	28.68	28.95	28.52	27.40	27.71	28.43	30.36	34.38
29	28.46	27.33	26.70	30.06	---	28.86	28.52	27.29	27.50	28.38	30.27	34.53
30	---	27.39	26.73	30.15	---	28.62	28.44	27.06	27.48	28.33	30.50	34.67
31	---	---	26.75	30.23	---	28.25	---	26.83	---	28.32	30.63	---
MAX	28.46	29.15	27.47	30.23	30.26	30.20	29.24	28.29	27.71	28.65	30.74	34.67

CAL YR 1998 LOW 29.15
WTR YR 1999 LOW 34.67



GROUND-WATER RECORDS
Medina County

410120081431800. LOCAL NUMBER, MD-3

LOCATION.--Latitude 41°01'20", longitude 81°43'18", Hydrologic Unit 05040001, Auble Street at water treatment plant in Wadsworth, Ohio.

Owner: Wadsworth Water Department.

AQUIFER.--Sandstone of Mississippian Age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 12 in., depth 275 ft, cased.

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

DATUM.--Elevation of land-surface datum is 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.

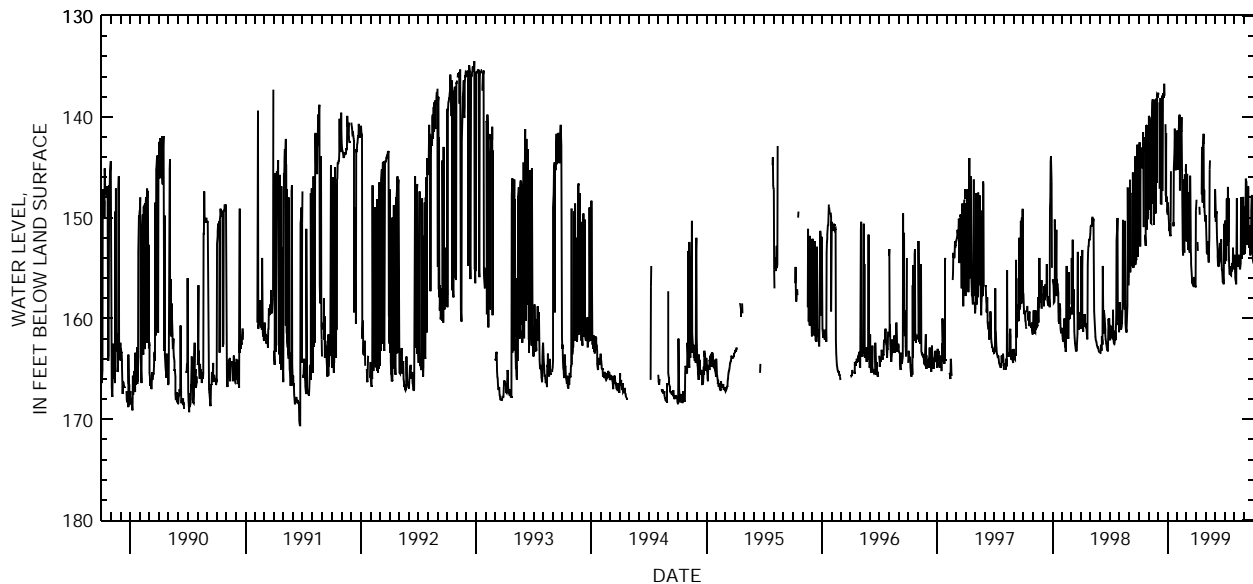
PERIOD OF RECORD.--December 1973 to current year.

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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	152.41	141.65	138.08	149.70	141.42	152.37	149.34	150.39	147.20	153.93	153.69	153.23
2	143.89	149.23	137.75	148.49	141.45	147.41	148.23	149.78	149.61	154.58	155.22	148.92
3	142.64	139.93	137.69	148.70	141.35	145.74	---	151.76	150.39	150.29	155.78	153.59
4	142.64	140.08	137.72	149.96	145.28	145.73	---	152.72	149.64	153.96	155.97	153.04
5	142.53	140.03	---	150.67	141.87	152.34	---	153.41	149.36	154.13	156.42	148.95
6	152.85	140.16	138.60	151.31	140.72	151.02	152.41	153.61	150.61	154.17	156.59	146.11
7	145.07	145.36	147.12	151.02	140.07	152.82	153.32	152.64	152.07	148.19	156.48	146.40
8	143.84	147.72	138.14	151.32	139.79	153.21	---	153.54	153.26	148.08	148.05	146.45
9	143.91	150.56	---	151.62	147.32	147.45	---	152.36	153.83	152.00	153.64	152.70
10	143.16	150.59	148.65	151.85	141.64	152.00	149.21	153.98	154.73	152.79	154.23	149.40
11	143.57	140.33	139.23	150.50	141.30	153.18	---	154.44	154.86	146.96	154.26	147.44
12	143.04	140.33	148.70	145.39	141.03	153.51	148.94	152.94	154.80	152.40	154.76	146.99
13	145.01	140.01	140.46	---	141.48	152.11	149.72	151.95	154.66	148.08	154.85	146.86
14	145.02	138.61	137.89	---	140.03	145.85	---	145.22	154.28	153.66	154.44	146.97
15	142.77	138.24	---	---	148.44	153.16	---	144.32	153.08	154.83	153.79	152.63
16	141.54	148.61	147.36	---	150.63	154.04	---	---	152.51	155.49	153.69	152.84
17	150.91	140.37	138.00	142.86	152.11	154.59	---	---	153.26	155.63	154.25	152.99
18	142.01	150.16	137.66	---	153.18	155.61	---	---	153.60	155.40	154.97	152.69
19	---	150.75	138.03	150.44	153.74	156.15	147.69	---	153.67	154.85	155.11	150.76
20	---	140.01	138.11	150.86	152.79	156.27	143.00	---	152.16	155.72	154.51	153.74
21	151.90	139.77	136.74	145.07	146.21	156.16	145.35	---	154.28	155.73	154.39	152.84
22	151.71	138.30	137.87	143.45	152.72	156.53	148.51	145.38	155.07	155.04	147.99	153.56
23	152.78	138.59	137.91	143.42	153.45	156.74	142.42	---	155.24	155.33	152.79	149.31
24	140.83	149.58	---	141.18	145.68	156.86	142.71	---	155.86	154.59	154.10	148.05
25	150.38	139.29	140.72	142.48	---	155.97	141.69	141.93	156.41	154.51	149.96	147.74
26	141.57	138.81	147.83	142.76	---	155.96	148.97	---	155.99	155.14	153.16	150.56
27	151.18	138.15	141.61	145.31	145.42	156.39	147.23	---	156.45	152.97	153.35	153.23
28	140.89	146.54	148.42	142.79	144.72	156.09	149.36	---	156.60	154.88	148.04	154.16
29	140.94	137.70	147.90	142.58	---	156.60	149.75	---	151.41	155.06	148.04	154.42
30	140.99	137.73	148.62	142.58	---	156.86	150.30	---	150.59	154.08	153.47	154.53
31	150.18	---	149.29	141.38	---	156.93	---	150.00	---	154.85	153.63	---
MAX	152.85	150.75	149.29	151.85	153.74	156.93	153.32	154.44	156.60	155.73	156.59	154.53

CAL YR 1998 LOW 163.50
WTR YR 1999 LOW 156.93



GROUND-WATER RECORDS
Mercer County

402833084375200. LOCAL NUMBER, MR-2

LOCATION.--Latitude 40°28'33", longitude 84°37'52", Hydrologic Unit 05120101, at AVCO Mfg. Co. building in Coldwater, Ohio.

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.

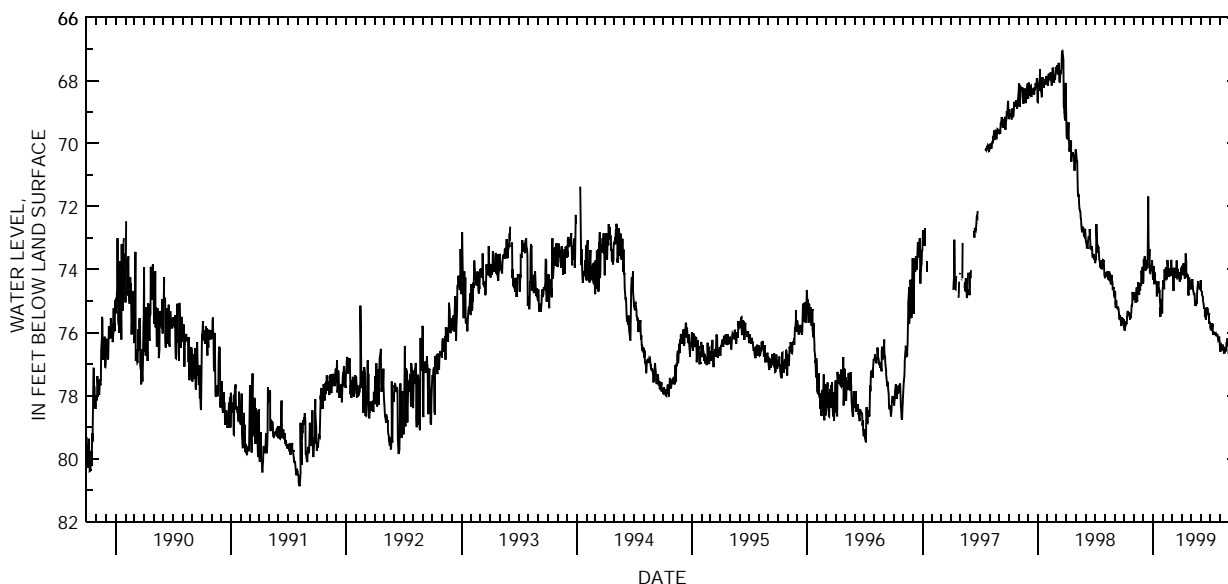
PERIOD OF RECORD.--February 1967 to current year.

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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	75.79	74.86	74.45	74.33	74.59	73.99	74.01	74.63	74.33	75.65	76.46	76.57
2	75.90	74.75	74.34	74.12	74.54	74.07	74.00	74.44	74.42	75.84	76.59	76.57
3	75.91	74.75	73.68	73.88	74.33	73.94	73.93	74.35	74.67	75.89	76.59	76.57
4	75.94	74.81	73.92	74.41	74.57	74.20	73.94	74.44	74.71	75.91	76.43	76.53
5	75.79	74.74	73.71	74.40	74.59	74.18	74.12	74.35	74.71	75.78	76.39	76.51
6	75.79	74.99	73.58	74.09	74.30	74.56	74.11	74.30	74.81	75.71	76.43	76.49
7	75.63	75.06	73.93	74.46	74.00	74.68	74.18	74.45	74.85	75.79	76.42	76.58
8	75.72	74.93	73.79	74.45	74.12	74.55	73.80	74.61	74.88	75.81	76.44	76.57
9	75.73	74.74	74.03	74.39	74.29	73.95	73.94	74.69	74.97	75.71	76.53	76.60
10	75.71	74.57	73.93	74.35	74.30	74.11	73.99	74.74	75.08	76.01	76.38	76.65
11	75.48	74.95	73.99	74.45	73.93	74.19	73.93	74.79	75.18	76.07	76.57	76.77
12	75.36	75.02	73.89	74.40	74.01	74.24	74.28	74.74	75.22	76.01	76.59	76.79
13	75.31	74.89	73.69	74.85	74.31	74.24	74.16	74.81	75.22	75.99	76.44	76.79
14	75.35	74.59	73.96	74.72	74.28	73.95	73.93	75.06	75.25	76.00	76.68	76.82
15	75.43	74.57	73.89	74.73	73.93	74.03	73.49	75.14	75.41	76.02	76.60	76.81
16	75.44	74.40	73.11	74.64	73.69	74.03	73.76	75.06	75.38	76.04	76.65	76.81
17	75.39	74.59	71.68	74.65	73.79	73.71	74.10	75.04	75.49	76.03	76.57	76.93
18	75.39	74.79	73.11	74.37	73.88	74.24	74.15	74.99	75.58	76.03	76.57	76.83
19	75.49	74.58	73.48	74.71	74.04	74.28	74.12	75.07	75.43	76.02	76.57	76.78
20	75.58	74.57	73.58	74.71	74.11	74.27	74.25	75.05	75.39	76.07	76.60	76.81
21	75.42	74.66	73.35	74.66	74.15	73.99	74.19	74.70	75.23	76.06	76.50	76.92
22	75.54	74.58	74.10	74.70	74.23	74.16	74.16	74.58	75.23	76.09	76.30	76.92
23	75.43	74.43	74.11	74.89	73.99	74.16	74.71	74.45	75.22	76.10	76.35	76.72
24	75.37	74.51	74.03	75.20	73.99	74.08	74.82	74.36	75.24	76.04	76.26	76.69
25	75.15	74.15	73.93	75.47	74.00	74.16	74.60	74.44	75.41	76.12	76.18	76.77
26	75.14	74.03	73.88	75.47	74.19	74.34	74.25	74.59	75.45	76.16	76.29	76.85
27	75.08	74.12	73.88	74.93	74.07	74.38	74.32	74.56	75.42	76.23	76.39	76.82
28	74.71	74.04	73.94	75.22	73.69	74.09	74.39	74.55	75.41	76.21	76.44	76.82
29	74.80	73.92	73.70	75.28	---	74.26	74.56	74.59	75.70	76.15	76.65	76.80
30	74.85	73.94	73.99	75.39	---	74.27	74.59	74.63	75.70	76.15	76.68	76.72
31	74.96	---	74.17	75.10	---	73.94	---	74.58	---	76.27	76.57	---
MAX	75.94	75.06	74.45	75.47	74.59	74.68	74.82	75.14	75.70	76.27	76.68	76.93

CAL YR 1998 LOW 75.94
WTR YR 1999 LOW 76.93



GROUND-WATER RECORDS
Miami County

395848084085500. LOCAL NUMBER, MI-3

LOCATION.--Latitude 39°58'48", longitude 84°08'55", Hydrologic Unit 05080001, 2.0 mi northeast of Tipp City, Ohio.
 Owner: Fulton Fruit Farms.
 AQUIFER.--Sand and gravel of Pleistocene Age.
 WELL CHARACTERISTICS.--Drilled unused water table well, diameter 5 in., depth 48 ft, cased.
 INSTRUMENTATION.--Periodic measurement with chalked tape by Ohio Department of Natural Resources personnel.
 DATUM.--Elevation of land-surface datum is 804.78 ft above sea level. (Levels by Miami Conservancy District.)
 Measuring point: Floor of shelter 3.50 ft above land-surface datum.
 REMARKS.--Station operated by Ohio Department of Natural Resources, 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 OBSERVATION

DATE	WATER LEVEL
Oct. 9, 1998	11.95
Apr. 13, 1999	10.47

GROUND-WATER RECORDS
Miami County

400208084112900. LOCAL NUMBER, MI-44

LOCATION.--Latitude 40°02'08", longitude 84°11'29", Hydrologic Unit 05080001, on left bank of Great Miami River 0.7 mi east of city hall in Troy, Ohio.
 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 1998 TO SEPTEMBER 1999

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)	ANC UNFLTRD CARBON- ATE IT-FLD (MG/L - CAC03) (99430)
NOV 23...	1430	743	7.4	16.5	13.3	<10	84	30	23	2.4	315	255
APR 19...	1230	710	7.3	10.0	13.3	<10	81	31	20	2.5	283	228
AUG 18...	1500	753	7.2	22.2	14.5	<10	80	32	24	2.5	289	232

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 23...	57	36	.74	12	438	<.010	<.050	.308	<.010	1	<1
APR 19...	57	28	.92	13	396	<.010	<.050	.327	<.010	--	--
AUG 18...	63	38	.86	14	434	<.010	<.050	.352	<.010	1	2

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 23...	<1.0	<1	2	<1.0	1400	<1	<1.0	47	<10	<20	.90
APR 19...	--	--	--	--	1400	--	--	48	--	--	.90
AUG 18...	<1.0	<1	<1	<1.0	1500	<1	<1.0	50	<40	<20	1.1

GROUND-WATER RECORDS
Montgomery County

393757084173600. LOCAL NUMBER MT-928

LOCATION.--Latitude 39°37'57", longitude 84°17'36", Hydrologic Unit 05080002, on right bank of Great Miami River 0.2 mi south of Linden Ave. bridge, Miamisburg, Ohio.
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 1998 TO SEPTEMBER 1999

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)	ANC UNFLTRD CARBON- ATE IT-FLD (MG/L - CAC03) (99430)
NOV 23...	1200	851	7.5	15.5	13.6	<10	90	31	37	3.8	303	244
APR 19...	1015	886	7.4	7.0	16.2	<10	88	31	47	4.0	272	220
AUG 18...	1130	827	7.3	21.1	14.1	<10	80	31	39	3.7	276	223

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 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 23...	57	80	.31	8.4	518	.053	1.36	.021	.034	1	2
APR 19...	58	87	.34	9.2	479	.063	3.34	.032	.031	--	--
AUG 18...	58	71	.33	8.9	422	.043	2.09	<.020	.024	<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 23...	<1.0	<1	3	3.0	<10	<1	<1.0	196	<10	<20	1.8
APR 19...	--	--	--	--	16	--	--	232	--	--	1.3
AUG 18...	<1.0	1	5	5.1	<10	<1	<1.0	232	<40	<20	1.6

GROUND-WATER RECORDS Montgomery County

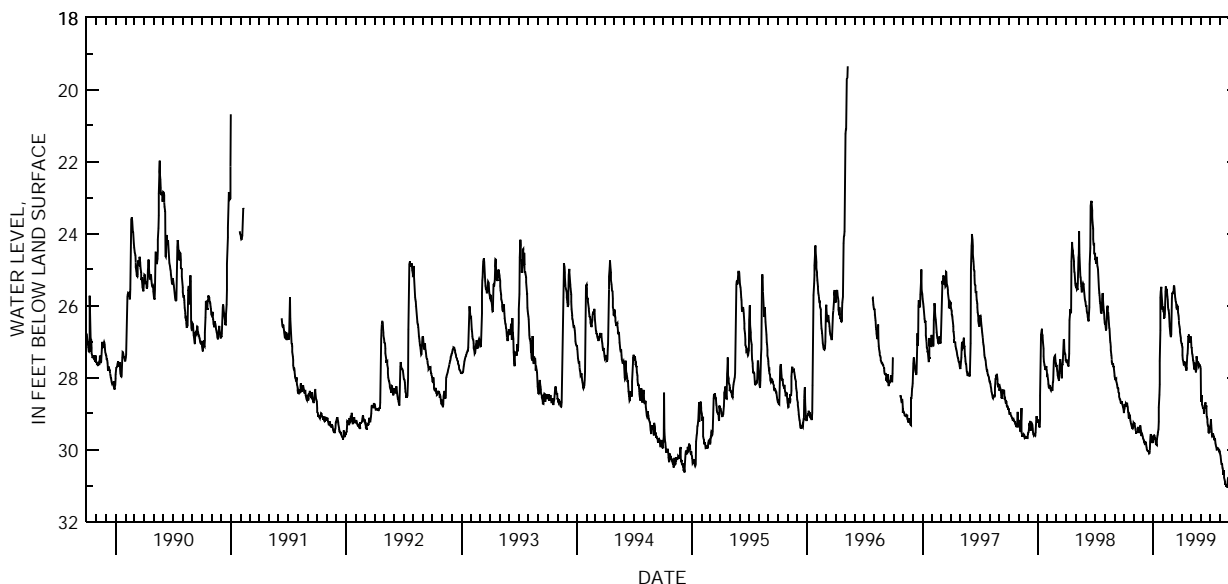
394012084151700. LOCAL NUMBER, MT-55

LOCATION.--Latitude 39°40'12", longitude 84°15'17", Hydrologic Unit 05080002, Elm Street in West Carrollton, Ohio.
 Owner: Oxford Paper Company.
 AQUIFER.--Sand and gravel of Pleistocene Age.
 WELL CHARACTERISTICS.--Drilled unused water table well, diameter 12 in., depth 84 ft, cased.
 INSTRUMENTATION.--Digital recorder--60-minute punch.
 DATUM.--Elevation of land-surface datum is 717.6 ft above sea level.
 Measuring point: Floor of instrument shelter 0.30 ft above land-surface datum.
 REMARKS.--Station operated by Ohio Department of Natural Resources, 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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28.98	29.27	29.69	29.74	26.11	26.49	27.05	26.87	27.75	29.37	30.07	31.00
2	28.88	29.30	29.72	29.63	26.03	25.80	27.06	26.97	28.67	29.34	30.14	31.11
3	28.87	29.26	29.74	29.61	26.14	25.64	27.10	27.17	28.66	29.29	30.17	31.14
4	28.73	29.32	29.78	29.62	26.12	25.66	27.16	27.18	28.52	29.16	30.25	31.14
5	28.81	29.34	29.80	29.61	26.18	25.64	27.38	27.32	28.52	29.33	30.34	31.11
6	28.78	29.42	29.78	29.63	26.32	25.67	27.50	27.35	28.75	29.44	30.40	31.09
7	28.72	29.48	29.79	29.73	26.32	25.64	27.57	27.41	28.79	29.58	30.40	31.11
8	28.74	29.53	29.82	29.67	26.23	25.47	27.56	27.51	28.85	29.64	30.41	31.15
9	28.80	29.53	29.81	29.76	25.92	25.44	27.64	27.54	28.85	29.63	30.51	31.14
10	28.75	29.53	29.80	29.83	25.61	25.51	27.63	27.62	28.85	29.56	30.54	31.16
11	28.70	29.53	29.90	29.85	25.47	25.63	27.57	27.70	28.95	29.57	30.61	31.18
12	28.79	29.51	29.94	29.87	25.63	25.75	27.56	27.77	29.00	29.61	30.70	31.19
13	28.82	29.50	30.01	29.88	25.61	25.82	27.65	27.61	28.84	29.65	30.57	31.23
14	28.94	29.43	30.03	29.73	25.53	25.90	27.70	27.61	28.85	29.74	30.69	31.26
15	28.97	29.37	30.04	29.60	25.66	25.91	27.71	27.65	28.78	29.69	30.78	31.30
16	29.13	29.44	30.04	29.57	25.75	26.05	27.73	27.77	28.69	29.71	30.85	31.34
17	29.11	29.53	30.05	29.53	25.83	26.08	27.80	27.85	28.84	29.72	30.89	31.35
18	29.14	29.41	30.05	29.43	26.05	26.07	27.74	27.78	28.83	29.82	30.96	31.29
19	29.04	29.50	30.07	29.23	26.11	26.01	27.56	27.40	28.78	29.86	30.96	31.28
20	29.06	29.54	30.11	28.83	26.14	26.03	27.38	27.46	28.94	29.91	30.99	31.33
21	29.18	29.37	30.10	28.48	26.22	26.08	27.34	27.58	29.09	29.93	31.02	31.34
22	29.22	29.33	30.03	28.19	26.40	26.18	27.18	27.56	29.15	30.00	31.02	31.39
23	29.27	29.41	29.78	27.54	26.58	26.29	26.87	27.56	29.23	30.00	31.00	31.47
24	29.29	29.49	29.63	26.69	26.69	26.42	26.87	27.58	29.32	29.99	31.05	31.53
25	29.34	29.58	29.57	25.78	26.78	26.48	26.80	27.69	29.36	29.97	31.02	31.47
26	29.37	29.62	29.62	25.61	26.85	26.59	26.91	27.67	29.52	29.97	30.91	31.48
27	29.40	29.58	29.62	25.48	26.87	26.65	27.00	27.64	29.53	29.96	30.80	31.54
28	29.42	29.56	29.70	25.58	26.79	26.72	27.01	27.66	29.50	30.00	30.78	31.57
29	29.37	29.60	29.75	25.73	---	26.85	26.99	27.66	29.53	30.03	30.76	31.61
30	29.38	29.64	29.82	25.96	---	26.90	26.87	27.68	29.41	30.00	30.81	31.65
31	29.26	---	29.72	26.07	---	26.96	---	27.70	---	30.05	30.83	---
MAX	29.42	29.64	30.11	29.88	26.87	26.96	27.80	27.85	29.53	30.05	31.05	31.65

CAL YR 1998 LOW 30.11
 WTR YR 1999 LOW 31.65



GROUND-WATER RECORDS
Montgomery County

394025084162800. LOCAL NUMBER, MT-49

LOCATION.--Latitude 39°40'25", longitude 84°16'28", Hydrologic Unit 05080002, 1.2 mi west of city hall in West Carrollton, Ohio.

Owner: Metal Shredders, Inc.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled test water table well, diameter 6 in., depth 220 ft, cased.

INSTRUMENTATION.--Digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 714.61 ft above sea level. (Levels by Miami Conservancy District.)

Measuring point: Floor of shelter 2.50 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

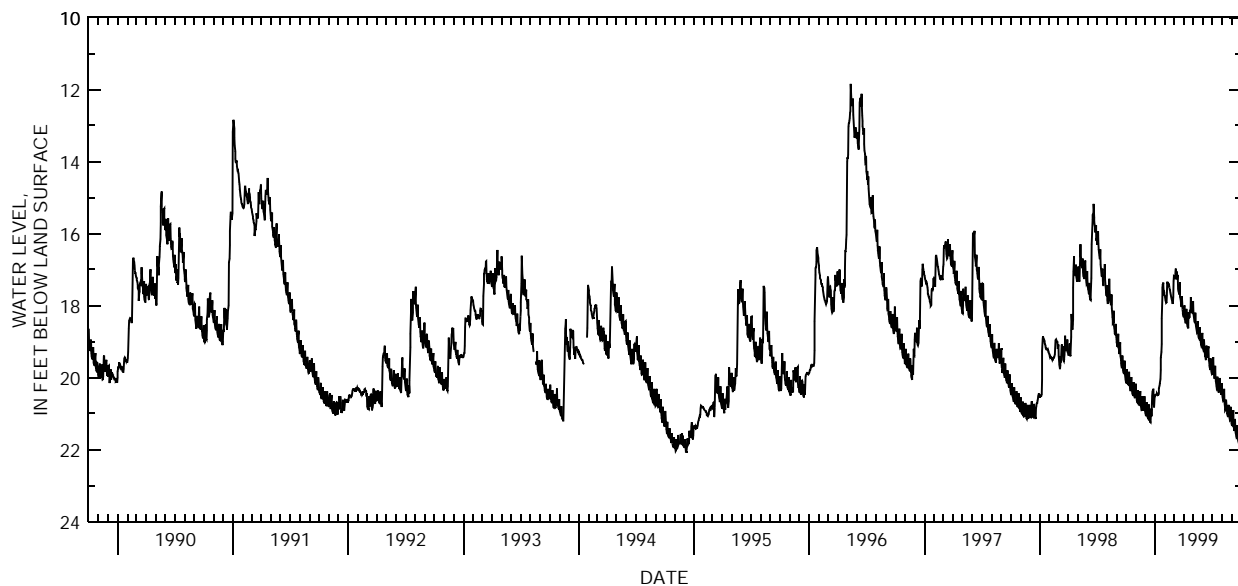
PERIOD OF RECORD.--November 1947 to current year.

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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.10	20.17	20.93	20.51	17.71	17.31	18.29	18.15	19.06	19.90	20.16	21.26
2	20.14	20.46	20.98	20.48	17.76	17.18	18.32	17.87	19.14	19.89	20.46	21.31
3	20.14	20.53	21.02	20.47	17.79	17.19	18.22	18.18	19.19	19.85	20.53	21.33
4	19.76	20.59	21.05	20.47	17.88	17.22	17.99	18.27	19.25	19.48	20.58	21.31
5	20.06	20.62	21.06	20.47	17.91	17.23	18.29	18.34	19.24	19.43	20.65	20.96
6	20.13	20.69	20.68	20.45	17.92	17.19	18.37	18.42	18.94	19.82	20.64	20.90
7	20.17	20.70	20.94	20.47	17.91	17.05	18.43	18.46	19.27	19.88	20.60	21.28
8	20.17	20.34	21.04	20.43	17.71	16.97	18.46	18.47	19.35	19.96	20.31	21.36
9	20.20	20.62	21.09	20.46	17.36	17.16	18.49	18.19	19.41	20.02	20.66	21.42
10	20.21	20.68	21.13	20.44	17.33	17.05	18.32	18.49	19.45	19.97	20.76	21.48
11	19.84	20.74	21.14	20.47	17.38	17.08	18.09	18.57	19.51	19.67	20.87	21.42
12	20.09	20.75	21.13	20.46	17.42	17.27	18.42	18.62	19.50	19.98	20.90	21.14
13	20.22	20.71	20.74	20.42	17.39	17.16	18.51	18.67	19.11	20.09	20.88	21.45
14	20.27	20.71	21.07	20.29	17.39	17.17	18.56	18.73	19.32	20.15	20.85	21.53
15	20.34	20.37	21.14	20.22	17.44	17.53	18.58	18.71	19.37	20.23	20.61	21.57
16	20.37	20.68	21.19	20.17	17.49	17.58	18.63	18.42	19.37	20.29	20.85	21.63
17	20.17	20.78	21.23	20.15	17.55	17.62	18.47	18.72	19.45	20.27	20.92	21.67
18	19.98	20.81	21.24	20.03	17.58	17.64	18.18	18.79	19.19	19.97	20.99	21.66
19	20.26	20.86	21.04	19.78	17.63	17.69	18.25	18.86	19.17	20.27	21.05	21.31
20	20.33	20.90	20.86	19.45	17.68	17.58	18.33	18.90	19.13	20.34	21.09	21.62
21	20.42	20.90	21.07	19.28	17.73	17.35	18.32	18.92	19.50	20.37	21.07	21.69
22	20.47	20.52	20.84	19.06	17.77	17.75	18.11	18.90	19.59	20.41	20.75	21.75
23	20.49	20.80	20.50	18.35	17.81	17.82	18.15	18.60	19.66	20.37	21.03	21.78
24	20.49	20.90	20.39	17.75	17.85	17.90	18.11	18.87	19.71	20.33	21.06	21.82
25	20.12	20.91	20.36	17.50	17.90	17.97	17.76	18.93	19.78	20.01	21.09	21.80
26	20.41	20.71	20.33	17.42	17.94	18.03	18.07	19.01	19.74	20.29	21.12	21.47
27	20.48	20.82	20.33	17.36	17.91	17.91	18.15	19.08	19.46	20.33	21.17	21.78
28	20.51	20.84	20.71	17.47	17.76	17.74	18.20	19.12	19.73	20.40	21.14	21.85
29	20.57	20.51	20.82	17.57	---	18.10	18.14	19.10	19.81	20.43	20.81	21.86
30	20.55	20.84	20.65	17.64	---	18.17	18.17	18.80	19.86	20.47	21.13	21.86
31	20.49	---	20.52	17.70	---	18.22	---	18.76	---	20.43	21.22	---
MAX	20.57	20.91	21.24	20.51	17.94	18.22	18.63	19.12	19.86	20.47	21.22	21.86

CAL YR 1998 LOW 21.24
WTR YR 1999 LOW 21.86



GROUND-WATER RECORDS Montgomery County

394425084113200. LOCAL NUMBER, MT-3

LOCATION.--Latitude 39°44'25", longitude 84°11'32", Hydrologic Unit 05080002, Patterson Blvd. at Stewart St. in Dayton, Ohio.

Owner: State of Ohio.

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled test water table well, diameter 6 in., depth 80 ft, cased.

INSTRUMENTATION.--Digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 744 ft above sea level, from topographic map.

Measuring point: Floor of instrument shelter 1.20 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

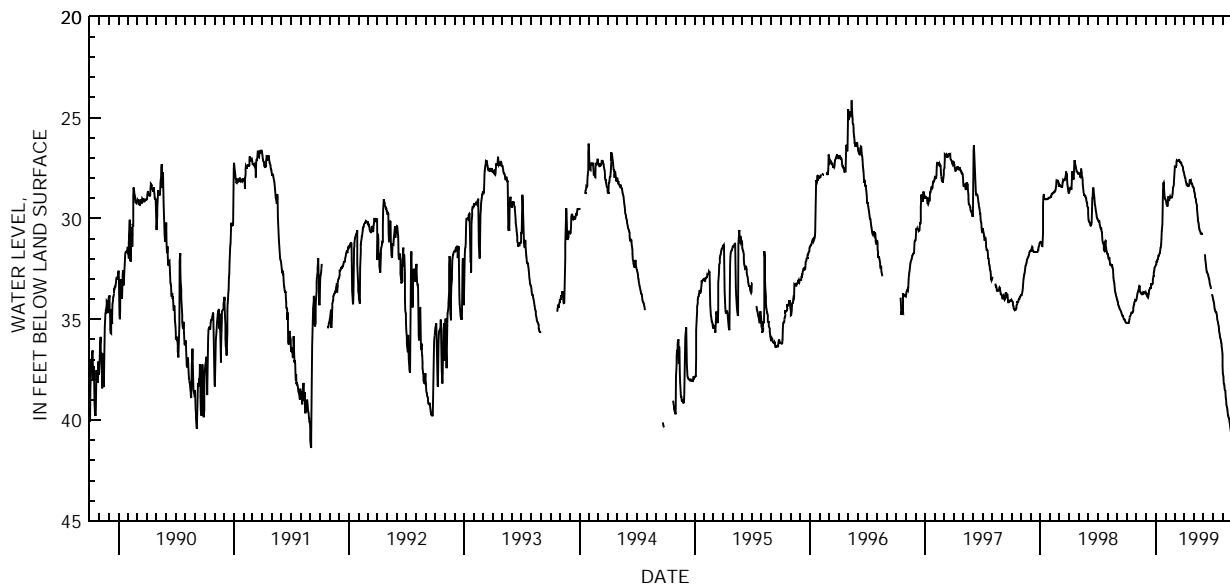
PERIOD OF RECORD.--May 1945 to June 1974. Reactivated June 1980.

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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35.18	34.03	33.74	32.31	29.07	27.66	27.77	28.50	---	33.95	37.30	40.77
2	35.18	33.92	33.72	32.29	29.11	27.44	27.86	28.54	---	34.05	37.69	40.87
3	35.18	33.80	33.69	32.11	29.17	27.43	27.92	28.63	---	34.09	37.85	40.95
4	35.17	33.73	33.85	32.13	29.29	27.45	27.98	28.74	---	34.17	38.00	41.07
5	35.17	33.67	33.89	32.12	29.29	27.45	28.00	28.84	---	34.29	38.18	41.14
6	35.17	33.59	33.92	32.05	29.37	27.40	28.16	28.94	31.77	34.45	38.29	41.19
7	35.17	33.55	33.93	32.03	29.37	27.35	28.18	28.99	32.02	34.52	38.36	41.29
8	35.17	33.50	33.86	32.01	29.31	27.19	28.26	29.08	32.16	34.56	38.50	41.35
9	35.00	33.44	33.75	31.87	28.93	27.10	28.35	29.15	32.29	34.64	38.55	41.44
10	34.92	33.35	33.68	31.87	28.93	27.13	28.35	29.28	32.44	34.65	38.63	41.45
11	34.85	33.36	33.57	31.82	29.07	27.14	28.32	29.34	32.56	34.65	38.88	41.45
12	34.80	33.62	33.53	31.79	29.12	27.15	28.38	29.50	32.66	34.68	38.97	41.48
13	34.77	33.67	33.44	31.72	29.01	27.15	28.38	29.82	32.67	34.75	39.23	41.56
14	34.77	33.67	33.44	31.71	28.98	27.10	28.40	30.00	32.73	34.87	39.31	41.59
15	34.67	33.70	33.44	31.60	28.92	27.08	28.40	30.11	32.75	34.96	39.34	41.66
16	34.67	33.70	33.44	31.48	28.96	27.09	28.35	30.22	32.79	35.09	39.46	41.69
17	34.67	33.76	33.28	31.43	28.97	27.14	28.32	30.35	32.88	35.15	39.60	41.71
18	34.68	33.76	33.28	31.27	28.96	27.17	28.14	30.42	32.96	35.18	39.75	41.73
19	34.68	33.75	33.28	31.05	28.95	27.18	28.05	30.53	32.98	35.33	39.81	41.77
20	34.66	33.76	33.28	30.62	28.95	27.19	28.10	30.55	33.08	35.47	39.87	41.89
21	34.58	33.73	33.26	30.46	28.95	27.23	28.10	30.62	33.22	35.57	39.92	41.93
22	34.43	33.67	33.22	30.28	28.94	27.24	28.09	30.66	33.29	35.71	39.96	41.93
23	34.34	33.68	33.04	29.38	28.75	27.24	28.26	30.66	33.35	35.86	40.10	41.94
24	34.26	33.71	32.86	28.56	28.54	27.33	28.26	30.75	33.40	35.91	40.20	41.96
25	34.17	33.71	32.86	28.23	28.45	27.37	28.25	30.75	33.49	35.96	40.34	42.06
26	34.12	33.65	32.68	28.20	28.40	27.39	28.29	30.71	---	36.07	40.46	42.14
27	34.08	33.65	32.57	28.45	28.29	27.41	28.37	30.69	---	36.11	40.55	42.23
28	34.07	33.65	32.48	28.72	28.18	27.44	28.43	---	33.74	36.22	40.62	42.33
29	34.08	33.63	32.39	28.90	---	27.59	28.43	---	33.82	36.33	40.73	42.37
30	34.08	33.71	32.35	29.00	---	27.66	28.47	---	33.87	36.43	40.74	42.37
31	34.04	---	32.34	29.04	---	27.70	---	---	---	36.74	40.75	---
MAX	35.18	34.03	33.93	32.31	29.37	27.70	28.47	30.75	33.87	36.74	40.75	42.37

CAL YR 1998 LOW 35.18
WTR YR 1999 LOW 42.37



GROUND-WATER RECORDS Montgomery County

394533084113800. LOCAL NUMBER, MT-6

LOCATION.--Latitude 39°45'33", longitude 84°11'38", Hydrologic Unit 05080002, 3rd and Ludlow Sts., Dayton, Ohio.

Owner: City of Dayton

AQUIFER.--Sand and gravel of Pleistocene age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 8 in., depth 60 ft, cased.

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

DATUM.--Elevation of land-surface datum is 740 ft above sea level, from topographic map.

Measuring point: Floor of instrument shelter 13.00 ft below land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

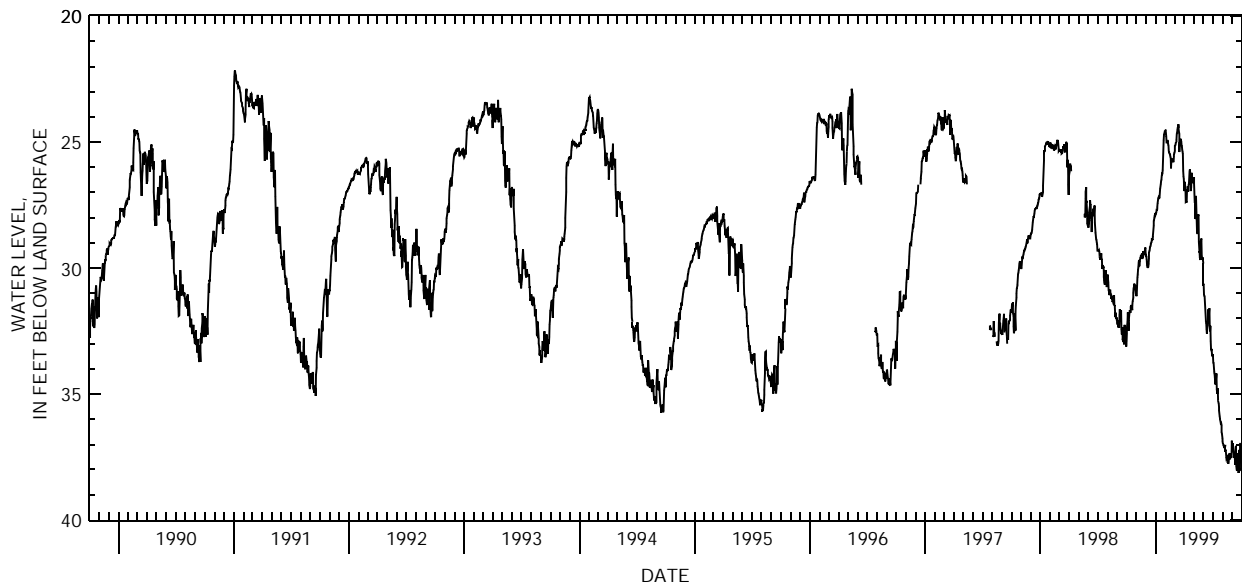
PERIOD OF RECORD.--February 1946 to current year.

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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32.61	31.11	29.51	27.86	24.53	25.41	26.90	26.42	30.66	33.48	36.87	37.11
2	32.38	31.01	29.55	27.78	24.63	25.35	26.93	26.40	30.65	33.75	36.96	36.95
3	32.13	30.68	29.67	27.78	24.77	25.14	26.58	26.65	31.05	33.77	37.02	37.11
4	31.76	30.38	29.88	27.69	25.02	25.10	26.72	27.38	31.10	33.93	37.03	37.23
5	31.76	30.24	29.96	27.69	25.02	25.04	26.81	27.38	31.13	34.10	37.07	37.32
6	32.37	30.06	29.96	27.58	24.96	25.01	27.38	28.05	31.35	34.20	37.11	37.53
7	32.49	29.96	29.97	27.43	24.95	24.97	27.36	27.77	31.62	34.35	37.07	37.32
8	32.06	29.76	29.96	27.32	24.96	24.90	27.38	27.36	31.86	34.55	37.16	37.47
9	31.79	29.68	29.82	27.23	25.08	24.68	27.38	27.13	32.09	34.62	37.02	37.63
10	31.74	29.93	29.63	27.18	25.13	24.53	26.87	28.08	32.18	34.38	37.23	37.82
11	31.67	29.75	29.38	27.15	25.37	24.51	26.96	28.47	32.43	34.35	37.23	37.10
12	31.77	29.67	29.30	27.23	25.40	24.42	26.76	28.52	32.60	34.19	37.38	37.08
13	31.71	29.61	29.21	27.21	25.46	24.41	26.81	28.65	32.46	34.80	37.53	37.86
14	31.52	29.58	29.16	27.05	25.47	24.29	26.96	28.10	32.30	34.95	37.52	37.97
15	31.47	29.48	29.12	26.85	25.49	24.54	26.70	27.96	32.19	34.98	37.55	38.04
16	31.56	29.54	29.06	26.76	25.58	24.68	26.64	27.87	31.92	34.77	37.41	37.73
17	31.56	29.51	29.00	26.67	25.62	25.40	26.42	28.89	31.63	35.21	37.73	37.50
18	31.67	29.42	28.97	26.54	26.04	25.02	26.15	28.97	32.18	35.27	37.52	37.35
19	31.50	29.64	28.89	26.48	25.73	24.99	26.08	29.38	31.74	35.37	37.77	37.43
20	31.32	29.60	28.86	26.33	25.68	24.92	26.24	29.33	31.59	35.52	37.63	38.13
21	31.17	29.54	28.88	26.25	25.65	24.87	26.36	29.57	32.32	35.64	37.43	37.95
22	30.99	29.33	28.86	26.25	25.73	24.95	26.94	29.68	32.50	35.87	37.37	37.26
23	30.81	29.46	28.76	26.10	25.77	24.97	26.79	29.06	32.30	35.96	37.34	37.22
24	30.71	29.43	28.47	25.76	25.74	25.13	26.40	28.93	32.91	36.00	37.59	37.71
25	30.62	29.36	28.32	25.28	25.76	25.17	26.22	28.83	33.21	36.10	37.55	37.08
26	30.68	29.33	28.13	24.93	25.77	25.31	26.43	28.93	33.25	36.20	37.50	36.95
27	30.69	29.33	28.01	24.71	25.58	25.38	26.63	29.51	33.20	36.10	37.49	37.53
28	30.78	29.21	27.99	24.66	25.49	25.46	26.54	29.65	33.45	36.23	37.50	37.86
29	30.87	29.18	27.92	24.60	---	26.15	26.60	29.58	33.50	36.50	37.49	38.04
30	31.01	29.54	27.81	24.56	---	26.36	26.52	29.60	33.41	36.56	36.85	37.28
31	31.05	---	27.81	24.54	---	26.46	---	29.82	---	36.78	37.14	---
MAX	32.61	31.11	29.97	27.86	26.04	26.46	27.38	29.82	33.50	36.78	37.77	38.13

CAL YR 1998 LOW 33.12
WTR YR 1999 LOW 38.13



GROUND-WATER RECORDS
Montgomery County

394811084095000. LOCAL NUMBER, MT-74

LOCATION.--Latitude 39°48'11", longitude 84°09'50", Hydrologic Unit 05080002, Miami Well Field in Dayton, Ohio.
Owner: City of Dayton.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled test water table well, diameter 8 in., depth 100 ft, cased.

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

DATUM.--Elevation of land-surface datum is 750 ft above sea level, from topographic map.

Measuring point: Floor of instrument shelter 4.0 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

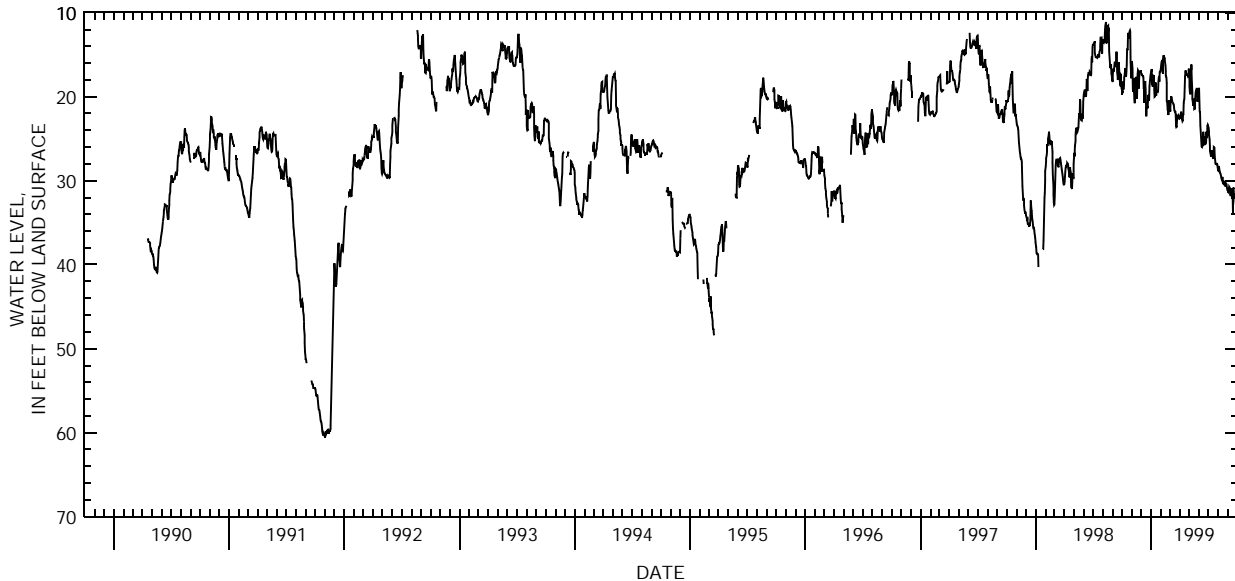
PERIOD OF RECORD.--April 18, 1990 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 60.50 ft below land-surface datum, Oct. 31-Nov. 1, 1991; minimum daily low, 11.13 ft below land-surface datum, Aug. 11,1998.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.70	15.76	17.28	17.10	16.47	21.50	22.62	16.89	19.80	23.51	28.65	31.14
2	19.32	16.11	17.31	16.95	16.11	21.62	22.59	18.00	18.97	23.75	28.83	31.37
3	19.53	16.67	17.42	16.71	15.87	21.78	22.44	18.78	20.76	24.12	28.86	31.41
4	18.18	18.99	17.49	18.56	15.76	20.73	22.20	19.35	21.86	24.54	28.23	30.95
5	18.99	19.41	17.52	18.15	15.65	20.10	22.02	19.71	21.77	25.04	28.55	30.72
6	19.14	17.81	17.55	18.80	16.80	19.97	21.78	18.40	23.47	26.03	28.82	30.81
7	18.00	19.10	17.65	17.67	17.27	20.13	22.05	16.97	24.11	26.45	28.98	30.90
8	17.70	19.44	19.13	17.52	15.53	20.30	22.19	16.71	24.80	26.79	29.07	31.10
9	17.55	20.25	20.58	17.54	15.08	20.47	22.68	16.17	25.40	27.03	29.19	31.62
10	16.78	20.78	20.58	17.54	15.18	20.70	22.88	17.76	25.95	27.15	29.34	31.83
11	16.64	18.57	19.00	19.29	15.24	20.76	22.82	19.45	26.01	26.57	29.52	31.52
12	17.42	17.72	18.42	20.03	15.40	20.84	22.13	20.27	25.70	26.38	29.73	30.95
13	17.62	17.84	18.17	19.98	15.48	20.88	22.20	20.46	25.76	26.97	29.91	31.22
14	17.61	17.84	18.36	19.10	15.74	20.96	20.76	21.11	25.58	27.03	29.97	31.25
15	17.07	17.64	19.15	18.30	16.23	21.36	20.37	20.91	24.20	27.06	29.57	32.01
16	16.23	17.82	22.10	19.20	16.95	21.71	20.28	20.27	24.56	27.18	30.11	32.03
17	14.40	20.27	22.37	19.89	17.52	21.75	18.84	21.33	25.10	27.42	30.30	33.96
18	14.40	19.11	21.38	19.31	17.75	21.81	17.85	21.47	25.58	27.42	30.40	30.95
19	14.40	17.33	21.12	19.50	18.38	21.81	17.64	21.44	25.80	26.01	30.42	30.83
20	12.42	16.86	21.11	19.35	20.52	22.13	16.86	21.44	24.75	26.07	30.11	31.89
21	12.67	16.92	21.38	19.38	20.75	23.37	17.25	20.19	25.52	26.16	30.11	31.70
22	12.83	18.24	20.16	19.41	21.02	23.64	17.42	19.65	25.65	27.13	30.21	31.79
23	12.98	19.05	19.81	19.29	21.65	23.61	17.42	19.31	25.44	27.81	30.18	31.98
24	12.99	17.65	20.28	18.21	21.35	22.91	17.40	19.22	25.41	27.93	30.68	32.06
25	12.14	17.34	20.49	17.70	22.20	22.28	17.43	19.22	24.20	28.02	30.43	32.12
26	12.05	17.07	20.49	17.64	20.73	22.29	17.42	18.97	24.74	28.08	30.26	32.42
27	12.23	16.98	18.72	18.22	20.40	22.31	17.55	19.64	24.92	27.92	30.39	32.84
28	15.92	16.94	18.29	17.03	21.09	22.23	17.55	20.61	23.49	28.02	30.50	33.30
29	16.86	16.95	17.93	17.01	---	22.47	17.42	20.37	23.39	28.02	30.83	33.69
30	17.82	17.13	17.55	17.01	---	22.61	16.67	19.92	23.49	28.07	30.98	34.19
31	17.07	---	17.30	16.83	---	22.64	---	19.83	---	28.38	31.14	---
MAX	19.70	20.78	22.37	20.03	22.20	23.64	22.88	21.47	26.01	28.38	31.14	34.19

CAL YR 1998 LOW 40.31
WTR YR 1999 LOW 34.19



GROUND-WATER RECORDS
Muskingum County

395804081593200. LOCAL NUMBER, MU-1A

LOCATION.--Latitude 39°58'04", longitude 81°59'32", Hydrologic Unit 05040004, 2.2 mi northeast of the "Y" bridge in Zanesville, Ohio.

Owner: Zanesville Water Department.

AQUIFER.--Sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled unused water table well, diameter 6 in., depth 109 ft, cased.

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

DATUM.--Elevation of land-surface datum is 700 ft above sea level, from topographic map.

Measuring point: Floor of instrument shelter 4.48 ft above land-surface datum.

REMARKS.--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.

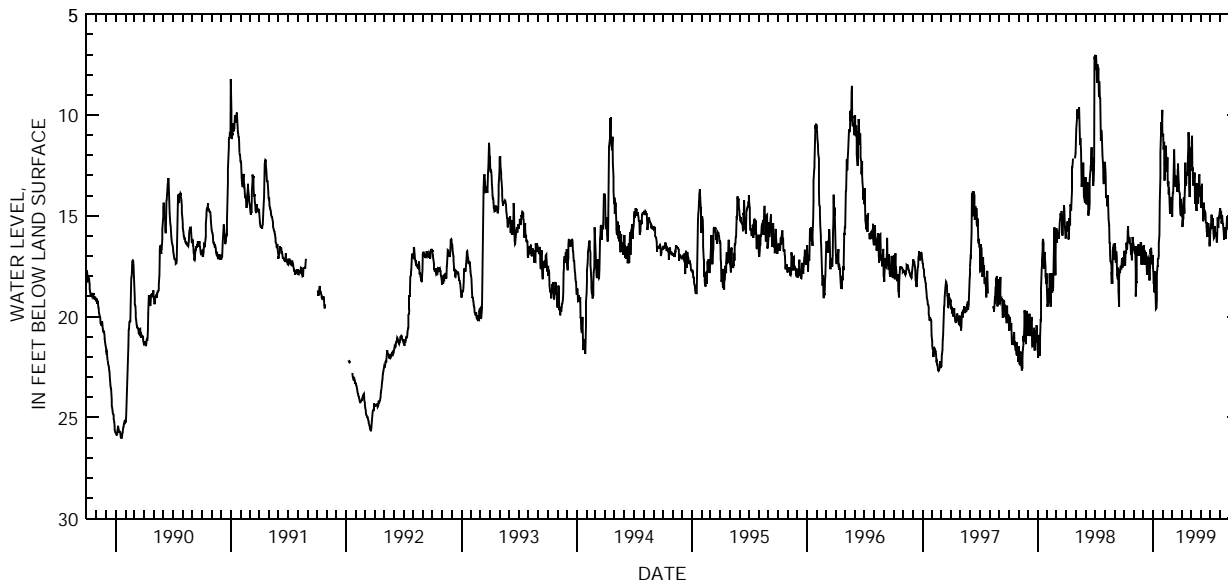
PERIOD OF RECORD.--May 1942 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 37.25 ft below land-surface datum, Aug. 1-2, 1954; minimum daily low, 7.01 ft below land-surface datum, July 2, 1998.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.39	16.52	16.83	17.58	11.04	14.21	14.43	11.92	14.30	16.16	14.72	15.54
2	16.83	16.72	17.40	17.73	10.92	14.76	15.05	12.53	14.60	15.80	14.61	15.93
3	16.72	16.64	16.45	18.35	11.22	15.05	15.01	12.30	14.26	15.57	15.12	15.87
4	17.36	16.86	16.67	18.24	11.70	14.18	14.54	11.34	13.82	15.60	14.75	16.32
5	17.45	16.50	16.85	18.78	11.33	13.86	15.54	11.03	13.41	15.10	14.81	16.16
6	16.83	17.03	16.71	18.09	12.44	13.85	15.21	12.75	14.54	14.93	15.38	15.59
7	16.81	17.69	16.88	17.99	13.25	13.29	15.14	12.60	14.39	15.10	15.25	15.54
8	16.80	19.00	17.43	17.76	12.87	12.65	14.75	13.49	14.75	15.56	14.97	15.93
9	16.32	18.25	17.11	19.11	12.27	11.70	14.10	13.23	15.27	15.54	15.21	16.38
10	16.55	18.31	16.81	19.56	12.02	12.18	14.88	13.35	15.18	15.12	15.38	16.38
11	16.67	16.88	16.94	19.59	11.51	13.10	14.48	13.43	14.34	15.45	15.39	16.31
12	16.36	16.50	17.39	19.55	11.99	13.53	13.97	13.05	14.34	15.85	15.47	15.95
13	15.71	16.50	17.91	19.14	12.36	13.00	12.98	12.85	15.05	16.10	15.80	16.16
14	15.50	16.98	17.34	17.90	12.20	13.07	12.35	14.22	14.91	16.06	16.19	16.68
15	15.99	16.81	17.10	17.50	12.80	13.29	13.50	14.40	14.73	15.83	16.06	15.87
16	16.17	16.41	17.06	17.50	12.09	13.19	13.38	13.70	14.87	15.50	15.75	16.13
17	16.34	16.58	17.28	17.15	13.37	13.55	13.10	13.38	14.97	16.00	15.81	16.10
18	16.04	16.97	17.07	17.11	13.51	13.60	12.93	14.46	15.32	15.90	15.54	16.05
19	16.17	16.85	17.24	16.94	13.28	13.80	12.83	14.76	15.33	15.89	16.13	16.19
20	16.36	16.92	17.65	16.36	13.92	12.71	12.96	13.43	15.51	15.96	16.05	16.29
21	16.38	16.47	18.20	15.95	13.58	12.63	13.00	13.38	15.74	15.95	15.90	16.06
22	16.43	16.71	17.58	14.82	14.22	12.41	12.09	14.40	16.04	16.28	15.45	16.20
23	16.91	16.34	17.52	14.34	14.60	13.28	11.75	14.22	15.44	16.28	15.12	16.19
24	16.34	16.34	16.65	13.08	14.90	13.43	10.85	13.50	15.50	15.62	15.03	16.28
25	16.94	17.01	16.88	11.87	14.28	13.73	11.27	13.92	15.35	15.08	15.38	16.32
26	17.20	17.43	16.58	11.27	14.30	13.85	13.50	14.06	15.38	15.32	15.42	15.98
27	16.79	16.98	16.80	10.34	14.34	13.92	14.06	12.99	15.72	15.59	15.47	15.93
28	16.04	17.00	17.25	10.47	14.06	14.33	14.00	12.92	15.83	15.23	15.60	16.28
29	16.13	16.75	17.15	10.76	---	14.94	11.72	13.85	16.32	14.99	15.68	16.70
30	16.20	16.52	17.40	9.74	---	14.97	11.69	13.51	16.50	15.06	15.44	16.98
31	16.43	---	16.94	10.76	---	14.15	---	13.86	---	14.84	14.79	---
MAX	17.45	19.00	18.20	19.59	14.90	15.05	15.54	14.76	16.50	16.28	16.19	16.98

CAL YR 1998 LOW 22.05
WTR YR 1999 LOW 19.59



GROUND-WATER RECORDS
Pickaway County

393327082571600. LOCAL NUMBER, PK-7

LOCATION.--Latitude 39°33'27", longitude 82°57'16", Hydrologic Unit 05060002, 3.1 mi south of Circleville, Ohio.
Owner: State of Ohio.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled test artesian well, diameter 6 in., depth drilled 172 ft, present depth 169 ft, cased to 164 ft.

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

DATUM.--Elevation of land-surface datum is 705 ft above sea level, from topographic map.

Measuring point: Floor of instrument shelter, 3.00 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

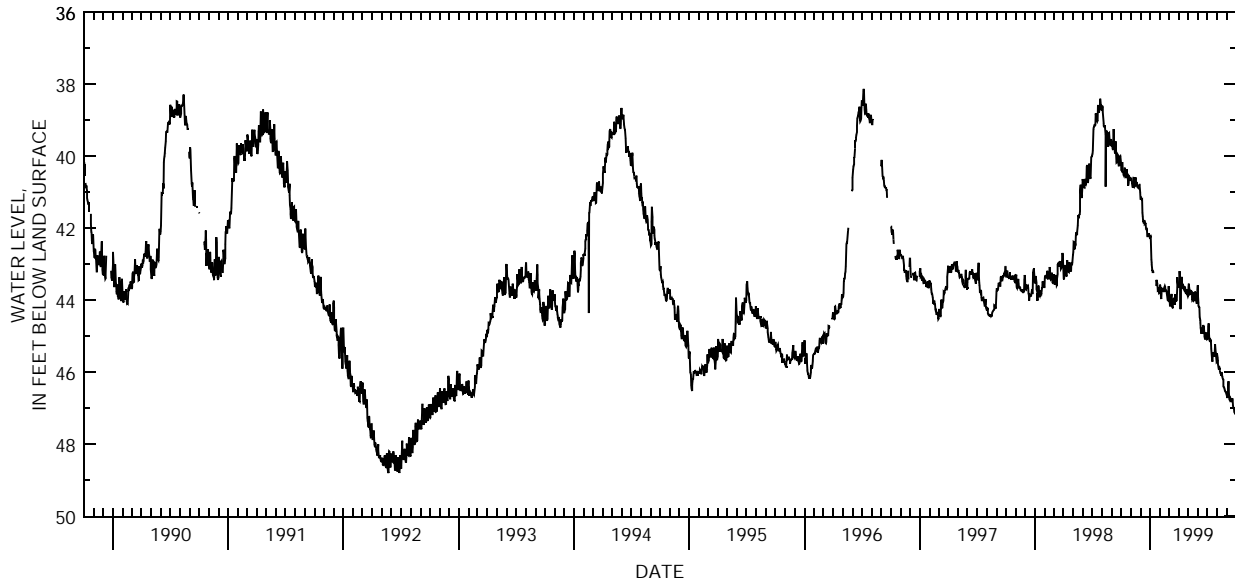
PERIOD OF RECORD.--July 1972 to September 1982 continuous, October 1982 to April 1985 periodic, continuous thereafter.

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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40.38	40.60	41.18	42.24	43.57	43.85	43.64	43.86	43.78	45.07	45.47	46.64
2	40.40	40.61	41.18	42.23	43.60	43.90	43.64	43.62	44.07	45.04	45.59	46.71
3	40.37	40.66	41.17	42.25	43.76	44.00	43.50	43.54	44.15	44.93	45.68	46.69
4	40.16	40.75	41.20	42.86	43.93	44.15	43.19	43.65	44.18	44.74	45.77	46.68
5	40.28	40.78	41.21	42.96	43.96	44.15	43.33	43.70	44.19	44.64	45.87	46.40
6	40.44	40.84	41.20	43.01	43.76	44.00	43.53	43.79	44.21	44.91	45.92	46.25
7	40.44	40.85	41.56	43.18	43.68	43.97	44.25	43.83	44.46	45.08	45.91	46.52
8	40.53	40.71	41.66	43.16	43.69	43.95	43.59	43.82	44.56	45.13	45.88	46.68
9	40.54	40.60	41.79	43.22	43.69	43.82	43.61	43.74	44.63	45.14	45.92	46.77
10	40.50	40.59	41.80	43.22	43.75	44.01	43.68	43.71	44.76	45.13	45.95	46.78
11	40.34	40.81	41.86	43.22	43.68	44.17	43.35	43.80	44.92	45.10	46.04	46.76
12	40.34	40.83	41.82	43.23	43.68	44.21	43.53	43.81	44.92	45.12	46.08	46.73
13	40.40	40.82	41.77	---	43.77	44.22	43.61	43.86	44.77	45.35	46.08	46.76
14	40.47	40.72	41.89	---	43.73	44.13	43.63	44.01	44.90	45.46	46.08	46.79
15	40.54	40.61	41.88	---	43.64	43.98	43.58	44.00	44.93	45.57	45.99	46.80
16	40.57	40.61	41.86	---	43.61	43.98	43.60	43.79	44.87	45.69	46.07	46.78
17	40.56	40.78	41.88	---	43.64	43.93	43.70	43.80	44.89	45.69	46.13	46.79
18	40.35	40.78	41.98	---	43.70	44.08	43.71	43.93	44.69	45.44	46.16	46.72
19	40.44	40.71	42.04	43.60	43.72	44.12	43.69	43.99	44.77	45.50	46.18	46.78
20	40.58	40.76	42.05	43.59	43.74	44.11	43.67	44.01	44.71	45.53	46.21	46.93
21	40.63	40.84	42.04	43.43	43.74	43.83	43.62	43.99	44.84	45.53	46.40	46.98
22	40.79	40.85	42.18	43.54	43.79	43.90	43.69	43.97	45.00	45.56	46.41	47.00
23	40.79	40.81	42.24	43.51	43.86	43.99	43.79	43.76	45.05	45.53	46.43	46.99
24	40.74	40.88	42.21	43.60	43.93	43.97	43.80	43.80	45.09	45.43	46.44	47.11
25	40.54	40.89	42.16	43.73	44.00	44.00	43.76	43.94	44.99	45.22	46.47	47.13
26	40.57	40.81	42.16	43.72	44.01	44.00	43.70	44.00	44.91	45.33	46.53	47.13
27	40.62	40.79	42.16	43.63	43.92	43.64	43.74	44.05	44.89	45.44	46.54	47.15
28	40.59	40.79	42.19	43.74	43.61	43.36	43.80	44.10	44.96	45.47	46.54	47.16
29	40.68	40.90	42.20	43.81	---	43.49	43.85	44.09	45.05	45.53	46.56	47.09
30	40.64	41.00	42.26	43.79	---	43.64	43.89	43.78	45.09	45.73	46.57	47.09
31	40.67	---	42.26	43.68	---	43.64	---	43.58	---	45.72	46.63	---
MAX	40.79	41.00	42.26	43.81	44.01	44.22	44.25	44.10	45.09	45.73	46.63	47.16

CAL YR 1998 LOW 43.99
WTR YR 1999 LOW 47.16



GROUND-WATER RECORDS Pickaway County

393402082572500. LOCAL NUMBER, PK-4

LOCATION.--Latitude 39°34'02", longitude 82°57'25", Hydrologic Unit 05060002, 2 mi south of Circleville, Ohio.

Owner: E.I. DuPont DeNemours.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled test water table well, diameter 6 in., depth 136 ft, cased.

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

DATUM.--Elevation of land-surface datum is 707 ft above sea level, from topographic map.

Measuring point: Floor of instrument shelter 3.50 ft above land-surface datum.

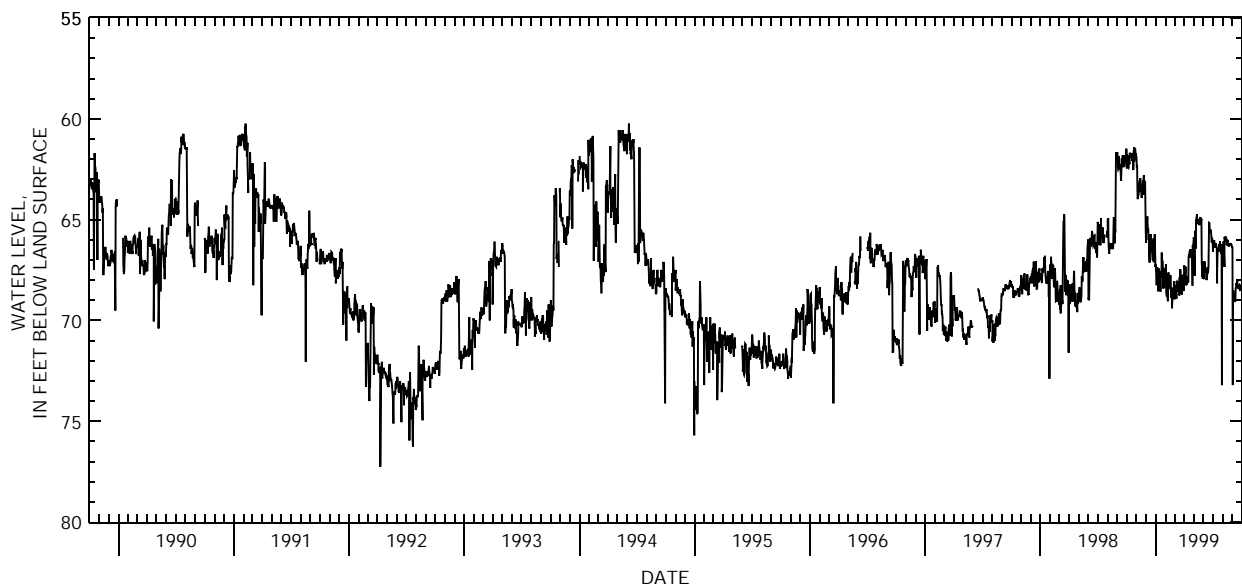
REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62.47	61.89	66.15	67.23	67.74	68.95	67.27	65.87	67.61	66.58	66.27	66.38
2	61.78	62.41	65.73	67.81	67.22	68.57	67.34	66.00	67.08	66.20	66.28	73.20
3	61.85	62.29	65.05	67.82	68.59	68.26	67.42	66.62	67.95	66.12	66.35	68.50
4	61.93	63.49	65.14	68.25	68.71	68.58	67.66	67.77	67.35	66.10	66.08	68.56
5	62.34	63.98	64.85	67.37	68.81	68.65	67.39	65.55	67.20	66.02	66.30	68.72
6	62.41	63.58	65.27	67.81	68.35	68.32	67.33	65.92	67.09	66.20	67.34	68.86
7	62.21	63.81	65.55	67.43	68.77	68.91	68.25	66.37	67.59	66.24	65.86	68.80
8	61.81	63.37	65.53	67.55	69.05	68.09	68.11	66.43	67.59	66.32	65.92	68.90
9	62.25	63.23	66.01	68.55	68.23	68.07	68.22	65.03	67.55	66.39	65.96	69.08
10	61.81	63.63	65.72	67.41	67.62	68.32	67.86	64.89	67.47	66.18	65.82	69.01
11	61.69	63.06	66.80	67.67	68.45	68.57	68.10	64.73	68.00	66.28	65.99	68.40
12	61.90	63.19	67.13	67.61	68.11	68.29	67.83	65.07	67.60	66.34	66.01	68.33
13	61.89	62.93	66.89	67.65	68.29	68.05	68.01	64.97	67.76	66.42	65.98	68.14
14	61.73	63.21	66.37	68.03	68.05	68.21	68.11	65.23	67.34	68.16	66.24	68.24
15	61.75	63.35	66.63	67.83	67.94	68.18	66.77	64.96	67.51	67.62	66.24	68.16
16	61.75	63.63	65.83	68.57	67.75	68.76	66.75	65.17	67.54	66.40	66.24	68.01
17	61.85	63.92	65.71	67.64	67.90	68.27	66.79	65.07	67.36	66.47	66.06	68.42
18	61.70	63.79	66.45	67.65	68.87	67.86	66.57	65.07	66.26	66.57	66.00	68.36
19	62.01	63.69	66.45	67.89	68.35	68.59	66.55	65.27	65.16	66.43	66.21	68.20
20	62.01	63.49	66.09	66.63	68.42	67.47	66.87	65.25	65.18	66.49	66.32	68.26
21	62.02	63.11	66.80	67.56	69.11	68.07	66.46	64.95	65.53	66.21	66.22	68.30
22	62.54	63.03	67.02	67.03	69.39	68.44	66.77	64.87	65.59	66.55	66.28	68.24
23	61.65	63.35	66.30	67.39	68.67	68.69	66.60	64.95	65.48	66.06	66.25	68.30
24	61.41	62.79	65.93	67.75	68.58	67.77	66.68	65.16	65.61	66.53	66.18	68.46
25	62.13	63.77	66.89	68.41	68.90	68.71	66.77	64.95	65.60	66.60	66.22	68.54
26	61.79	63.06	67.11	68.30	68.80	68.18	67.50	65.81	65.87	66.44	66.20	68.28
27	61.93	63.31	66.02	67.39	68.37	68.12	68.28	67.13	66.12	66.41	66.22	68.32
28	61.49	63.12	66.29	68.26	68.05	68.45	66.26	67.85	66.02	66.51	66.23	68.30
29	62.04	63.81	65.72	68.34	---	67.73	66.89	67.37	65.98	70.40	66.24	68.28
30	61.71	65.59	67.14	67.95	---	68.45	66.18	67.94	66.14	73.20	66.32	68.37
31	61.82	---	67.33	67.53	---	68.54	---	67.71	---	66.31	66.36	---
MAX	62.54	65.59	67.33	68.57	69.39	68.95	68.28	67.94	68.00	73.20	67.34	73.20
CAL YR 1998	LOW 72.90											
WTR YR 1999	LOW 73.20											



GROUND-WATER RECORDS
Pickaway County

393638082572300. LOCAL NUMBER, PK-6

LOCATION.--Latitude 39°36'38", longitude 82°57'23", Hydrologic Unit 05060002, water works plant 1 mi northwest of Circleville, Ohio.

Owner: Circleville Water Dept.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled unused water table well, diameter 6 in., depth 120 ft, cased.

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

DATUM.--Elevation of land-surface datum is 672 ft above sea level, from topographic map.

Measuring point: Floor of instrument shelter 3.00 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

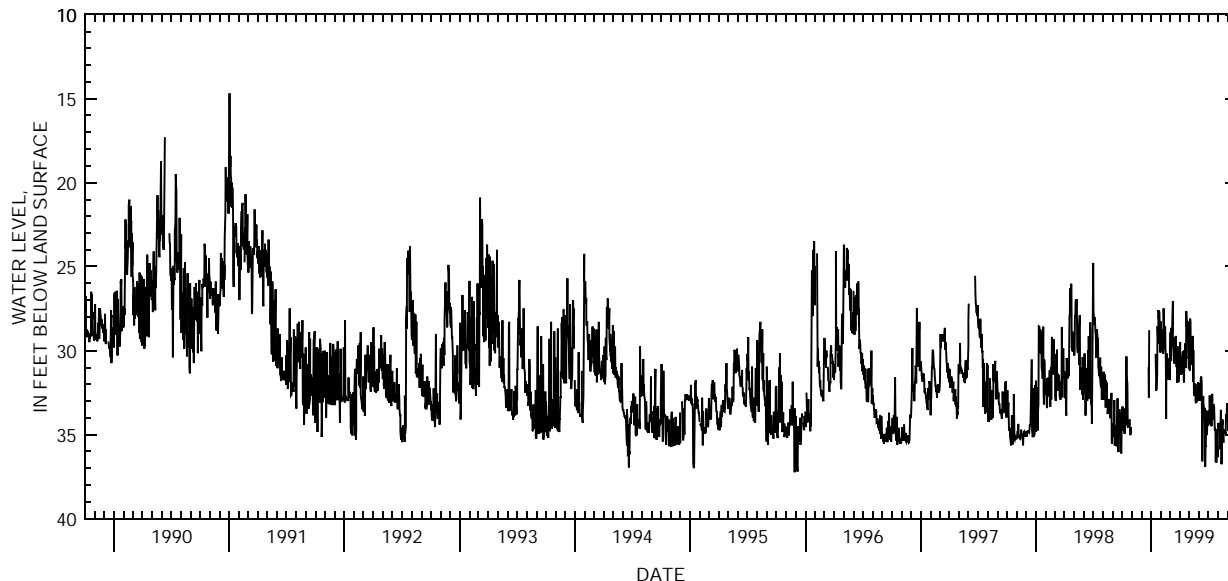
PERIOD OF RECORD.--July 1966 to current year.

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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33.38	---	---	---	29.96	29.55	30.47	29.38	32.93	33.75	34.78	34.19
2	33.38	---	---	---	29.75	28.92	29.51	30.99	32.93	33.56	34.78	34.75
3	34.57	---	---	---	28.76	30.58	30.92	31.18	32.00	34.25	34.31	34.77
4	34.74	---	---	---	28.90	30.57	30.35	28.10	32.01	34.13	34.83	33.39
5	34.67	---	---	---	29.65	28.65	30.39	28.35	32.88	32.67	34.83	34.60
6	33.45	---	---	---	29.88	29.72	31.43	29.67	32.13	33.35	34.53	34.67
7	34.14	---	---	---	30.17	29.75	31.02	29.76	31.68	34.41	35.87	33.17
8	34.95	---	---	---	30.11	29.45	31.40	30.21	31.55	34.28	34.75	34.13
9	34.29	---	---	---	27.50	27.96	30.45	30.86	31.71	34.31	33.53	34.20
10	34.32	---	---	---	28.35	27.05	30.20	30.13	31.80	34.46	34.88	33.99
11	34.44	---	---	---	29.51	29.24	30.08	30.63	36.18	34.46	35.07	34.52
12	34.38	---	---	---	29.91	30.03	30.08	29.13	36.60	34.37	36.77	34.73
13	33.69	---	---	---	28.65	30.58	30.23	31.88	35.79	32.57	34.08	34.29
14	30.35	---	---	---	28.63	30.62	31.76	29.97	32.73	34.13	34.41	34.34
15	34.22	---	---	30.20	30.02	30.77	31.89	31.01	33.06	34.07	34.10	34.52
16	31.59	---	---	32.00	30.57	30.17	29.96	32.61	33.23	33.53	34.46	34.28
17	31.98	---	---	32.39	34.07	29.21	30.03	32.69	33.44	33.21	35.48	34.29
18	33.99	---	---	32.24	30.15	30.63	31.01	32.24	33.50	33.27	35.24	34.23
19	34.57	---	---	31.44	30.57	30.72	29.57	32.27	33.47	33.36	34.71	34.05
20	34.31	---	---	30.77	31.35	29.13	30.98	31.97	33.42	33.88	34.85	34.89
21	34.32	---	---	28.55	31.47	30.56	31.02	32.91	36.92	34.73	34.73	34.16
22	34.32	---	---	29.57	31.67	30.93	27.63	33.13	35.67	34.70	34.92	33.20
23	34.34	---	30.98	29.21	31.67	30.98	28.59	32.81	35.73	34.73	34.93	34.70
24	34.10	---	32.81	27.59	31.55	29.88	28.18	32.97	33.56	36.63	34.95	34.92
25	34.37	---	28.79	28.10	31.62	31.92	28.82	33.07	33.82	35.48	34.93	34.77
26	35.03	---	---	27.68	30.93	29.76	29.58	32.96	35.04	36.66	33.77	34.70
27	34.91	---	---	27.74	30.47	31.53	28.26	32.00	34.77	34.91	34.10	35.12
28	34.56	---	---	28.71	31.76	31.85	30.40	32.55	33.74	34.68	34.13	33.41
29	---	---	---	29.15	---	31.82	30.40	31.90	34.43	35.48	33.15	33.45
30	---	---	---	30.11	---	30.63	31.07	32.75	34.44	36.35	33.92	33.15
31	---	---	---	28.28	---	30.08	---	32.76	---	34.35	34.17	---
MAX	35.03	---	32.81	32.39	34.07	31.92	31.89	33.13	36.92	36.66	36.77	35.12

CAL YR 1998 LOW 36.13
WTR YR 1999 LOW 36.92



GROUND-WATER RECORDS
Pickaway County

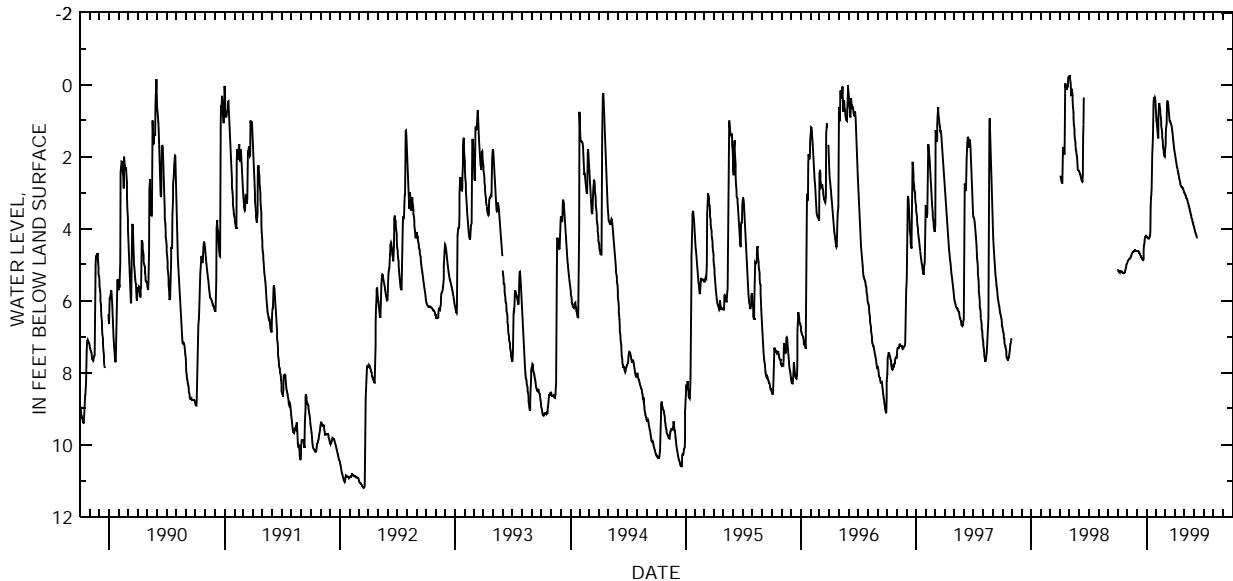
393438083072200. LOCAL NUMBER, PK-8

LOCATION.--Latitude 39°34'38", longitude 83°07'22", Hydrologic Unit 05060002, 0.5 mi south of Williamsport, Ohio.
 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, 0.24 ft above land-surface datum, Apr. 30 and May 1, 1998.

DEPTH BELOW LAND SURFACE (WATER LEVEL, FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999)
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	4.93	4.61	4.22	.98	1.83	1.93	3.00	3.98	---	---	---
2	5.13	4.91	4.61	4.22	1.07	1.64	1.98	3.02	4.01	---	---	---
3	5.15	4.89	4.61	4.23	1.16	1.47	2.04	3.05	4.04	---	---	---
4	5.18	4.88	4.61	4.25	1.25	1.21	2.10	3.06	4.08	---	---	---
5	5.19	4.86	4.61	4.26	1.35	1.07	2.15	3.07	4.11	---	---	---
6	5.21	4.84	4.62	4.27	1.46	1.05	2.21	3.11	4.14	---	---	---
7	5.22	4.84	4.64	4.27	1.49	.56	2.27	3.14	4.17	---	---	---
8	5.21	4.83	4.64	4.27	.96	.46	2.30	3.15	4.20	---	---	---
9	5.18	4.83	4.67	4.27	.59	.46	2.34	3.18	4.23	---	---	---
10	5.18	4.82	4.68	4.25	.50	.50	2.40	3.21	4.26	---	---	---
11	5.18	4.79	4.69	4.22	.54	.56	2.45	3.26	---	---	---	---
12	5.19	4.77	4.73	4.20	.62	.66	2.48	3.28	---	---	---	---
13	5.19	4.76	4.74	4.09	.71	.77	2.53	3.32	---	---	---	---
14	5.19	4.73	4.76	3.39	.81	.87	2.58	3.34	---	---	---	---
15	5.21	4.69	4.79	3.14	.91	.98	2.63	3.38	---	---	---	---
16	5.21	4.68	4.80	3.05	1.04	1.02	2.66	3.42	---	---	---	---
17	5.22	4.67	4.82	2.90	1.14	1.02	2.70	3.45	---	---	---	---
18	5.22	4.65	4.84	2.55	1.25	1.05	2.75	3.49	---	---	---	---
19	5.22	4.64	4.86	1.93	1.35	1.07	2.79	3.53	---	---	---	---
20	5.24	4.64	4.88	1.73	1.46	1.10	2.82	3.56	---	---	---	---
21	5.24	4.62	4.88	1.49	1.55	1.13	2.84	3.59	---	---	---	---
22	5.24	4.62	4.84	.99	1.65	1.17	2.84	3.63	---	---	---	---
23	5.24	4.62	4.59	.51	1.74	1.25	2.84	3.68	---	---	---	---
24	5.22	4.62	4.46	.38	1.83	1.32	2.85	3.71	---	---	---	---
25	5.18	4.62	4.37	.38	1.91	1.40	2.87	3.74	---	---	---	---
26	5.15	4.62	4.31	.39	1.97	1.49	2.88	3.78	---	---	---	---
27	5.10	4.61	4.26	.36	2.00	1.58	2.90	3.81	---	---	---	---
28	5.06	4.61	4.23	.38	2.00	1.65	2.93	3.84	---	---	---	---
29	5.01	4.61	4.22	.48	---	1.73	2.96	3.89	---	---	---	---
30	4.98	4.61	4.20	.65	---	1.82	2.99	3.92	---	---	---	---
31	4.95	---	4.20	.83	---	1.88	---	3.94	---	---	---	---
MAX	5.24	4.93	4.88	4.27	2.00	1.88	2.99	3.94	4.26	---	---	---

CAL YR 1998 LOW 5.24
WTR YR 1999 LOW 5.24



GROUND-WATER RECORDS
Pickaway County

394742083094800. LOCAL NUMBER, PK-9

LOCATION.--Latitude 39°47'42", longitude 83°09'48", Hydrologic Unit 05060002, at Pickaway Correctional Institute near Orient, Ohio.

Owner: State of Ohio.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled unused water table well, diameter 8 in., depth 45 ft, cased.

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

DATUM.--Elevation of land-surface datum is 770 ft above sea level, from topographic map.

Measuring point: Floor of instrument shelter 4.00 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

PERIOD OF RECORD.--October 1986 to current year.

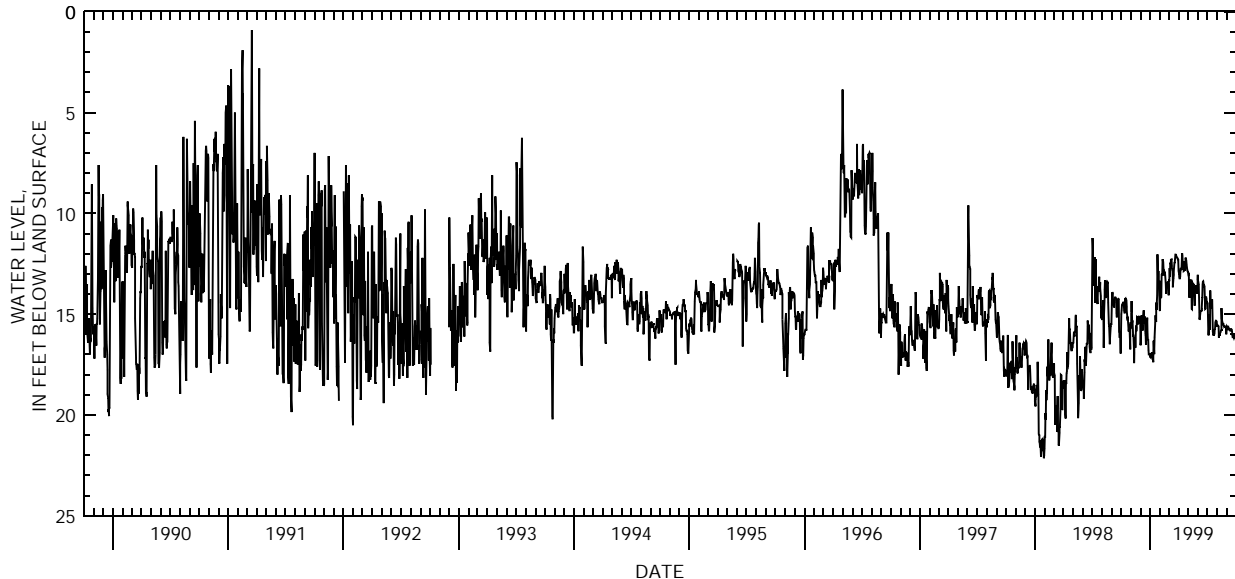
REVISIONS.--Water levels published for the period July 2, 1993, to September 30, 1994, are in error. Depth to water surface values are 1 ft less than reported.

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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.00	15.69	16.53	17.13	14.84	13.28	12.84	12.95	13.29	14.42	15.57	15.62
2	14.81	14.91	16.36	17.15	13.34	13.35	13.05	13.04	13.41	14.48	15.56	15.65
3	14.54	14.34	15.38	16.95	13.89	12.71	13.13	13.02	13.49	15.14	15.51	15.63
4	14.50	15.40	15.27	16.92	14.16	13.14	13.22	13.98	13.51	15.98	15.54	15.62
5	14.50	15.30	15.05	16.92	14.15	12.44	13.22	14.19	14.90	16.05	15.60	15.62
6	14.48	15.32	15.65	17.01	13.04	12.50	13.11	13.70	15.27	15.69	16.17	15.74
7	14.45	16.10	15.54	17.04	13.04	12.35	12.80	13.28	15.23	15.01	16.05	15.72
8	14.37	15.99	15.80	17.01	13.00	12.29	12.69	14.18	14.93	15.65	16.02	15.71
9	14.60	16.10	15.44	17.09	12.27	12.27	12.75	13.67	14.87	15.76	16.02	15.72
10	14.79	16.91	15.01	17.37	12.35	12.59	12.81	13.40	14.87	13.82	15.92	15.75
11	14.91	17.43	14.81	17.04	12.41	12.74	12.33	13.29	14.82	14.45	15.89	15.75
12	14.91	16.43	15.48	16.31	12.78	12.81	11.96	14.73	14.84	14.72	15.87	15.80
13	14.24	16.28	15.33	16.98	13.04	13.29	12.08	14.76	14.81	14.54	15.80	15.78
14	14.21	16.13	15.10	16.79	13.04	13.67	12.51	13.70	14.15	14.34	15.80	15.75
15	14.37	16.67	15.32	16.13	12.90	13.20	12.48	13.58	14.16	14.30	14.70	15.74
16	14.21	16.13	15.90	15.40	12.92	13.04	12.63	13.49	13.51	14.26	15.21	15.76
17	14.31	15.56	16.02	15.25	13.05	12.85	12.85	13.51	13.38	15.32	15.39	15.83
18	14.63	15.84	16.52	15.05	13.29	12.48	12.83	13.49	13.35	15.83	15.47	16.02
19	14.84	15.66	15.85	15.38	13.50	12.42	12.39	14.07	13.49	15.99	15.45	16.13
20	15.15	15.14	16.13	14.42	13.97	12.44	12.59	13.79	13.59	16.00	15.48	16.13
21	15.30	15.15	15.51	14.79	13.56	12.05	12.84	14.57	13.58	16.06	15.48	16.13
22	15.12	15.15	15.17	14.06	13.49	12.05	12.48	14.50	13.62	15.99	15.56	16.11
23	15.65	15.50	15.98	13.07	13.43	12.05	12.18	13.73	14.30	15.98	15.60	16.16
24	15.85	15.25	16.28	12.02	13.40	12.09	12.29	13.59	14.73	15.74	15.62	16.11
25	15.85	15.14	16.23	12.51	13.41	12.15	12.32	13.59	14.72	15.72	15.60	16.16
26	15.51	15.08	16.79	13.46	13.41	12.15	12.51	13.95	14.42	15.35	15.60	16.16
27	15.72	15.45	17.03	12.85	13.64	12.18	12.66	13.71	14.12	15.32	15.63	16.16
28	15.80	15.29	17.00	13.44	14.06	12.24	12.77	14.00	14.22	15.29	15.66	16.11
29	16.74	15.17	17.00	13.64	---	12.27	12.87	13.80	14.37	15.30	15.69	16.10
30	15.74	15.15	17.01	14.30	---	12.29	12.89	13.70	14.40	15.35	15.99	15.83
31	15.39	---	16.94	14.78	---	12.36	---	13.05	---	15.50	15.74	---
MAX	16.74	17.43	17.03	17.37	14.84	13.67	13.22	14.76	15.27	16.06	16.17	16.16

CAL YR 1998 LOW 22.14
WTR YR 1999 LOW 17.43



GROUND-WATER RECORDS
Pike County

390359083015100. LOCAL NUMBER, PI-2

LOCATION.--Latitude 39°03'59", longitude 83°01'51", Hydrologic Unit 05060002, 1 mi west of Piketon, Ohio.

Owner: Goodyear Atomic Corporation.

AQUIFER.--Sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled test water table well, diameter 6 in., depth 60 ft, cased.

INSTRUMENTATION.--Digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 550 ft above sea level, from topographic map.

Measuring point: Floor of instrument shelter, 3.00 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

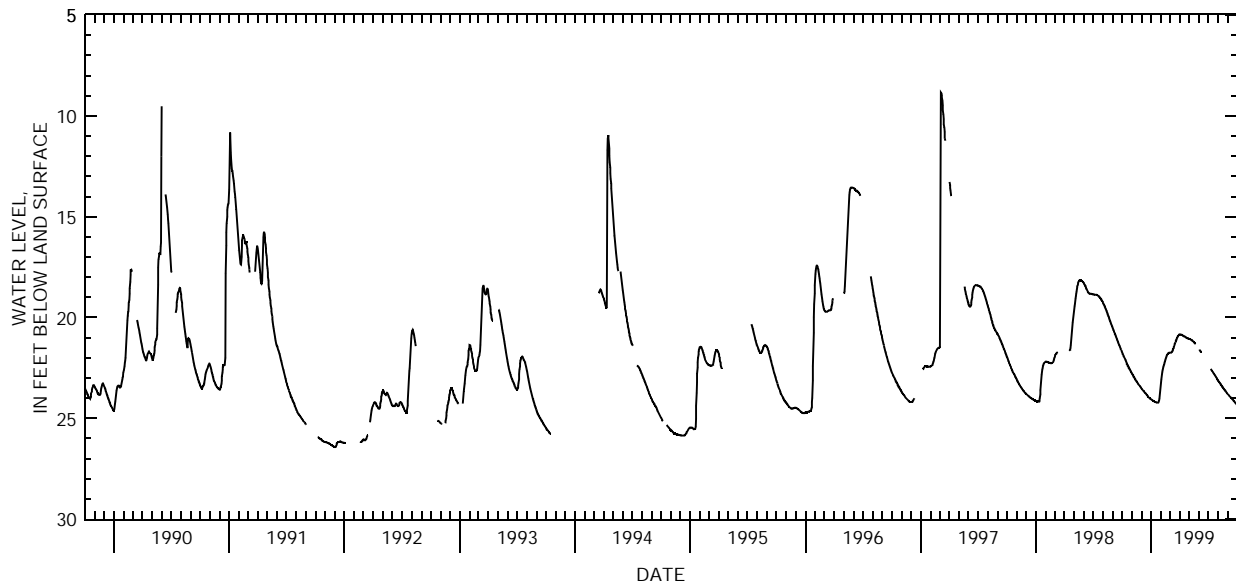
PERIOD OF RECORD.--September 1969 to current year.

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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.76	22.79	23.52	24.07	23.23	21.74	20.85	21.07	---	---	23.14	23.81
2	21.80	22.82	23.56	24.08	23.07	21.74	20.85	21.07	21.60	---	23.16	23.83
3	21.84	22.85	23.57	24.09	22.93	21.74	20.85	21.07	21.61	---	23.18	23.85
4	21.88	22.87	23.59	24.10	22.81	21.74	20.85	21.08	21.62	---	23.21	23.87
5	21.91	22.90	23.61	24.11	22.70	21.74	20.86	21.09	21.66	---	23.23	23.89
6	21.95	22.93	23.62	24.12	22.61	21.73	20.86	21.10	21.69	---	23.26	23.91
7	21.99	22.95	23.65	24.13	22.54	21.72	20.87	21.11	21.71	---	23.28	23.92
8	22.02	22.98	23.66	24.14	22.47	21.70	20.87	21.12	21.72	22.54	23.30	23.94
9	22.05	23.02	23.69	24.14	22.42	21.67	20.88	21.13	---	22.57	23.32	23.96
10	22.08	23.04	23.70	24.17	22.36	21.63	20.89	21.14	---	22.60	23.35	23.98
11	22.10	23.06	23.73	24.17	22.31	21.58	20.90	21.15	---	22.62	23.37	23.99
12	22.15	23.09	23.74	24.18	22.25	21.54	20.91	21.16	---	22.65	23.39	24.01
13	22.20	23.13	23.75	24.19	22.19	21.48	20.92	21.18	---	22.67	23.41	24.03
14	22.24	23.14	23.78	24.20	22.13	21.43	20.93	21.19	---	22.69	23.43	24.06
15	22.28	23.18	23.79	24.20	22.08	21.37	20.93	21.22	---	22.72	23.46	24.07
16	22.31	23.18	23.82	24.21	22.03	21.32	20.94	21.23	---	22.74	23.48	24.08
17	22.34	23.21	23.84	24.21	21.98	21.28	20.94	21.26	---	22.77	23.50	24.10
18	22.37	23.24	23.85	24.22	21.93	21.23	20.96	21.27	---	22.79	23.52	24.12
19	22.41	23.26	23.87	24.22	21.89	21.20	20.97	21.28	---	22.82	23.54	24.13
20	22.44	23.28	23.88	24.23	21.85	21.16	20.98	21.29	---	22.85	23.57	24.15
21	22.47	23.31	23.93	24.23	21.83	21.12	20.99	21.30	---	22.87	23.59	24.18
22	22.50	23.33	23.94	24.22	21.80	21.07	21.00	---	---	22.89	23.61	24.19
23	22.53	23.35	23.95	24.22	21.79	21.04	21.02	---	---	22.91	23.63	24.22
24	22.56	23.37	23.97	24.20	21.77	21.00	21.02	---	---	22.94	23.65	24.24
25	22.59	23.39	23.99	24.16	21.76	21.00	21.03	---	---	22.97	23.67	24.26
26	22.62	23.42	24.00	24.11	21.75	20.93	21.04	---	---	22.99	23.69	24.27
27	22.65	23.44	24.01	24.02	21.75	20.91	21.04	---	---	23.02	23.71	24.29
28	22.68	23.46	24.02	23.90	21.74	20.89	21.05	---	---	23.04	23.73	24.31
29	22.71	23.49	24.04	23.74	---	20.87	21.06	---	---	23.07	23.77	24.33
30	22.73	23.51	24.05	23.59	---	20.86	21.07	---	---	23.09	23.78	24.34
31	22.76	---	24.05	23.41	---	20.86	---	---	---	23.12	23.79	---
MAX	22.76	23.51	24.05	24.23	23.23	21.74	21.07	21.30	21.72	23.12	23.79	24.34

CAL YR 1998 LOW 24.17
WTR YR 1999 LOW 24.34



GROUND-WATER RECORDS
Portage County

411401081025000. LOCAL NUMBER, PO-1

LOCATION.--Latitude 41°14'01", longitude 81°02'50" Hydrologic Unit 05030103. Bauer Street in Windham, Ohio.
Owner: Cristopher Minter.

AQUIFER.--Sandstone of Pennsylvanian Age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in., depth 55 ft, cased.

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

DATUM.--Elevation of land-surface datum is 980 ft above sea level, from topographic map.

Measuring point: Floor of instrument shelter 0.60 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

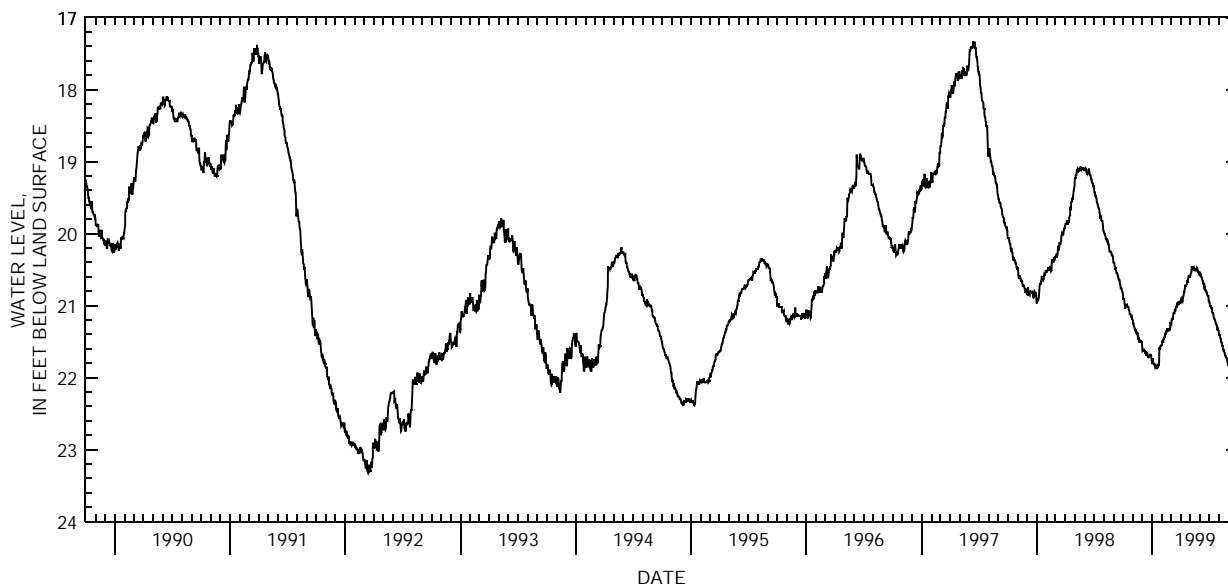
PERIOD OF RECORD.--May 1946 to current year.

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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.88	21.21	21.61	21.80	21.54	21.25	20.93	20.59	20.54	20.94	21.40	21.84
2	20.90	21.25	21.60	21.80	21.49	21.26	20.92	20.58	20.55	20.97	21.41	21.85
3	20.90	21.25	21.63	21.73	21.48	21.24	20.91	20.57	20.58	20.99	21.42	21.87
4	20.90	21.28	21.62	21.78	21.51	21.20	20.92	20.55	20.59	21.00	21.40	21.88
5	20.91	21.29	21.62	21.80	21.51	21.20	20.94	20.53	20.58	21.00	21.44	21.89
6	20.97	21.31	21.60	21.80	21.46	21.17	20.93	20.50	20.60	21.00	21.46	21.89
7	21.02	21.33	21.63	21.82	21.46	21.19	20.94	20.46	20.61	21.02	21.47	21.91
8	21.04	21.33	21.63	21.82	21.44	21.19	20.90	20.46	20.62	21.04	21.50	21.91
9	21.02	21.34	21.65	21.82	21.42	21.13	20.88	20.49	20.64	21.03	21.52	21.94
10	20.99	21.34	21.65	21.82	21.43	21.10	20.87	20.50	20.66	21.08	21.50	21.96
11	20.99	21.38	21.66	21.85	21.40	21.10	20.84	20.49	20.68	21.10	21.55	21.99
12	20.99	21.39	21.66	21.84	21.38	21.11	20.81	20.47	20.70	21.10	21.57	21.99
13	20.98	21.38	21.66	21.86	21.40	21.11	20.81	20.46	20.69	21.10	21.55	22.01
14	20.99	21.36	21.68	21.86	21.40	21.07	20.77	20.51	20.71	21.13	21.61	22.02
15	21.01	21.39	21.68	21.85	21.37	21.07	20.75	20.52	20.74	21.15	21.63	22.03
16	21.02	21.39	21.67	21.87	21.35	21.07	20.71	20.51	20.73	21.17	21.63	22.05
17	21.02	21.46	21.68	21.88	21.32	21.03	20.73	20.49	20.77	21.18	21.62	22.07
18	21.02	21.47	21.70	21.84	21.32	21.02	20.73	20.48	20.79	21.19	21.65	22.07
19	21.05	21.45	21.71	21.85	21.32	21.02	20.72	20.51	20.79	21.20	21.66	22.08
20	21.06	21.46	21.72	21.85	21.33	21.02	20.70	20.52	20.79	21.22	21.69	22.10
21	21.07	21.50	21.72	21.83	21.33	20.97	20.70	20.50	20.80	21.22	21.70	22.11
22	21.12	21.50	21.69	21.83	21.35	20.97	20.67	20.48	20.82	21.25	21.71	22.12
23	21.12	21.49	21.69	21.78	21.34	20.98	20.67	20.49	20.82	21.26	21.71	22.12
24	21.12	21.50	21.68	21.58	21.33	20.97	20.67	20.48	20.84	21.26	21.72	22.16
25	21.12	21.50	21.68	21.60	21.32	20.98	20.64	20.50	20.86	21.28	21.73	22.18
26	21.13	21.48	21.68	21.60	21.33	20.98	20.59	20.53	20.87	21.30	21.74	22.19
27	21.15	21.51	21.68	21.57	21.30	20.96	20.58	20.53	20.87	21.34	21.76	22.20
28	21.14	21.51	21.69	21.55	21.23	20.95	20.59	20.54	20.87	21.32	21.78	22.20
29	21.18	21.51	21.69	21.57	---	20.95	20.60	20.55	20.94	21.31	21.82	22.20
30	21.18	21.51	21.73	21.55	---	20.97	20.60	20.56	20.94	21.34	21.82	22.21
31	21.20	---	21.77	21.55	---	20.95	---	20.55	---	21.35	21.83	---
MAX	21.20	21.51	21.77	21.88	21.54	21.26	20.94	20.59	20.94	21.35	21.83	22.21

CAL YR 1998 LOW 21.77
WTR YR 1999 LOW 22.21



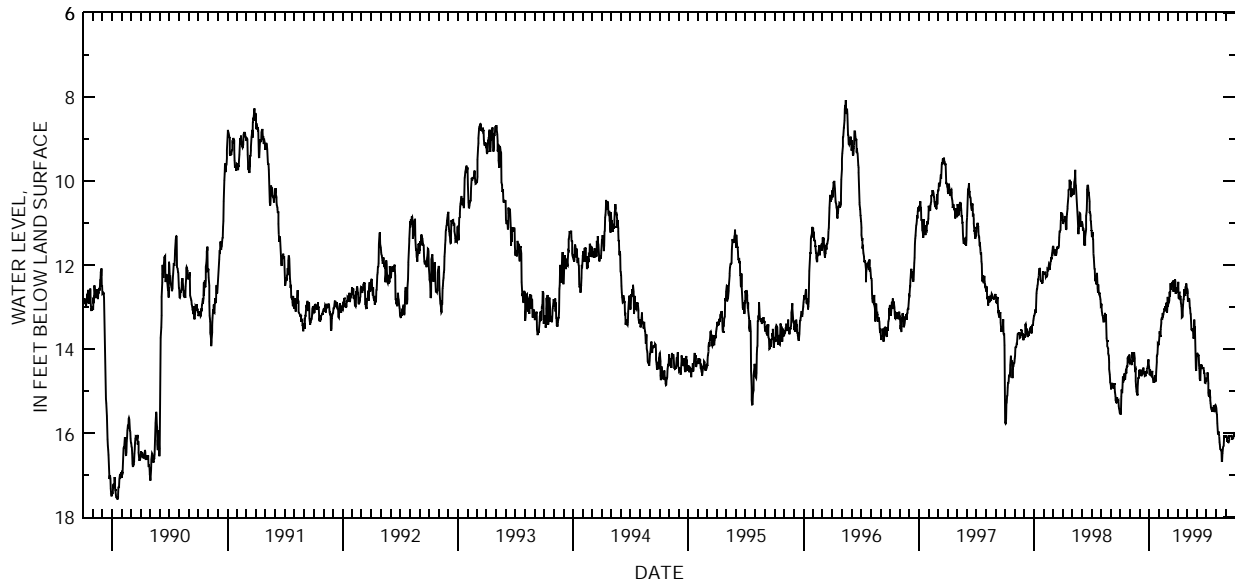
GROUND-WATER RECORDS
Preble County

394438084335900. LOCAL NUMBER, PR-2

LOCATION.--Latitude 39°44'38", longitude 84°33'59", Hydrologic Unit 05080002, Stover Rd 4 mi east of Eaton, Ohio.
 Owner: Eaton Water Department.
 AQUIFER.--Sand and gravel of Pleistocene Age.
 WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in., depth 78.5 ft, cased.
 INSTRUMENTATION.--Digital recorder--60-minute punch.
 DATUM.--Elevation of land-surface datum is 900 ft above sea level, from topographic map.
 Measuring point: Floor of instrument shelter 1.50 ft above land-surface datum.
 REMARKS.--Station operated by Ohio Department of Natural Resources, 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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.49	14.32	14.63	14.60	13.71	12.99	12.55	12.56	14.11	14.77	15.40	16.07
2	15.56	14.32	14.56	14.61	13.57	12.83	12.40	12.62	14.11	14.69	15.52	16.07
3	15.45	14.26	14.57	14.49	13.62	12.85	12.79	12.85	14.13	14.69	15.56	16.09
4	15.13	14.30	14.57	14.59	13.69	12.87	12.80	12.87	14.15	14.58	15.77	16.18
5	14.96	14.29	14.49	14.61	13.69	12.85	12.66	12.79	14.15	14.56	15.88	16.18
6	15.03	14.38	14.53	14.61	13.53	12.64	12.65	12.81	14.15	14.82	16.02	16.18
7	15.03	14.29	14.65	14.62	13.38	12.75	12.81	12.79	14.39	15.04	16.02	16.22
8	14.83	14.08	14.55	14.62	13.30	12.63	12.77	12.84	14.46	15.11	15.96	16.22
9	14.66	14.21	14.56	14.55	13.27	12.43	12.74	13.01	14.70	15.13	16.00	16.22
10	14.79	14.24	14.60	14.52	13.28	12.59	12.81	13.02	14.74	15.13	16.08	16.20
11	14.71	14.28	14.56	14.63	13.25	12.50	12.88	13.15	14.74	14.97	16.21	16.13
12	14.75	14.28	14.53	14.71	13.15	12.50	12.98	13.17	14.50	15.15	16.28	16.08
13	14.67	14.28	14.44	14.78	13.18	12.46	13.15	13.36	14.38	15.22	16.38	16.08
14	14.58	14.08	14.57	14.78	13.18	12.40	13.25	13.52	14.38	15.29	16.39	16.08
15	14.70	14.21	14.57	14.78	13.14	12.44	13.24	13.55	14.43	15.38	16.39	16.06
16	14.73	14.38	14.53	14.74	13.08	12.40	13.21	13.50	14.37	15.41	16.40	16.08
17	14.63	14.49	14.60	14.74	13.03	12.37	13.07	13.56	14.41	15.45	16.43	16.09
18	14.53	14.46	14.59	14.62	13.06	12.64	12.84	13.56	14.47	15.46	16.67	16.09
19	14.55	14.76	14.63	14.77	13.07	12.48	12.82	13.53	14.44	15.43	16.67	16.07
20	14.58	14.88	14.63	14.77	13.01	12.38	12.81	13.72	14.45	15.49	16.49	16.10
21	14.42	15.02	14.58	14.76	13.01	12.36	12.58	13.75	14.45	15.39	16.42	16.13
22	14.41	15.01	14.53	14.55	13.01	12.42	12.64	13.71	14.51	15.42	16.33	16.13
23	14.43	15.06	14.59	14.44	13.02	12.34	12.69	13.30	14.58	15.43	16.31	16.11
24	14.20	15.10	14.49	14.31	12.90	12.39	12.74	13.52	14.58	15.34	16.29	16.07
25	14.27	14.93	14.46	14.17	13.05	12.69	12.58	13.47	14.70	15.39	16.13	16.06
26	14.17	14.80	14.43	14.12	13.13	12.53	12.51	13.71	14.80	15.50	16.08	16.04
27	14.30	14.68	14.40	13.96	13.00	12.55	12.55	14.13	14.81	15.42	16.08	16.06
28	14.32	14.70	14.29	13.87	12.76	12.61	12.44	14.45	14.71	15.34	16.08	16.07
29	14.24	14.66	14.24	13.89	---	12.66	12.58	14.52	14.71	15.33	16.09	16.07
30	14.13	14.50	14.28	13.88	---	12.64	12.68	14.28	14.77	15.36	16.09	16.05
31	14.30	---	14.43	13.89	---	12.61	---	14.12	---	15.37	16.09	---
MAX	15.56	15.10	14.65	14.78	13.71	12.99	13.25	14.52	14.81	15.50	16.67	16.22
CAL YR 1998	LOW 15.56											
WTR YR 1999	LOW 16.67											



GROUND-WATER RECORDS
Richland County

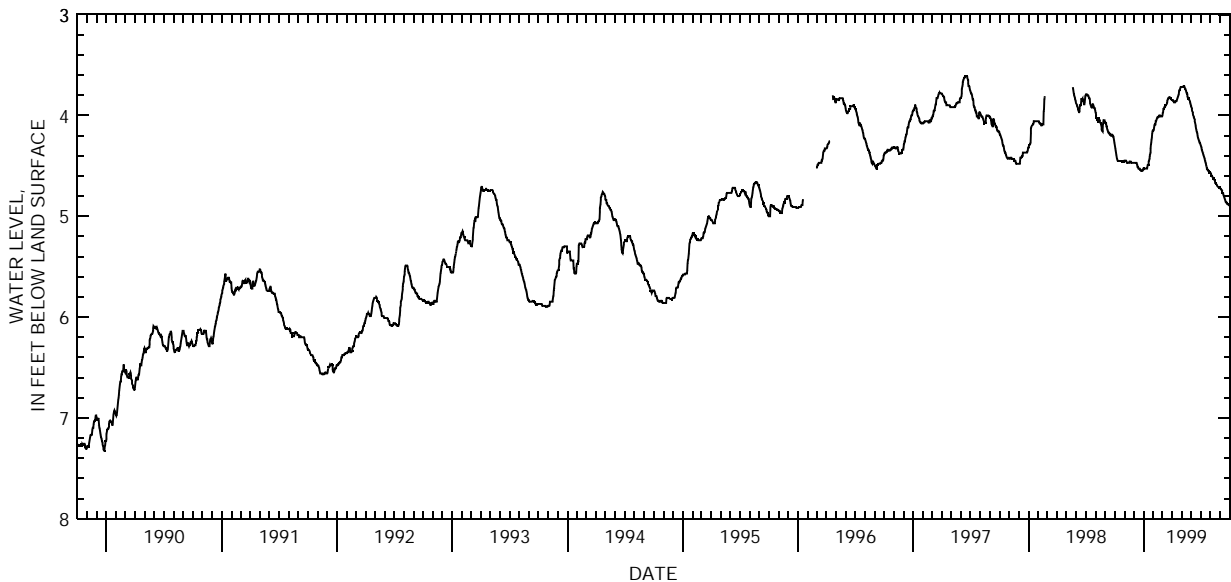
404625082305100. LOCAL NUMBER, R-4

LOCATION.--Latitude 40°46'25", longitude 82°30'51", Hydrologic Unit 05040002, at Ohio Brass Plant in Mansfield, Ohio.
 Owner: Ohio Brass Company
 AQUIFER.--Sand and gravel of Pleistocene Age.
 WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 14 in., depth 127 ft, cased.
 INSTRUMENTATION.--Digital recorder--60-minute punch.
 DATUM.--Elevation of land-surface datum is 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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.29	4.45	4.47	4.53	4.15	4.00	3.85	3.72	3.92	4.30	4.57	4.73
2	4.31	4.45	4.47	4.54	4.14	3.98	3.85	3.72	3.93	4.31	4.58	4.73
3	4.33	4.45	4.47	4.53	4.12	3.97	3.85	3.72	3.94	4.32	4.59	4.74
4	4.35	4.45	4.47	4.53	4.10	3.94	3.85	3.72	3.96	4.34	4.60	4.74
5	4.37	4.45	4.47	4.53	4.09	3.94	3.86	3.72	3.97	4.35	4.60	4.74
6	4.39	4.45	4.47	4.53	4.09	3.93	3.86	3.72	3.98	4.36	4.61	4.75
7	4.41	4.46	4.47	4.53	4.09	3.92	3.87	3.71	4.00	4.37	4.61	4.77
8	4.43	4.46	4.47	4.53	4.06	3.92	3.87	3.71	4.01	4.38	4.62	4.77
9	4.44	4.47	4.47	4.53	4.06	3.92	3.87	3.71	4.02	4.39	4.62	4.77
10	4.45	4.47	4.48	4.53	4.05	3.91	3.87	3.72	4.03	4.40	4.63	4.78
11	4.45	4.47	4.49	4.53	4.04	3.90	3.87	3.73	4.04	4.41	4.63	4.79
12	4.45	4.47	4.51	4.53	4.03	3.90	3.86	3.74	4.06	4.42	4.63	4.80
13	4.45	4.47	4.51	4.49	4.02	3.89	3.86	3.74	4.07	4.43	4.64	4.81
14	4.45	4.47	4.52	4.49	4.02	3.89	3.86	3.75	4.10	4.45	4.64	4.82
15	4.45	4.47	4.53	4.49	4.02	3.88	3.86	3.76	4.11	4.46	4.65	4.83
16	4.45	4.47	4.53	4.49	4.02	3.87	3.85	3.77	4.13	4.47	4.67	4.84
17	4.45	4.46	4.53	4.46	4.01	3.86	3.84	3.78	4.14	4.48	4.67	4.85
18	4.45	4.46	4.53	4.45	4.01	3.84	3.83	3.78	4.16	4.50	4.68	4.86
19	4.45	4.46	4.53	4.43	4.00	3.83	3.82	3.79	4.17	4.51	4.68	4.86
20	4.45	4.46	4.54	4.41	4.00	3.83	3.81	3.81	4.18	4.53	4.69	4.86
21	4.45	4.46	4.54	4.39	4.00	3.83	3.80	3.83	4.20	4.53	4.69	4.87
22	4.45	4.47	4.54	4.37	4.00	3.83	3.79	3.83	4.22	4.54	4.70	4.87
23	4.45	4.47	4.55	4.33	4.01	3.82	3.76	3.84	4.23	4.54	4.71	4.88
24	4.45	4.47	4.55	4.29	4.01	3.82	3.75	3.84	4.24	4.55	4.71	4.88
25	4.46	4.47	4.55	4.27	4.01	3.82	3.75	3.85	4.25	4.55	4.71	4.88
26	4.46	4.47	4.55	4.24	4.01	3.83	3.74	3.85	4.26	4.55	4.71	4.88
27	4.46	4.47	4.55	4.22	4.01	3.83	3.73	3.86	4.27	4.56	4.71	4.89
28	4.46	4.47	4.55	4.18	4.01	3.84	3.72	3.87	4.27	4.56	4.71	4.89
29	4.46	4.47	4.54	4.16	---	3.84	3.72	3.88	4.28	4.57	4.72	4.89
30	4.45	4.47	4.53	4.15	---	3.85	3.72	3.90	4.29	4.57	4.72	4.90
31	4.45	---	4.53	4.15	---	3.85	---	3.91	---	4.57	4.73	---
MAX	4.46	4.47	4.55	4.54	4.15	4.00	3.87	3.91	4.29	4.57	4.73	4.90

CAL YR 1998 LOW 4.55
 WTR YR 1999 LOW 4.90



GROUND-WATER RECORDS
Richland County

405753082360800. LOCAL NUMBER, R-3

LOCATION.--Latitude 40°57'53", longitude 82°36'08", Hydrologic Unit 05040002, Voisard plant in Shiloh, Ohio.
Owner: Voisard 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-2 prior to 1995 water year.

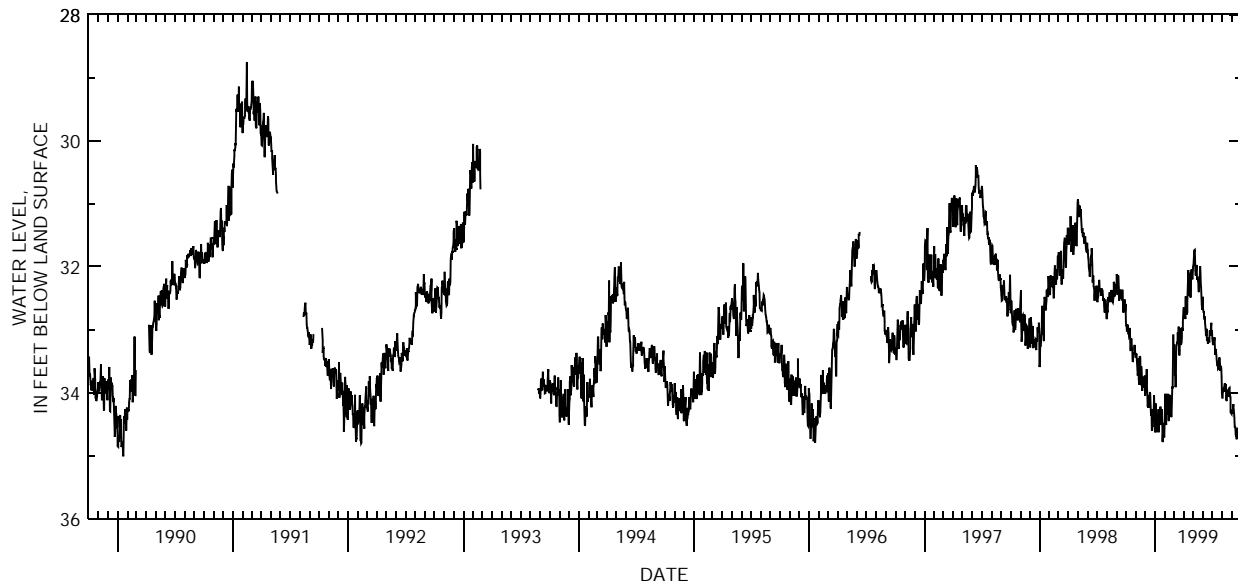
PERIOD OF RECORD.--April 1946 to current year.

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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32.88	33.43	34.05	34.63	34.46	33.39	32.66	32.11	32.48	33.01	34.01	34.30
2	32.93	33.43	33.96	34.59	34.02	33.41	32.64	31.99	32.49	33.14	34.07	34.30
3	32.93	33.38	33.77	34.17	34.08	33.23	32.64	31.97	32.67	33.18	34.09	34.27
4	33.02	33.45	33.85	34.53	34.44	33.71	32.69	31.90	32.73	33.23	33.97	34.30
5	33.02	33.45	33.80	34.58	34.51	33.71	32.79	31.78	32.71	33.23	33.92	34.28
6	33.00	33.63	33.63	34.38	34.09	33.72	32.74	31.74	32.79	33.20	33.96	34.18
7	32.92	33.73	33.92	34.63	34.02	33.91	32.83	31.73	32.84	33.18	33.99	34.25
8	33.06	33.70	34.03	34.58	34.15	33.87	32.55	31.85	32.79	33.17	33.91	34.27
9	33.06	33.68	34.22	34.45	34.22	33.38	32.47	32.07	32.87	33.12	33.89	34.32
10	33.06	33.46	34.19	34.45	34.35	33.25	32.68	32.14	32.99	33.28	33.85	34.40
11	33.11	33.78	34.24	34.50	34.13	33.23	32.49	32.10	33.07	33.40	33.94	34.54
12	33.10	33.87	34.19	34.26	34.02	33.19	32.76	32.03	33.08	33.31	33.97	34.54
13	32.97	33.70	34.04	34.63	34.41	33.22	32.72	31.97	33.07	33.32	33.86	34.55
14	33.09	33.42	34.23	34.59	34.45	33.04	32.55	32.15	32.99	33.36	33.98	34.66
15	33.30	33.44	34.21	34.44	34.23	33.14	32.38	32.21	33.17	33.43	34.11	34.69
16	33.34	33.44	33.99	34.48	34.05	33.11	32.05	32.16	33.15	33.49	34.13	34.66
17	33.24	33.79	34.02	34.50	34.03	32.95	32.37	32.19	33.12	33.56	34.02	34.74
18	33.14	33.88	34.15	34.22	34.07	33.31	32.46	32.23	33.22	33.57	33.97	34.68
19	33.23	33.58	34.31	34.51	34.09	33.41	32.42	32.38	33.19	33.56	33.96	34.61
20	33.28	33.71	34.37	34.50	34.20	33.34	32.40	32.40	33.16	33.63	34.04	34.56
21	33.32	33.97	34.27	34.42	34.30	32.97	32.23	32.31	33.16	33.62	34.06	34.67
22	33.51	33.96	34.59	34.38	34.39	33.20	32.10	32.16	33.20	33.49	34.03	34.67
23	33.50	33.85	34.60	34.26	34.28	33.24	32.42	32.14	33.12	33.50	34.04	34.57
24	33.43	33.92	34.52	34.56	34.04	33.16	32.49	31.99	33.01	33.44	33.93	34.56
25	33.36	33.89	34.54	34.78	33.90	33.24	32.38	32.08	33.09	33.46	33.92	34.68
26	33.38	33.75	34.31	34.77	33.93	33.20	32.10	32.27	33.08	33.53	33.96	34.72
27	33.39	33.87	34.27	34.48	33.67	33.12	32.04	32.33	33.03	33.65	34.02	34.79
28	33.24	33.85	34.26	34.53	33.08	32.98	32.09	32.44	32.89	33.63	34.08	34.79
29	33.33	33.74	34.04	34.66	---	32.99	32.18	32.60	33.02	33.57	34.31	34.69
30	33.28	33.73	34.29	34.71	---	33.02	32.20	32.68	33.07	33.61	34.32	34.69
31	33.43	---	34.32	34.70	---	32.87	---	32.60	---	33.74	34.34	---
MAX	33.51	33.97	34.60	34.78	34.51	33.91	32.83	32.68	33.22	33.74	34.34	34.79

CAL YR 1998 LOW 34.60
WTR YR 1999 LOW 34.79



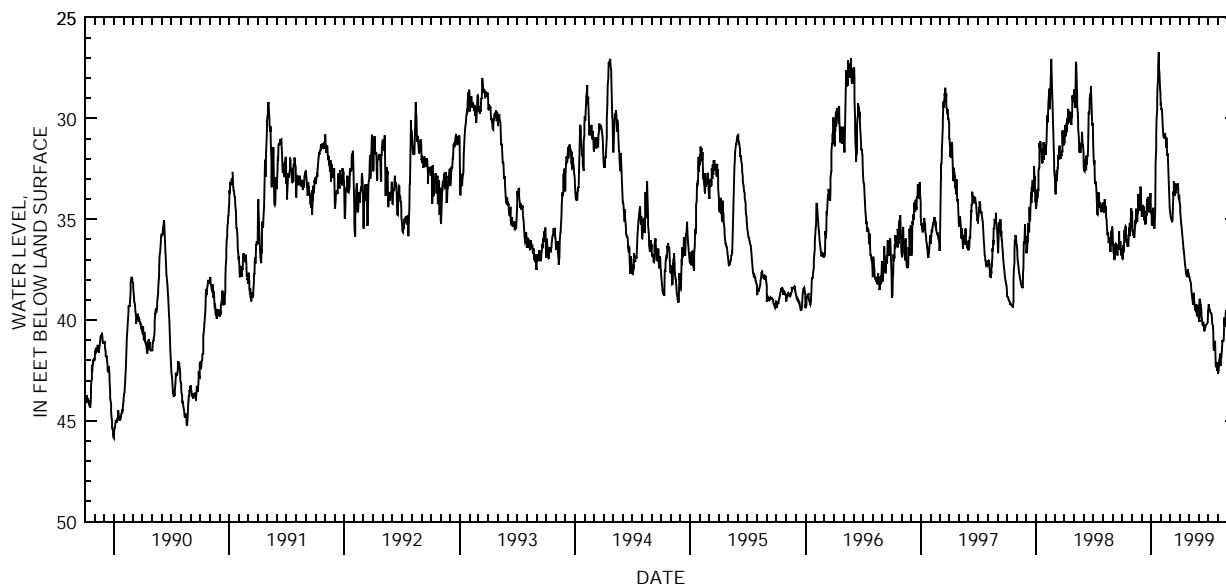
GROUND-WATER RECORDS
Ross County

391341083172200. LOCAL NUMBER, RO-7

LOCATION.--Latitude 39°13'41", longitude 83°17'22", Hydrologic Unit 05060003, Highland County well field, 1 mi west of Bainbridge, Ohio.
 Owner: Highland County Water Company.
 AQUIFER.--Sand and gravel of Quaternary Age.
 WELL CHARACTERISTICS.--Drilled test water table well, diameter 6 in., depth 67 ft, cased.
 INSTRUMENTATION.--Digital recorder--60-minute punch.
 DATUM.--Elevation of land-surface datum is 740 ft above sea level, from topographic map.
 Measuring point: Floor of instrument shelter 3.00 ft above land-surface datum.
 REMARKS.--Station operated by Ohio Department of Natural Resources, 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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36.95	34.61	34.49	34.67	29.20	34.60	34.15	37.84	40.04	39.45	42.65	41.43
2	36.97	35.09	34.89	34.99	29.58	34.69	34.35	37.90	40.04	39.23	42.51	41.92
3	36.91	35.49	34.39	35.27	29.51	34.84	34.63	37.95	39.04	39.32	42.26	42.10
4	36.28	35.83	34.51	35.30	29.63	34.93	34.85	38.06	38.93	39.45	42.07	41.74
5	36.40	35.58	34.29	35.04	29.93	34.96	35.05	38.08	39.12	39.49	41.91	41.53
6	36.64	35.63	34.42	35.24	30.24	35.07	35.22	38.15	39.23	39.53	41.75	40.69
7	35.87	35.66	34.74	34.44	30.56	35.10	35.33	38.33	39.24	39.62	41.67	40.71
8	35.54	35.86	34.37	34.88	30.84	35.10	35.51	38.54	39.47	39.64	42.24	40.70
9	35.94	35.86	35.01	35.16	30.86	35.03	35.71	38.70	39.70	39.67	42.24	41.71
10	35.41	35.24	35.03	35.31	30.99	34.46	35.87	38.85	39.88	39.68	41.96	42.43
11	35.36	35.36	34.96	35.43	30.77	34.49	36.04	38.94	40.04	39.72	41.81	42.83
12	35.42	35.04	35.26	35.43	30.90	33.62	36.23	39.08	40.12	39.89	41.67	43.12
13	35.78	35.21	34.59	34.45	30.72	33.83	36.42	39.22	40.24	40.21	41.53	43.31
14	36.13	34.49	35.16	33.14	30.81	33.13	36.53	39.11	40.26	40.25	41.04	43.61
15	36.17	35.15	35.25	32.22	30.91	33.64	36.71	38.66	40.10	40.28	41.05	43.89
16	35.93	34.87	34.70	31.41	31.05	33.84	36.91	38.92	40.25	40.43	41.05	44.13
17	36.28	35.02	34.82	30.74	31.45	33.23	37.07	39.12	40.40	41.28	41.03	44.43
18	36.36	35.04	34.03	30.05	30.95	33.64	37.24	39.28	40.52	41.51	41.00	44.63
19	36.25	34.72	34.59	29.57	31.27	33.72	37.34	39.42	40.52	41.41	40.93	44.81
20	36.34	34.68	33.99	29.05	31.81	33.33	37.50	39.49	40.46	41.21	39.88	44.93
21	35.79	33.75	33.90	28.45	31.83	33.45	37.67	39.52	40.38	41.07	40.11	45.10
22	35.87	34.29	34.66	27.95	31.73	33.28	37.73	39.23	40.30	41.03	40.24	45.24
23	35.41	33.90	34.48	27.45	32.44	33.53	37.83	39.45	40.26	41.68	40.28	45.33
24	35.85	34.26	34.24	27.04	32.92	33.25	37.84	39.63	40.24	42.29	40.32	45.00
25	35.21	34.57	34.60	26.72	33.44	33.42	37.84	39.72	40.22	42.34	39.67	44.26
26	35.63	33.76	34.63	27.61	33.83	33.22	37.85	39.81	40.20	42.11	39.51	43.84
27	35.29	34.17	34.19	27.71	34.12	33.50	37.48	39.24	40.16	42.27	39.61	43.12
28	35.13	33.38	34.30	28.18	34.41	33.70	37.65	39.50	40.12	42.51	39.64	42.60
29	34.47	33.96	33.70	28.52	---	33.92	37.70	39.71	40.11	42.36	40.11	41.67
30	34.89	34.17	34.26	28.65	---	33.88	37.74	39.86	39.54	42.10	40.31	41.63
31	34.68	---	34.59	29.37	---	33.88	---	39.91	---	42.36	40.63	---
MAX	36.97	35.86	35.26	35.43	34.41	35.10	37.85	39.91	40.52	42.51	42.65	45.33
CAL YR 1998	LOW 36.99											
WTR YR 1999	LOW 45.33											



GROUND-WATER RECORDS
Shelby County

401707084103100. LOCAL NUMBER, SH-5

LOCATION.--Latitude 40°17'07", longitude 84°10'31", Hydrologic Unit 05080001, at Sidney, Ohio.

Owner: Stolle Corporation.

AQUIFER.--Limestone of Silurian Age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 8 in., depth 300 ft, cased to 130 ft.

INSTRUMENTATION.--Digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 1,028 ft above sea level, from topographic map.

Measuring point: Top of platform 1.7 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

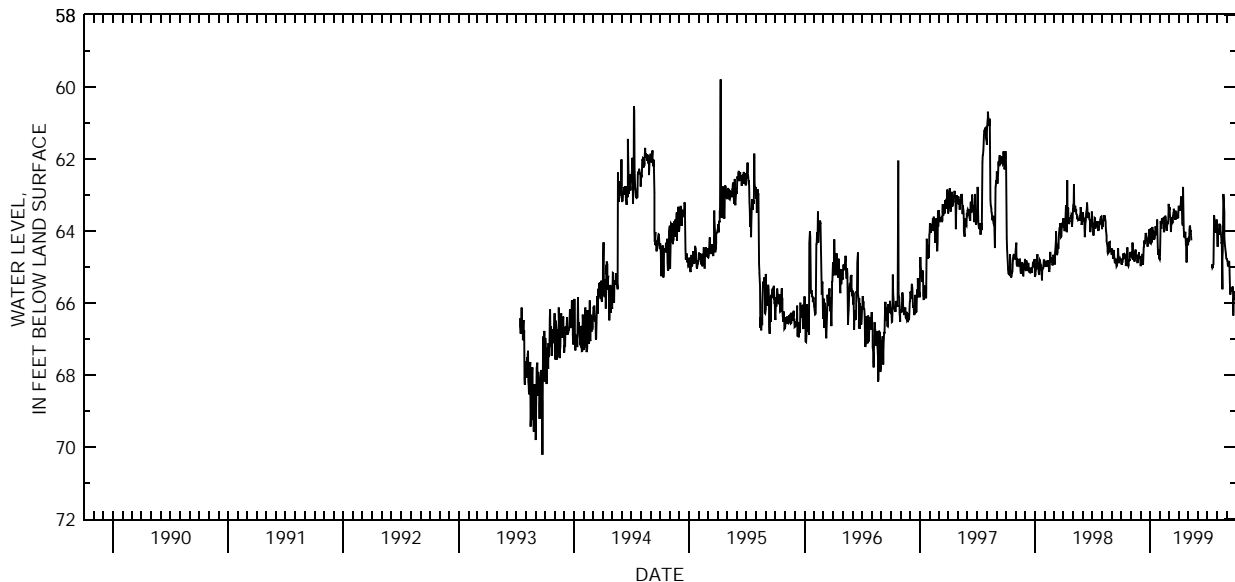
PERIOD OF RECORD.--July 1993 to current year.

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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64.88	64.71	64.95	64.34	64.66	63.38	63.35	64.35	---	---	63.94	64.78
2	64.93	64.69	64.95	64.35	64.34	63.39	63.37	64.23	---	---	64.44	64.81
3	64.86	64.65	64.80	63.92	63.73	63.34	63.33	64.16	---	---	64.07	64.85
4	64.87	64.70	64.74	64.21	63.84	63.57	63.30	64.28	---	---	63.95	64.96
5	64.84	64.72	64.75	64.32	63.94	63.62	63.43	63.97	---	---	63.96	64.96
6	64.77	64.32	64.66	64.20	63.74	63.74	63.33	63.85	---	---	64.10	64.87
7	64.66	64.72	64.66	64.19	63.64	64.01	63.37	63.88	---	---	64.11	64.91
8	64.62	64.79	64.82	63.89	63.67	64.03	63.21	64.00	---	---	63.80	64.83
9	64.70	64.73	64.94	64.10	63.73	63.69	63.04	64.00	---	---	63.91	65.00
10	64.71	64.58	64.72	64.13	63.78	63.62	63.15	64.14	---	---	63.82	65.36
11	64.74	64.72	64.46	64.17	63.65	63.73	63.15	64.26	---	---	63.87	65.71
12	64.73	64.85	64.41	63.99	63.64	63.76	63.41	---	---	---	63.97	65.76
13	64.67	64.79	64.26	64.19	64.01	63.73	63.78	---	---	---	64.05	65.59
14	64.68	64.62	64.34	64.21	64.01	63.61	63.84	---	---	---	64.26	65.61
15	64.88	64.54	64.34	64.21	63.92	63.50	62.78	---	---	65.03	64.35	65.60
16	64.97	64.54	64.21	64.09	63.73	63.50	63.53	---	---	64.93	64.31	65.60
17	64.87	64.72	64.06	64.13	63.58	63.38	63.92	---	---	65.01	65.62	65.68
18	64.72	64.76	64.08	63.87	63.60	63.54	64.11	---	---	64.99	64.78	65.61
19	64.76	64.68	64.17	64.09	63.63	63.69	64.10	---	---	64.93	64.56	65.54
20	64.46	64.68	64.23	64.06	63.74	63.67	64.19	---	---	64.91	63.38	65.65
21	64.72	64.86	64.20	63.94	63.85	63.43	64.11	---	---	64.40	62.97	66.35
22	64.92	64.89	64.36	63.79	63.99	63.46	64.02	---	---	63.56	63.08	65.86
23	64.97	64.75	64.43	63.68	63.88	63.46	64.22	---	---	63.67	63.49	65.84
24	64.93	64.76	64.39	63.94	63.77	63.47	64.39	---	---	63.88	64.17	65.67
25	64.86	64.74	64.37	64.45	63.76	63.61	64.36	---	---	63.98	64.28	65.75
26	64.80	64.59	64.16	64.66	63.77	63.65	64.87	---	---	64.04	64.40	65.75
27	64.80	64.72	64.11	64.51	63.68	63.63	64.26	---	---	63.99	64.49	65.89
28	64.64	64.76	64.05	64.55	63.25	63.58	64.20	---	---	64.00	64.57	65.91
29	64.65	64.73	63.95	64.73	---	63.60	64.31	---	---	63.93	64.64	65.77
30	64.58	64.73	64.11	64.78	---	63.65	64.39	---	---	63.68	64.77	65.58
31	64.68	---	64.17	64.79	---	63.57	---	---	---	63.89	64.78	---
MAX	64.97	64.89	64.95	64.79	64.66	64.03	64.87	64.35	---	65.03	65.62	66.35

CAL YR 1998 LOW 65.37
WTR YR 1999 LOW 66.35



GROUND-WATER RECORDS
Stark County

404939081203800. LOCAL NUMBER, ST-5A

LOCATION.--Latitude 40°49'39", longitude 81°20'38", Hydrologic Unit 05040001, Northeast well field off Harrisburg Rd, Canton, Ohio.

Owner: Canton Water Department.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled unused water table well, diameter 12 in., depth 132 ft, cased.

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

DATUM.--Elevation of land-surface datum is 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.

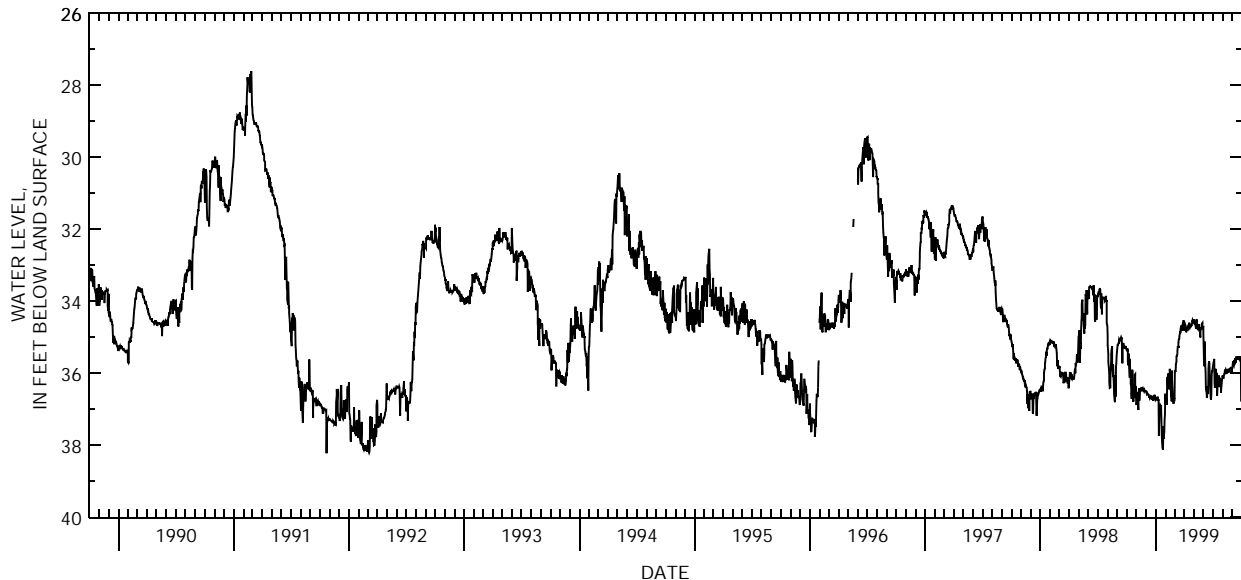
PERIOD OF RECORD.--June 1949 to current year.

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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35.37	36.88	36.50	36.72	36.75	36.71	34.75	34.63	34.86	35.81	36.09	35.84
2	35.37	36.81	36.53	36.69	36.87	35.99	34.82	34.50	35.32	35.75	36.06	35.73
3	35.37	36.53	36.56	36.69	36.78	35.91	34.68	34.53	35.68	35.68	36.15	35.67
4	35.32	36.84	36.54	36.68	36.77	35.96	34.65	34.63	35.81	35.66	36.09	35.78
5	35.67	36.72	36.56	36.72	36.87	35.84	34.67	34.60	35.12	35.60	36.06	35.79
6	35.78	36.92	36.57	36.75	36.12	35.75	34.75	34.65	35.38	36.27	36.02	35.68
7	35.48	37.02	36.60	36.65	36.13	35.67	34.86	34.68	35.75	36.41	36.00	35.64
8	35.46	36.50	36.60	36.72	36.32	35.53	34.83	34.75	35.96	36.24	35.97	35.66
9	35.85	36.42	36.60	36.77	36.30	35.52	34.78	34.60	36.43	35.97	35.90	35.58
10	36.12	36.77	36.63	36.72	36.00	35.46	34.77	34.50	36.48	35.87	35.93	35.70
11	35.60	36.63	36.65	37.74	36.43	35.38	34.73	34.57	36.51	35.99	35.90	35.68
12	36.06	36.48	36.65	37.43	36.38	35.27	34.75	34.65	36.68	36.28	35.93	35.67
13	35.96	36.47	36.68	37.03	36.45	35.27	34.74	34.73	36.60	35.99	36.02	35.53
14	36.27	36.45	36.68	37.03	35.87	35.15	34.75	34.80	36.54	36.41	35.99	35.58
15	36.41	36.45	36.65	36.98	35.96	35.07	34.68	34.78	36.36	36.63	35.94	35.58
16	36.57	36.39	36.69	36.90	36.39	35.03	34.71	34.68	36.56	36.13	35.94	35.58
17	36.71	36.43	36.66	36.92	36.36	34.97	34.59	34.63	35.88	36.18	35.90	35.60
18	36.02	36.42	36.71	36.92	36.59	34.93	34.70	34.74	35.72	36.30	35.90	35.60
19	35.90	36.45	36.62	37.23	36.63	34.83	34.73	34.85	35.66	36.10	35.96	35.53
20	36.20	36.50	36.71	37.70	36.78	34.89	34.70	34.92	35.73	36.06	35.96	35.57
21	36.68	36.47	36.72	37.91	35.93	34.75	34.70	34.92	36.12	36.38	35.91	35.60
22	36.77	36.45	36.74	38.04	36.15	34.73	34.70	35.01	36.25	36.23	35.90	35.55
23	36.77	36.47	36.68	38.10	36.53	34.67	34.65	34.82	36.45	36.23	35.87	35.60
24	36.47	36.47	36.75	38.12	36.74	34.80	34.68	34.73	36.69	36.13	35.88	35.58
25	36.33	36.50	36.66	37.47	36.69	34.80	34.60	34.78	36.74	36.28	35.87	35.60
26	36.05	36.47	36.68	37.82	36.85	34.75	34.56	34.74	36.57	36.21	35.87	35.57
27	36.02	36.50	36.65	37.71	36.57	34.65	34.53	34.62	36.06	36.54	35.85	35.57
28	36.23	36.50	36.59	37.62	36.68	34.62	34.55	34.59	35.91	36.30	35.85	36.41
29	36.69	36.50	36.63	37.28	---	34.62	34.52	34.70	35.97	36.28	35.96	36.74
30	36.36	36.50	36.69	37.16	---	34.53	34.60	34.77	35.87	36.21	35.87	36.72
31	36.69	---	36.66	36.57	---	34.56	---	34.68	---	36.07	35.87	---
MAX	36.77	37.02	36.75	38.12	36.87	36.71	34.86	35.01	36.74	36.63	36.15	36.74

CAL YR 1998 LOW 37.02
WTR YR 1999 LOW 38.12



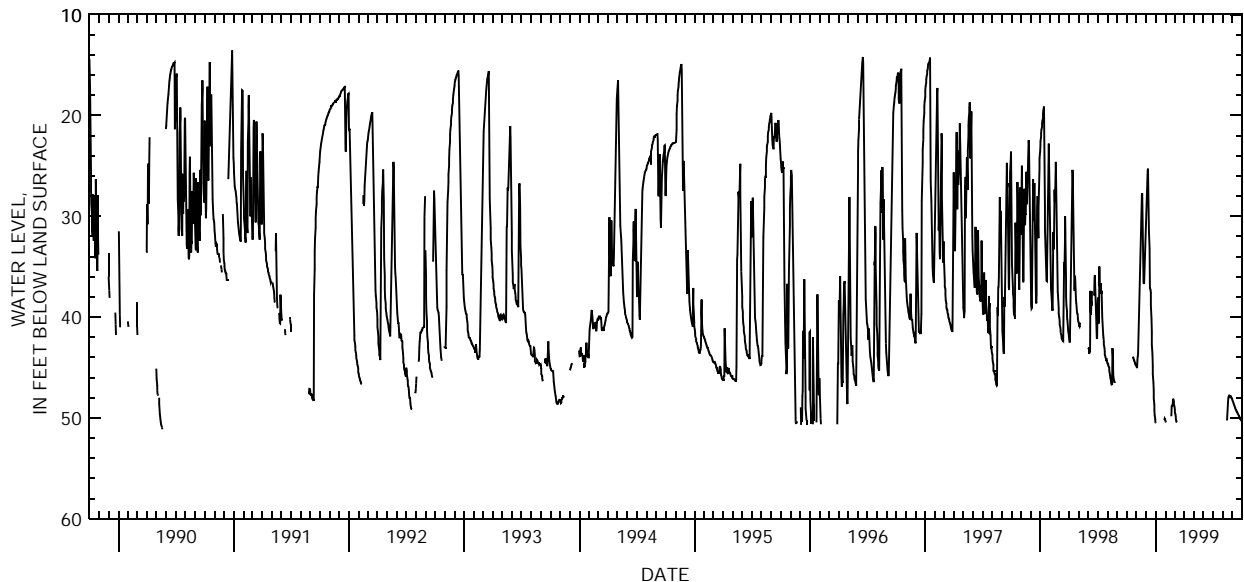
GROUND-WATER RECORDS
Stark County

405211081253500. LOCAL NUMBER, ST-27

LOCATION.--Latitude 40°52'11", longitude 81°25'35", Hydrologic Unit 05040001, Dresler Rd near North Canton, Ohio.
 Owner: North Canton Water Department
 AQUIFER.--Sand and gravel of Pleistocene Age.
 WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 8 in., depth 55 ft, cased.
 INSTRUMENTATION.--Electronic data logger--60-minute log interval.
 DATUM.--Elevation of land-surface datum is 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 1998 TO SEPTEMBER 1999
 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	44.91	29.06	50.51	50.36	48.88	---	---	---	---	---	48.26
2	---	44.97	28.17	---	50.41	49.18	---	---	---	---	---	48.34
3	---	44.97	27.35	---	50.44	49.46	---	---	---	---	---	48.43
4	---	44.27	26.65	---	---	49.69	---	---	---	---	---	48.50
5	---	43.89	26.03	---	---	49.90	---	---	---	---	---	48.61
6	---	43.67	25.47	---	---	50.14	---	---	---	---	---	48.71
7	---	42.06	25.25	---	---	50.35	---	---	---	---	---	48.80
8	---	40.07	26.93	---	---	50.42	---	---	---	---	---	48.89
9	---	38.13	28.37	---	---	50.44	---	---	---	---	---	48.97
10	---	36.35	30.23	---	---	---	---	---	---	---	---	49.03
11	---	34.74	31.47	---	---	---	---	---	---	---	---	49.16
12	---	33.38	33.17	---	---	---	---	---	---	---	---	49.22
13	---	32.16	35.24	---	---	---	---	---	---	---	---	49.28
14	---	31.04	37.10	---	---	---	---	---	---	---	---	49.37
15	---	30.08	37.31	---	---	---	---	---	---	---	50.26	49.43
16	---	29.24	37.57	---	---	---	---	---	---	---	49.73	49.46
17	---	28.44	38.82	---	---	---	---	---	---	---	49.15	49.52
18	---	27.78	40.18	---	---	---	---	---	---	---	48.48	49.61
19	---	27.72	41.46	---	49.84	---	---	---	---	---	48.04	49.69
20	43.92	29.68	42.69	---	48.86	---	---	---	---	---	47.83	49.73
21	44.00	32.10	43.76	---	48.70	---	---	---	---	---	47.78	49.79
22	44.07	34.49	44.79	---	48.77	---	---	---	---	---	47.78	49.85
23	44.18	36.47	45.66	---	48.77	---	---	---	---	---	47.83	49.93
24	44.28	36.71	46.49	---	48.29	---	---	---	---	---	47.89	49.97
25	44.37	36.57	47.28	---	48.10	---	---	---	---	---	47.92	50.06
26	44.46	35.46	48.05	---	48.22	---	---	---	---	---	47.90	50.12
27	44.55	34.05	48.71	---	48.38	---	---	---	---	---	47.87	50.18
28	44.64	32.66	49.26	50.20	48.64	---	---	---	---	---	47.93	50.23
29	44.73	31.31	49.74	50.05	---	---	---	---	---	---	48.01	50.26
30	44.79	30.13	50.18	50.14	---	---	---	---	---	---	48.08	50.33
31	44.85	---	50.46	50.27	---	---	---	---	---	---	48.17	---
MAX	44.85	44.97	50.46	50.51	50.44	50.44	---	---	---	---	50.26	50.33
CAL YR 1998	LOW	50.46										
WTR YR 1999	LOW	50.51										



GROUND-WATER RECORDS
Tuscarawas County

295

403207081293800. LOCAL NUMBER, TU-3

LOCATION.--Latitude 40°32'07", longitude 81°29'38", Hydrologic Unit 05040001, in the northwest part of Dover, Ohio.
Owner: Dover City Water Department.
AQUIFER.--Sand and gravel of Pleistocene Age.
WELL CHARACTERISTICS.--Drilled unused water table well, diameter 6 in., depth 62 ft, cased.
INSTRUMENTATION.--Monthly measurement with chalked tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 880 ft above sea level, from topographic map.
Measuring point: Floor of instrument shelter 3.00 ft above land-surface datum.
PERIOD OF RECORD.--May 1960 to 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 OBSERVATION

DATE	WATER LEVEL
Nov. 2, 1998	11.06
Nov. 30, 1998	11.79
Jan. 4, 1999	11.38
Feb. 1, 1999	7.48
Mar. 1, 1999	8.63
Apr. 1, 1999	8.69
May 3, 1999	9.23
June 1, 1999	9.55
June 30, 1999	10.83
Aug. 2, 1999	11.41
Sept. 1, 1999	11.83
Sept. 30, 1999	12.36

GROUND-WATER RECORDS
Tuscarawas County

403557081313600. LOCAL NUMBER, TU-4

LOCATION.--Latitude 40°35'57", longitude 81°31'36", Hydrologic Unit 05040001, near Fire Dept. building in Strasburg, Ohio.

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.--Electronic data logger--60-minute log interval.

DATUM.--Elevation of land-surface datum is 920 ft above sea level, from topographic map.

Measuring point: Floor of instrument shelter 3.50 ft above land-surface datum.

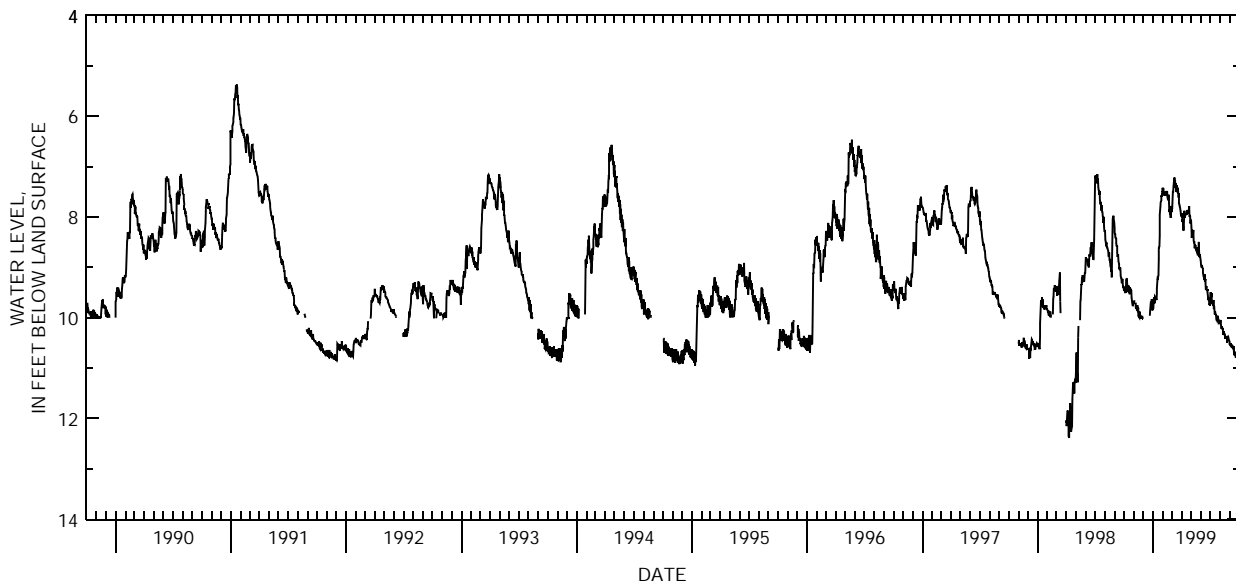
REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

PERIOD OF RECORD.--June 1960 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 12.38 ft below land-surface datum, Apr. 10, 1998; minimum daily low, 4.05 ft below land-surface datum, July 13, 1969.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.45	9.69	10.02	9.81	7.42	7.90	7.99	8.07	8.86	9.76	10.08	10.52
2	9.46	9.72	---	9.82	7.52	7.87	8.00	8.08	8.94	9.56	10.08	10.53
3	9.40	9.65	10.00	9.67	7.43	7.82	7.92	8.20	8.94	9.49	10.04	10.55
4	9.40	---	---	9.60	7.57	7.69	8.05	8.42	9.00	9.53	10.11	10.50
5	9.45	9.65	10.00	9.70	7.54	7.50	8.08	8.34	8.95	9.59	10.19	10.52
6	9.44	---	---	9.70	7.54	7.50	8.08	8.27	8.97	9.51	10.22	10.55
7	9.51	9.70	---	9.66	7.56	7.39	8.25	8.28	9.02	9.72	10.17	10.53
8	9.26	9.80	---	9.58	7.50	7.32	8.27	8.34	9.03	9.66	10.20	10.55
9	9.23	9.82	---	9.60	7.53	7.32	8.20	8.26	9.10	9.72	10.22	10.58
10	9.23	9.79	---	9.62	7.57	7.22	7.88	8.48	9.18	9.74	10.22	10.58
11	9.31	9.80	---	9.60	7.52	7.38	7.88	8.49	9.20	9.75	10.31	10.55
12	9.38	9.85	---	9.65	7.48	7.28	8.01	8.48	9.20	9.65	10.34	10.61
13	9.49	9.75	---	9.52	7.52	7.43	7.94	8.62	9.25	9.83	10.29	10.62
14	9.45	9.83	---	9.42	7.53	7.33	7.95	8.59	9.14	9.76	10.29	10.56
15	9.47	9.80	---	9.24	7.48	7.50	7.95	8.56	9.28	9.84	10.31	10.71
16	9.36	9.95	---	9.25	7.60	7.40	7.92	8.57	9.23	9.93	10.32	10.73
17	9.50	9.98	---	9.22	7.63	7.48	7.94	8.64	9.31	9.87	10.38	10.73
18	9.40	10.00	---	9.15	7.67	7.37	7.96	8.60	9.44	9.91	10.42	10.67
19	9.53	9.98	---	8.84	7.65	7.51	7.87	8.68	9.37	9.93	10.37	10.70
20	9.40	9.88	---	8.62	7.56	7.42	7.94	8.61	9.38	9.95	10.38	10.77
21	9.45	9.95	---	8.58	7.75	7.54	7.86	8.72	9.45	10.04	10.40	10.77
22	9.42	9.95	9.96	8.37	7.90	7.46	7.91	8.70	9.45	10.05	10.41	10.79
23	9.47	9.96	9.85	7.95	7.85	7.62	7.89	8.76	9.48	10.06	10.42	10.73
24	9.45	10.02	9.77	7.80	7.95	7.53	7.88	8.68	9.54	10.05	10.49	10.76
25	9.60	10.02	9.70	7.80	7.91	7.72	7.88	8.70	9.65	9.96	10.41	10.76
26	9.65	9.99	9.70	7.69	8.02	7.77	7.79	8.50	9.60	10.08	10.38	10.79
27	9.70	10.02	9.75	7.67	7.92	7.81	8.00	8.68	9.62	10.02	10.37	10.71
28	9.74	9.96	9.63	7.57	7.78	7.80	7.98	8.80	9.72	10.11	10.42	10.85
29	9.76	10.00	9.78	7.60	---	7.87	7.99	8.74	9.74	10.11	10.42	10.83
30	9.77	10.02	9.85	7.49	---	7.93	8.13	8.77	9.72	10.11	10.44	10.77
31	9.69	---	9.82	7.50	---	7.95	---	8.82	---	10.06	10.47	---
MAX	9.77	10.02	10.02	9.82	8.02	7.95	8.27	8.82	9.74	10.11	10.49	10.85
CAL YR 1998	LOW 12.38											
WTR YR 1999	LOW 10.85											



GROUND-WATER RECORDS Tuscarawas County

403653081321800. LOCAL NUMBER, TU-1

LOCATION.--Latitude 40°36'53", longitude 81°32'18", Hydrologic Unit 05040001, 1.3 mi north of Strasburg, Ohio.
Owner: Ray Libert.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled unused water table well, diameter 4 in., depth 23 ft, cased.

INSTRUMENTATION.--Type F continuous recorder.

DATUM.--Elevation of land-surface datum is 928.24 ft above sea level.

Measuring point: Floor of instrument shelter 0.90 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

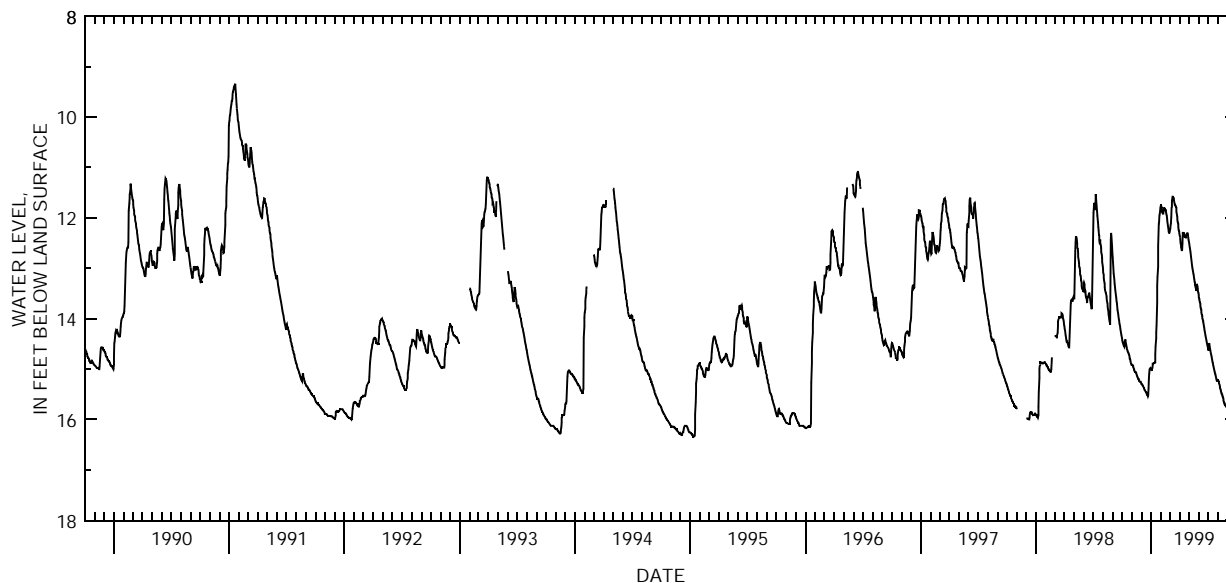
PERIOD OF RECORD.--July 1946 to current year.

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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.43	14.92	15.30	15.02	11.73	12.24	12.34	12.50	13.58	14.63	15.22	15.80
2	14.46	14.92	15.30	15.02	11.80	12.21	12.39	12.55	13.61	14.59	15.24	15.82
3	14.48	14.92	15.31	15.01	11.80	12.14	12.42	12.59	13.65	14.50	15.25	15.84
4	14.50	14.94	15.32	14.98	11.88	12.10	12.50	12.63	13.66	14.50	15.29	15.86
5	14.52	14.96	15.33	14.93	11.90	11.99	12.52	12.67	13.71	14.55	15.31	15.88
6	14.55	14.98	15.35	14.89	11.90	11.80	12.59	12.73	13.75	14.59	15.34	15.90
7	14.56	15.00	15.36	14.88	11.91	11.77	12.61	12.78	13.79	14.62	15.37	15.90
8	14.50	15.02	15.37	14.88	11.93	11.66	12.65	12.83	13.83	14.66	15.40	15.91
9	14.44	15.04	15.38	14.88	11.83	11.58	12.63	12.89	13.87	14.69	15.42	15.93
10	14.41	15.05	15.40	14.88	11.82	11.58	12.51	12.95	13.91	14.72	15.44	15.95
11	14.43	15.06	15.42	14.88	11.79	11.58	12.30	12.99	13.95	14.75	15.47	15.96
12	14.48	15.06	15.43	14.87	11.82	11.60	12.30	13.03	14.00	14.79	15.49	15.98
13	14.51	15.06	15.44	14.86	11.84	11.62	12.30	13.06	14.01	14.82	15.50	15.99
14	14.55	15.07	15.45	14.71	11.85	11.63	12.31	13.10	14.05	14.86	15.52	16.00
15	14.57	15.09	15.46	14.55	11.84	11.71	12.31	13.13	14.07	14.88	15.55	16.02
16	14.60	15.11	15.46	14.39	11.85	11.73	12.36	13.18	14.10	14.92	15.56	16.03
17	14.62	15.14	15.49	14.28	11.90	11.74	12.38	13.22	14.15	14.95	15.59	16.05
18	14.65	15.15	15.50	14.14	11.93	11.75	12.38	13.27	14.18	14.98	15.61	16.07
19	14.66	15.17	15.52	13.68	11.96	11.77	12.38	13.29	14.23	15.00	15.65	16.08
20	14.68	15.18	15.52	13.35	12.01	11.78	12.39	13.33	14.26	15.04	15.67	16.09
21	14.69	15.20	15.54	13.17	12.08	11.80	12.36	13.37	14.30	15.06	15.69	16.10
22	14.71	15.20	15.51	12.97	12.13	11.87	12.33	13.40	14.34	15.09	15.71	16.11
23	14.73	15.22	15.39	12.56	12.17	11.91	12.33	13.43	14.37	15.11	15.73	16.14
24	14.77	15.24	15.20	12.28	12.21	11.98	12.33	13.43	14.40	15.14	15.73	16.15
25	14.80	15.25	15.09	12.12	12.27	12.03	12.29	13.35	14.43	15.17	15.71	16.16
26	14.81	15.25	15.02	12.07	12.30	12.08	12.31	13.31	14.47	15.20	15.71	16.17
27	14.85	15.25	15.00	11.95	12.30	12.12	12.33	13.36	14.50	15.22	15.72	16.18
28	14.87	15.25	14.99	11.92	12.27	12.18	12.39	13.41	14.53	15.24	15.74	16.20
29	14.89	15.26	14.98	11.87	---	12.24	12.43	13.45	14.56	15.23	15.76	16.20
30	14.90	15.28	14.99	11.80	---	12.27	12.46	13.49	14.59	15.21	15.77	16.22
31	14.92	---	15.01	11.77	---	12.30	---	13.53	---	15.21	15.79	---
MAX	14.92	15.28	15.54	15.02	12.30	12.30	12.65	13.53	14.59	15.24	15.79	16.22

CAL YR 1998 LOW 15.97
WTR YR 1999 LOW 16.22



GROUND-WATER RECORDS
Tuscarawas County

403823081324200. LOCAL NUMBER, TU-5

LOCATION.--Latitude 40°38'23", longitude 81°32'42", Hydrologic Unit 05040001, Sugar Creek well field near Strasburg, Ohio.

Owner: Canton Water Dept.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled unused water table well, diameter 6 in., depth 100 ft, cased.

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

DATUM.--Elevation of land-surface datum is 937.93 ft above sea level.

Measuring point: Floor of instrument shelter 4.00 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

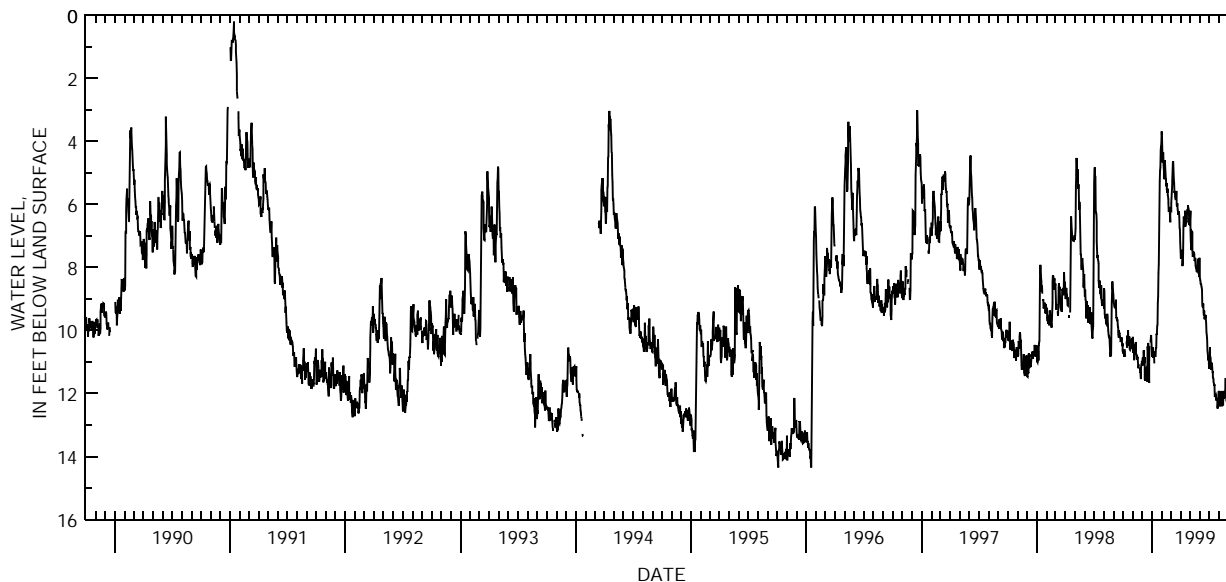
PERIOD OF RECORD.--June 1960 to current year.

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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.73	10.21	11.12	10.73	3.85	6.20	7.43	6.67	8.30	11.09	11.94	12.62
2	10.72	10.71	10.86	10.85	4.32	6.22	7.72	6.20	8.36	11.13	12.08	12.72
3	10.74	10.46	11.07	10.65	4.67	5.96	7.58	6.82	8.42	10.53	12.00	11.97
4	10.65	10.43	10.92	10.53	4.42	5.74	7.49	7.18	8.54	10.82	12.39	12.21
5	10.85	10.95	10.63	10.88	4.36	5.37	7.44	7.45	8.51	10.86	12.39	12.41
6	10.60	10.56	10.70	10.70	4.76	5.27	7.52	7.27	8.58	11.24	12.27	12.27
7	10.83	10.47	11.03	10.70	4.95	4.98	7.96	6.85	8.63	11.16	12.15	12.18
8	---	10.67	10.85	11.05	5.20	4.67	7.83	6.89	8.70	11.22	11.92	12.45
9	10.90	10.58	11.54	---	5.04	4.63	7.55	7.43	9.22	11.17	12.03	12.42
10	---	10.37	11.60	---	4.89	4.93	6.71	7.67	9.23	11.03	12.29	12.42
11	---	10.74	11.43	---	4.60	5.20	6.39	7.60	9.28	11.33	12.41	12.39
12	10.35	10.76	11.45	10.85	5.01	5.33	6.50	7.49	9.15	11.34	12.09	12.33
13	10.54	10.88	11.60	10.55	5.21	5.64	6.65	7.54	9.43	11.49	11.96	12.30
14	10.35	10.93	11.18	10.57	5.19	5.58	6.70	7.57	9.52	11.55	12.38	12.42
15	10.16	10.85	11.17	10.10	5.43	5.74	6.20	7.62	9.37	11.63	11.92	12.96
16	10.32	10.86	11.63	10.14	5.33	5.82	6.70	7.80	9.65	11.67	12.14	13.11
17	9.99	11.05	11.27	9.86	5.52	5.80	6.61	7.70	9.55	11.75	12.15	12.81
18	10.37	11.20	10.51	9.82	5.62	5.82	6.55	7.78	9.61	11.72	11.99	12.92
19	10.45	11.13	10.79	9.12	5.50	5.58	6.53	7.93	9.50	12.11	12.05	12.63
20	10.46	11.07	10.40	8.93	5.68	6.00	6.55	8.00	9.65	12.03	12.06	12.62
21	10.20	---	11.25	8.18	5.83	6.07	6.44	8.00	9.77	12.05	11.82	12.65
22	10.60	---	11.67	7.90	5.95	5.96	6.30	8.12	10.05	12.03	11.52	12.74
23	10.62	11.18	11.03	6.89	6.23	6.16	6.15	8.13	10.14	12.20	11.88	12.84
24	10.60	11.32	10.50	6.10	6.15	6.23	6.31	7.97	10.26	12.23	12.20	12.77
25	---	11.32	---	5.26	6.23	6.32	6.03	7.82	10.62	12.17	12.24	12.71
26	10.60	11.55	---	4.92	6.18	6.27	6.14	7.73	10.71	12.21	12.23	12.60
27	10.32	11.24	10.38	4.82	6.57	6.21	6.19	7.97	10.91	12.42	12.05	12.84
28	10.26	11.04	10.26	4.28	6.08	6.40	6.31	8.00	10.95	12.48	12.15	12.93
29	10.45	11.02	10.14	4.15	---	6.73	6.65	8.13	10.88	12.33	12.20	11.96
30	10.41	10.97	10.38	4.07	---	6.80	6.44	8.30	11.21	12.14	11.40	11.67
31	10.33	---	10.60	3.68	---	7.22	---	7.70	---	11.92	11.91	---
MAX	10.90	11.55	11.67	11.05	6.57	7.22	7.96	8.30	11.21	12.48	12.41	13.11

CAL YR 1998 LOW 11.67
WTR YR 1999 LOW 13.11



GROUND-WATER RECORDS
Union County

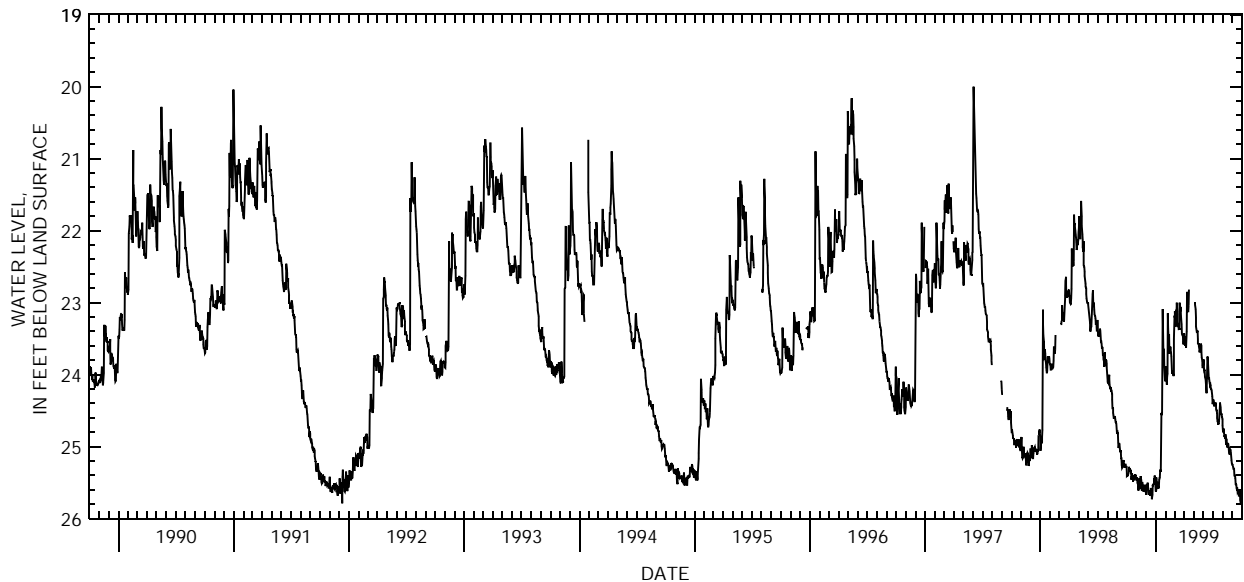
401826083255200. LOCAL NUMBER, U-4

LOCATION.--Latitude 40°18'26", longitude 83°25'52", Hydrologic Unit 05060001, 2.6 mi southeast of Raymond, Ohio.
 Owner: State of Ohio.
 AQUIFER.--Limestone of Silurian Age.
 WELL CHARACTERISTICS.--Drilled test artesian well, diameter 12 in., depth 350 ft, cased to 37 ft.
 INSTRUMENTATION.--Electronic data logger--60-minute log interval.
 DATUM.--Elevation of land-surface datum is 1,040 ft above sea level, from topographic map.
 Measuring point: Floor of instrument shelter 3.00 ft above land-surface datum.
 REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.
 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 and Sept. 27, 1999; minimum daily low, 19.32 ft below land-surface datum, Feb. 24, 1975.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.37	25.46	25.67	25.61	24.05	23.18	23.43	---	23.81	24.38	24.71	25.25
2	25.41	25.46	25.63	25.61	23.90	23.21	23.51	---	23.79	24.35	24.77	25.26
3	25.40	25.43	25.52	25.43	23.88	23.12	23.47	23.00	23.91	24.36	24.80	25.28
4	25.40	25.50	25.55	25.55	24.09	23.30	23.51	23.00	23.94	24.38	24.75	25.31
5	25.40	25.50	25.55	25.55	24.14	23.33	23.60	23.00	23.93	24.44	24.80	25.31
6	25.37	25.55	25.50	25.49	24.02	23.21	23.57	23.03	24.03	24.39	24.84	25.31
7	25.33	25.61	25.55	25.58	23.99	23.10	23.63	23.09	24.05	24.42	24.87	25.40
8	25.28	25.56	25.59	25.53	23.15	23.15	23.52	23.21	24.06	24.42	24.84	25.40
9	25.31	25.55	25.67	25.56	23.36	23.00	23.40	23.33	24.14	24.41	24.89	25.40
10	25.31	25.44	25.65	25.55	23.45	23.16	22.85	23.39	24.20	24.39	24.83	25.44
11	25.33	25.56	25.65	25.58	23.45	23.27	22.88	23.42	24.26	24.48	24.89	25.52
12	25.35	25.59	25.62	25.46	23.45	23.33	23.12	23.42	24.14	24.50	24.97	25.52
13	25.33	25.52	25.61	25.44	23.70	23.33	23.12	23.39	23.96	24.50	24.89	25.53
14	25.32	25.41	25.67	25.43	23.70	23.28	23.12	23.51	23.75	24.54	24.96	25.58
15	25.41	25.47	25.67	25.33	23.66	23.37	23.04	23.57	23.79	24.60	24.99	25.58
16	25.46	25.47	25.58	25.33	23.61	23.37	22.82	23.58	23.88	24.66	25.01	25.58
17	25.43	25.59	25.61	25.35	23.66	23.12	---	23.58	23.96	24.62	24.95	25.63
18	25.38	25.61	25.61	25.10	23.69	23.00	---	23.60	24.05	24.68	24.97	25.62
19	25.41	25.49	25.70	24.53	23.75	23.12	---	23.66	24.05	24.68	24.97	25.62
20	25.41	25.52	25.73	24.56	23.87	23.12	---	23.69	24.09	24.65	25.01	25.62
21	25.41	25.61	25.67	24.53	23.96	23.06	---	23.67	24.12	24.65	25.07	25.68
22	25.47	25.61	25.53	24.09	23.99	23.18	---	23.64	24.15	24.50	25.08	25.68
23	25.47	25.58	25.55	23.09	23.96	23.24	---	23.64	24.14	24.42	25.11	25.63
24	25.46	25.62	25.52	23.43	23.96	23.30	---	23.57	24.17	24.39	25.07	25.63
25	25.44	25.59	25.52	23.64	23.99	23.43	---	23.60	24.20	24.45	25.04	25.70
26	25.44	25.53	25.46	23.66	24.02	23.45	---	23.69	24.20	24.53	25.05	25.74
27	25.44	25.59	25.46	23.64	23.99	23.46	---	23.76	24.22	24.56	25.08	25.79
28	25.40	25.58	25.46	23.90	23.51	23.46	---	23.81	24.26	24.54	25.13	25.77
29	25.40	25.56	25.40	24.00	---	23.54	---	23.87	24.30	24.54	25.19	25.74
30	25.40	25.55	25.50	24.08	---	23.58	---	23.91	24.41	24.59	25.23	25.76
31	25.46	---	25.52	24.08	---	23.54	---	23.85	---	24.62	25.25	---
MAX	25.47	25.62	25.73	25.61	24.14	23.58	23.63	23.91	24.41	24.68	25.25	25.79

CAL YR 1998 LOW 25.73
 WTR YR 1999 LOW 25.79



GROUND-WATER RECORDS Union County

402010083321900. LOCAL NUMBER, U-5

LOCATION.--Latitude 40°20'10", longitude 83°32'19", Hydrologic Unit 05060001, east of East Liberty, Ohio.

Owner: Honda of America.

AQUIFER.--Limestone of Silurian Age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 145 ft, cased to 98 ft.

INSTRUMENTATION.--Type F continuous recorder.

DATUM.--Elevation of land-surface is 1085 ft above sea level, from topographic map.

Measuring point: Floor of instrument shelter 4.00 ft. above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

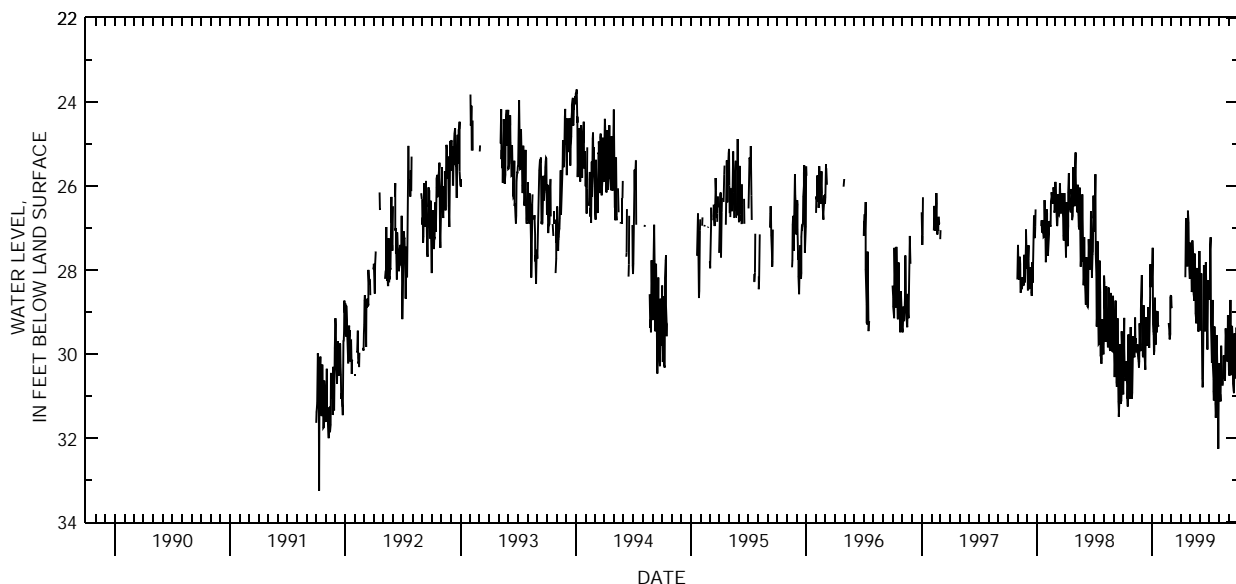
PERIOD OF RECORD.--October 1991 to current year.

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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30.96	30.05	29.67	28.13	---	28.61	---	27.96	28.44	28.33	30.22	30.37
2	30.52	29.57	29.83	27.91	---	28.61	---	27.81	29.04	28.71	30.61	30.40
3	30.03	29.75	30.04	27.47	---	28.65	---	27.35	29.41	28.28	30.98	30.52
4	29.14	30.06	30.08	29.29	---	28.89	---	27.74	29.42	27.53	30.96	30.11
5	29.83	30.04	29.77	29.45	---	28.90	---	28.08	29.16	27.22	30.97	29.19
6	30.20	30.08	28.84	29.54	---	---	---	28.07	28.08	28.06	31.13	28.71
7	30.36	29.91	29.36	30.02	---	---	---	28.52	29.33	29.28	30.82	29.19
8	30.56	29.13	29.76	29.92	---	---	---	28.39	29.96	29.79	29.80	29.65
9	30.64	29.72	30.10	29.48	---	---	---	27.30	30.58	30.21	30.21	30.46
10	30.18	29.62	30.37	28.66	---	---	---	27.58	30.79	29.80	30.51	30.50
11	30.22	29.90	30.01	29.52	---	---	---	28.18	30.67	28.71	30.66	30.15
12	30.47	29.92	29.49	29.78	---	---	---	28.27	30.27	29.62	30.75	29.33
13	30.73	29.91	29.20	29.38	---	---	---	28.57	28.77	30.27	30.69	29.74
14	31.05	29.90	29.12	28.97	---	---	---	28.73	27.88	30.61	30.44	30.37
15	31.04	29.77	29.49	29.15	---	---	---	28.45	28.47	30.89	30.06	30.70
16	31.25	29.80	29.59	29.48	---	---	28.17	27.61	28.96	31.10	30.03	30.87
17	30.87	30.03	29.60	29.22	---	---	27.86	28.06	29.22	30.63	30.26	30.93
18	29.54	30.11	29.80	28.98	---	---	26.76	28.48	29.46	29.34	30.48	30.52
19	30.06	30.17	29.62	29.24	---	---	27.03	29.02	29.06	30.21	30.55	29.50
20	30.73	30.32	28.89	29.34	---	---	27.57	29.11	27.81	30.79	30.64	29.77
21	30.88	30.18	29.29	29.31	---	---	27.69	29.27	28.50	31.19	30.32	30.21
22	31.04	29.27	29.77	---	---	---	27.87	29.03	29.08	31.52	29.39	30.46
23	31.07	29.47	29.86	---	29.26	---	27.91	27.95	29.39	31.19	29.57	30.50
24	30.59	29.81	29.51	---	29.45	---	27.65	28.34	29.64	30.60	30.03	30.58
25	29.36	29.93	28.65	---	29.52	---	26.59	28.74	29.89	29.55	30.09	30.25
26	30.08	29.78	28.12	---	29.65	---	26.88	29.02	29.52	30.35	30.06	29.37
27	30.58	28.95	27.86	---	29.52	---	27.47	29.29	28.24	30.71	30.18	29.87
28	31.00	28.48	28.41	---	28.65	---	27.59	29.47	28.69	31.14	29.97	30.18
29	31.06	28.12	28.26	---	---	---	27.94	29.25	28.37	31.39	29.08	30.44
30	30.92	29.15	28.18	---	---	---	28.21	28.13	28.62	32.26	29.40	30.52
31	30.54	---	28.16	---	---	---	---	27.55	---	31.85	29.84	---
MAX	31.25	30.32	30.37	30.02	29.65	28.90	28.21	29.47	30.79	32.26	31.13	30.93

CAL YR 1998 LOW 31.49
WTR YR 1999 LOW 32.26



GROUND-WATER RECORDS
Vinton County

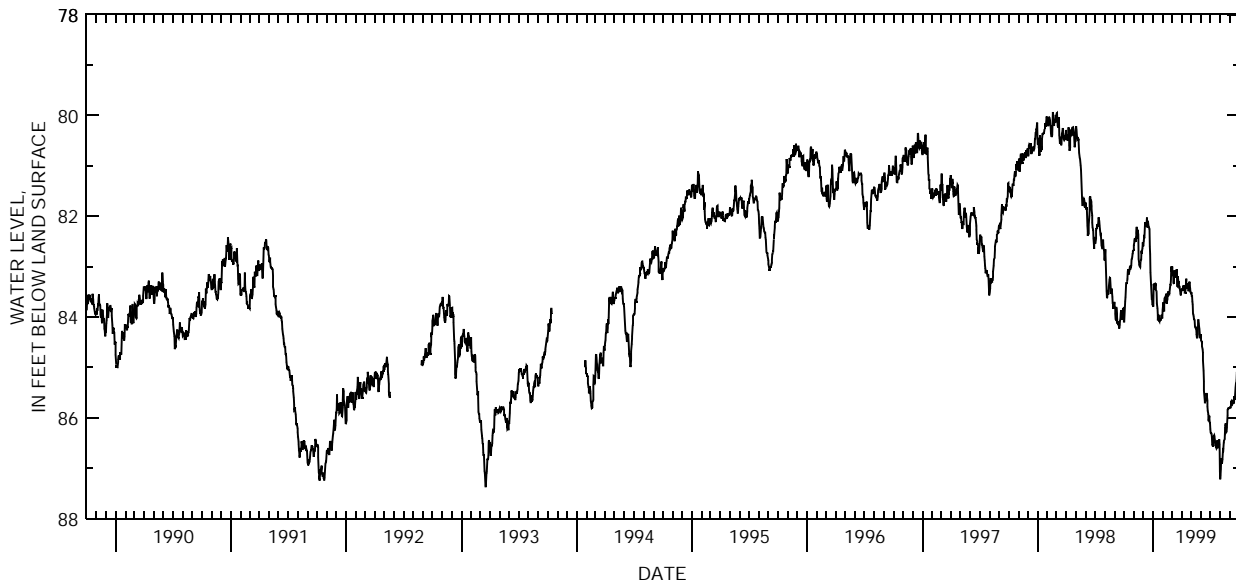
391452082282900. LOCAL NUMBER, V-1

LOCATION.--Latitude 39°14'52", longitude 82°28'29", Hydrologic Unit 05090101, State Highway garage in McArthur, Ohio.
 Owner: Vinton County School Board.
 AQUIFER.--Sandstone of Mississippian Age.
 WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in., depth 218 ft, cased.
 INSTRUMENTATION.--Digital recorder--60-minute punch.
 DATUM.--Elevation of land-surface datum is 730 ft above sea level, from topographic map.
 Measuring Point: Top of platform 2.50 ft below land-surface datum.
 REMARKS.--Station operated by Ohio Department of Natural Resources, 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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	84.09	82.68	82.58	83.78	83.86	83.09	83.47	83.52	84.39	86.10	87.07	85.80
2	84.09	82.57	82.58	83.79	83.73	83.10	83.45	83.53	84.34	86.22	87.22	85.79
3	83.98	82.50	82.49	83.34	83.71	83.00	83.46	83.51	84.46	86.29	87.14	85.80
4	83.84	82.44	82.43	83.39	83.83	83.14	83.44	83.58	84.49	86.31	87.02	85.80
5	83.69	82.46	82.44	83.45	83.89	83.18	83.45	83.58	84.48	86.31	86.81	85.78
6	83.61	82.45	82.28	83.33	83.71	83.14	83.43	83.69	84.58	86.32	86.87	85.66
7	83.46	82.51	82.14	83.39	83.62	83.33	83.48	83.75	84.64	86.38	86.91	85.75
8	83.33	82.44	82.12	83.39	83.61	83.34	83.41	83.94	84.71	86.53	86.88	85.73
9	83.33	82.37	82.20	83.34	83.70	83.13	83.37	83.95	84.86	86.53	86.82	85.66
10	83.33	82.21	82.18	83.35	83.70	83.07	83.46	83.98	85.07	86.56	86.72	85.67
11	83.30	82.33	82.17	83.47	83.66	83.14	83.38	84.04	85.28	86.56	86.60	85.71
12	83.24	82.44	82.13	83.49	83.54	83.20	83.52	84.05	85.46	86.37	86.68	85.70
13	83.11	82.40	82.03	83.72	83.72	83.20	83.52	84.07	85.60	86.35	86.50	85.68
14	83.05	82.27	82.21	83.73	83.72	83.15	83.49	84.18	85.68	86.34	86.44	85.70
15	83.14	82.36	82.21	83.83	83.68	83.13	83.42	84.21	85.71	86.37	86.44	85.72
16	83.16	82.47	82.09	83.97	83.65	83.14	83.24	84.22	85.65	86.43	86.42	85.57
17	83.12	82.85	82.14	84.07	83.52	83.05	83.33	84.21	85.62	86.47	86.25	85.64
18	83.09	82.95	82.20	83.95	83.53	83.24	83.44	84.24	85.64	86.54	86.17	85.59
19	83.03	82.98	82.22	84.04	83.49	83.39	83.42	84.34	85.62	86.54	86.11	85.50
20	83.04	82.99	82.24	84.07	83.53	83.40	83.42	84.40	85.51	86.58	86.19	85.39
21	82.98	83.01	82.26	84.09	83.52	83.19	83.38	84.42	85.55	86.60	86.29	85.33
22	83.00	83.01	82.60	84.04	83.53	83.23	83.33	84.39	85.66	86.58	86.27	85.31
23	83.01	82.90	82.75	84.03	83.48	83.33	83.44	84.34	85.78	86.57	86.19	85.25
24	82.98	82.86	83.12	84.05	83.42	83.29	83.49	84.05	85.86	86.45	86.16	85.09
25	82.86	82.85	83.22	84.06	83.36	83.38	83.47	84.07	85.93	86.52	85.95	85.13
26	82.84	82.68	83.34	84.06	83.36	83.39	83.33	84.12	86.03	86.52	85.84	85.17
27	82.81	82.74	83.47	83.99	83.26	83.45	83.30	84.19	86.07	86.56	85.83	85.17
28	82.75	82.67	83.64	83.96	83.00	83.45	83.37	84.24	85.96	86.55	85.82	85.14
29	82.73	82.63	83.64	83.97	---	83.54	83.43	84.34	85.99	86.46	85.79	85.08
30	82.69	82.52	83.75	84.03	---	83.57	83.50	84.42	86.09	86.43	85.81	85.04
31	82.67	---	83.75	84.03	---	83.53	---	84.38	---	86.53	85.80	---
MAX	84.09	83.01	83.75	84.09	83.89	83.57	83.52	84.42	86.09	86.60	87.22	85.80

CAL YR 1998 LOW 84.23
 WTR YR 1999 LOW 87.22



GROUND-WATER RECORDS Warren County

392119084142000. LOCAL NUMBER, W-6

LOCATION.--Latitude 39°21'19", longitude 84°14'20", Hydrologic Unit 05090202, southeast of Kings Mills, Ohio
Owner: Ohio Department of Natural Resources.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in., depth 48 ft., cased.

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

DATUM.--Elevation of land-surface datum is 619 ft above sea level, from topographic map.

Measuring point: Floor of instrument shelter 3.00 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

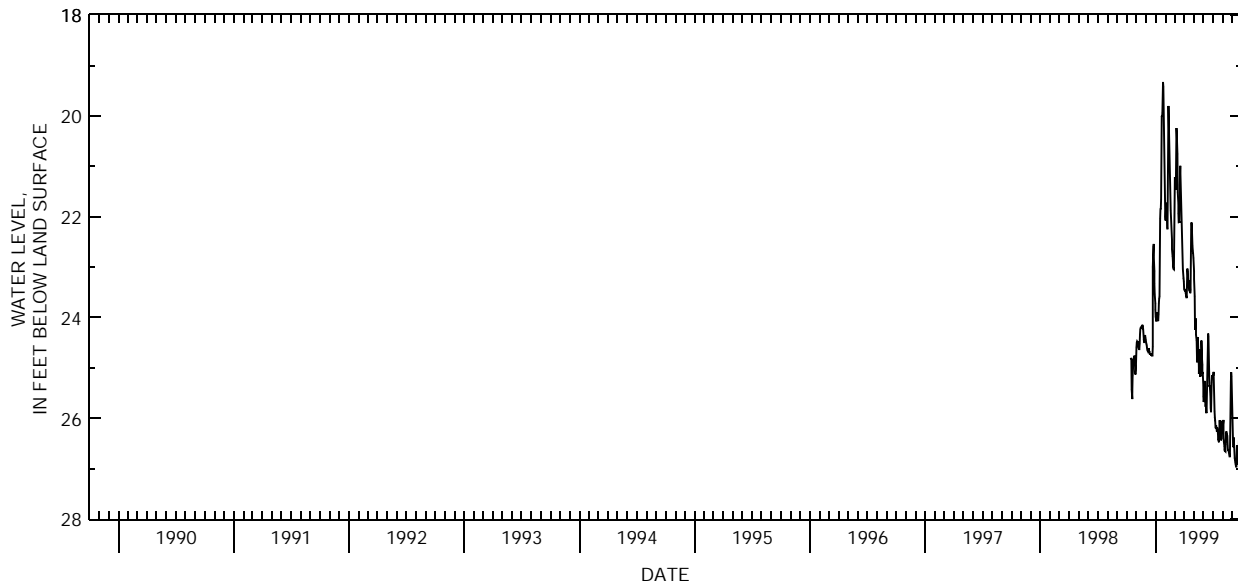
PERIOD OF RECORD.--Oct. 14, 1998 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 26.97 ft below land-surface datum, Sept. 13, 1999; minimum daily low, 19.33 ft below land-surface datum, Jan. 24, 1999.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	24.59	24.49	23.98	22.08	21.88	23.45	22.96	25.57	25.14	26.28	26.20
2	---	24.50	24.52	24.07	21.94	21.22	23.46	23.09	25.68	25.16	26.15	26.39
3	---	24.48	24.55	24.08	21.72	21.21	23.46	23.24	25.62	25.08	26.03	26.54
4	---	24.49	24.60	24.00	21.78	21.28	23.47	23.58	25.32	25.36	26.30	26.57
5	---	24.49	24.64	23.90	21.98	21.40	23.46	24.11	25.26	25.68	26.46	26.38
6	---	24.54	24.67	23.96	22.21	21.47	23.52	24.24	25.40	25.86	26.56	26.56
7	---	24.58	24.68	24.02	22.25	20.66	23.56	24.07	25.67	25.98	26.62	26.69
8	---	24.61	24.65	24.06	21.27	20.24	23.60	24.02	25.77	26.05	26.65	26.78
9	---	24.63	24.61	24.07	20.12	20.35	23.60	24.34	25.71	26.17	26.66	26.83
10	---	24.63	24.63	23.94	19.80	20.76	23.32	24.45	25.88	26.20	26.52	26.88
11	---	24.52	24.66	23.72	20.24	21.10	23.03	24.77	25.90	26.14	26.45	26.92
12	---	24.34	24.68	23.62	20.64	21.52	23.08	24.89	25.73	26.19	26.37	26.95
13	---	24.23	24.70	23.58	20.84	21.75	23.18	24.72	25.45	26.25	26.26	26.97
14	24.80	24.20	24.72	22.68	21.12	21.94	23.30	24.39	25.16	26.25	26.42	26.88
15	24.83	24.20	24.72	22.04	21.38	22.12	23.38	24.42	24.66	26.18	26.34	26.54
16	24.93	24.20	24.72	21.85	21.68	22.12	23.42	24.82	24.32	26.26	26.35	26.76
17	25.43	24.18	24.74	21.84	21.88	21.98	23.41	24.98	24.38	26.35	26.55	26.76
18	25.62	24.18	24.74	21.66	22.00	21.37	23.36	25.12	24.88	26.42	26.65	26.83
19	25.48	24.16	24.76	20.64	22.14	20.99	23.27	25.00	25.17	26.46	26.61	26.92
20	25.16	24.16	24.76	20.00	22.31	21.04	23.52	24.63	25.37	26.48	26.65	26.82
21	24.93	24.17	24.76	20.02	22.46	21.28	23.45	24.68	25.35	26.42	26.68	26.53
22	24.84	24.24	24.58	19.94	22.64	21.54	22.93	25.10	25.44	26.04	26.72	26.17
23	24.80	24.34	23.00	19.61	22.79	21.95	22.26	25.16	25.54	26.17	26.76	25.90
24	24.78	24.43	22.59	19.33	22.91	22.29	22.12	25.16	25.80	26.25	26.76	26.26
25	24.77	24.49	22.54	19.42	22.99	22.55	22.20	24.78	25.88	26.36	26.41	26.31
26	24.76	24.49	22.77	19.68	23.04	22.76	22.38	24.46	25.68	26.44	25.70	26.30
27	24.98	24.43	23.08	20.28	23.05	22.92	22.58	24.73	25.29	26.44	25.28	26.58
28	25.10	24.35	23.33	20.92	22.82	23.04	22.67	24.94	25.15	26.40	25.09	26.67
29	25.13	24.40	23.54	21.38	---	23.13	22.73	25.12	25.17	26.14	25.17	26.46
30	25.05	24.44	23.72	21.69	---	23.21	22.82	25.08	25.17	26.05	25.64	26.05
31	24.85	---	23.85	22.00	---	23.28	---	25.36	---	26.27	25.98	---
MAX	25.62	24.63	24.76	24.08	23.05	23.28	23.60	25.36	25.90	26.48	26.76	26.97
MIN	24.76	24.16	22.54	19.33	19.80	20.24	22.12	22.96	24.32	25.08	25.09	25.90

WTR YR 1999 HIGH 19.33 LOW 26.97



GROUND-WATER RECORDS
Warren County

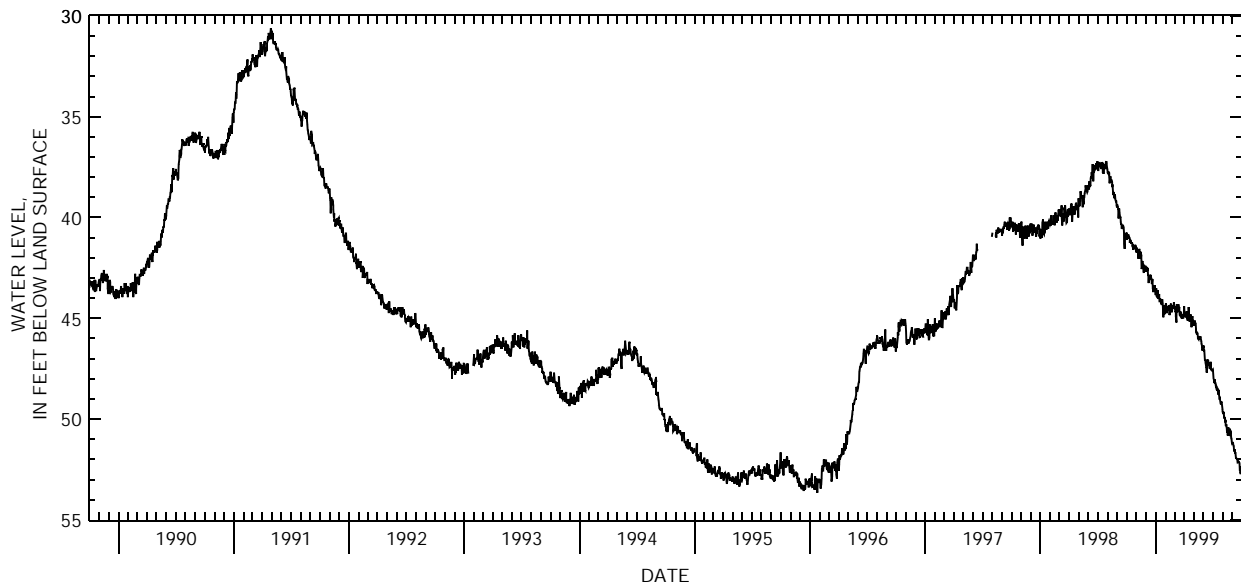
392712084191700. LOCAL NUMBER, W-5

LOCATION.--Latitude 39°27'12", longitude 84°19'17", Hydrologic Unit 05080002, Union Rd., 2 mi east of Monroe, Ohio.
 Owner: Bob Proeschel.
 AQUIFER.--Sand and gravel of Pleistocene Age.
 WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 12 in., depth 121 ft, cased.
 INSTRUMENTATION.--Electronic data logger--60-minute log interval.
 DATUM.--Elevation of land-surface datum is 660 ft above sea level, from topographic map.
 Measuring point: Floor of instrument shelter 3.50 ft above land-surface datum.
 REMARKS.--Station operated by Ohio Department of Natural Resources, 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 1998 TO SEPTEMBER 1999
 DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41.10	41.70	42.70	43.85	44.35	44.45	44.40	45.25	46.35	47.57	49.65	51.20
2	40.95	41.50	42.50	43.50	44.25	44.40	44.70	45.35	46.40	47.81	49.68	51.23
3	40.95	41.65	42.50	43.65	44.35	44.50	44.75	45.20	46.60	48.02	49.74	51.20
4	41.00	41.70	42.65	43.90	44.75	44.70	44.85	45.25	46.60	48.05	49.64	51.30
5	40.95	41.70	42.60	43.90	44.70	44.65	44.90	45.10	46.85	48.20	49.74	51.35
6	40.85	41.80	42.50	43.75	44.45	44.90	44.90	45.20	47.10	48.02	49.97	51.57
7	40.90	42.05	42.85	44.00	44.45	45.20	44.95	45.25	47.05	48.20	49.92	51.57
8	41.00	41.75	42.90	43.60	44.45	44.85	44.75	45.50	47.20	48.23	49.94	51.49
9	41.00	41.80	43.25	44.00	44.55	44.30	44.65	45.70	47.30	48.23	50.15	51.71
10	41.05	41.55	43.00	44.00	44.60	44.50	45.00	45.75	47.45	48.35	50.03	51.64
11	41.25	42.05	43.00	43.95	44.40	44.70	45.00	45.80	47.64	48.41	50.34	51.79
12	41.10	42.00	42.85	43.80	44.40	44.65	45.10	45.70	47.70	48.38	50.32	51.93
13	41.20	41.95	42.90	44.15	44.85	44.65	45.05	45.75	47.16	48.44	50.25	51.93
14	41.15	41.70	43.10	44.15	44.80	44.30	44.95	45.95	47.04	48.48	50.42	51.95
15	41.30	42.05	43.00	44.00	44.40	44.55	44.45	46.00	47.19	48.56	50.67	51.98
16	41.25	41.85	42.85	44.10	44.40	44.45	44.70	46.05	47.07	48.56	50.57	51.99
17	41.25	42.55	42.95	44.05	44.30	44.60	45.00	45.95	47.24	48.71	50.81	52.14
18	41.25	42.50	43.05	44.25	44.30	44.85	45.15	45.90	47.28	48.77	50.72	52.13
19	41.40	42.20	43.30	44.30	44.35	44.90	44.90	45.95	47.19	48.59	50.39	52.13
20	41.45	42.15	43.30	44.30	44.55	44.70	44.95	46.05	47.42	48.62	50.81	52.11
21	41.35	42.55	43.05	44.10	44.70	44.70	44.80	46.00	47.51	48.80	50.70	52.14
22	41.60	42.30	43.50	44.10	44.65	44.70	44.95	45.90	47.45	49.04	50.72	52.16
23	41.45	42.65	43.50	44.25	44.40	44.80	45.15	45.95	47.36	48.89	50.82	52.17
24	41.50	42.75	43.70	44.60	44.40	44.85	45.45	46.00	47.15	49.02	50.48	52.56
25	41.50	42.35	43.50	44.95	44.45	45.00	45.20	46.15	47.57	49.22	50.55	52.46
26	41.55	42.50	43.50	44.70	44.50	44.95	44.95	46.25	47.48	49.28	50.72	52.64
27	41.40	42.45	43.40	44.35	44.20	45.00	44.90	46.30	47.57	49.23	50.70	52.73
28	41.35	42.55	43.50	44.55	44.25	44.80	45.10	46.45	47.51	49.13	50.93	52.47
29	41.45	42.40	43.35	44.65	---	45.00	45.20	46.60	47.60	49.16	50.99	52.41
30	41.45	42.45	43.70	44.80	---	44.95	45.35	46.45	47.61	49.26	51.12	52.43
31	41.70	---	43.70	44.55	---	44.80	---	46.45	---	49.52	51.23	---
MAX	41.70	42.75	43.70	44.95	44.85	45.20	45.45	46.60	47.70	49.52	51.23	52.73

CAL YR 1998 LOW 43.70
 WTR YR 1999 LOW 52.73



GROUND-WATER RECORDS

Washington County

392553081281600. LOCAL NUMBER, WA-2

LOCATION.--Latitude 39°25'53", longitude 81°28'16", Hydrologic Unit 05040004, near county fairgrounds north of Marietta, Ohio.

Owner: Marietta Water Dept.

AQUIFER.--Sand and gravel of Quaternary Age.

WELL CHARACTERISTICS.--Drilled unused water table well, diameter 8 in., depth, 50 ft, cased.

INSTRUMENTATION.--Type F continuous recorder.

DATUM.--Elevation of land-surface datum is 605 ft above sea level, from topographic map.

Measuring point: Floor of instrument shelter 3.00 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

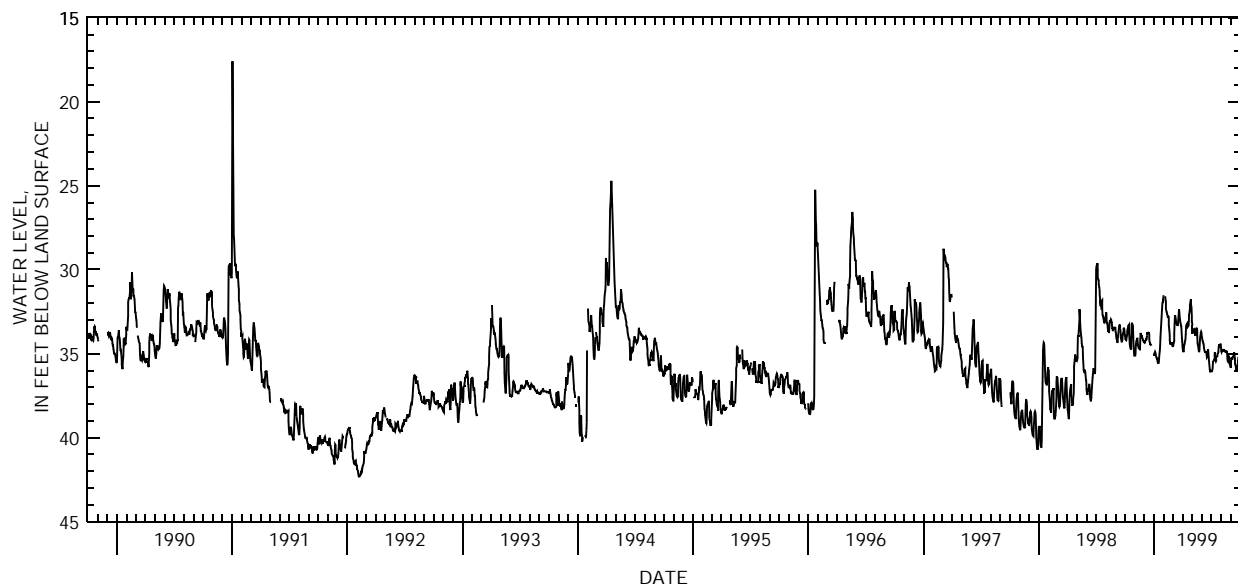
PERIOD OF RECORD.--August 1971 to current year.

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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33.95	35.10	34.35	35.05	---	34.55	34.60	33.05	33.95	36.05	34.60	35.80
2	34.10	35.10	34.30	35.10	---	34.55	34.75	33.30	34.05	36.05	34.85	35.30
3	34.15	35.00	34.25	34.95	---	34.50	34.85	33.75	34.15	36.05	34.90	35.30
4	34.20	34.50	34.20	34.90	31.60	34.40	34.90	33.75	34.25	36.05	34.85	35.20
5	34.20	34.30	34.20	34.95	31.65	34.25	34.75	33.70	34.30	35.85	34.80	35.35
6	34.05	34.20	34.15	35.00	31.80	33.80	34.50	33.60	34.40	35.55	34.80	35.30
7	33.85	34.15	34.15	35.15	31.90	33.30	34.45	33.55	34.45	35.45	34.80	35.20
8	33.70	34.10	34.10	35.20	32.30	32.80	34.35	33.50	34.65	35.40	34.80	35.15
9	33.55	34.10	34.00	35.25	32.50	32.70	34.20	33.50	34.75	35.40	34.70	35.15
10	33.45	34.35	33.90	35.30	32.55	32.85	34.15	33.50	34.85	35.40	34.80	35.10
11	33.35	34.50	33.80	35.30	32.60	32.95	33.85	33.75	34.90	35.35	34.80	35.00
12	33.30	34.60	33.80	35.45	32.70	33.10	33.40	33.85	34.90	34.90	34.80	34.90
13	33.25	34.65	33.75	35.55	32.80	33.20	33.30	33.85	34.90	35.10	34.85	35.15
14	33.80	34.65	33.75	35.55	32.85	33.25	33.30	33.65	34.90	35.30	34.85	35.40
15	34.10	34.70	33.80	35.55	32.75	33.30	33.20	33.55	34.95	35.40	34.90	35.60
16	34.40	34.75	33.80	35.45	32.90	33.30	33.15	33.50	35.00	35.45	34.90	35.70
17	34.55	34.75	34.10	35.20	33.30	33.30	33.20	33.60	35.20	35.35	34.90	35.85
18	34.65	34.10	34.30	34.95	33.65	33.15	33.30	34.00	35.15	35.20	34.80	35.90
19	34.70	33.75	34.40	34.80	33.95	32.85	33.35	34.35	34.95	35.20	34.95	36.00
20	34.70	33.85	34.45	34.50	34.20	32.60	33.30	34.50	34.80	35.15	34.85	36.05
21	33.90	33.90	34.45	34.00	34.45	32.35	32.95	34.55	34.75	35.00	35.25	36.00
22	33.30	33.95	34.50	33.70	34.45	32.50	32.70	34.70	35.05	34.95	35.40	35.75
23	33.15	33.95	34.50	33.35	34.35	32.80	32.50	34.85	35.25	34.90	35.50	35.50
24	33.25	34.05	---	33.00	34.35	32.95	32.30	34.90	35.45	34.85	35.45	35.40
25	33.30	34.10	---	32.65	34.40	33.10	32.10	34.70	35.70	34.60	35.15	35.30
26	33.35	34.15	---	32.30	34.45	33.20	31.90	34.30	35.90	34.60	35.20	35.20
27	34.10	34.20	---	32.00	34.45	33.30	31.75	34.00	36.05	34.50	35.55	35.25
28	34.60	34.25	---	31.90	34.50	33.35	32.00	33.90	36.10	34.50	35.60	35.35
29	34.85	34.25	---	31.95	---	33.70	32.25	33.75	36.00	34.50	35.60	35.40
30	35.10	34.30	---	31.60	---	34.05	32.75	33.70	36.00	34.45	35.70	35.30
31	35.10	---	35.00	31.50	---	34.25	---	33.75	---	34.45	35.80	---
MAX	35.10	35.10	35.00	35.55	34.50	34.55	34.90	34.90	36.10	36.05	35.80	36.05

CAL YR 1998 LOW 40.55
WTR YR 1999 LOW 36.10



GROUND-WATER RECORDS
Wayne County

404655081553200. LOCAL NUMBER, WN-3

LOCATION.--Latitude 40°46'55", longitude 81°55'32", Hydrologic Unit 05040003, OARDC-OSU Experiment Station near Wooster, Ohio.

Owner: OARDC-OSU.

AQUIFER.--Shale of Mississippian Age.

WELL CHARACTERISTICS.--Drilled test water table well, diameter 8 in., depth 20 ft, cased.

INSTRUMENTATION.--Digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 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.

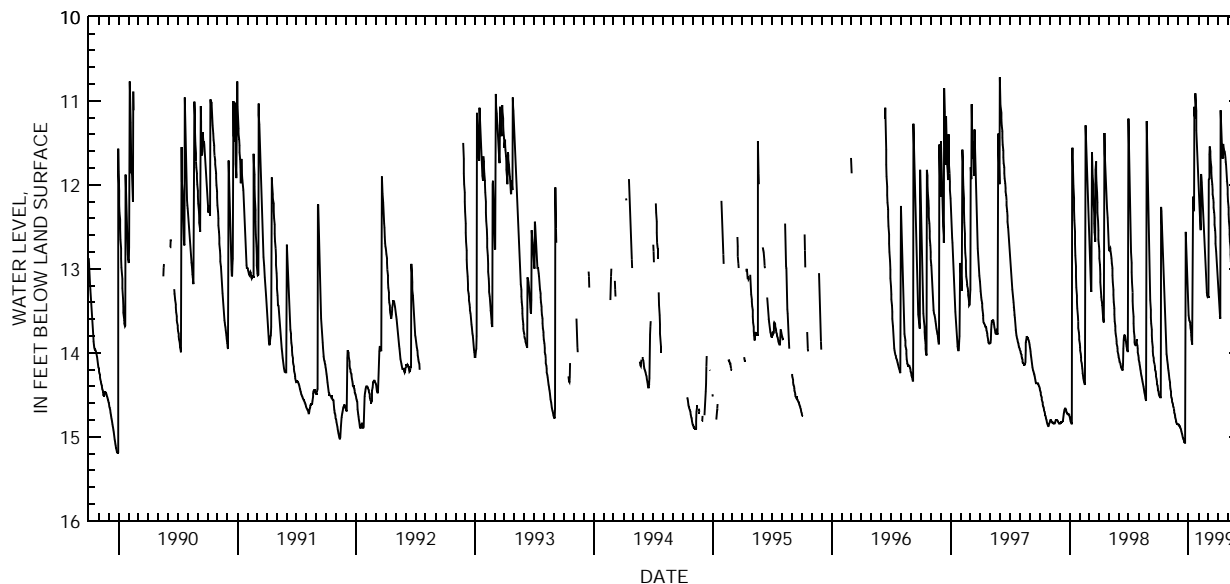
PERIOD OF RECORD.--June 1955 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 16.17 ft below land-surface datum, Jan. 27, 29, 1956; minimum daily low, 8.00 ft below land-surface datum, July 6, 1969.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.46	14.21	14.85	13.44	12.06	13.33	13.17	12.04	13.72	14.41	14.54	14.45
2	14.49	14.24	14.86	13.55	12.14	13.34	13.24	12.11	13.75	14.42	14.50	14.46
3	14.51	14.28	14.86	13.61	12.21	13.34	13.30	12.19	13.79	14.42	14.46	14.48
4	14.52	14.31	14.87	13.61	12.28	12.75	13.35	12.27	13.82	14.42	14.42	14.49
5	14.52	14.35	14.87	13.62	12.36	11.93	13.40	12.35	13.85	14.43	14.40	14.51
6	14.53	14.38	14.88	13.64	12.44	11.92	13.45	12.43	13.89	14.43	14.38	14.52
7	14.53	14.42	14.89	13.66	12.53	11.64	13.51	12.52	13.92	14.44	14.38	14.54
8	14.53	14.46	14.90	13.70	12.53	11.54	13.56	12.59	13.96	14.44	14.37	14.56
9	12.26	14.50	14.91	13.75	11.87	11.60	13.59	12.67	13.99	14.44	14.36	14.57
10	12.31	14.53	14.93	13.79	11.91	11.66	11.11	12.75	14.03	14.45	14.35	14.59
11	12.43	14.55	14.94	13.84	11.97	11.72	11.26	12.83	14.06	14.45	14.34	14.61
12	12.58	14.57	14.96	13.89	12.05	11.79	11.39	12.91	14.09	14.45	14.33	14.63
13	12.75	14.59	14.97	13.90	12.11	11.85	11.48	12.97	14.12	14.46	14.33	14.65
14	12.91	14.61	14.99	12.80	12.17	11.92	11.56	13.04	14.14	14.47	14.34	14.67
15	13.06	14.62	15.01	12.14	12.25	11.99	11.63	13.09	14.16	14.48	14.34	14.69
16	13.23	14.64	15.02	12.19	12.33	12.06	11.68	13.15	14.17	14.48	14.34	14.71
17	13.36	14.66	15.03	12.28	12.40	12.11	11.68	13.22	14.18	14.49	14.34	14.73
18	13.48	14.69	15.04	12.29	12.48	12.16	11.51	13.28	14.20	14.51	14.35	14.75
19	13.57	14.71	15.06	11.07	12.57	12.21	11.55	13.33	14.21	14.52	14.36	14.76
20	13.65	14.73	15.06	11.16	12.67	12.27	11.57	13.39	14.23	14.53	14.37	14.78
21	13.72	14.75	15.07	11.20	12.76	12.33	11.59	13.45	14.25	14.54	14.38	14.79
22	13.78	14.77	15.07	11.20	12.86	12.39	11.60	13.50	14.27	14.55	14.39	14.80
23	13.85	14.79	12.89	10.91	12.94	12.47	11.61	13.55	14.29	14.56	14.41	14.81
24	13.91	14.81	12.56	11.05	13.03	12.54	11.64	13.57	14.31	14.57	14.43	14.83
25	13.96	14.82	12.65	11.12	13.12	12.62	11.67	13.57	14.33	14.58	14.44	14.84
26	14.01	14.84	12.76	11.35	13.20	12.70	11.72	13.57	14.35	14.59	14.45	14.84
27	14.04	14.84	12.88	11.52	13.28	12.79	11.76	13.58	14.36	14.60	14.45	14.85
28	14.08	14.85	12.99	11.63	13.32	12.86	11.83	13.59	14.38	14.61	14.44	14.87
29	14.11	14.85	13.12	11.73	---	12.94	11.89	13.63	14.39	14.61	14.44	14.87
30	14.14	14.85	13.23	11.84	---	13.02	11.95	13.65	14.40	14.61	14.44	14.87
31	14.18	---	13.33	11.95	---	13.10	---	13.69	---	14.58	14.44	---
MAX	14.53	14.85	15.07	13.90	13.32	13.34	13.59	13.69	14.40	14.61	14.54	14.87

CAL YR 1998 LOW 15.07
WTR YR 1999 LOW 15.07



GROUND-WATER RECORDS

Wayne County

404802081583100. LOCAL NUMBER, WN-2A

LOCATION.--Latitude 40°48'02", longitude 81°58'31", Hydrologic Unit 05040003, in well field by Killbuck Creek near Wooster, Ohio.

Owner: Wooster Water Dept.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled test water table well, diameter 6 in., depth 65 ft, cased.

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

DATUM.--Elevation of land-surface datum is 855 ft above sea level, from topographic map.

Measuring point: Floor of instrument shelter 6.00 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

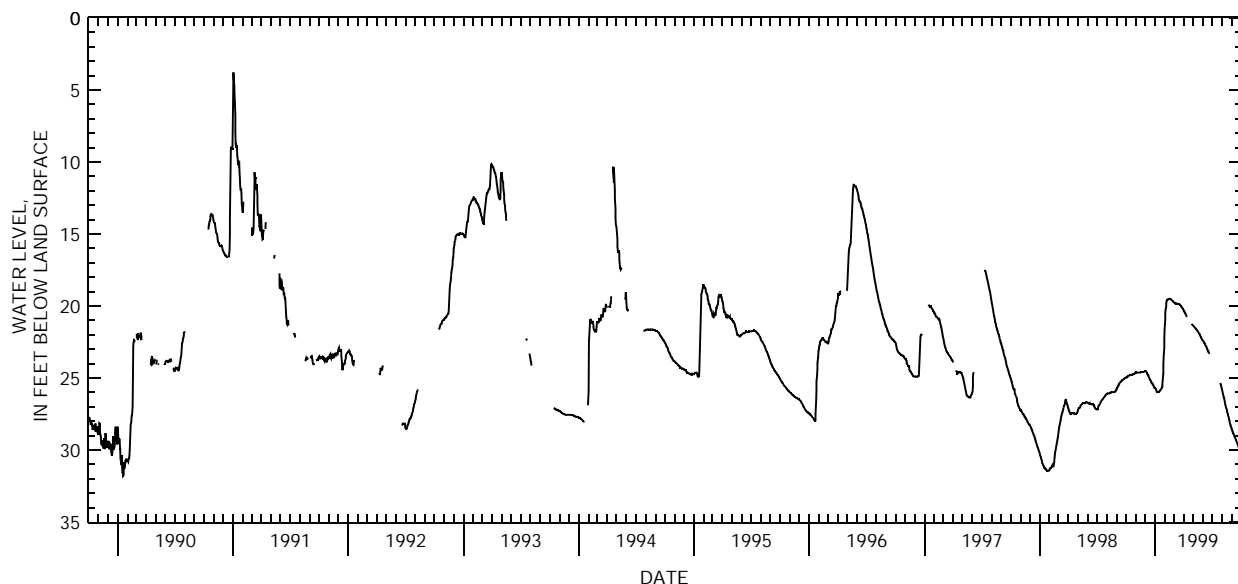
PERIOD OF RECORD.--July 1951 to current year.

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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.97	24.64	24.52	25.70	21.59	19.72	20.26	21.34	22.40	---	25.77	28.52
2	24.96	24.62	24.52	25.70	20.97	19.75	20.31	21.36	22.43	---	25.87	28.59
3	24.96	24.61	24.52	25.75	20.49	19.78	20.34	21.39	22.43	---	25.95	28.66
4	24.94	24.62	24.55	25.80	20.24	19.80	20.38	21.42	22.47	---	26.05	28.72
5	24.91	24.63	24.58	25.85	20.03	19.80	20.41	21.44	22.51	---	26.14	28.77
6	24.89	24.63	24.62	25.93	19.79	19.82	20.47	21.47	22.55	---	26.24	28.82
7	24.88	24.63	24.66	25.98	19.68	19.83	20.52	21.50	22.59	---	26.34	28.87
8	24.87	24.63	24.71	25.99	19.59	19.85	20.56	21.52	22.63	---	26.43	28.93
9	24.86	24.63	24.77	25.99	19.57	19.85	20.58	21.55	22.68	---	26.52	28.99
10	24.84	24.63	24.81	25.99	19.55	19.83	20.67	21.57	22.73	---	26.62	29.04
11	24.82	24.63	24.83	25.98	19.55	19.84	20.71	21.59	22.76	---	26.72	29.10
12	24.80	24.63	24.85	25.97	19.54	19.86	20.74	21.62	22.77	---	26.82	29.15
13	24.79	24.63	24.94	25.94	19.53	19.86	---	21.65	22.86	---	26.93	29.20
14	24.79	24.63	25.00	25.93	19.51	19.84	---	21.68	22.91	---	27.01	29.25
15	24.79	24.62	25.06	25.91	19.49	19.84	---	21.72	22.96	---	27.08	29.31
16	24.80	24.61	25.12	25.87	19.48	19.85	---	21.75	23.01	---	27.16	29.37
17	24.80	24.60	25.13	25.84	19.49	19.85	---	21.78	23.06	---	27.25	29.42
18	24.79	24.60	25.13	25.81	19.50	19.84	---	21.82	23.11	---	27.34	29.47
19	24.78	24.60	25.21	25.79	19.52	19.86	---	21.85	23.13	---	27.44	29.53
20	24.77	24.60	25.27	25.77	19.53	19.88	---	21.89	23.21	---	27.53	29.58
21	24.76	24.60	25.33	25.73	19.54	19.91	---	21.94	23.25	---	27.62	29.64
22	24.75	24.58	25.37	25.70	19.56	19.94	---	21.97	23.32	---	27.69	29.70
23	24.75	24.58	25.38	25.67	19.58	19.96	---	21.97	---	---	27.77	29.76
24	24.74	24.58	25.39	25.61	19.60	19.99	---	22.06	---	---	27.86	29.82
25	24.73	24.58	25.42	25.45	19.63	20.02	---	22.10	---	---	27.95	29.87
26	24.72	24.58	25.47	25.13	19.66	20.05	---	22.15	---	---	28.05	29.93
27	24.71	24.57	25.53	24.67	19.68	20.09	21.23	22.19	---	25.33	28.15	29.99
28	24.70	24.55	25.59	24.06	19.69	20.11	21.26	22.24	---	25.41	28.24	30.04
29	24.70	24.53	25.66	23.51	---	20.15	21.29	22.28	---	25.49	28.32	30.10
30	24.69	24.52	25.69	22.91	---	20.19	21.32	22.33	---	25.58	28.39	30.16
31	24.66	---	25.69	22.27	---	20.22	---	22.36	---	25.67	28.45	---
MAX	24.97	24.64	25.69	25.99	21.59	20.22	21.32	22.36	23.32	25.67	28.45	30.16

CAL YR 1998 LOW 31.45
WTR YR 1999 LOW 30.16



GROUND-WATER RECORDS
Wayne County

405745081510200. LOCAL NUMBER, WN-7

LOCATION.--Latitude 40°57'45", longitude 81°51'02", Hydrologic Unit 05040001, in well field along Steele Ditch near Sterling, Ohio.

Owner: Rittman Water Department

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 8 in., depth 123 ft, cased.

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

DATUM.--Elevation of land-surface datum is 965 ft above sea level, from topographic map.

Measuring point: Floor of instrument shelter 5.00 ft above land-surface datum.

REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

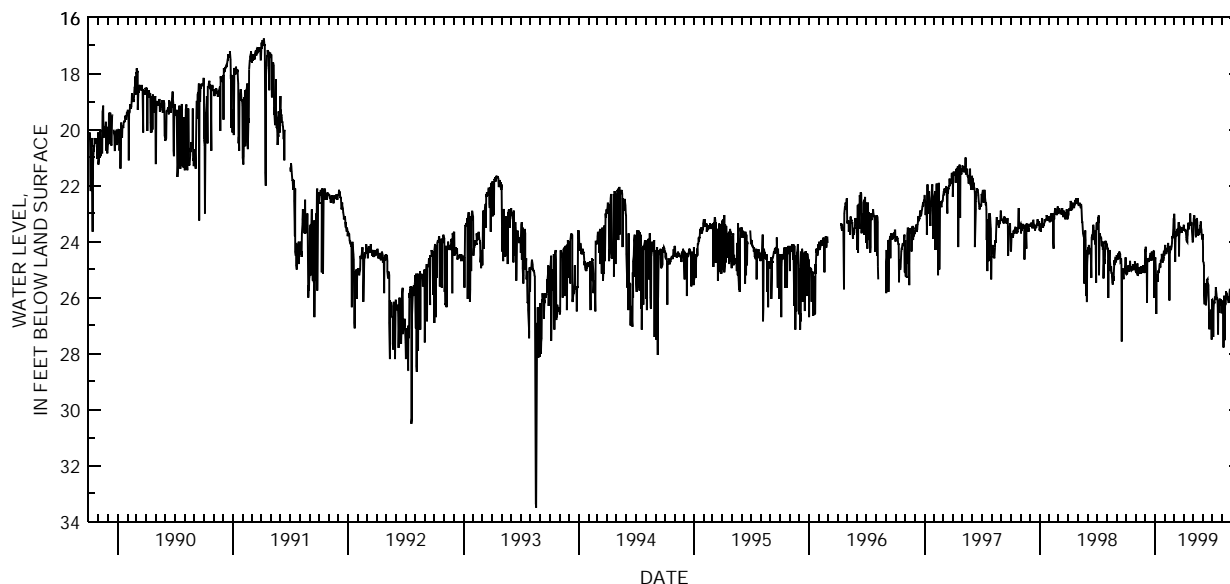
PERIOD OF RECORD.--April 1979 to current year.

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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.17	25.08	24.29	24.65	24.36	23.24	23.51	24.02	23.73	26.08	26.10	26.21
2	24.95	25.08	24.36	24.56	24.12	23.25	23.39	23.87	24.21	26.07	26.38	26.30
3	24.99	25.11	24.18	24.83	24.26	23.01	23.60	23.51	24.71	26.13	26.37	26.25
4	25.16	25.01	24.66	25.17	24.38	23.22	23.54	23.18	24.74	26.18	26.27	26.15
5	25.14	25.13	24.72	26.58	24.35	23.88	23.60	23.10	24.86	27.40	26.34	26.12
6	25.04	24.78	24.69	25.29	24.45	24.72	23.54	23.06	25.80	26.38	27.78	26.31
7	24.89	25.22	26.18	25.41	24.29	23.99	23.64	23.28	26.24	26.22	26.22	26.08
8	25.01	25.22	24.65	25.43	24.36	23.79	23.61	23.31	25.49	26.19	25.93	25.92
9	24.83	24.97	24.72	25.19	24.22	23.66	23.60	23.21	25.62	26.21	26.27	27.95
10	24.95	24.90	24.59	25.43	24.35	23.64	23.85	23.75	25.74	25.97	27.53	26.18
11	24.99	25.01	24.63	25.20	24.27	23.81	23.93	23.84	25.77	26.00	26.21	26.24
12	25.08	25.01	24.72	25.02	24.05	23.54	23.99	23.66	26.27	26.06	26.28	27.13
13	24.93	24.95	24.69	25.13	24.32	23.66	24.03	23.30	25.92	25.63	26.22	26.08
14	24.69	25.11	24.63	25.04	24.41	23.60	23.87	23.15	25.43	25.76	25.80	26.38
15	24.90	25.10	24.59	24.89	24.38	23.61	23.75	23.31	25.37	25.86	25.85	26.34
16	24.90	24.97	24.53	24.78	26.10	23.57	23.33	23.66	25.33	26.00	25.85	26.43
17	24.96	25.14	24.53	24.87	24.41	23.31	23.39	23.54	25.40	26.03	25.90	26.54
18	24.97	24.96	24.41	24.93	24.35	24.53	23.57	23.79	25.49	26.08	26.00	26.48
19	25.01	24.89	24.47	24.69	24.15	23.76	23.43	23.63	25.55	26.33	26.08	26.60
20	24.99	25.13	24.69	24.66	24.26	23.69	23.33	23.72	25.70	27.32	25.97	26.33
21	24.96	25.04	24.45	24.63	24.30	23.55	23.37	23.75	26.01	26.13	26.00	26.21
22	24.97	24.99	24.35	24.57	24.22	23.69	23.36	23.63	27.13	26.08	26.18	26.30
23	24.80	24.92	24.62	24.44	24.17	23.52	23.00	23.63	26.91	26.21	26.10	26.31
24	24.96	25.01	24.66	24.62	24.05	23.54	23.30	23.43	26.52	26.55	26.06	26.00
25	24.96	24.84	24.38	24.59	23.81	23.57	23.34	23.42	26.75	26.03	25.85	26.06
26	24.96	25.11	24.36	24.75	23.87	23.55	23.42	23.28	26.82	26.27	25.80	26.46
27	24.90	25.07	24.38	24.53	23.75	23.69	23.30	23.52	26.76	26.22	25.68	26.49
28	24.93	25.04	24.42	24.69	23.58	23.54	23.54	23.57	26.63	26.27	25.85	26.36
29	24.87	25.07	24.32	24.41	---	23.57	23.72	23.79	26.43	26.06	25.97	28.07
30	24.71	25.13	26.01	24.44	---	23.55	23.90	23.81	27.50	26.18	26.04	26.36
31	25.05	---	24.74	24.51	---	23.54	---	23.93	---	26.57	26.15	---
MAX	25.17	25.22	26.18	26.58	26.10	24.72	24.03	24.02	27.50	27.40	27.78	28.07

CAL YR 1998 LOW 27.57
WTR YR 1999 LOW 28.07



GROUND-WATER RECORDS
Wayne County

405805081462300. LOCAL NUMBER, WN-6

LOCATION.--Latitude 40°58'05", longitude 81°46'23", Hydrologic Unit 05040001, Salt Street, Rittman, Ohio.

Owner: Tenneco, Inc.

AQUIFER.--Sand and gravel of Pleistocene Age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 8 in., depth 180 ft, cased.

INSTRUMENTATION.--Digital recorder--60-minute punch.

DATUM.--Elevation of land-surface datum is 960 ft above sea level, from topographic map.

Measuring point: Floor of instrument shelter 2.30 ft above land-surface datum.

REMARKS--Station operated by Ohio Department of Natural Resources, Division of Water.

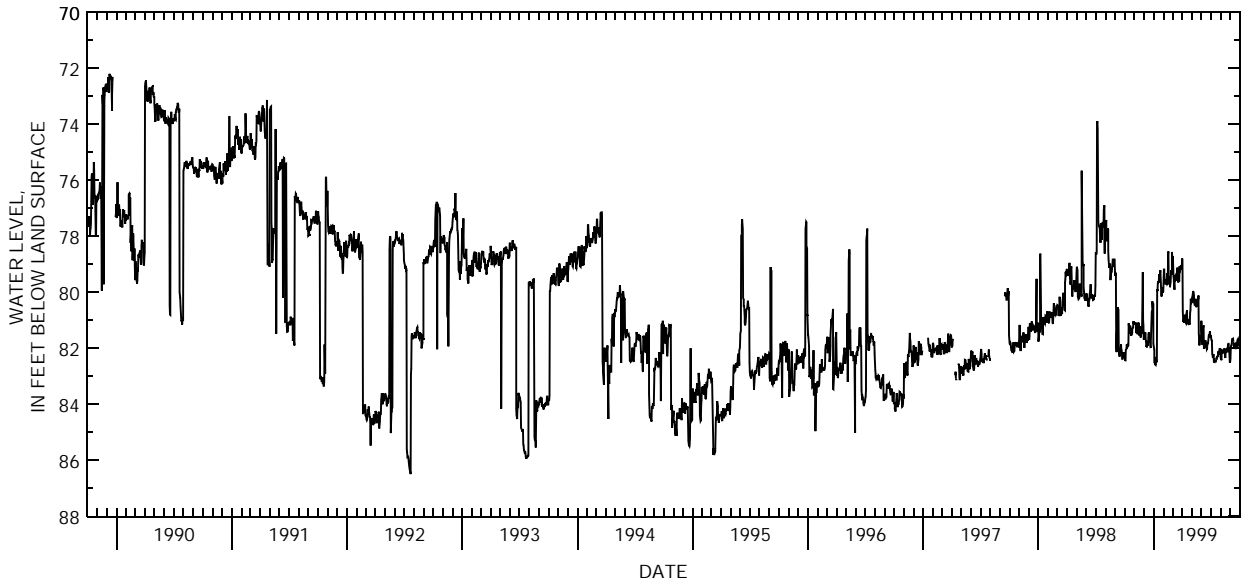
PERIOD OF RECORD.--May 1971 to current year.

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 1998 TO SEPTEMBER 1999
DAILY MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	82.36	81.12	81.61	81.91	79.69	78.87	78.79	80.34	81.02	81.54	82.29	82.36
2	82.43	81.11	81.42	82.04	79.18	79.01	78.84	80.29	81.51	81.67	82.38	81.99
3	82.43	81.06	81.55	82.42	79.18	78.72	80.69	80.19	81.80	81.71	82.42	81.91
4	82.04	81.10	81.55	82.53	79.52	79.42	80.91	80.09	81.87	81.72	82.29	81.90
5	82.05	81.10	81.43	82.40	79.63	79.52	81.06	79.99	81.27	82.22	82.12	81.82
6	82.00	81.32	81.67	82.58	79.70	79.60	80.95	79.95	81.27	82.23	82.16	81.68
7	81.86	81.45	81.73	82.59	79.67	79.89	81.09	80.01	81.23	82.33	82.18	81.68
8	81.87	81.35	81.94	82.31	79.71	79.91	80.85	80.12	81.17	82.29	82.08	81.67
9	81.88	81.11	81.91	82.40	79.54	79.43	80.83	80.33	82.02	82.20	82.14	81.65
10	81.87	81.38	81.96	82.50	79.69	79.39	80.99	80.43	81.70	82.46	82.03	81.76
11	81.92	81.49	81.92	82.30	79.53	79.44	80.84	80.42	81.79	82.50	82.07	81.89
12	81.88	81.31	81.73	79.88	79.31	79.57	81.09	80.32	81.82	82.43	82.12	81.93
13	81.11	81.07	81.91	79.96	79.71	79.57	81.10	80.23	81.77	82.45	82.00	81.84
14	81.13	81.16	81.90	79.67	79.70	79.36	81.01	80.48	81.71	82.42	82.15	81.90
15	81.38	81.12	81.50	79.59	78.64	79.31	80.73	80.52	81.88	82.43	82.27	81.94
16	81.48	81.44	81.43	79.63	78.53	79.30	80.64	80.48	81.86	82.46	82.34	81.83
17	81.40	81.55	81.61	79.63	79.43	79.12	80.98	80.38	81.92	82.40	82.14	82.00
18	81.19	81.21	81.70	79.35	79.46	79.49	81.10	80.26	82.02	82.39	82.05	81.99
19	81.32	81.25	81.79	79.49	79.53	79.65	81.11	80.45	81.99	82.33	82.03	81.89
20	81.31	81.58	81.65	79.45	79.62	79.63	81.12	80.50	81.83	82.34	82.08	81.77
21	81.30	81.58	81.96	79.31	79.70	79.29	81.06	80.36	81.83	82.33	82.08	81.86
22	81.52	81.39	81.96	79.21	79.82	79.53	80.95	80.17	81.81	82.27	82.13	81.84
23	81.52	81.48	81.81	79.60	79.62	79.61	81.07	80.11	81.69	82.27	82.05	81.69
24	81.44	81.44	81.10	79.91	79.35	79.06	81.15	81.48	81.55	82.13	81.91	81.67
25	81.32	81.10	80.74	80.13	79.21	79.16	81.07	81.67	81.57	82.12	81.84	81.84
26	81.28	79.72	80.70	80.13	79.37	79.20	80.71	81.89	81.61	82.17	81.84	81.89
27	81.26	79.28	80.61	79.89	79.20	79.15	80.64	81.53	81.46	82.18	81.98	81.88
28	81.03	80.99	80.32	79.87	78.56	79.04	80.23	81.64	81.38	82.18	82.05	81.81
29	81.10	81.19	80.49	80.00	---	79.08	80.34	81.66	81.56	81.99	82.27	81.68
30	81.03	81.69	80.47	79.99	---	79.14	80.37	81.70	81.60	82.03	82.51	81.69
31	81.12	---	81.82	79.97	---	79.04	---	81.58	---	82.07	82.48	---
MAX	82.43	81.69	81.96	82.59	79.82	79.91	81.15	81.89	82.02	82.50	82.51	82.36

CAL YR 1998 LOW 82.43
WTR YR 1999 LOW 82.59



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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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