

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
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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
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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		

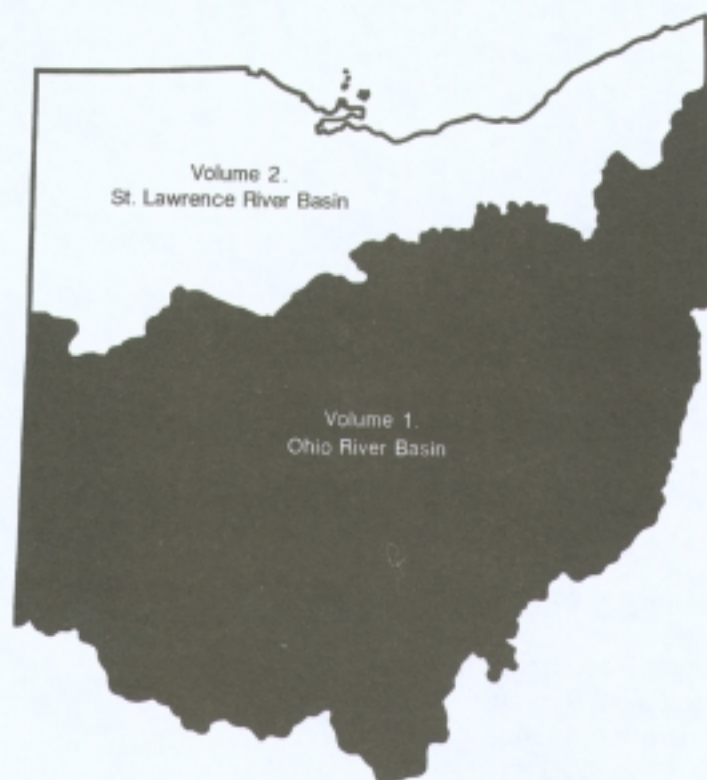
U.S. Department of the Interior
U.S. Geological Survey

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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[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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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
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North of Carrollton (1)	C-1	403709081052800	226
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Urbana (1)	Ch-3	400638083453900	227
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Northwest of London (I).....	M-5	395352083292100	263
Northwest of London (I).....	M-4	395357083304400	264
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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
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STARK COUNTY			
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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
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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

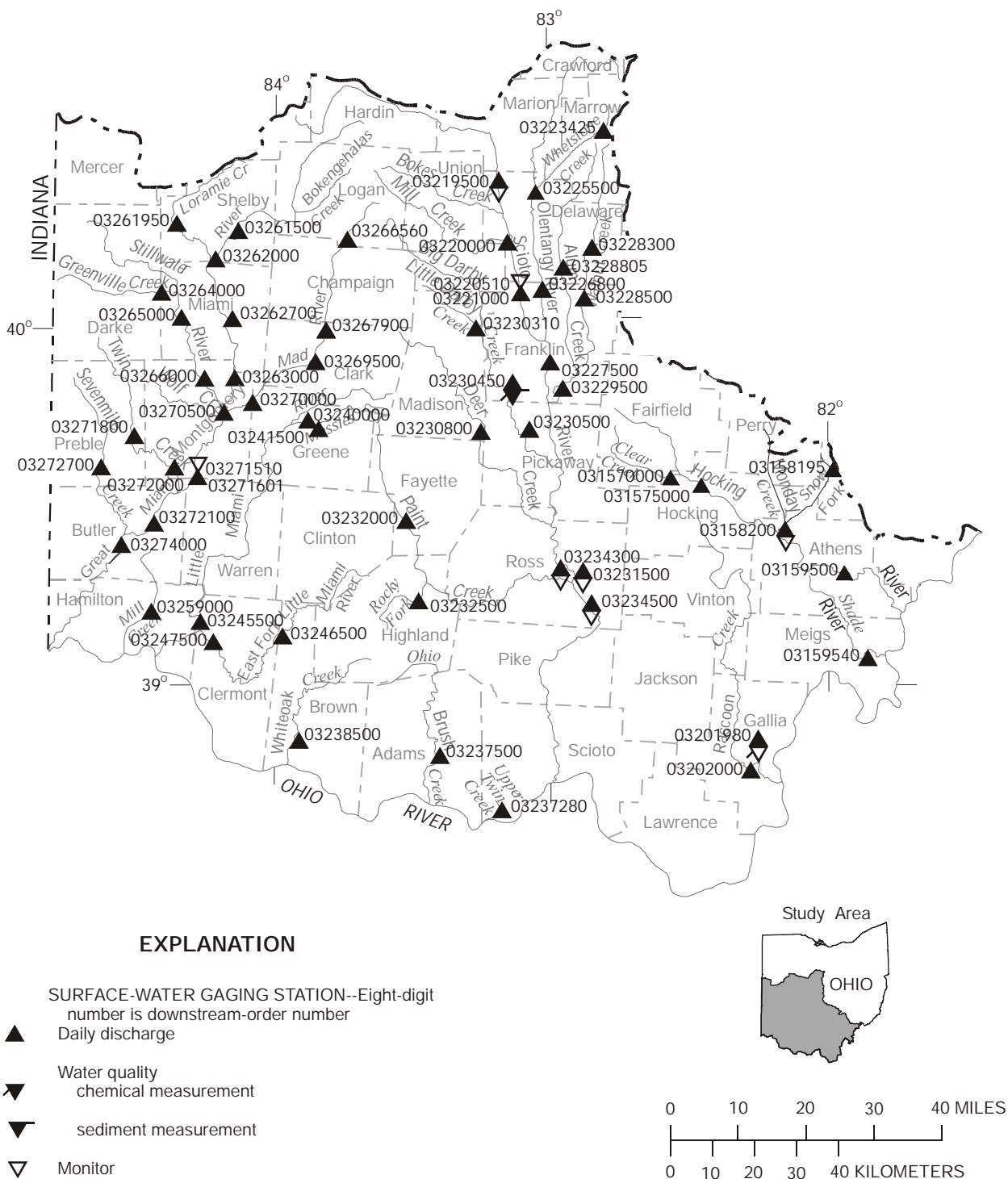


Figure 1a. Location of data-collection stations.

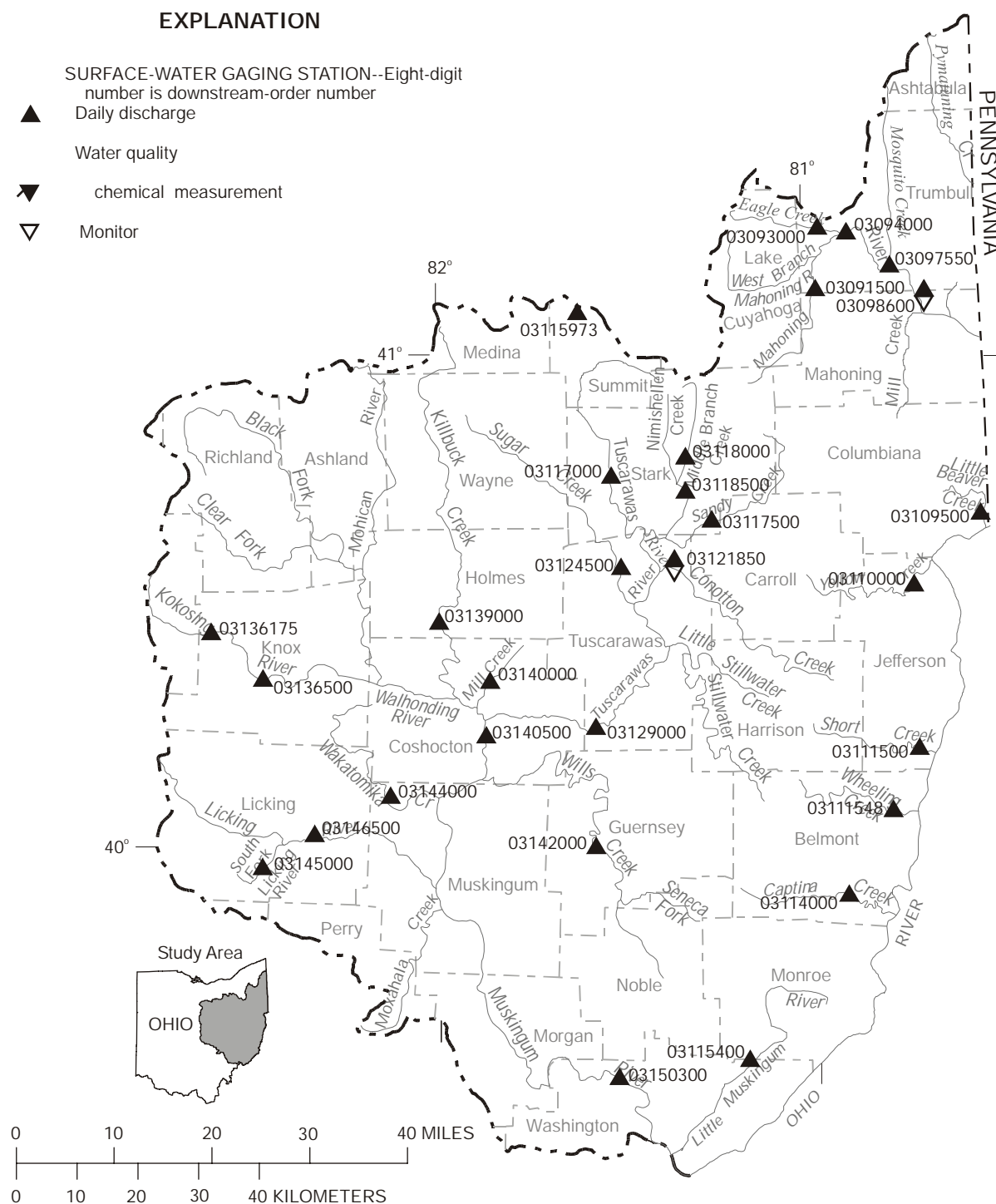
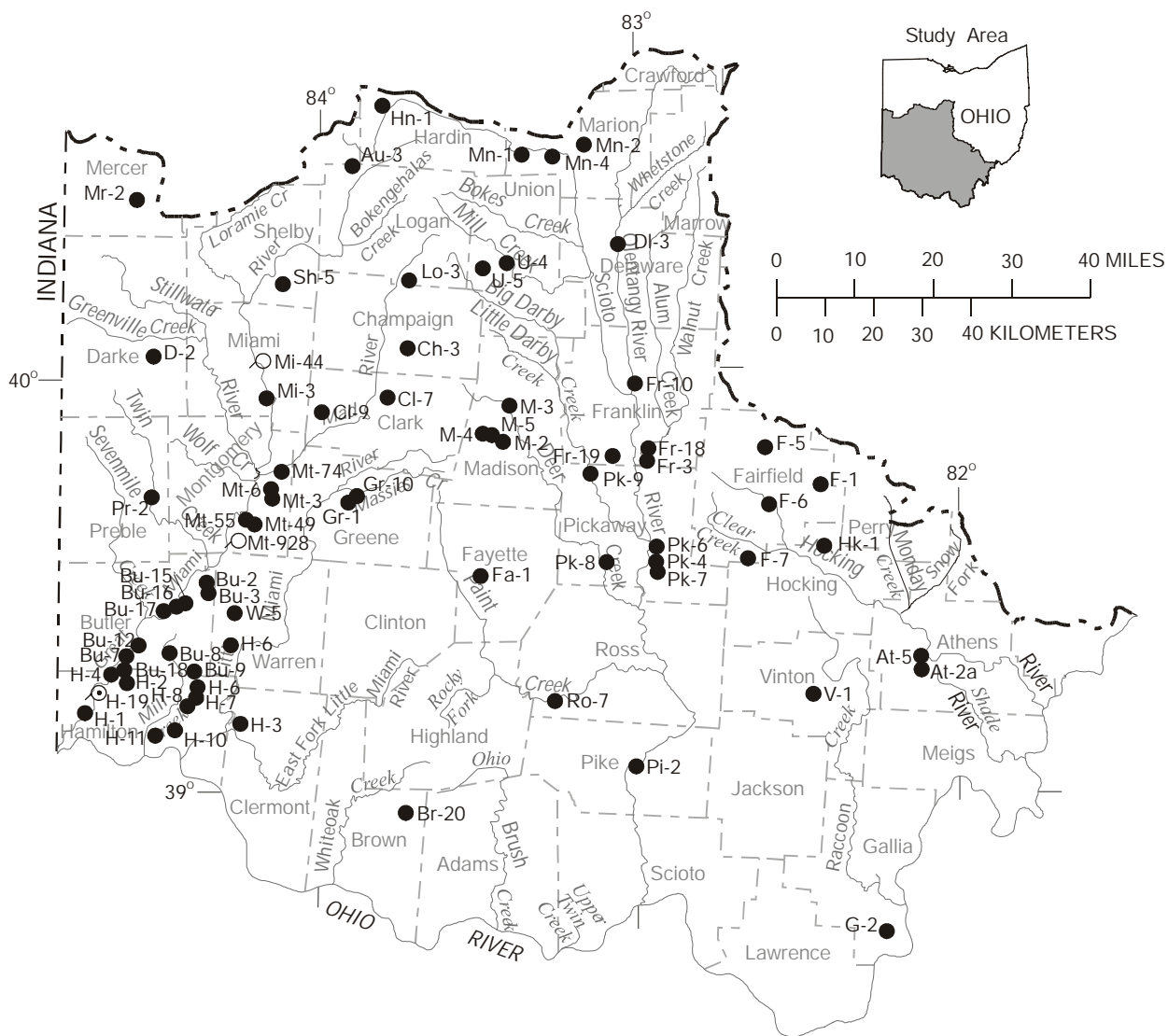


Figure 1b. Location of data-collection stations.



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.

EXPLANATION

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

● Observation well

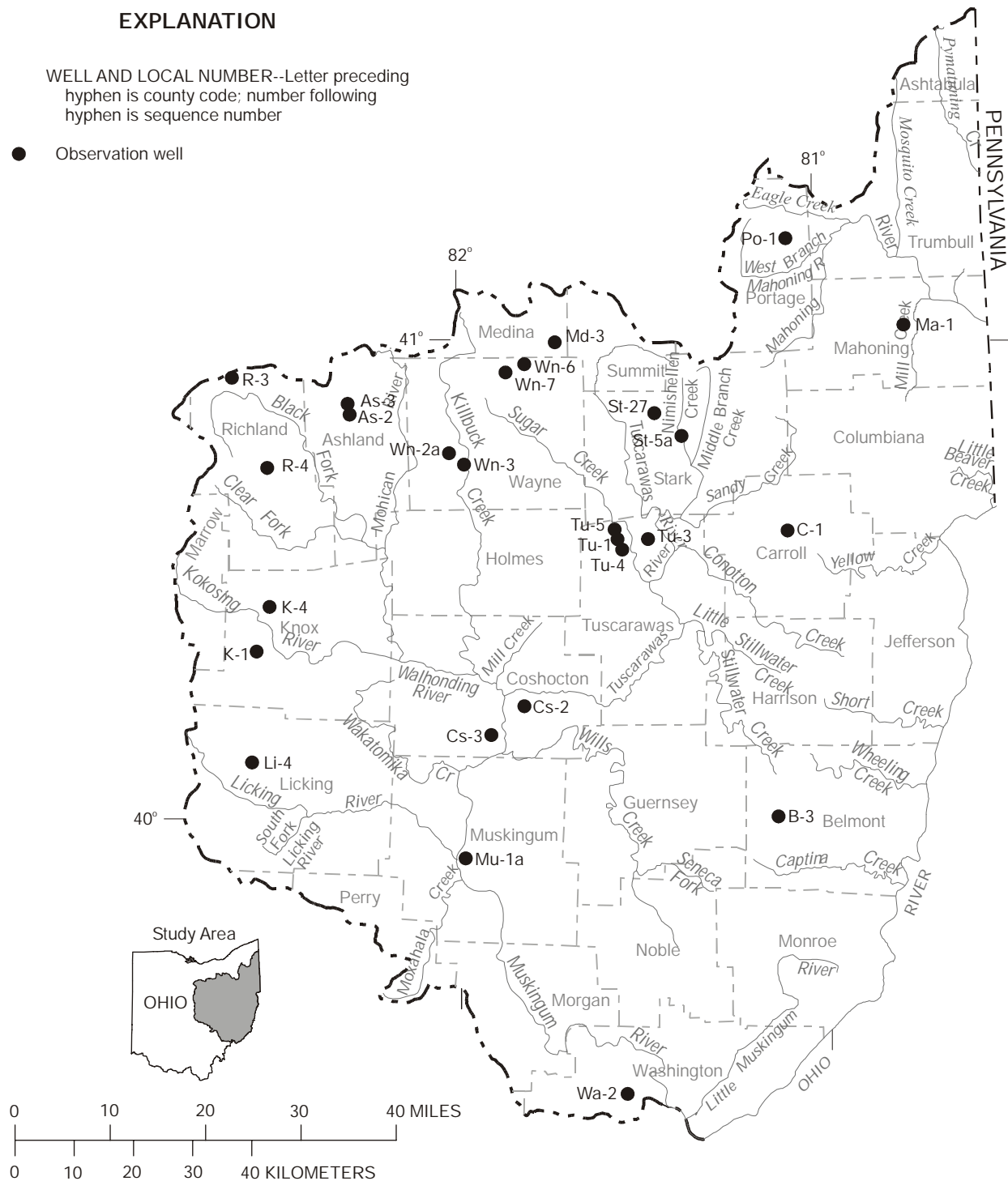


Figure 1d. Location of data-collection wells

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

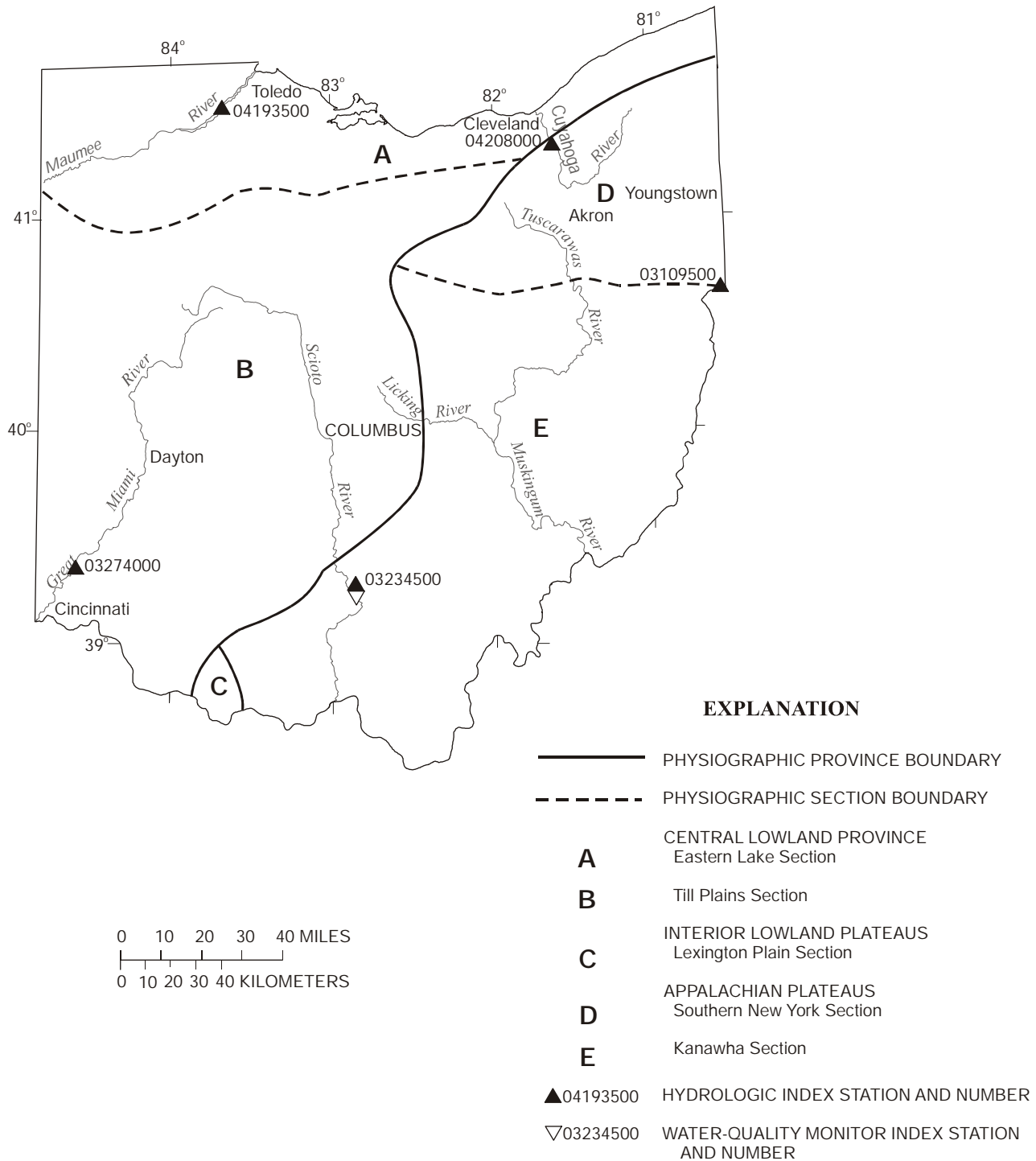


Figure 2. Physiographic divisions and location of hydrologic index stations.

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.

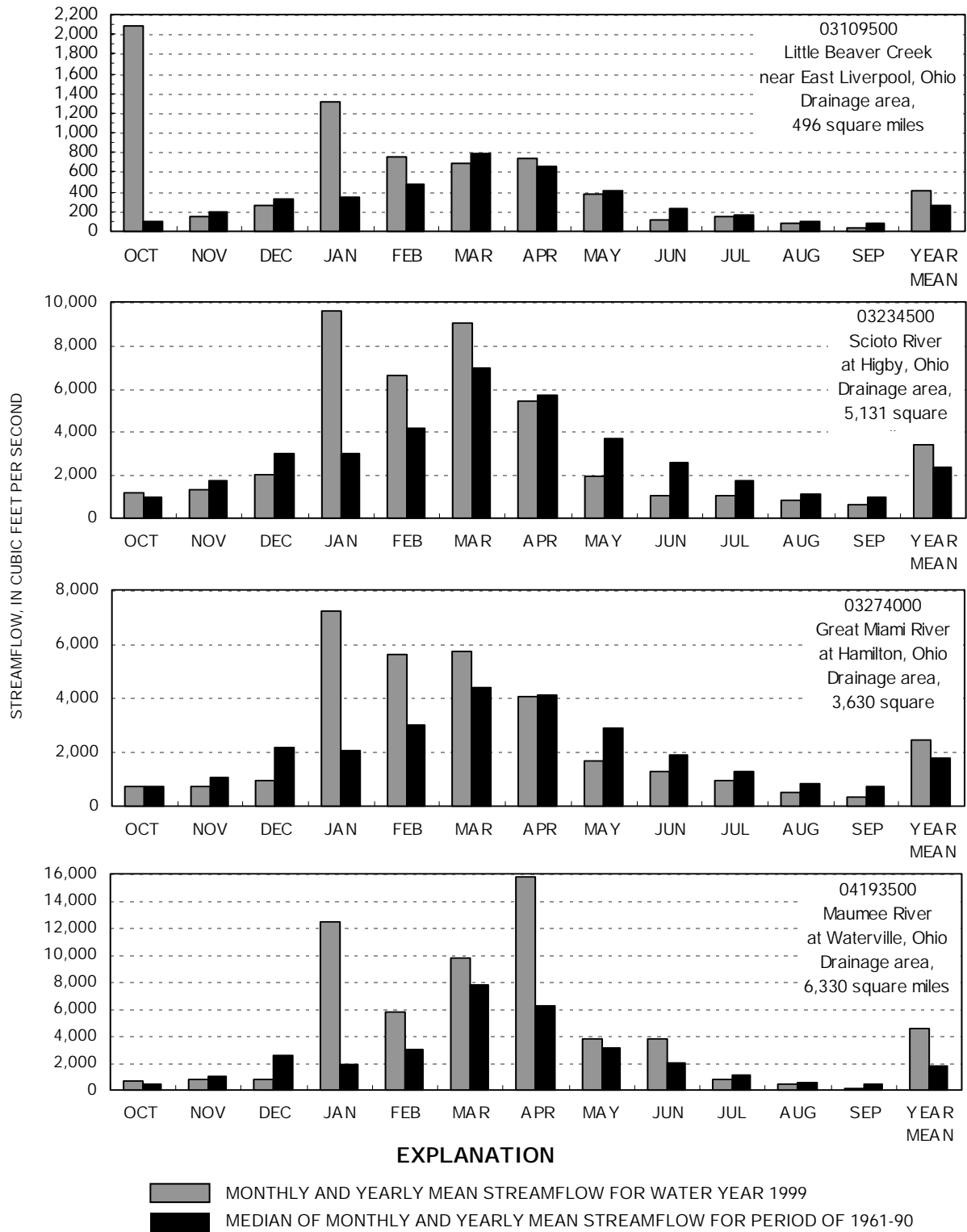


Figure 3. Streamflow during water year 1999 compared with median streamflow for period 1961-90 for four representative gaging stations.

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

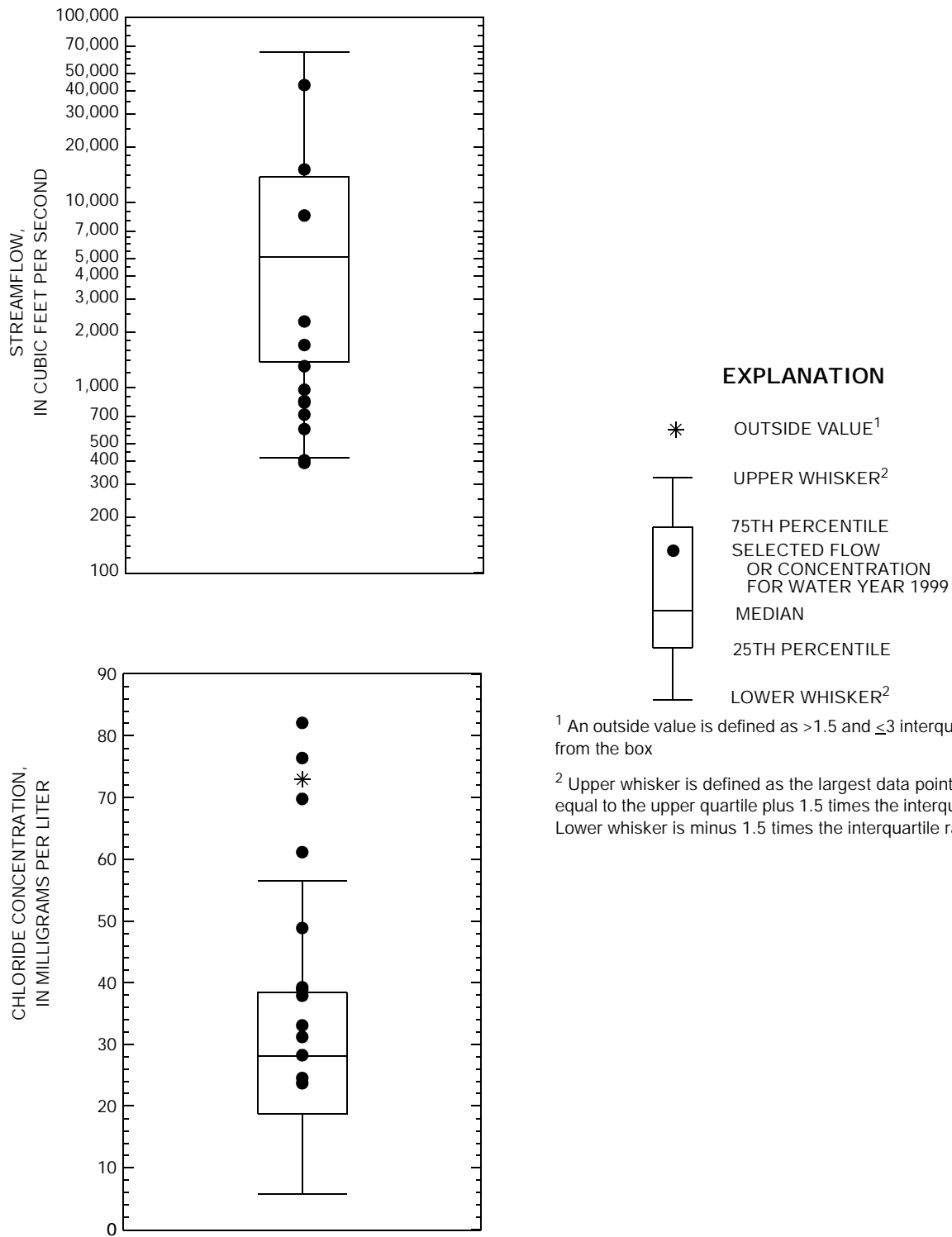


Figure 4. Streamflow and concentration of chloride measured in water year 1999 and the distribution of those characteristics from measurements made during water years 1989-98 for the Maumee River at Waterville.

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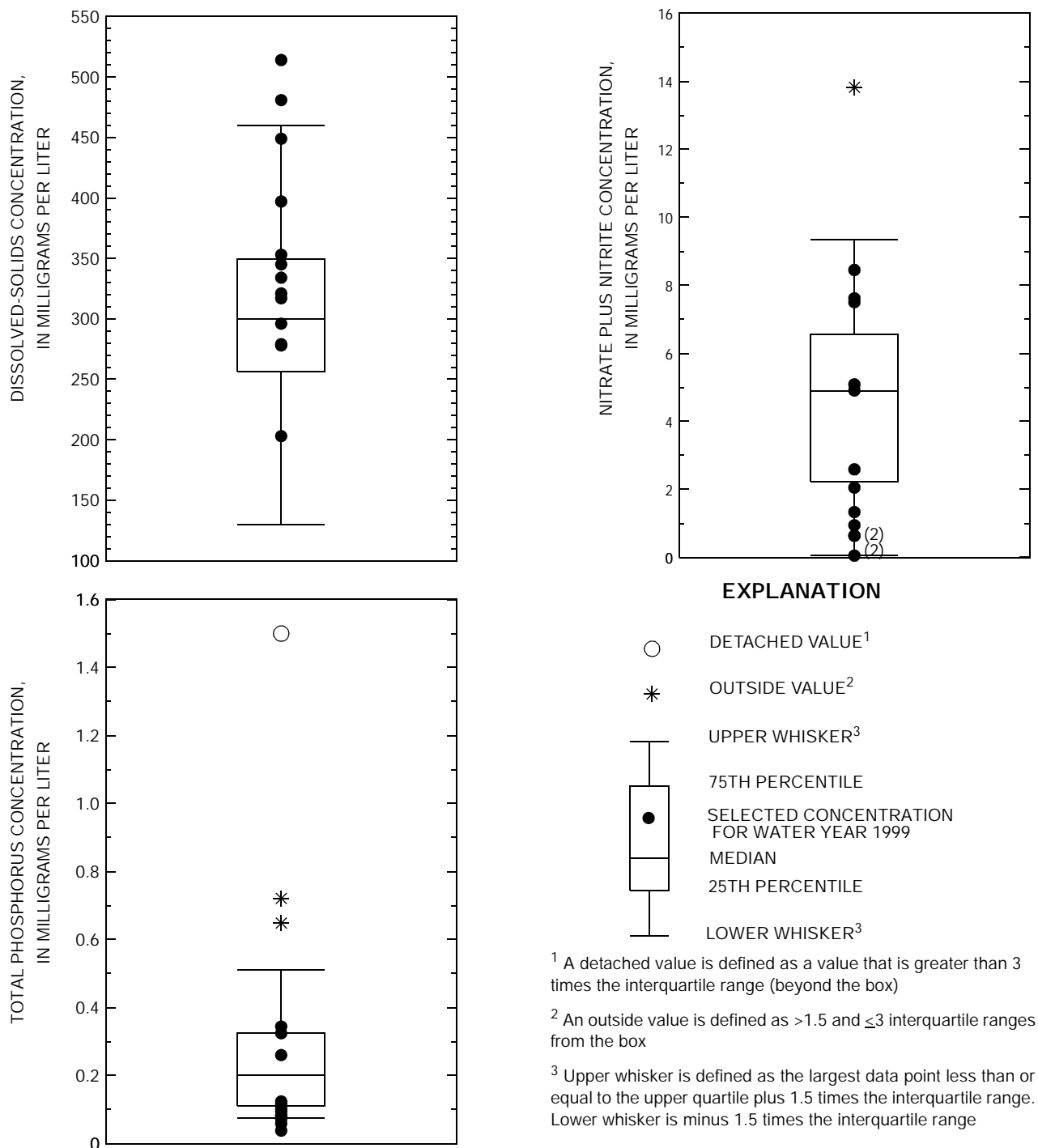


Figure 5. Concentrations of dissolved solids, nitrate plus nitrite, and total phosphorus measured in water year 1999 and the distribution of those characteristics from measurements made during water years 1989-1998 for the Maumee River at Waterville.

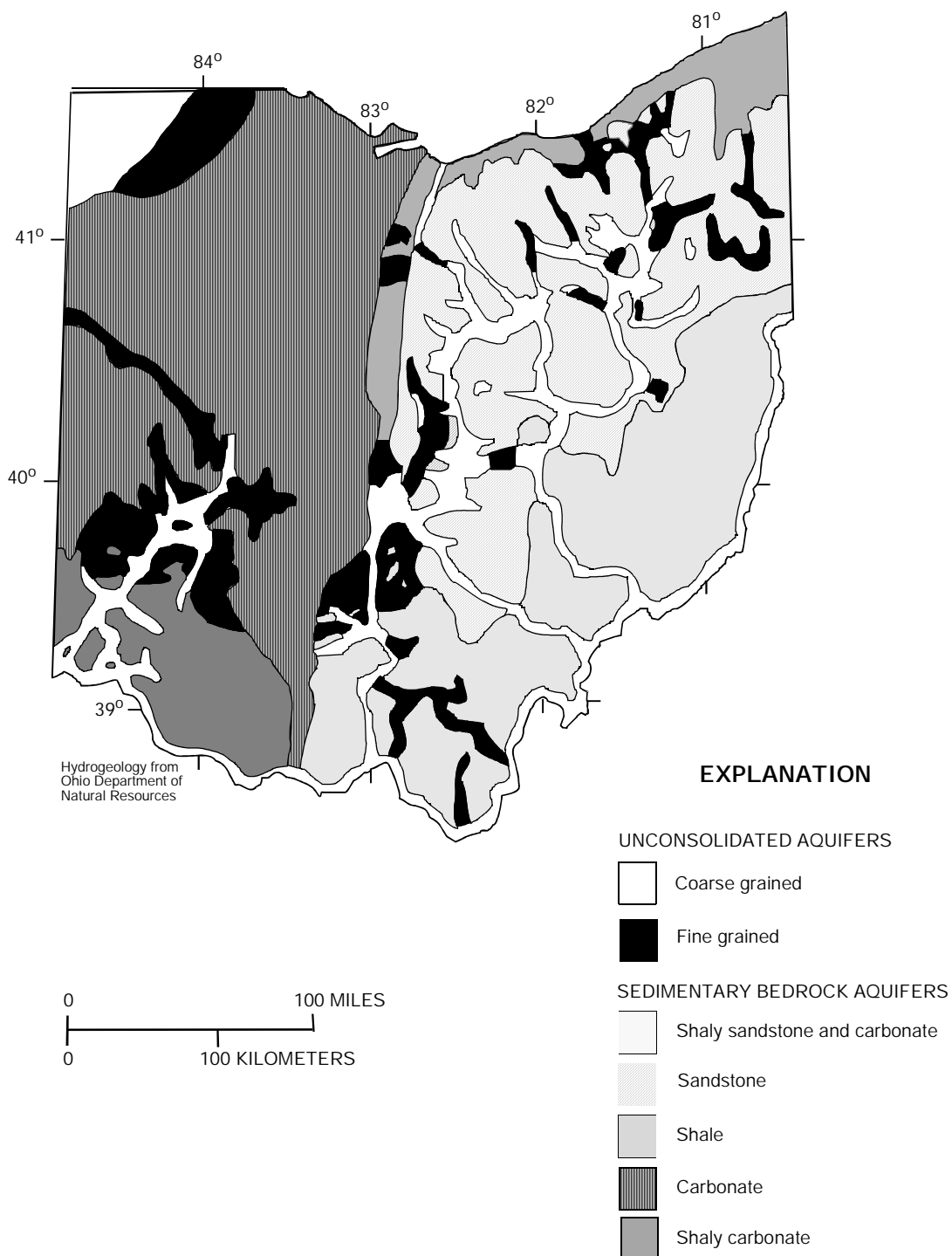


Figure 6. Geographic distribution of principal aquifers in Ohio.

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.

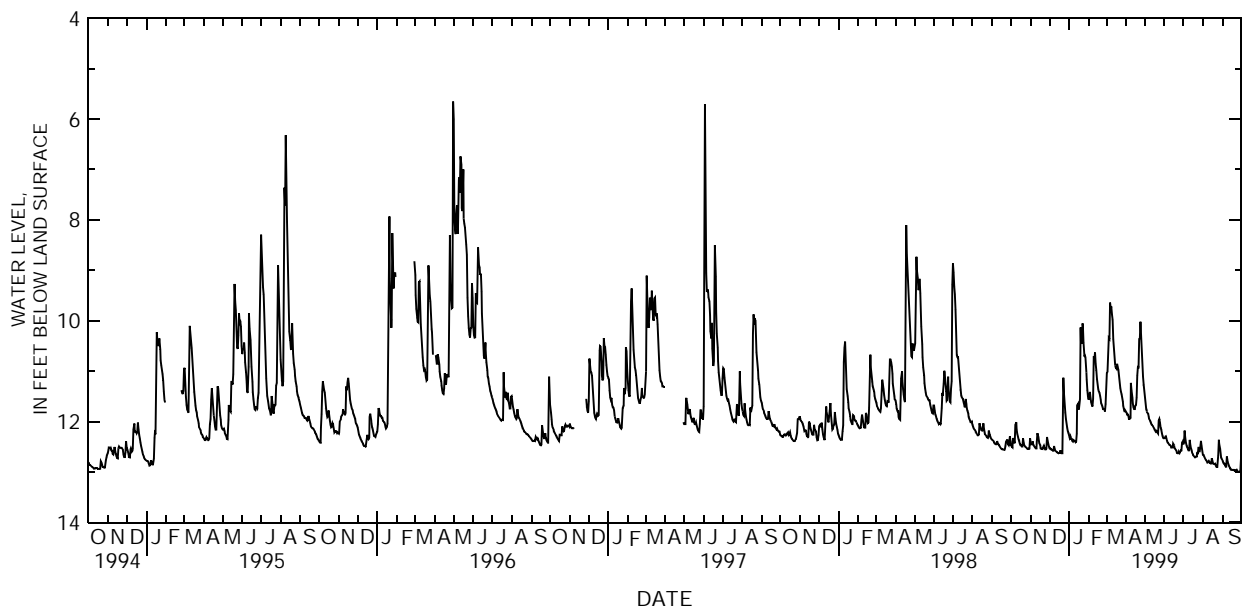
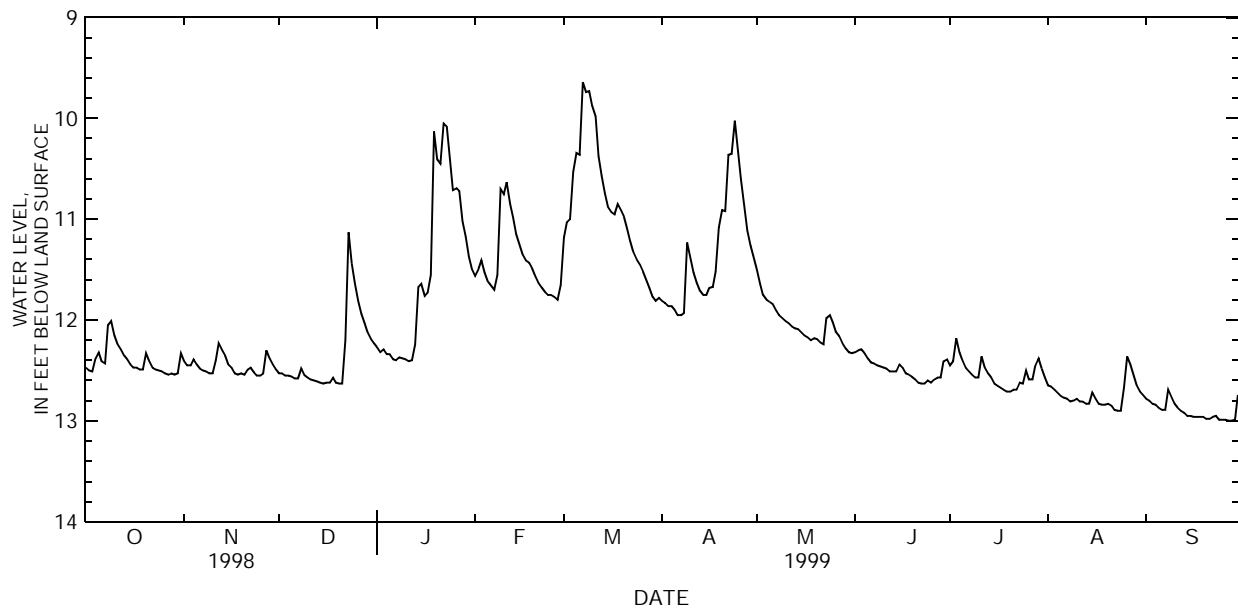


Figure 7. Sample of 1-year and 5-year hydrographs of well Fr-3 (395118082573300), completed in a unconfined unconsolidated aquifer.

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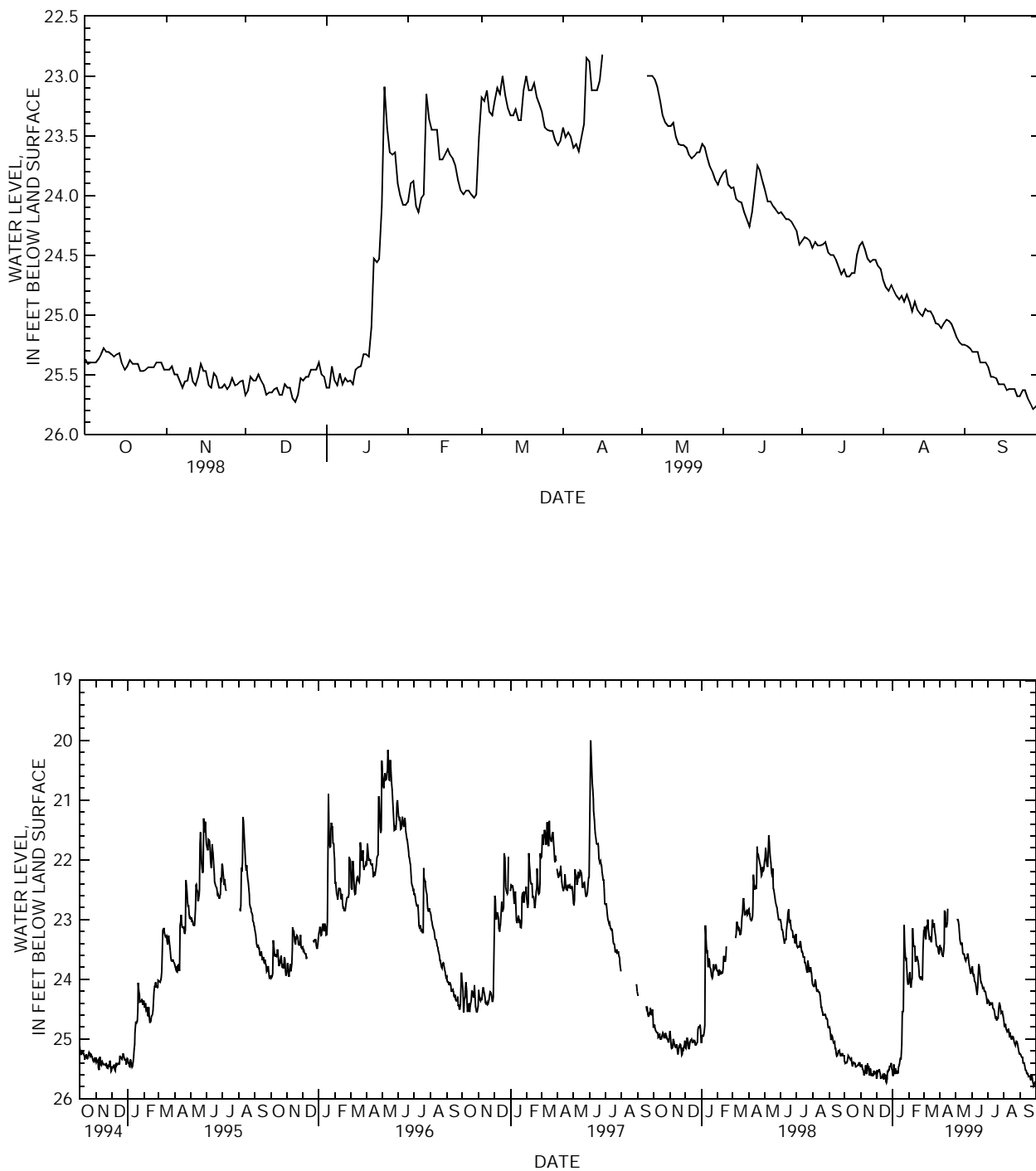


Figure 8. Sample of 1-year and 5-year hydrographs of well U-4 (401826083255200), completed in a confined carbonate-rock aquifer.

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.)

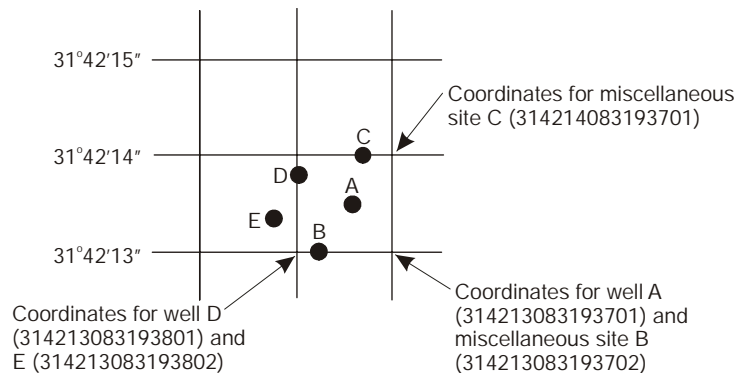


Figure 9. System for numbering wells and miscellaneous sites (latitude and longitude).

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

ANNUAL RUNOFF.—Indicates the total quantity of water in runoff for a drainage area for the year.

Data reports may use any of the following units of measurement in presenting annual runoff data:

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

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

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

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

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

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

Identifying Estimated Daily Discharge

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

Accuracy of the Records

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

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

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

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

Other Records Available

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

Records of Surface-Water Quality

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

Classification of Records

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

A careful distinction needs to be made between "continuing records" as used in this report and "continuous recordings," which refers to a continuous series of discrete values collected at short intervals and 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, $\mu\text{g/kg}$) 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, $\mu\text{g/g}$) is a unit expressing the concentration of a chemical element as the mass (micrograms) of the element sorbed per unit mass (gram) of sediment.

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

per liter is equivalent to one milligram per liter.

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represent the mass of solute per unit volume (liter) of water.

Concentration of suspended sediment also is expressed in milligrams per liter, and is based on the mass of dry sediment per liter of water-sediment mixture.

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..... Ephemeridae
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.
- 3-A8. *Discharge measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS—TWRI Book 3, Chapter A8. 1969. 65 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

	109092	92716	275	1975
ANNUAL TOTAL	109092	92716	275	1975
ANNUAL MEAN	299	254	131	1966
HIGHEST ANNUAL MEAN			490	
LOWEST ANNUAL MEAN			131	
HIGHEST DAILY MEAN	1490	May 2	3370	Jun 10 1947
LOWEST DAILY MEAN	45	Apr 10	.40	Nov 9 1941
ANNUAL SEVEN-DAY MINIMUM	46	Apr 8	.94	Feb 24 1945
INSTANTANEOUS PEAK FLOW		1780	Feb 3	Apr 10 1942
INSTANTANEOUS PEAK STAGE		6.34	Feb 3	Apr 10 1942
INSTANTANEOUS LOW FLOW		47	Apr 15	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

41

03093000 EAGLE CREEK AT PHALANX STATION, OHIO

LOCATION.--Latitude 41°15'40", longitude 80°57'16", Trumbull County, Hydrologic Unit 05030103, on right bank 75 ft. downstream from county road bridge, 1 mi. north of Phalanx Station, 2 mi downstream from Tinkers Creek, and 4 mi. upstream from mouth.
DRAINAGE AREA.--97.6 mi².
PERIOD OF RECORD.--June 1926 to September 1934, October 1937 to current year. Monthly discharge only for some periods, published in WSP 1305.
REVISED RECORDS.--WSP 953: 1938-41. WSP 1385: 1927-30, 1931-32(M), 1934, 1938-41(P). WSP 1555: 1928(M), 1929. WSP 1907: Drainage area.
GAGE.--Water-stage recorder. Datum of gage is 887.14 ft. above sea level (levels by Mahoning Valley Sanitary District). Prior to Sept. 14, 1929, nonrecording gage at same site and datum. Sept. 14, 1929, to Sept. 30, 1977, at same site and datum 0.28 ft. higher.
REMARKS.--Records fair except for periods of estimated record, which are poor. Water-quality data 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	9.7	17	21	e13	66	251	41	46	29	18	14	9.5
2	9.3	17	21	e12	185	132	50	43	30	28	14	9.2
3	9.9	19	20	e20	393	315	47	40	31	23	12	8.9
4	15	20	19	35	226	878	48	38	28	18	11	8.7
5	15	21	18	29	143	341	68	36	25	16	11	8.7
6	13	21	18	24	90	207	60	35	23	15	11	9.0
7	13	22	18	e22	80	170	49	34	22	27	11	18
8	88	22	18	e20	226	139	43	32	21	24	11	20
9	48	22	18	e19	143	121	125	33	20	16	12	13
10	20	23	17	e18	92	103	616	34	19	17	12	10
11	15	58	17	e17	64	87	426	31	19	19	11	9.1
12	14	50	16	e16	75	90	584	29	18	16	11	8.6
13	13	28	16	e15	131	89	263	28	18	14	10	8.4
14	12	22	16	e14	80	85	137	27	17	13	11	8.4
15	12	20	16	e13	64	79	98	28	21	12	12	8.4
16	12	19	16	e13	80	102	99	27	20	12	11	8.0
17	12	18	17	e13	99	250	240	25	17	12	11	7.9
18	12	18	20	e13	110	414	228	26	16	11	9.8	7.8
19	16	18	23	e12	65	210	168	45	16	11	9.7	7.7
20	19	18	26	e12	46	123	202	35	16	11	9.7	7.6
21	16	19	37	e20	36	99	146	28	16	11	10	8.4
22	17	20	272	e100	29	85	171	26	15	11	11	9.1
23	23	19	201	555	28	76	235	26	15	11	10	8.6
24	18	18	76	1770	22	67	465	38	14	12	9.9	8.3
25	16	17	47	1720	20	60	186	74	19	14	10	8.4
26	15	33	34	578	22	55	117	44	23	12	15	8.6
27	15	61	27	273	26	51	89	35	17	11	17	8.5
28	15	32	23	397	110	47	72	30	18	11	15	7.9
29	15	24	e20	422	---	45	60	27	18	23	12	8.6
30	16	21	e17	152	---	42	52	25	24	29	11	52
31	16	---	e15	87	---	40	---	25	---	15	9.9	---
TOTAL	559.9	737	1140	6424	2751	4853	5185	1050	605	493	356.0	325.3
MEAN	18.1	24.6	36.8	207	98.2	157	173	33.9	20.2	15.9	11.5	10.8
MAX	88	61	272	1770	393	878	616	74	31	29	17	52
MIN	9.3	17	15	12	20	40	41	25	14	11	9.7	7.6
CFSM	.19	.25	.38	2.12	1.01	1.60	1.77	.35	.21	.16	.12	.11
IN.	.21	.28	.43	2.45	1.05	1.85	1.98	.40	.23	.19	.14	.12

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

	MEAN	46.0	85.9	138	165	199	237	197	120	70.7	48.6	30.7	39.9
MAX	338	458	511	547	469	436	550	359	330	232	172	409	
(WY)	1927	1986	1991	1952	1981	1963	1957	1984	1989	1958	1956	1926	
MIN	8.31	12.3	18.5	26.3	10.3	68.6	37.1	10.6	10.5	8.09	7.16	7.14	
(WY)	1964	1954	1964	1961	1934	1931	1946	1934	1933	1934	1962	1964	

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

ANNUAL TOTAL	33214.9	24479.2	
ANNUAL MEAN	91.0	67.1	114
HIGHEST ANNUAL MEAN			170
LOWEST ANNUAL MEAN			34.3
HIGHEST DAILY MEAN	1910	Apr 17	5500
LOWEST DAILY MEAN	9.3	Oct 2	.90
ANNUAL SEVEN-DAY MINIMUM	9.8	Sep 26	4.1
INSTANTANEOUS PEAK FLOW			8150
INSTANTANEOUS PEAK STAGE			13.71
INSTANTANEOUS LOW FLOW			.90
ANNUAL RUNOFF (CFSM)	.93		1.17
ANNUAL RUNOFF (INCHES)	12.66		15.88
10 PERCENT EXCEEDS	177	144	261
50 PERCENT EXCEEDS	27	20	44
90 PERCENT EXCEEDS	14	10	13

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

SURFACE-WATER RECORDS Beaver River Basin

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	1975
LOWEST ANNUAL MEAN			367	1988
HIGHEST DAILY MEAN	4210	Jan 9	3750	Jan 24
LOWEST DAILY MEAN	156	Dec 15	156	Dec 15
ANNUAL SEVEN-DAY MINIMUM	165	Dec 13	165	Dec 13
INSTANTANEOUS PEAK FLOW			4070	Jan 25
INSTANTANEOUS PEAK STAGE			10.22	Jan 25
INSTANTANEOUS LOW FLOW			169	Dec 15
10 PERCENT EXCEEDS	1720		1020	1510
50 PERCENT EXCEEDS	302		279	360
90 PERCENT EXCEEDS	212		203	214

e Estimated.

SURFACE-WATER RECORDS

Beaver River Basin

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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	912
HIGHEST ANNUAL MEAN			1262
LOWEST ANNUAL MEAN			546
HIGHEST DAILY MEAN	5950	Jan 9	9120
LOWEST DAILY MEAN	205	Dec 15	183
ANNUAL SEVEN-DAY MINIMUM	216	Dec 12	196
INSTANTANEOUS PEAK FLOW		4770	Jan 24
INSTANTANEOUS PEAK STAGE		7.50	Jan 24
INSTANTANEOUS LOW FLOW		205	Dec 15
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	5600	11400
LOWEST DAILY MEAN	203	203	181
ANNUAL SEVEN-DAY MINIMUM	219	219	202
INSTANTANEOUS PEAK FLOW		6200	11900
INSTANTANEOUS PEAK STAGE		12.08	15.44
INSTANTANEOUS LOW FLOW		203	181
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

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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	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
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

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	443	432	436	565	483	523	628	589	604	520	473	495
2	454	443	447	486	472	477	629	610	618	535	512	523
3	449	408	426	497	464	481	626	607	615	523	512	517
4	410	398	403	464	396	430	633	618	625	529	516	520
5	422	408	415	396	351	367	624	603	612	536	512	525
6	420	417	418	433	352	394	631	603	617	532	519	527
7	424	417	420	457	426	443	615	602	607	535	518	526
8	427	412	418	477	447	458	656	610	638	535	518	527
9	439	393	410	448	435	441	750	573	663	524	513	519
10	399	393	396	466	435	449	573	435	496	532	514	520
11	403	395	398	496	460	484	435	407	423	538	522	527
12	413	397	404	492	473	480	421	386	402	534	512	525
13	430	411	421	481	469	475	402	389	393	543	505	523
14	435	416	422	480	465	472	436	399	420	550	530	538
15	429	416	421	466	459	463	478	436	455	542	525	532
16	428	418	423	483	463	470	516	478	496	528	522	525
17	448	421	429	490	473	481	540	516	527	538	520	527
18	448	428	434	473	450	458	518	472	492	521	504	514
19	442	427	433	455	426	443	493	468	479	532	509	519
20	451	427	436	436	422	426	487	474	481	549	510	529
21	467	434	438	470	436	452	489	472	479	515	494	503
22	456	434	440	500	470	481	497	474	484	567	497	529
23	464	436	447	515	495	506	495	435	468	593	562	577
24	486	464	474	533	508	521	442	382	420	584	499	542
25	547	486	517	554	525	542	392	380	388	544	481	503
26	560	542	547	562	549	554	427	392	410	539	495	512
27	614	560	582	575	558	566	443	421	433	545	527	533
28	616	550	585	573	563	568	455	433	442	559	545	556
29	---	---	---	592	568	574	462	454	458	583	559	571
30	---	---	---	594	584	589	476	458	469	587	577	584
31	---	---	---	591	577	581	---	---	---	582	567	574
MONTH	616	393	444	594	351	485	750	380	504	593	473	530
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	594	561	575	530	507	519	560	491	535	---	---	---
2	594	560	580	566	508	533	559	523	548	---	---	---
3	588	553	567	545	512	535	523	494	505	532	524	528
4	595	568	582	543	519	530	518	494	507	544	525	536
5	587	563	575	554	537	542	510	498	505	534	528	531
6	585	568	573	561	534	550	511	497	501	546	529	536
7	584	570	574	554	529	539	511	489	501	546	497	526
8	591	564	574	536	503	516	499	488	492	528	503	518
9	581	561	572	512	501	505	520	491	502	539	520	530
10	574	556	564	521	500	509	515	493	498	537	522	529
11	578	560	569	509	471	491	512	498	505	573	537	554
12	569	553	558	507	474	486	514	497	503	573	552	558
13	560	544	553	507	486	493	507	498	502	555	546	549
14	556	529	544	507	486	494	546	485	523	568	549	557
15	543	516	526	509	490	498	536	462	478	565	556	561
16	537	506	521	495	484	492	503	465	483	561	553	556
17	570	537	554	486	481	484	510	499	506	572	554	563
18	555	547	552	496	478	486	529	510	519	568	551	557
19	591	543	561	490	471	482	557	516	537	563	545	553
20	579	546	568	484	469	473	---	---	---	559	545	549
21	546	537	540	510	473	491	---	---	---	554	543	548
22	547	521	533	510	457	476	---	---	---	548	541	544
23	531	520	527	481	427	453	---	---	---	547	523	530
24	543	522	532	503	446	474	---	---	---	546	524	535
25	530	514	522	518	503	513	---	---	---	540	518	525
26	526	515	520	516	479	488	---	---	---	530	519	526
27	523	501	510	497	478	487	---	---	---	530	520	524
28	510	499	504	478	424	460	---	---	---	535	512	520
29	515	506	509	474	426	452	---	---	---	518	430	510
30	521	504	509	452	439	445	---	---	---	462	376	431
31	---	---	---	491	442	466	---	---	---	---	---	---
MONTH	595	499	548	566	424	496	560	462	508	573	376	535
YEAR	1060	306	521									

SURFACE-WATER RECORDS

Beaver River Basin

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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
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
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
	FEBRUARY			MARCH			APRIL			MAY		
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

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WATER-QUALITY RECORDS—CONTINUED

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	February			March			April			May		
1	3.5	3.0	3.0	7.0	5.0	6.0	18.5	17.0	18.0	18.0	15.0	16.5
2	4.0	3.5	4.0	6.0	5.0	5.5	19.5	18.5	19.0	20.5	16.5	18.5
3	4.0	3.5	3.5	6.5	5.5	6.5	19.0	18.0	19.0	21.5	19.5	20.5
4	4.0	3.5	4.0	5.5	4.0	4.5	18.5	17.5	18.0	22.0	20.0	21.0
5	4.0	3.0	3.5	4.0	3.5	3.5	18.5	16.5	17.5	22.0	21.0	21.5
6	4.0	3.5	4.0	4.0	3.5	4.0	19.5	17.0	18.0	21.5	20.0	21.0
7	4.5	4.0	4.0	3.5	3.0	3.5	20.5	18.0	19.0	20.5	19.0	19.5
8	4.5	4.0	4.5	3.5	3.0	3.5	21.5	19.0	20.0	20.0	19.0	19.5
9	5.0	3.5	4.0	4.0	3.0	3.5	21.0	17.5	19.5	19.5	18.5	19.0
10	4.5	3.5	4.0	4.5	3.0	3.5	17.5	12.5	13.5	19.5	17.5	18.5
11	5.5	4.0	4.5	5.0	4.0	4.5	12.5	11.0	11.5	21.5	19.0	20.5
12	7.5	5.5	6.5	6.0	4.5	5.0	12.5	11.5	12.0	22.5	20.5	21.5
13	7.5	5.5	6.5	6.0	5.0	5.5	13.0	12.0	12.5	22.0	21.0	21.5
14	9.5	5.5	7.5	6.0	5.0	5.5	15.0	13.0	14.0	21.0	20.0	20.5
15	10.0	4.5	7.0	6.5	5.0	5.5	15.0	14.0	14.5	21.5	19.0	20.0
16	---	---	---	7.5	5.5	6.5	15.0	14.0	14.5	21.5	20.0	20.5
17	---	---	---	8.0	6.5	7.5	15.0	13.0	14.0	23.0	20.0	21.5
18	5.5	5.0	5.0	8.0	7.5	7.5	13.0	11.5	12.0	23.0	22.0	22.5
19	5.0	5.0	5.0	7.5	7.5	7.5	13.0	11.5	12.0	25.0	22.0	23.0
20	6.0	4.5	5.0	9.5	7.5	8.5	13.5	12.5	13.0	22.5	21.5	22.0
21	6.5	5.5	6.0	11.0	9.0	10.0	14.5	13.0	13.5	23.0	20.5	21.5
22	6.5	4.5	5.5	10.5	10.0	10.5	16.5	14.0	15.0	23.0	22.0	22.5
23	6.5	5.5	6.0	12.0	10.0	11.0	15.5	14.0	15.0	24.0	22.5	23.0
24	8.0	6.5	7.0	12.5	10.5	11.5	14.0	12.0	13.0	23.5	19.0	21.0
25	8.5	7.5	8.0	12.0	11.0	11.5	13.5	12.5	13.0	19.0	18.0	18.5
26	9.0	7.5	8.5	13.5	11.5	12.5	15.0	13.0	14.0	18.0	17.0	17.0
27	9.0	8.0	8.5	14.0	12.0	13.0	15.5	14.5	15.0	19.0	16.5	17.5
28	9.0	7.0	8.5	15.0	12.5	13.5	15.5	14.0	14.5	20.5	18.0	19.0
29	---	---	---	15.5	14.0	15.0	16.5	14.0	15.0	23.0	19.5	21.0
30	---	---	---	16.5	14.5	15.5	17.0	14.5	15.5	24.5	21.5	23.0
31	---	---	---	18.0	15.5	16.5	---	---	---	25.0	23.5	24.0
MONTH	13.0	3.0	5.5	18.0	3.0	8.0	21.5	11.0	15.0	25.0	15.0	20.5
Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	June			July			August			September		
1	25.0	24.5	24.5	28.0	26.5	27.5	31.5	29.5	30.5	---	---	---
2	27.0	24.5	25.5	29.0	26.5	28.0	30.5	28.0	29.5	---	---	---
3	27.0	26.0	26.5	30.0								

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
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
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 Little Beaver Creek Basin

03109500 LITTLE BEAVER CREEK NEAR EAST LIVERPOOL, OHIO

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

DRAINAGE AREA.--496 mi².

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

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

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

REMARKS.--Records good except for periods of estimated record, which are fair. Water-quality and sediment data collected at this site. 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	49	108	155	e130	696	1130	277	399	219	88	149	44
2	44	107	157	e250	1440	774	284	371	216	869	135	41
3	53	103	151	e450	1480	803	275	346	210	473	100	39
4	121	102	146	e580	1080	1480	321	329	201	217	79	37
5	110	100	144	e430	913	985	373	317	177	151	71	37
6	84	101	143	e340	794	1210	327	306	158	120	71	36
7	74	101	143	e290	754	1630	297	291	147	102	71	36
8	1720	101	141	e270	1700	1090	268	300	134	103	83	40
9	896	101	135	e240	1240	976	1030	295	123	90	96	41
10	366	124	e125	e230	924	866	2270	269	116	98	85	40
11	244	235	e110	e220	779	759	1370	239	109	91	71	35
12	193	222	e100	e200	788	730	1180	216	102	88	64	33
13	163	168	e96	e190	862	693	829	209	97	75	60	34
14	143	142	e90	e180	711	656	666	260	95	68	62	35
15	131	132	e86	e170	655	629	594	254	116	64	73	33
16	124	125	e82	e160	671	600	755	212	112	61	98	33
17	118	122	e84	e150	657	634	882	187	100	58	68	33
18	115	148	e92	e1500	621	655	814	249	89	55	57	31
19	148	145	e98	3760	561	566	686	487	85	52	51	31
20	160	158	e100	2350	515	496	814	330	83	52	49	32
21	142	188	e120	1630	e450	472	798	240	77	54	47	37
22	151	180	2450	2670	e400	449	1230	212	73	53	46	36
23	148	165	1190	6110	e370	417	1190	365	70	51	46	35
24	139	153	570	6740	e350	392	1080	1070	68	51	44	34
25	125	147	370	3640	e330	371	829	1360	72	48	49	34
26	120	175	e280	1890	e320	347	708	701	68	43	91	35
27	116	187	e210	1450	e300	329	624	493	70	40	101	37
28	112	175	e180	1430	e600	318	549	385	85	e38	98	34
29	110	159	e160	1190	---	304	485	316	101	e740	72	35
30	107	153	e150	916	---	284	439	269	113	346	57	103
31	111	---	e140	749	---	269	---	236	---	162	48	---
TOTAL	6437	4327	8198	40505	20961	21314	22244	11513	3486	4601	2292	1141
MEAN	208	144	264	1307	749	688	741	371	116	148	73.9	38.0
MAX	1720	235	2450	6740	1700	1630	2270	1360	219	869	149	103
MIN	44	100	82	130	300	269	268	187	68	38	44	31
MED	124	146	143	450	684	634	697	300	102	75	71	35
CFSM	.42	.29	.53	2.63	1.51	1.39	1.49	.75	.23	.30	.15	.08
IN.	.48	.32	.61	3.04	1.57	1.60	1.67	.86	.26	.35	.17	.09

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

	178	325	541	725	860	1125	915	654	391	254	173	143
MEAN	178	325	541	725	860	1125	915	654	391	254	173	143
MAX	1380	2102	2012	3993	1957	2493	2187	1876	1784	1554	1567	1452
(WY)	1955	1986	1991	1937	1956	1945	1940	1929	1989	1990	1980	1926
MIN	25.7	38.2	50.7	63.9	50.8	241	202	79.9	40.8	29.6	22.0	17.4
(WY)	1964	1931	1931	1931	1934	1969	1946	1934	1934	1930	1930	1932

SUMMARY STATISTICS

FOR 1998 CALENDAR YEAR

FOR 1999 WATER YEAR

WATER YEARS 1916 - 1999

ANNUAL TOTAL	198365	147019	
ANNUAL MEAN	543	403	522
HIGHEST ANNUAL MEAN			899
LOWEST ANNUAL MEAN			207
HIGHEST DAILY MEAN	7850	Jan 9	18900
LOWEST DAILY MEAN	44	Oct 2	12
ANNUAL SEVEN-DAY MINIMUM	52	Sep 27	12
INSTANTANEOUS PEAK FLOW			25000
INSTANTANEOUS PEAK STAGE			17.40
INSTANTANEOUS LOW FLOW			12
ANNUAL RUNOFF (CFSM)	1.10	.81	1.05
ANNUAL RUNOFF (INCHES)	14.88	11.03	14.30
10 PERCENT EXCEEDS	1270	945	1230
50 PERCENT EXCEEDS	283	160	250
90 PERCENT EXCEEDS	74	47	51

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

SURFACE-WATER RECORDS

Short Creek Basin

03111500 SHORT CREEK NEAR DILLONVALE, OHIO

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

DRAINAGE AREA.--123 mi².

PERIOD OF RECORD.--October 1941 to current year.

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

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

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

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	31	44	e35	177	244	114	133	63	36	48	17
2	34	32	41	e45	279	208	116	128	68	80	66	16
3	38	31	39	e100	252	215	111	124	65	74	34	16
4	74	30	39	e90	213	289	120	119	64	48	27	15
5	54	29	39	e80	189	226	118	115	56	39	24	15
6	47	30	38	e70	177	413	110	120	53	34	23	16
7	42	30	40	e64	183	388	107	109	50	40	21	17
8	284	29	40	e60	348	274	98	125	48	33	21	15
9	142	29	38	e56	245	260	260	129	46	30	22	15
10	85	44	36	e54	208	245	400	110	42	38	22	15
11	66	101	34	e52	189	215	240	101	41	33	21	14
12	56	62	34	e50	195	211	201	94	39	27	19	13
13	50	49	34	e48	200	208	170	95	39	25	19	13
14	45	45	33	e47	173	198	152	105	41	26	26	15
15	44	43	30	e46	167	191	146	101	49	29	27	14
16	41	41	30	e45	167	211	166	86	41	28	22	13
17	38	40	37	e45	177	241	159	81	39	26	19	13
18	37	38	36	e900	156	237	166	80	37	24	18	13
19	46	37	33	e860	146	201	152	96	35	24	17	12
20	44	44	34	476	137	184	240	80	34	24	17	14
21	38	56	40	480	129	176	219	80	33	24	16	19
22	39	45	372	1010	121	165	208	77	32	25	16	19
23	39	42	157	887	117	154	278	106	31	23	16	16
24	35	40	98	729	e110	148	308	114	30	20	16	15
25	35	37	58	435	e105	141	235	144	30	19	25	16
26	34	58	e50	341	e100	135	205	98	30	18	46	16
27	33	60	e46	290	e115	129	182	85	29	20	40	16
28	34	48	e42	262	243	125	164	76	36	20	34	14
29	34	45	e39	224	---	118	154	69	60	89	24	17
30	33	43	e37	198	---	115	143	65	48	58	20	59
31	32	---	e36	180	---	114	---	62	---	34	18	---
TOTAL	1690	1289	1704	8259	5018	6379	5442	3107	1309	1068	784	498
MEAN	54.5	43.0	55.0	266	179	206	181	100	43.6	34.5	25.3	16.6
MAX	284	101	372	1010	348	413	400	144	68	89	66	59
MIN	32	29	30	35	100	114	98	62	29	18	16	12
CFSM	.44	.35	.45	2.17	1.46	1.67	1.47	.81	.35	.28	.21	.13
IN.	.51	.39	.52	2.50	1.52	1.93	1.65	.94	.40	.32	.24	.15

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

	MEAN	53.0	75.8	116	160	204	248	223	172	116	78.4	62.3	50.9
MAX	195	515	414	469	459	725	488	391	422	331	610	305	
(WY)	1955	1986	1991	1950	1975	1945	1961	1967	1989	1990	1980	1974	
MIN	13.8	13.8	12.1	20.9	24.8	54.7	69.3	51.4	28.1	17.4	11.5	8.62	
(WY)	1954	1954	1944	1967	1954	1969	1946	1976	1988	1954	1945	1947	

SUMMARY STATISTICS FOR 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1942 - 1999

	ANNUAL TOTAL	53042	36547	
ANNUAL MEAN	145	100	129	
HIGHEST ANNUAL MEAN			225	1980
LOWEST ANNUAL MEAN			46.1	1954
HIGHEST DAILY MEAN	1480	Jan 8	1010	Jan 22
LOWEST DAILY MEAN	29	Nov 5	12	Sep 19
ANNUAL SEVEN-DAY MINIMUM	30	Nov 3	13	Sep 13
INSTANTANEOUS PEAK FLOW			1820	Jan 18a
INSTANTANEOUS PEAK STAGE			7.16	Jan 13b
INSTANTANEOUS LOW FLOW			12	Sep 16
ANNUAL RUNOFF (CFSM)	1.18		.81	
ANNUAL RUNOFF (INCHES)	16.04		11.05	
10 PERCENT EXCEEDS	288		221	268
50 PERCENT EXCEEDS	110		48	79
90 PERCENT EXCEEDS	37		19	22

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

Wheeling Creek Basin

55

03111548 WHEELING CREEK BELOW BLAINE, OHIO

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

	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		111	
ANNUAL MEAN	140		89.0		148	
HIGHEST ANNUAL MEAN					1998	
LOWEST ANNUAL MEAN					1992	
HIGHEST DAILY MEAN	3360	Jun 28	1590	Jan 18	3900	Jan 28 1994
LOWEST DAILY MEAN	30	Oct 27	12	Sep 12	7.0	Sep 21 1985
ANNUAL SEVEN-DAY MINIMUM	32	Oct 26	12	Sep 12	7.4	Sep 17 1985
INSTANTANEOUS PEAK FLOW			1940	Jan 18a	5470	Jun 28 1998
INSTANTANEOUS PEAK STAGE			5.02	Jan 18	8.21	Jun 28 1998
INSTANTANEOUS LOW FLOW			11	Sep 16	7.0	Sep 21 1985
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 **Captina Creek Basin**

03114000 CAPTINA CREEK AT ARMSTRONGS MILLS, OHIO

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

DRAINAGE AREA.--134 mi².

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

REVISED RECORDS.--WSP 1907: Drainage area.

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

REMARKS.--Records good except for periods of estimated record, which are poor. Water-quality and sediment data 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	7.9	4.1	12	e9.0	126	397	76	131	25	7.8	39	5.0
2	6.0	3.6	11	e8.2	191	303	79	117	26	1380	30	3.5
3	6.7	3.5	8.7	e100	198	351	78	110	47	232	21	3.3
4	11	3.6	7.4	e50	177	617	79	98	38	101	16	2.4
5	15	3.6	8.9	e40	156	380	79	92	26	61	14	2.3
6	11	3.3	9.3	e32	144	828	74	91	18	40	13	1.8
7	8.0	2.7	11	e27	207	757	75	86	16	33	10	2.6
8	69	2.3	11	e25	660	412	64	93	14	30	9.9	3.7
9	39	3.3	12	e22	373	334	466	93	13	22	19	12
10	17	4.2	11	e20	267	300	681	79	12	48	15	6.9
11	12	17	9.6	e19	214	232	504	69	10	66	12	3.9
12	9.5	25	9.0	e18	201	208	457	61	7.4	30	11	2.0
13	7.0	15	11	e17	232	219	289	60	4.8	20	7.5	1.1
14	5.8	12	8.6	e16	190	205	224	62	6.5	16	26	2.7
15	4.4	10	7.2	e15	184	201	188	59	8.7	13	46	2.5
16	4.0	9.6	8.0	e15	193	263	250	54	9.1	9.7	22	1.9
17	3.5	8.8	7.5	e14	187	393	213	46	7.7	8.5	14	1.4
18	2.6	7.6	7.6	e1700	176	550	233	41	5.7	9.4	11	1.1
19	2.8	4.6	8.2	1550	155	326	249	72	5.2	9.3	7.8	.86
20	5.6	7.5	8.7	665	136	243	671	59	4.0	7.6	6.3	1.0
21	6.0	11	9.2	748	122	212	591	41	4.4	7.5	3.4	1.7
22	5.5	14	307	1540	110	186	605	36	3.6	94	5.1	1.9
23	4.5	11	134	1060	e100	158	669	93	2.3	41	5.8	1.6
24	5.4	11	56	993	e92	145	645	94	1.7	17	4.9	2.0
25	5.7	8.9	34	553	e86	129	398	152	1.6	14	7.2	1.3
26	4.6	16	26	361	e80	116	303	91	2.4	9.0	33	.89
27	3.7	37	20	275	e78	106	246	62	5.1	5.9	33	.44
28	3.4	22	e16	230	e200	99	204	48	4.7	20	15	.37
29	2.8	16	e14	191	---	92	173	39	5.1	463	12	.47
30	6.3	14	e12	158	---	84	149	33	8.4	131	9.6	14
31	7.4	---	e10	138	---	78	---	29	---	59	7.6	---
TOTAL	303.1	312.2	825.9	10609.2	5235	8924	9012	2291	343.4	3005.7	487.1	86.63
MEAN	9.78	10.4	26.6	342	187	288	300	73.9	11.4	97.0	15.7	2.89
MAX	69	37	307	1700	660	828	681	152	47	1380	46	14
MIN	2.6	2.3	7.2	8.2	78	78	64	29	1.6	5.9	3.4	.37
CFSM	.07	.08	.20	2.55	1.40	2.15	2.24	.55	.09	.72	.12	.02
IN.	.08	.09	.23	2.95	1.45	2.48	2.50	.64	.10	.83	.14	.02

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

	MEAN	47.0	108	199	240	287	339	268	194	111	72.5	63.6	49.8
MAX	294	885	681	579	594	805	679	568	676	409	675	628	
(WY)	1976	1986	1991	1979	1975	1963	1961	1967	1981	1969	1980	1975	
MIN	.090	1.55	6.64	14.6	20.8	59.1	55.5	19.5	4.89	.22	.32	.25	
(WY)	1931	1964	1964	1931	1934	1969	1971	1934	1934	1930	1930	1966	

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR				FOR 1999 WATER YEAR				WATER YEARS 1927 - 1999			
ANNUAL TOTAL	65651.5				41435.23							
ANNUAL MEAN	180				114				164			
HIGHEST ANNUAL MEAN									275			
LOWEST ANNUAL MEAN									75.2			
HIGHEST DAILY MEAN	4940				1700				8080			
LOWEST DAILY MEAN	2.0				.37				.00			
ANNUAL SEVEN-DAY MINIMUM	2.5				1.0				.00			
INSTANTANEOUS PEAK FLOW					5730				21900			
INSTANTANEOUS PEAK STAGE					9.54				17.48			
INSTANTANEOUS LOW FLOW					.37				.00			
ANNUAL RUNOFF (CFSM)	1.34				.85				1.23			
ANNUAL RUNOFF (INCHES)	18.23				11.50				16.66			
10 PERCENT EXCEEDS	368				303				378			
50 PERCENT EXCEEDS	56				20				67			
90 PERCENT EXCEEDS	5.0				3.5				4.7			

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

SURFACE-WATER RECORDS

Little Muskingum River Basin

57

03115400 LITTLE MUSKINGUM RIVER AT BLOOMFIELD, OHIO

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

DRAINAGE AREA.--210 mi².

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

REVISED RECORDS.--WSP 1705: 1959.

GAGE.--Water-stage recorder. Datum of gage is 645.99 ft above sea level.

REMARKS.--Records good except for periods of estimated record, which are poor. Water-quality and sediment data 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	5.2	3.8	22	e15	140	1030	76	123	29	3.2	3.0	1.8
2	4.4	3.7	19	e14	228	805	83	105	27	13	2.8	1.4
3	4.0	4.1	16	e50	324	566	77	95	31	98	3.1	1.1
4	5.4	4.1	14	e170	280	1200	83	81	29	45	3.3	.79
5	6.0	4.1	13	e130	231	751	97	70	23	22	2.5	.62
6	5.2	4.2	12	e94	194	1070	89	65	19	13	2.1	.52
7	4.9	4.7	12	e70	414	1770	80	59	16	8.8	1.8	.49
8	10	4.6	13	e56	1920	704	72	59	14	6.0	1.7	.46
9	52	4.4	16	e50	846	472	92	72	15	4.4	2.0	.37
10	49	5.8	22	e46	474	399	425	57	14	4.3	1.4	.28
11	29	8.1	23	e41	326	294	542	47	12	4.0	1.1	.24
12	19	15	20	e37	272	266	884	42	9.4	2.9	1.0	.20
13	13	24	18	e34	328	334	414	38	7.5	2.3	.93	.18
14	9.2	14	16	e32	281	329	285	39	6.4	2.1	1.2	.17
15	6.8	10	15	e30	260	347	230	44	6.5	3.0	1.3	.14
16	5.3	8.2	14	e28	265	661	249	40	6.8	2.3	1.5	.11
17	4.3	6.5	13	e26	258	985	234	33	7.6	2.2	1.5	.10
18	4.6	5.3	13	e700	252	1580	235	28	7.0	2.3	1.3	.09
19	3.4	4.8	13	2490	220	828	385	31	6.3	2.1	1.1	.08
20	2.7	4.7	13	871	188	454	668	43	5.3	2.2	1.0	.07
21	3.3	4.3	14	761	158	339	850	32	4.5	2.1	.93	.11
22	4.2	4.0	251	2010	130	280	1290	27	3.7	77	.86	.09
23	3.3	4.0	425	1170	111	226	675	494	3.1	72	.75	.07
24	3.1	4.0	141	1340	e100	192	777	312	2.6	30	.76	.06
25	3.3	4.4	72	991	e92	168	473	575	2.3	16	1.2	.05
26	3.4	8.5	e45	531	e86	143	336	236	2.1	9.6	3.4	.05
27	3.2	16	e36	355	e80	126	267	125	1.8	6.4	4.5	.03
28	3.3	51	e30	285	e300	113	216	80	1.7	4.6	5.5	.02
29	3.1	37	e25	237	---	102	178	56	2.0	4.0	3.3	.05
30	3.5	29	e20	189	---	91	146	43	3.0	3.5	2.6	.36
31	4.0	---	e17	158	---	81	---	35	---	3.0	2.4	---
TOTAL	281.1	306.3	1393	13011	8758	16706	10508	3186	318.6	471.3	61.83	10.10
MEAN	9.07	10.2	44.9	420	313	539	350	103	10.6	15.2	1.99	.34
MAX	52	51	425	2490	1920	1770	1290	575	31	98	5.5	1.8
MIN	2.7	3.7	12	14	80	81	72	27	1.7	2.1	.75	.02
CFSM	.04	.05	.21	2.00	1.49	2.57	1.67	.49	.05	.07	.01	.00
IN.	.05	.05	.25	2.30	1.55	2.96	1.86	.56	.06	.08	.01	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1999, BY WATER YEAR (WY)

	MEAN	72.1	152	311	407	481	576	455	316	236	92.1	84.6	81.0
MAX	476	518	918	1008	995	1387	1004	899	1479	421	401	719	
(WY)	1980	1971	1979	1979	1979	1963	1964	1968	1998	1996	1979	1975	
MIN	.43	2.28	16.3	28.0	59.0	119	78.8	48.4	10.6	.98	.90	.34	
(WY)	1967	1964	1964	1977	1964	1969	1971	1976	1999	1966	1962	1999	

SUMMARY STATISTICS

FOR 1998 CALENDAR YEAR

FOR 1999 WATER YEAR

WATER YEARS 1958 - 1999

ANNUAL TOTAL	126459.2	55011.23	
ANNUAL MEAN	346	151	
HIGHEST ANNUAL MEAN			271
LOWEST ANNUAL MEAN			461
HIGHEST DAILY MEAN	21600	2490	151
LOWEST DAILY MEAN	2.2	.02	151
ANNUAL SEVEN-DAY MINIMUM	3.2	.05	151
INSTANTANEOUS PEAK FLOW		3830	21600
INSTANTANEOUS PEAK STAGE		18.91	30.78
INSTANTANEOUS LOW FLOW		.02	.00
ANNUAL RUNOFF (CFSM)	1.65	.72	1.29
ANNUAL RUNOFF (INCHES)	22.40	9.74	17.53
10 PERCENT EXCEEDS	590	437	633
50 PERCENT EXCEEDS	52	19	93
90 PERCENT EXCEEDS	4.5	1.1	4.6

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 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)

	MEAN	2.45	4.59	4.30	7.19	4.41	6.49	8.23	4.93	4.98	4.08	3.64	3.89
MAX	5.32	9.51	9.83	10.9	6.80	11.0	12.2	10.0	9.73	13.6	6.96	9.96	
(WY)	1997	1993	1997	1993	1997	1993	1994	1996	1997	1992	1992	1992	
MIN	.28	1.90	1.81	3.33	1.99	3.34	4.33	2.52	1.86	.95	.28	.61	
(WY)	1995	1999	1996	1992	1995	1995	1995	1992	1999	1993	1993	1994	

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	50
LOWEST DAILY MEAN	.25	Aug 20	.31
ANNUAL SEVEN-DAY MINIMUM	.31	Aug 16	.59
INSTANTANEOUS PEAK FLOW			64
INSTANTANEOUS PEAK STAGE			11.99
INSTANTANEOUS LOW FLOW			.10
ANNUAL RUNOFF (CFSM)	1.34		1.01
ANNUAL RUNOFF (INCHES)	18.16		13.71
10 PERCENT EXCEEDS	10		7.5
50 PERCENT EXCEEDS	1.9		1.7
90 PERCENT EXCEEDS	.90		.77

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

59

03117000 TUSCARAWAS RIVER AT MASSILLON, OHIO

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

DRAINAGE AREA.--518 mi².

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

REVISED RECORDS.--WSP 1907: Drainage area.

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

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

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	94	127	171	e120	496	933	263	283	133	90	161	113
2	88	121	156	e110	589	808	273	260	161	174	130	98
3	117	119	149	e200	792	1230	265	239	171	184	105	85
4	150	117	145	440	728	2470	271	246	137	121	86	77
5	150	117	143	335	572	1980	288	227	124	100	89	71
6	138	116	138	248	493	e1440	272	203	118	114	74	67
7	148	110	138	214	490	e1600	254	199	115	299	69	164
8	958	107	170	e190	1400	e1100	237	189	111	314	131	152
9	869	109	164	e180	1210	820	456	188	103	178	158	131
10	427	131	147	e165	749	743	1840	193	98	181	115	119
11	277	288	133	e150	590	674	1680	181	95	197	96	80
12	220	303	121	e140	583	605	1330	169	96	122	87	66
13	200	212	117	e280	740	564	911	167	89	102	81	59
14	223	162	118	566	608	538	591	213	123	87	92	65
15	259	137	121	513	528	507	492	224	159	79	526	64
16	234	131	123	463	507	564	561	190	129	74	306	60
17	219	130	133	426	504	970	957	174	99	68	189	59
18	195	124	151	1110	495	1370	1060	170	88	60	129	56
19	240	117	152	2460	433	1060	797	182	81	61	110	51
20	248	130	143	2260	383	688	807	167	76	74	105	51
21	206	150	162	1430	341	554	790	154	77	89	98	64
22	188	141	1320	1970	316	501	884	156	76	80	91	65
23	191	124	1120	4380	300	427	805	162	76	76	91	57
24	173	122	545	5310	292	379	1010	494	75	70	91	54
25	161	118	312	4840	284	356	752	702	77	90	166	56
26	151	238	245	3490	287	341	554	411	80	124	430	58
27	143	330	221	1980	311	319	479	267	73	90	887	55
28	131	229	206	1220	580	290	406	211	76	80	444	53
29	124	198	e170	865	---	266	352	184	136	256	245	115
30	126	177	e160	675	---	276	310	163	118	321	198	657
31	130	---	e140	554	---	268	---	151	---	199	153	---
TOTAL	7178	4735	7434	37284	15601	24641	19947	7119	3170	4154	5733	2922
MEAN	232	158	240	1203	557	795	665	230	106	134	185	97.4
MAX	958	330	1320	5310	1400	2470	1840	702	171	321	887	657
MIN	88	107	117	110	284	266	237	151	73	60	69	51

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1999, BY WATER YEAR (WY)

	MEAN	207	305	443	557	715	887	733	513	395	303	232	211
MAX	1206	1628	1621	1989	1659	1827	1591	1641	1852	1812	1273	1465	
(WY)	1991	1986	1991	1952	1959	1978	1994	1996	1947	1969	1958	1979	
MIN	70.0	81.4	81.5	94.6	98.0	283	172	121	81.2	79.1	82.9	69.9	
(WY)	1964	1945	1964	1945	1964	1969	1946	1941	1988	1954	1962	1954	

SUMMARY STATISTICS FOR 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1938 - 1999

ANNUAL TOTAL	156518	139918	
ANNUAL MEAN	429	383	457
HIGHEST ANNUAL MEAN			661
LOWEST ANNUAL MEAN			245
HIGHEST DAILY MEAN	3430	Jan 10	5310 Jan 24
LOWEST DAILY MEAN	81	Aug 23	51 Sep 19
ANNUAL SEVEN-DAY MINIMUM	90	Aug 17	57 Sep 18
INSTANTANEOUS PEAK FLOW			5350 Jan 24
INSTANTANEOUS PEAK STAGE			11.45 Jan 24
INSTANTANEOUS LOW FLOW			45 Sep 20
10 PERCENT EXCEEDS	1010		867
50 PERCENT EXCEEDS	234		180
90 PERCENT EXCEEDS	112		77
			102

e Estimated.

SURFACE-WATER RECORDS Muskingum River Basin

03117500 SANDY CREEK AT WAYNESBURG, OHIO

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

DRAINAGE AREA.--253 mi².

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

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

GAGE.--Water-stage recorder. Datum of gage is 955.00 ft above sea level.

REMARKS.--Records good except for periods of estimated record, which are poor. Water-quality and sediment data 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	34	70	75	e80	329	447	163	221	128	71	95	32
2	36	67	78	e76	604	374	168	203	126	295	95	31
3	44	65	82	e140	650	528	164	190	126	173	74	30
4	64	67	78	e190	502	811	172	178	118	103	59	29
5	56	64	75	e150	447	624	190	170	112	78	53	28
6	48	62	75	e130	398	687	175	166	106	68	49	29
7	56	61	76	e115	387	766	162	159	102	65	46	35
8	427	60	74	e105	749	599	155	154	99	61	55	34
9	429	60	71	e98	615	520	312	155	94	58	51	31
10	231	72	66	e92	489	479	885	147	91	57	45	29
11	141	102	60	e86	408	423	812	138	88	52	43	28
12	111	102	55	e80	416	396	685	131	85	49	40	26
13	93	88	55	e150	473	373	482	131	82	47	39	25
14	82	76	53	e280	383	349	335	150	89	46	44	28
15	83	69	50	e250	347	329	281	147	98	46	83	25
16	90	65	50	e200	356	338	349	130	87	44	59	25
17	85	62	48	e170	362	400	440	122	81	42	46	24
18	82	57	49	e400	343	412	414	125	81	40	41	23
19	94	62	49	e1200	305	349	369	159	80	38	38	21
20	95	75	49	e900	273	307	455	147	79	39	37	35
21	90	83	64	e760	249	288	453	132	77	38	37	54
22	87	83	934	843	230	269	710	120	75	37	37	55
23	90	78	963	2940	213	249	745	128	72	35	35	25
24	84	70	771	3680	205	233	719	474	69	33	35	18
25	81	69	e440	2390	208	216	568	625	69	34	49	18
26	81	91	e230	1270	213	203	452	489	69	30	64	17
27	77	103	e160	839	218	193	381	374	68	29	60	17
28	75	90	e130	674	387	186	324	227	68	31	51	15
29	72	80	e120	528	---	178	279	176	69	266	43	19
30	70	74	e100	417	---	170	243	147	69	148	37	49
31	70	---	e90	353	---	164	---	135	---	88	34	---
TOTAL	3258	2227	5270	19586	10759	11860	12042	6150	2657	2241	1574	855
MEAN	105	74.2	170	632	384	383	401	198	88.6	72.3	50.8	28.5
MAX	429	103	963	3680	749	811	885	625	128	295	95	55
MIN	34	57	48	76	205	164	155	120	68	29	34	15
CFSM	.42	.29	.67	2.50	1.52	1.51	1.59	.78	.35	.29	.20	.11
IN.	.48	.33	.77	2.88	1.58	1.74	1.77	.90	.39	.33	.23	.13

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1999, BY WATER YEAR (WY)

	MEAN	97.3	170	283	356	467	564	467	336	215	138	94.4	80.2
MAX	476	1008	1104	1111	987	1179	867	961	750	651	871	513	
(WY)	1991	1986	1991	1952	1956	1945	1957	1996	1989	1990	1980	1975	
MIN	15.5	18.4	22.1	55.1	53.5	114	118	80.4	45.1	33.2	22.3	16.1	
(WY)	1964	1964	1964	1954	1964	1969	1946	1941	1988	1965	1962	1963	

SUMMARY STATISTICS FOR 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1939 - 1999

	ANNUAL TOTAL	103127	78479	
ANNUAL MEAN	283	215	271	
HIGHEST ANNUAL MEAN			429	1975
LOWEST ANNUAL MEAN			140	1992
HIGHEST DAILY MEAN	2980	Jan 10	11000	Jan 22 1959
LOWEST DAILY MEAN	32	Sep 30	12	Sep 18 1963
ANNUAL SEVEN-DAY MINIMUM	36	Sep 26	12	Sep 18 1963
INSTANTANEOUS PEAK FLOW			15000	Jan 22 1959
INSTANTANEOUS PEAK STAGE			7.37	Jan 24
INSTANTANEOUS LOW FLOW			14	Sep 28
ANNUAL RUNOFF (CFSM)	1.12	.85	1.07	
ANNUAL RUNOFF (INCHES)	15.16	11.54	14.58	
10 PERCENT EXCEEDS	643	485	633	
50 PERCENT EXCEEDS	146	93	138	
90 PERCENT EXCEEDS	49	35	35	

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

SURFACE-WATER RECORDS Muskingum River Basin

61

03118000 MIDDLE BRANCH NIMISHILLEN CREEK AT CANTON, OHIO

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

DRAINAGE AREA.--43.1 mi².

PERIOD OF RECORD.--September 1941 to current year.

REVISED RECORDS.--WSP 1033: 1942(M), 1943(P), 1944(M). WSP 1305: 1946(M). WSP 1143: 1948. WSP 1907: Drainage area. GAGE.--Water-stage recorder. Datum of gage is 1,046.60 ft above sea level.

REMARKS.--Records fair except for periods of estimated record, which are poor. Part of municipal water supply for city of Canton is pumped from its northeast well field; a portion of pumpage is believed to be derived from creek as recharge to aquifer supplying well field about 1 mi downstream from gage. Mean pumpage for water year 1999, 12.1 ft³/s. At times low flow regulated by small pools above station. 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	3.1	5.8	9.2	e7.4	49	99	25	26	8.5	e10	e12	5.6
2	3.0	5.5	8.2	e6.4	70	76	25	27	9.0	e25	e7.0	5.5
3	4.6	5.4	7.9	e12	96	119	24	22	9.4	e11	e5.4	6.5
4	4.1	5.4	8.1	e20	73	200	25	21	10	e7.0	5.2	5.2
5	3.5	5.4	7.7	e17	60	118	24	18	15	e5.2	5.2	4.7
6	3.0	5.3	7.7	e14	52	100	22	17	18	e15	4.5	22
7	7.1	4.9	8.5	e13	52	106	21	15	7.7	e11	5.1	24
8	80	4.5	8.6	e11	138	77	18	13	7.3	e6.0	9.6	9.1
9	55	4.6	8.6	e10	100	65	58	12	6.9	e8.0	5.5	7.2
10	37	7.1	8.2	e9.6	70	57	121	12	8.1	e7.0	5.0	5.7
11	28	11	7.7	e8.8	55	51	86	11	6.8	e6.4	4.7	4.3
12	22	13	7.6	e8.0	59	47	75	8.4	6.4	e6.2	4.7	3.8
13	18	13	8.0	e15	76	45	50	8.0	5.9	e6.0	4.7	3.4
14	15	11	8.1	e48	60	43	37	9.2	7.7	e5.8	4.5	3.5
15	12	11	7.9	e45	51	41	32	9.5	7.3	e5.6	6.5	3.3
16	11	10	8.4	e36	50	42	42	10	6.4	e5.4	7.6	3.2
17	9.9	10	10	e30	53	81	68	9.6	5.7	e5.0	6.7	3.0
18	12	10	9.8	e100	53	111	72	9.9	5.6	e4.5	6.1	2.9
19	14	9.1	9.5	265	45	72	55	11	5.1	e5.0	5.4	2.7
20	13	11	10	166	39	56	52	9.9	5.0	e6.0	4.9	2.4
21	11	9.6	17	106	34	48	48	10	4.9	e5.6	4.5	2.4
22	9.5	8.8	117	167	30	43	44	10	4.4	e5.4	4.6	2.4
23	9.4	8.2	98	449	28	40	39	11	3.8	e5.2	4.3	2.4
24	8.6	7.7	46	560	26	36	38	74	3.2	e5.0	4.5	2.3
25	8.3	7.1	30	327	26	33	33	69	9.1	e16	7.2	2.3
26	7.9	12	22	187	26	32	30	42	11	e8.0	16	2.3
27	7.3	13	e14	124	27	30	28	29	7.9	e5.4	21	2.2
28	7.0	11	e12	103	67	29	27	23	e5.0	e10	14	2.2
29	6.3	9.9	e10	87	---	27	26	19	e4.0	e40	9.7	3.0
30	6.1	8.9	e9.2	69	---	26	26	16	e3.6	e25	6.9	3.7
31	6.0	---	e8.4	55	---	25	---	13	---	e10	5.9	---
TOTAL	442.7	259.2	553.3	3076.2	1565	1975	1271	595.5	218.7	296.7	218.9	153.2
MEAN	14.3	8.64	17.8	99.2	55.9	63.7	42.4	19.2	7.29	9.57	7.06	5.11
MAX	80	13	117	560	138	200	121	74	18	40	21	24
MIN	3.0	4.5	7.6	6.4	26	25	18	8.0	3.2	4.5	4.3	2.2

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

	MEAN	13.9	23.8	38.4	48.8	59.4	72.6	60.5	45.6	34.4	23.9	18.1	15.4
MAX	84.7	103	140	170	153	142	227	138	150	102	108	97.2	
(WY)	1991	1986	1991	1952	1971	1951	1994	1996	1989	1972	1958	1990	
MIN	.74	1.09	2.78	1.40	1.88	23.7	14.9	10.5	5.17	3.16	2.32	1.25	
(WY)	1992	1992	1964	1963	1963	1969	1946	1988	1988	1954	1962	1991	

SUMMARY STATISTICS FOR 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1942 - 1999

ANNUAL TOTAL	13657.6	10625.4	
ANNUAL MEAN	37.4	29.1	37.8
HIGHEST ANNUAL MEAN			67.3
LOWEST ANNUAL MEAN			16.0
HIGHEST DAILY MEAN	485	Jan 9	1620
LOWEST DAILY MEAN	3.0	Jun 26	2.30
ANNUAL SEVEN-DAY MINIMUM	3.5	Sep 30	2.30
INSTANTANEOUS PEAK FLOW			598
INSTANTANEOUS PEAK STAGE			5.26
INSTANTANEOUS LOW FLOW			1.9
10 PERCENT EXCEEDS	82		71
50 PERCENT EXCEEDS	18		10
90 PERCENT EXCEEDS	5.7		4.5

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

SURFACE-WATER RECORDS

Muskingum River Basin

03118500 NIMISHILLEN CREEK AT NORTH INDUSTRY, OHIO

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

DRAINAGE AREA.--175 mi².

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

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

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

REMARKS.--Records good except for periods of estimated record, which are fair. Low flow slightly regulated by plants at Canton. Records include diversion from Sugar Creek well field. Mean pumpage for the 1999 water year, 12.1 ft³/s. See REMARKS for station 03124500. 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	75	93	127	e81	263	424	170	158	108	197	142	78
2	74	93	103	e80	418	339	166	151	114	340	98	73
3	166	92	100	e230	378	820	162	147	107	105	89	75
4	106	94	98	e160	307	697	182	144	102	86	94	72
5	83	94	95	e140	267	414	171	141	100	81	110	69
6	80	94	95	e125	247	669	159	140	100	171	84	368
7	316	90	99	e115	411	494	155	137	96	134	91	302
8	604	88	98	e110	691	352	143	130	93	89	188	116
9	196	90	96	e100	369	324	891	128	88	107	93	96
10	144	188	96	e96	289	311	537	127	88	104	89	86
11	125	175	94	e92	258	289	381	125	88	80	88	78
12	119	113	92	e86	395	277	322	119	83	79	81	74
13	115	106	90	e450	345	264	248	144	79	77	90	77
14	109	100	92	e300	278	253	214	163	200	76	116	77
15	107	95	91	e220	264	247	225	125	112	76	116	75
16	103	96	93	e200	274	277	311	115	91	76	90	73
17	98	96	105	e210	315	420	371	113	84	72	82	73
18	169	95	98	1330	271	406	306	156	83	69	79	69
19	162	94	94	1070	240	288	270	158	80	77	76	67
20	115	135	100	526	216	249	447	116	76	85	76	74
21	115	107	307	476	199	233	335	109	79	77	75	72
22	126	96	979	1440	192	223	440	130	79	76	71	69
23	108	97	284	2420	182	211	388	182	79	75	73	69
24	100	94	187	1660	180	203	296	814	78	70	99	76
25	97	102	143	764	196	195	238	290	78	195	220	69
26	98	236	126	476	188	187	219	190	88	82	269	66
27	99	122	117	382	210	178	198	156	118	76	134	69
28	98	109	e105	353	574	172	185	135	109	136	101	69
29	96	102	e98	304	---	173	172	122	85	822	87	181
30	99	104	e90	264	---	168	161	112	77	155	81	178
31	96	---	e85	238	---	160	---	110	---	115	78	---
TOTAL	4198	3290	4477	14498	8417	9917	8463	5087	2842	4060	3260	2990
MEAN	135	110	144	468	301	320	282	164	94.7	131	105	99.7
MAX	604	236	979	2420	691	820	891	814	200	822	269	368
MIN	74	88	85	80	180	160	143	109	76	69	71	66

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

MEAN	102	140	192	237	271	328	281	219	179	149	127	111
MAX	438	649	733	843	586	569	584	615	689	483	445	452
(WY)	1991	1986	1991	1937	1981	1963	1994	1996	1989	1958	1935	1979
MIN	27.4	30.1	35.5	46.7	33.5	75.5	71.1	37.3	44.9	31.4	28.0	30.0
(WY)	1931	1931	1931	1945	1934	1931	1935	1934	1932	1930	1932	1933

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR	FOR 1999 WATER YEAR	WATER YEARS 1922 - 1999
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ANNUAL TOTAL	82248		71499			
ANNUAL MEAN	225		196		194	
HIGHEST ANNUAL MEAN					308	1975
LOWEST ANNUAL MEAN					72.4	1931
HIGHEST DAILY MEAN	2310	Jan 9	2420	Jan 23	5390	Jan 22 1959
LOWEST DAILY MEAN	74	Aug 23	66	Sep 26	14	Aug 20 1923
ANNUAL SEVEN-DAY MINIMUM	77	Sep 26	70	Sep 22	20	Sep 10 1932
INSTANTANEOUS PEAK FLOW			2680	Jan 23a	8600	Jan 21 1959
INSTANTANEOUS PEAK STAGE			7.33	Jan 23	11.29	Jan 21 1959
INSTANTANEOUS LOW FLOW			54	Sep 27	3.6	Sep 2 1934
10 PERCENT EXCEEDS	388		370		377	
50 PERCENT EXCEEDS	132		116		123	
90 PERCENT EXCEEDS	87		77		54	

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

SURFACE-WATER RECORDS Muskingum River Basin

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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)

	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	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	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		
LOWEST ANNUAL MEAN							12.3		
HIGHEST DAILY MEAN	221			198			221		
LOWEST DAILY MEAN	2.4			1.7			1.7		
ANNUAL SEVEN-DAY MINIMUM	2.5			1.8			1.8		
INSTANTANEOUS PEAK FLOW				401			504		
INSTANTANEOUS PEAK STAGE				4.07			4.35		
INSTANTANEOUS LOW FLOW				1.6			1.6		
ANNUAL RUNOFF (CFSM)	1.07			1.00			1.02		
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

03121850 HUFF RUN AT MINERAL CITY, OHIO—Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD--

SPECIFIC CONDUCTANCE: October 1997 to 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
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
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

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WATER-QUALITY RECORDS—CONTINUED

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	953	928	934	826	749	793	1140	1070	1130	1010	959	985
2	932	723	779	825	805	815	1140	1120	1130	1050	1000	1020
3	761	724	743	823	510	715	1160	1130	1140	1090	1040	1070
4	774	757	765	545	505	525	1180	1140	1150	1130	1080	1100
5	797	756	772	602	542	573	1140	1130	1130	1160	1120	1130
6	813	797	801	678	469	574	1180	1140	1160	1190	1150	1160
7	817	765	802	557	486	531	1190	1180	1180	1220	1170	1190
8	770	594	629	631	545	591	1280	1180	1210	1250	1210	1230
9	656	624	638	703	627	658	1260	469	1100	1270	1240	1250
10	717	634	685	757	696	720	---	---	---	1280	1250	1270
11	753	717	737	802	747	768	---	---	---	1260	1220	1240
12	797	669	747	825	783	800	---	---	---	1270	1240	1260
13	757	671	717	849	799	821	777	712	748	1280	1240	1270
14	797	757	779	856	835	844	819	777	800	1300	1220	1260
15	809	790	797	871	856	861	903	819	840	1330	1180	1220
16	819	776	788	878	811	842	867	789	822	1320	1280	1290
17	856	765	790	878	742	783	827	778	801	1340	1310	1330
18	813	770	796	789	715	736	800	781	790	1360	1220	1330
19	853	812	830	794	745	772	814	775	792	1330	879	1030
20	891	851	867	842	794	818	805	672	735	1200	1020	1110
21	931	888	900	864	837	852	700	679	693	1270	1200	1230
22	978	928	940	896	858	876	704	575	630	1300	1120	1250
23	1010	978	986	938	896	913	681	570	628	1260	1110	1170
24	1010	997	1000	1020	936	954	639	570	612	1150	610	701
25	1100	1000	1020	1010	964	977	666	639	653	682	600	632
26	1020	985	1010	1030	1010	1020	709	666	690	793	682	746
27	1030	988	1010	1060	1030	1040	757	709	735	911	793	855
28	1030	751	894	1080	1060	1060	816	757	789	971	902	935
29	---	---	---	1100	1070	1080	896	816	858	1040	935	993
30	---	---	---	1120	1090	1100	1020	895	936	1100	1030	1060
31	---	---	---	1140	1120	1120	---	---	---	1130	1100	1110
MONTH	1100	594	827	1140	469	824	1280	469	885	1360	600	1110
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	1160	1130	1140	1620	1370	1550	1280	460	964	1610	1560	1590
2	1190	1160	1170	1430	641	885	986	541	757	1670	1600	1630
3	1220	1190	1200	1140	872	1010	---	---	---	1680	1630	1650

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
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
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

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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	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
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	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
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

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

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
February				March			April			May		
1	3.5	2.0	2.5	5.0	3.5	4.0	11.5	10.5	11.0	17.5	11.5	14.5
2	5.0	3.5	4.0	6.0	3.0	4.5	14.0	10.5	12.0	18.0	12.0	15.0
3	4.5	2.5	3.5	5.5	3.5	5.0	15.5	10.0	13.0	18.0	12.5	15.0
4	4.0	3.0	3.5	4.5	3.0	3.5	15.5	13.0	14.0	18.5	12.5	15.5
5	3.5	2.0	2.5	6.0	3.0	4.5	15.5	11.5	13.0	16.5	13.5	15.0
6	5.0	3.0	3.5	6.0	3.0	4.5	15.5	11.0	12.5	18.5	14.0	16.0
7	4.0	2.5	2.5	4.0	1.0	2.5	15.5	10.5	12.5	19.5	15.5	17.0
8	4.5	3.0	3.5	4.0	.5	2.5	16.0	10.5	13.0	17.5	15.5	16.5
9	6.5	3.5	5.0	3.5	1.0	2.0	14.0	11.5	13.0	17.0	14.0	15.5
10	6.0	4.0	5.0	5.0	2.0	3.0	---	---	---	18.0	12.5	15.0
11	8.5	4.0	6.0	4.5	1.5	3.0	---	---	---	18.5	13.0	16.0
12	9.5	4.5	7.5	5.0	1.5	3.5	---	---	---	19.5	15.0	17.0
13	4.5	2.0	3.0	4.5	1.5	3.0	12.5	7.5	10.0	17.5	15.0	16.0
14	3.5	1.5	2.5	4.0	3.0	3.5	13.5	7.5	10.5	15.0	14.0	14.5
15	4.5	1.5	3.0	6.0	2.5	4.0	12.0	9.0	10.0	17.0	12.0	14.5
16	6.5	3.0	4.5	6.5	2.5	4.5	10.0	9.0	9.5	17.5	14.0	15.5
17	6.5	5.5	6.0	9.0	4.0	6.5	9.0	7.5	8.0	19.5	15.0	17.0
18	5.5	4.0	4.5	9.0	6.0	7.5	10.0	7.0	8.5	19.0	17.0	18.0
19	4.0	3.0	3.5	6.5	4.5	5.5	11.5	8.0	9.5	17.5	15.5	16.5
20	3.0	1.5	2.5	7.5	3.0	5.0	11.0	9.0	10.5	17.0	13.5	15.5
21	3.0	.5	2.0	8.0	5.0	6.5	12.5	8.5	10.5	17.5	13.5	15.5
22	2.5	.0	1.0	7.0	5.0	5.5	16.5	11.0	13.5	16.5	15.0	16.0
23	2.5	.5	1.5	6.0	3.0	4.5	15.5	11.5	13.5	17.0	15.0	16.0
24	4.0	2.0	3.0	9.5	5.0	7.0	13.0	8.0	10.5	---	---	---
25	4.0	2.5	3.5	7.5	4.5	5.5	13.5	8.0	11.0	---	---	---
26	5.5	3.0	4.0	10.5	3.5	6.0	14.5	9.0	12.0	---	---	---
27	4.5	2.5	3.5	9.0	4.0	6.5	15.0	10.5	12.5	---	---	---
28	5.5	4.5	5.0	10.0	4.5	7.5	16.0	11.5	13.5	---	---	---
29	---	---	---	11.0	6.5	8.5	15.5	11.0	13.5	18.5	14.5	16.5
30	---	---	---	11.5	5.5	8.5	16.5	10.5	13.5	19.0	15.5	17.5
31	---	---	---	12.5	6.0	9.0	---	---	---	19.0	16.5	18.0
MONTH	9.5	.0	3.5	12.5	.5	5.0	16.5	7.0	11.5	19.5	11.5	16.0
Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
June				July			August			September		
1	18.5	18.0	18.0	21.0	17.5	19.0	24.5	22.5	23.5	18.5	14.0	16.5
2	19.0	17.0	18.0	24.5	20.0	22.0	23.0	20.0	21.5	19.5	14.5	17.0
3	18.5	17.0	17.5	22.5	20.0	21.5	---	---	---	20.0	15.5	17.5
4	17.5	14.0	16.0	24.5	21.0	22.5	---	---	---	19.0	15.5	17.5
5	19.0	14.5	17.0	25.0	21.5	23.5	---	---	---	20.0	17.5	18.5
6	21.5	17.0	19.0	25.0	22.0	23.0	---	---	---	21.0	18.0	19.5
7	22.5	19.0	21.0	23.5	20.5	22.0	---	---	---	21.0	19.5	20.0
8	23.0	20.0	21.5	---	---	---	---	---	---	21.0	18.0	19.5
9	23.0	18.5	21.0	---	---	---	---	---	---	20.0	17.5	19.0
10	23.5	19.5	21.5	22.0	20.0	21.0	---	---	---	18.5	15.0	17.0
11	23.5	20.0	22.0	20.5	16.5	18.5	---	---	---	18.0	13.5	15.5
12	24.0	20.5	22.0	20.5	16.5	18.5	---	---	---	18.5	13.5	16.0
13	22.5	18.5	21.0	20.5	16.5	18.5	---	---	---	17.5	16.0	16.5
14	21.5	19.5	20.0	21.0	17.0	19.0	---	---	---	18.0	15.5	16.5
15	19.5	17.5	18.5	22.5	18.0	20.0	---	---	---	17.0	12.5	14.5
16	18.0	14.5	16.5	22.5	19.0	20.5	---	---	---	16.0	13.5	15.0
17	17.5	15.5	16.5	23.5	20.0	21.5	---	---	---	16.0	13.0	14.5
18	17.5	13.5	15.5	24.0	20.5	22.0	20.0	18.5	19.0	15.5	11.0	13.5
19	17.0	14.0	15.5	23.0	21.0	22.0	19.5	18.0	18.5	15.5	11.0	13.5
20	18.5	14.5	16.5	23.0	21.0	22.0	20.0	18.0	19.0	15.0	13.0	14.0
21	19.5	15.0	17.0	22.0	19.5	21.0	19.0	16.0	17.5	14.5	13.0	13.5
22	20.0	15.5	17.5	23.5	20.5	22.0	19.5	15.5	17.5	13.5	9.5	11.5
23	20.5	16.5	18.5	24.5	20.5	22.5	18.5	15.5	17.0	14.0	9.0	11.5
24	21.5	18.0	19.5	24.5	21.5	23.0	19.0	17.0	18.0	13.5	10.5	12.0
25	21.0	19.0	20.0	24.0	20.5	22.5	19.0	18.5	18.5	15.0	11.5	13.0
26	23.0	19.0	21.0	23.5	19.5	21.5	19.5	18.5	19.0	16.0	11.5	13.5
27	22.5	20.5	21.5	24.0	20.5	22.0	20.0	18.0	19.0	16.5	13.0	15.0
28	23.0	20.5	22.0	23.0	20.0	21.5	20.5	17.5	19.0	18.5	14.5	16.0
29	22.5	20.0	21.5	24.0	20.5	21.5	20.5	18.5	19.5	18.0	16.0	17.0
30	20.5	17.0	19.0	24.5	21.0	22.5	19.0	16.0	17.5	16.5	14.0	15.0
31	---	---	---	25.5	21.5	23.0	18.5	14.5	16.5	---	---	---
MONTH	24.0	13.5	19.0	25.5	16.5	21.5	24.5	14.5	19.0	21.0	9.0	15.5
YEAR	25.5	.0	11.0									

SURFACE-WATER RECORDS
Muskingum River Basin

69

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
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
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
	FEBRUARY			MARCH			APRIL			MAY		
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

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03124500 SUGAR CREEK AT STRASBURG, OHIO

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

DRAINAGE AREA.--311 mi².

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

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

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

REMARKS.--Records good except for periods of estimated record, which are fair. Flood flow regulated by Beach City Lake 5.0 mi upstream, since August 1937. Part of municipal water supply for city of Canton, starting May 1962, is pumped from well field 4.3 mi upstream; pumpage is returned to Nimishillen Creek. Mean pumpage for water year 1999, 15.9 ft³/s. 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	28	56	73	e90	495	e980	e150	194	87	e35	50	20
2	26	51	78	e80	409	e620	e160	180	91	267	82	18
3	31	47	73	e140	565	e620	e150	169	90	328	50	17
4	61	45	67	457	479	e1500	e250	161	108	145	31	16
5	74	43	65	224	388	e1300	e380	153	89	77	24	15
6	49	44	65	199	329	e960	e280	148	73	55	24	17
7	44	44	64	151	316	e1500	e160	141	65	47	22	21
8	344	42	70	130	766	e1200	e130	131	65	41	23	19
9	536	41	67	e110	946	e900	e220	127	71	40	27	17
10	197	46	60	e100	587	e680	e1800	125	61	38	29	16
11	110	102	56	e88	427	e580	e2000	114	52	39	25	15
12	83	143	54	e80	410	e520	e900	107	48	39	23	14
13	71	89	53	e200	573	e460	e450	106	44	30	22	13
14	62	69	52	877	470	e430	e330	132	46	28	25	12
15	55	61	51	835	400	e390	e610	133	69	26	39	13
16	51	57	49	593	393	e430	e640	108	67	24	32	13
17	50	55	51	369	394	e620	e450	93	48	23	24	12
18	51	53	57	667	e400	e760	e560	91	41	21	19	12
19	68	52	56	1400	e380	e680	e450	114	e39	24	17	13
20	98	53	51	1550	e340	e560	e420	114	e37	21	17	12
21	71	63	60	1590	e290	e400	616	89	e36	22	17	13
22	64	67	543	1060	e260	e330	554	83	e33	28	16	16
23	75	58	823	662	e230	e300	622	94	e32	32	15	18
24	68	53	696	1480	e210	e270	634	302	e31	24	17	16
25	60	53	309	1690	e200	e240	483	634	e31	20	79	15
26	56	74	236	1690	e220	e220	377	313	e33	21	147	14
27	53	160	195	1690	e210	e200	325	186	e34	21	72	15
28	50	113	e160	1660	e560	e190	281	141	e32	23	45	14
29	49	87	e140	1670	---	e180	244	115	e37	143	34	17
30	50	78	e120	1670	---	e170	215	100	e37	134	29	45
31	53	---	e105	1560	---	e160	---	88	---	59	23	---
TOTAL	2738	1999	4599	24762	11647	18350	14841	4786	1627	1875	1099	488
MEAN	88.3	66.6	148	799	416	592	495	154	54.2	60.5	35.5	16.3
MAX	536	160	823	1690	946	1500	2000	634	108	328	147	45
MIN	26	41	49	80	200	160	130	83	31	20	15	12

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 1999, BY WATER YEAR (WY)

	MEAN	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942
MEAN	92.4	184	317	412	490	645	495	314	234	192	154	98.6
MAX	583	929	1001	2025	1174	1297	953	1089	1008	2128	1219	1048
(WY)	1991	1986	1978	1937	1981	1963	1980	1996	1981	1969	1935	1979
MIN	.000	4.08	7.70	36.9	32.2	151	90.2	72.6	25.3	11.8	11.2	3.34
(WY)	1964	1964	1964	1977	1964	1987	1935	1986	1988	1965	1962	1966

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR	FOR 1999 WATER YEAR	WATER YEARS 1932 - 1999
ANNUAL TOTAL	96699	88811	
ANNUAL MEAN	265	243	302
HIGHEST ANNUAL MEAN			520
LOWEST ANNUAL MEAN			160
HIGHEST DAILY MEAN	1870	2000	10200
LOWEST DAILY MEAN	26	12	.00
ANNUAL SEVEN-DAY MINIMUM	31	12	.00
INSTANTANEOUS PEAK FLOW		2070	19700
INSTANTANEOUS PEAK STAGE		5.78	14.70
INSTANTANEOUS LOW FLOW		12	.00
10 PERCENT EXCEEDS	671	627	797
50 PERCENT EXCEEDS	114	82	130
90 PERCENT EXCEEDS	44	21	26

e Estimated.

SURFACE-WATER RECORDS **Muskingum River Basin**

03129000 TUSCARAWAS RIVER AT NEWCOMERSTOWN, OHIO

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

DRAINAGE AREA.--2,443 mi².

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

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

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

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

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

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	476	638	1630	e1000	7130	4180	1550	2550	1270	549	807	502
2	453	632	1520	e900	7420	4350	1530	2250	1190	1170	815	446
3	448	657	1500	e1000	8020	4230	1520	2080	1160	1950	714	413
4	565	662	1420	e1500	7950	6840	1530	1940	1130	1250	606	388
5	731	760	1370	e2000	7520	7860	1580	1830	1040	864	521	372
6	647	781	1340	e1900	7590	7780	1620	1740	958	706	501	371
7	657	772	1350	e1850	7500	7950	1530	1650	898	633	465	561
8	3240	768	1340	e1800	8120	7720	1440	1570	848	817	449	936
9	4720	754	1300	e1700	8430	6280	2410	1530	807	804	529	561
10	3200	857	1180	e1650	8240	5510	6840	1500	775	688	545	475
11	1990	1210	1140	e1600	7190	5090	8330	1430	733	626	499	432
12	1480	1500	1090	e1600	6640	4700	7320	1320	705	635	455	392
13	1240	1450	1030	e3000	6690	4350	6060	1240	676	553	431	359
14	1090	1250	1000	e5000	5850	4110	4760	1280	664	508	491	349
15	1010	1140	989	6000	4990	3900	3880	1380	747	478	469	342
16	979	1070	939	5710	4630	3550	3540	1310	822	454	784	341
17	924	1080	863	5390	4720	3610	3900	1180	730	443	714	332
18	867	1290	739	8050	4730	4480	4720	1110	646	428	561	324
19	893	1260	703	11200	4500	4650	4630	1280	601	416	469	321
20	1030	1240	695	10100	3770	3760	4610	1490	578	405	421	326
21	963	1330	707	10500	3110	3150	5510	1280	559	442	399	328
22	877	1420	5640	12000	2820	2860	5360	1150	540	451	389	336
23	847	1400	7170	12900	2440	2640	6180	1190	529	445	376	350
24	807	1290	6070	12100	2320	2390	6500	2970	521	426	394	347
25	764	1290	3980	11700	2180	2210	6180	5250	511	406	838	327
26	734	1550	2590	10900	2040	2070	5130	4500	503	463	939	325
27	703	1900	2120	10000	2020	1970	4660	3280	495	469	1050	318
28	685	1940	e1800	9570	2570	1860	4180	2620	525	468	1340	318
29	663	1740	e1600	9380	---	1770	3540	2000	549	548	914	328
30	645	1640	e1400	9210	---	1690	2950	1590	528	1610	658	456
31	646	---	e1200	8830	---	1600	---	1390	---	1170	557	---
TOTAL	34974	35271	57415	190040	151130	129110	123490	58880	22238	21275	19100	11976
MEAN	1128	1176	1852	6130	5398	4165	4116	1899	741	686	616	399
MAX	4720	1940	7170	12900	8430	7950	8330	5250	1270	1950	1340	936
MIN	448	632	695	900	2020	1600	1440	1110	495	405	376	318

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

	MEAN	952	1699	2597	3406	3922	4943	4323	3104	2134	1512	1146	952
MAX	4257	7201	8471	16130	9762	11090	7909	9194	8339	7663	8648	4882	
(WY)	1991	1986	1928	1937	1959	1945	1948	1996	1981	1969	1935	1926	
MIN	227	253	255	354	422	969	1155	541	430	291	233	245	
(WY)	1931	1931	1931	1931	1934	1931	1925	1934	1988	1930	1930	1930	

SUMMARY STATISTICS FOR 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1922 - 1999

ANNUAL TOTAL	983028	854899										
ANNUAL MEAN	2693	2342										
HIGHEST ANNUAL MEAN										2550		
LOWEST ANNUAL MEAN										4227		1980
HIGHEST DAILY MEAN	13800	Jul 1	12900	Jan 23	45000	Jan 26	1937					
LOWEST DAILY MEAN	448	Oct 3	318	Sep 27	170	Aug 6	1930					
ANNUAL SEVEN-DAY MINIMUM	489	Sep 27	330	Sep 16	197	Dec 18	1930					
INSTANTANEOUS PEAK FLOW			13800	Jan 19	46800	Jan 26	1937					
INSTANTANEOUS PEAK STAGE			9.63	Jan 19	20.65	Jan 26	1937					
INSTANTANEOUS LOW FLOW			308	Sep 20	216	Aug 15	1944					
10 PERCENT EXCEEDS	7160		6560		6630							
50 PERCENT EXCEEDS	1530		1270		1470							
90 PERCENT EXCEEDS	640		444		420							

e Estimated.

SURFACE-WATER RECORDS

Muskingum River Basin

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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)

	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	
HIGHEST ANNUAL MEAN			221
LOWEST ANNUAL MEAN			325
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

03139000 KILLBUCK CREEK AT KILLBUCK, OHIO

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

DRAINAGE AREA.--464 mi².

PERIOD OF RECORD.--October 1930 to current year.

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

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

REMARKS.--Records good except for periods of estimated record, which are poor. Water-quality and sediment data 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	74	123	144	e140	721	768	308	457	165	82	183	46
2	73	115	138	e150	795	710	310	410	172	414	166	44
3	80	110	130	e190	790	922	298	370	170	179	112	43
4	147	108	132	e260	719	1260	293	343	164	118	88	40
5	121	112	127	e250	651	1180	286	319	153	95	78	38
6	102	120	124	e230	601	1300	274	301	138	83	72	37
7	108	110	126	e210	618	1520	262	281	129	89	66	38
8	508	100	121	e200	1130	1410	246	265	123	92	68	53
9	402	99	113	e190	1010	1290	491	254	117	88	92	44
10	293	110	108	e180	909	1130	1040	234	112	85	72	44
11	222	201	104	e170	801	941	1020	219	109	88	69	40
12	182	194	100	e160	774	805	1080	209	107	83	63	43
13	163	169	100	e500	762	739	1020	212	99	70	59	41
14	147	147	116	1040	675	688	851	252	106	63	68	41
15	135	133	117	721	624	639	714	231	137	60	94	42
16	123	123	113	607	592	639	713	207	111	58	88	42
17	114	121	116	579	571	760	888	193	99	57	67	42
18	114	115	122	1350	538	803	984	182	96	55	56	43
19	174	111	122	2080	499	802	962	184	94	51	50	41
20	164	122	115	1750	458	768	1030	172	89	58	47	41
21	136	135	113	1630	418	703	1030	170	88	110	47	47
22	146	118	962	1900	388	629	980	175	90	103	44	52
23	155	111	700	2300	370	562	986	192	83	66	41	48
24	137	110	523	2350	362	511	1010	598	76	59	51	45
25	125	110	406	2300	360	466	921	512	72	59	148	47
26	118	190	359	2270	355	431	825	371	71	59	112	50
27	114	223	261	2180	361	400	729	302	69	55	95	45
28	112	186	e210	1880	743	372	646	249	76	81	74	44
29	115	160	e190	1470	---	350	575	217	80	243	65	58
30	119	146	e165	1140	---	331	513	191	80	193	55	221
31	125	---	e150	847	---	312	---	174	---	413	49	---
TOTAL	4848	4032	6427	31224	17595	24141	21285	8446	3275	3409	2439	1500
MEAN	156	134	207	1007	628	779	710	272	109	110	78.7	50.0
MAX	508	223	962	2350	1130	1520	1080	598	172	414	183	221
MIN	73	99	100	140	355	312	246	170	69	51	41	37
CFSM	.34	.29	.45	2.17	1.35	1.68	1.53	.59	.24	.24	.17	.11
IN.	.39	.32	.52	2.50	1.41	1.94	1.71	.68	.26	.27	.20	.11

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

MEAN	136	226	381	556	668	867	744	517	399	286	199	143
MAX	1015	1286	1509	2416	1648	1685	1400	1523	2281	3960	2147	1473
(WY)	1991	1986	1991	1937	1975	1978	1957	1996	1947	1969	1935	1979
MIN	26.8	37.1	38.1	42.3	71.6	124	170	71.8	69.9	39.6	34.7	25.6
(WY)	1964	1954	1964	1945	1934	1931	1935	1934	1988	1954	1932	1954

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR	FOR 1999 WATER YEAR	WATER YEARS 1931 - 1999
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ANNUAL TOTAL	143804		128621				
ANNUAL MEAN	394		352		426		
HIGHEST ANNUAL MEAN					695		1969
LOWEST ANNUAL MEAN					128		1931
HIGHEST DAILY MEAN	2160	Apr 17	2350	Jan 24	37200	Jul 6	1969
LOWEST DAILY MEAN	63	Aug 23	37	Sep 6	23	Sep 10	1954
ANNUAL SEVEN-DAY MINIMUM	70	Aug 17	41	Sep 1	23	Sep 8	1954
INSTANTANEOUS PEAK FLOW			2370	Jan 24a	47500	Jul 5	1969
INSTANTANEOUS PEAK STAGE			16.02	Jan 24	26.40	Jul 5	1969
INSTANTANEOUS LOW FLOW			36	Sep 6	23	Sep 10	1954
ANNUAL RUNOFF (CFSM)	.85		.76		.92		
ANNUAL RUNOFF (INCHES)	11.53		10.31		12.46		
10 PERCENT EXCEEDS	1020		930		1090		
50 PERCENT EXCEEDS	203		163		206		
90 PERCENT EXCEEDS	98		54		56		

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

SURFACE-WATER RECORDS

Muskingum River Basin

75

03140000 MILL CREEK NEAR COSHOCTON, OHIO

LOCATION.--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	6.72	14.9	29.1	42.2	49.1	58.1	53.2	32.4	23.2	14.9	7.46	6.29
MAX	56.4	92.1	138	206	106	174	134	79.5	102	161	73.9	96.1	
(WY)	1978	1986	1991	1937	1951	1963	1979	1996	1957	1969	1980	1979	
MIN	.10	.42	.60	1.49	2.69	15.2	7.87	5.59	1.28	.57	.28	.14	
(WY)	1964	1954	1964	1977	1954	1969	1971	1986	1988	1944	1962	1963	

SUMMARY STATISTICS

FOR 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	Dec 22	2360
LOWEST DAILY MEAN	.47	Aug 23	.00
ANNUAL SEVEN-DAY MINIMUM	.59	Sep 15	.06
INSTANTANEOUS PEAK FLOW			8720
INSTANTANEOUS PEAK STAGE			15.38
INSTANTANEOUS LOW FLOW			.00
ANNUAL RUNOFF (CFSM)	.74		1.02
ANNUAL RUNOFF (INCHES)	10.00		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**

03140500 MUSKINGUM RIVER NEAR COSHOCTON, OHIO

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

DRAINAGE AREA.--4,859 mi².

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

REVISED RECORDS.--WSP 1907: Drainage area.

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

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

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

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	894	1180	2150	e1800	12600	8320	3140	5350	2350	1100	1910	896
2	867	1170	2130	e1700	11800	9110	3120	4770	2250	2400	1510	771
3	880	1170	2160	e1800	12500	9440	3080	4360	2200	3540	1360	686
4	993	1190	2080	e2900	12200	14100	3060	4000	2120	2420	1140	625
5	1380	1220	2000	e3200	11400	15700	3090	3670	1990	1760	991	582
6	1220	1280	1990	e3000	11000	15400	3100	3500	1860	1440	898	553
7	1250	1280	1970	e2900	10700	16900	2980	3310	1750	1280	886	540
8	3860	1270	2140	e2800	12800	16700	2810	3140	1660	1280	848	621
9	6110	1250	2190	e2700	14200	14300	4160	3020	1580	1370	848	746
10	4710	1330	2000	e2600	13500	12400	12600	2930	1520	1260	1030	738
11	3160	1700	1870	e2500	11400	10700	14600	2800	1440	1150	922	702
12	2420	2200	1780	e2500	10600	9240	e13000	2630	1390	1120	852	664
13	2040	2190	1690	e7000	10700	8670	e11000	2500	1330	1060	815	628
14	1820	1940	1650	8630	9800	7880	e9200	2540	1310	976	954	592
15	1660	1770	1650	8550	8460	7410	e7600	2710	1340	926	930	563
16	1590	1670	1620	7780	7740	7010	e7000	2580	1530	887	1100	536
17	1520	1600	1710	7270	7850	7350	e7600	2380	1390	855	1250	515
18	1450	1730	1560	12400	7560	8910	e9200	2220	1270	834	1000	497
19	1490	1760	1400	19900	7140	9030	e9000	2280	1200	814	866	483
20	1740	1720	1380	20300	6400	7740	e8600	2440	1150	800	789	480
21	1660	1780	1570	18800	5460	6730	e11000	2320	1110	899	754	493
22	1510	1910	10600	23900	4930	6100	e10000	2160	1080	1120	727	490
23	1480	1880	11700	26400	4460	5510	e12000	2220	1070	1090	711	487
24	1440	1780	9000	24400	4180	5040	13200	3690	1050	925	730	491
25	1350	1750	6200	23700	4060	4600	12300	7550	1030	861	1220	493
26	1300	1980	4190	23500	3870	4210	10500	6940	1010	830	1560	485
27	1250	2430	3550	21900	3810	3900	9110	5400	1000	884	1510	481
28	1220	2600	3180	20700	5090	3720	8160	4400	1010	888	1450	475
29	1190	2370	e2800	19600	---	3540	7080	3680	1070	989	1480	504
30	1170	2220	e2400	16900	---	3370	6080	2900	1070	1740	1320	596
31	1160	---	e2100	14700	---	3220	---	2550	---	2240	1080	---
TOTAL	55784	51320	94410	356730	246210	266250	237370	106940	43130	39738	33441	17413
MEAN	1799	1711	3045	11510	8793	8589	7912	3450	1438	1282	1079	580
MAX	6110	2600	11700	26400	14200	16900	14600	7550	2350	3540	1910	896
MIN	867	1170	1380	1700	3810	3220	2810	2160	1000	800	711	475

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1936 - 1999, BY WATER YEAR (WY)

	MEAN	1719	3018	4764	6474	7912	9826	8824	6227	4617	3219	2135	1694
MAX	7981	12310	14860	30880	20990	21070	16400	19350	17480	16640	12430	9765	
(WY)	1991	1986	1991	1937	1959	1945	1957	1996	1947	1969	1980	1979	
MIN	636	566	558	923	929	2520	2189	1611	921	637	645	499	
(WY)	1992	1954	1964	1977	1964	1969	1946	1941	1988	1954	1954	1954	

SUMMARY STATISTICS FOR 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1936 - 1999

ANNUAL TOTAL	1876905	1548736	
ANNUAL MEAN	5142	4243	5021
HIGHEST ANNUAL MEAN			7545
LOWEST ANNUAL MEAN			2082
HIGHEST DAILY MEAN	22100	26400	77900
LOWEST DAILY MEAN	867	475	420
ANNUAL SEVEN-DAY MINIMUM	928	486	452
INSTANTANEOUS PEAK FLOW		27100	78700
INSTANTANEOUS PEAK STAGE		16.40	21.98
INSTANTANEOUS LOW FLOW		475	420
10 PERCENT EXCEEDS	12200	11400	12900
50 PERCENT EXCEEDS	2880	2080	2940
90 PERCENT EXCEEDS	1220	815	860

e Estimated.

SURFACE-WATER RECORDS Muskingum River Basin

77

03142000 WILLS CREEK AT CAMBRIDGE, OHIO

LOCATION.--Latitude 40°00'52", longitude 81°35'14", Guernsey County, Hydrologic Unit 05040005, on left bank at upstream side of bridge on Campbell Avenue in Cambridge, 0.9 mi downstream from Leatherwood Creek.

DRAINAGE AREA.--406 mi².

PERIOD OF RECORD.--June 1926 to September 1928, May 1937 to current year.

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

GAGE.--Water-stage recorder. Datum of gage is 772.34 ft above sea level. Prior to Oct. 6, 1927, nonrecording gage at site 1.5 mi downstream at different datum. Oct. 6, 1927, to Sept. 30, 1928, and May 22, 1937, to Oct. 18, 1938, nonrecording gage at present site and datum.

REMARKS.--Records fair except for periods of estimated record, which are poor. Flow regulated by Senecaville Lake on Seneca Fork, 22 mi upstream, beginning in 1937. Water is diverted 2.7 mi upstream from station for municipal supply of City of Cambridge; diversion not included in figures of daily discharge. 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	41	42	294	66	1050	686	173	206	66	42	52	28
2	37	43	280	59	1210	583	196	178	63	161	44	19
3	32	43	275	180	1380	634	183	163	64	278	38	19
4	36	43	272	582	1300	1640	193	144	61	81	33	18
5	37	49	272	e490	1190	1400	209	309	53	47	31	18
6	40	48	270	e290	1120	1260	189	360	47	37	27	21
7	57	46	275	e210	1220	1790	254	184	44	39	19	54
8	646	45	279	e180	1860	1150	180	111	53	35	19	50
9	609	45	283	e160	1820	1000	412	112	59	34	19	32
10	178	53	282	e150	1270	1100	1140	102	55	49	19	33
11	101	77	274	e145	1210	1030	807	88	51	92	19	26
12	76	89	176	e140	1190	992	899	80	45	58	21	23
13	67	80	130	e1000	1180	824	662	74	41	39	41	23
14	59	57	128	2080	897	626	566	74	39	33	67	25
15	55	49	126	2110	782	602	504	77	32	30	49	25
16	49	45	124	1830	751	793	527	75	35	36	41	24
17	38	269	105	1730	489	798	563	66	34	38	35	19
18	36	397	57	2260	366	725	650	82	35	38	31	7.9
19	42	400	45	3610	311	509	670	280	28	32	29	7.2
20	48	407	44	4020	270	379	1160	195	23	25	24	8.0
21	55	410	61	3530	237	332	1640	101	24	38	15	13
22	57	411	644	3440	200	302	1770	92	25	112	12	13
23	52	402	1070	3570	173	267	1670	256	31	79	11	17
24	50	394	552	3290	e165	248	2110	367	40	47	47	23
25	50	386	262	2700	e160	238	1610	719	42	38	303	25
26	50	370	146	1810	e155	212	1090	516	37	33	264	24
27	50	382	130	1310	e150	199	1040	239	36	29	135	25
28	51	365	117	1160	e350	190	1000	133	41	33	74	27
29	50	345	117	1130	---	182	924	98	53	199	53	33
30	48	328	120	1090	---	179	420	84	46	95	42	38
31	41	---	92	1060	---	169	---	72	---	55	36	---
TOTAL	2838	6120	7302	45382	22456	21039	23411	5637	1303	1982	1650	718.1
MEAN	91.5	204	236	1464	802	679	780	182	43.4	63.9	53.2	23.9
MAX	646	411	1070	4020	1860	1790	2110	719	66	278	303	54
MIN	32	42	44	59	150	169	173	66	23	25	11	7.2

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

MEAN	111	321	513	630	795	879	764	535	384	217	155	118
MAX	835	1912	1615	1674	1789	2361	1710	1890	1602	1690	1937	1139
(WY)	1976	1986	1991	1950	1939	1945	1940	1996	1981	1998	1980	1974
MIN	3.18	4.31	7.55	48.1	25.0	109	87.7	30.5	20.6	11.6	3.77	3.59
(WY)	1954	1954	1954	1954	1954	1969	1941	1941	1988	1966	1962	1963
(+)	4.86	4.63	4.62	5.43	4.62	4.78	4.67	4.94	5.33	5.35	5.16	4.91

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

ANNUAL TOTAL	237854	139838.1	
ANNUAL MEAN	652	383	447
HIGHEST ANNUAL MEAN			762
LOWEST ANNUAL MEAN			118
HIGHEST DAILY MEAN	10800	Jun 29	10800
LOWEST DAILY MEAN	28	Sep 6	7.2
ANNUAL SEVEN-DAY MINIMUM	32	Sep 13	12
INSTANTANEOUS PEAK FLOW			4100
INSTANTANEOUS PEAK STAGE			16.03
INSTANTANEOUS LOW FLOW			7.2
10 PERCENT EXCEEDS	1340	1150	1200
50 PERCENT EXCEEDS	279	112	185
90 PERCENT EXCEEDS	43	27	18

e Estimated.

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

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 Fazeysburg, 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)

	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	ANNUAL MEAN	215	41287.5	113	154	270	1979
HIGHEST ANNUAL MEAN							51.9		1954
LOWEST ANNUAL MEAN							2.6		Oct 3 1963
HIGHEST DAILY MEAN	9200	Jun 28	1900	Jan 22	9200	Jun 28	1998		
LOWEST DAILY MEAN	9.0	Sep 16	5.4	Aug 7	2.7	Sep 25	1953		
ANNUAL SEVEN-DAY MINIMUM	9.2	Sep 13	6.3	Sep 15	16800	Sep 14	1979		
INSTANTANEOUS PEAK FLOW			2470	Dec 22a	14.07	Sep 14	1979		
INSTANTANEOUS PEAK STAGE			5.96	Dec 22	2.0	Oct 3	1963		
INSTANTANEOUS LOW FLOW			5.4	Aug 7	1.10				
ANNUAL RUNOFF (CFSM)	1.53		.81		14.97				
ANNUAL RUNOFF (INCHES)	20.83		10.97		346				
10 PERCENT EXCEEDS	360		291		64				
50 PERCENT EXCEEDS	59		26		11				
90 PERCENT EXCEEDS	13		7.7						

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

SURFACE-WATER RECORDS Muskingum River Basin

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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)

	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
LOWEST ANNUAL MEAN			56.9
HIGHEST DAILY MEAN	2040	Apr 17	4560
LOWEST DAILY MEAN	5.0	Sep 6	.00
ANNUAL SEVEN-DAY MINIMUM	5.6	Sep 1	.87
INSTANTANEOUS PEAK FLOW			1950
INSTANTANEOUS PEAK STAGE			9.88
INSTANTANEOUS LOW FLOW			3.6
10 PERCENT EXCEEDS	325	310	424
50 PERCENT EXCEEDS	70	31	48
90 PERCENT EXCEEDS	7.6	5.3	7.9

e Estimated.

SURFACE-WATER RECORDS

Muskingum River Basin

03146500 LICKING RIVER NEAR NEWARK, OHIO

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

DRAINAGE AREA.--537 mi².

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

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

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

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

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	86	78	98	e160	633	1550	402	542	140	87	99	59
2	82	76	182	e140	951	1100	412	494	149	268	92	57
3	102	74	214	302	1010	1840	404	454	138	324	90	56
4	112	74	226	e250	809	2180	404	407	132	188	90	55
5	95	73	747	e230	683	1090	404	376	127	148	87	53
6	101	72	659	e190	629	2550	393	355	124	129	87	57
7	301	71	1820	e170	1080	2260	378	347	123	123	86	57
8	869	70	1410	e160	2890	1100	367	307	117	112	91	54
9	272	69	594	e140	1300	875	1910	283	115	117	91	55
10	158	125	246	e130	919	768	2570	262	111	157	89	53
11	123	229	99	e120	764	670	1270	244	108	117	91	52
12	107	153	e110	e250	772	629	947	230	103	109	87	49
13	98	112	e120	1220	906	635	759	222	99	108	97	49
14	92	98	e130	1660	761	623	675	211	107	98	155	50
15	87	92	e150	951	715	597	647	198	105	100	71	50
16	83	91	e160	717	736	733	765	188	100	101	64	49
17	82	277	e170	713	737	1280	1280	182	95	94	62	49
18	89	276	e180	5240	716	1030	2330	179	91	97	60	49
19	98	271	e200	4770	623	750	1770	176	90	95	58	47
20	86	292	e220	2130	554	645	1840	170	88	99	61	48
21	82	277	e250	2630	497	604	2470	162	87	96	59	54
22	78	264	4840	5270	446	563	2720	241	82	106	58	51
23	75	250	1940	3210	420	519	3210	199	82	94	56	51
24	74	241	840	1810	408	492	2530	218	83	97	129	49
25	73	255	538	1210	421	471	1480	211	84	92	169	50
26	75	234	435	1130	416	445	1170	196	82	92	94	48
27	72	183	371	993	447	427	973	175	81	91	80	48
28	74	130	e310	892	1750	416	816	163	84	100	72	50
29	73	112	e280	783	---	405	699	154	87	116	68	141
30	96	103	e230	702	---	391	612	146	84	102	65	91
31	82	---	e190	638	---	379	---	142	---	97	61	---
TOTAL	3977	4722	17959	38911	22993	28017	36607	7834	3098	3754	2619	1681
MEAN	128	157	579	1255	821	904	1220	253	103	121	84.5	56.0
MAX	869	292	4840	5270	2890	2550	3210	542	149	324	169	141
MIN	72	69	98	120	408	379	367	142	81	87	56	47

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

MEAN	167	428	680	862	1032	1170	1045	708	557	379	260	170
MAX	914	2402	2867	2926	2577	3454	2404	2610	2151	2115	2017	2207
(WY)	1987	1986	1991	1950	1990	1963	1940	1996	1989	1990	1979	1979
MIN	39.5	41.1	43.1	65.0	59.5	207	166	91.5	76.3	58.5	58.3	36.7
(WY)	1954	1954	1954	1977	1964	1941	1941	1941	1988	1954	1963	1954

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

ANNUAL TOTAL	234110		172172			
ANNUAL MEAN	641		472		619	
HIGHEST ANNUAL MEAN					1138	1990
LOWEST ANNUAL MEAN					156	1954
HIGHEST DAILY MEAN	8190	Apr 16	5270	Jan 22	25600	Jan 22 1959
LOWEST DAILY MEAN	69	Nov 9	47	Sep 19	28	Sep 27 1954
ANNUAL SEVEN-DAY MINIMUM	72	Nov 3	49	Sep 14	31	Sep 26 1954
INSTANTANEOUS PEAK FLOW			7720	Jan 18a	45000	Jan 21 1959
INSTANTANEOUS PEAK STAGE			10.27	Jan 18	20.30	Jan 21 1959
INSTANTANEOUS LOW FLOW			41	Sep 27	28	Sep 27 1954
10 PERCENT EXCEEDS	1390		1150		1440	
50 PERCENT EXCEEDS	329		169		258	
90 PERCENT EXCEEDS	89		63		68	

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

SURFACE-WATER RECORDS

Muskingum River Basin

81

03150300 MUSKINGUM RIVER NEAR BEVERLY, OHIO

LOCATION.--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 Creek 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)

	MEAN	2189	4855	7771	13440	13370	15670	13570	13320	9158	5317	3288	1848
MAX	3805	8783	17510	18460	20870	22380	22910	33480	16980	15680	5779	2780	
(WY)	1997	1994	1997	1999	1994	1996	1994	1996	1996	1998	1995	1996	
MIN	1275	2459	3895	8396	7624	10840	6806	5404	1911	1515	1865	891	
(WY)	1995	1999	1996	1994	1995	1995	1997	1999	1999	1999	1993	1999	

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			28.8		
HIGHEST ANNUAL MEAN							164		
LOWEST ANNUAL MEAN							1979		
HIGHEST DAILY MEAN	1250	Jan 8		851	Jan 18		4690	May 24	1968
LOWEST DAILY MEAN	10	Aug 19		e7.6	Sep 5		3.5	Aug 27	1942
ANNUAL SEVEN-DAY MINIMUM	11	Sep 14		7.9	Aug 31		6.3	Aug 25	1942
INSTANTANEOUS PEAK FLOW				1160	Mar 6a		16000	Jul 22	1948
INSTANTANEOUS PEAK STAGE				5.03	Mar 6		17.68	Jul 22	1948
INSTANTANEOUS LOW FLOW				e7.6	Sep 5		3.0	Jul 31	1991
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

83

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	21600
LOWEST DAILY MEAN	45	Sep 19	23
ANNUAL SEVEN-DAY MINIMUM	50	Sep 14	27
INSTANTANEOUS PEAK FLOW			5620
INSTANTANEOUS PEAK STAGE			11.72
INSTANTANEOUS LOW FLOW			32
ANNUAL RUNOFF (CFSM)	1.12	.78	1.03
ANNUAL RUNOFF (INCHES)	15.18	10.58	13.95
10 PERCENT EXCEEDS	1200	911	1060
50 PERCENT EXCEEDS	235	121	212
90 PERCENT EXCEEDS	71	40	58

e Estimated.

SURFACE-WATER RECORDS Hocking River Basin

03158195 SNOW FORK MONDAY CREEK AT BUCHTEL, OHIO

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

	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	1998	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	620
LOWEST DAILY MEAN	2.8	Dec 15	2.3
ANNUAL SEVEN-DAY MINIMUM	3.1	Dec 12	2.8
INSTANTANEOUS PEAK FLOW			517
INSTANTANEOUS PEAK STAGE			7.82
INSTANTANEOUS LOW FLOW			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

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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				1700				4200			
LOWEST DAILY MEAN	4.0				3.4				3.4			
ANNUAL SEVEN-DAY MINIMUM	4.5				3.7				3.7			
INSTANTANEOUS PEAK FLOW					e2100				5300			
INSTANTANEOUS PEAK STAGE					13.75				19.60			
INSTANTANEOUS LOW FLOW					3.3				3.3			
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	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
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

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WATER-QUALITY RECORDS—CONTINUED

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	582	562	573	---	---	---	653	640	646	615	595	604
2	576	529	552	---	---	---	672	628	640	678	615	632
3	534	523	528	---	---	---	641	627	632	653	635	641
4	---	---	---	---	---	---	634	628	631	668	653	657
5	---	---	---	---	---	---	631	624	628	675	666	670
6	---	---	---	---	---	---	634	629	632	680	672	676
7	---	---	---	---	---	---	631	624	626	679	669	673
8	---	---	---	---	---	---	637	629	635	694	679	684
9	393	330	362	---	---	---	639	619	630	710	694	700
10	457	393	426	---	---	---	619	555	570	737	710	723
11	502	457	481	---	---	---	600	439	532	754	737	744
12	509	486	504	---	---	---	520	436	481	758	690	720
13	486	456	465	---	---	---	526	510	517	697	691	693
14	476	455	464	---	---	---	557	525	542	715	697	705
15	498	476	491	---	---	---	572	557	565	738	715	729
16	504	496	501	---	---	---	572	563	568	754	738	744
17	503	499	501	---	---	---	577	564	570	763	754	760
18	511	498	504	---	---	---	574	554	563	766	754	763
19	---	---	---	---	---	---	564	490	532	773	762	770
20	---	---	---	---	---	---	492	460	470	792	773	786
21	---	---	---	---	---	---	481	389	458	801	792	796
22	---	---	---	---	---	---	404	369	387	806	753	793
23	---	---	---	---	---	---	445	403	427	795	539	594
24	---	---	---	599	584	592	470	441	453	627	576	594
25	622	615	619	612	599	605	488	467	476	617	581	592
26	620	604	611	619	588	603	512	488	501	644	617	630
27	---	---	---	609	598	605	536	512	524	675	644	656
28	---	---	---	621	609	616	597	536	555	701	675	685
29	---	---	---	629	621	626	574	560	565	736	694	714
30	---	---	---	642	629	639	595	574	585	749	732	738
31	---	---	---	660	642	648	---	---	---	765	749	755
MONTH	622	330	505	660	584	617	672	369	551	806	539	697
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	777	765	770	910	890	901	762	583	681	797	774	787
2	786	777	783	927	910	921	799	762	784	836	797	811
3	787	781	784	938	908	929	821	799	813	847	836	842
4	795	780	788	908	875	888	834	817	827	856	846	852
5	811	794	805	876	868	873	870	825	849	863	854	859
6	872	810	839	877	836	862	913	861	888	876	862	869
7	883	872	878	852	836	843	954	913	941	894	876	884
8	878	856	866									

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
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
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
	FEBRUARY			MARCH			APRIL			MAY		
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

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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
	JUNE			JULY			AUGUST			SEPTEMBER		
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	3.9	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
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
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

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	9.5	9.0	9.5	---	---	---	12.5	11.5	12.0	16.5	13.5	15.0
2	9.5	7.0	9.0	---	---	---	14.5	12.0	13.0	17.0	14.0	16.0
3	8.5	7.0	8.0	---	---	---	15.5	12.5	14.0	17.5	14.5	16.0
4	---	---	---	---	---	---	15.5	14.0	15.0	18.0	14.5	16.5
5	---	---	---	---	---	---	15.5	13.5	14.5	18.0	16.0	17.0
6	---	---	---	---	---	---	16.5	13.5	15.0	19.5	16.5	18.0
7	---	---	---	---	---	---	16.0	14.0	15.0	19.5	17.5	18.5
8	---	---	---	---	---	---	17.5	13.5	15.5	19.0	17.5	18.0
9	9.0	6.5	7.5	---	---	---	17.5	16.5	17.0	18.5	16.5	17.5
10	9.5	7.5	8.5	---	---	---	16.5	14.0	15.5	18.5	15.5	17.0
11	11.5	8.0	9.5	---	---	---	16.0	14.0	15.0	18.5	16.0	17.5
12	11.5	8.0	10.0	---	---	---	15.0	12.0	13.5	19.5	17.0	18.5
13	8.0	3.0	5.0	---	---	---	13.0	10.0	11.5	19.0	17.5	18.0
14	6.0	3.5	4.5	---	---	---	14.0	10.0	12.0	17.5	16.5	17.0
15	8.0	5.0	6.0	---	---	---	13.5	12.0	12.0	18.0	15.0	16.5
16	9.0	6.0	7.5	---	---	---	12.0	10.0	11.0	18.5	16.0	17.0
17	9.5	8.5	9.0	---	---	---	10.0	9.0	9.5	20.0	17.0	18.5
18	8.5	7.5	8.0	---	---	---	9.5	9.0	9.0	20.0	18.5	19.0
19	---	---	---	---	---	---	10.5	9.0	9.5	19.0	17.0	18.0
20	---	---	---	---	---	---	12.5	10.5	11.0	18.5	16.0	17.0
21	---	---	---	---	---	---	12.5	11.5	12.0	18.5	15.5	17.0
22	---	---	---	---	---	---	14.5	11.5	13.0	18.5	17.0	17.5
23	---	---	---	---	---	---	16.5	14.5	15.0	17.5	17.0	17.5
24	---	---	---	9.0	5.5	7.0	16.0	13.5	14.5	17.5	16.0	17.0
25	3.5	3.0	3.0	8.5	6.5	7.5	14.5	12.0	13.5	16.0	14.5	15.0
26	4.5	3.0	3.5	9.0	6.0	7.5	14.0	12.0	13.0	15.5	14.0	15.0
27	---	---	---	9.0	6.0	8.0	14.5	12.0	13.5	16.0	13.5	15.0
28	---	---	---	10.0	6.5	8.5	14.5	13.5	14.0	17.5	14.5	16.0
29	---	---	---	11.5	8.5	10.0	15.0	12.5	14.0	18.5	16.0	17.5
30	---	---	---	12.0	8.5	10.0	16.0	12.5	14.5	20.0	17.0	18.5
31	---	---	---	12.5	8.5	10.5	---	---	---	20.5	18.5	19.5
MONTH	11.5	3.0	7.0	12.5	5.5	8.5	17.5	9.0	13.0	20.5	13.5	17.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	20.5	19.5	19.5	23.0	20.5	22.0	26.5	25.0	25.5	20.5	17.0	18.5
2	20.0	19.0	19.5	24.5	22.5	23.0	26.0	24.0	25.0	21.0	17.0	19.0
3	20.5	19.0	20.0	26.0	23.0	24.0	24.5	22.0	23.0	21.5	18.0	20.0
4	20.5	18.5	19.5	27.0	24.0	25.0	24.5	20.5	22.5	22.0	18.5	20.0
5	20.5	18.0	19.0	28.0	24.5	26.0	24.5	21.5	23.0	21.5	20.0	20.5
6	22.0	19.5	20.5	28.0	24.5	26.0	24.0	20.0	22.0	23.0	20.5	21.5
7	23.0	21.0	22.0	27.5	24.0	25.5	24.5	20.5	22.5	22.5	21.0	22.0
8	23.5	21.5	22.5	25.5	21.5	23.5	24.0	22.5	23.0	23.0	20.5	21.5
9	24.0	21.5	23.0	25.0	21.0	23.0	23.5	20.5	22.0	22.0	20.0	21.0
10	24.5	22.0	23.5	24.0	22.5	23.5	23.0	19.0	21.0	20.5	17.5	19.0
11	24.5	22.5	23.5	23.0	19.5	21.5	24.5	20.5	22.0	19.5	16.0	18.0
12	25.0	22.5	24.0	22.5	19.0	21.0	24.0	20.0	22.0	20.0	16.5	18.0
13	24.5	22.0	23.5	23.0	19.0	21.0	25.0	21.0	23.0	19.5	18.0	19.0
14	23.5	22.0	23.0	24.0	20.0	22.0	23.5	21.5	22.0	20.0	18.0	19.0
15	22.0	20.0	21.0	24.5	20.5	22.5	22.0	19.5	21.0	19.0	15.5	17.5
16	20.5	18.0	19.0	25.0	21.0	23.0	23.0	18.5	21.0	18.5	16.0	17.0
17	19.0	17.5	18.5	26.0	22.5	24.0	24.0	19.5	22.0	17.0	14.5	16.0
18	19.0	16.0	17.5	26.0	22.5	24.5	23.5	20.5	22.0	17.0	13.5	15.5
19	18.5	16.0	17.5	26.5	23.0	24.5	23.0	20.5	22.0	17.0	13.5	15.0
20	20.0	16.5	18.0	26.0	24.0	25.0	23.5	20.5	22.0	16.0	15.5	15.5
21	21.0	18.0	19.5	26.0	24.0	25.0	23.0	19.0	21.0	16.5	15.0	15.5
22	21.5	18.0	20.0	26.5	24.0	25.0	23.0	19.0	21.0	15.5	12.5	14.0
23	22.5	19.0	20.5	28.0	24.0	26.0	23.0	19.0	21.0	15.5	11.5	13.5
24	22.5	20.5	21.5	28.0	25.0	26.5	21.5	20.0	20.5	15.5	12.0	14.0
25	23.5	20.5	21.5	27.5	24.5	26.0	20.0	19.5	19.5	17.0	13.5	15.0
26	24.5	21.5	23.0	27.0	23.0	25.0	21.0	19.5	20.0	17.5	13.5	15.5
27	24.5	23.0	23.5	27.0	24.0	25.0	26.0	20.5	21.0	17.5	15.0	16.5
28	25.0	23.0	24.0	26.0	23.5	25.0	22.5	20.5	21.5	19.0	16.0	17.5
29	25.0	23.0	24.0	27.0	23.5	25.0	23.0	21.0	22.0	19.5	17.5	18.0
30	23.0	20.5	22.0	26.0	24.0	25.0	21.5	19.5	20.5	17.5	16.0	17.0
31	---	---	---	28.0	25.5	26.5	20.0	17.5	19.0	---	---	---
MONTH	25.0	16.0	21.0	28.0	19.0	24.0	26.5	17.5	22.0	23.0	11.5	17.5
YEAR	28.0	.0	14.0									

SURFACE-WATER RECORDS

Hocking River Basin

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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
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
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
FEBRUARY			MARCH			APRIL			MAY			
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

Hocking River Basin

93

03159500 HOCKING RIVER AT ATHENS, OHIO

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

DRAINAGE AREA.--943 mi².

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

REVISED RECORDS.--WSP 523: 1918-19(M). WSP 743: 1922(M). WSP 873: 1920, 1922, 1924-28, 1937. WSP 1113: 1932. WDR-OH-90-1: 1979(M), 1983(M), 1985(M), 1986(M).

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

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

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

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	104	152	187	e250	842	2000	555	656	215	121	164	91
2	94	152	175	e240	1290	2240	600	584	213	113	118	86
3	96	149	164	e230	1490	2460	577	534	212	119	e92	83
4	97	144	155	e230	1400	5050	558	494	209	139	79	79
5	106	140	151	e220	1190	3780	567	459	194	123	73	77
6	105	e135	146	e210	1000	3610	544	432	183	109	68	74
7	115	e130	150	e205	1740	5640	e544	413	179	102	e63	71
8	678	e125	159	e200	5590	3340	e521	386	171	96	62	72
9	1420	e124	165	e800	4030	2500	533	359	181	93	64	75
10	645	e140	159	e1600	2490	2210	807	340	189	102	61	67
11	388	e160	151	e960	1660	1680	886	319	164	108	58	63
12	283	e210	142	e700	1500	1480	1300	303	156	108	56	60
13	227	e250	141	e2000	2200	1510	1020	290	148	97	e55	58
14	291	e210	137	e4000	1760	1460	855	284	153	92	56	56
15	240	e170	135	e2100	1460	1450	691	277	144	89	56	55
16	186	150	133	1880	1390	1800	682	268	151	86	56	54
17	160	144	134	1790	1440	2650	731	254	141	85	53	51
18	147	139	139	5620	1450	3070	854	257	136	83	52	50
19	141	137	147	8270	1300	2220	1190	250	131	82	50	49
20	158	149	149	5990	1090	1560	1530	234	127	85	48	50
21	172	152	154	3830	924	1290	1640	223	124	105	48	51
22	157	170	608	6050	814	1140	3610	233	120	97	48	52
23	145	164	1980	7850	735	999	2630	580	117	106	47	52
24	138	148	e995	6480	701	903	2070	642	114	100	67	50
25	136	145	e520	3630	702	840	1600	606	113	91	719	48
26	e133	177	e420	2400	750	766	1300	452	111	83	757	48
27	e130	247	e350	1800	790	708	1100	350	110	79	363	48
28	131	280	e310	1360	1210	666	953	296	112	83	194	48
29	129	233	e300	1130	---	629	861	265	111	117	136	53
30	130	204	e280	961	---	595	756	240	117	252	115	54
31	134	---	e260	847	---	553	---	223	---	126	100	---
TOTAL	7216	5030	9196	73833	42938	60799	32065	11503	4546	3271	3978	1825
MEAN	233	168	297	2382	1534	1961	1069	371	152	106	128	60.8
MAX	1420	280	1980	8270	5590	5640	3610	656	215	252	757	91
MIN	94	124	133	200	701	553	521	223	110	79	47	48

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

	MEAN	244	538	998	1463	1737	2130	1820	1365	768	501	418	294
MAX	1539	3194	3830	7796	3928	5975	4268	5672	3143	2957	3054	2031	
(WY)	1976	1920	1924	1937	1951	1963	1940	1968	1928	1958	1980	1979	
MIN	36.1	46.4	64.5	75.5	91.6	262	385	174	77.8	52.2	39.6	44.8	
(WY)	1931	1954	1931	1931	1954	1931	1925	1934	1930	1930	1930	1930	

SUMMARY STATISTICS FOR 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1916 - 1999

ANNUAL TOTAL	437654	256200		
ANNUAL MEAN	1199	702	1020	
HIGHEST ANNUAL MEAN			1794	1989
LOWEST ANNUAL MEAN			233	1954
HIGHEST DAILY MEAN	20000	Jan 9	8270	Jan 19
LOWEST DAILY MEAN	61	Sep 7	47	Aug 23
ANNUAL SEVEN-DAY MINIMUM	63	Sep 14	49	Aug 17
INSTANTANEOUS PEAK FLOW			8510	Jan 19
INSTANTANEOUS PEAK STAGE			15.55	Jan 19
INSTANTANEOUS LOW FLOW			36	Aug 20
10 PERCENT EXCEEDS	3000		1790	
50 PERCENT EXCEEDS	517		204	
90 PERCENT EXCEEDS	106		64	

e Estimated.

SURFACE-WATER RECORDS Shade River Basin

03159540 SHADE RIVER NEAR CHESTER, OHIO

LOCATION.--Latitude 39°03'49", longitude 81°52'55", in NE 1/4 sec. 10, T.3N., R.12 W., Meigs County, Hydrologic Unit 05030202, on right bank at downstream side of bridge on Oak Hill Road, 200 ft upstream from Sugar Run, 2.8 mi southeast of Chester, 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	1994
LOWEST ANNUAL MEAN			45.4	1988
HIGHEST DAILY MEAN	3030	Jun 29	796	Aug 26
LOWEST DAILY MEAN	.99	Oct 3	.99	Oct 3
ANNUAL SEVEN-DAY MINIMUM	1.2	Oct 1	1.2	Oct 1
INSTANTANEOUS PEAK FLOW			954	Aug 26a
INSTANTANEOUS PEAK STAGE			11.01	Aug 26
INSTANTANEOUS LOW FLOW			.99	Oct 3
ANNUAL RUNOFF (CFSM)	1.15		.60	
ANNUAL RUNOFF (INCHES)	15.58		8.11	
10 PERCENT EXCEEDS	444		326	
50 PERCENT EXCEEDS	49		21	
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

95

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	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
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

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WATER-QUALITY RECORDS—CONTINUED

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	416	393	405	---	---	---	490	467	474	502	451	485
2	468	398	441	---	---	---	500	490	496	485	461	476
3	467	401	437	---	---	---	560	499	524	461	431	446
4	402	364	384	---	---	---	560	501	529	441	428	435
5	382	364	375	345	333	340	502	474	488	447	426	438
6	381	368	372	366	331	342	492	474	486	451	442	446
7	416	382	398	368	346	360	494	490	491	465	451	457
8	491	349	401	348	343	345	480	455	468	477	459	468
9	349	333	339	350	326	335	458	432	447	490	473	478
10	347	309	326	361	336	352	696	468	542	511	489	498
11	327	319	321	373	358	366	487	454	467	513	506	511
12	360	323	334	377	356	365	462	422	439	510	501	504
13	393	360	383	386	361	373	452	420	432	536	510	520
14	---	---	---	368	351	361	456	441	448	546	534	538
15	---	---	---	358	346	351	456	435	446	559	546	556
16	---	---	---	381	347	362	513	435	466	568	559	564
17	---	---	---	393	344	364	530	479	512	575	568	571
18	---	---	---	350	335	345	479	452	458	578	572	575
19	---	---	---	344	336	338	476	452	464	661	442	574
20	---	---	---	341	325	332	464	453	459	703	601	628
21	---	---	---	343	327	330	460	399	440	732	662	696
22	---	---	---	341	324	335	475	390	426	662	630	643
23	438	426	432	---	---	---	417	377	398	641	589	617
24	478	436	456	---	---	---	377	360	368	651	569	608
25	525	478	503	---	---	---	363	349	357	656	604	620
26	537	521	529	430	403	418	370	356	363	680	600	644
27	525	429	493	435	425	430	474	368	385	600	585	591
28	---	---	---	433	423	428	474	366	393	585	563	572
29	---	---	---	437	429	432	459	399	425	594	554	565
30	---	---	---	443	436	439	451	411	427	613	594	606
31	---	---	---	467	443	453	---	---	---	622	613	619
MONTH	537	309	407	467	324	371	696	349	451	732	426	547
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	624	604	619	644	576	602	614	595	605	919	908	914
2	604	583	591	644	612	634	---	---	---	922	916	918
3	632	582	609	612	575	586	---	---	---	921	909	915
4	632	626	629	579	556	566	---	---	---	915	905	908
5	644	623	632	625	579	606	---	---	---	919	915	917
6	643	635	640	631	619	624	---	---	---	921	910	917
7	64											

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
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
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
	FEBRUARY			MARCH			APRIL			MAY		
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

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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	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
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	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
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—CONTINUED

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

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
February				March			April			May		
1	5.0	4.0	4.5	---	---	---	13.0	11.0	11.5	18.0	14.5	16.0
2	6.0	5.0	5.5	---	---	---	14.5	12.0	13.0	18.5	14.5	16.5
3	6.0	5.5	6.0	---	---	---	16.0	13.0	14.5	18.5	15.0	16.5
4	6.0	5.0	5.5	---	---	---	16.5	14.0	15.0	19.0	15.0	17.0
5	5.0	4.0	4.5	6.0	5.0	5.5	17.0	14.0	15.0	19.0	16.5	17.5
6	6.0	4.5	5.0	6.5	6.0	6.5	17.5	14.5	16.0	20.5	17.5	19.0
7	6.5	5.5	6.0	6.5	5.5	6.0	17.0	14.5	15.0	21.0	18.0	19.5
8	7.0	6.5	6.5	5.5	5.0	5.5	18.0	14.0	16.0	20.5	18.5	19.0
9	7.0	6.5	6.5	5.5	4.0	4.5	18.0	16.5	17.5	19.5	18.0	18.5
10	7.0	6.0	6.5	4.0	4.0	4.0	17.5	15.5	16.0	19.5	17.0	18.5
11	8.0	6.0	6.5	4.0	3.5	4.0	17.0	15.0	16.0	20.0	17.0	18.5
12	8.5	7.0	8.0	4.5	3.5	4.0	16.0	13.5	14.5	21.0	18.0	19.0
13	7.0	5.5	6.0	4.5	4.0	4.0	14.5	11.5	13.0	21.0	18.5	19.5
14	---	---	---	4.5	3.0	4.0	15.0	11.5	13.0	19.0	18.0	18.5
15	---	---	---	4.0	3.0	3.5	14.0	12.5	13.5	19.0	16.5	18.0
16	---	---	---	5.0	4.0	4.5	13.5	11.5	12.5	19.5	17.0	18.5
17	---	---	---	7.0	5.0	5.5	11.5	10.5	11.0	20.0	18.5	19.5
18	---	---	---	8.0	7.0	7.5	11.0	10.0	10.5	20.5	19.5	20.0
19	---	---	---	8.0	8.0	8.0	12.0	9.5	10.5	20.0	18.0	19.0
20	---	---	---	8.0	7.0	7.5	13.5	10.5	12.0	19.5	17.0	18.0
21	---	---	---	9.5	8.0	8.5	15.0	12.0	13.0	19.5	16.5	18.0
22	---	---	---	8.5	8.0	8.0	16.0	14.5	15.5	19.5	18.0	18.5
23	2.5	1.5	2.0	---	---	---	18.0	16.0	17.0	20.0	18.0	18.5
24	3.0	1.5	2.0	---	---	---	17.5	15.5	16.5	20.0	17.5	18.5
25	4.0	2.5	3.0	---	---	---	16.5	14.0	15.5	17.5	15.5	16.5
26	5.0	3.0	4.0	9.0	7.5	8.5	15.5	14.0	14.5	17.0	15.0	16.0
27	5.0	3.5	4.0	10.0	7.0	8.0	15.5	13.5	14.5	17.5	14.5	16.0
28	---	---	---	11.0	7.0	8.5	15.0	14.0	14.5	18.0	15.5	16.5
29	---	---	---	12.0	8.5	10.0	18.0	13.5	15.0	18.5	16.5	18.0
30	---	---	---	12.5	8.5	10.5	17.0	14.5	16.0	19.5	18.0	18.5
31	---	---	---	12.0	9.0	10.5	---	---	---	20.0	19.5	20.0
MONTH	8.5	1.5	5.1	12.5	3.0	6.5	18.0	9.5	14.3	21.0	14.5	18.1
Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
June				July			August			September		
1	21.0	20.0	20.5	24.0	21.5	22.5	27.5	27.0	27.0	21.5	17.5	19.0
2	20.5	20.0	20.0	25.5	23.0	23.5	---	---	---	22.0	18.0	19.5
3	21.0	20.0	20.5	26.0	23.5	24.5	---	---	---	22.0	18.5	20.0
4	21.0	19.5	20.0	27.5	24.0	25.5	---	---	---	22.5	19.0	20

SURFACE-WATER RECORDS

Raccoon Creek Basin

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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
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
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
	FEBRUARY			MARCH			APRIL			MAY		
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

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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 UNITS) (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

Raccoon Creek Basin

03202000 RACCOON CREEK AT ADAMSVILLE, OHIO

LOCATION.--Latitude 38°52'24", longitude 82°21'22", Gallia County, Hydrologic Unit 05090101, on left bank downstream side of State Highway 588 at Adamsville.

DRAINAGE AREA.--585 mi².

PERIOD OF RECORD.--June 1915 to December 1935, October 1938 to September 1985, October 1991 to current year.

REVISED RECORDS--WSP 873: 1916-18, 1920, 1922, 1924, 1926-27, 1931, 1933, 1935(M). WSP 1908: Drainage area. WSP 2108: 1968-70(M). OH-77-1: 1992-95 (datum).

GAGE.--Water-stage recorder. Datum of gage is 570.04 ft above sea level. July 8, 1984 to October 21, 1997, water-stage recorder 1.7 mi downstream at datum 2.30 ft lower.

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	19	31	56	e100	449	1890	272	357	52	27	23	43
2	16	30	48	e94	819	1970	270	299	53	27	40	36
3	16	30	44	e90	1050	2060	278	266	57	28	51	30
4	16	30	41	e80	1020	2550	287	214	55	28	39	25
5	23	30	38	e72	839	2620	272	183	50	27	42	23
6	19	24	35	e70	661	2910	256	164	48	26	37	21
7	15	26	38	e66	741	2960	e241	153	47	25	30	21
8	57	24	65	e62	1530	2610	e231	146	44	25	27	18
9	57	23	127	e60	2060	2190	245	128	43	22	29	25
10	63	26	94	e58	1940	1820	385	114	43	23	25	22
11	73	38	74	e560	1510	1440	517	103	41	23	23	19
12	55	58	66	e500	1150	1240	531	94	36	25	25	16
13	38	53	e64	e450	1230	1160	440	87	37	24	24	15
14	29	51	e62	e400	1220	1180	388	81	36	23	24	17
15	23	46	e60	e1200	1110	1270	332	77	39	23	21	19
16	21	44	e58	e1000	916	1600	330	75	38	22	20	21
17	19	44	e58	e900	824	2130	317	68	37	22	24	21
18	18	39	e56	e800	774	2440	296	67	35	20	31	23
19	16	36	e56	e1000	729	2330	290	76	35	21	38	28
20	15	35	e56	e2500	644	1800	287	88	34	23	41	32
21	15	36	e56	e2400	532	1170	365	69	32	30	40	37
22	14	36	e100	e3800	443	878	707	62	29	32	39	36
23	14	39	e500	3720	381	712	937	62	28	31	38	33
24	15	37	e700	3160	343	612	926	84	27	38	46	31
25	14	34	e400	2480	330	529	639	107	28	35	295	31
26	15	47	e300	1800	326	457	483	101	27	30	419	33
27	16	66	e220	1120	497	401	398	97	27	26	343	35
28	19	71	e180	807	1260	359	410	84	26	24	261	36
29	22	69	e160	624	---	327	481	70	27	24	110	37
30	24	61	e140	504	---	302	e449	61	28	33	66	43
31	28	---	e120	424	---	280	---	56	---	28	51	---
MEAN	25.9	40.5	131	997	905	1490	409	119	38.0	26.3	74.9	27.6
MAX	73	71	700	3800	2060	2960	937	357	57	38	419	43
MIN	14	23	35	58	326	280	231	56	26	20	20	15
CFSM	.04	.07	.22	1.70	1.55	2.55	.70	.20	.06	.04	.13	.05
IN.	.05	.08	.26	1.96	1.61	2.94	.78	.23	.07	.05	.15	.00

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

MEAN	122	308	654	960	1183	1489	1191	887	421	241	202	128
MAX	986	1812	2562	2739	2989	4165	3231	4200	2244	1752	1548	1252
(WY)	1976	1920	1979	1950	1939	1963	1939	1968	1941	1958	1926	1979
MIN	2.63	5.49	7.92	24.0	44.7	248	224	79.6	29.3	11.3	7.16	3.35
(WY)	1931	1964	1964	1931	1954	1941	1971	1930	1930	1930	1922	1930

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR	FOR 1999 WATER YEAR	WATER YEARS 1916 - 1999
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ANNUAL MEAN	729		355		649	
HIGHEST ANNUAL MEAN					1095	1916
LOWEST ANNUAL MEAN					186	1954
HIGHEST DAILY MEAN	5550	Jan 11	3800	Jan 22	19600	May 28 1968
LOWEST DAILY MEAN	5.2	Jan 24	14	Oct 22	1.1	Oct 17 1964
ANNUAL SEVEN-DAY MINIMUM	15	Oct 20	15	Oct 20	1.3	Oct 14 1964
INSTANTANEOUS PEAK FLOW			4560	Jan 22	19600	May 28 1968
INSTANTANEOUS PEAK STAGE			16.21	Jan 22	29.11	May 3 1997
INSTANTANEOUS LOW FLOW			14	Oct 22	1.1	Oct 17 1964
ANNUAL RUNOFF (CFSM)	1.25		.61		1.11	
ANNUAL RUNOFF (INCHES)	16.91		8.24		15.08	
10 PERCENT EXCEEDS	2340		1150		1710	
50 PERCENT EXCEEDS	207		58		242	
90 PERCENT EXCEEDS	30		22		25	

e Estimated.

SURFACE-WATER RECORDS

Scioto River Basin

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03219500 SCIOTO RIVER NEAR PROSPECT, OHIO

LOCATION.--Latitude 40°25'10", longitude 83°11'50", Delaware County, Hydrologic Unit 05060001, on right bank at downstream side of Hoskins Bridge, 1.5 mi upstream from Ottawa Creek, 2.0 mi south of Prospect, and 2.5 mi downstream from Patton Run.
DRAINAGE AREA.--567 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1925 to October 1932, October 1939 to current year. Published as "at Prospect" 1925-32. Gage-height records collected in this vicinity since 1915 are contained in reports of National Weather Service.
REVISED RECORDS.--WSP 1908: Drainage area.
GAGE.--Water-stage recorder. Datum of gage is 886.9 ft above sea level (levels by U.S. Army Corps of Engineers). July 24, 1925, to Oct. 31, 1932, nonrecording gage at site 2.5 mi upstream at datum 4.8 ft higher. Oct. 16 to Dec. 5, 1939, nonrecording gage at present site and datum.
REMARKS.--Records fair except for periods of estimated record, which are poor. Water-quality and sediment data collected at this site. U.S. Army Corps of Engineers satellite telemeter at station.
EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 25, 1913, reached a stage of 21.1 ft, discharge; 27,000 ft³/s, computed by Franklin County Conservancy District, at site and datum used 1925-32.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	24	28	e22	401	2720	168	272	101	46	22	e9.8
2	18	24	27	e21	369	3560	169	238	112	70	18	e9.6
3	19	23	29	e20	414	3130	175	213	127	190	18	e9.5
4	37	21	29	e20	468	2330	169	194	119	196	20	e9.5
5	33	21	27	e19	392	1900	159	178	103	107	18	e10
6	34	21	25	e18	318	1710	152	167	87	66	14	12
7	37	21	27	e18	369	1950	144	155	75	47	14	18
8	46	22	28	e17	1290	2320	136	143	67	35	15	15
9	43	22	26	e17	1720	1820	762	132	62	27	15	13
10	36	24	24	e16	1750	1040	1120	120	57	27	13	e12
11	34	36	24	e16	1140	e600	1130	110	54	24	13	e11
12	29	40	24	e16	723	e450	1190	102	60	22	13	e10
13	25	34	24	e60	761	e400	910	96	220	22	13	e9.8
14	22	34	23	e110	763	e360	602	105	488	21	14	e9.6
15	23	34	22	e100	548	e350	456	108	544	20	17	e10
16	23	31	21	e90	427	e450	550	103	440	18	14	13
17	21	30	21	e80	381	1050	1310	95	263	17	12	14
18	22	28	21	e200	344	1730	2370	88	157	17	e11	e13
19	27	27	22	e1600	312	1860	2960	81	108	17	e10	e12
20	27	29	22	e1500	e230	1260	2690	75	83	19	e9.8	e11
21	23	28	24	e1400	e200	733	2100	72	68	20	e9.8	e10
22	22	26	100	e2000	e170	576	1460	75	58	24	e9.6	e10
23	21	25	143	e3000	e150	459	1210	127	52	24	e9.6	e12
24	22	25	e70	e4000	e140	368	1290	394	38	39	e11	14
25	23	24	e50	5440	e130	310	1170	715	39	51	13	15
26	22	28	e40	4400	154	275	815	576	39	51	13	16
27	21	31	e33	2820	247	242	628	334	37	51	16	16
28	21	28	e30	1480	1580	219	510	215	37	41	14	15
29	21	26	e28	867	---	204	399	157	38	36	12	15
30	21	27	e25	638	---	190	322	125	42	37	e11	18
31	22	---	e23	499	---	177	---	107	---	27	e10	---
TOTAL	815	814	1060	30504	15891	34743	27226	5672	3775	1409	422.8	372.8
MEAN	26.3	27.1	34.2	984	568	1121	908	183	126	45.5	13.6	12.4
MAX	46	40	143	5440	1750	3560	2960	715	544	196	22	18
MIN	18	21	21	16	130	177	136	72	37	17	9.6	9.5
CFSM	.05	.05	.06	1.74	1.00	1.98	1.60	.32	.22	.08	.02	.02
IN.	.05	.05	.07	2.00	1.04	2.28	1.79	.37	.25	.09	.03	.02

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

	MEAN	116	258	484	718	779	1018	876	489	405	268	123	94.6
MAX	1643	2023	2451	3305	2166	3008	2771	1788	1915	2049	778	1651	
(WY)	1927	1973	1991	1950	1975	1978	1957	1996	1947	1992	1995	1926	
MIN	10.9	13.8	14.9	15.1	30.8	135	97.0	78.3	32.5	19.4	11.7	7.98	
(WY)	1945	1931	1964	1945	1964	1941	1946	1955	1988	1952	1932	1941	

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

ANNUAL TOTAL	173439	122704.6	
ANNUAL MEAN	475	336	467
HIGHEST ANNUAL MEAN			833
LOWEST ANNUAL MEAN			127
HIGHEST DAILY MEAN	6280	Jan 10	10000
LOWEST DAILY MEAN	18	Sep 17	4.5
ANNUAL SEVEN-DAY MINIMUM	18	Sep 14	5.9
INSTANTANEOUS PEAK FLOW			5580
INSTANTANEOUS PEAK STAGE			11.34
INSTANTANEOUS LOW FLOW			e9.5
ANNUAL RUNOFF (CFSM)	.84	.59	.82
ANNUAL RUNOFF (INCHES)	11.38	8.05	11.20
10 PERCENT EXCEEDS	1170	1150	1290
50 PERCENT EXCEEDS	130	39	128
90 PERCENT EXCEEDS	22	13	19

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

SURFACE-WATER RECORDS

Scioto River Basin

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	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
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

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WATER-QUALITY RECORDS—CONTINUED

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	782	764	772	382	325	350	780	766	774	754	738	747
2	800	782	788	384	322	343	792	773	781	768	745	758
3	807	794	801	448	384	420	795	779	787	778	738	763
4	---	---	---	471	448	465	781	760	767	781	756	770
5	782	772	779	495	461	472	785	768	779	786	776	781
6	776	772	774	510	469	490	791	775	784	794	784	788
7	775	663	748	489	388	439	---	---	---	802	794	797
8	663	502	553	429	388	401	799	789	796	811	802	806
9	514	444	463	521	429	477	789	337	526	817	810	813
10	502	455	473	603	521	562	558	438	501	819	814	816
11	569	502	535	662	603	635	544	519	529	823	812	818
12	638	569	604	690	662	677	533	509	517	821	808	815
13	690	638	665	705	690	697	569	511	544	828	812	821
14	684	610	633	724	705	713	631	569	605	831	825	828
15	659	610	630	729	716	722	656	631	643	831	822	827
16	697	659	680	731	682	720	670	646	657	834	822	830
17	730	697	717	682	520	602	648	515	583	829	820	824
18	752	730	743	520	412	450	515	432	460	838	829	834
19	763	750	757	444	412	423	469	430	445	849	838	843
20	777	763	770	525	444	481	507	469	486	867	848	855
21	794	777	786	611	525	568	545	507	526	878	860	869
22	801	792	796	663	611	638	583	545	566	882	872	877
23	803	797	800	703	663	687	595	571	586	887	837	874
24	816	800	806	733	702	717	585	555	574	844	639	727
25	817	807	812	747	733	739	565	539	554	651	615	638
26	817	808	812	762	747	756	633	564	597	692	620	645
27	820	707	796	761	752	757	679	633	657	718	692	712
28	707	382	498	770	759	765	706	679	694	724	708	715
29	---	---	---	770	763	767	730	705	719	761	724	744
30	---	---	---	775	758	767	739	730	736	784	761	769
31	---	---	---	778	766	773	---	---	---	790	784	788
MONTH	820	382	703	778	322	596	799	337	627	887	615	790
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	798	784	793	834	795	817	824	775	802	1030	1000	1020
2	804	792	800	842	814	832	775	760	766	1000	990	995
3	810	801	805	877	788	853	772	752	766	996	986	990
4	803	786	792	788	558	676	762	717	750	1000	989	996
5	813	796	805	564								

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
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
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

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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	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
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	7.9
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	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
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

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	3.5	3.0	3.5	4.0	3.5	4.0	12.5	8.5	11.5	16.5	13.0	15.0
2	4.5	3.5	4.0	3.5	3.0	3.0	14.5	12.0	13.0	17.5	14.0	16.0
3	4.5	3.5	4.0	3.5	3.0	3.5	16.0	13.0	14.5	18.0	15.0	17.0
4	---	---	---	3.0	2.5	3.0	16.0	8.5	15.0	19.0	15.5	17.5
5	4.0	3.5	3.5	4.0	3.0	3.5	15.5	13.5	14.5	19.0	17.0	18.0
6	4.5	3.5	4.0	4.5	3.5	4.0	17.0	13.5	15.0	19.5	18.0	18.5
7	4.0	3.5	4.0	3.5	1.5	2.5	---	---	---	19.5	16.5	18.0
8	4.0	3.5	4.0	1.5	.5	1.0	18.0	14.0	16.0	18.5	17.0	17.5
9	4.5	3.5	4.0	1.5	1.0	1.5	17.0	13.0	15.0	18.0	15.5	17.0
10	5.0	4.0	4.5	2.5	1.5	2.0	13.0	11.5	12.0	19.5	15.5	17.5
11	7.5	5.0	6.0	3.0	1.0	2.0	13.0	11.5	12.0	21.0	16.5	18.5
12	7.5	6.0	7.0	3.5	1.5	2.5	12.0	11.0	11.5	21.5	18.0	19.5
13	6.0	4.5	5.0	3.5	2.0	2.5	12.5	10.5	11.5	18.5	16.5	17.5
14	4.5	2.5	3.5	3.5	2.5	3.0	13.0	11.0	12.0	16.5	15.5	16.0
15	3.5	2.0	3.0	4.0	2.0	3.0	12.5	11.5	12.0	19.0	14.5	16.5
16	4.5	2.5	3.5	5.0	2.5	4.0	11.5	9.5	11.0	20.0	16.5	18.0
17	4.5	4.0	4.0	6.0	4.0	5.0	9.5	8.0	8.5	22.0	18.0	20.0
18	4.0	3.5	4.0	6.0	5.5	6.0	8.0	7.0	7.5	20.5	18.5	20.0
19	4.0	3.0	3.5	6.0	5.5	5.5	10.0	8.0	8.5	21.0	17.0	18.5
20	3.0	2.0	3.0	6.0	5.0	5.5	11.5	10.0	10.5	21.5	17.5	19.5
21	2.5	1.5	2.0	7.0	5.5	6.0	12.5	11.0	11.5	22.0	17.5	20.0
22	2.5	.0	1.0	6.0	5.0	5.5	14.0	12.0	13.0	20.5	19.0	20.0
23	2.0	.5	1.0	6.0	4.5	5.5	14.5	12.5	14.0	20.0	18.0	19.0
24	2.0	1.0	1.5	7.0	5.0	6.0	12.5	11.5	12.0	19.0	16.0	17.5
25	2.5	1.5	2.0	7.0	5.5	6.0	12.0	10.5	11.5	16.0	15.0	15.0
26	3.0	2.0	2.5	7.5	5.0	6.5	13.5	11.0	12.5	15.0	14.0	14.5
27	3.5	2.5	2.5	8.5	5.0	7.0	14.0	12.5	13.5	16.5	13.5	15.0
28	4.5	3.5	4.0	9.0	5.5	7.5	14.5	13.5	13.5	18.0	14.5	16.5
29	---	---	---	10.5	7.5	8.5	15.0	12.5	14.0	20.0	16.5	18.5
30	---	---	---	9.0	8.5	8.5	15.5	12.5	14.0	21.5	18.0	20.0
31	---	---	---	9.0	8.5	8.5	---	---	---	21.5	20.0	21.0
MONTH	7.5	.0	3.5	10.5	.5	4.5	18.0	7.0	12.5	22.0	13.0	18.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	21.0	20.0	20.5	24.5	22.0	23.0	31.0	27.0	29.0	24.5	17.5	21.0
2	22.0	20.0	21.0	26.5	22.5	24.0	29.0	24.5	27.0	25.5	18.5	22.0
3	22.0	19.5	20.5	26.0	23.5	24.5	28.5	22.5	25.5	25.5	19.5	22.5
4	22.0	19.5	20.5	27.0	24.5	26.0	28.5	22.5	26.0	26.5	20.5	23.5
5	23.0	20.0	21.5	28.5	25.5	27.0	27.5	22.5	25.0	25.5	21.0	23.5
6	25.0	21.5	23.5	29.5	26.0	27.5	28.0	21.0	24.5	26.5	22.0	24.0
7	26.5	23.0	24.5	28.5	23.5	26.0	27.0	23.5	25.0	23.0	20.0	21.5
8	27.5	24.0	25.5	28.5	23.0	26.0	27.0	24.0	25.5	26.0	17.5	22.5
9	28.5	23.5	26.0	29.0	23.5	26.0	26.5	21.0	24.0	25.5	21.5	23.0
10	29.0	24.5	27.0	25.5	23.0	24.5	25.5	21.0	23.5	22.0	18.0	20.0
11	29.0	25.0	27.0	25.5	20.0	23.0	27.5	22.0	25.0	23.0	16.5	20.0
12	29.0	25.0	26.5	26.0	20.0	23.0	26.5	22.5	25.0	24.0	18.5	21.5
13	26.0	23.5	25.0	27.0	20.5	24.0	27.0	23.0	25.0	22.5	20.0	21.5
14	25.0	23.0	23.5	28.0	21.0	24.5	25.5	22.0	23.0	21.0	16.5	19.0
15	23.0	21.0	22.0	28.5	22.0	25.5	25.5	20.0	23.0	20.5	15.0	18.0
16	21.0	19.5	20.5	29.0	23.0	26.5	27.0	20.0	23.5	18.5	15.5	17.0
17	20.5	19.0	19.5	30.0	24.0	27.0	27.0	21.5	24.5	19.5	14.0	17.0
18	20.5	18.0	19.5	27.5	24.0	26.0	25.0	22.0	23.5	20.0	14.5	17.5
19	20.5	18.5	19.5	29.5	24.0	26.5	24.0	21.5	22.5	21.0	15.0	18.0
20	22.5	18.5	20.5	28.0	24.5	26.0	24.5	20.0	22.5	19.5	17.0	18.0
21	24.0	20.0	21.5	26.5	24.5	25.5	24.5	19.0	22.0	17.0	15.0	16.0
22	25.0	20.0	22.5	29.5	24.5	27.0	26.0	19.5	23.0	17.5	12.0	15.0
23	26.0	21.0	23.5	31.5	25.5	28.5	23.5	20.0	22.0	18.5	13.0	15.5
24	25.5	22.5	24.0	30.5	26.0	28.0	22.5	20.5	21.5	17.0	14.5	16.0
25	26.5	22.5	24.5	29.5	26.0	27.5	25.0	20.5	22.5	20.0	13.5	16.5
26	27.5	22.5	25.0	29.0	25.0	27.0	22.5	20.5	21.5	21.0	15.5	18.5
27	28.0	24.5	26.0	29.5	25.5	27.0	24.0	20.5	22.0	21.0	17.0	19.0
28	27.5	24.0	26.0	29.0	26.0	27.5	25.5	20.5	23.0	23.5	18.5	21.0
29	25.5	23.0	24.5	30.5	25.5	28.0	26.0	21.5	23.5	22.5	17.0	20.0
30	25.5	20.5	23.0	32.0	27.0	29.5	24.0	18.5	21.0	18.5	14.0	16.5
31	---	---	---	32.5	28.0	30.0	24.5	17.5	21.0	---	---	---
MONTH	29.0	18.0	23.0	32.5	20.0	26.0	31.0	17.5	23.5	26.5	12.0	19.5
YEAR	32.5	.0	13.5									

SURFACE-WATER RECORDS

Scioto River Basin

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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
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
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	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
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

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03220000 MILL CREEK NEAR BELLEPOINT, OHIO

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

DRAINAGE AREA.--178 mi².

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

REVISED RECORDS.--WSP 1908: Drainage area.

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

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

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

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.8	15	8.2	e7.0	54	950	41	52	12	21	9.1	4.5
2	7.3	13	6.6	e6.6	66	456	45	46	11	656	5.5	5.8
3	7.3	9.0	6.5	e6.4	91	470	41	42	13	129	5.6	4.0
4	12	6.5	6.7	e6.2	81	533	43	41	16	47	5.7	4.1
5	18	8.0	11	e6.0	61	231	44	41	12	26	9.8	4.3
6	11	11	7.0	e6.0	53	936	40	40	11	16	5.1	5.3
7	14	8.3	9.6	e5.8	383	1140	e37	37	12	12	4.1	4.1
8	33	6.8	8.5	e5.6	1660	299	34	35	7.1	10	6.6	6.1
9	22	7.4	7.9	e5.6	711	178	187	32	6.4	13	5.6	3.7
10	12	15	11	e5.4	254	e130	950	30	7.4	27	6.7	4.7
11	8.1	12	9.2	e5.2	149	e100	262	28	7.7	33	5.4	4.4
12	7.1	24	7.1	e5.2	130	e90	214	27	13	21	5.4	4.1
13	6.4	14	7.7	e15	146	e80	123	26	269	16	5.2	4.1
14	5.4	12	9.7	e60	112	e76	83	26	262	11	5.3	4.0
15	8.6	13	7.6	e50	82	e74	72	27	289	8.4	9.6	4.2
16	5.9	12	5.8	e35	e70	161	116	25	112	9.4	9.2	3.9
17	6.2	10	6.7	e30	e60	779	951	23	52	6.8	4.9	5.1
18	8.3	6.8	11	e100	e50	727	842	21	32	5.9	4.9	6.5
19	14	7.6	9.5	e500	e42	250	416	20	24	6.0	4.6	5.3
20	19	8.0	8.3	e450	e38	142	300	19	17	7.5	4.3	5.9
21	9.9	8.3	13	e400	e35	104	357	18	13	11	5.0	8.7
22	8.9	13	143	e1500	e32	90	441	21	9.9	15	5.1	5.5
23	6.8	12	e60	2940	e30	68	609	35	7.5	108	4.4	4.7
24	13	8.1	e35	1090	e28	61	649	28	8.5	128	3.4	7.7
25	7.8	7.6	e20	378	e27	55	231	43	6.8	44	4.4	5.6
26	8.9	8.5	e15	204	e30	48	143	36	6.7	22	9.8	5.6
27	11	10	e13	137	e40	44	107	28	6.5	14	12	7.0
28	6.4	12	e11	113	821	40	86	19	5.8	13	11	9.6
29	6.5	7.6	e10	85	---	42	72	18	5.0	15	6.0	8.4
30	9.8	10	e8.6	67	---	37	60	13	6.2	13	4.9	28
31	14	---	e7.8	56	---	36	---	13	---	9.7	4.0	---
TOTAL	337.4	316.5	502.0	8281.0	5336	8427	7596	910	1261.5	1474.7	192.6	184.9
MEAN	10.9	10.6	16.2	267	191	272	253	29.4	42.0	47.6	6.21	6.16
MAX	33	24	143	2940	1660	1140	951	52	289	656	12	28
MIN	5.4	6.5	5.8	5.2	27	36	34	13	5.0	5.9	3.4	3.7
CFSM	.06	.06	.09	1.50	1.07	1.53	1.42	.16	.24	.27	.03	.03
IN.	.07	.07	.10	1.73	1.12	1.76	1.59	.19	.26	.31	.04	.04

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1999, BY WATER YEAR (WY)

	MEAN	26.1	96.8	170	257	283	331	290	175	145	79.0	38.8	23.9
MAX	449	553	1130	1227	768	963	874	746	734	769	332	303	
(WY)	1987	1973	1991	1950	1975	1978	1972	1996	1997	1992	1979	1979	
MIN	.90	1.99	2.17	3.82	8.09	36.1	29.6	10.5	5.19	1.33	1.75	1.00	
(WY)	1954	1964	1964	1977	1964	1983	1971	1955	1988	1944	1965	1944	

SUMMARY STATISTICS FOR 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1944 - 1999

	ANNUAL TOTAL	41529.5	34819.6	
ANNUAL MEAN	114	95.4	159	
HIGHEST ANNUAL MEAN			258	1996
LOWEST ANNUAL MEAN			51.4	1954
HIGHEST DAILY MEAN	3060	Apr 17	12600	Jan 22 1959
LOWEST DAILY MEAN	5.4	Oct 14	.00	Sep 25 1944
ANNUAL SEVEN-DAY MINIMUM	6.8	Oct 11	.13	Sep 21 1944
INSTANTANEOUS PEAK FLOW			21800	Jun 2 1997
INSTANTANEOUS PEAK STAGE			14.45	Jun 2 1997
INSTANTANEOUS LOW FLOW			.00	Sep 25 1977
ANNUAL RUNOFF (CFSM)	.64		.89	
ANNUAL RUNOFF (INCHES)	8.68		12.13	
10 PERCENT EXCEEDS	249		357	
50 PERCENT EXCEEDS	20		28	
90 PERCENT EXCEEDS	8.2		4.0	

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

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	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
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

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WATER-QUALITY RECORDS—CONTINUED

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	750	699	720	619	575	604	771	714	744	599	582	591
2	770	689	721	575	482	515	789	622	706	597	580	588
3	732	709	722	482	447	455	723	694	710	599	580	590
4	---	---	---	486	456	473	746	712	727	662	586	620
5	433	399	405	503	486	492	747	726	738	644	600	614
6	455	428	435	513	493	500	779	719	739	657	591	622
7	557	430	460	506	497	500	723	716	720	674	634	654
8	457	404	426	498	449	467	734	714	724	661	643	654
9	456	321	393	451	432	440	803	661	729	671	652	663
10	334	309	320	450	431	439	694	645	660	677	644	664
11	456	332	387	493	450	471	715	636	681	654	589	627
12	437	390	401	536	493	507	649	495	559	661	596	614
13	407	398	402	571	536	559	522	494	507	622	603	614
14	425	398	409	629	570	605	539	520	531	625	615	620
15	485	425	463	650	612	629	537	522	529	659	622	643
16	522	478	499	715	636	657	548	532	540	657	622	640
17	514	497	506	723	628	689	552	499	522	692	634	657
18	525	511	519	631	604	618	582	487	549	679	652	664
19	532	522	526	604	525	556	487	401	437	706	662	673
20	537	529	533	539	522	531	431	403	416	676	663	670
21	548	536	541	549	493	528	427	407	414	750	666	698
22	578	543	559	537	525	532	480	427	456	748	730	735
23	572	521	548	555	528	539	494	479	487	735	727	732
24	628	538	592	556	549	553	514	484	496	736	719	729
25	633	605	613	562	551	557	515	510	512	723	702	710
26	624	605	615	655	524	610	534	511	523	734	705	712
27	697	621	656	639	604	618	643	514	534	733	716	725
28	721	592	642	626	605	613	576	507	523	741	703	727
29	---	---	---	636	608	625	592	523	555	724	704	716
30	---	---	---	698	622	648	597	525	560	729	707	715
31	---	---	---	779	698	729	---	---	---	731	703	716
MONTH	770	309	519	779	431	557	803	401	584	750	580	664
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	724	709	715	698	661	688	651	622	634	739	724	731
2	744	710	725	692	662	669	637	623	629	738	733	736
3	749	719	730	690	668	677	649	626	643	741	733	736
4	730	715	724	690	667	680	656	648	653	745	737	742
5	739	727	7									

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
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
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

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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	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
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	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
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

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	5.0	5.0	5.0	4.0	3.0	3.5	9.0	8.0	8.5	17.0	14.0	15.0
2	5.0	4.5	5.0	4.0	4.0	4.0	9.5	9.0	9.0	16.5	14.5	15.5
3	5.0	4.5	5.0	4.0	3.5	3.5	10.0	9.0	9.5	15.0	14.5	14.5
4	---	---	---	3.5	3.0	3.0	12.5	9.0	11.0	16.0	14.0	15.0
5	4.5	4.5	4.5	3.5	3.5	3.5	13.0	12.0	12.5	15.0	13.0	14.0
6	5.0	4.5	4.5	3.5	3.0	3.5	12.0	9.0	10.5	15.5	13.0	14.0
7	5.0	4.5	4.5	3.5	3.0	3.5	12.5	11.5	12.0	16.5	15.0	15.5
8	4.5	4.0	4.0	3.0	3.0	3.0	14.5	11.5	13.0	17.0	15.5	16.5
9	4.0	4.0	4.0	3.0	2.0	2.5	14.0	12.5	13.5	19.0	16.5	17.5
10	4.5	4.0	4.0	2.0	1.5	1.5	14.0	13.0	13.5	19.0	18.0	18.5
11	5.0	4.0	4.5	2.0	1.5	1.5	14.0	13.5	13.5	20.5	18.0	19.0
12	5.5	5.0	5.0	2.5	2.0	2.0	14.0	13.0	13.5	21.0	18.0	20.0
13	5.0	5.0	5.0	3.0	2.0	2.5	13.5	13.0	13.0	20.5	19.5	20.0
14	5.0	4.5	5.0	3.0	2.5	2.5	13.5	12.5	13.0	19.5	18.5	19.0
15	5.5	5.0	5.0	4.0	2.5	3.0	12.5	12.0	12.0	18.5	17.5	18.0
16	5.5	5.0	5.0	3.5	3.0	3.0	12.0	11.5	11.5	20.0	17.5	18.5
17	5.5	5.0	5.0	4.0	3.0	3.5	11.5	11.0	11.5	18.5	16.5	17.5
18	5.0	5.0	5.0	5.0	4.0	4.5	11.0	8.5	10.0	20.0	18.0	19.0
19	5.0	4.5	4.5	6.0	5.0	5.5	8.5	8.0	8.5	21.0	18.5	20.0
20	4.5	4.5	4.5	6.0	6.0	6.0	9.5	8.5	9.5	21.0	20.0	20.5
21	4.5	4.0	4.0	6.5	6.0	6.0	10.0	9.0	9.5	20.0	19.5	20.0
22	4.5	3.5	4.0	6.5	6.0	6.0	12.0	10.0	11.0	20.5	19.5	20.0
23	4.5	3.5	3.5	6.0	6.0	6.0	13.5	12.0	13.0	20.5	20.0	20.0
24	4.0	3.0	3.5	6.5	6.0	6.0	14.0	13.0	13.5	20.0	19.0	19.5
25	3.5	3.0	3.5	7.0	6.0	6.5	13.5	12.5	13.0	19.0	18.5	19.0
26	4.0	3.5	3.5	7.5	6.5	7.0	13.5	12.5	13.0	19.0	18.5	18.5
27	4.0	3.5	3.5	8.5	6.0	7.0	14.0	13.0	13.5	20.0	18.0	19.0
28	4.0	3.5	3.5	8.0	6.5	7.5	14.0	13.0	13.5	21.0	18.5	19.5
29	---	---	---	9.0	7.0	8.0	14.5	13.0	14.0	20.5	19.0	19.5
30	---	---	---	8.5	7.5	8.0	15.5	13.5	14.5	20.0	18.5	19.5
31	---	---	---	8.0	7.5	7.5	---	---	---	20.5	17.5	19.0
MONTH	5.5	3.0	4.5	9.0	1.5	4.5	15.5	8.0	12.0	21.0	13.0	18.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	18.5	17.0	18.0	22.5	21.5	22.0	30.5	28.0	29.0	23.0	21.5	22.0
2	19.5	17.5	18.5	24.5	22.5	24.0	29.5	27.5	28.5	23.5	22.0	22.5
3	21.5	19.5	20.5	24.5	24.0	24.0	28.5	25.0	26.0	23.5	22.5	23.0
4	21.0	19.0	20.0	26.5	24.5	25.5	25.0	24.5	25.0	23.5	22.5	23.0
5	20.5	18.5	19.5	27.5	26.0	26.5	25.5	24.5	25.0	23.5	23.0	23.0
6	21.0	19.0	20.0	27.5	26.5	27.0	25.0	24.0	24.5	24.5	23.0	23.5
7	23.5	20.5	21.5	28.0	26.0	27.0	24.5	24.0	24.0	25.0	23.5	24.5
8	26.0	22.0	23.5	---	---	---	26.0	24.5	25.0	24.5	23.5	24.0
9	26.0	23.5	24.5	---	---	---	25.0	24.0	24.5	24.5	23.5	23.5
10	26.0	23.5	24.5	---	---	---	24.5	23.5	24.0	23.5	23.0	23.5
11	---	---	---	---	---	---	25.5	24.0	24.5	23.0	22.5	23.0
12	---	---	---	---	---	---	24.5	24.0	24.5	23.0	22.0	22.5
13	---	---	---	26.5	25.5	25.5	25.0	24.0	24.0	23.0	22.0	22.5
14	26.5	25.0	25.5	27.0	25.0	26.0	25.0	24.0	25.0	23.5	22.0	22.5
15	26.0	24.5	25.5	27.5	24.5	26.0	25.5	24.0	24.5	22.5	21.5	22.0
16	25.0	24.0	24.5	25.5	24.0	24.5	25.5	24.0	24.5	22.5	21.5	22.0
17	24.5	23.0	23.5	25.0	24.0	24.5	25.0	24.0	24.5	22.0	21.0	21.5
18	24.0	22.5	23.0	25.0	24.0	24.5	25.5	24.0	25.0	21.5	21.0	21.5
19	23.0	21.5	22.0	25.5	24.0	25.0	24.5	24.0	24.5	21.0	20.0	20.5
20	22.5	21.5	22.0	25.5	24.5	25.0	25.0	24.0	24.5	20.5	20.0	20.5
21	24.0	21.5	22.5	28.0	24.5	26.0	24.5	23.5	24.0	20.5	19.5	20.0
22	24.5	22.0	23.0	29.5	26.5	28.0	24.5	23.5	24.0	20.0	19.0	19.5
23	23.5	21.0	22.5	29.0	27.5	28.5	23.5	22.5	23.0	20.0	19.0	19.5
24	21.5	20.5	21.0	30.5	27.5	28.5	23.0	22.5	22.5	19.5	18.5	19.0
25	25.5	21.0	23.5	29.5	28.0	28.5	25.0	23.0	23.5	19.5	18.5	19.0
26	25.0	23.0	24.0	30.0	27.5	28.5	24.5	23.5	23.5	19.5	18.5	19.0
27	24.0	22.5	23.5	30.0	27.0	28.5	24.5	23.0	24.0	19.5	18.5	19.0
28	25.0	22.5	24.0	29.0	27.0	28.5	25.5	24.0	24.5	19.5	18.5	19.0
29	24.5	22.5	23.5	30.0	27.5	28.5	26.0	24.0	25.0	19.5	19.0	19.5
30	24.0	22.0	22.5	30.5	27.5	29.0	25.5	23.0	24.5	20.0	18.5	19.0
31	---	---	---	30.0	28.0	29.0	24.0	22.0	22.5	---	---	---
MONTH	26.5	17.0	22.5	30.5	21.5	26.5	30.5	22.0	24.5	25.0	18.5	21.5
YEAR	30.5	1.0	14.0									

SURFACE-WATER RECORDS

Scioto River Basin

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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
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
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

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

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

DRAINAGE AREA.--980 mi².

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

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

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

REMARKS.--Records fair except for Mar. 18-Apr. 8 which are poor. Flow regulated since 1924 by O'Shaughnessy Reservoir 0.8 mi upstream. Water-quality data collected at this site. U.S. Army Corps of Engineers satellite telemeter at station.

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

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	83	99	70	51	551	4640	375	349	53	129	37	129
2	82	97	64	37	567	4720	237	410	58	752	33	168
3	52	98	67	23	597	4480	185	412	128	521	109	185
4	25	76	67	53	669	3890	257	318	182	419	129	176
5	23	61	67	53	626	2670	280	309	182	369	141	162
6	23	61	54	53	585	3430	250	383	170	349	143	138
7	27	61	28	53	734	4410	152	403	261	58	139	89
8	24	60	17	39	3720	3220	374	329	173	53	115	67
9	21	60	17	23	3660	2650	571	329	151	57	112	67
10	21	64	17	23	2490	1620	3150	330	149	65	110	87
11	21	22	44	50	1740	1080	1950	196	40	56	111	112
12	22	23	67	54	1130	866	1770	113	43	59	111	123
13	47	22	77	27	976	771	1390	177	155	59	112	102
14	64	22	94	26	1030	728	927	174	867	55	86	74
15	80	36	72	28	809	754	746	172	880	58	76	100
16	92	70	57	30	682	760	737	99	801	107	76	94
17	92	84	57	35	633	2050	2380	248	496	129	77	88
18	96	101	57	502	599	3460	4580	153	380	129	93	85
19	70	99	57	3250	589	2690	4220	109	377	124	95	81
20	42	48	57	2920	569	1920	3830	166	236	121	94	78
21	43	42	80	3200	560	1160	3170	164	58	74	94	75
22	44	62	30	7590	284	846	2570	169	57	43	92	73
23	44	62	16	9200	47	721	2320	163	66	43	113	68
24	44	64	15	7930	236	674	2500	242	107	60	127	67
25	45	76	15	6580	525	658	1840	775	67	125	24	67
26	45	22	15	5300	392	255	1290	745	52	122	24	66
27	46	20	17	3700	306	309	971	590	59	316	23	64
28	73	67	30	2120	1950	399	766	375	58	241	24	64
29	91	69	48	1220	---	394	627	307	68	262	25	162
30	77	75	55	966	---	414	628	306	100	43	27	27
31	81	---	52	644	---	384	---	193	---	43	127	---
TOTAL	1640	1823	1480	55780	27256	57023	45043	9208	6474	5041	2699	2938
MEAN	52.9	60.8	47.7	1799	973	1839	1501	297	216	163	87.1	97.9
MAX	96	101	94	9200	3720	4720	4580	775	880	752	143	185
MIN	21	20	15	23	47	255	152	99	40	43	23	27

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

	178	428	822	1302	1413	1799	1519	882	703	439	241	151
MEAN	178	428	822	1302	1413	1799	1519	882	703	439	241	151
MAX	2626	3426	4794	6397	4072	5231	4706	3865	3407	3599	1584	2285
(WY)	1927	1973	1991	1937	1975	1963	1957	1996	1947	1992	1995	1926
MIN	28.2	15.1	13.0	29.3	30.9	249	152	46.4	57.8	37.2	29.4	25.6
(WY)	1922	1954	1953	1992	1964	1941	1946	1925	1955	1921	1921	1965

SUMMARY STATISTICS FOR 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1921 - 1999

ANNUAL TOTAL	307943	216405	
ANNUAL MEAN	844	593	
HIGHEST ANNUAL MEAN			821
LOWEST ANNUAL MEAN			1458
HIGHEST DAILY MEAN	17000	Aug 11	9200
LOWEST DAILY MEAN	15	Dec 24	15
ANNUAL SEVEN-DAY MINIMUM	20	Dec 22	20
INSTANTANEOUS PEAK FLOW			9710
INSTANTANEOUS PEAK STAGE			10.18
INSTANTANEOUS LOW FLOW			15
10 PERCENT EXCEEDS	2270		1930
50 PERCENT EXCEEDS	306		111
90 PERCENT EXCEEDS	45		28

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)

	4.33	15.8	55.3	63.0	58.1	72.1	60.1	47.4	94.2	6.31	4.26	.86
MEAN	4.33	15.8	55.3	63.0	58.1	72.1	60.1	47.4	94.2	6.31	4.26	.86
MAX	7.04	28.1	133	89.2	73.1	96.6	95.5	72.2	214	9.88	9.53	2.05
(WY)	1997	1997	1997	1999	1997	1997	1999	1998	1998	1998	1997	1997
MIN	2.16	5.55	14.4	42.6	47.9	55.5	20.4	10.5	3.43	2.92	1.18	.13
(WY)	1999	1998	1999	1997	1999	1998	1997	1999	1999	1999	1999	1998

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

123

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)

	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	1973
LOWEST ANNUAL MEAN			137	1954
HIGHEST DAILY MEAN	4220	Jul 2	5940	Feb 1 1959
LOWEST DAILY MEAN	5.5	Dec 14	1.0	Apr 15 1986
ANNUAL SEVEN-DAY MINIMUM	8.2	Dec 12	3.4	Apr 15 1986
INSTANTANEOUS PEAK FLOW			6000	Jan 31 1959
INSTANTANEOUS PEAK STAGE			8.63	Jan 26 1952
INSTANTANEOUS LOW FLOW			5.5	Dec 13
10 PERCENT EXCEEDS	946		1020	
50 PERCENT EXCEEDS	72		91	
90 PERCENT EXCEEDS	17		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

125

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		
HIGHEST ANNUAL MEAN			1426	
LOWEST ANNUAL MEAN			2514	1973
HIGHEST DAILY MEAN	12100	Jan 10	11100	Jan 25
LOWEST DAILY MEAN	121	Oct 25	97	Sep 17
ANNUAL SEVEN-DAY MINIMUM	129	Sep 10	102	Sep 13
INSTANTANEOUS PEAK FLOW			11800	Jan 22
INSTANTANEOUS PEAK STAGE			15.69	Jan 22
INSTANTANEOUS LOW FLOW			97	Sep 17
10 PERCENT EXCEEDS	4240		2860	
50 PERCENT EXCEEDS	529		254	
90 PERCENT EXCEEDS	148		114	

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)

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

	1998	1999	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.

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ANNUAL TOTAL	74288			68493				
ANNUAL MEAN	204			188			200	
HIGHEST ANNUAL MEAN							337	1973
LOWEST ANNUAL MEAN							111	1966
HIGHEST DAILY MEAN	2610	May	3	1330	Mar	7	10600	Jan 22 1959
LOWEST DAILY MEAN	93	Jan	2	107	Apr	4	.00	May 20 1955
ANNUAL SEVEN-DAY MINIMUM	105	Jan	1	116	Mar	29	.00	May 31 1955
INSTANTANEOUS PEAK FLOW				1760	Mar	6	23800	Jan 21 1959
INSTANTANEOUS PEAK STAGE				7.36	Mar	6	19.75	Jan 21 1959
INSTANTANEOUS LOW FLOW				79	May	25	.00	May 20 1955
10 PERCENT EXCEEDS	221			225			306	
50 PERCENT EXCEEDS	139			156			120	
90 PERCENT EXCEEDS	114			123			64	

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	5460
ANNUAL SEVEN-DAY MINIMUM	6.4	Apr 1	.00
INSTANTANEOUS PEAK FLOW			.00
INSTANTANEOUS PEAK STAGE			2310
INSTANTANEOUS LOW FLOW			27.74
10 PERCENT EXCEEDS	133	50	.00
50 PERCENT EXCEEDS	22	21	
90 PERCENT EXCEEDS	8.6	16	4.5

e Estimated.

SURFACE-WATER RECORDS

Scioto River Basin

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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

	1998	1999	1974-1999
ANNUAL TOTAL	146625	102643	
ANNUAL MEAN	402(+111)	281(+118)	600#
HIGHEST ANNUAL MEAN			740
LOWEST ANNUAL MEAN			221
HIGHEST DAILY MEAN	4820	3990	14000
LOWEST DAILY MEAN	49	38	22
ANNUAL SEVEN-DAY MINIMUM	54	43	25
INSTANTANEOUS PEAK FLOW		6330	21700
INSTANTANEOUS PEAK STAGE		10.54	17.75
INSTANTANEOUS LOW FLOW		38	22
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)

	MEAN	22.1	104	119	288	209	271	270	280	266	181	69.3	11.6
MAX	81.0	312	349	485	273	503	493	845	673	701	335	22.6	
(WY)	1996	1994	1997	1996	1994	1993	1996	1996	1997	1993	1995	1996	
MIN	4.67	8.59	22.7	160	91.7	147	70.2	55.5	18.5	16.8	3.50	.11	
(WY)	1995	1995	1995	1995	1995	1998	1997	1999	1999	1999	1999	1999	

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	Jan 30	4910
LOWEST DAILY MEAN	3.6	Sep 16	.00
ANNUAL SEVEN-DAY MINIMUM	4.0	Sep 12	.00
INSTANTANEOUS PEAK FLOW		1560	6240
INSTANTANEOUS PEAK STAGE		10.02	15.53
INSTANTANEOUS LOW FLOW		.00	.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

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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)

	MEAN	3.09	17.2	27.4	86.2	47.9	64.1	74.4	54.6	56.9	28.3	14.5	.94
MAX	16.0	46.2	82.0	143	65.9	109	157	187	142	82.1	65.4	4.36	
(WY)	1996	1993	1997	1996	1998	1993	1996	1996	1997	1993	1995	1996	
MIN	.000	1.34	5.86	43.7	23.6	36.0	12.7	5.40	.36	.30	.000	.000	
(WY)	1995	1995	1995	1997	1995	1998	1997	1999	1999	1999	1999	1999	

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 Jun 29	.00 Oct 1	.00 Jun 29
ANNUAL SEVEN-DAY MINIMUM	.00 Aug 22	.00 Jun 21	.00 Aug 30
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. CUBIC 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 DIS-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-PENDE (MG/L) (00530)	SEDI-MENT, SUS-PENDE (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

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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 CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
	OCTOBER			NOVEMBER			DECEMBER		
1	.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 CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
	JANUARY			FEBRUARY			MARCH		
1	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

	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)
DAY									
	APRIL			MAY			JUNE		
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
	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)
DAY									
	JULY			AUGUST			SEPTEMBER		
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

135

03230500 BIG DARBY CREEK AT DARBYVILLE, OHIO

LOCATION.--Latitude 39°42'02", longitude 83°06'37", Pickaway County, Hydrologic Unit 05060001, on right bank at upstream side of State Highway 316, 0.4 mi northeast of Darbyville, 0.4 mi upstream from Lizzard Run, and 3.0 mi downstream from Greenbrier Creek.

DRAINAGE AREA.--534 mi².

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

REVISED RECORDS.--WSP 1083: 1922(M), 1924(M), 1927(M), 1933(M), 1938(M). WSP 1305: 1928-31(M), 1934(M), 1945(M). WSP 1505: 1932(M). WSP 1908: Drainage area.

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

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

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	44	56	e120	434	2220	235	309	93	65	61	28
2	26	41	51	e110	538	1650	239	286	91	69	58	24
3	27	48	47	e110	587	1490	237	269	90	149	53	19
4	32	48	45	e100	535	1750	237	256	92	238	48	15
5	33	51	44	e94	440	1170	231	243	92	137	44	14
6	31	49	43	e90	379	1770	221	233	89	102	41	14
7	39	47	45	e86	970	2780	213	223	83	86	36	13
8	76	45	49	e84	2490	1630	202	211	78	73	25	11
9	76	43	49	e82	2580	1060	262	198	74	64	21	9.4
10	57	47	48	e80	1370	834	741	186	71	68	32	7.3
11	49	52	47	e78	896	647	690	176	69	73	32	6.2
12	51	56	44	e76	740	545	392	167	67	69	32	5.4
13	43	58	43	e200	698	498	308	162	66	77	39	5.1
14	39	68	e41	e500	619	475	263	164	117	76	40	4.9
15	36	65	e40	e400	516	459	243	162	174	65	36	6.1
16	34	57	e40	e350	485	525	262	151	145	57	34	5.9
17	33	53	e39	e400	462	1200	398	140	125	52	31	4.7
18	33	51	e39	e2000	418	1680	1080	134	95	49	28	4.3
19	36	49	e38	3250	373	1110	934	139	82	50	35	3.9
20	36	50	e38	2650	335	709	945	128	74	54	39	4.2
21	37	49	51	2310	302	580	1210	121	68	50	31	4.5
22	38	47	1280	3530	274	499	2030	119	64	55	26	4.5
23	37	46	759	4690	255	412	1640	126	61	366	23	4.5
24	41	47	445	4790	249	363	2030	131	59	245	23	3.9
25	41	54	256	2030	254	332	1210	128	57	160	37	4.0
26	38	60	216	1370	257	300	789	130	56	126	34	4.0
27	37	62	183	999	345	277	613	128	54	108	37	5.1
28	38	58	160	808	1270	262	504	118	55	81	45	3.9
29	38	56	149	637	---	252	419	108	78	73	52	5.4
30	42	55	e140	512	---	239	353	101	75	70	40	11
31	43	---	e130	432	---	230	---	95	---	62	33	---
TOTAL	1244	1556	4655	32968	19071	27948	19131	5242	2494	3069	1146	256.2
MEAN	40.1	51.9	150	1063	681	902	638	169	83.1	99.0	37.0	8.54
MAX	76	68	1280	4790	2580	2780	2030	309	174	366	61	28
MIN	26	41	38	76	249	230	202	95	54	49	21	3.9
CFSM	.08	.10	.28	1.99	1.28	1.69	1.19	.32	.16	.19	.07	.02
IN.	.09	.11	.32	2.30	1.33	1.95	1.33	.37	.17	.21	.08	.02

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

	MEAN	106	259	470	718	786	940	830	578	454	256	156	93.0
MAX	1223	1745	2287	2808	2146	2758	2190	2766	2228	1868	1216	1652	
(WY)	1927	1986	1991	1959	1975	1963	1957	1996	1997	1993	1980	1979	
MIN	3.91	13.6	18.5	23.4	37.2	84.0	133	42.6	14.9	9.08	9.82	6.43	
(WY)	1964	1954	1964	1945	1934	1931	1925	1934	1934	1934	1930	1964	

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR	FOR 1999 WATER YEAR	WATER YEARS 1922 - 1999
ANNUAL TOTAL	184878	118780.2	
ANNUAL MEAN	507	325	469
HIGHEST ANNUAL MEAN			840
LOWEST ANNUAL MEAN			79.1
HIGHEST DAILY MEAN	11400	4790	38400
LOWEST DAILY MEAN	24	3.9	1.4
ANNUAL SEVEN-DAY MINIMUM	25	4.2	2.0
INSTANTANEOUS PEAK FLOW		6630	49000
INSTANTANEOUS PEAK STAGE		10.33	17.94
INSTANTANEOUS LOW FLOW		3.9	1.4
ANNUAL RUNOFF (CFSM)	.95	.61	.88
ANNUAL RUNOFF (INCHES)	12.88	8.27	11.93
10 PERCENT EXCEEDS	1210	911	1130
50 PERCENT EXCEEDS	202	80	156
90 PERCENT EXCEEDS	36	27	25

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

SURFACE-WATER RECORDS Scioto River Basin

03230800 DEER CREEK AT MT. STERLING, OHIO

LOCATION.--Latitude 39°42'54", longitude 83°15'26", Madison County, Hydrologic Unit 05060002, on left bank at downstream side of bridge on State Highway 56, 0.2 mi downstream from unnamed right bank tributary, 0.6 mi southeast of Mount Sterling, and 4.9 mi upstream from Duffs Fork.

DRAINAGE AREA.--228 mi².

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

REVISED RECORDS.--WDR OH-75-1: 1968(M).

GAGE.--Water-stage recorder. Datum of gage is 836.25 ft above sea level.

REMARKS.--Records fair except for periods of estimated record, which are poor. Water-quality and sediment data 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	7.4	14	e50	204	845	96	110	20	28	14	11
2	15	6.7	15	e47	335	588	95	100	21	25	12	11
3	17	6.0	15	e44	306	687	89	92	21	18	12	10
4	20	6.0	14	e42	254	740	91	87	19	13	10	7.4
5	19	6.5	15	e40	197	483	85	82	17	11	9.6	6.0
6	16	6.5	15	e39	187	1310	78	78	15	9.0	9.4	6.2
7	19	6.2	16	e37	737	1150	76	71	15	7.8	9.3	6.5
8	29	5.9	18	e36	1480	621	72	64	14	7.0	9.3	6.5
9	26	6.1	17	e35	750	481	102	60	14	7.2	9.8	5.4
10	16	8.4	14	e34	510	363	181	54	13	8.4	9.9	5.6
11	9.1	16	12	e33	388	275	138	50	13	9.4	10	4.3
12	9.7	16	13	e32	335	238	113	49	13	8.2	11	2.1
13	11	13	12	e50	317	215	93	59	13	7.6	11	2.2
14	10	13	12	e250	259	208	87	54	16	7.1	12	1.5
15	12	13	12	e170	243	194	89	47	17	7.3	18	1.1
16	12	12	11	e140	240	220	109	43	18	7.1	19	1.4
17	12	12	12	e180	234	715	121	41	16	6.6	18	1.2
18	11	11	12	e1500	213	946	203	39	15	6.4	12	1.2
19	11	10	11	2390	190	519	211	39	14	7.4	16	.91
20	12	10	12	1240	170	357	212	35	14	15	17	1.2
21	8.7	7.0	19	1460	151	290	610	32	13	17	18	1.5
22	7.5	4.6	e540	2420	135	228	1110	32	13	16	21	1.5
23	7.7	4.5	e280	1520	130	185	606	38	12	13	18	2.0
24	7.8	6.5	e160	985	127	165	474	36	11	22	23	2.1
25	6.5	7.8	e110	664	128	146	298	34	11	80	17	1.8
26	6.2	11	e90	497	125	129	228	30	11	41	20	1.7
27	5.0	16	e76	414	250	119	187	27	12	28	21	2.0
28	4.2	13	e68	335	1100	112	172	25	12	24	11	1.6
29	3.9	14	e62	255	---	106	148	22	43	21	9.3	3.1
30	5.3	14	e57	212	---	96	124	20	54	18	8.7	3.6
31	6.7	---	e54	186	---	92	---	19	---	15	9.2	---
TOTAL	370.3	290.1	1788	15337	9695	12823	6298	1569	510	511.5	425.5	113.61
MEAN	11.9	9.67	57.7	495	346	414	210	50.6	17.0	16.5	13.7	3.79
MAX	29	16	540	2420	1480	1310	1110	110	54	80	23	11
MIN	3.9	4.5	11	32	125	92	72	19	11	6.4	8.7	.91
CFSM	.05	.04	.25	2.17	1.52	1.81	.92	.22	.07	.07	.06	.02
IN.	.06	.05	.29	2.50	1.58	2.09	1.03	.26	.08	.08	.07	.02

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

MEAN	55.1	159	279	325	365	445	384	340	280	117	107	71.3
MAX	180	743	641	910	910	1239	786	1210	764	480	531	779
(WY)	1980	1973	1978	1996	1975	1978	1996	1996	1997	1973	1979	1979
MIN	10.6	9.67	15.7	10.0	111	113	58.5	29.2	17.0	12.9	13.7	3.73
(WY)	1998	1999	1977	1977	1978	1969	1976	1976	1999	1977	1999	1998

SUMMARY STATISTICS

FOR 1998 CALENDAR YEAR

FOR 1999 WATER YEAR

WATER YEARS 1967 - 1999

ANNUAL TOTAL	83342.7	49731.01	
ANNUAL MEAN	228	136	
HIGHEST ANNUAL MEAN			243
LOWEST ANNUAL MEAN			394
HIGHEST DAILY MEAN	7300	2420	82.7
LOWEST DAILY MEAN	2.1	.91	9400
ANNUAL SEVEN-DAY MINIMUM	2.3	1.2	.91
INSTANTANEOUS PEAK FLOW		3390	11600
INSTANTANEOUS PEAK STAGE		8.99	11.95
INSTANTANEOUS LOW FLOW		.91	.91
ANNUAL RUNOFF (CFSM)	1.00	.60	1.07
ANNUAL RUNOFF (INCHES)	13.60	8.11	14.50
10 PERCENT EXCEEDS	494	335	558
50 PERCENT EXCEEDS	84	19	96
90 PERCENT EXCEEDS	6.2	6.3	17

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

SURFACE-WATER RECORDS

Scioto River Basin

137

03231500 SCIOTO RIVER AT CHILLICOTHE, OHIO

LOCATION.--Latitude 39°20'29", longitude 82°58'16", Ross County, Hydrologic Unit 05060002, on right bank at north end of Chillicothe, 1,400 ft downstream from Bridge Street bridge, 7.4 mi upstream from Paint Creek, and 15.4 mi downstream from Deer Creek.
DRAINAGE AREA.--3,849 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1913 to September 1914 (gage heights and discharge measurements only). October 1920 to current year. Monthly discharge only for some periods, published in WSP 1305. Gage-height records collected in this vicinity since 1907 are contained in reports of the National Weather Service.

REVISED RECORDS.--WSP 803: 1929(M). WSP 1908: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 594.05 ft above sea level. Prior to Sept. 30, 1914, nonrecording gage at site 1,300 ft upstream at different datum. Apr. 1, 1921, to Aug. 6, 1930, nonrecording gage, at site 1,400 ft upstream at present datum. Aug. 7, 1930, to Sept. 30, 1969, water-stage recorder 900 ft upstream at same datum.

REMARKS.--Records excellent except for periods of estimated record, which are fair. Flow regulated by 6 reservoirs 36 mi to 91 mi upstream from station. U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 26, 1913, reached a stage of 39.8 ft; discharge, 260,000 ft³/s (estimated by Franklin County Conservancy District).

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	695	e1200	e1000	e900	3450	8750	1960	2600	1070	815	749	553
2	589	e1000	e960	e720	4020	12900	1960	2240	1080	705	622	543
3	554	e900	e920	e640	4450	12100	1880	1920	1020	2200	606	522
4	578	e880	873	e720	3920	14200	1670	1920	1030	1840	598	541
5	1090	e980	838	e880	3400	12900	1750	1870	1140	1380	555	513
6	877	930	790	e860	3170	10800	1700	1800	1220	1120	525	490
7	702	815	795	e800	4040	15300	1650	1900	1150	1040	517	521
8	1390	815	954	e900	10500	14900	1550	1910	1060	979	499	840
9	4050	851	955	e1000	13500	11600	1580	1750	1080	802	496	795
10	1710	861	887	e980	12400	10300	3610	1660	1010	755	539	587
11	1080	1190	787	e900	8350	7030	5810	1590	912	1320	566	537
12	885	2060	739	1160	6300	5390	6860	1460	837	899	549	496
13	819	1420	723	3010	5550	4450	5590	1290	797	701	752	472
14	760	1180	684	6300	4950	4150	4140	1140	767	653	631	462
15	725	1120	e660	4720	4310	3890	3140	1200	978	638	607	468
16	728	1380	e600	3110	3840	4020	2580	1200	1790	618	636	449
17	690	1430	e600	3380	3580	5550	2730	1140	1710	582	561	451
18	672	1130	e640	8130	e3200	7220	4520	1110	1460	565	508	453
19	687	997	808	15500	e2800	9110	8560	1170	1120	544	478	438
20	978	1010	742	15500	e2500	7680	9740	1210	e980	563	495	455
21	908	1090	740	13600	e2200	5760	9960	1140	e860	622	538	468
22	825	1160	5110	17300	e2000	4700	12900	1170	769	655	496	481
23	910	1030	10800	20000	e1800	3760	11200	1430	655	716	465	479
24	884	999	4480	21000	e1700	3240	10300	2110	597	920	498	469
25	853	1000	2720	19300	e1500	2940	9160	1570	623	1090	811	463
26	837	1080	2080	16500	e1800	2690	e7000	2090	619	1090	1710	450
27	867	1840	1750	15300	2510	2450	e5200	2440	637	831	1460	452
28	849	1350	1480	12400	4470	1990	e4000	1980	634	934	896	453
29	833	e1200	1350	7810	---	1960	3530	1590	796	1070	681	509
30	e860	e1100	e1100	5050	---	1930	2840	1190	1350	1140	604	626
31	e960	---	e1000	3870	---	1940	---	1070	---	953	570	---
TOTAL	29845	33998	48565	222240	126210	215600	149070	49860	29751	28740	20218	15436
MEAN	963	1133	1567	7169	4508	6955	4969	1608	992	927	652	515
MAX	4050	2060	10800	21000	13500	15300	12900	2600	1790	2200	1710	840
MIN	554	815	600	640	1500	1930	1550	1070	597	544	465	438

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

MEAN	965	2033	3525	5311	5798	7173	6043	4165	3253	2156	1438	976
MAX	8068	12130	14120	30110	13700	19450	14640	18590	11050	9507	8263	10180
(WY)	1927	1973	1991	1937	1951	1963	1957	1996	1997	1992	1980	1979
MIN	192	210	222	312	386	1041	1136	440	378	303	214	207
(WY)	1954	1935	1935	1931	1934	1931	1941	1934	1925	1930	1930	1953

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR			FOR 1999 WATER YEAR			WATER YEARS 1921 - 1999		
ANNUAL TOTAL	1359157			969533					
ANNUAL MEAN	3724			2656			3558		
HIGHEST ANNUAL MEAN							6217		
LOWEST ANNUAL MEAN							883		
HIGHEST DAILY MEAN	26800			21000			127000		
LOWEST DAILY MEAN	479			438			166		
ANNUAL SEVEN-DAY MINIMUM	531			454			174		
INSTANTANEOUS PEAK FLOW				21100			144000		
INSTANTANEOUS PEAK STAGE				10.96			32.50		
INSTANTANEOUS LOW FLOW				438			166		
10 PERCENT EXCEEDS	10300			7400			9230		
50 PERCENT EXCEEDS	1850			1090			1480		
90 PERCENT EXCEEDS	703			542			374		

e Estimated.

SURFACE-WATER RECORDS

Scioto River Basin

03231500 SCIOTO RIVER AT CHILLICOTHE, OHIO—Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

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

pH: June 1971 to October 1981, November 1985 to current year.

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

DISSOLVED OXYGEN: May 1965 to October 1981, November 1985 to current year.

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

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

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	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
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

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WATER-QUALITY RECORDS—CONTINUED

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	620	605	616	691	633	648	683	675	679	682	652	667
2	638	614	625	655	617	630	714	683	692	678	663	669
3	636	625	628	641	587	629	717	709	713	679	669	672
4	642	626	634	587	503	525	711	707	709	711	679	699
5	673	642	659	503	492	496	735	711	723	712	700	708
6	698	673	686	507	458	494	752	734	746	710	699	706
7	698	493	646	479	442	465	746	734	740	718	704	710
8	506	450	476	495	474	480	755	734	745	725	707	721
9	537	471	519	509	495	502	763	746	756	730	705	720
10	589	526	546	513	493	503	771	658	745	710	690	702
11	610	589	606	634	513	584	658	538	593	717	692	709
12	605	568	584	677	634	665	684	605	636	732	695	721
13	585	566	574	669	650	655	614	593	605	730	711	724
14	611	585	599	675	656	669	630	597	609	726	720	723
15	655	611	640	692	672	678	648	628	636	725	715	722
16	700	655	679	672	655	667	657	646	652	743	718	735
17	700	686	694	655	548	593	688	650	669	756	692	742
18	696	685	691	575	542	558	686	627	660	752	739	746
19	710	696	706	601	574	588	627	554	583	739	708	732
20	714	707	710	604	591	596	554	524	535	760	726	743
21	727	713	720	625	597	611	524	481	500	779	745	763
22	726	714	719	627	610	618	481	432	457	758	705	726
23	717	711	714	637	615	628	487	438	468	747	715	738
24	718	710	715	642	618	633	502	461	481	788	744	765
25	726	710	716	642	639	640	503	472	491	752	650	686
26	771	726	746	648	639	643	531	503	514	678	653	660
27	807	769	786	656	648	651	562	531	547	670	629	649
28	769	682	710	654	649	652	601	562	583	666	635	654
29	---	---	---	679	652	664	632	580	609	665	658	662
30	---	---	---	691	679	688	652	632	642	685	665	676
31	---	---	---	687	677	682	---	---	---	697	674	690
MONTH	807	450	655	692	442	604	771	432	624	788	629	708
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	728	692	714	862	786	837	756	663	688	733	673	708
2	760	728	750	786	690	722	687	670	681	774	733	753
3	760	754	757	778	694	719	695	673	686	808	773	791
4	761	753	757	759	640	664	716	687	706	829	801	810
5	768											

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
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
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
	FEBRUARY			MARCH			APRIL			MAY		
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

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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
	JUNE			JULY			AUGUST			SEPTEMBER		
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
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
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

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	5.5	5.0	5.5	6.5	5.5	6.0	13.5	13.0	13.5	18.0	15.5	16.5
2	6.5	5.5	6.0	5.5	4.5	4.5	15.0	13.5	14.0	19.0	16.5	17.5
3	6.5	6.0	6.5	4.5	4.5	4.5	16.0	14.5	15.5	19.5	17.0	18.5
4	6.5	6.0	6.5	4.5	4.0	4.5	17.0	15.5	16.0	20.5	18.0	19.0
5	6.5	5.5	6.0	5.0	4.0	4.5	16.5	15.5	16.0	21.0	19.0	20.0
6	7.0	6.0	6.5	5.5	5.0	5.0	17.5	15.5	16.5	21.5	20.0	20.5
7	7.0	6.5	7.0	5.0	4.0	4.5	18.0	15.5	16.5	21.5	19.5	20.5
8	6.5	6.0	6.0	4.0	3.5	3.5	18.0	16.0	17.0	21.0	19.5	20.0
9	6.0	5.5	6.0	3.5	3.0	3.0	18.5	17.5	18.0	21.0	18.5	19.5
10	6.0	5.5	6.0	3.0	2.5	3.0	18.0	16.5	17.0	21.5	18.5	20.0
11	7.5	6.0	6.5	4.0	3.0	3.5	17.0	16.0	16.5	22.0	19.5	20.5
12	8.0	7.0	7.5	4.5	3.0	4.0	16.0	14.5	15.0	23.0	20.5	21.5
13	7.0	5.5	6.0	5.0	3.5	4.5	15.0	13.5	14.5	22.5	21.0	21.5
14	5.5	4.5	5.0	5.0	4.5	4.5	15.5	13.5	14.5	21.0	20.0	20.5
15	5.5	4.5	5.0	5.5	4.0	5.0	15.5	14.5	14.5	21.5	18.5	20.0
16	6.5	5.0	6.0	6.5	4.5	5.5	14.5	10.5	13.5	22.0	19.5	20.5
17	7.0	6.5	7.0	8.0	6.0	7.0	12.5	11.5	11.5	23.5	20.5	21.5
18	7.0	6.0	6.5	8.5	8.0	8.0	11.5	10.5	11.0	23.0	22.0	22.5
19	6.5	5.5	6.0	8.0	6.5	7.0	11.5	10.5	11.0	23.0	21.0	22.0
20	6.0	5.0	5.5	7.5	6.0	7.0	12.5	11.0	11.5	23.0	20.5	21.5
21	5.0	4.0	4.5	8.5	7.0	8.0	12.5	11.5	12.0	23.5	20.5	22.0
22	4.5	3.5	4.0	8.0	7.5	8.0	13.5	12.0	13.0	22.5	21.5	22.0
23	4.0	3.5	4.0	8.0	7.0	7.5	15.5	13.5	14.5	22.5	20.5	21.5
24	5.0	3.5	4.0	9.0	7.5	8.0	15.0	14.0	14.5	22.0	19.5	20.5
25	5.0	4.5	5.0	10.0	8.0	9.0	14.5	13.5	14.0	19.5	18.0	19.0
26	6.0	5.0	5.5	9.5	8.0	9.0	14.5	13.5	14.0	19.0	18.0	18.5
27	6.5	5.5	6.0	10.0	8.0	9.0	15.5	14.0	14.5	20.0	17.5	18.5
28	6.5	6.0	6.5	11.0	8.5	10.0	15.5	14.5	15.0	21.0	18.0	19.5
29	---	---	---	12.5	10.5	11.0	16.5	14.5	15.0	22.5	19.5	20.5
30	---	---	---	13.0	11.0	12.0	17.5	14.5	16.0	24.0	21.0	22.0
31	---	---	---	13.5	11.5	12.5	---	---	---	24.0	22.5	23.0
MONTH	8.0	3.5	6.0	13.5	2.5	6.5	18.5	10.5	14.5	24.0	15.5	20.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	23.5	22.5	23.0	27.0	25.5	26.5	31.5	29.5	30.5	25.5	22.0	23.5
2	24.0	22.5	23.0	27.5	25.5	26.5	30.5	28.5	29.5	26.0	22.5	24.0
3	24.0	22.0	23.0	28.0	26.0	27.0	29.5	27.0	28.0	26.5	23.0	24.5
4	24.5	22.0	23.0	29.0	26.5	27.5	29.0	26.5	27.5	27.0	23.5	25.0
5	25.0	22.5	23.5	30.0	28.0	29.0	28.5	26.5	27.5	26.0	24.5	25.0
6	27.0	24.0	25.0	30.5	28.5	29.5	28.5	25.5	27.0	26.5	24.0	25.0
7	27.5	25.5	26.5	30.5	28.0	29.0	28.5	25.5	27.0	26.5	24.0	25.0
8	28.5	26.0	27.0	30.0	27.5	28.5	27.5	26.0	27.0	26.0	24.0	25.0
9	29.0	26.5	27.5	29.5	27.0	28.0	27.5	23.0	25.5	26.0	24.5	25.0
10	30.0	27.0	28.0	28.0	26.0	27.5	27.0	24.0	25.5	25.0	23.0	24.0
11	30.0	27.5	28.5	27.0	24.5	25.5	27.5	25.0	26.0	24.5	21.5	23.0
12	30.0	27.5	28.5	27.0	24.5	26.0	27.5	25.0	26.5	24.5	21.5	23.0
13	30.0	27.0	28.0	27.0	24.5	25.5	28.5	25.5	26.5	23.5	22.5	23.0
14	28.5	26.5	27.5	28.0	25.0	26.0	27.5	24.5	25.5	23.0	20.5	21.5
15	26.5	24.5	25.5	28.0	25.5	27.0	25.0	23.0	24.0	23.0	20.5	21.5
16	25.5	23.5	24.0	28.5	26.5	27.5	26.5	23.0	24.0	22.0	20.0	21.0
17	24.5	22.5	23.5	29.5	26.5	28.0	27.0	24.0	25.0	21.5	18.5	20.0
18	24.0	21.5	22.5	29.5	27.0	28.0	27.0	24.5	25.5	21.5	18.5	20.0
19	23.5	21.5	22.5	30.0	27.0	28.0	26.0	24.5	25.5	21.5	18.5	20.0
20	22.5	22.0	22.5	29.5	27.5	28.5	25.5	23.5	24.5	20.5	19.5	20.0
21	26.0	22.0	24.0	30.5	28.0	29.0	26.0	23.0	24.0	19.5	18.5	19.0
22	27.0	23.5	25.0	30.5	28.5	29.5	27.0	23.5	25.0	19.0	16.5	17.5
23	27.0	24.0	25.5	31.0	28.5	29.5	26.5	24.0	25.0	19.0	16.5	17.5
24	26.0	25.0	25.5	31.5	29.0	30.0	25.5	23.0	24.5	19.5	17.0	18.0
25	27.0	24.5	25.5	31.5	29.5	30.5	24.0	22.5	23.5	20.5	17.5	19.0
26	27.5	25.5	26.5	31.0	29.0	30.0	24.5	23.0	23.5	21.0	18.0	19.5
27	28.0	26.5	27.0	30.5	28.5	29.5	24.5	23.5	24.0	21.0	19.5	20.0
28	28.5	26.5	27.5	29.5	28.5	29.0	25.5	23.5	24.5	22.5	20.0	21.0
29	27.5	26.5	27.0	31.0	28.0	29.0	26.5	24.5	25.5	22.5	20.0	21.5
30	27.5	25.5	26.5	31.5	29.0	30.0	25.0	23.0	24.0	20.0	18.5	19.5
31	---	---	---	32.0	30.0	30.5	25.0	22.0	23.5	---	---	---
MONTH	30.0	21.5	25.5	32.0	24.5	28.0	31.5	22.0	25.5	27.0	16.5	21.5
YEAR	32.0	.0	15.5									

SURFACE-WATER RECORDS

Scioto River Basin

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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

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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)

	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	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 BARRETTS 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)

	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
LOWEST ANNUAL MEAN			56.5
HIGHEST DAILY MEAN	2070	Jan 8	1300
LOWEST DAILY MEAN	8.8	Oct 26	4.1
ANNUAL SEVEN-DAY MINIMUM	10	Sep 13	4.6
INSTANTANEOUS PEAK FLOW			1760
INSTANTANEOUS PEAK STAGE			6.27
INSTANTANEOUS LOW FLOW			3.4
10 PERCENT EXCEEDS	332		249
50 PERCENT EXCEEDS	64		24
90 PERCENT EXCEEDS	14		5.0
			348
			60
			8.5

e Estimated.

SURFACE-WATER RECORDS

Scioto River Basin

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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)

	339	744	1305	1846	2228	2433	2153	2238	1381	617	339	138
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
HIGHEST DAILY MEAN	10800	7780	25300
LOWEST DAILY MEAN	34	33	33
ANNUAL SEVEN-DAY MINIMUM	38	42	38
INSTANTANEOUS PEAK FLOW		8780	30100
INSTANTANEOUS PEAK STAGE		14.18	24.67
INSTANTANEOUS LOW FLOW		33	33
10 PERCENT EXCEEDS	4320	2350	3750
50 PERCENT EXCEEDS	968	320	550
90 PERCENT EXCEEDS	84	58	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	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
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

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WATER-QUALITY RECORDS—CONTINUED

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	530	519	527	485	435	462	543	532	539	529	518	525
2	519	481	495	448	430	435	540	532	536	528	511	523
3	502	484	492	442	380	432	551	535	545	529	507	520
4	519	502	511	442	377	404	548	526	541	552	508	532
5	529	519	526	463	442	458	537	518	529	550	511	536
6	531	524	529	458	348	413	534	514	526	535	512	526
7	527	259	426	437	346	375	524	505	516	544	516	531
8	424	292	334	451	420	434	515	502	510	530	519	526
9	454	358	423	428	411	417	520	507	514	539	514	530
10	377	350	361	430	412	422	523	506	517	539	511	526
11	412	377	397	459	430	444	520	348	463	535	506	524
12	451	412	432	479	459	472	434	342	399	538	513	528
13	456	444	450	480	473	477	466	434	458	538	523	534
14	466	456	459	488	475	480	474	465	469	539	534	537
15	485	466	480	508	487	495	498	469	486	540	526	536
16	509	485	499	499	443	488	504	498	501	540	519	533
17	522	509	516	443	363	391	508	497	503	537	515	528
18	538	522	528	457	373	406	509	499	505	538	518	533
19	547	538	543	468	432	455	519	501	511	541	529	536
20	551	547	550	435	428	431	519	506	513	537	517	531
21	557	547	553	451	435	443	520	422	488	532	484	520
22	571	554	568	464	451	458	474	398	445	520	481	504
23	571	561	563	483	464	478	502	474	488	541	512	532
24	569	563	566	495	482	489	510	502	507	557	510	539
25	570	565	566	509	495	503	515	505	510	555	545	550
26	572	563	566	516	509	512	521	515	517	555	543	550
27	579	429	541	540	516	532	524	517	520	553	540	547
28	435	393	414	536	526	532	553	308	470	550	524	541
29	---	---	---	531	521	527	497	382	444	540	515	530
30	---	---	---	528	522	525	518	497	510	534	509	524
31	---	---	---	537	525	532	---	---	---	536	510	527
MONTH	579	259	493	540	346	462	553	308	499	557	481	531
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	541	528	536	565	560	563	525	405	494	---	---	---
2	541	531	537	567	560	565	522	509	517	514	502	509
3	547	535	543	565	555	561	527	492	514	510	478	485
4	547	543	546	562	550	558	531	460	502	493	478	487
5	553	546	5									

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
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
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
	FEBRUARY			MARCH			APRIL			MAY		
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	8.2
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

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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
	JUNE			JULY			AUGUST			SEPTEMBER		
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
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
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

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	5.5	5.0	5.0	5.5	4.5	5.0	13.5	12.0	12.5	18.0	15.0	16.5
2	6.5	5.5	6.0	5.5	4.5	5.0	15.5	12.5	13.5	19.0	16.0	17.5
3	6.5	5.5	6.0	5.5	4.5	5.5	16.0	14.0	15.0	19.5	16.5	18.0
4	6.0	5.5	6.0	5.0	3.5	4.5	17.0	14.5	15.5	20.5	16.5	18.5
5	5.5	4.0	5.0	5.5	4.5	5.0	17.0	14.5	16.0	20.5	18.0	19.0
6	7.0	5.5	6.0	6.0	5.0	5.5	18.5	15.0	16.5	22.0	19.0	20.5
7	6.5	6.0	6.5	5.0	3.0	4.0	19.0	15.0	17.0	21.5	18.0	20.0
8	6.5	5.5	6.0	4.5	3.5	4.0	19.0	15.0	17.0	20.5	18.5	19.5
9	7.0	5.5	6.0	4.5	2.5	3.0	19.5	17.5	18.5	20.5	17.5	19.0
10	6.5	5.5	6.5	4.0	3.0	3.0	18.5	15.0	16.5	22.0	17.5	20.0
11	8.5	6.0	7.0	3.5	2.0	3.0	17.0	15.0	16.0	22.5	18.5	20.5
12	9.0	7.0	8.5	4.5	2.0	3.5	15.5	13.0	14.5	23.5	19.5	21.5
13	7.0	5.0	5.5	4.5	3.0	3.5	15.0	11.0	13.0	22.5	20.0	20.5
14	5.5	4.0	4.5	4.5	2.5	3.5	16.0	12.0	14.0	20.0	18.5	19.5
15	6.0	4.5	5.0	5.0	2.0	3.0	15.5	14.0	14.0	21.0	17.0	19.0
16	7.5	5.5	6.5	6.0	3.5	4.5	14.0	11.0	12.5	22.0	18.5	20.0
17	7.5	7.0	7.5	7.5	4.5	6.0	11.0	9.5	10.0	24.0	19.5	22.0
18	7.0	5.5	6.0	7.5	7.0	7.0	11.0	9.5	10.0	23.5	21.5	22.5
19	5.5	4.0	5.0	8.0	6.0	7.0	13.0	9.5	11.0	22.5	19.5	21.0
20	5.0	4.0	4.5	8.5	6.5	7.5	15.0	11.5	13.0	22.5	18.5	20.5
21	4.0	3.0	3.5	9.5	8.0	8.5	15.5	13.0	14.0	23.0	18.5	21.0
22	4.0	2.0	3.0	9.0	7.5	8.0	17.0	15.0	15.5	22.5	20.0	21.0
23	3.5	3.0	3.0	8.0	6.5	7.0	17.5	15.5	16.5	22.0	19.0	20.5
24	4.0	3.0	3.5	10.0	7.0	8.0	17.0	14.0	15.5	21.5	18.0	19.5
25	5.0	4.0	4.5	10.0	8.0	9.0	16.0	13.5	14.5	19.0	16.0	17.5
26	5.5	4.0	4.5	9.5	7.0	8.5	15.5	14.0	15.0	19.0	16.5	18.0
27	5.5	4.5	5.0	10.0	7.5	8.5	15.5	14.5	15.0	21.0	16.0	18.5
28	6.0	5.5	5.5	11.0	8.0	9.5	15.5	12.5	14.5	22.5	17.5	20.0
29	---	---	---	12.5	10.0	11.0	16.0	12.5	14.0	24.0	19.0	21.5
30	---	---	---	13.0	10.0	11.5	17.5	14.0	15.5	24.5	20.5	22.5
31	---	---	---	13.0	10.5	11.5	---	---	---	24.5	22.0	23.5
MONTH	9.0	2.0	5.5	13.0	2.0	6.5	19.5	9.5	14.5	24.5	15.0	20.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	24.0	22.5	23.0	25.5	24.0	24.5	32.5	27.5	30.0	---	---	---
2	23.5	21.5	22.5	27.0	24.5	26.0	30.5	27.0	28.5	26.5	20.0	22.5
3	24.0	21.5	23.0	29.0	25.5	27.0	30.5	24.0	27.0	27.0	20.5	23.5
4	24.5	20.5	22.5	30.5	26.5	28.5	31.5	23.5	27.0	27.5	21.5	24.0
5	25.5	21.5	23.5	31.5	27.5	29.5	32.0	24.5	27.5	25.5	22.5	24.0
6	27.5	23.0	25.0	31.0	28.0	29.5	28.5	23.5	25.5	26.0	23.0	24.5
7	28.0	25.0	26.5	32.0	26.5	29.0	28.0	23.5	26.0	26.5	23.0	24.0
8	29.0	25.5	27.0	31.0	25.0	27.5	27.0	25.0	26.0	27.0	22.0	24.0
9	29.0	25.5	27.5	29.0	24.5	26.5	28.0	23.0	25.0	26.0	22.5	24.0
10	30.0	26.0	28.0	28.0	24.5	26.5	26.5	22.5	24.5	24.5	20.0	22.0
11	30.0	26.5	28.0	28.5	22.0	24.5	30.0	23.5	26.0	23.5	18.5	21.0
12	30.5	27.0	28.5	29.0	22.0	25.0	29.0	23.5	26.0	26.0	19.5	22.5
13	30.0	25.5	27.5	29.0	22.5	25.5	29.0	24.5	26.5	22.5	21.5	22.0
14	28.0	25.0	26.5	29.0	23.0	26.0	27.0	23.0	24.5	24.0	19.0	21.5
15	26.5	22.5	24.5	---	---	---	25.0	21.0	22.5	25.0	17.0	20.5
16	24.0	21.0	22.5	---	---	---	28.5	20.0	24.0	23.0	17.5	20.0
17	24.5	20.5	22.0	29.5	25.0	27.0	27.0	22.0	24.5	22.0	16.0	19.0
18	25.0	19.0	21.5	29.5	25.5	27.5	28.0	23.0	25.0	23.5	16.0	19.0
19	23.0	19.5	21.5	31.5	26.0	28.5	25.5	23.0	24.5	23.0	16.5	19.5
20	25.5	19.5	22.0	30.0	27.0	28.5	26.0	22.0	23.5	20.0	18.5	19.0
21	27.5	21.0	23.5	31.0	27.0	28.5	26.5	21.0	23.5	19.5	16.5	18.0
22	27.5	21.5	24.5	32.0	27.5	29.5	27.0	21.5	24.0	22.0	14.0	17.0
23	27.5	22.5	25.0	31.0	27.0	29.0	26.5	22.0	24.0	19.5	14.0	16.5
24	25.5	24.5	25.0	32.0	27.0	29.5	---	---	---	22.0	15.0	17.5
25	27.5	23.5	25.5	33.5	27.5	29.5	---	---	---	26.0	17.5	20.5
26	28.5	24.5	26.5	33.0	26.5	29.0	---	---	---	27.0	19.0	22.5
27	28.0	25.5	26.5	30.0	27.0	28.5	25.0	22.5	23.5	25.0	21.5	23.5
28	---	---	---	30.0	27.0	28.5	---	---	---	25.0	19.5	23.0
29	---	---	---	33.0	27.0	29.5	---	---	---	22.5	19.0	21.5
30	---	---	---	34.0	28.5	30.5	---	---	---	22.0	16.5	18.5
31	---	---	---	32.0	29.0	30.5	---	---	---	---	---	---
MONTH	30.5	19.0	25.0	34.0	22.0	28.0	32.5	20.0	25.5	27.5	14.0	21.0
YEAR	34.0	.0	14.5									

SURFACE-WATER RECORDS Scioto River Basin

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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
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
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
	FEBRUARY			MARCH			APRIL			MAY		
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

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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)

	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	1364
LOWEST DAILY MEAN	581	Sep 20	550	127000
ANNUAL SEVEN-DAY MINIMUM	602	Sep 14	569	244
INSTANTANEOUS PEAK FLOW			26400	255
INSTANTANEOUS PEAK STAGE			14.11	177000
INSTANTANEOUS LOW FLOW			550	26.40
10 PERCENT EXCEEDS	14600		9240	244
50 PERCENT EXCEEDS	2740		1360	2080
90 PERCENT EXCEEDS	851		684	537

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	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
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

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WATER-QUALITY RECORDS—CONTINUED

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	624	564	604	660	655	658	649	617	632
2	613	602	605	635	607	620	678	658	667	654	642	648
3	615	605	611	630	555	606	704	678	695	650	645	649
4	627	612	618	555	501	520	697	688	694	675	650	661
5	653	627	642	513	498	503	697	691	694	681	666	675
6	676	653	665	505	428	469	698	692	695	683	663	673
7	678	332	527	484	436	459	694	676	687	715	674	693
8	477	396	434	498	483	491	687	673	680	690	674	682
9	527	477	509	514	498	507	705	662	682	707	686	696
10	533	508	517	523	505	514	706	654	680	712	693	703
11	570	533	559	606	509	559	702	450	560	709	682	696
12	581	548	566	657	606	637	605	514	570	711	649	701
13	565	545	551	644	624	633	572	558	566	731	710	719
14	587	565	575	640	622	628	576	557	567	733	721	728
15	620	587	602	650	627	644	610	574	598	743	726	729
16	658	619	635	627	555	604	616	605	609	750	725	736
17	666	656	663	555	449	516	629	607	614	772	741	752
18	669	658	662	514	422	465	637	611	629	772	761	767
19	691	669	680	554	488	533	611	544	567	785	765	775
20	698	690	695	539	528	534	545	515	525	800	736	761
21	715	698	706	558	532	541	516	424	473	753	726	741
22	731	715	725	568	558	564	448	417	433	777	734	760
23	728	718	724	586	561	576	464	417	442	764	714	735
24	729	718	725	588	578	582	485	456	471	759	706	737
25	730	723	727	599	588	594	490	456	476	765	706	746
26	747	728	734	604	597	601	512	490	500	706	661	681
27	762	549	700	624	602	613	539	512	527	691	658	675
28	564	532	543	626	616	622	572	470	541	703	648	678
29	---	---	---	632	616	624	570	486	531	703	671	692
30	---	---	---	658	630	647	617	570	597	706	668	695
31	---	---	---	663	658	660	---	---	---	715	696	704
MONTH	762	332	626	663	422	570	706	417	588	800	617	707
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	718	696	711	879	824	857	774	685	734	729	707	721
2	742	718	731	922	879	903	750	700	732	819	724	771
3	770	740	759	896	728	798	753	721	743	859	819	842
4	766	721	756	807	701	765	764	723	748	872	855	864
5	762	734	7									

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
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
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
	FEBRUARY			MARCH			APRIL			MAY		
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

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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
	JUNE			JULY			AUGUST			SEPTEMBER		
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
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
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

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	6.0	5.5	5.5	15.0	14.0	14.5	19.5	16.5	18.0
2	6.5	6.0	6.0	5.5	4.5	5.0	16.5	14.5	15.5	20.0	17.0	18.5
3	6.5	6.0	6.5	4.5	4.0	4.5	17.5	16.0	16.5	20.5	18.0	19.0
4	6.5	6.0	6.0	5.0	4.0	4.5	18.5	16.5	17.5	20.5	18.0	19.5
5	6.0	5.0	5.5	5.0	4.0	4.5	18.0	15.5	17.0	21.0	19.0	20.0
6	7.0	6.0	6.5	5.5	5.0	5.0	18.0	16.0	17.0	22.5	20.0	21.0
7	7.0	6.5	6.5	5.0	4.0	4.5	18.5	16.0	17.0	22.0	20.0	21.0
8	6.5	6.0	6.5	4.0	3.5	3.5	18.5	16.0	17.5	21.5	20.0	20.5
9	6.5	5.5	6.0	3.5	2.5	3.0	19.5	18.0	18.5	21.5	19.0	20.0
10	6.5	5.5	6.0	3.5	2.5	3.0	18.0	16.0	17.0	22.5	19.0	20.5
11	8.0	6.0	6.5	4.0	2.5	3.0	18.0	16.5	17.0	23.0	20.0	21.5
12	8.0	7.0	8.0	4.5	3.0	4.0	16.5	15.0	15.5	23.5	21.0	22.5
13	7.0	5.5	6.0	5.0	3.5	4.0	17.5	14.5	15.5	23.0	22.0	22.0
14	5.5	4.5	5.0	4.5	3.5	4.0	18.5	15.5	17.0	22.5	21.5	22.0
15	6.0	4.5	5.0	5.5	3.5	4.5	18.0	14.5	16.0	24.5	20.5	22.0
16	7.0	5.0	6.0	6.5	4.0	5.5	15.0	12.5	13.5	25.0	21.0	22.5
17	7.5	7.0	7.0	8.0	5.5	6.5	12.5	11.5	11.5	26.5	22.0	24.0
18	7.0	6.0	6.5	8.5	7.5	8.0	11.5	11.0	11.0	26.5	23.5	24.5
19	6.5	5.5	6.0	8.0	7.0	7.5	12.0	10.5	11.0	25.5	23.0	24.0
20	6.0	5.0	5.0	8.5	7.0	7.5	13.5	11.5	12.5	24.0	20.5	22.5
21	5.0	4.0	4.5	9.5	8.0	9.0	13.5	12.0	12.5	23.5	20.5	22.0
22	5.0	3.5	4.0	9.5	8.5	9.0	14.5	13.0	13.5	23.0	21.5	22.0
23	4.5	3.5	4.0	9.5	8.5	9.0	16.5	14.0	15.5	22.5	21.0	21.5
24	4.5	3.5	4.0	9.5	7.0	9.0	16.0	14.5	15.5	22.5	20.0	21.0
25	5.5	4.5	5.0	10.5	8.0	9.0	16.0	14.5	15.0	20.5	18.5	19.5
26	6.0	4.5	5.5	10.5	8.5	9.5	16.0	14.5	15.5	20.0	18.5	19.0
27	6.0	5.5	5.5	10.5	8.5	9.5	16.5	15.5	16.0	21.0	18.0	19.0
28	6.0	6.0	6.0	11.5	9.0	10.5	16.5	14.5	15.5	22.0	19.0	20.0
29	---	---	---	13.5	11.0	12.0	17.0	14.5	15.5	23.5	19.5	21.5
30	---	---	---	14.0	11.5	13.0	18.5	15.5	17.0	24.5	21.0	22.5
31	---	---	---	14.5	12.0	13.5	---	---	---	24.5	23.0	24.0
MONTH	8.0	3.5	5.5	14.5	2.5	7.0	19.5	10.5	15.5	26.5	16.5	21.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	24.0	23.5	24.0	27.0	25.5	26.0	31.5	29.5	30.5	25.5	22.0	23.5
2	24.5	23.0	24.0	31.0	27.0	28.5	30.5	28.5	29.5	26.0	22.5	24.0
3	25.0	23.0	24.0	32.0	26.0	28.0	29.0	26.0	28.0	26.5	23.0	25.0
4	25.0	23.0	24.0	29.5	27.0	28.0	28.5	26.0	27.5	27.0	24.0	25.5
5	26.0	23.0	24.5	30.5	28.0	29.0	28.5	26.0	27.5	26.0	24.5	25.5
6	27.5	24.5	26.0	30.5	28.5	29.5	28.5	25.5	26.5	26.5	24.5	25.5
7	28.0	26.0	27.0	30.5	28.0	29.5	28.0	25.0	26.5	26.5	24.5	25.5
8	29.0	26.5	27.5	29.5	27.0	28.5	27.5	26.5	27.0	26.5	24.0	25.0
9	30.0	27.0	28.5	35.0	27.0	29.5	27.5	24.5	26.0	26.5	24.5	25.5
10	31.0	28.5	29.5	32.5	29.5	31.5	27.0	24.0	25.5	25.0	22.5	24.0
11	33.0	30.5	31.5	32.0	24.5	27.0	27.5	25.0	26.0	24.5	21.5	23.0
12	34.0	31.0	32.5	27.0	24.5	26.0	27.5	25.0	26.0	25.0	22.0	23.5
13	35.0	31.0	32.5	29.5	26.5	28.0	28.0	25.5	26.5	24.0	23.0	23.5
14	31.0	28.5	29.5	---	---	---	27.5	24.0	25.5	24.0	21.5	23.0
15	29.0	23.0	27.0	---	---	---	24.5	23.0	23.5	23.5	20.5	22.0
16	25.5	24.0	24.5	---	---	---	26.0	22.5	24.0	22.5	20.5	21.5
17	---	---	---	---	---	---	26.5	23.5	25.0	21.0	19.0	20.0
18	---	---	---	---	---	---	27.0	24.5	25.5	22.0	19.0	20.0
19	---	---	---	---	---	---	26.0	25.0	25.5	22.0	19.0	20.5
20	---	---	---	---	---	---	26.0	24.0	24.5	21.0	20.0	20.5
21	---	---	---	---	---	---	26.0	23.0	24.5	20.5	19.0	19.5
22	---	---	---	---	---	---	26.5	23.5	25.0	20.0	17.5	18.5
23	---	---	---	---	---	---	26.5	24.0	25.5	20.0	17.0	18.5
24	---	---	---	31.0	28.0	29.5	26.0	23.5	24.5	20.0	17.5	18.5
25	---	---	---	31.5	29.0	30.0	24.5	23.0	23.5	21.5	18.0	19.5
26	---	---	---	31.0	28.5	30.0	24.5	23.0	23.5	22.0	19.0	20.5
27	---	---	---	30.5	28.5	29.0	25.5	23.5	24.5	21.5	20.0	21.0
28	---	---	---	29.5	28.5	29.0	26.0	23.5	25.0	23.5	20.5	22.0
29	---	---	---	30.5	28.0	29.0	27.5	24.5	26.0	23.0	21.0	22.5
30	---	---	---	31.5	29.0	30.0	26.0	23.5	24.5	21.0	19.0	20.0
31	---	---	---	32.0	29.5	30.5	25.0	22.0	23.5	---	---	---
MONTH	35.0	23.0	27.5	35.0	24.5	29.0	31.5	22.0	25.5	27.0	17.0	22.0
YEAR	35.0	.0	15.0									

SURFACE-WATER RECORDS

Scioto River Basin

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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
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
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
FEBRUARY			MARCH			APRIL			MAY			
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

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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)

	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	13.6
HIGHEST ANNUAL MEAN			31.9
LOWEST ANNUAL MEAN			5.15
HIGHEST DAILY MEAN	217	226	850
LOWEST DAILY MEAN	.02	.00	.00
ANNUAL SEVEN-DAY MINIMUM	.04	.00	.00
INSTANTANEOUS PEAK FLOW		1540	4430
INSTANTANEOUS PEAK STAGE		6.88	10.20
INSTANTANEOUS LOW FLOW		.00	.00
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

Ohio Brush Creek Basin

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03237500 OHIO BRUSH NEAR WEST UNION, OHIO

LOCATION.--Latitude 38°48'13", longitude 83°25'16", Adams County, Hydrologic Unit 05090201, on right bank at downstream side of bridge on State Highway 348, 0.3 mi downstream from Cedar Run, 7.0 mi east of West Union, and 7.1 mi upstream from Beasley Fork.

DRAINAGE AREA.--387 mi².

PERIOD OF RECORD.--August 1926 to November 1935, September 1940 to current year.

REVISED RECORDS.--WSP 1908: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 510.6 ft above sea level. Prior to Nov. 22, 1940, nonrecording gage at same site and datum.

REMARKS.--Records fair except for periods of estimated 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	e7.2	22	62	e110	1250	2110	175	155	15	4.1	7.0	11
2	6.0	34	52	e100	2210	1280	260	130	17	3.9	6.5	7.5
3	5.6	33	46	458	1410	2200	238	115	18	4.1	5.7	5.0
4	6.2	29	42	614	971	2500	204	104	15	4.1	5.2	3.6
5	5.9	45	40	464	695	1400	190	97	14	3.7	4.5	2.6
6	7.2	46	39	e320	550	1810	180	91	13	3.5	4.2	2.0
7	9.4	35	118	e290	2190	1770	323	85	13	3.2	3.9	1.8
8	254	28	399	e260	2300	1130	270	80	11	3.1	4.0	1.7
9	268	24	395	5000	1220	965	451	76	9.0	3.2	4.6	1.5
10	195	26	196	1930	813	1490	703	70	8.0	5.0	4.5	1.2
11	117	339	138	1090	596	1290	409	63	7.1	5.5	4.5	.87
12	81	205	100	882	854	1050	293	58	6.3	5.0	4.5	.66
13	62	105	83	3950	1480	1200	225	55	5.9	4.7	4.6	.51
14	48	68	104	3850	929	1030	188	53	5.9	4.3	4.6	.46
15	38	52	109	1940	e560	909	172	59	5.5	4.1	5.2	.37
16	31	43	86	1310	e440	1240	175	56	5.0	4.0	5.4	.26
17	16	36	76	1910	e340	3370	184	50	4.7	3.8	5.3	.22
18	13	31	71	3590	e300	2820	164	44	4.9	3.7	5.2	.22
19	13	28	65	2130	e260	1460	157	41	4.6	3.6	5.2	.21
20	13	28	60	1320	e230	997	154	36	4.4	3.5	5.5	.27
21	11	36	123	2490	e210	770	233	32	4.4	3.3	5.2	.41
22	11	45	2700	3160	e190	610	766	29	4.2	3.1	4.9	.50
23	10	45	1100	2210	e170	495	438	28	4.4	3.0	4.6	.54
24	11	39	578	2220	e160	433	289	28	4.2	5.2	5.4	.52
25	11	35	379	1370	e150	376	214	28	4.0	5.8	21	.46
26	11	320	277	959	e140	319	175	27	4.1	5.5	76	.37
27	10	346	233	748	953	275	157	26	4.2	6.0	69	.35
28	10	153	194	599	3430	244	169	24	5.0	6.3	50	.47
29	12	100	173	481	---	218	260	21	4.7	6.2	36	.53
30	14	76	e150	392	---	196	201	18	4.3	6.6	25	.78
31	14	---	e130	329	---	179	---	17	---	7.8	16	---
TOTAL	1321.5	2452	8318	46476	25001	36136	8017	1796	230.8	138.9	413.2	46.88
MEAN	42.6	81.7	268	1499	893	1166	267	57.9	7.69	4.48	13.3	1.56
MAX	268	346	2700	5000	3430	3370	766	155	18	7.8	76	11
MIN	5.6	22	39	100	140	179	154	17	4.0	3.0	3.9	.21
CFSM	.11	.21	.69	3.87	2.31	3.01	.69	.15	.02	.01	.03	.00
IN.	.13	.24	.80	4.47	2.40	3.47	.77	.17	.02	.01	.04	.00

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

	MEAN	89.6	256	533	761	828	1026	748	548	269	181	146	127
MAX	651	1447	2252	2637	1989	3909	2030	2230	1424	1222	1000	2053	
(WY)	1976	1986	1991	1950	1951	1964	1948	1996	1998	1932	1935	1979	
MIN	.13	.28	2.28	12.1	24.9	96.5	106	27.5	3.18	1.46	1.04	.43	
(WY)	1954	1954	1954	1977	1954	1941	1971	1930	1988	1988	1988	1953	

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR			FOR 1999 WATER YEAR			WATER YEARS 1927 - 1999		
ANNUAL TOTAL	215851.7			130347.28					
ANNUAL MEAN	591			357			458		
HIGHEST ANNUAL MEAN							951		
LOWEST ANNUAL MEAN							158		
HIGHEST DAILY MEAN	14100			5000			49400		
LOWEST DAILY MEAN	4.9			.21			.00		
ANNUAL SEVEN-DAY MINIMUM	5.6			.28			.00		
INSTANTANEOUS PEAK FLOW				9050			77700		
INSTANTANEOUS PEAK STAGE				10.38			31.15		
INSTANTANEOUS LOW FLOW				.21			.00		
ANNUAL RUNOFF (CFSM)	1.53			.92			1.18		
ANNUAL RUNOFF (INCHES)	20.75			12.53			16.07		
10 PERCENT EXCEEDS	1390			1230			1010		
50 PERCENT EXCEEDS	128			50			109		
90 PERCENT EXCEEDS	11			3.7			5.1		

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

SURFACE-WATER RECORDS 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	5020	19400
LOWEST DAILY MEAN	.00	.00	.00
ANNUAL SEVEN-DAY MINIMUM	.00	.00	.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

167

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)

	MEAN	35.0	69.6	109	142	181	213	199	173	132	87.1	62.6	37.0
MAX	163	315	497	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	120
HIGHEST ANNUAL MEAN			228
LOWEST ANNUAL MEAN			28.6
HIGHEST DAILY MEAN	1930	May 8	6140
LOWEST DAILY MEAN	14	Sep 11	3.5
ANNUAL SEVEN-DAY MINIMUM	15	Sep 26	5.5
INSTANTANEOUS PEAK FLOW			909
INSTANTANEOUS PEAK STAGE			5.38
INSTANTANEOUS LOW FLOW			5.3
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

03241500 MASSIES CREEK AT WILBERFORCE, OHIO

LOCATION.--Latitude 39°43'22", longitude 83°52'58", Greene County, Hydrologic Unit 05090202, on left bank at bridge on Wilberforce-Clifton Road, 0.5 mi northwest of Wilberforce, 0.6 mi downstream from unnamed right bank tributary, and 1.7 mi upstream from Clark Run.

DRAINAGE AREA.--63.2 mi².

PERIOD OF RECORD.--September 1952 to current year. Prior to October 1962, published as Massie Creek at Wilberforce.

REVISED RECORDS.--WSP 1908: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 865.15 ft above sea level. Aug. 4, 1972, to Sept. 30, 1979, at site 150 ft downstream at same datum.

REMARKS.--Records fair except for periods of estimated record, which are poor. Water-quality and sediment data collected at this site. 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	5.6	5.3	7.4	e8.0	59	227	51	65	21	14	2.7	2.0
2	5.8	4.7	6.1	e7.5	77	150	50	58	21	13	2.1	1.8
3	8.8	4.6	5.6	e7.0	73	131	49	57	20	11	2.0	1.6
4	11	4.4	5.3	e6.6	66	124	50	56	19	10	1.8	1.5
5	8.5	4.2	5.7	e6.2	52	100	47	52	19	9.0	1.7	1.5
6	7.2	4.1	6.0	e6.0	52	306	46	52	19	8.6	1.7	1.6
7	9.0	4.1	8.2	e5.8	211	231	45	47	18	8.5	1.7	1.6
8	12	4.1	6.9	e5.5	297	151	43	45	17	7.7	1.8	1.8
9	8.3	4.1	6.3	e5.2	175	130	57	43	16	7.7	2.0	1.6
10	6.6	8.5	6.0	e5.0	123	110	73	42	15	9.5	1.9	1.5
11	5.6	11	6.0	e4.9	101	93	64	40	14	7.3	1.9	1.6
12	5.0	7.7	5.6	e4.8	98	83	57	39	27	6.9	1.7	1.5
13	4.4	6.5	5.5	e50	93	78	50	41	38	5.8	1.7	1.6
14	3.9	5.8	5.3	e90	80	77	49	37	29	5.2	1.7	1.7
15	3.7	5.6	5.1	68	77	71	51	35	25	4.8	1.9	1.7
16	3.6	5.2	5.3	53	75	83	55	32	21	4.3	1.6	1.5
17	4.1	4.8	6.2	74	74	183	85	31	19	3.9	1.4	1.6
18	6.7	5.1	5.9	487	71	217	126	30	17	3.8	1.4	1.6
19	8.5	5.3	5.6	364	63	144	120	30	15	3.8	2.3	1.7
20	5.5	7.8	5.6	224	56	121	107	27	14	6.4	2.2	2.2
21	4.1	7.0	33	240	49	108	232	26	13	4.7	1.8	2.2
22	3.9	6.5	130	431	43	92	247	29	12	4.5	1.6	2.3
23	4.4	6.5	57	334	42	79	153	32	11	6.6	1.5	2.3
24	4.5	6.7	35	221	41	73	112	30	11	5.1	5.0	2.1
25	5.3	7.9	e25	153	40	67	93	28	11	3.9	6.9	2.0
26	5.3	14	e19	120	38	60	84	26	10	5.0	6.1	2.2
27	4.5	11	e15	107	98	58	74	24	10	5.9	3.8	2.5
28	5.5	8.8	e12	92	285	55	86	23	11	4.4	3.1	3.0
29	5.6	8.2	e11	76	---	54	90	22	17	3.7	2.6	7.3
30	14	7.6	e9.6	65	---	49	73	21	19	3.3	2.2	5.4
31	6.5	---	e8.6	57	---	49	---	21	---	2.9	2.2	---
TOTAL	197.4	197.1	474.8	3378.5	2609	3554	2519	1141	529	201.2	74.0	64.5
MEAN	6.37	6.57	15.3	109	93.2	115	84.0	36.8	17.6	6.49	2.39	2.15
MAX	14	14	130	487	297	306	247	65	38	14	6.9	7.3
MIN	3.6	4.1	5.1	4.8	38	49	43	21	10	2.9	1.4	1.5
CFSM	.10	.10	.24	1.72	1.47	1.81	1.33	.58	.28	.10	.04	.03
IN.	.12	.12	.28	1.99	1.54	2.09	1.48	.67	.31	.12	.04	.04

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

MEAN	15.2	40.8	64.2	79.8	102	121	109	93.1	64.2	40.1	27.7	14.5
MAX	99.7	248	290	273	236	372	254	335	253	199	196	186
(WY)	1991	1986	1991	1959	1975	1963	1996	1968	1981	1990	1958	1979
MIN	1.55	1.95	2.35	4.59	6.41	13.1	19.8	12.8	6.90	1.75	1.49	1.05
(WY)	1954	1954	1954	1977	1954	1954	1971	1954	1988	1954	1953	1953

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR	FOR 1999 WATER YEAR	WATER YEARS 1952 - 1999
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ANNUAL TOTAL	24531.2		14939.5				
ANNUAL MEAN	67.2		40.9			64.0	
HIGHEST ANNUAL MEAN						113	1973
LOWEST ANNUAL MEAN						8.68	1954
HIGHEST DAILY MEAN	1440	Apr 16	487	Jan 18	3620		Jan 21 1959
LOWEST DAILY MEAN	3.6	Oct 16	1.4	Aug 17		.30	Sep 3 1954
ANNUAL SEVEN-DAY MINIMUM	4.2	Nov 3	1.6	Sep 4		.33	Sep 1 1954
INSTANTANEOUS PEAK FLOW			579	Jan 18a	7300		Jan 21 1959
INSTANTANEOUS PEAK STAGE			5.40	Jan 18		11.25	Jan 21 1959
INSTANTANEOUS LOW FLOW			1.2	Aug 4		.30	Sep 3 1954
ANNUAL RUNOFF (CFSM)	1.06		.65			1.01	
ANNUAL RUNOFF (INCHES)	14.44		8.79			13.77	
10 PERCENT EXCEEDS	145		107			146	
50 PERCENT EXCEEDS	34		11			28	
90 PERCENT EXCEEDS	5.2		2.0			4.7	

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

SURFACE-WATER RECORDS

Little Miami River Basin

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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)

	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			1259
LOWEST ANNUAL MEAN			2364
HIGHEST DAILY MEAN	30600	Apr 16	72400
LOWEST DAILY MEAN	138	Oct 15	27
ANNUAL SEVEN-DAY MINIMUM	148	Oct 12	37
INSTANTANEOUS PEAK FLOW			84100
INSTANTANEOUS PEAK STAGE			27.30
INSTANTANEOUS LOW FLOW			79
ANNUAL RUNOFF (CFSM)	1.28	.60	1.05
ANNUAL RUNOFF (INCHES)	17.36	8.14	14.22
10 PERCENT EXCEEDS	4250	1870	2990
50 PERCENT EXCEEDS	664	302	492
90 PERCENT EXCEEDS	177	98	112

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

SURFACE-WATER RECORDS Little Miami River Basin

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)

	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

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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)

	245	392	697	820	1011	1108	915	936	538	243	180	200
MEAN	245	392	697	820	1011	1108	915	936	538	243	180	200
MAX	980	1446	2108	1637	2162	2432	1789	3657	2165	947	1220	1869
(WY)	1984	1986	1991	1991	1990	1997	1998	1996	1997	1980	1979	1979
MIN	18.5	49.3	54.1	15.3	168	138	73.5	48.4	35.6	32.4	38.6	30.1
(WY)	1983	1988	1977	1977	1987	1983	1986	1988	1988	1984	1987	1983

SUMMARY STATISTICS FOR 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1977 - 1999

ANNUAL TOTAL	250813	145781	
ANNUAL MEAN	687	399	605
HIGHEST ANNUAL MEAN			1058
LOWEST ANNUAL MEAN			266
HIGHEST DAILY MEAN	5420	Apr 16	10800
LOWEST DAILY MEAN	43	Oct 2	14
ANNUAL SEVEN-DAY MINIMUM	47	Sep 30	14
INSTANTANEOUS PEAK FLOW			6800
INSTANTANEOUS PEAK STAGE			10.00
INSTANTANEOUS LOW FLOW			32
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.

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

	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	3050	Jan 23
LOWEST DAILY MEAN	1.6	Sep 12	1.2	Aug 10
ANNUAL SEVEN-DAY MINIMUM	1.9	Sep 9	1.7	Aug 5
INSTANTANEOUS PEAK FLOW			3170	Jan 23a
INSTANTANEOUS PEAK STAGE			12.36	Jan 23
INSTANTANEOUS LOW FLOW			1.2	Aug 10
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

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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)

	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	3400	6400
LOWEST DAILY MEAN	5.6	.51	.51
ANNUAL SEVEN-DAY MINIMUM	10	2.7	1.6
INSTANTANEOUS PEAK FLOW		e3640	6590
INSTANTANEOUS PEAK STAGE		82.75	85.00
INSTANTANEOUS LOW FLOW		.51	.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)

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
LOWEST ANNUAL MEAN			300
HIGHEST DAILY MEAN	10900	Jan 8	18900
LOWEST DAILY MEAN	72	Dec 31	4.3
ANNUAL SEVEN-DAY MINIMUM	85	Dec 14	19
INSTANTANEOUS PEAK FLOW			21700
INSTANTANEOUS PEAK STAGE			16.02
INSTANTANEOUS LOW FLOW			4.3
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

177

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 WATER YEARS 1922 - 1999

ANNUAL TOTAL	427842	276113		
ANNUAL MEAN	1172	756	1018	
HIGHEST ANNUAL MEAN			2005	1973
LOWEST ANNUAL MEAN			292	1931
HIGHEST DAILY MEAN	11000	Jan 9	30200	Jan 22 1959
LOWEST DAILY MEAN	100	Oct 2	25	Jul 18 1977
ANNUAL SEVEN-DAY MINIMUM	116	Oct 12	31	Feb 4 1977
INSTANTANEOUS PEAK FLOW			15700	Jan 23 1959
INSTANTANEOUS PEAK STAGE			19.50	Jan 23 1959
INSTANTANEOUS LOW FLOW			34	Sep 25 1977
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	5.3
ANNUAL SEVEN-DAY MINIMUM	26	Sep 27	6.4
INSTANTANEOUS PEAK FLOW			3460
INSTANTANEOUS PEAK STAGE			7.45
INSTANTANEOUS LOW FLOW			7.4
ANNUAL RUNOFF (CFSM)	.95	.69	.92
ANNUAL RUNOFF (INCHES)	12.92	9.33	12.55
10 PERCENT EXCEEDS	407	268	395
50 PERCENT EXCEEDS	81	47	74
90 PERCENT EXCEEDS	33	18	21

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

179

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)

	MEAN	131	289	446	628	720	924	837	476	468	272	148	116
MAX	1313	1909	2437	3961	2177	2433	2513	1700	3334	1295	1823	2127	
(WY)	1927	1994	1991	1937	1950	1963	1922	1996	1958	1993	1979	1926	
MIN	11.7	19.3	16.0	21.5	44.0	79.8	131	44.6	33.7	22.2	14.1	14.9	
(WY)	1964	1964	1964	1977	1964	1941	1971	1941	1988	1977	1988	1954	

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

ANNUAL TOTAL	167843	121427.2	
ANNUAL MEAN	460	333	453
HIGHEST ANNUAL MEAN			775
LOWEST ANNUAL MEAN			99.3
HIGHEST DAILY MEAN	5590	Jun 12	17400
LOWEST DAILY MEAN	29	Oct 2	4.0
ANNUAL SEVEN-DAY MINIMUM	36	Sep 27	8.1
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	1020
50 PERCENT EXCEEDS	163	88	144
90 PERCENT EXCEEDS	48	31	33

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)

	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	1993
(WY)	1987	1973	1991	1937	1950	1963	1964	1933	1958	1993	1979	1926	1926
MIN	15.6	27.3	27.9	28.6	63.0	111	180	61.1	52.2	30.0	19.7	17.9	17.9
(WY)	1964	1945	1945	1945	1964	1941	1941	1941	1934	1988	1988	1963	1963

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

ANNUAL TOTAL	232213	167172		
ANNUAL MEAN	636	458		
HIGHEST ANNUAL MEAN			592	
LOWEST ANNUAL MEAN			1027	1958
HIGHEST DAILY MEAN	5210	Jun 13	130	1941
LOWEST DAILY MEAN	49	Oct 1	9980	Jun 15 1958
ANNUAL SEVEN-DAY MINIMUM	54	Sep 27	4.8	Sep 30 1944
INSTANTANEOUS PEAK FLOW			9.7	Sep 24 1941
INSTANTANEOUS PEAK STAGE			9980	Jun 15 1958
INSTANTANEOUS LOW FLOW			79.34	Jan 24
ANNUAL RUNOFF (CFSM)	.98		80.88	Jun 15 1958
ANNUAL RUNOFF (INCHES)	13.29		e15	Sep 15
10 PERCENT EXCEEDS	1850		.70	
50 PERCENT EXCEEDS	240		9.57	
90 PERCENT EXCEEDS	68			

e Estimated.

SURFACE-WATER RECORDS

Great Miami River Basin

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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
LOWEST ANNUAL MEAN			28.5
HIGHEST DAILY MEAN	355	Jan 8	704
LOWEST DAILY MEAN	13	Oct 1	7.2
ANNUAL SEVEN-DAY MINIMUM	14	Oct 31	7.7
INSTANTANEOUS PEAK FLOW			1200
INSTANTANEOUS PEAK STAGE			8.43
INSTANTANEOUS LOW FLOW			5.0
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)

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

183

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

	1998	1999	1974-1999
ANNUAL TOTAL	168290	142842	
ANNUAL MEAN	461	391	539
HIGHEST ANNUAL MEAN			792
LOWEST ANNUAL MEAN			279
HIGHEST DAILY MEAN	3900	May 8	8200
LOWEST DAILY MEAN	174	Sep 14	100
ANNUAL SEVEN-DAY MINIMUM	182	Sep 13	103
INSTANTANEOUS PEAK FLOW			12200
INSTANTANEOUS PEAK STAGE			11.88
INSTANTANEOUS LOW FLOW			100
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)

	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

185

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 cooperators (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	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
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

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WATER-QUALITY RECORDS—CONTINUED

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY				MARCH			APRIL			MAY		
1	725	694	713	---	---	---	791	760	779	645	590	618
2	745	704	726	---	---	---	803	777	790	686	641	662
3	745	723	735	---	---	---	805	765	786	717	681	694
4	752	730	743	---	---	---	792	756	774	730	705	715
5	767	746	753	---	---	---	802	766	781	748	727	735
6	768	750	759	---	---	---	805	773	789	755	725	740
7	---	---	---	---	---	---	807	777	792	748	733	741
8	---	---	---	---	---	---	811	781	796	757	737	745
9	483	456	466	---	---	---	809	688	776	757	726	746
10	575	483	519	---	---	---	760	723	739	777	748	764
11	619	565	590	---	---	---	743	670	705	772	748	759
12	646	606	622	---	---	---	738	709	726	779	757	766
13	659	628	637	---	---	---	757	730	743	790	759	778
14	636	616	626	---	---	---	768	730	750	781	759	769
15	669	634	649	---	---	---	783	744	766	783	755	771
16	712	659	682	---	---	---	782	737	763	785	760	772
17	732	694	714	765	675	729	763	693	730	785	753	769
18	755	722	739	680	584	632	697	622	660	777	753	766
19	767	738	750	609	580	595	627	608	618	783	755	767
20	767	745	756	642	593	618	656	620	635	787	764	773
21	774	757	764	674	635	656	658	531	594	800	777	789
22	791	762	774	709	666	683	572	518	544	793	688	767
23	811	775	786	732	692	710	616	565	584	778	738	756
24	811	781	792	747	716	728	627	608	618	779	738	764
25	816	779	799	758	728	740	650	610	629	758	736	749
26	810	794	802	761	733	745	666	633	651	765	741	755
27	834	536	752	771	734	753	696	654	673	781	750	760
28	---	---	---	776	742	756	705	655	687	801	773	784
29	---	---	---	777	736	758	683	417	491	811	776	790
30	---	---	---	778	740	757	591	469	538	818	792	805
31	---	---	---	774	745	760	---	---	---	843	802	821
MONTH	834	456	706	778	580	708	811	417	697	843	590	755
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JUNE				JULY			AUGUST			SEPTEMBER		
1	841	808	821	810	761	778	844	800	822	879	857	866
2	810	730	770	800	601	687	861	794	816	947	874	883
3	766	731	744	671	628	644	861	800	818	983	883	954
4	783	753	770	662	641	653	849	808	821	995	957	972
5	799	767	784	686	526	638	849	788	827	997	960	978
6	796	762	781	749	685	714	859	789	836	1030		

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
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
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
	FEBRUARY			MARCH			APRIL			MAY		
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

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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
	JUNE			JULY			AUGUST			SEPTEMBER		
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
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
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

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

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	6.5	4.5	6.0	6.0	5.0	5.5	13.5	12.5	13.0	17.0	15.0	16.0
2	7.0	6.5	7.0	5.0	4.5	4.5	15.0	13.0	14.0	18.5	16.0	17.0
3	7.0	6.0	6.5	4.5	4.0	4.5	15.5	14.0	15.0	19.5	17.0	18.0
4	7.0	6.5	6.5	4.5	3.5	4.0	17.0	15.0	16.0	20.5	18.0	19.0
5	6.5	5.5	6.0	5.5	4.5	5.0	17.5	15.5	16.5	21.0	19.0	19.5
6	7.5	6.0	6.5	6.0	5.0	5.5	18.5	16.0	17.0	20.5	19.5	20.0
7	9.5	6.5	8.0	5.0	3.5	4.0	18.5	16.0	17.0	20.5	18.5	19.5
8	9.0	7.0	7.5	3.5	2.5	3.0	19.0	16.5	17.5	19.5	18.5	19.0
9	6.5	5.5	6.0	3.0	2.0	2.0	18.5	17.0	18.0	21.0	18.0	19.0
10	9.0	6.0	7.5	3.0	2.0	2.5	17.0	15.5	16.5	22.0	18.5	20.0
11	11.0	8.5	9.0	4.0	3.0	3.5	17.0	15.5	16.0	22.5	19.0	20.5
12	11.0	8.5	9.5	4.5	3.0	4.0	16.0	14.0	15.0	23.5	20.0	21.5
13	8.5	5.0	7.0	4.5	4.0	4.5	16.5	13.5	14.5	22.0	20.0	21.0
14	6.5	4.0	5.5	4.5	3.5	4.0	16.5	14.0	15.0	20.0	18.5	19.5
15	8.5	5.5	7.0	5.5	3.5	4.0	15.0	14.0	14.5	21.0	17.5	19.0
16	9.0	7.5	8.5	6.5	5.0	5.5	14.0	11.0	12.5	22.5	19.0	20.5
17	9.0	6.5	7.5	9.0	6.5	8.0	11.0	9.5	10.0	24.0	20.5	22.0
18	6.5	5.5	6.0	9.0	8.0	8.5	9.5	8.5	9.0	22.5	21.5	22.0
19	6.0	5.0	5.5	8.5	7.0	8.0	11.0	9.0	9.5	23.0	20.0	21.5
20	5.5	4.5	5.0	8.5	7.5	8.0	13.0	10.5	11.5	23.5	20.0	21.5
21	5.0	4.0	4.5	9.5	8.5	9.0	14.5	12.5	13.0	24.0	20.0	22.0
22	4.5	3.0	4.0	8.5	8.0	8.0	15.5	13.5	14.5	23.0	21.0	22.0
23	4.5	3.5	4.0	8.5	7.5	8.0	16.5	15.0	16.0	22.0	20.5	21.0
24	4.5	4.0	4.5	9.5	7.5	8.5	16.0	14.0	15.0	21.0	18.0	19.5
25	5.0	4.0	4.5	9.5	8.5	9.0	14.5	13.0	14.0	18.0	17.0	17.5
26	6.0	4.5	5.0	9.5	8.0	8.5	15.0	14.0	14.5	19.0	16.5	17.5
27	8.5	5.5	6.5	10.5	8.0	9.0	15.0	14.5	15.0	21.0	17.0	18.5
28	7.0	6.0	6.5	11.5	9.0	10.0	14.5	14.0	14.5	22.5	17.5	20.0
29	---	---	---	13.0	10.5	11.5	14.0	12.0	13.0	24.0	19.5	21.5
30	---	---	---	14.0	11.0	12.5	15.5	13.0	14.0	24.5	20.5	22.5
31	---	---	---	13.5	12.0	12.5	---	---	---	24.0	22.0	23.0
MONTH	11.0	3.0	6.5	14.0	2.0	6.5	19.0	8.5	14.5	24.5	15.0	20.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	23.0	21.0	22.0	25.0	23.5	24.0	31.0	28.5	29.5	24.0	22.0	23.0
2	23.0	21.0	22.0	25.0	23.5	24.0	29.5	27.0	28.5	24.5	22.5	23.5
3	23.5	21.0	22.0	27.0	24.0	25.5	28.5	25.5	27.0	25.5	23.5	24.0
4	24.0	21.0	22.5	29.0	25.5	27.0	28.5	25.0	26.5	25.5	24.0	24.5
5	25.5	21.5	23.0	30.0	26.5	28.0	28.0	25.0	26.5	25.5	24.5	25.0
6	27.0	22.5	24.5	30.0	27.0	28.5	27.5	24.0	26.0	26.5	25.0	25.5
7	27.0	24.0	25.5	29.5	26.5	28.0	31.5	20.5	26.0	26.5	24.5	25.5
8	28.0	25.0	26.5	29.0	25.5	27.5	27.0	21.5	24.5	26.0	24.0	25.0
9	28.5	25.0	26.5	28.0	25.5	27.0	26.5	16.5	21.5	25.5	24.5	25.0
10	28.0	25.5	27.0	27.0	25.0	26.0	26.0	16.5	22.0	24.5	23.0	23.5
11	28.5	25.0	27.0	26.5	23.5	25.0	29.5	20.5	25.0	23.5	21.5	23.0
12	27.5	26.0	26.5	26.0	22.5	24.5	26.0	22.5	25.5	24.0	22.5	23.0
13	27.0	24.5	25.5	26.0	23.0	24.5	27.0	24.5	25.5	23.5	22.5	23.0
14	25.0	23.5	24.5	27.0	23.5	25.0	25.5	18.5	21.5	22.5	20.5	21.5
15	24.0	22.5	23.5	27.5	24.0	25.5	25.5	22.0	23.5	22.0	20.5	21.0
16	23.5	21.0	22.0	27.5	25.0	26.5	26.0	23.0	24.5	21.5	20.0	20.5
17	23.0	20.5	21.5	28.5	25.5	27.0	26.0	24.0	25.0	20.5	19.0	19.5
18	23.5	20.0	21.5	27.5	25.5	26.5	26.0	24.0	25.0	22.5	19.0	20.0
19	23.0	20.0	21.5	29.0	25.0	27.0	25.5	24.0	24.5	22.0	19.5	20.5
20	23.0	20.0	22.0	28.0	25.0	27.0	24.5	23.5	24.0	21.5	20.0	20.5
21	24.0	21.0	22.5	29.5	26.0	27.5	24.5	22.5	23.5	20.0	19.0	19.0
22	25.5	21.5	23.5	30.0	27.0	28.5	25.0	23.5	24.0	19.0	17.5	18.5
23	25.5	22.5	24.5	30.0	27.5	28.5	25.5	23.5	24.5	19.0	17.5	18.0
24	25.5	24.0	24.5	30.5	27.5	29.0	25.0	23.0	24.0	19.0	18.0	18.5
25	25.5	23.0	24.5	31.0	27.5	29.0	23.5	22.5	23.0	21.0	18.0	19.0
26	27.0	24.0	25.5	30.0	27.5	29.0	24.0	21.5	22.5	21.0	19.0	20.0
27	27.0	25.0	26.0	29.5	27.0	28.0	25.0	22.5	23.5	21.0	19.5	20.5
28	27.0	25.0	26.0	29.0	27.0	28.0	25.5	23.5	24.5	22.5	20.5	21.5
29	26.5	24.5	25.5	30.0	27.0	28.0	26.0	24.5	25.0	22.0	20.0	21.0
30	26.0	23.0	24.5	31.0	27.5	29.0	25.0	22.5	23.5	20.5	18.5	19.5
31	---	---	---	31.0	28.5	30.0	24.0	22.0	22.5	---	---	---
MONTH	28.5	20.0	24.0	31.0	22.5	27.0	31.5	16.5	24.5	26.5	17.5	22.0
YEAR	31.5	.0	15.5									

SURFACE-WATER RECORDS

Great Miami River Basin

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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
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
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
FEBRUARY			MARCH			APRIL			MAY			
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

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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)

	MEAN	1816	2306	2201	4100	2926	4126	4545	3922	3666	3164	1648	713
MAX	1814	6603	7690	7884	4820	6894	7343	11920	6770	7539	5404	1162	
(WY)	1996	1994	1997	1996	1997	1993	1996	1996	1997	1993	1995	1996	
MIN	434	475	613	867	842	1143	2124	1239	978	832	464	298	
(WY)	1992	1992	1992	1992	1992	1992	1997	1992	1999	1999	1999	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

03271800 TWIN CREEK NEAR INGOMAR, OHIO

LOCATION.--Latitude 39°42'28", longitude 84°31'30", in sec. 15, T.5 N., R.3 E., Preble County, Hydrologic Unit 05080002, on left bank at downstream side of bridge on Halderman Road, 0.5 mi downstream from Bantas Fork, 1.4 mi west of Ingomar, and 4.8 mi upstream from Aukerman Creek.

DRAINAGE AREA.--197 mi².

PERIOD OF RECORD.--October 1962 to current year (station discontinued). Occasional low-flow measurements water years 1959, 1961-62.

GAGE.--Water-stage recorder. Datum of gage is 815.42 ft above sea level.

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

COOPERATION.--Gage-height record and 3 discharge measurements furnished by Miami Conservancy District.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 21, 1959, reached a stage of 18.8 ft; discharge, 30,300 ft³/s, computed by Miami Conservancy District. Flood of Mar. 25, 1913, reached a stage of 28.0 ft.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.3	e20	7.5	e8.8	212	e800	e80	e100	46	e70	e8.0	e4.7
2	4.5	e16	7.6	e8.4	273	e560	e80	e96	90	e68	e7.0	e4.6
3	6.4	e14	8.9	e8.2	257	e400	e82	e90	108	e50	e6.6	e4.2
4	10	e13	8.2	e8.0	222	e300	e86	e86	87	e40	e6.2	e4.0
5	7.8	e12	7.4	e7.8	178	e260	e88	e82	69	e30	e6.0	e3.7
6	7.1	e12	7.3	e7.6	163	e1100	e82	e80	55	e24	e6.0	e3.5
7	10	e11	9.4	e7.4	1400	e600	e78	e78	47	e20	e5.8	e3.3
8	12	e11	10	e7.2	2010	e350	e70	e76	41	e19	e5.6	e3.2
9	9.3	e13	9.2	e7.0	908	e270	e100	e68	35	e20	e5.6	e3.1
10	8.3	e16	8.4	e7.0	569	e210	e200	e62	65	e22	e5.6	e2.9
11	7.8	21	7.2	e7.0	415	e180	e140	e60	128	e21	e5.4	e2.7
12	7.3	16	6.6	e7.0	572	e160	e140	e60	134	e19	e5.4	e2.6
13	e7.0	10	6.3	e10	e350	e150	e100	e58	82	e17	e5.4	e2.5
14	e6.6	10	6.3	e40	e250	e140	e92	e58	194	e15	e5.0	e2.4
15	7.2	10	5.7	e150	e210	e130	e90	e58	152	e14	e5.0	e2.3
16	9.4	e7.0	5.7	e100	e180	e250	e180	e54	90	e13	e5.0	e2.2
17	17	6.2	5.8	e80	e160	e600	631	e50	65	e12	e5.0	e2.1
18	16	4.7	5.7	e300	e150	e500	686	e50	50	e11	e6.0	e2.0
19	13	5.2	5.6	e600	e130	e300	513	e49	42	e13	e6.4	e2.3
20	e10	8.3	5.7	e450	e120	e210	392	e45	36	e16	e6.0	e2.5
21	e10	8.2	11	e1000	e110	e180	1130	e42	33	e13	e5.6	e2.8
22	e9.8	7.7	73	8030	e100	e160	1170	e42	30	e15	e5.2	e2.7
23	e10	6.0	53	3620	e100	e140	e500	e45	27	e12	e6.0	e3.0
24	e10	4.8	30	1590	e94	e130	e400	e45	25	e10	e9.0	e3.5
25	e10	7.0	e20	907	e90	e120	e300	e43	26	e9.0	e10	e4.5
26	e10	10	e14	617	e90	e110	e200	e39	25	e11	e9.0	e3.5
27	e11	9.3	e12	471	e250	e100	e170	e37	24	e14	e8.0	e3.3
28	e11	8.9	e11	363	e1900	e92	e150	e34	e45	e13	e6.0	e4.0
29	e10	8.5	e11	277	---	e86	e130	e32	e40	e12	e5.6	e4.5
30	e40	6.4	e10	226	---	e82	e110	e30	e37	e10	e5.4	e5.0
31	e25	---	e9.0	196	---	e80	---	e30	---	e9.0	e5.0	---
TOTAL	339.8	313.2	398.5	19118.4	11463	8750	8170	1779	1928	642.0	191.8	97.6
MEAN	11.0	10.4	12.9	617	409	282	272	57.4	64.3	20.7	6.19	3.25
MAX	40	21	73	8030	2010	1100	1170	100	194	70	10	5.0
MIN	4.5	4.7	5.6	7.0	90	80	70	30	24	9.0	5.0	2.0
CFSM	.06	.05	.07	3.13	2.08	1.43	1.38	.29	.33	.11	.03	.02
IN.	.06	.06	.08	3.61	2.16	1.65	1.54	.34	.36	.12	.04	.02

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

	MEAN	48.6	140	254	245	298	395	359	288	173	103	57.8	21.8
MAX	758	699	1170	685	886	990	837	938	563	499	531	137	
(WY)	1987	1986	1991	1996	1975	1963	1996	1996	1998	1979	1979	1989	
MIN	4.00	6.35	6.14	6.45	18.5	70.3	59.4	34.0	10.9	5.20	4.13	3.25	
(WY)	1964	1964	1964	1977	1964	1992	1971	1976	1988	1988	1988	1999	

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

ANNUAL TOTAL	70824.3	53191.3	
ANNUAL MEAN	194	146	198
HIGHEST ANNUAL MEAN			324
LOWEST ANNUAL MEAN			78.4
HIGHEST DAILY MEAN	3700	8030	11000
LOWEST DAILY MEAN	4.3	e2.0	2.0
ANNUAL SEVEN-DAY MINIMUM	5.2	2.3	2.3
INSTANTANEOUS PEAK FLOW		13000	19300
INSTANTANEOUS PEAK STAGE		12.48	14.40
INSTANTANEOUS LOW FLOW		e2.0	2.0
ANNUAL RUNOFF (CFSM)	.98	.74	1.01
ANNUAL RUNOFF (INCHES)	13.37	10.04	13.66
10 PERCENT EXCEEDS	427	300	437
50 PERCENT EXCEEDS	61	20	62
90 PERCENT EXCEEDS	6.4	5.0	9.3

e Estimated.

SURFACE-WATER RECORDS

Great Miami River Basin

195

03272000 TWIN CREEK NEAR GERMANTOWN, OHIO

LOCATION.--Latitude 39°38'10", longitude 84°23'48", in NW 1/4 sec. 11, T.3 N., R.4 E., Montgomery County, Hydrologic Unit 05080002, on right bank 0.3 mi downstream from Germantown Dam, 1.5 mi northwest of Germantown, and 3 mi upstream from Little Twin Creek.

DRAINAGE AREA.--275 mi².

PERIOD OF RECORD.--April 1914 to December 1923, December 1926 to current year.

REVISED RECORDS.--WSP 403: 1914(M). WSP 1385: 1915(M).

GAGE.--Water-stage recorder. Datum of gage is 700.24 ft above sea level. Prior to Dec. 18, 1926, nonrecording gage at site 1 mi downstream at datum 12.49 ft higher.

REMARKS.--Records fair except for periods of estimated record, which are poor. Flood flow regulated by Germantown retarding basin, 0.3 mi upstream, beginning in 1920.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,390 ft³/s July 8, 1915, gage height 11.7 ft, from graph based on gage readings, site and datum then in use.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 25, 1913, reached a stage of 18.3 ft, original site and datum; discharge, 66,000 ft³/s, computed by Miami Conservancy District.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.0	31	17	e13	214	1500	113	133	42	47	11	6.4
2	5.5	22	16	e13	324	821	113	126	126	90	9.8	6.2
3	7.6	17	16	e12	287	619	113	119	123	88	9.1	6.1
4	8.3	16	16	e12	242	476	126	114	92	64	8.7	5.6
5	9.9	15	15	e12	188	335	114	109	70	44	8.3	5.0
6	9.3	14	15	e12	167	1170	109	115	58	35	7.6	4.6
7	11	14	17	e11	1390	1110	104	110	49	29	7.3	4.4
8	13	13	17	e11	3050	519	97	98	45	26	7.2	4.3
9	13	13	18	e11	1180	412	113	91	40	24	7.3	4.2
10	11	16	17	e11	666	319	257	85	55	27	7.2	3.9
11	9.5	25	16	e11	455	243	190	80	196	29	7.1	3.6
12	9.2	37	16	e15	669	212	196	76	185	27	6.9	3.3
13	8.6	31	16	e50	581	201	139	80	104	23	6.8	3.2
14	7.8	26	15	e150	371	193	124	78	208	20	6.8	3.1
15	7.7	23	15	e350	309	185	126	79	197	18	6.9	3.1
16	7.6	19	15	e280	273	296	190	75	109	17	6.7	2.8
17	7.7	18	15	e250	254	885	716	69	80	16	6.6	2.8
18	12	17	15	e350	229	694	744	67	64	15	6.4	2.5
19	e12	15	15	e800	200	389	489	68	54	15	7.9	2.6
20	12	17	15	e600	177	286	341	60	46	19	8.5	2.9
21	12	18	25	e900	153	251	839	56	42	22	7.8	3.5
22	11	17	145	4240	139	213	1340	56	39	16	7.1	3.5
23	11	17	115	6400	134	181	798	64	35	20	6.5	3.3
24	12	16	e35	4180	133	163	508	64	33	15	8.4	4.1
25	11	17	e28	e700	132	149	343	60	34	12	13	5.9
26	12	23	e23	e500	128	137	272	55	33	13	13	4.7
27	11	21	e20	502	418	130	230	50	34	15	10	3.9
28	13	20	e17	373	1870	124	206	46	37	19	9.0	4.2
29	12	18	e16	277	---	120	175	42	58	16	8.1	5.5
30	14	18	e15	224	---	113	146	39	58	14	7.2	6.0
31	45	---	e14	192	---	108	---	38	---	12	6.8	---
TOTAL	352.7	584	770	21462	14333	12554	9371	2402	2346	847	251.0	125.2
MEAN	11.4	19.5	24.8	692	512	405	312	77.5	78.2	27.3	8.10	4.17
MAX	45	37	145	6400	3050	1500	1340	133	208	90	13	6.4
MIN	5.5	13	14	11	128	108	97	38	33	12	6.4	2.5
CFSM	.04	.07	.09	2.52	1.86	1.47	1.14	.28	.28	.10	.03	.02
IN.	.05	.08	.10	2.90	1.94	1.70	1.27	.32	.32	.11	.03	.02

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

	MEAN	55.2	155	294	452	453	525	481	341	237	130	72.0	41.1
MAX	718	978	1398	2669	1214	1304	1421	1723	1237	882	636	509	
(WY)	1987	1986	1991	1937	1950	1978	1922	1996	1958	1929	1979	1950	
MIN	4.07	5.24	5.19	9.23	20.1	54.7	69.5	26.4	14.1	8.46	5.77	3.79	
(WY)	1945	1945	1945	1945	1935	1954	1941	1934	1934	1930	1988	1953	

SUMMARY STATISTICS FOR 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1921 - 1999

ANNUAL TOTAL	108956.1	65397.9	
ANNUAL MEAN	299	179	267
HIGHEST ANNUAL MEAN			493
LOWEST ANNUAL MEAN			43.3
HIGHEST DAILY MEAN	5070	Jun 15	8450
LOWEST DAILY MEAN	5.5	Oct 2	2.0
ANNUAL SEVEN-DAY MINIMUM	6.6	Sep 26	2.7
INSTANTANEOUS PEAK FLOW			8790
INSTANTANEOUS PEAK STAGE			29.19
INSTANTANEOUS LOW FLOW			1.5
ANNUAL RUNOFF (CFSM)	1.09		.97
ANNUAL RUNOFF (INCHES)	14.74		13.19
10 PERCENT EXCEEDS	746	379	600
50 PERCENT EXCEEDS	96	29	82
90 PERCENT EXCEEDS	9.3	6.8	12

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)

	MEAN	848	1247	2526	5003	3673	5231	5108	6213	5254	2226	1794	640
MAX	1759	2585	8508	8581	5289	7590	8320	13960	7424	3113	5726	1101	
(WY)	1996	1996	1997	1996	1999	1997	1996	1996	1997	1998	1995	1996	
MIN	458	583	777	1567	1370	3415	2306	1637	1168	918	456	282	
(WY)	1995	1995	1999	1995	1995	1995	1997	1999	1999	1999	1999	1999	

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	Jun 16	32400
LOWEST DAILY MEAN	430	Sep 17	e220
ANNUAL SEVEN-DAY MINIMUM	447	Sep 14	236
INSTANTANEOUS PEAK FLOW			34600
INSTANTANEOUS PEAK STAGE			11.96
INSTANTANEOUS LOW FLOW			e220
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

197

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)

	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	
HIGHEST ANNUAL MEAN			72.2
LOWEST ANNUAL MEAN			117
HIGHEST DAILY MEAN	1400	1060	28.0
LOWEST DAILY MEAN	1.9	1.2	5520
ANNUAL SEVEN-DAY MINIMUM	2.2	1.3	.81
INSTANTANEOUS PEAK FLOW		1440	1.1
INSTANTANEOUS PEAK STAGE		7.21	20200
INSTANTANEOUS LOW FLOW		1.2	18.67
ANNUAL RUNOFF (CFSM)	1.15	.61	1.2
ANNUAL RUNOFF (INCHES)	15.67	8.30	1.05
10 PERCENT EXCEEDS	170	92	14.21
50 PERCENT EXCEEDS	25	14	158
90 PERCENT EXCEEDS	2.6	1.9	26
			3.8

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.

GAUGE.--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)

	MEAN	1025	1945	3254	5020	5205	6122	5860	4236	3212	2195	1396	942
MAX	6728	10060	13280	29460	14410	15590	13760	17390	14860	7995	7613	4382	
(WY)	1987	1973	1991	1937	1950	1963	1964	1996	1958	1958	1979	1979	
MIN	279	286	323	434	502	826	1219	602	445	335	391	319	
(WY)	1964	1935	1935	1977	1964	1941	1941	1934	1934	1936	1936	1963	

SUMMARY STATISTICS FOR 1998 CALENDAR YEAR FOR 1999 WATER YEAR WATER YEARS 1927 - 1999

ANNUAL TOTAL	1292828	898044	
ANNUAL MEAN	3542	2460	
HIGHEST ANNUAL MEAN			5778
LOWEST ANNUAL MEAN			931
HIGHEST DAILY MEAN	36500	Apr 16	33700
LOWEST DAILY MEAN	513	Oct 25	267
ANNUAL SEVEN-DAY MINIMUM	541	Oct 21	302
INSTANTANEOUS PEAK FLOW			36000
INSTANTANEOUS PEAK STAGE			70.90
INSTANTANEOUS LOW FLOW			255
ANNUAL RUNOFF (CFSM)	.98		.68
ANNUAL RUNOFF (INCHES)	13.25		9.20
10 PERCENT EXCEEDS	7630		6270
50 PERCENT EXCEEDS	2080		991
90 PERCENT EXCEEDS	635		419
			7740
			1610
			507

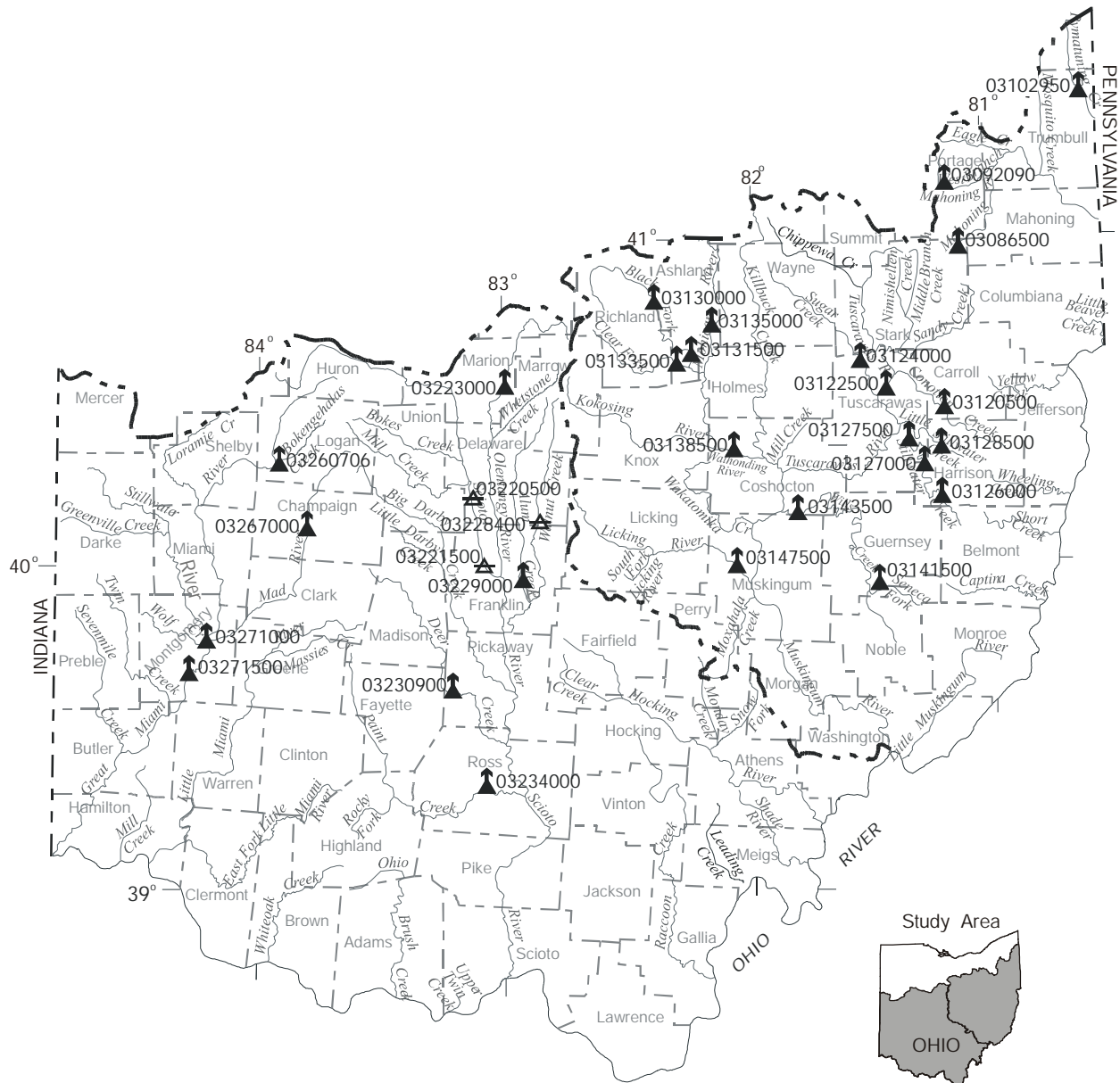
e Estimated.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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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

0 10 20 30 40 MILES

0 10 20 30 40 KILOMETERS

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

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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 UHRICHVILLE, 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 PERRYSVILLE, 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 Perrysville, 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

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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
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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
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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
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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
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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
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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
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DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS—Continued

[#, operated as a continuous-record gaging station]

WATER YEAR 1999								
LOCATION	DRAINAGE AREA (MI ²)	PERIOD OF RECORD	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

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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.]

[---, 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

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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)
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03246500 EAST FORK LITTLE MIAMI RIVER AT WILLIAMSBURG, OHIO (Base discharge: 5,000 ft³/s)

FEB. 7	2000	*5,470	*8.05	No other peaks greater than base discharge			
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GREAT MIAMI RIVER BASIN

03261500 GREAT MIAMI RIVER AT SIDNEY, OHIO (Base discharge: 4,000 ft³/s)

Jan. 22	1230	---	*9.37b	Jan. 23	1200	*5,160	8.77
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03261950 LORAMIE CREEK NEAR NEWPORT, OHIO (Base discharge: 1,500 ft³/s)

Jan. 18	2230	1,700	9.94	Jan. 23	0230	*3,170	*12.36
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03264000 GREENVILLE CREEK NEAR BRADFORD, OHIO (Base discharge: 1,500 ft³/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 ft³/s)

Jan. 22	1900	*9.750	12.67	Feb. 8	0230	5.060	8.60
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03267900 MAD RIVER AT ST. PARIS PIKE AT EAGLE CITY, OHIO (Base discharge: 2,500 ft³/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 ft³/s)

Jan. 22	1315	*13,000	*12.48	No other peaks greater than base discharge			
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03272700 SEVENMILE CREEK AT CAMDEN, OHIO (Base discharge: 1,500 ft³/s)

Jan. 22	1145	*1,440	*7.21				
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GROUND-WATER RECORDS Ashland County

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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.

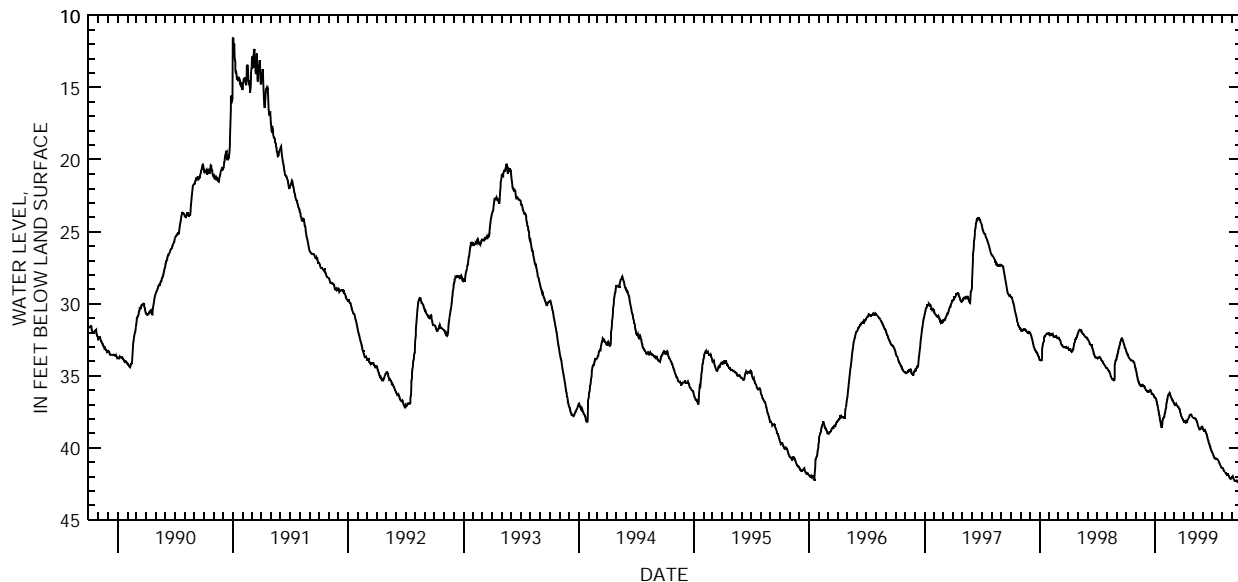
PERIOD OF RECORD.--March 1964 to current year.

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.

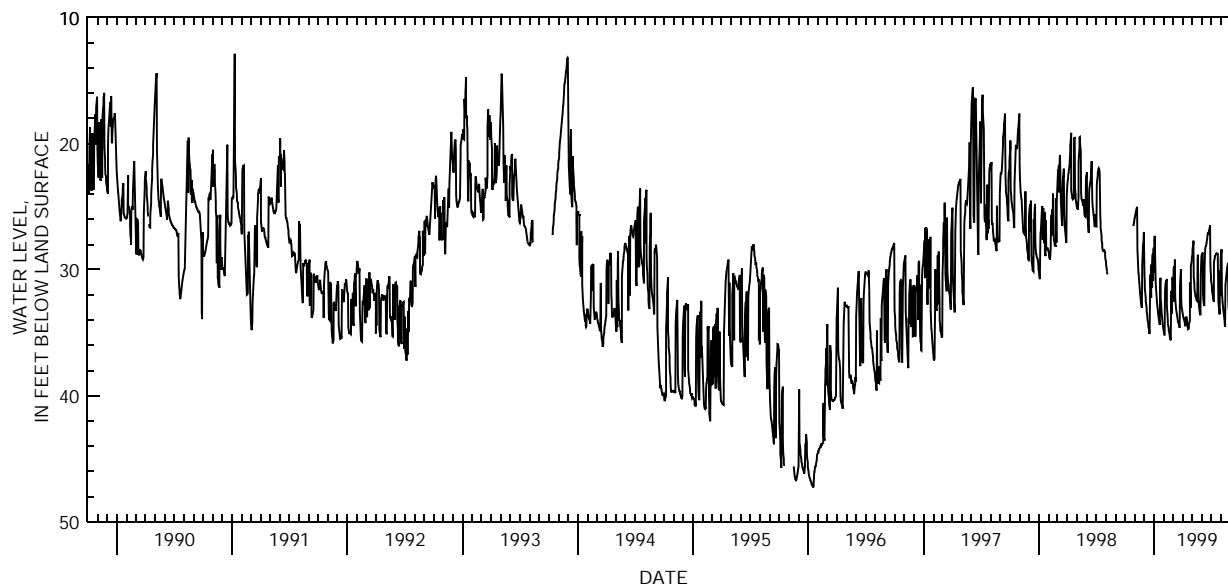
PERIOD OF RECORD.--August 1974 to current year.

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.

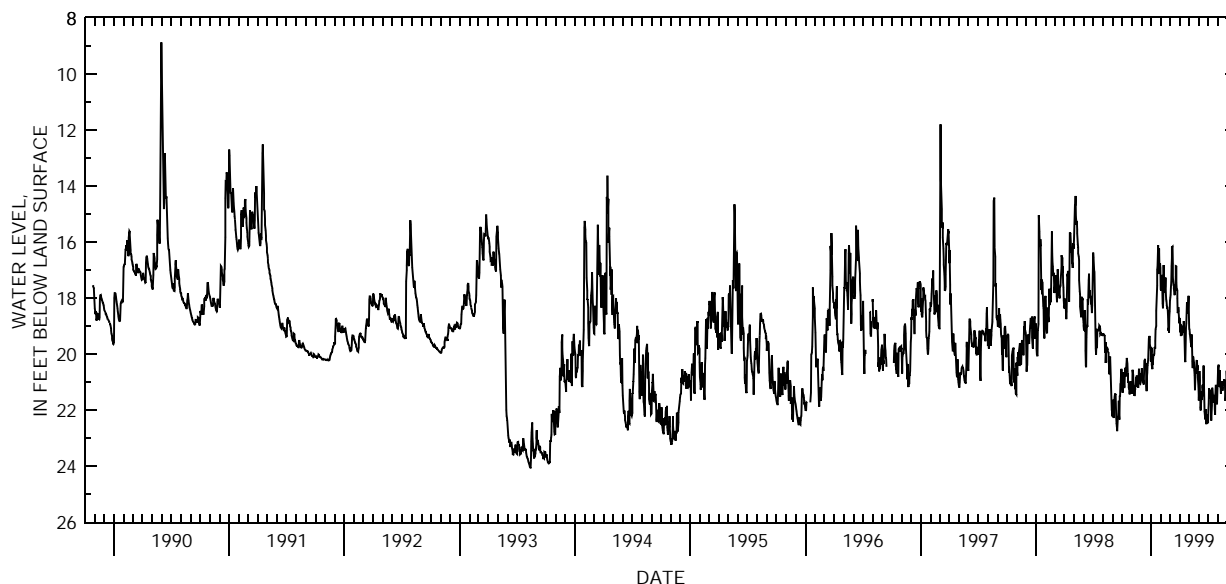
PERIOD OF RECORD.--July 1982 to current year.

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	21.28	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.

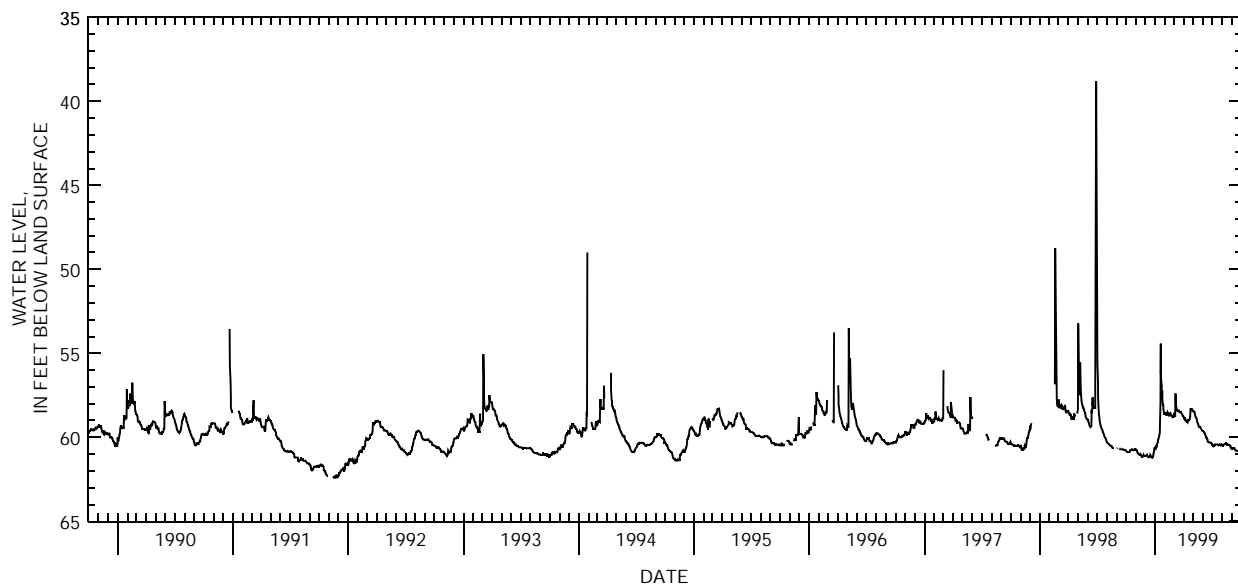
PERIOD OF RECORD.--July 19, 1984, to current year.

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

215

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.

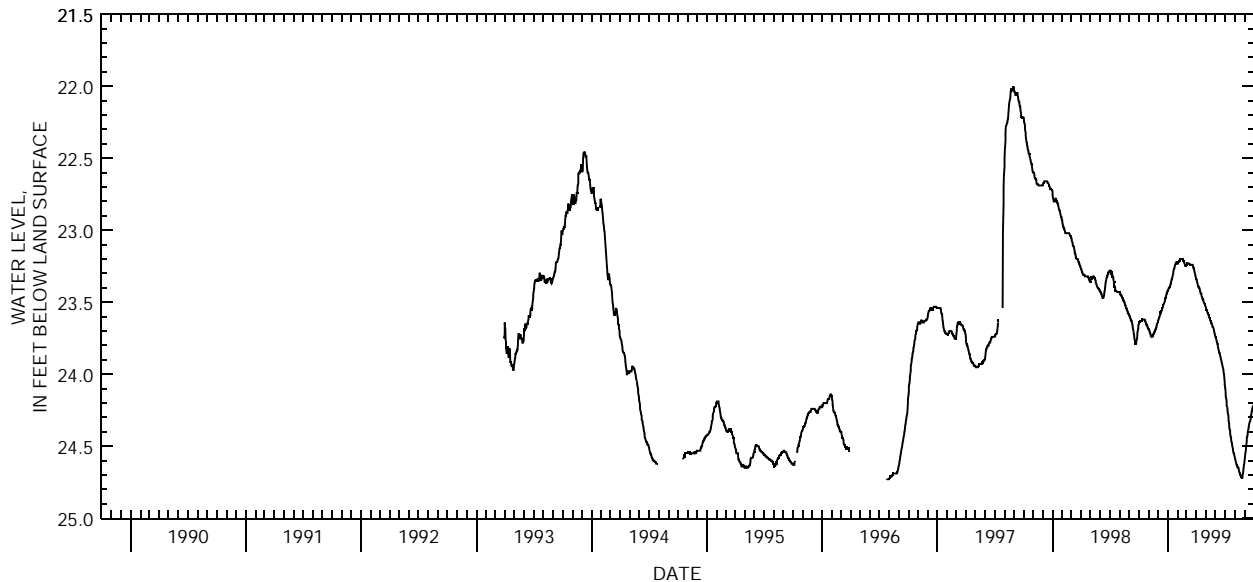
PERIOD OF RECORD.--March 1993 to current year.

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

217

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.

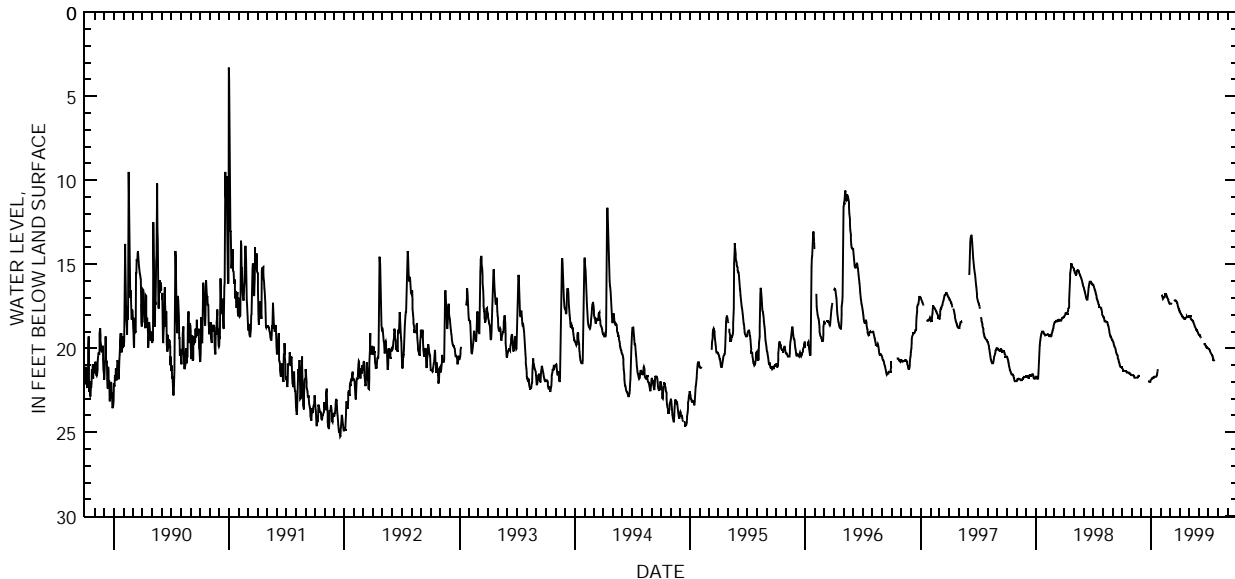
Measuring point: Floor of instrument shelter 7.80 ft above land-surface datum.

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.

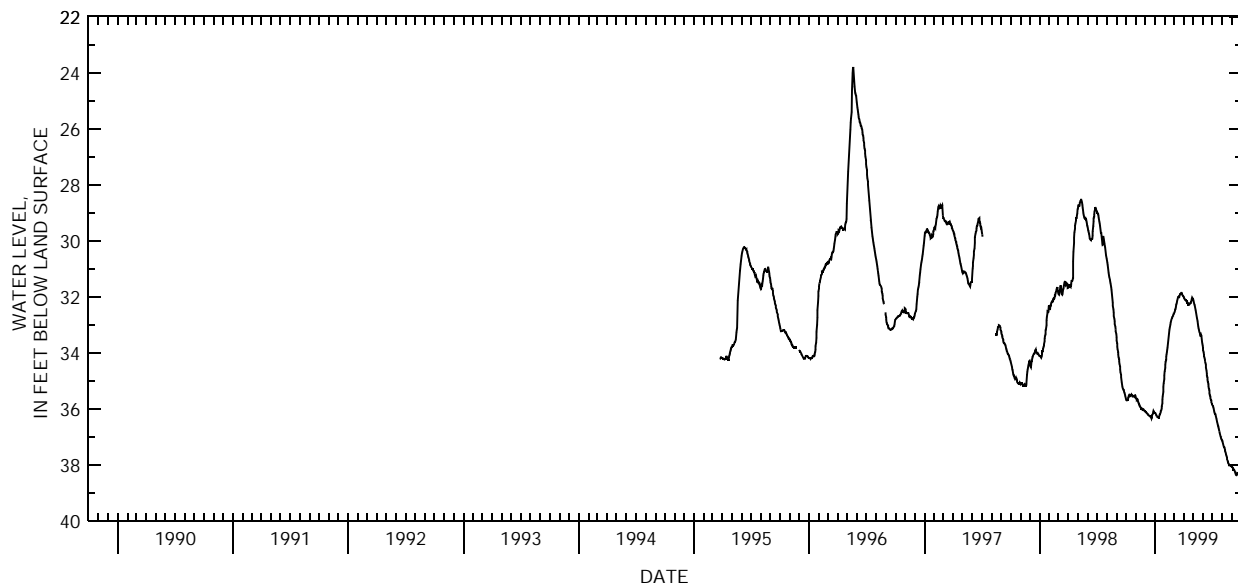
REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

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											
	DAILY MAXIMUM VALUES											
	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



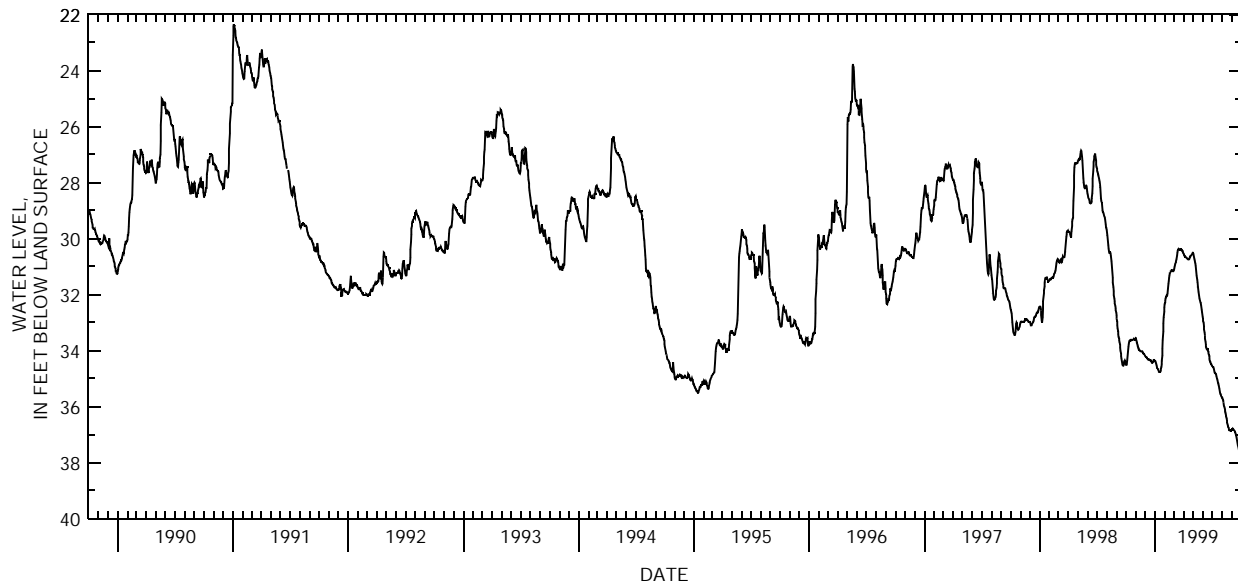
GROUND-WATER RECORDS Butler County

219

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.

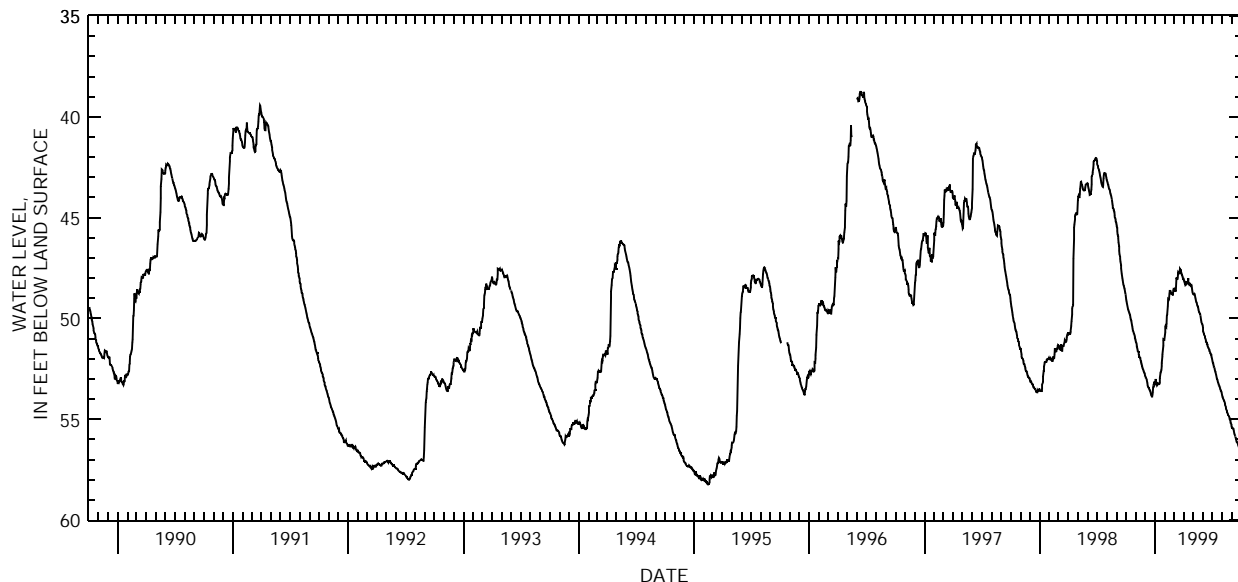
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 71.70 ft below land-surface datum, Oct. 24, 1944; minimum daily low, 38.24 ft below land-surface datum, June 8, 1947.

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

221

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.

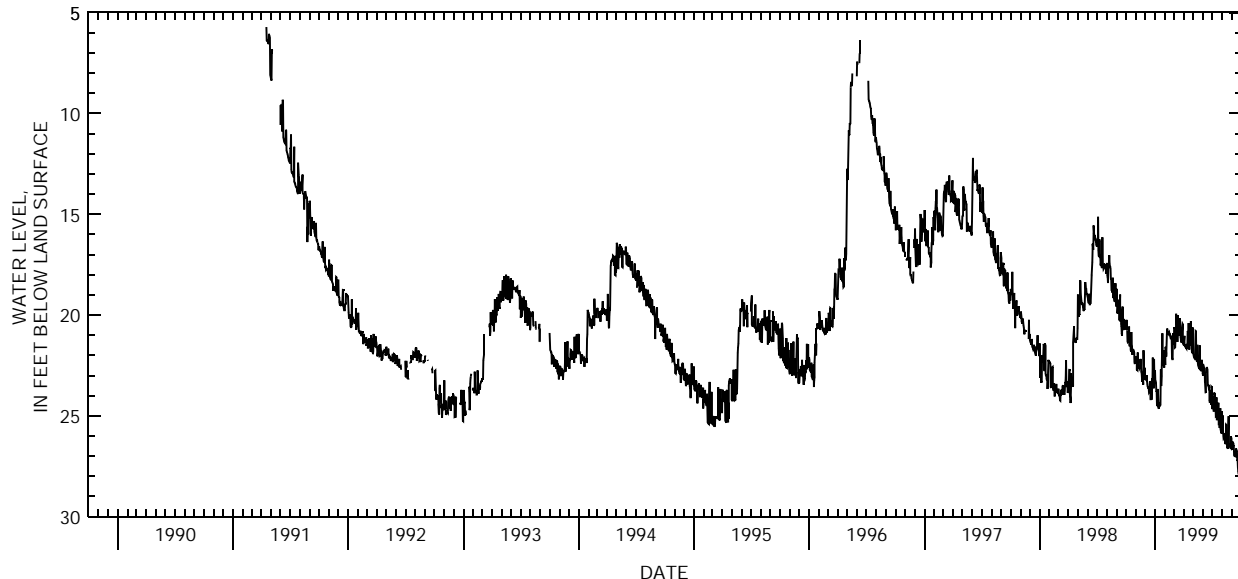
PERIOD OF RECORD.--May 1982 to July 1987. Reactivated April 17, 1991.

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.

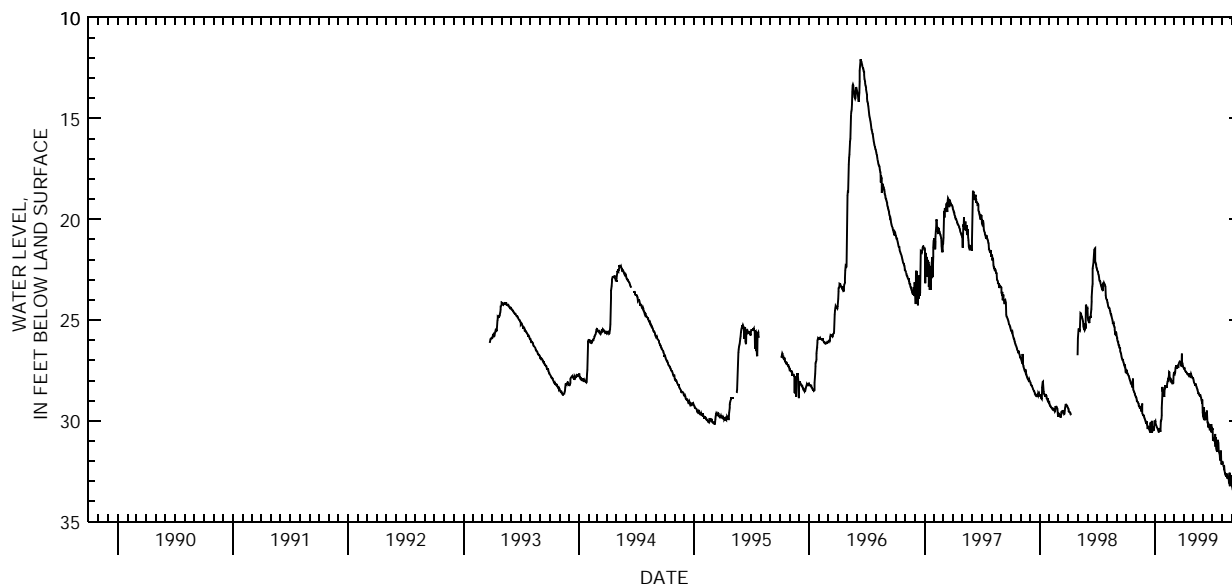
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 34.31 ft below land-surface datum, Sept. 27, 1999; minimum daily low, 12.06 ft below land-surface datum, June 12, 1996.

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

223

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.

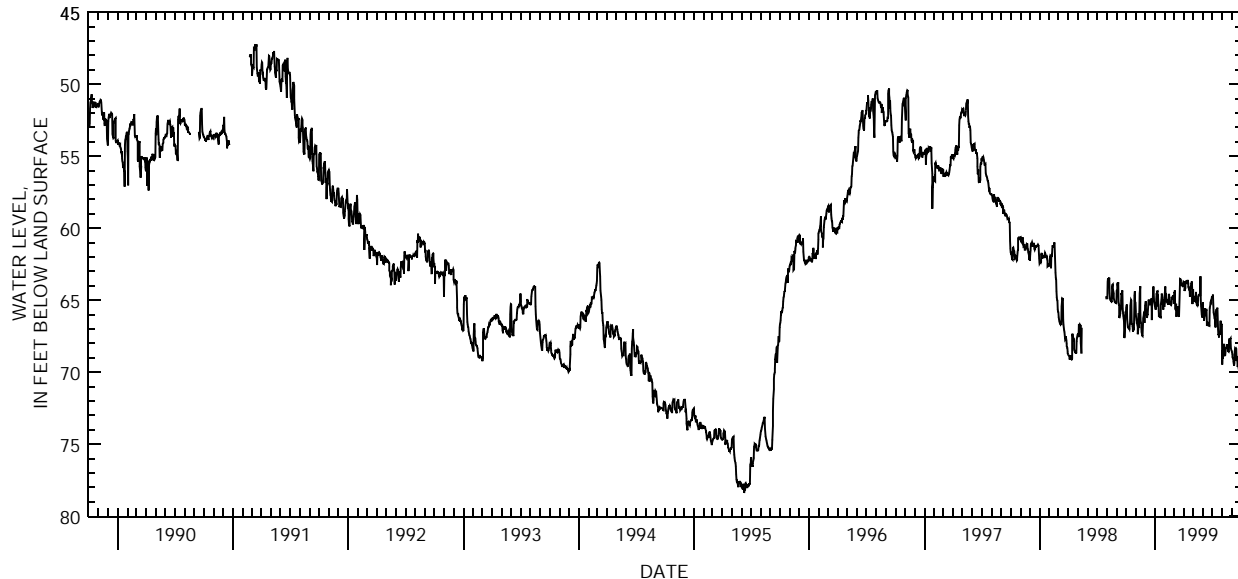
PERIOD OF RECORD.--July 1938 to current year.

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

DAILY MAXIMUM VALUES												
DAY	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

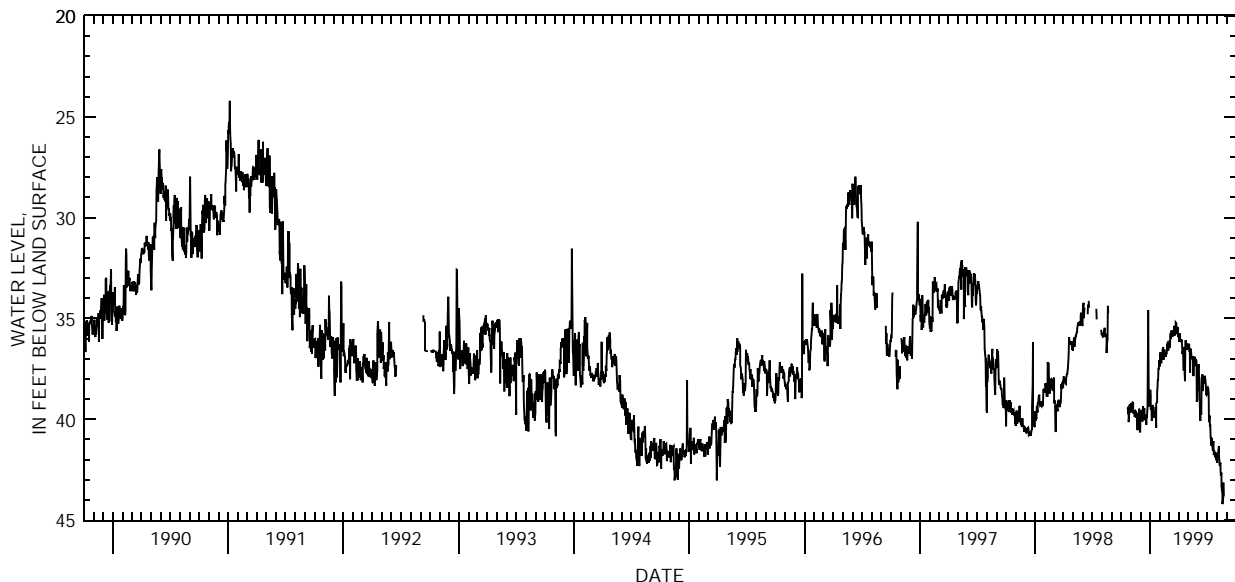
Butler County

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.

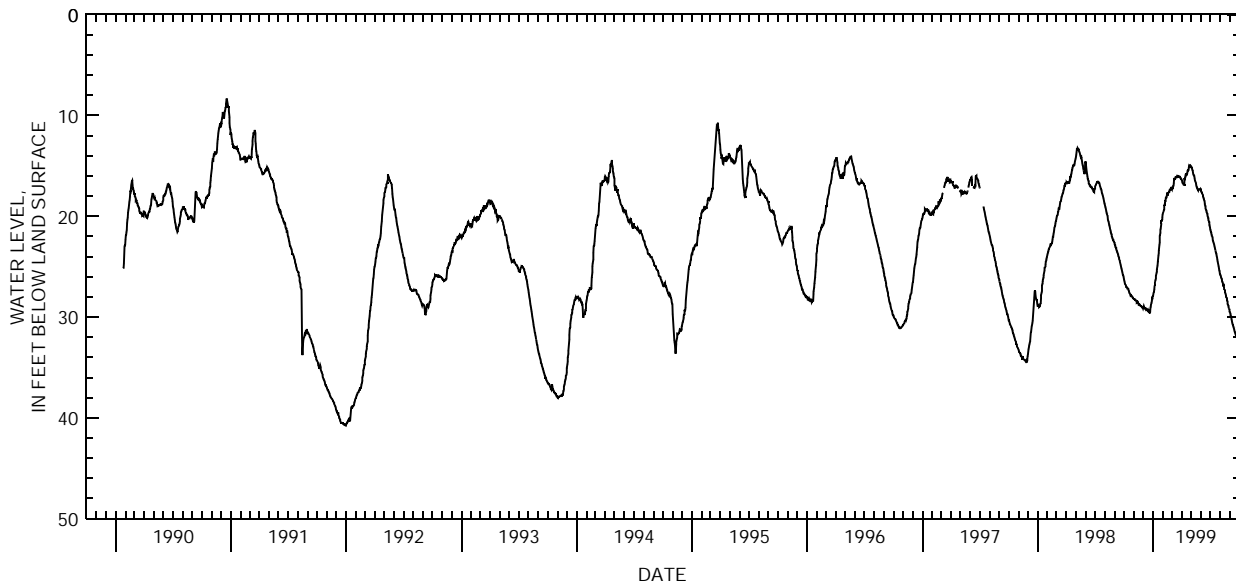
PERIOD OF RECORD.--August 1951 to current year.

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

227

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.

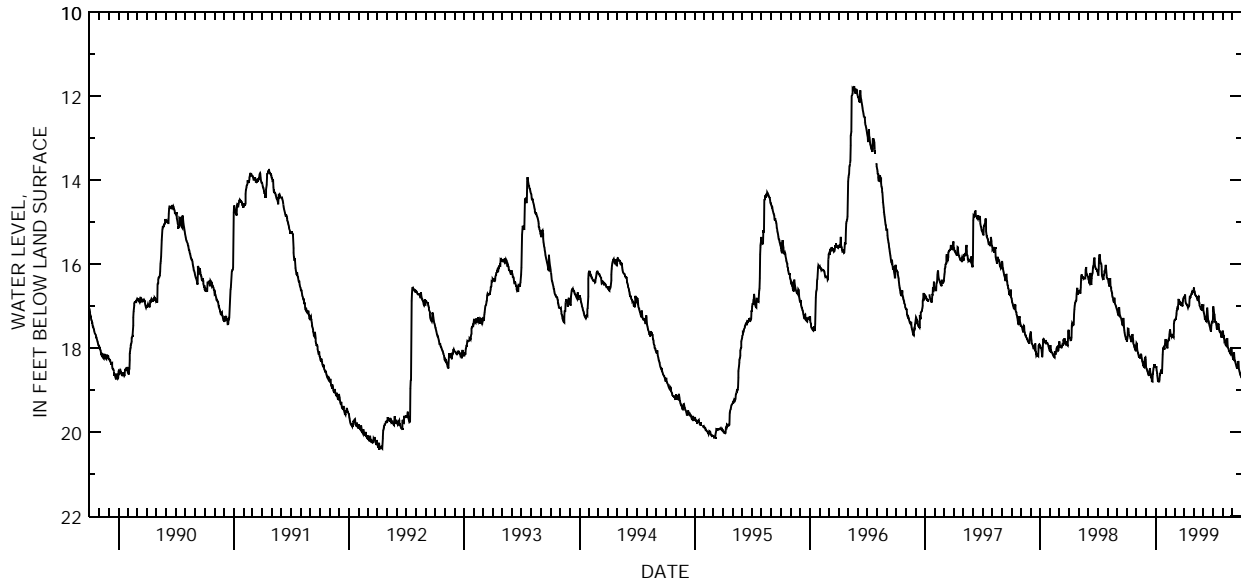
PERIOD OF RECORD.--May 1957 to current year.

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.

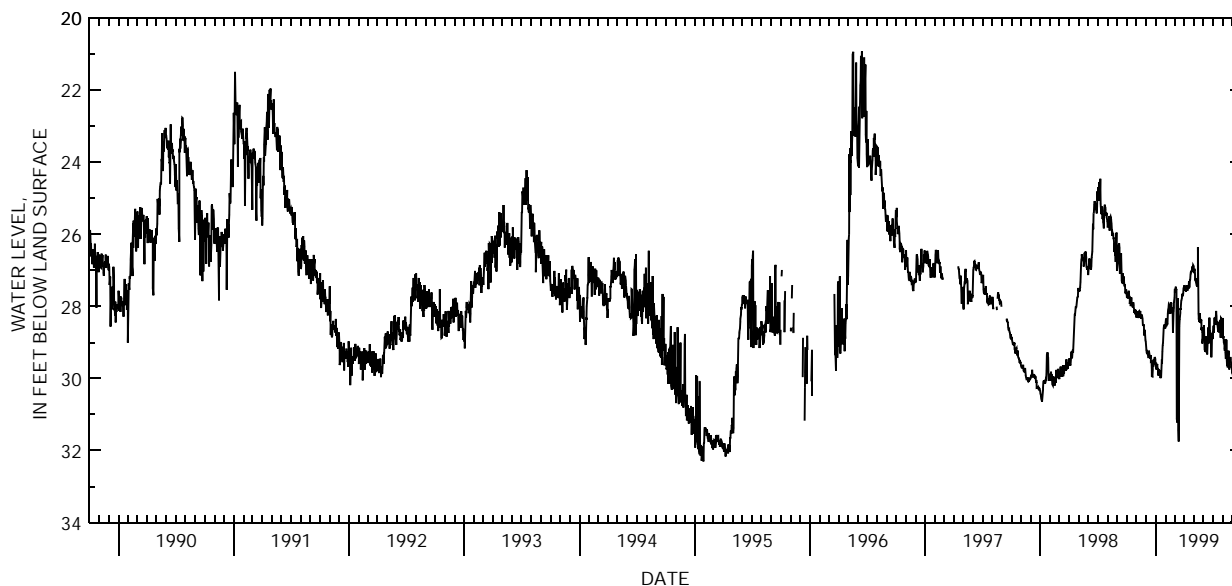
REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

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.

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	27.72	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

229

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.

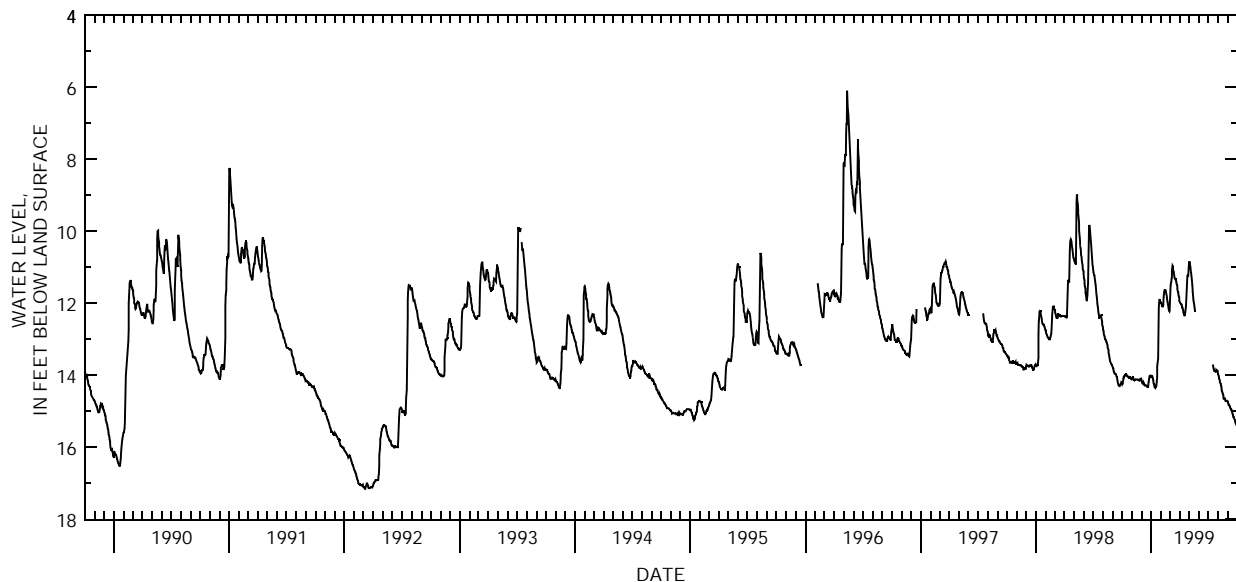
REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

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.

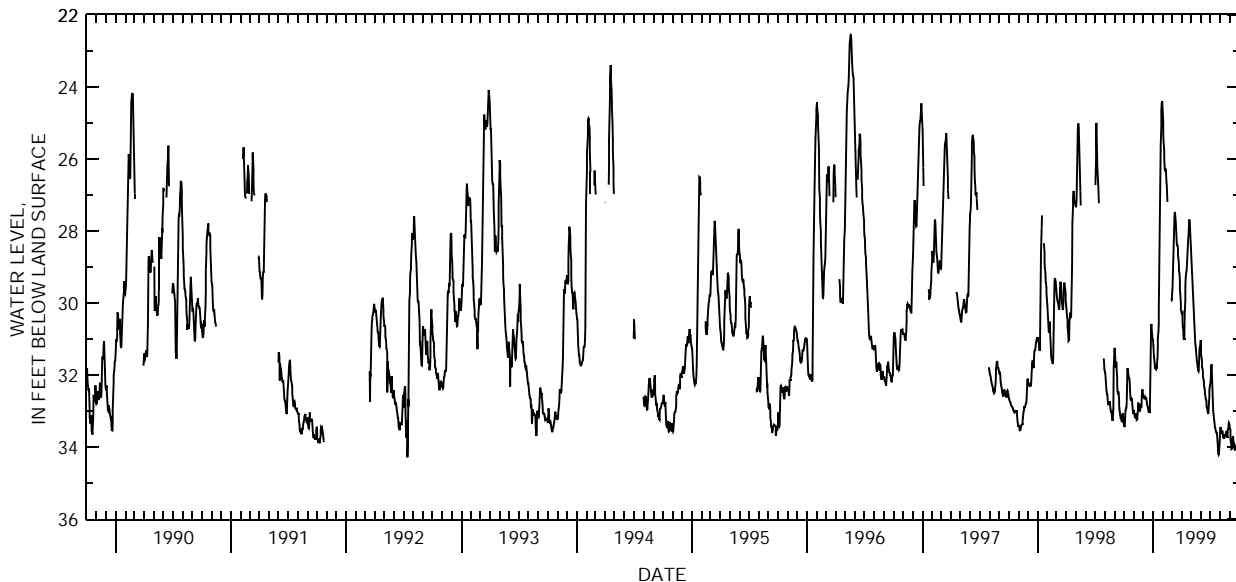
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 36.98 ft below land-surface datum, Oct. 16, 1973; minimum daily low, 21.40 ft below land-surface datum, July 10, 1969.

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

231

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.

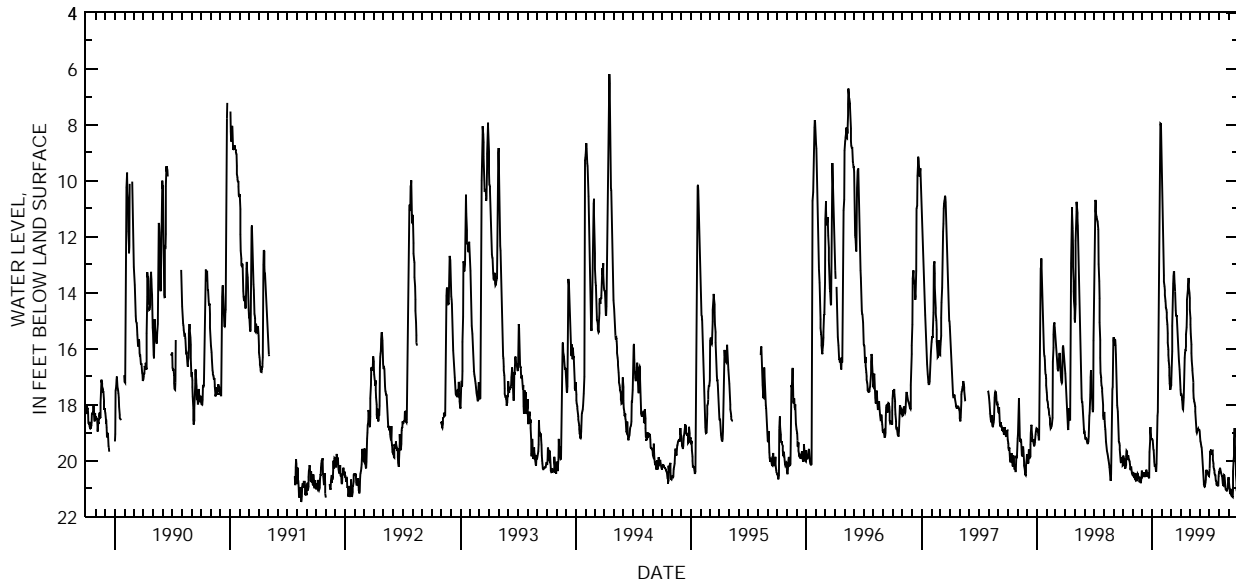
PERIOD OF RECORD.--May 1949 to September 1982. Reactivated March 24, 1989.

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.

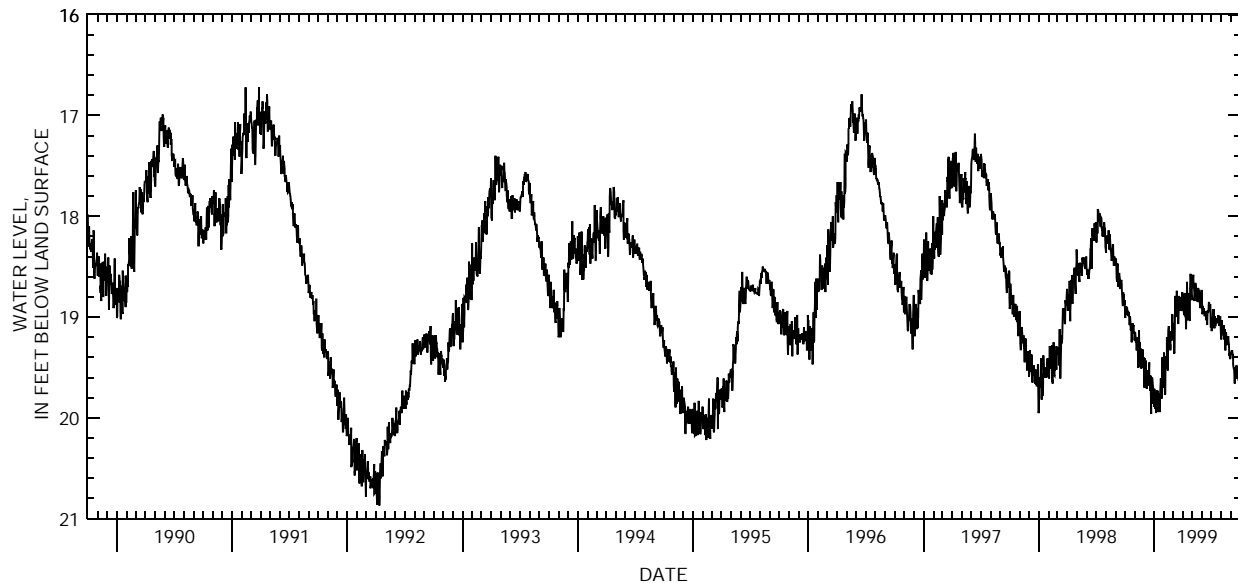
PERIOD OF RECORD.--August 1977 to current year.

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

233

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.

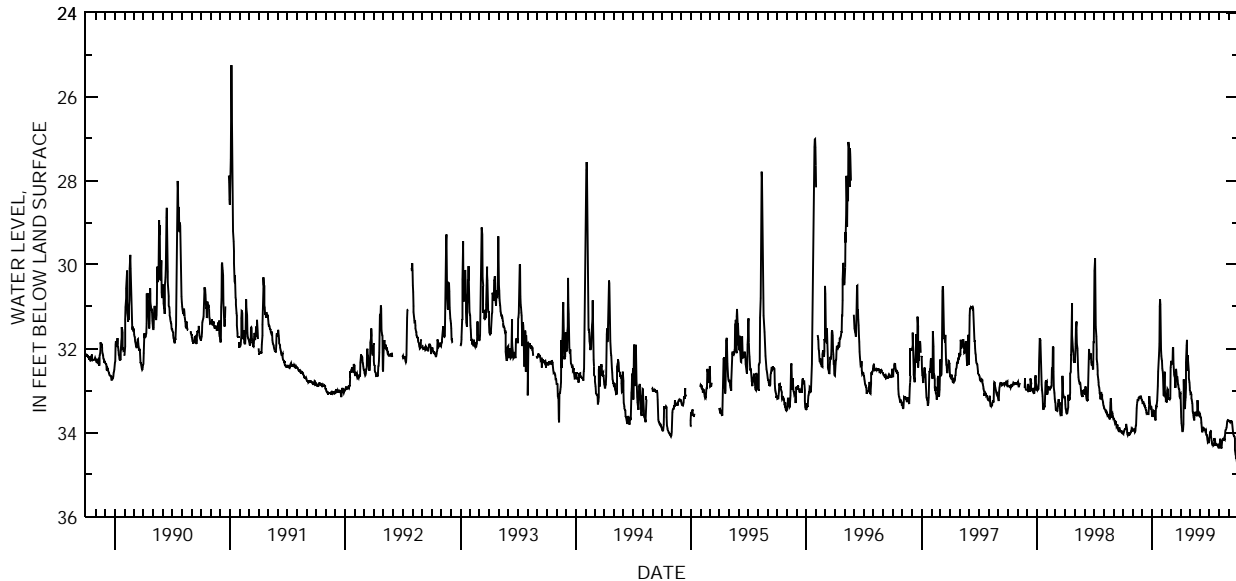
PERIOD OF RECORD.--October 1948 to current year.

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.

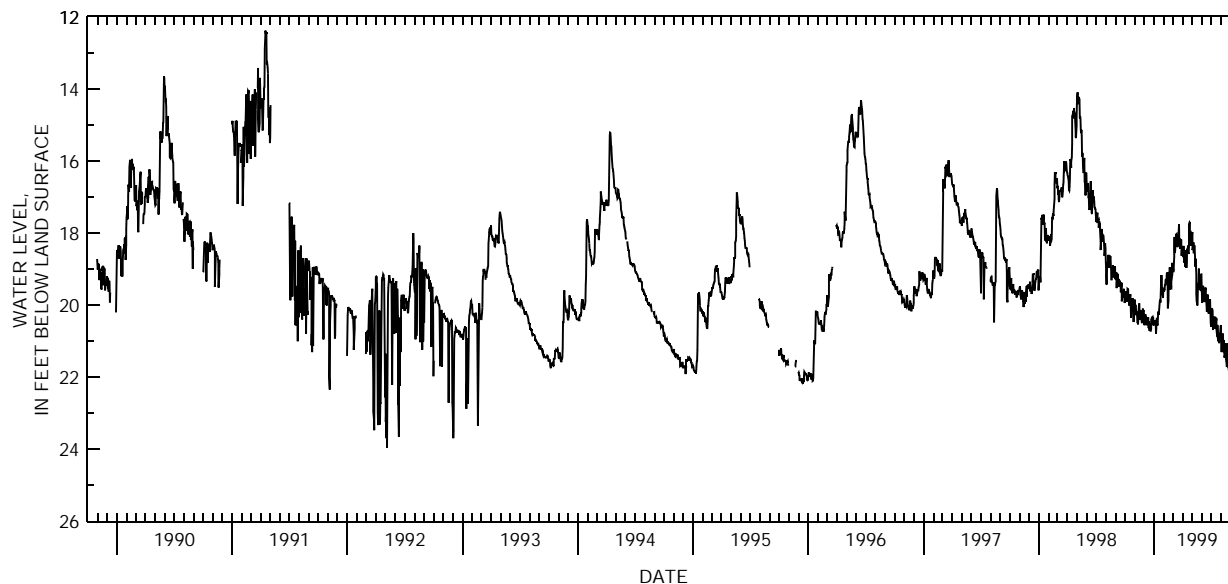
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 25.36 ft below land-surface datum, Sept. 20, 1988; minimum daily low, 12.38 ft below land-surface datum, Apr. 17, 1991.

DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAILY MAXIMUM VALUES												
DAY	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

235

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.

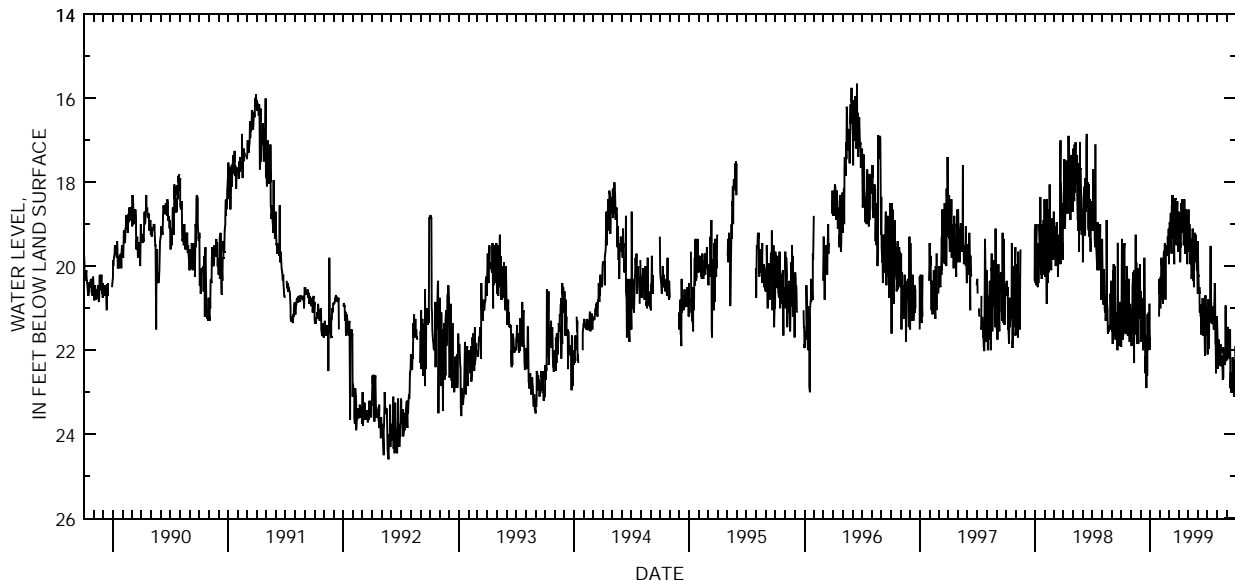
PERIOD OF RECORD.--June 1978 to current year.

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.

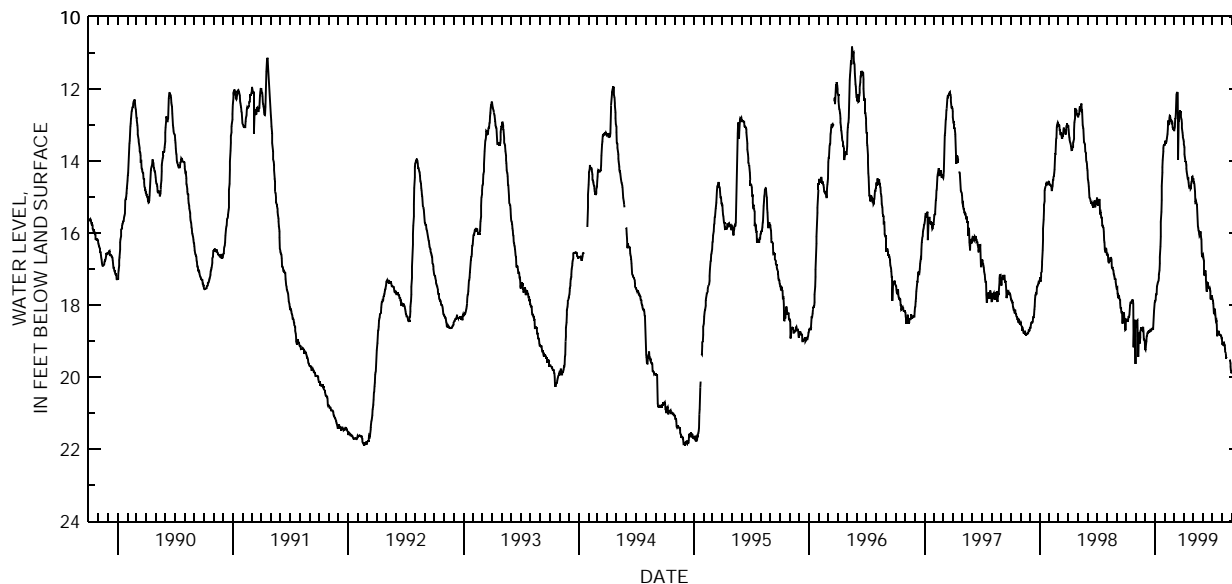
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 21.89 ft below land-surface datum, Nov. 29, 1994; minimum daily low, 7.27 ft below land-surface datum, May 5-6, 1962.

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

237

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.

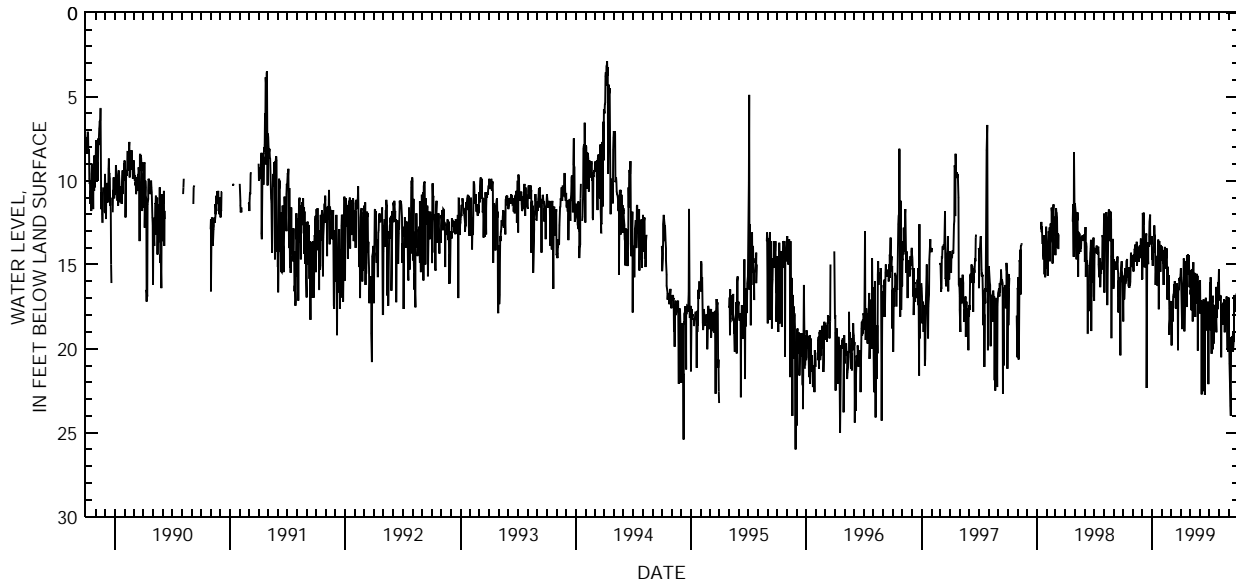
PERIOD OF RECORD.--June 1971 to current year.

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.

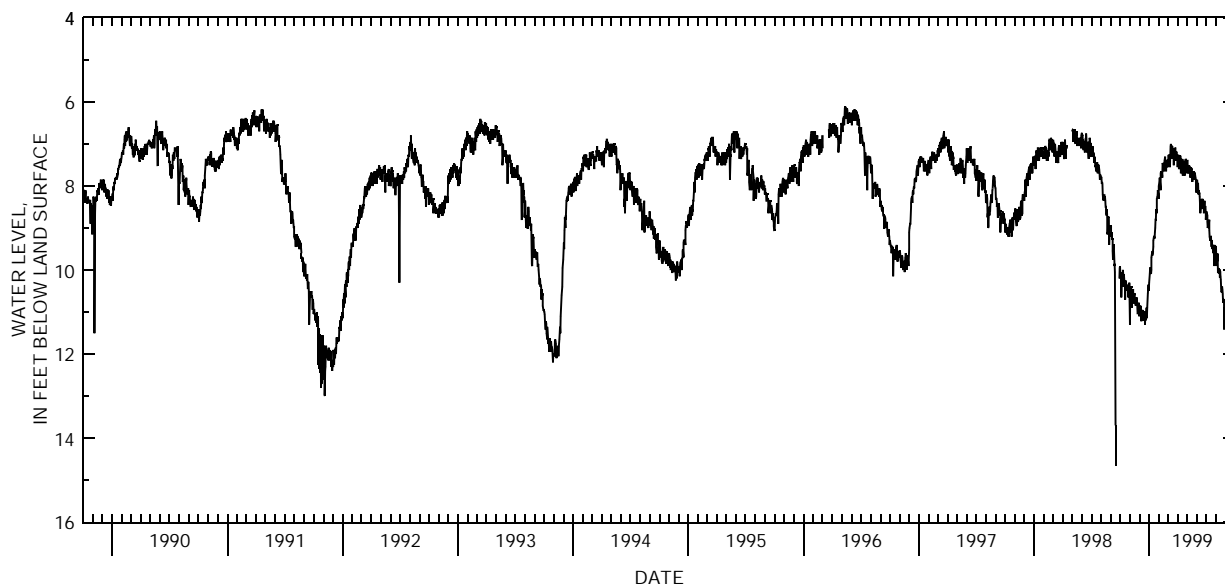
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 14.65 ft below land-surface datum, Sept. 16, 1998; minimum daily low, 3.26 ft below land-surface datum, Apr. 28, 1964.

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

239

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.

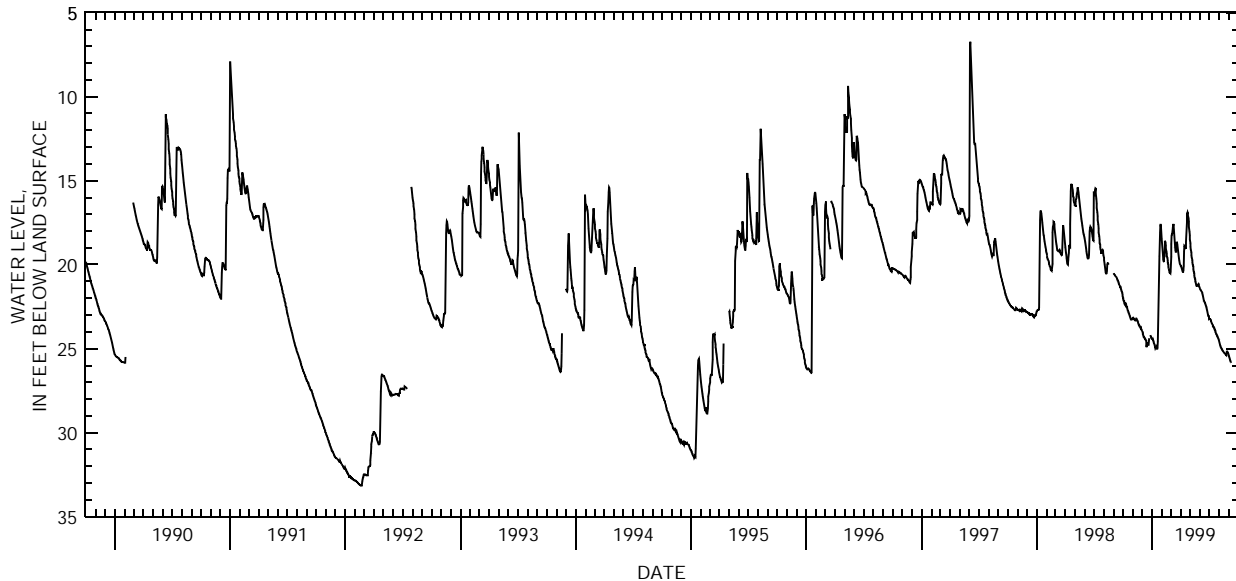
PERIOD OF RECORD.--November 22, 1985, to March 26, 1986, periodic, continuous thereafter.

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.

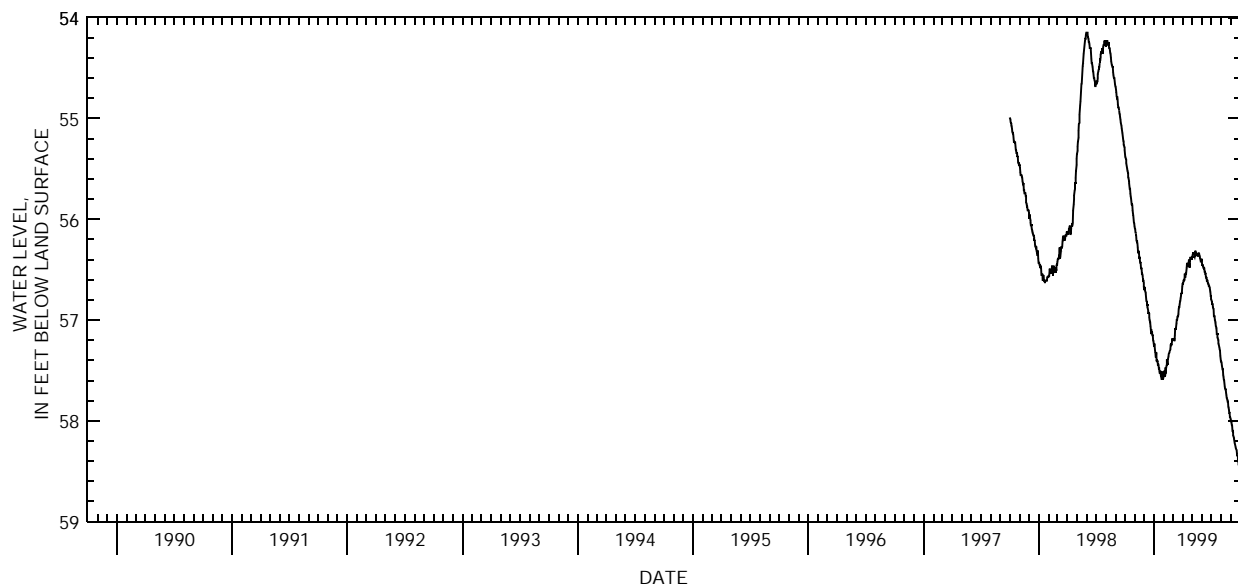
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 58.49 ft below land-surface datum, Sept. 29-30, 1999; minimum daily low, 54.15 ft below land-surface datum, May 31 to June 4, 1998.

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

241

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.

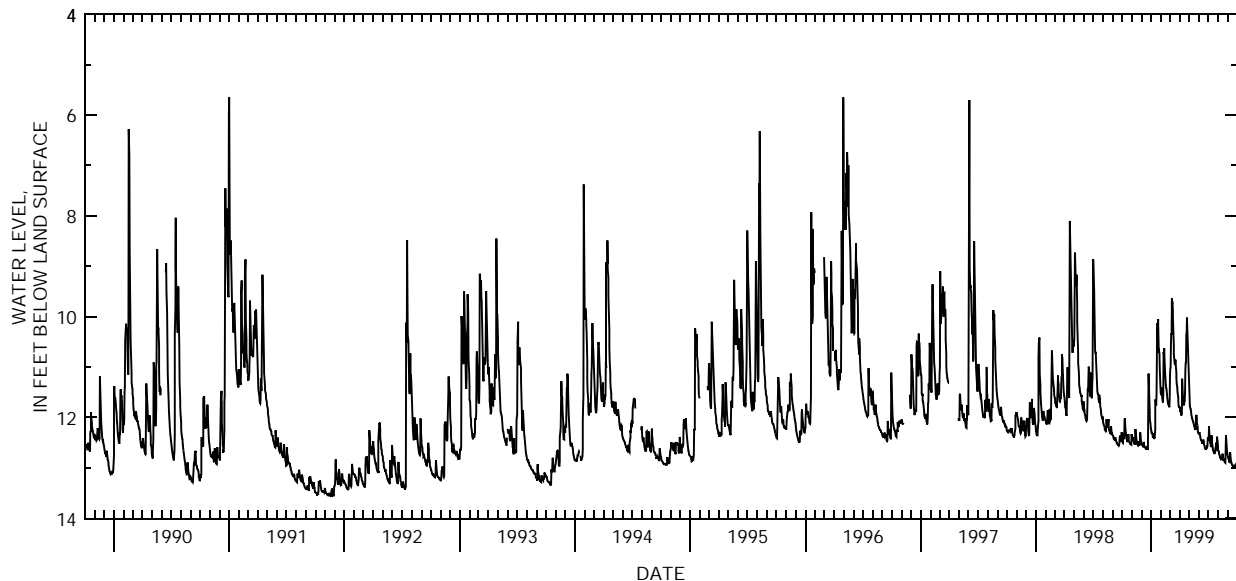
PERIOD OF RECORD.--April 1946 to September 1982 continuous, periodic October 1982 to September 1989, continuous thereafter.

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.

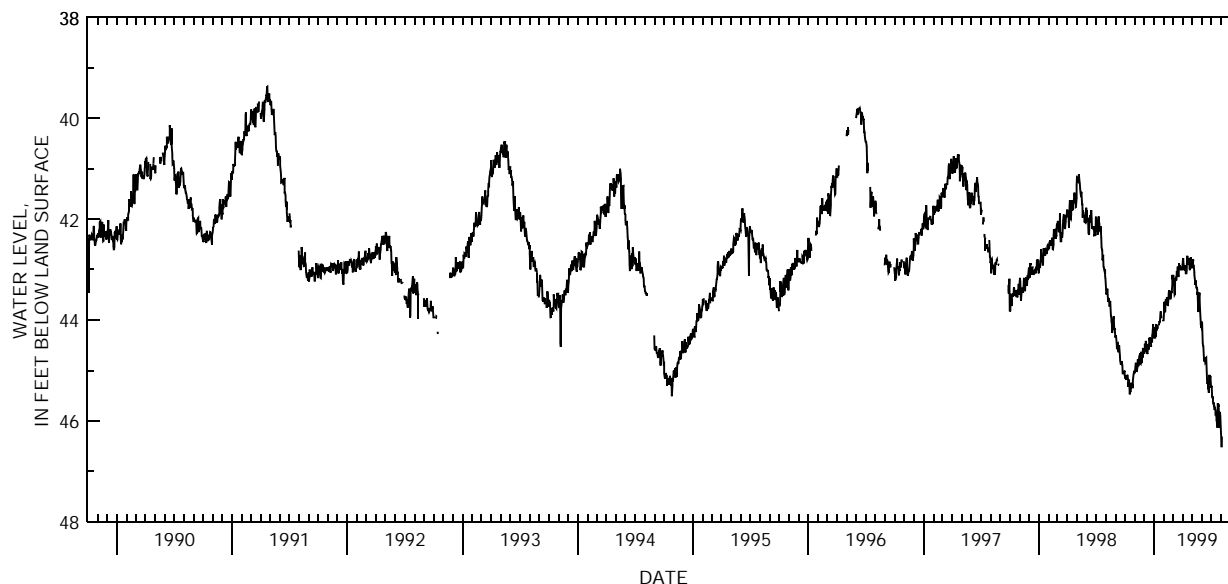
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 48.20 ft below land-surface datum, Oct. 7, 1954; minimum daily low, 37.76 ft below land-surface datum, Apr. 13, 1951.

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.

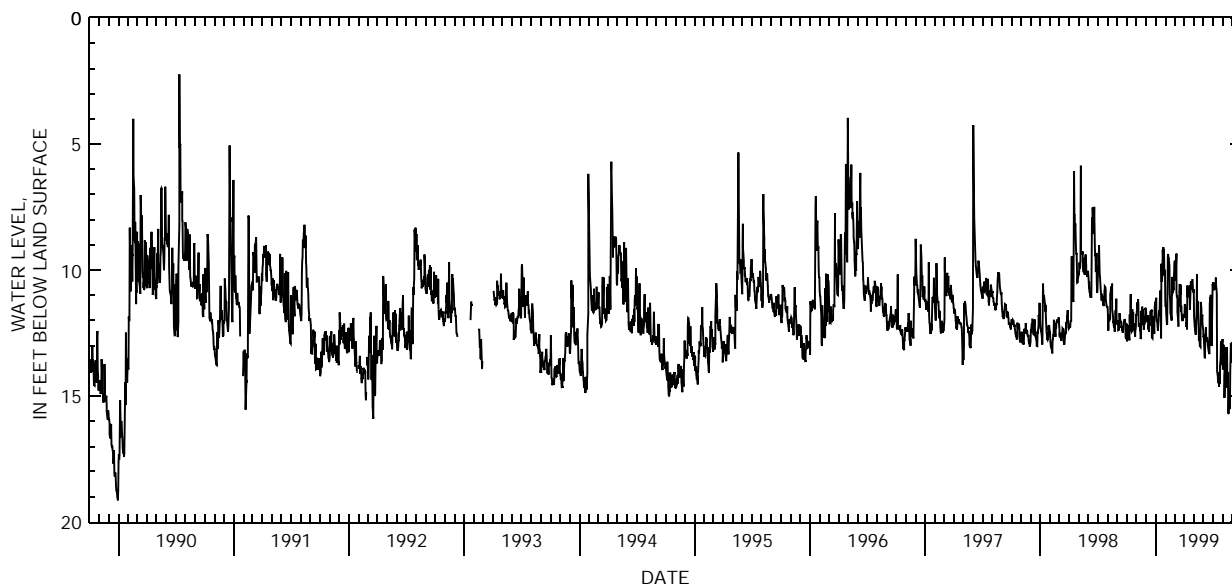
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 21.60 ft below land-surface datum, July 7, 1966; minimum daily low, 0.70 ft above land-surface datum, Aug. 3, 1958.

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

245

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.

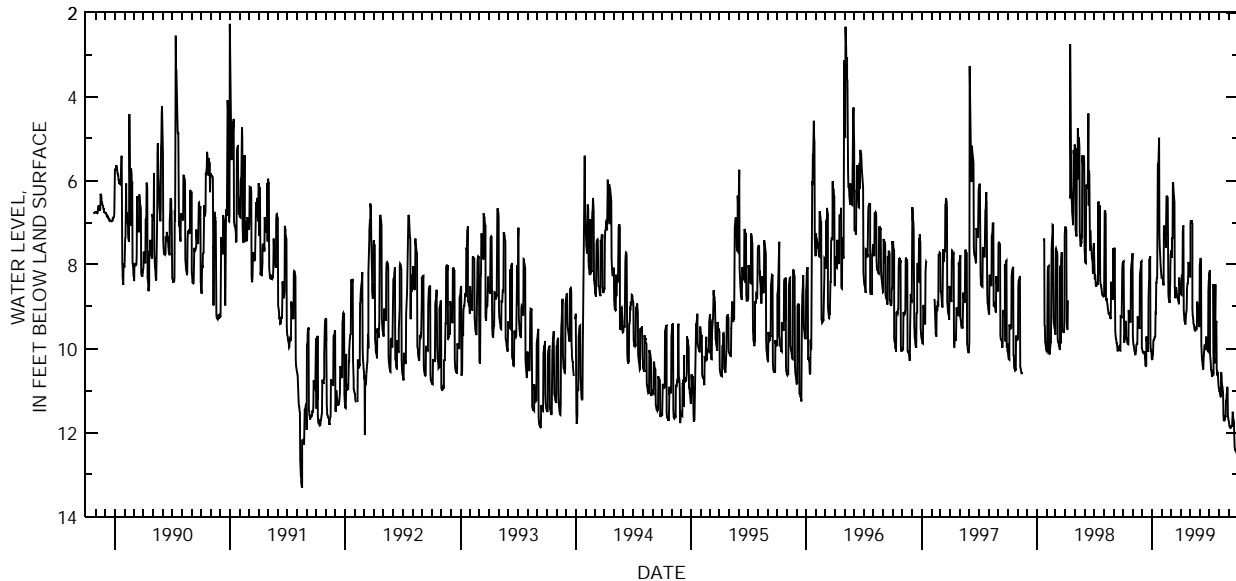
PERIOD OF RECORD.--March 1976 to current year.

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

247

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.

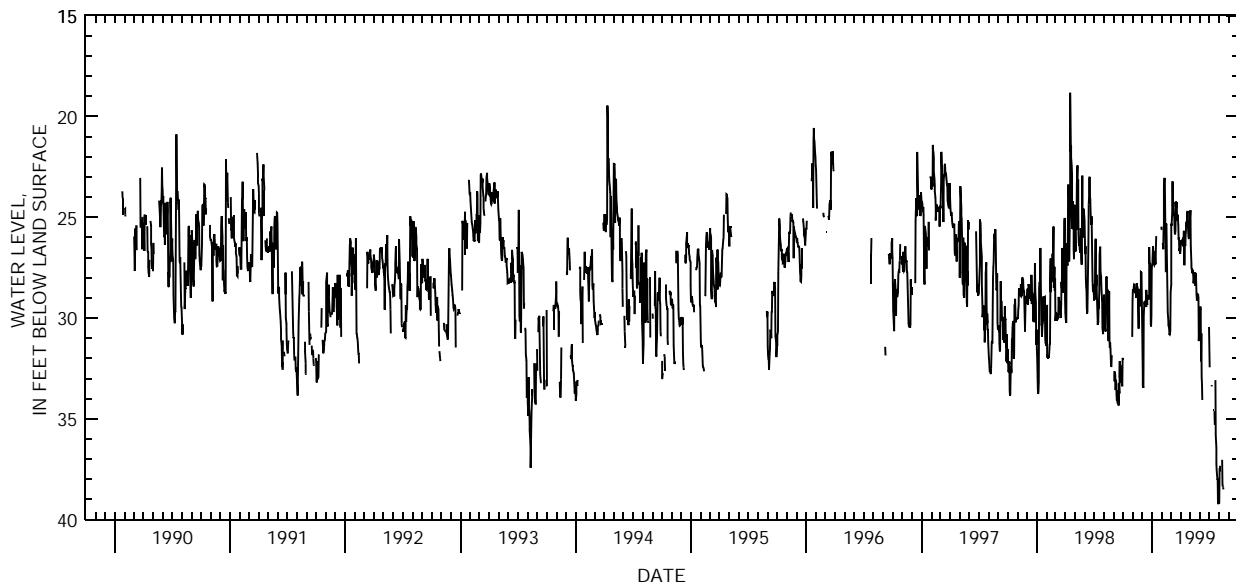
PERIOD OF RECORD.--August 1952 to current year.

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.

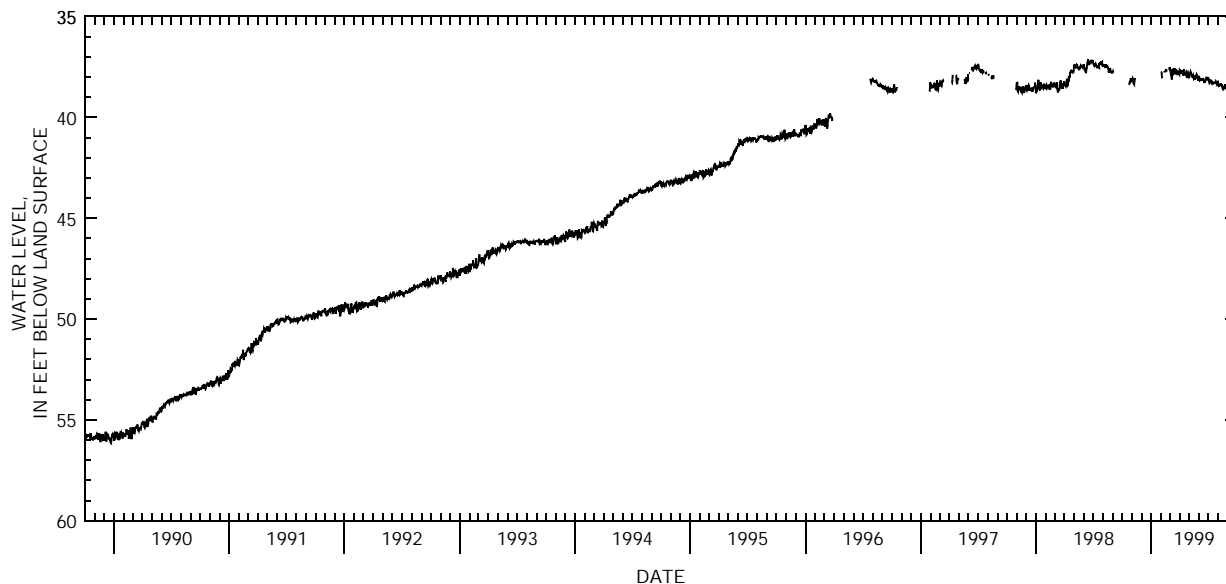
DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

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

249

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.

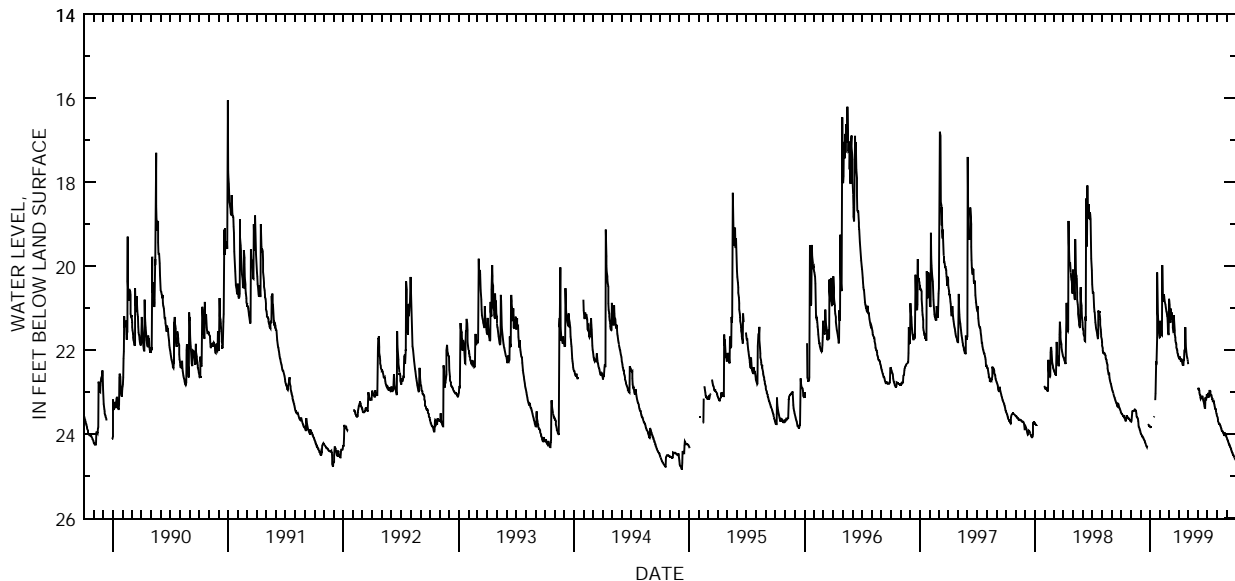
PERIOD OF RECORD.--February 1948 to current year.

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

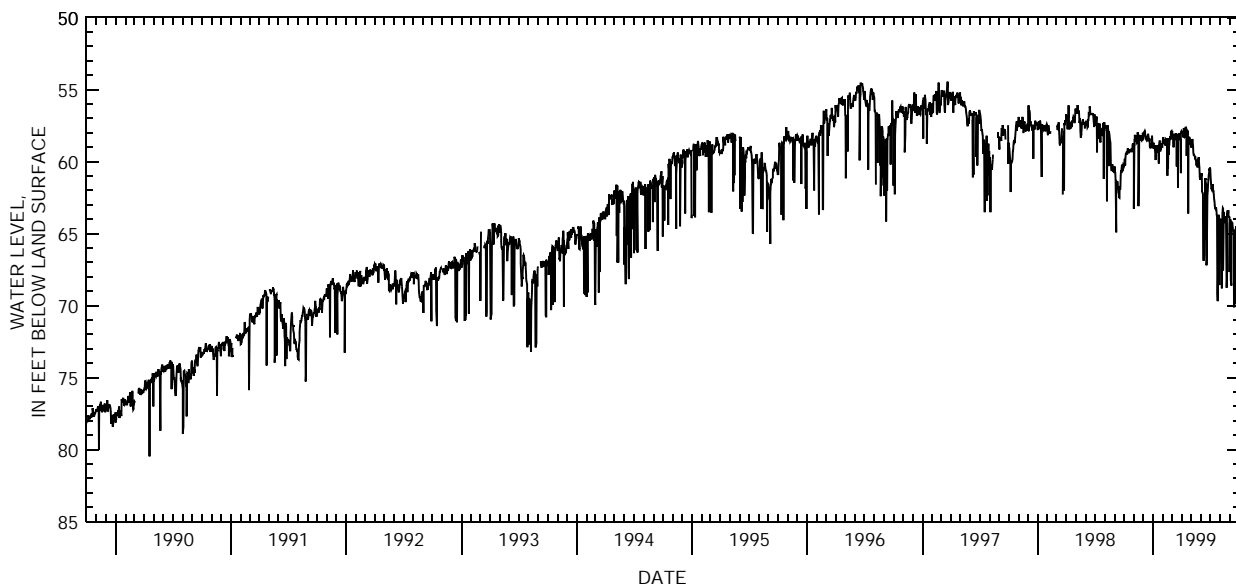
Hamilton County

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

251

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.

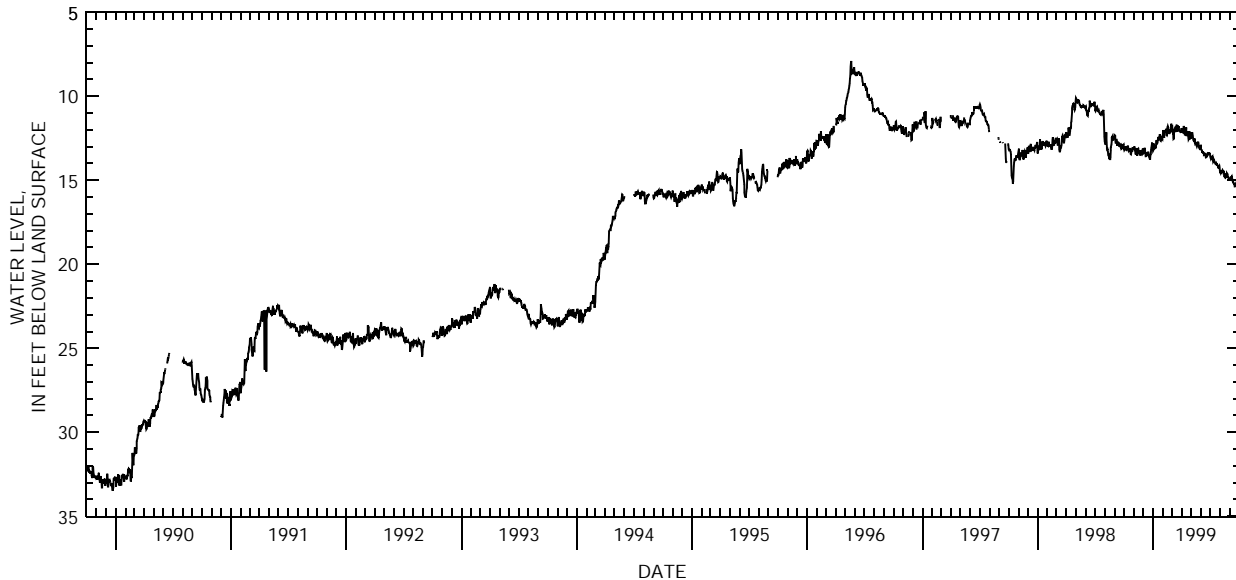
PERIOD OF RECORD.--April 1941 to current year.

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.

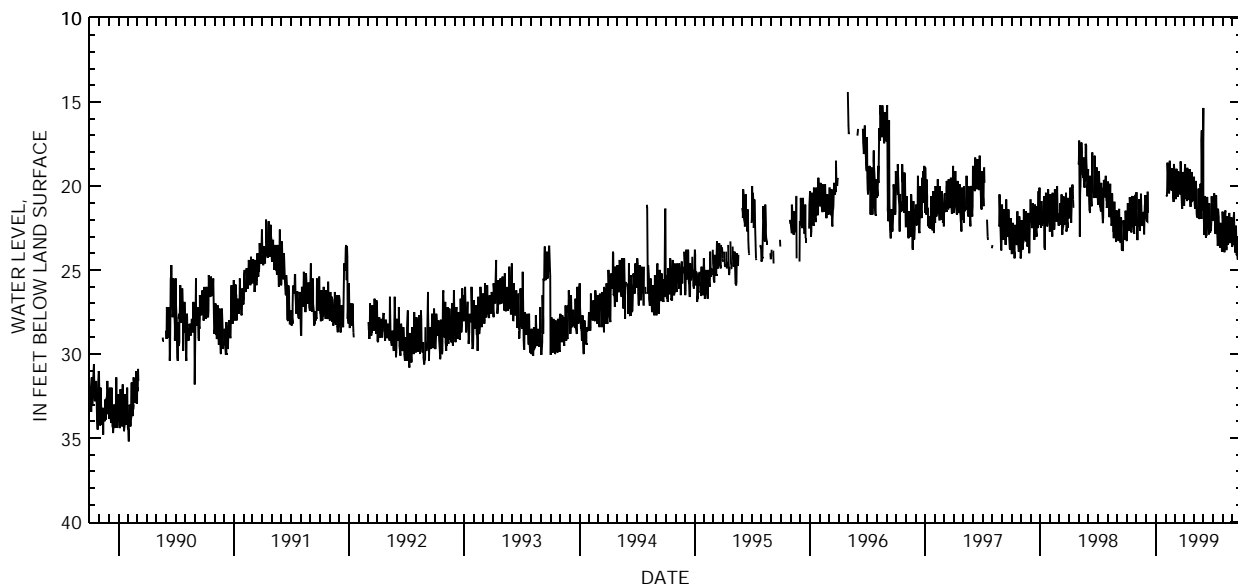
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 84.10 ft below land-surface datum, Oct. 14, 1960; minimum daily low, 14.40 ft below land-surface datum, Apr. 30, 1996.

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

253

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.

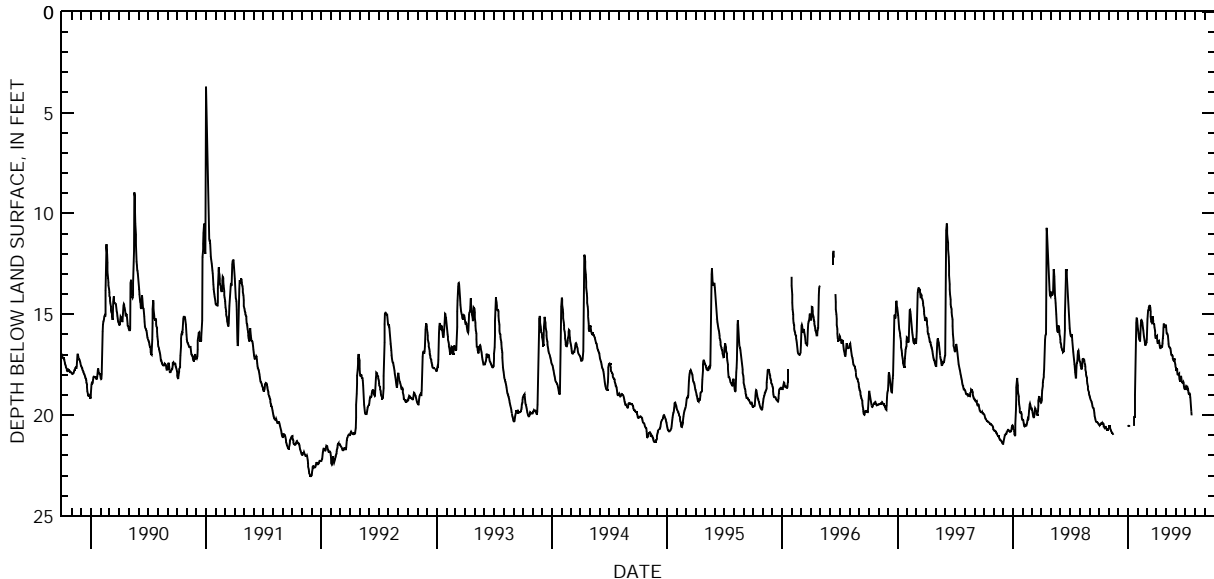
REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

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 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...	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

255

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.

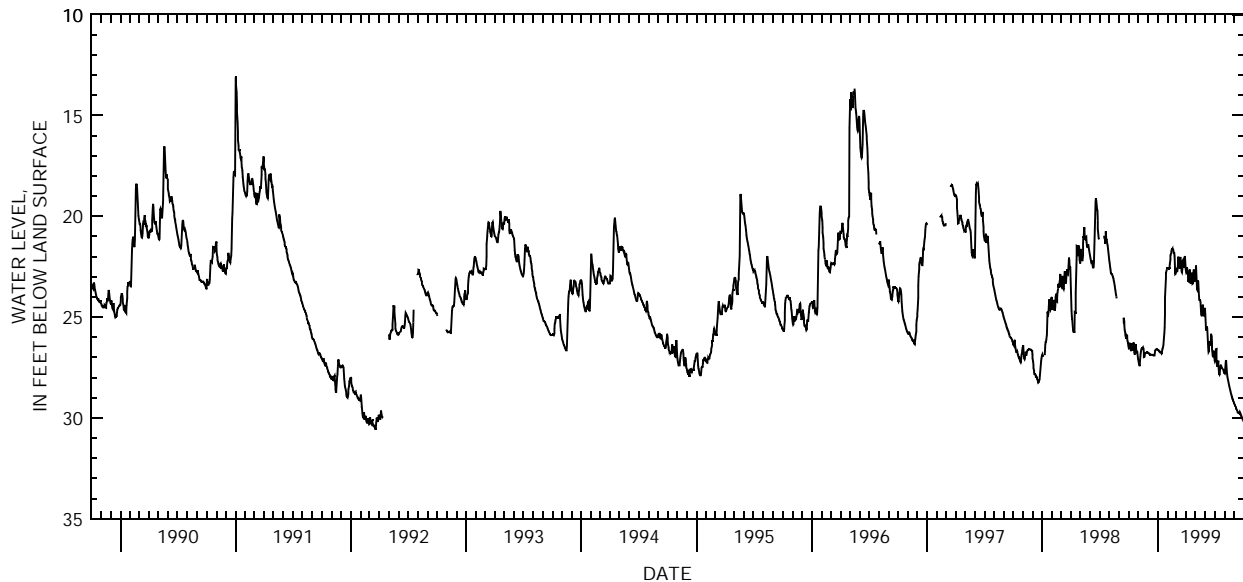
PERIOD OF RECORD.--December 1954 to current year.

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.

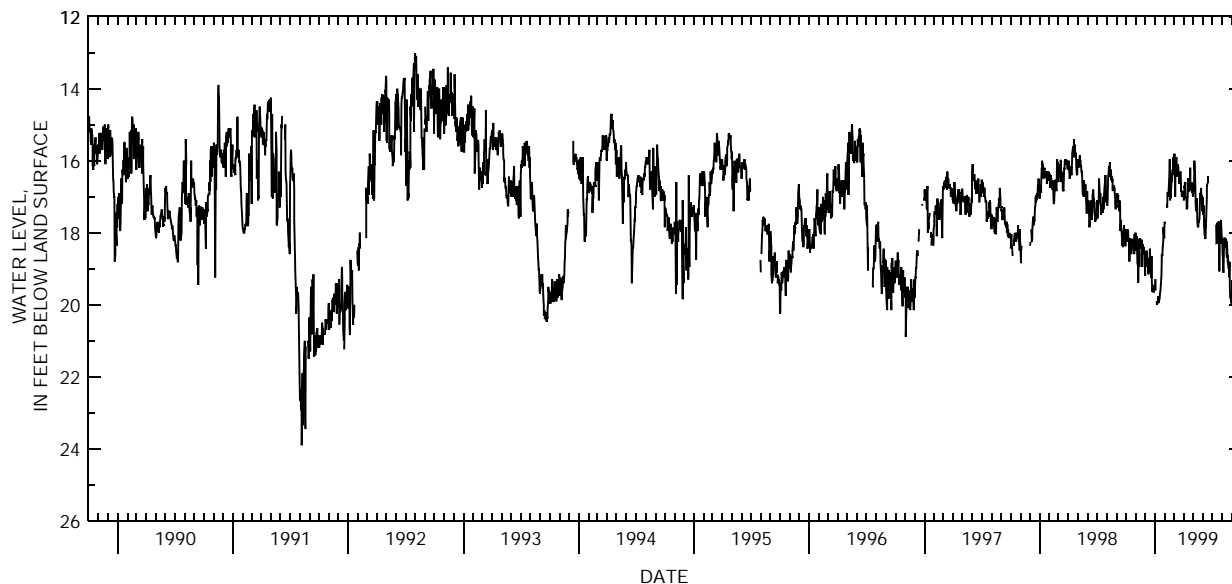
PERIOD OF RECORD.--April 1946 to current year.

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.

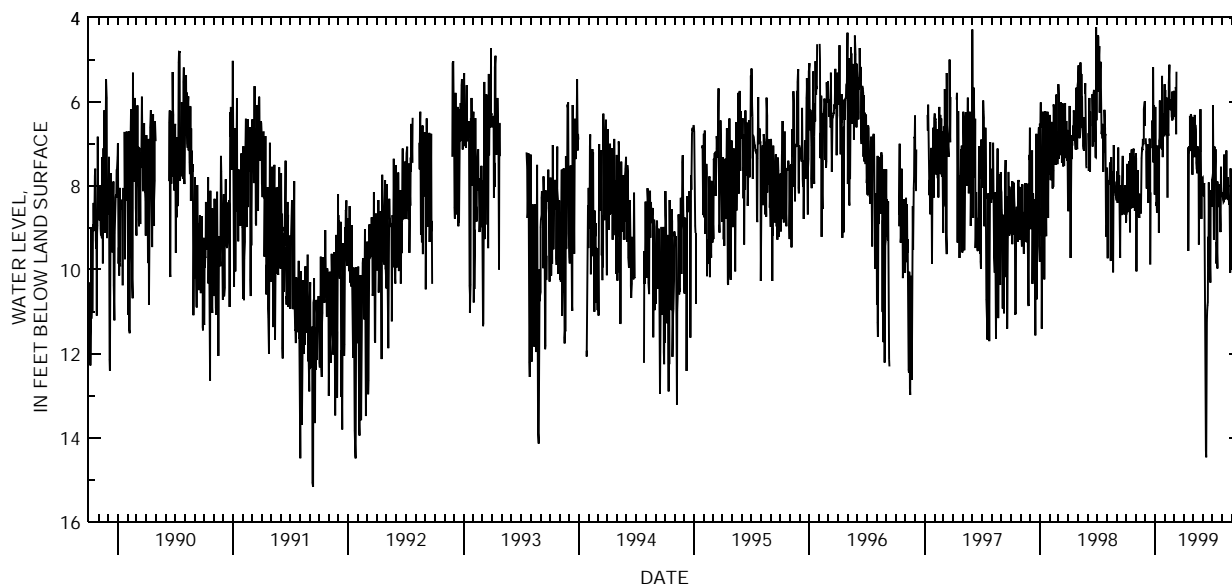
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 20.74 ft below land-surface datum, July 14, 1988; minimum daily low, 1.43 ft below land-surface datum, Apr. 29, 1950.

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

259

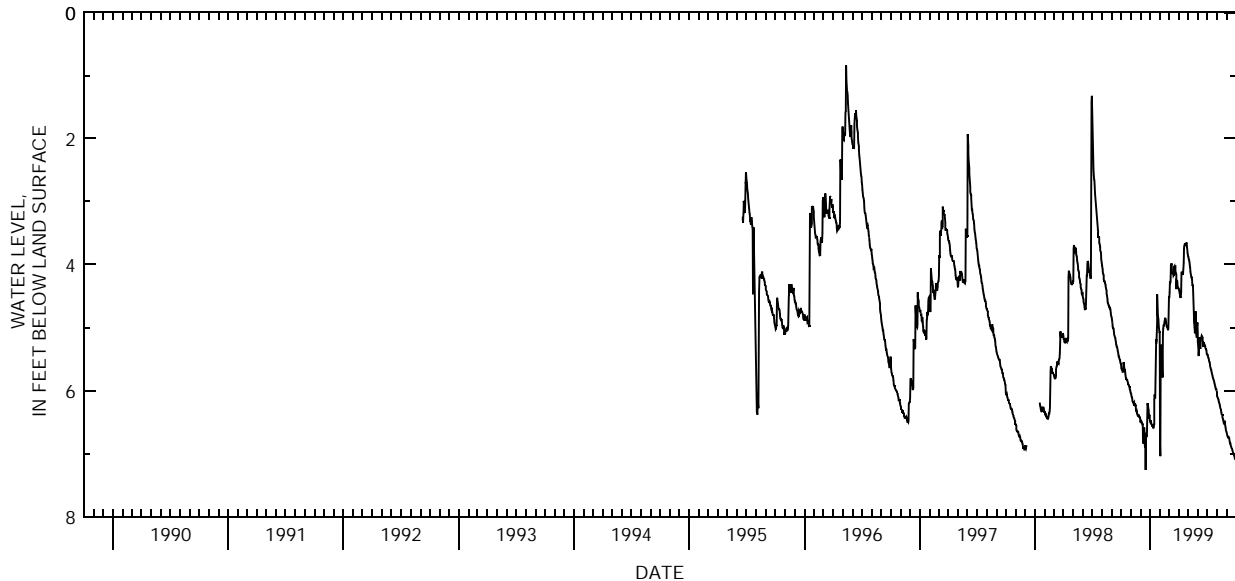
402747082374300. LOCAL NUMBER, K-4

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.

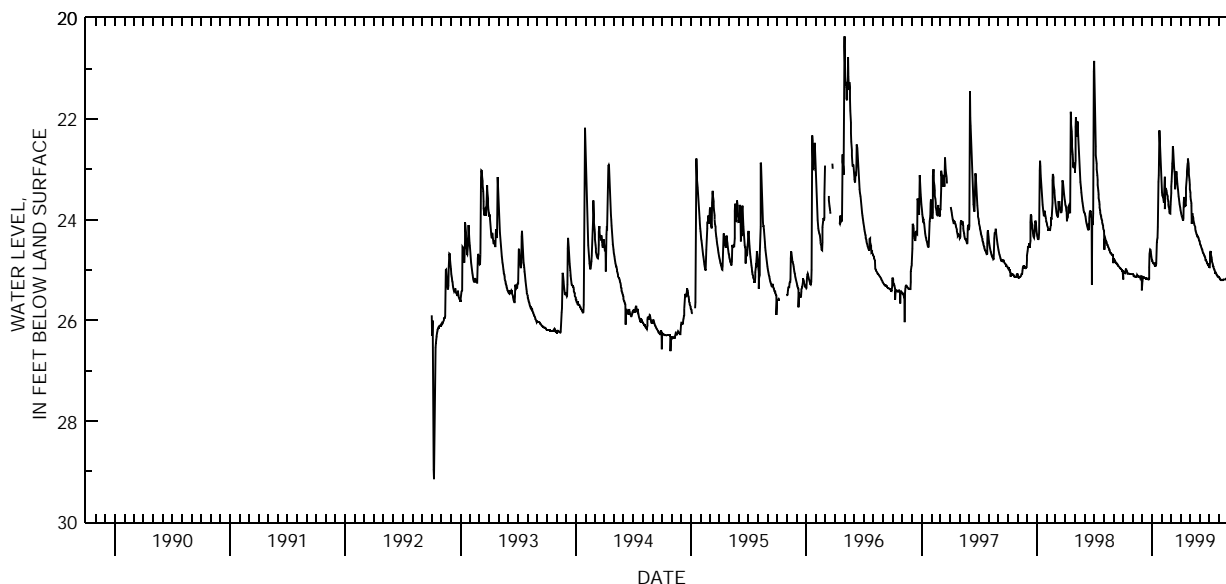
PERIOD OF RECORD.--October 1992 to current year.

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

261

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.

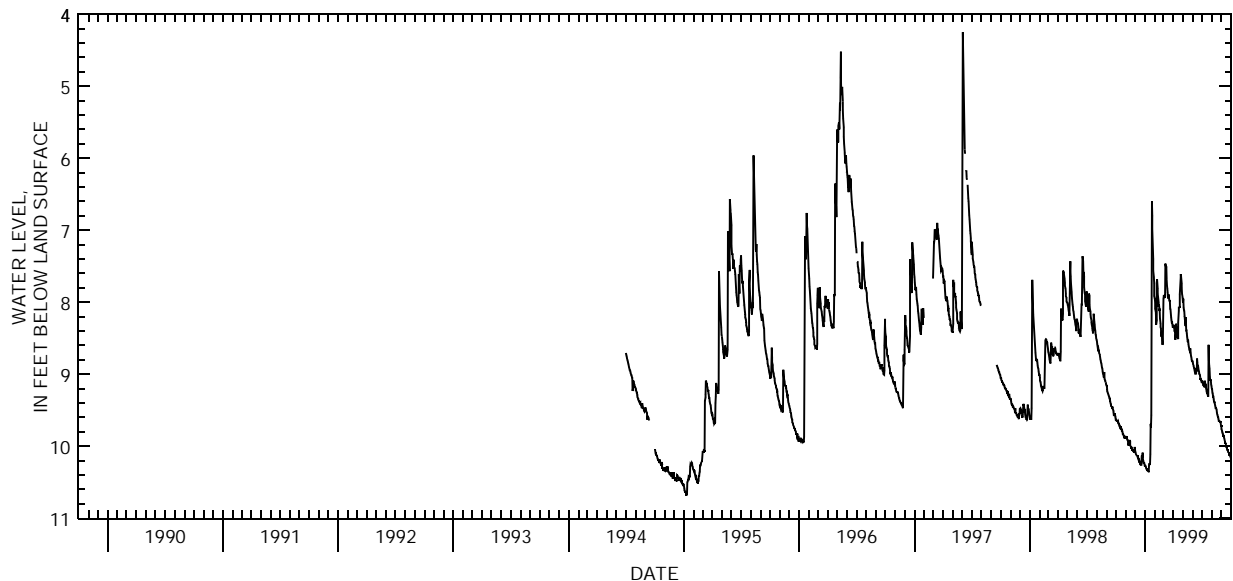
PERIOD OF RECORD.--July 1994 to current year.

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

MadisonCounty

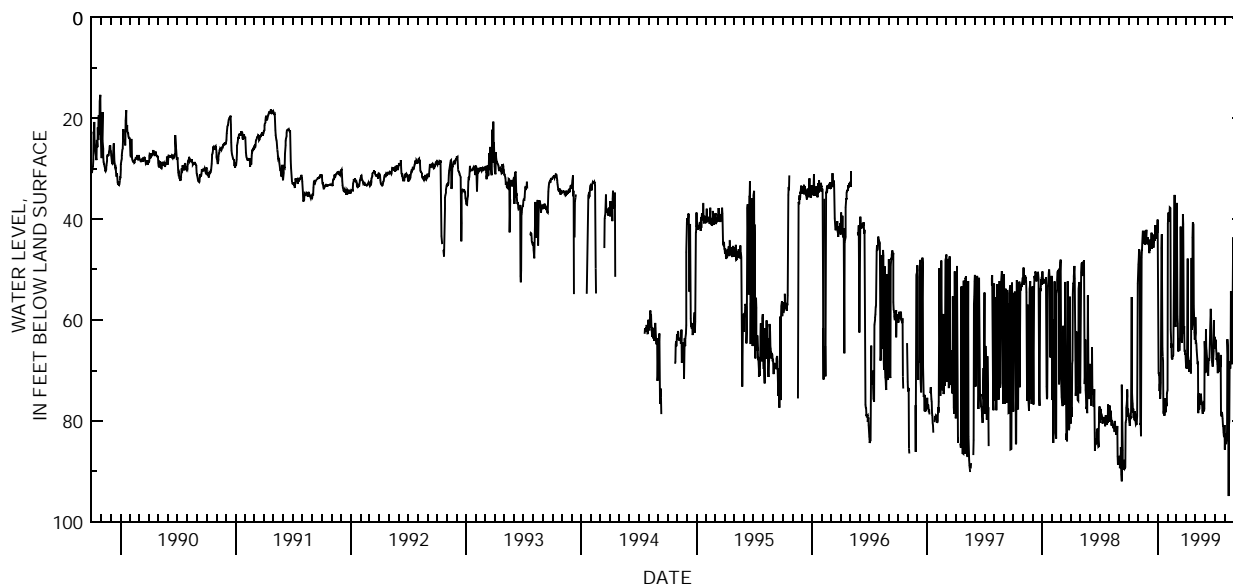
395301083272200. LOCAL NUMBER, M-2

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

263

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.

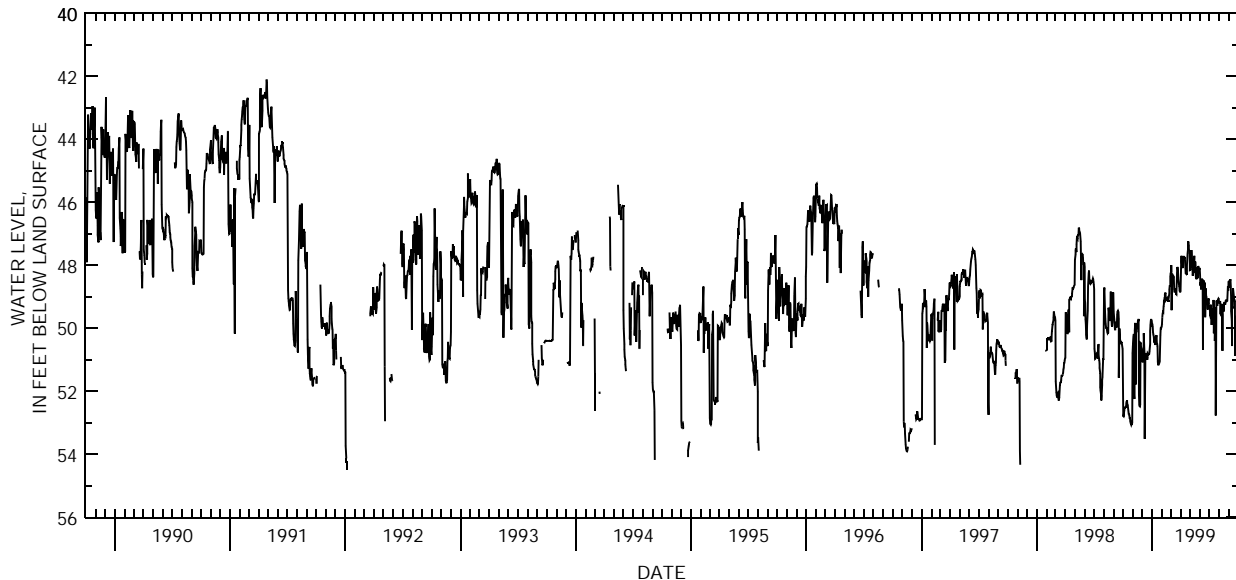
PERIOD OF RECORD.--October 1, 1986 to current year.

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.

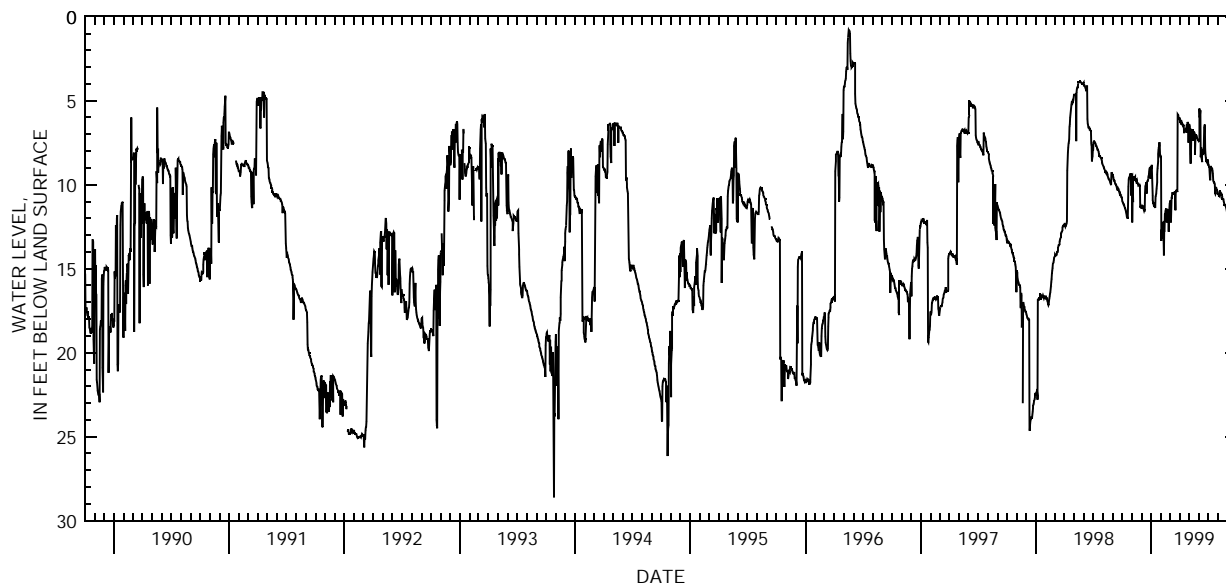
PERIOD OF RECORD.--June 1983 to current year.

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

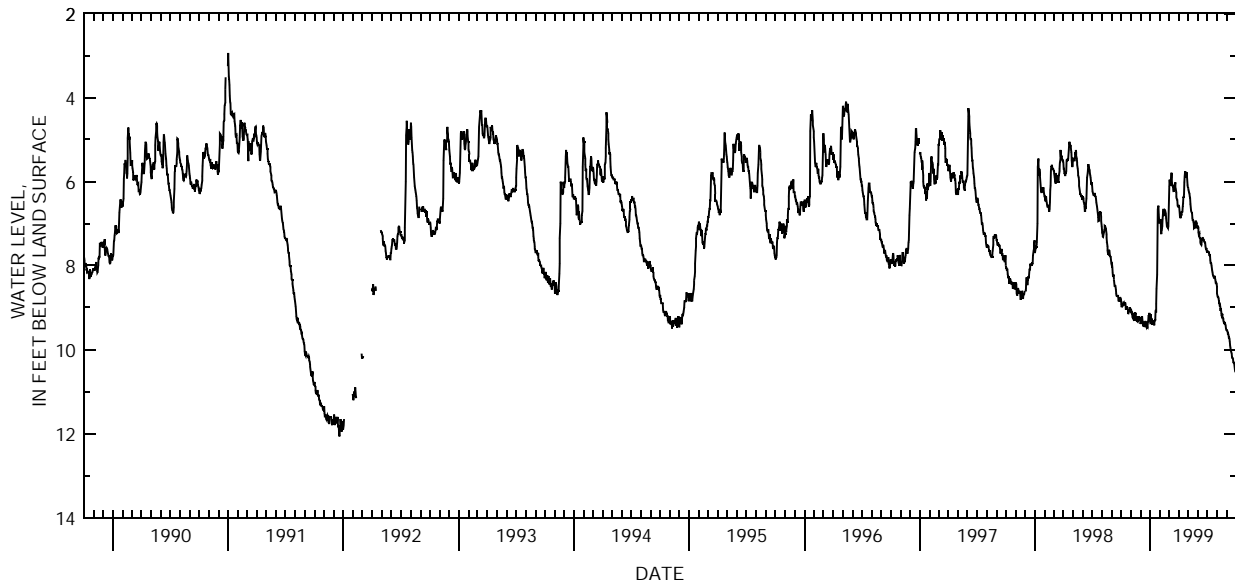
267

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

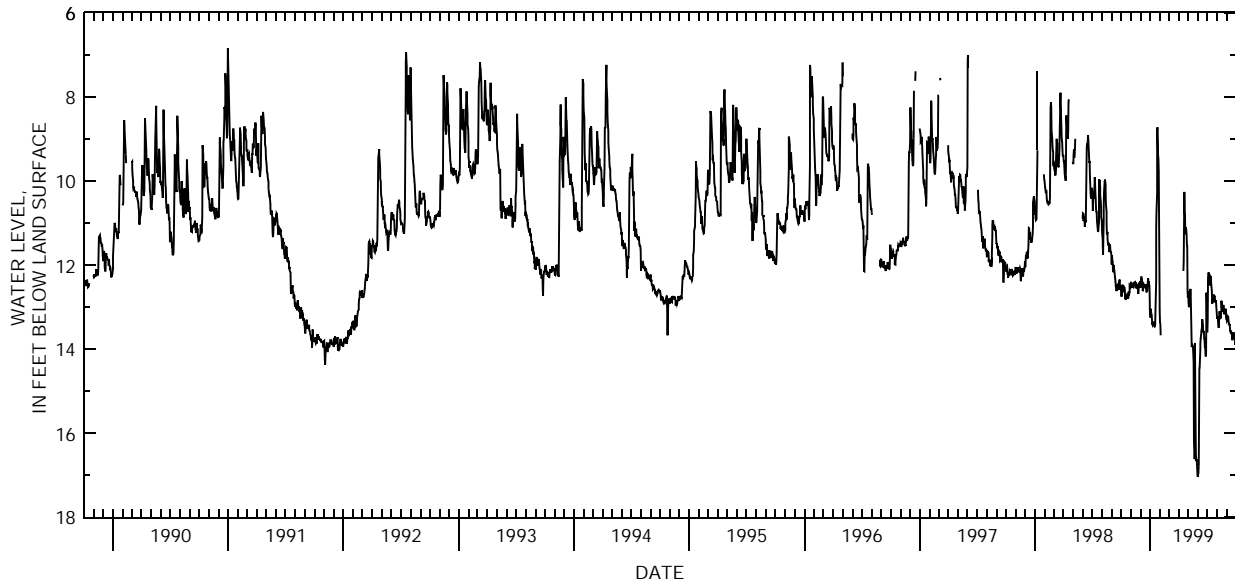
Marion County

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

269

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.

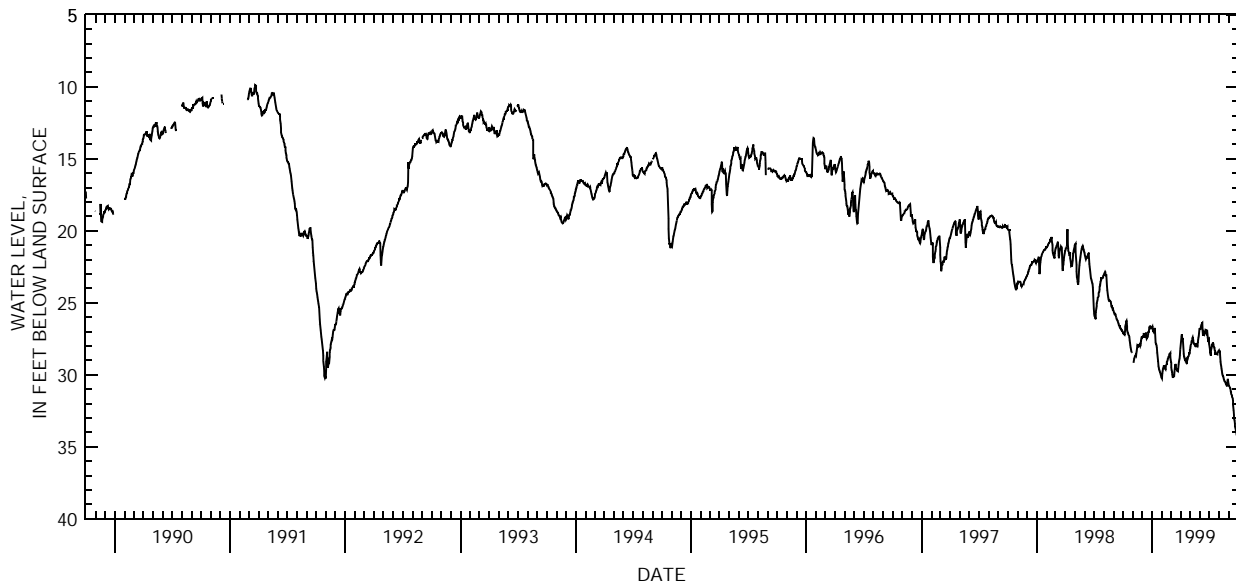
REMARKS.--Station operated by Ohio Department of Natural Resources, Division of Water.

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.

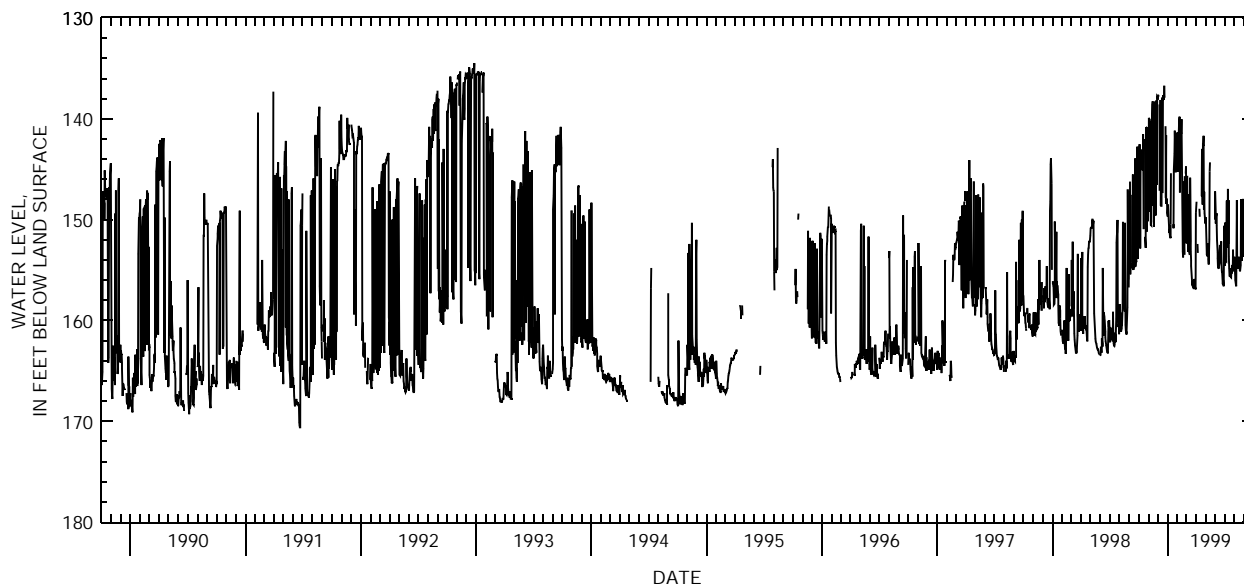
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 186.74 ft below land-surface datum, Jan. 21, 1975; minimum daily low, 134.50 ft below land-surface datum, Dec. 26, 1992.

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

271

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.

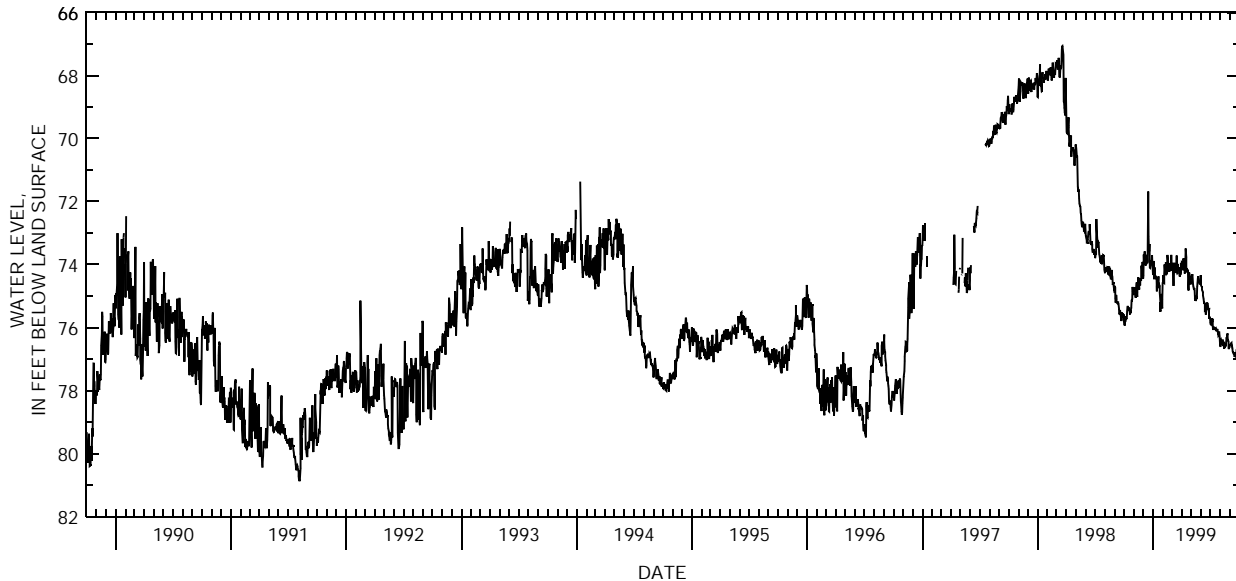
PERIOD OF RECORD.--February 1967 to current year.

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

273

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

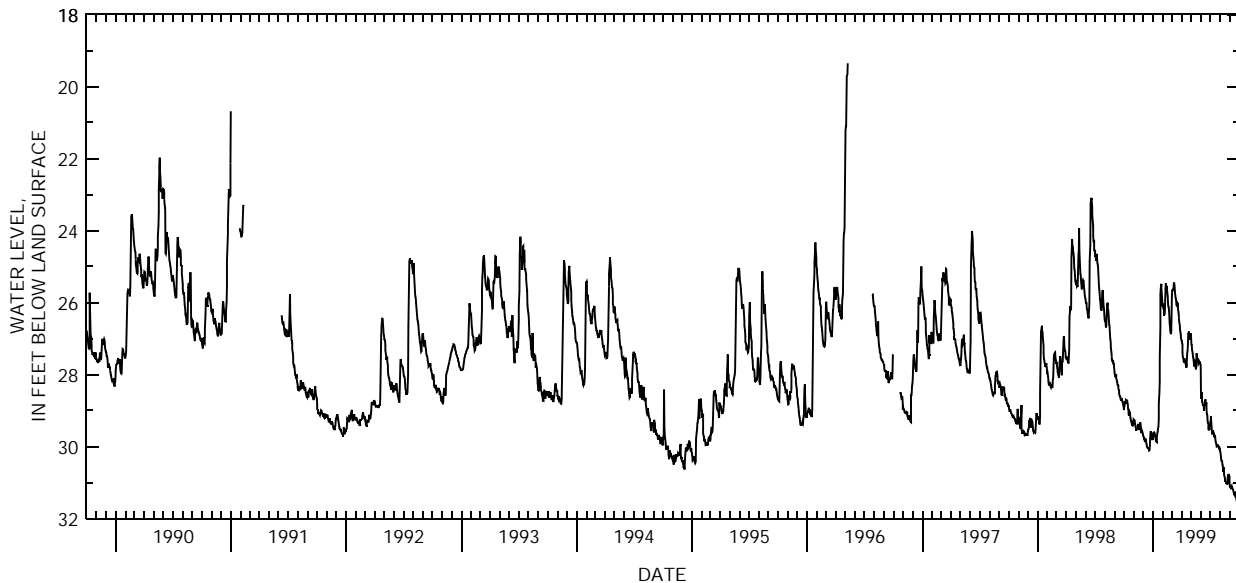
275

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.

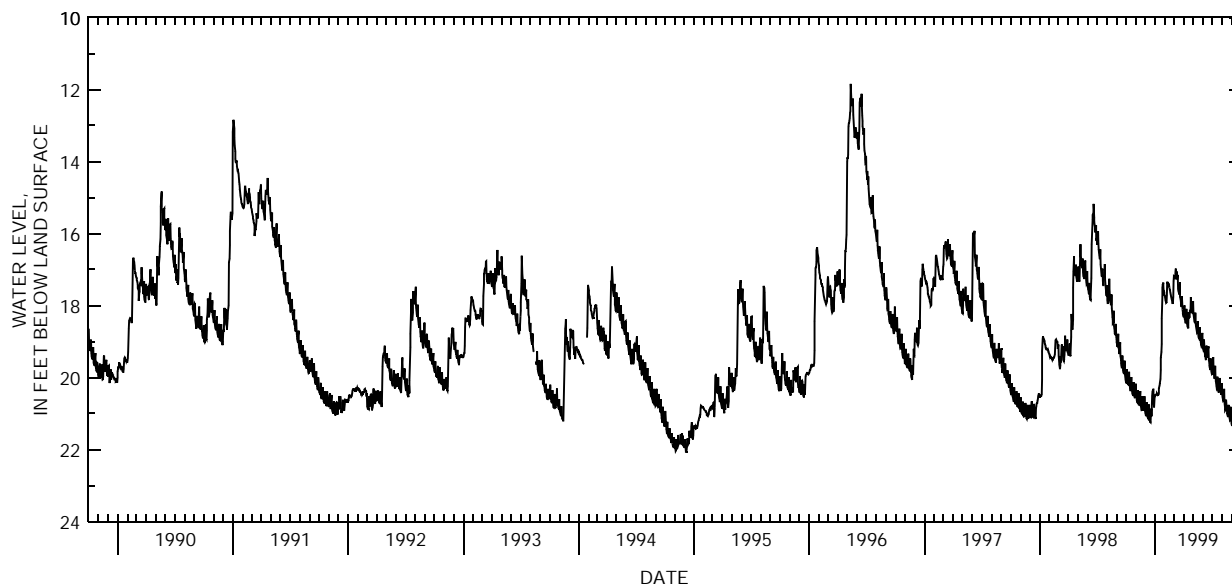
PERIOD OF RECORD.--November 1947 to current year.

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

277

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.

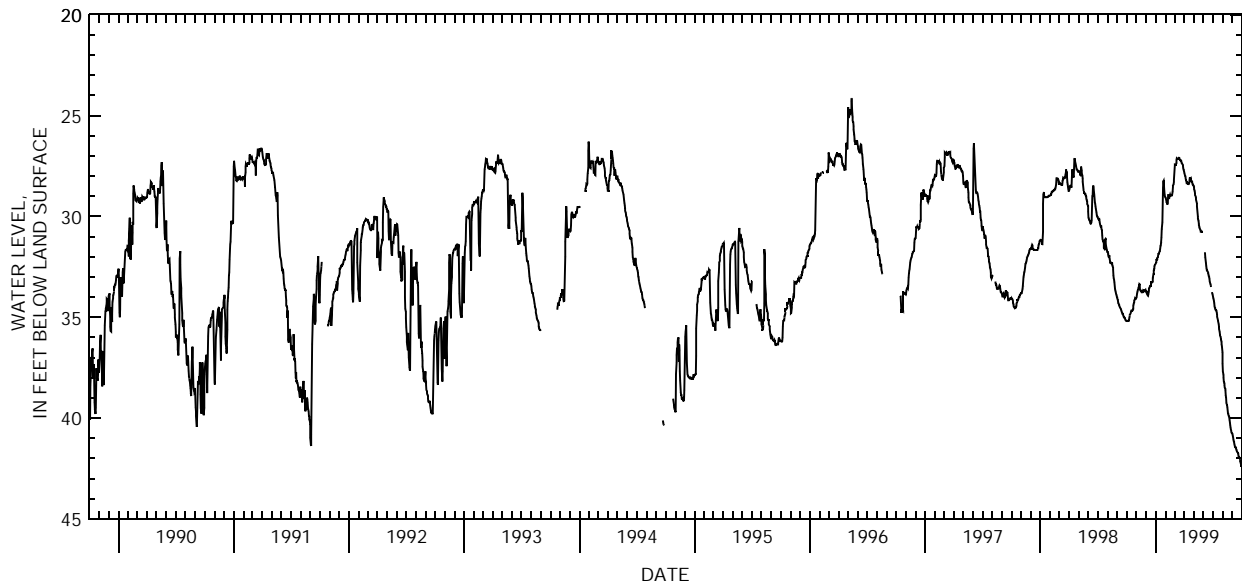
PERIOD OF RECORD.--May 1945 to June 1974. Reactivated June 1980.

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.

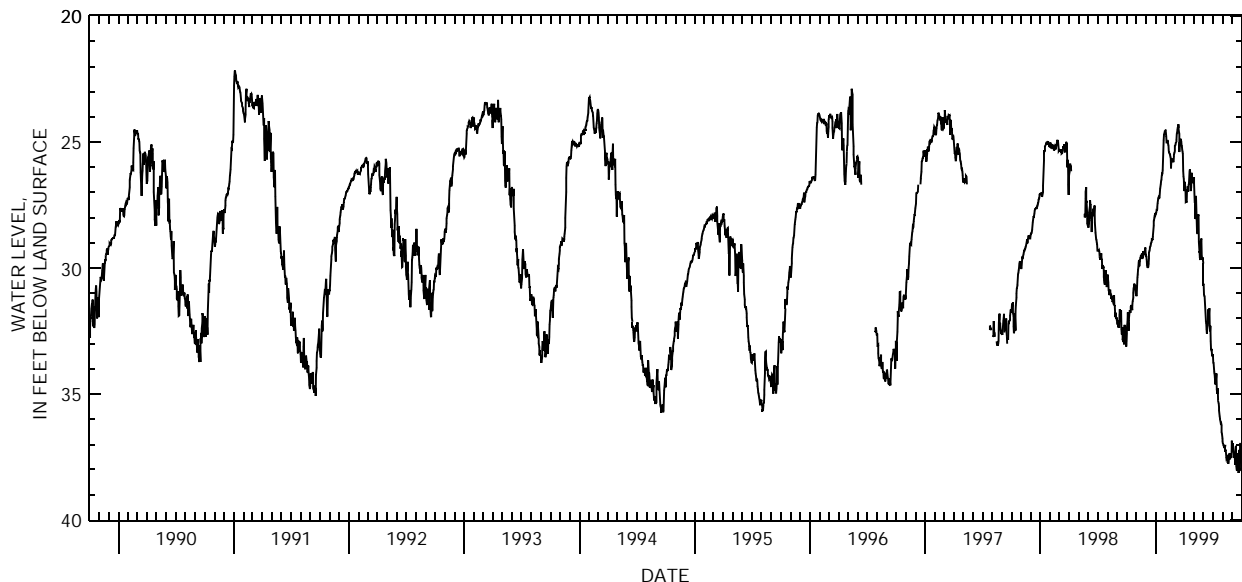
PERIOD OF RECORD.--February 1946 to current year.

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

279

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.

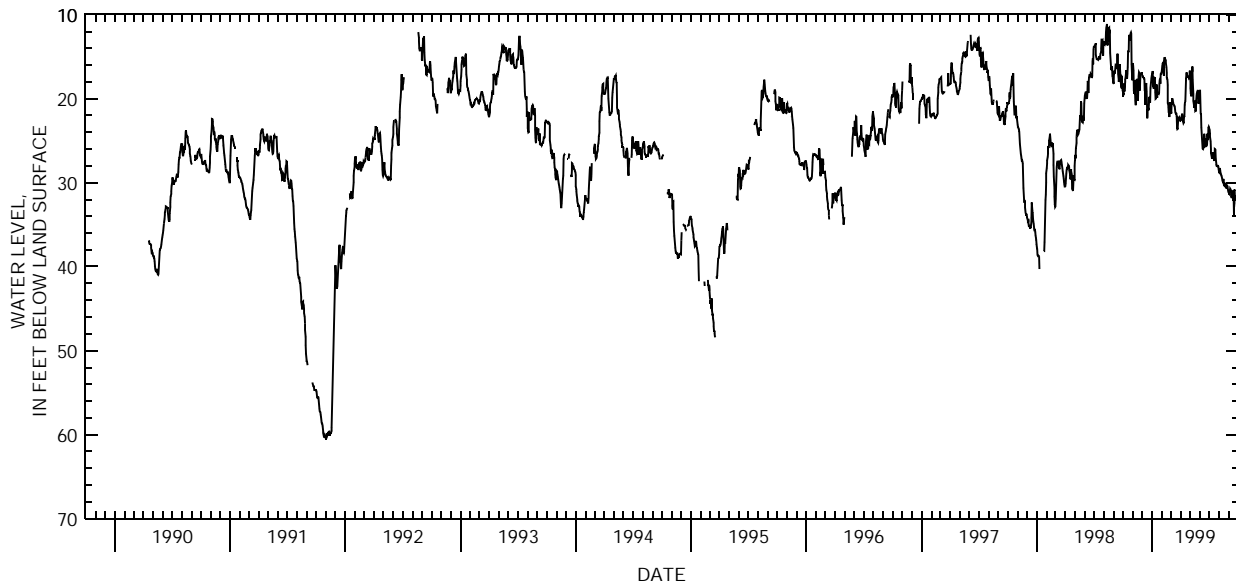
PERIOD OF RECORD.--April 18, 1990 to current year.

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.

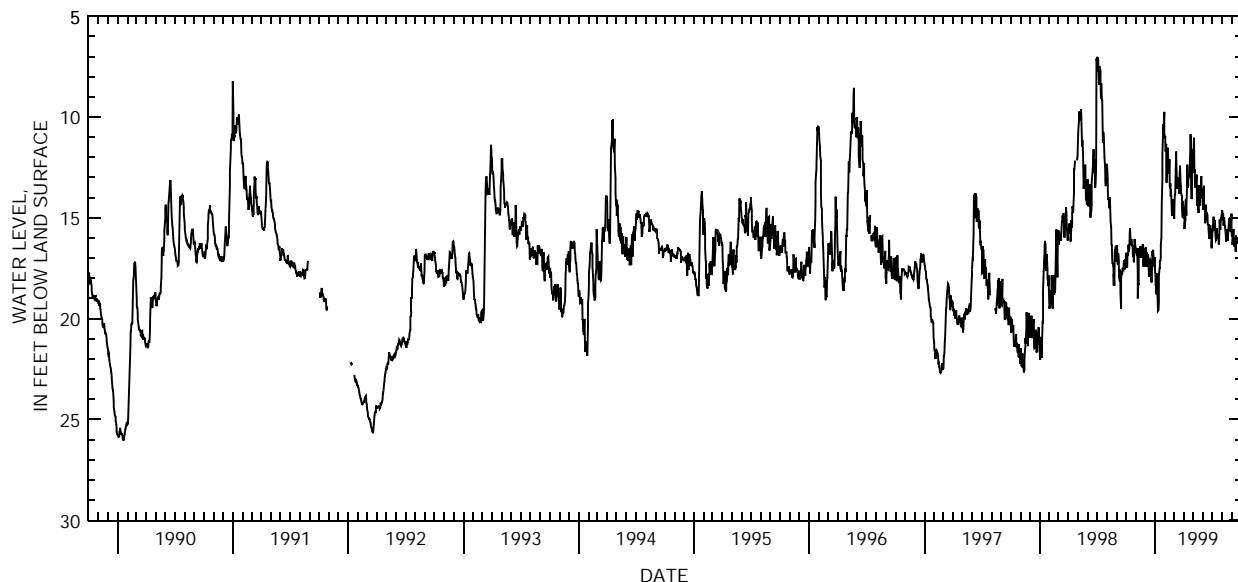
REMARKS.--Water level affected by nearby municipal wells and by stage of the Muskingum River. Prior to water year 1978, well depth reported as 132 ft.

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

281

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.

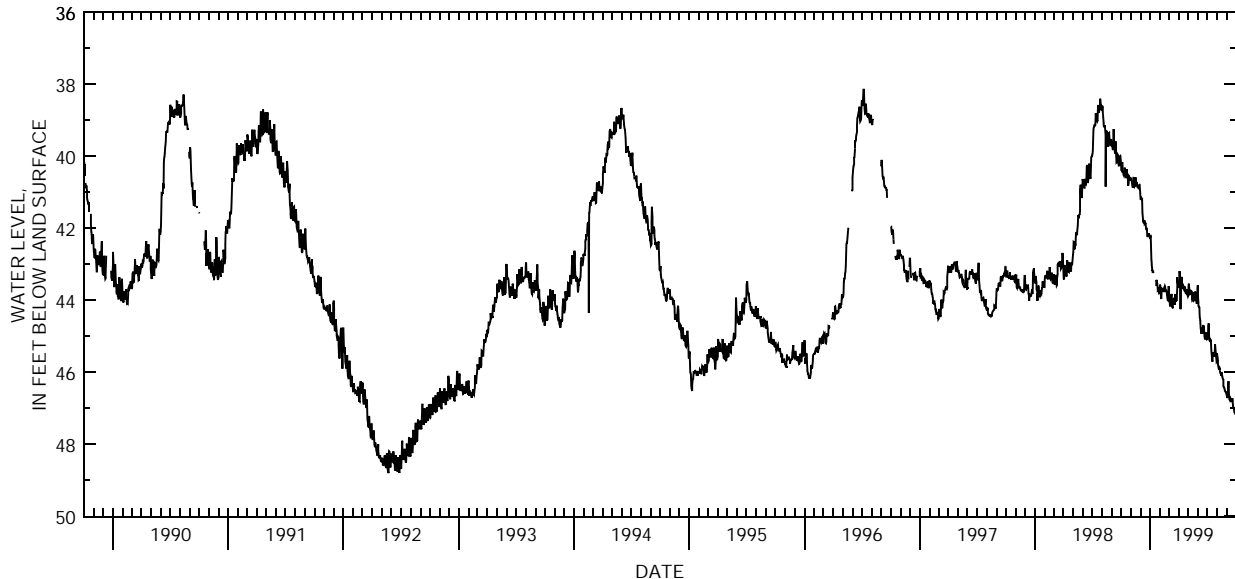
PERIOD OF RECORD.--July 1972 to September 1982 continuous, October 1982 to April 1985 periodic, continuous thereafter.

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.

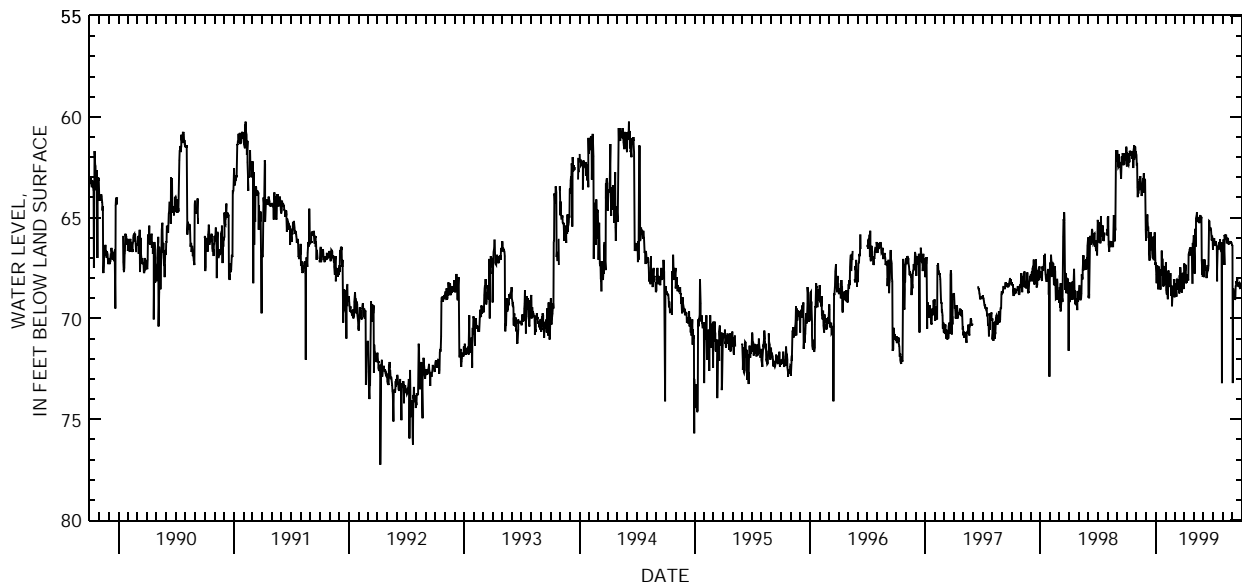
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 80.15 ft below land-surface datum, Nov. 3, 1972; minimum daily low, 47.40 ft below land-surface datum, Feb. 25, 1960.

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

283

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.

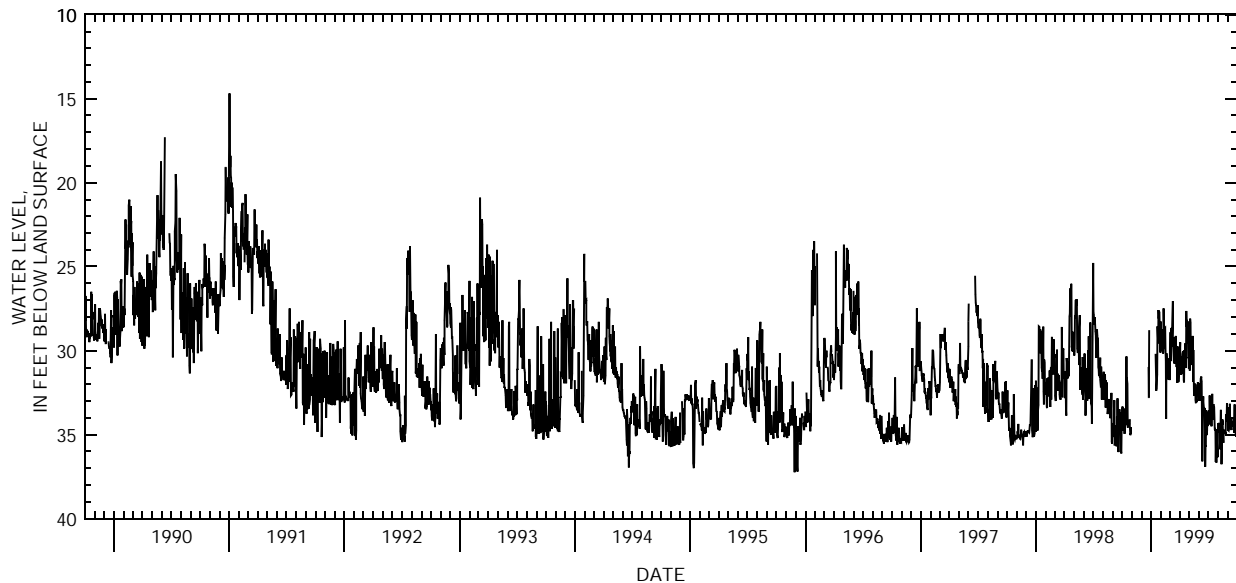
PERIOD OF RECORD.--July 1966 to current year.

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.

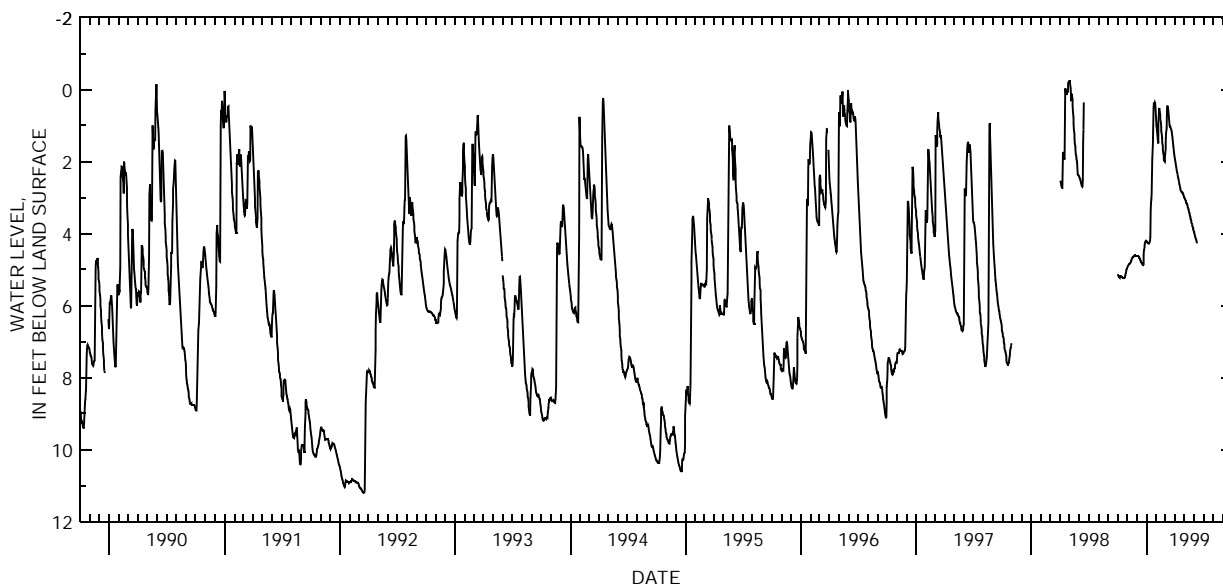
PERIOD OF RECORD.--April 1980 to current year.

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

285

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.

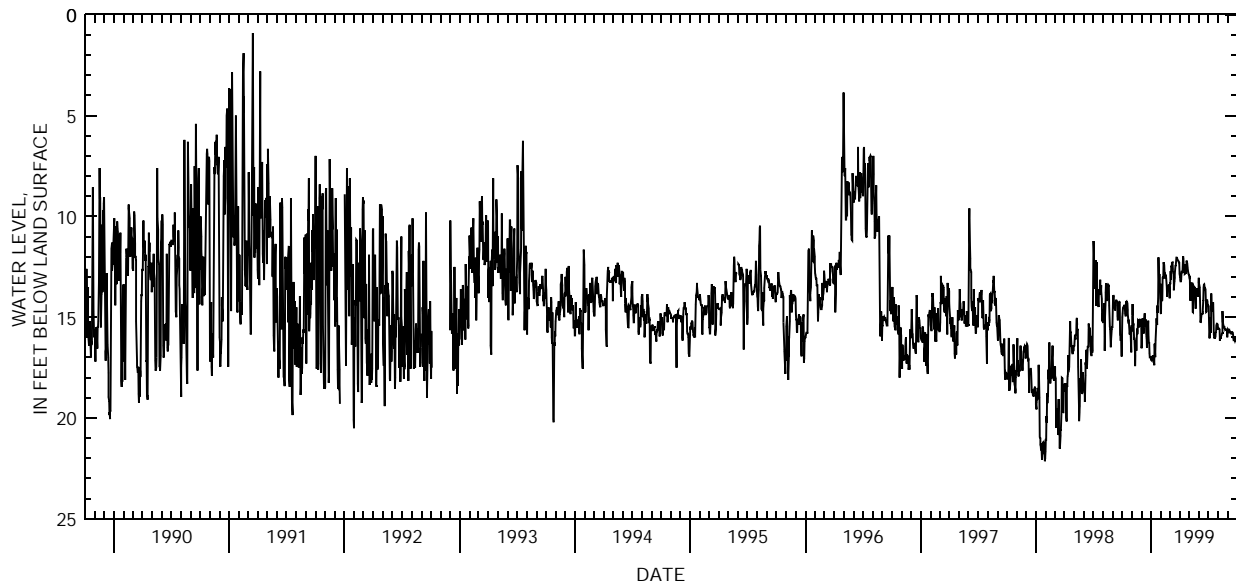
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 26.10 ft below land-surface datum, Dec. 23, 1987; minimum daily low, 0.90 ft below land-surface datum, Mar. 17, 1991.

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.

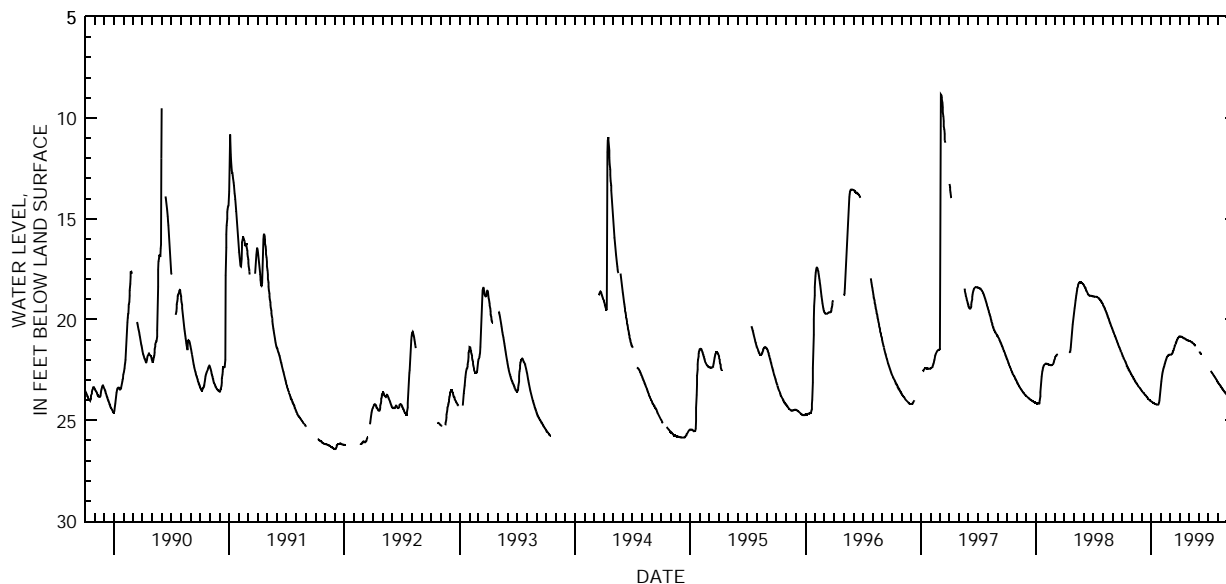
PERIOD OF RECORD.--September 1969 to current year.

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

287

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.

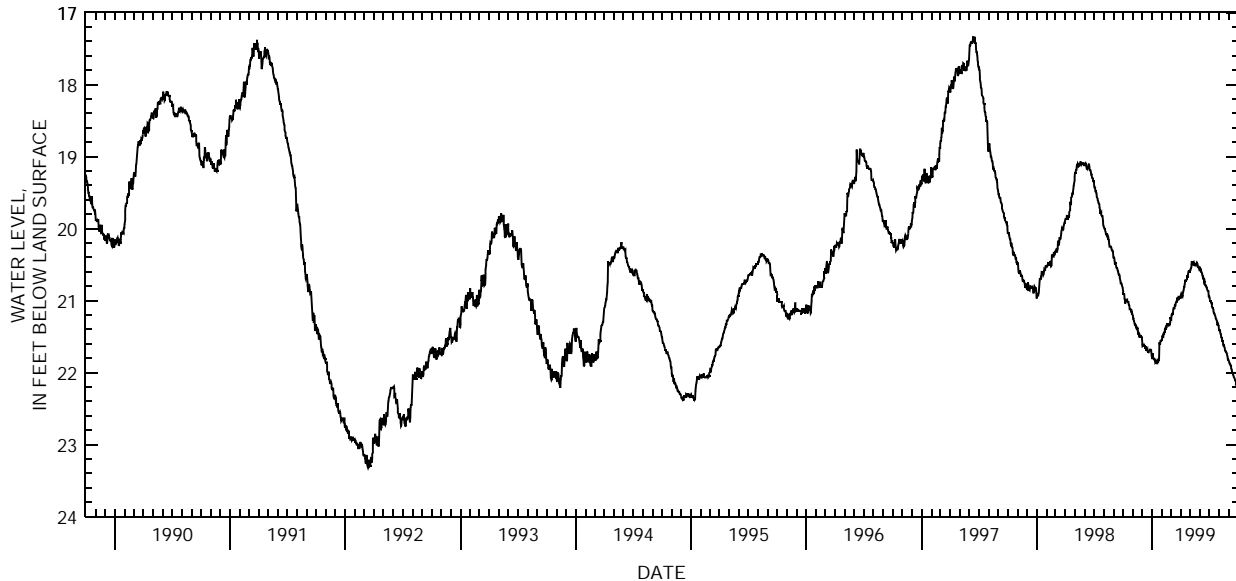
PERIOD OF RECORD.--May 1946 to current year.

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.

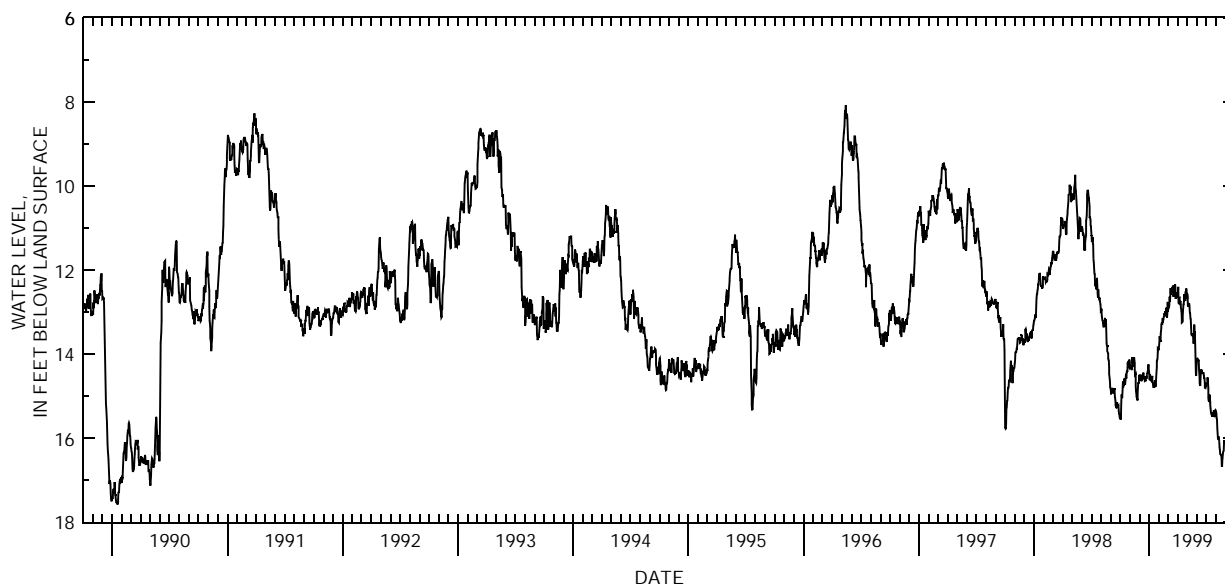
PERIOD OF RECORD.--May 1972 to current year.

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	14.38	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

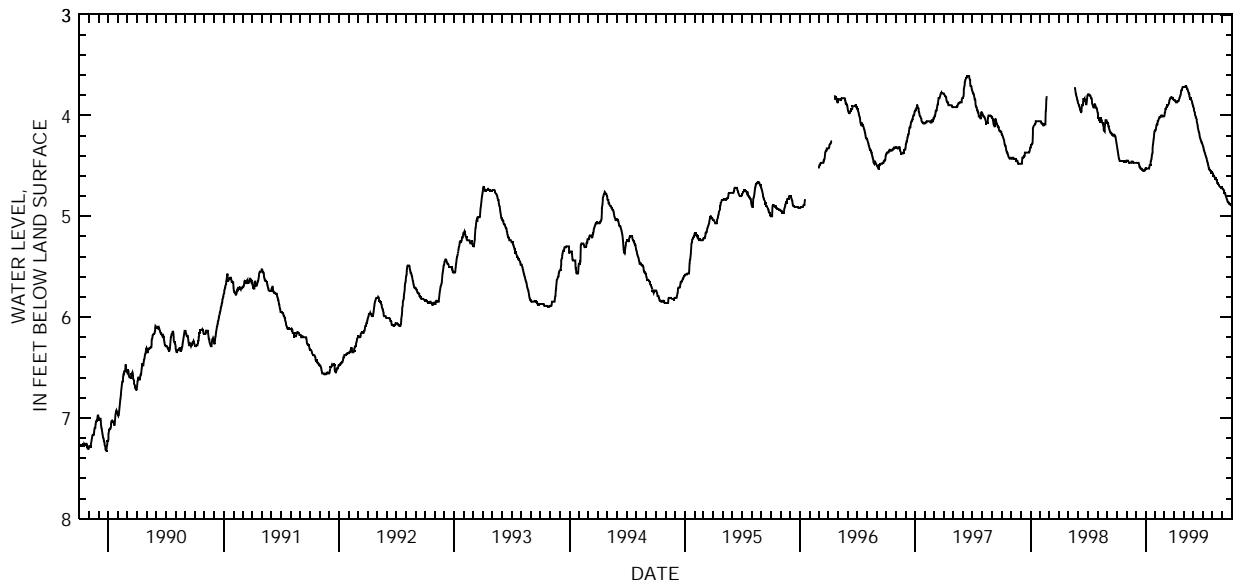
289

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.

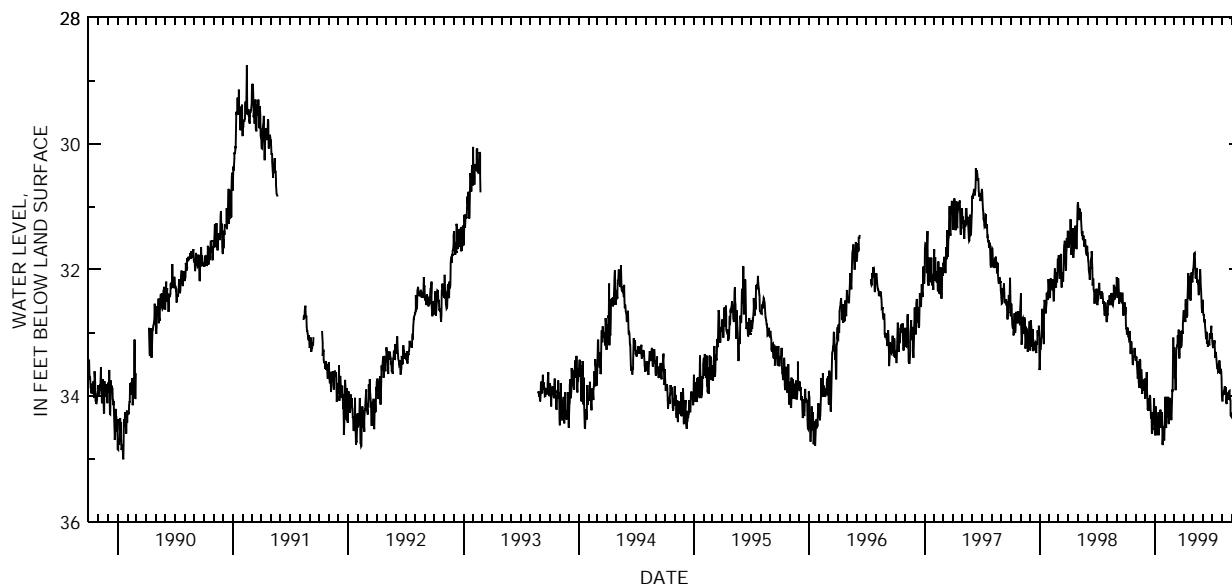
DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

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

291

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.

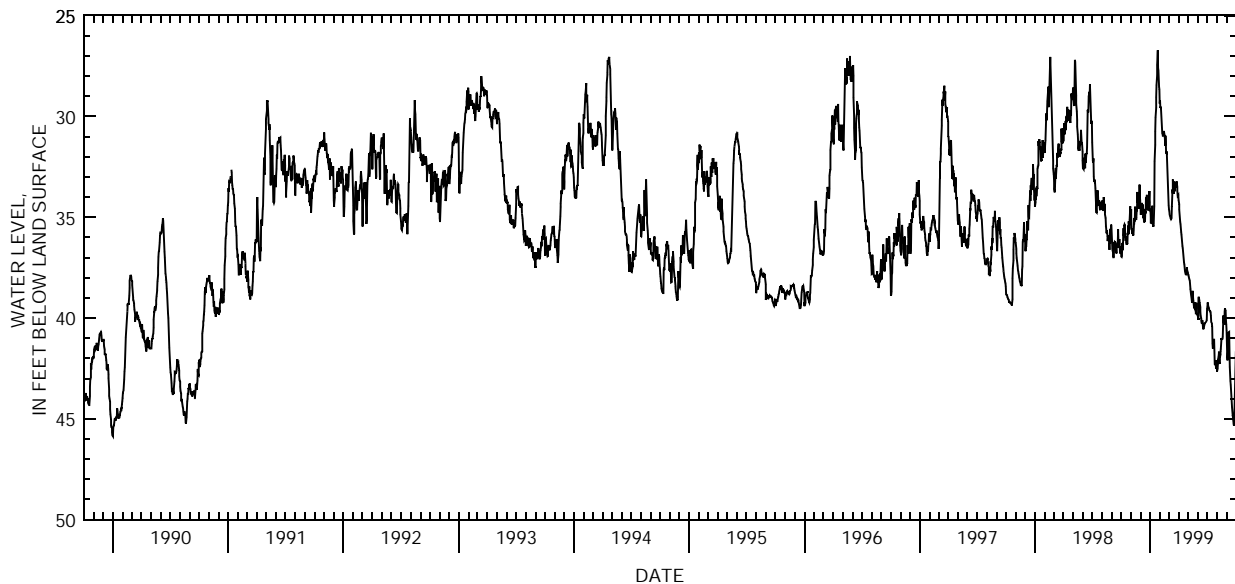
PERIOD OF RECORD.--February 1971 to current year.

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.

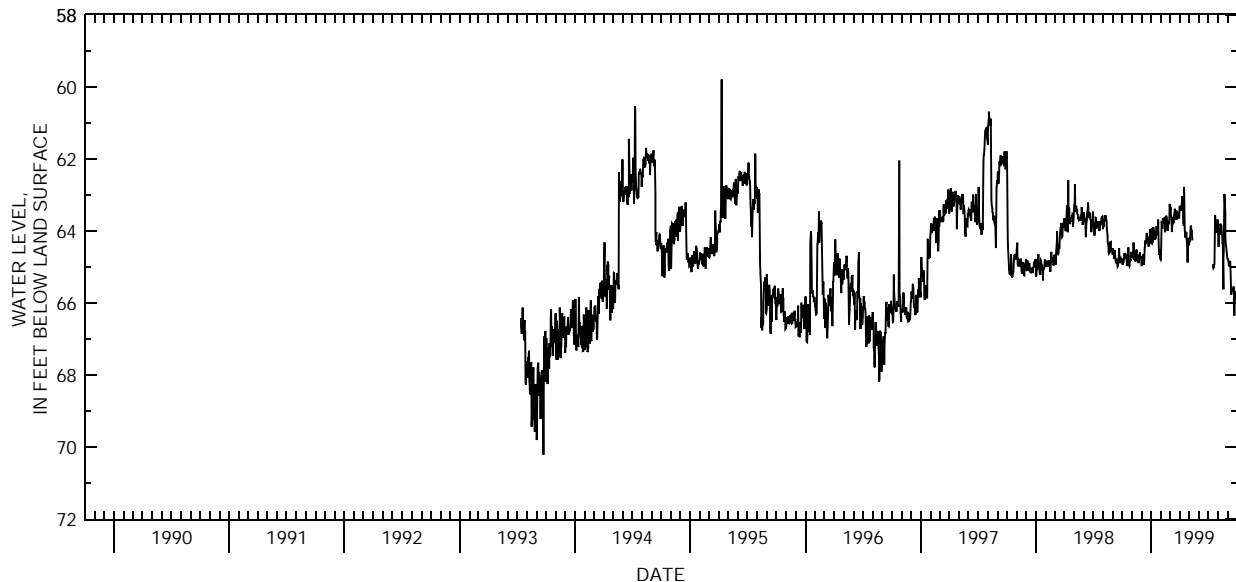
PERIOD OF RECORD.--July 1993 to current year.

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

293

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.

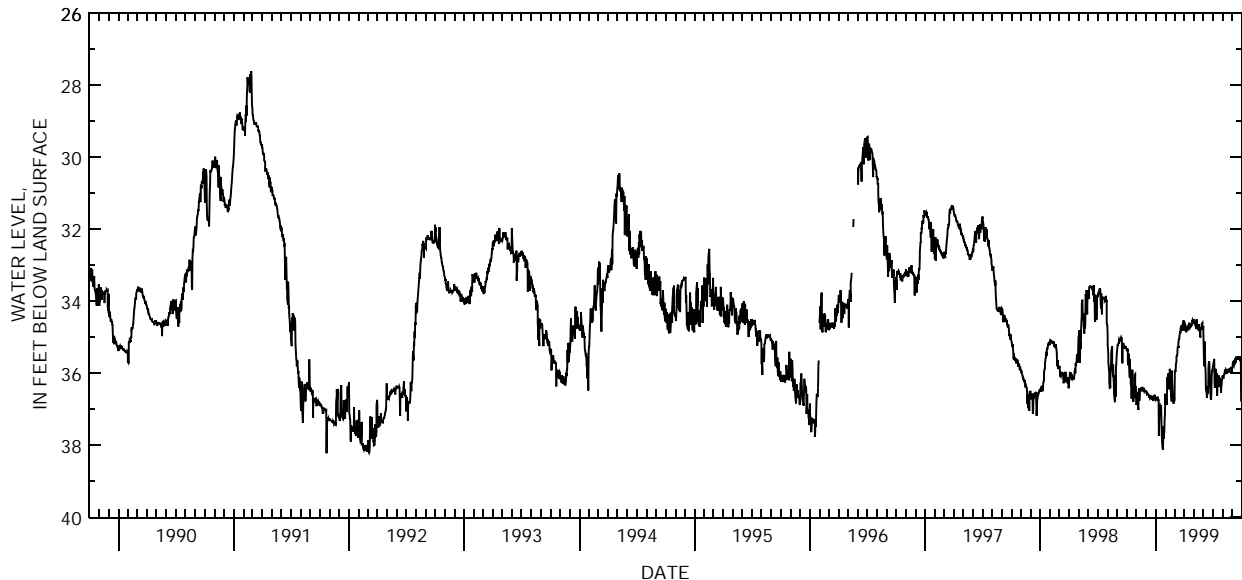
PERIOD OF RECORD.--June 1949 to current year.

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.

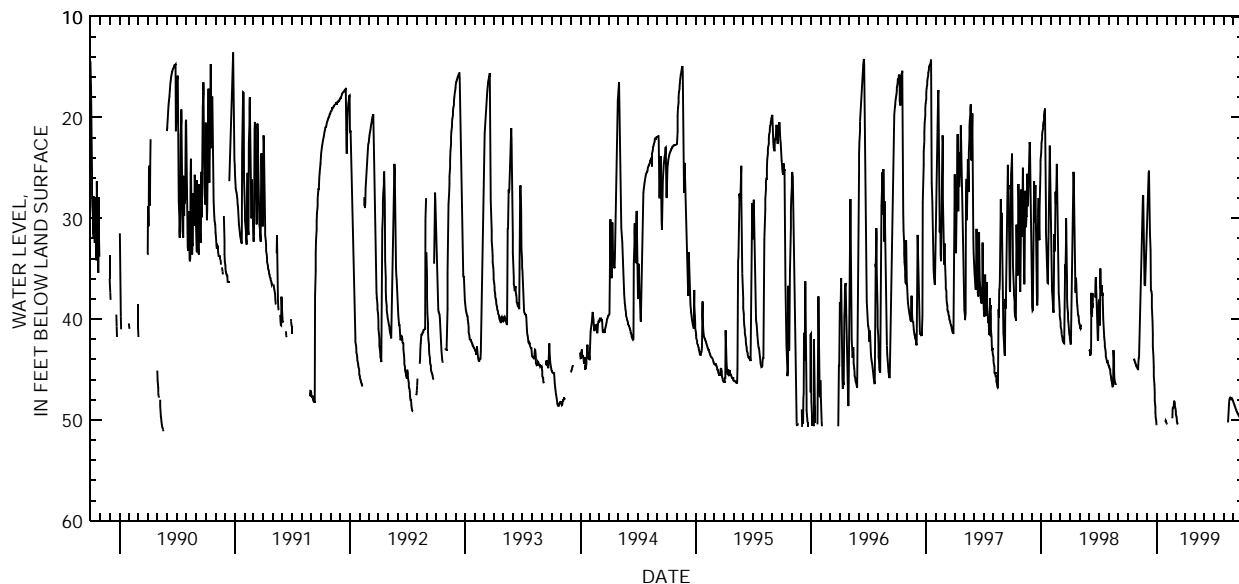
DEPTH BELOW LAND SURFACE (WATER LEVEL), FEET, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

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.

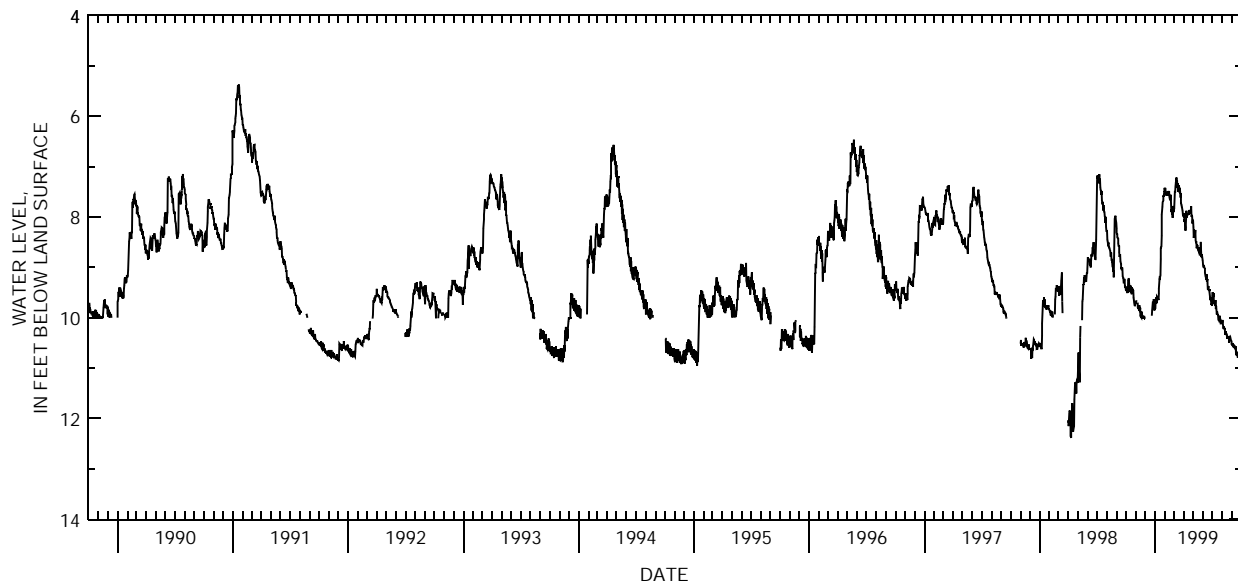
PERIOD OF RECORD.--June 1960 to current year.

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

297

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.

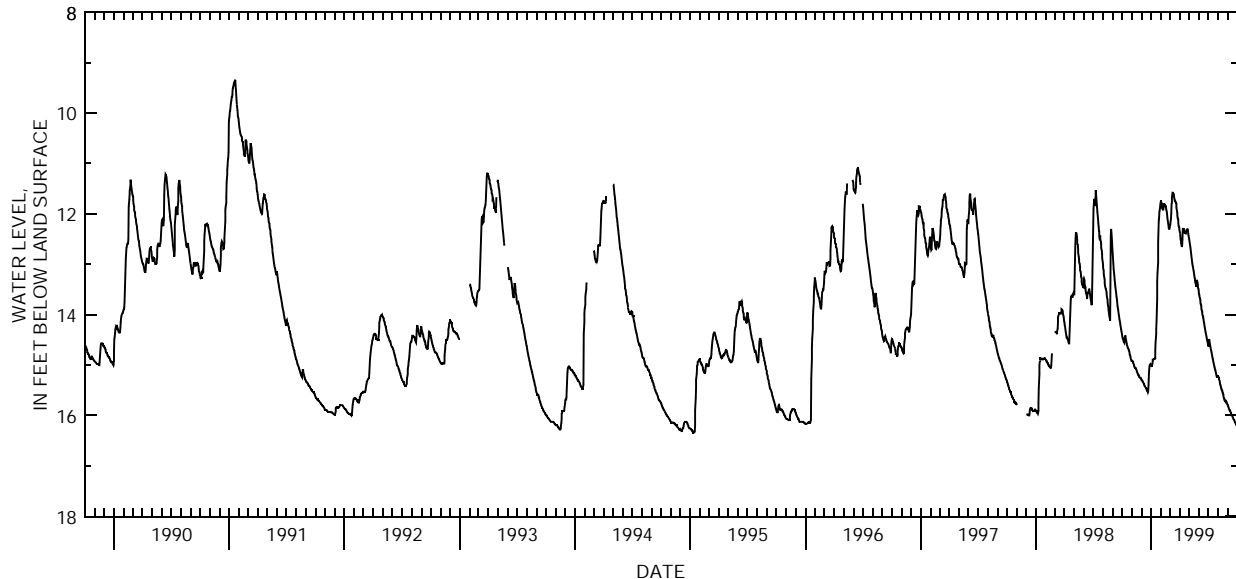
PERIOD OF RECORD.--July 1946 to current year.

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.

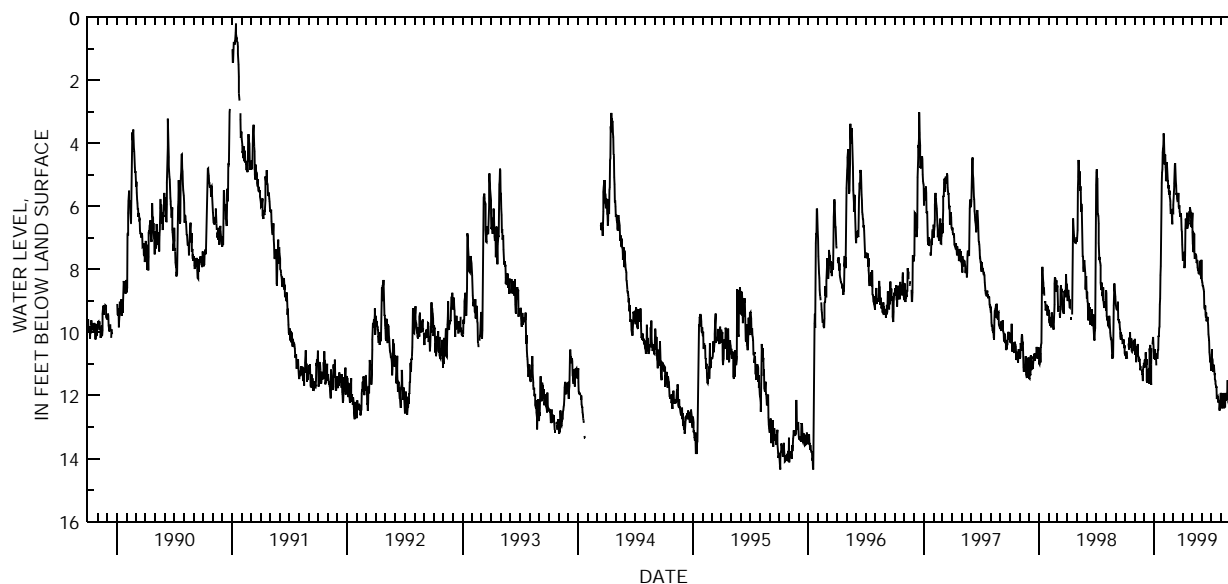
PERIOD OF RECORD.--June 1960 to current year.

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

299

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.

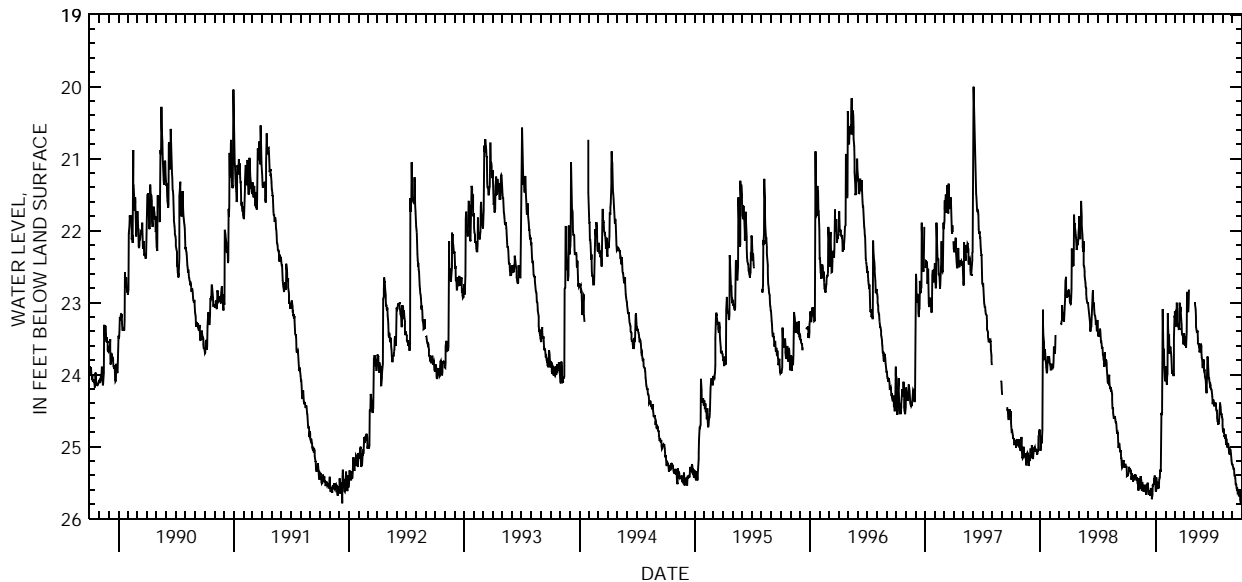
PERIOD OF RECORD.--January 1973 to current year.

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	25.59	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.

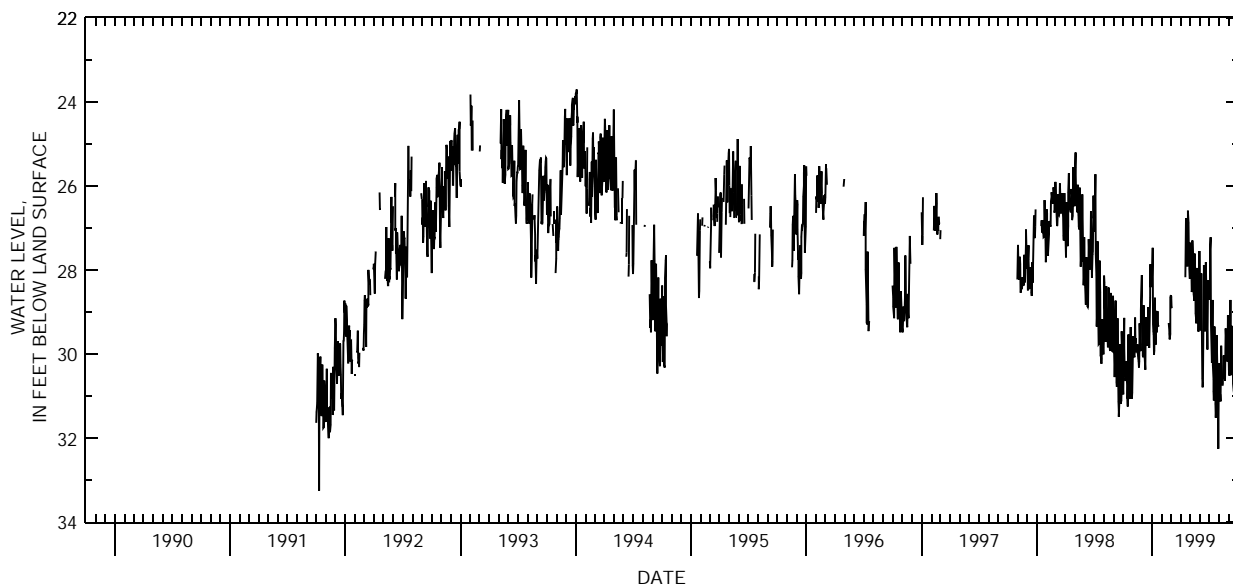
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 33.25 ft below land-surface datum, Oct. 10, 1991; minimum daily low, 23.70 ft below land-surface datum, Jan. 4, 1994.

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

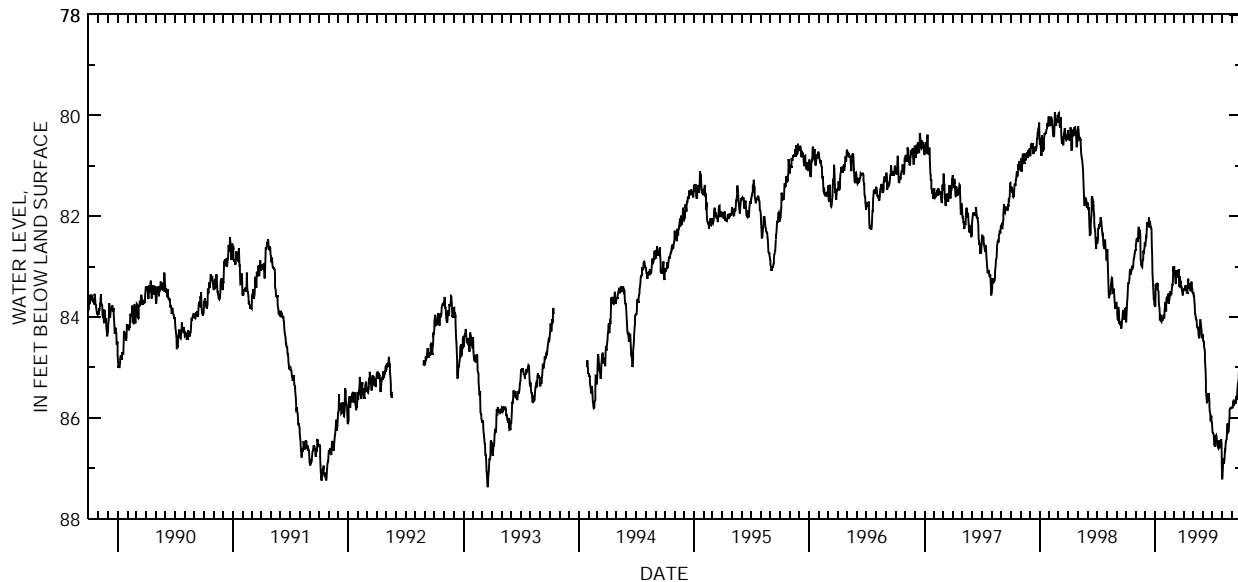
301

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.

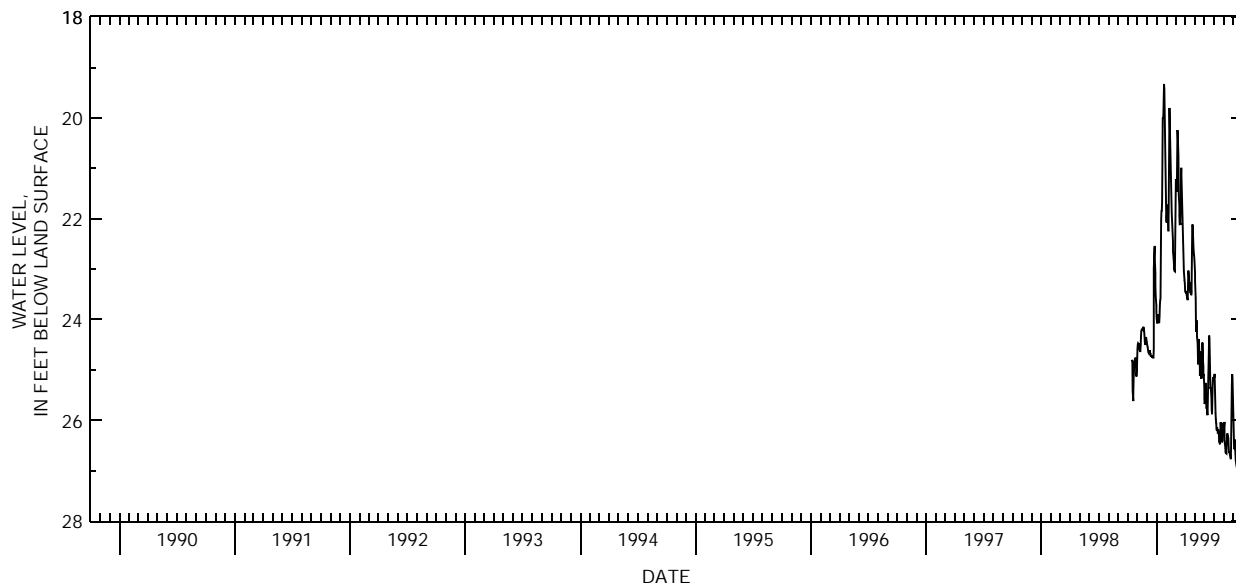
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 26.97 ft below land-surface datum, Sept. 13, 1999; minimum daily low, 19.33 ft below land-surface datum, Jan. 24, 1999.

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

303

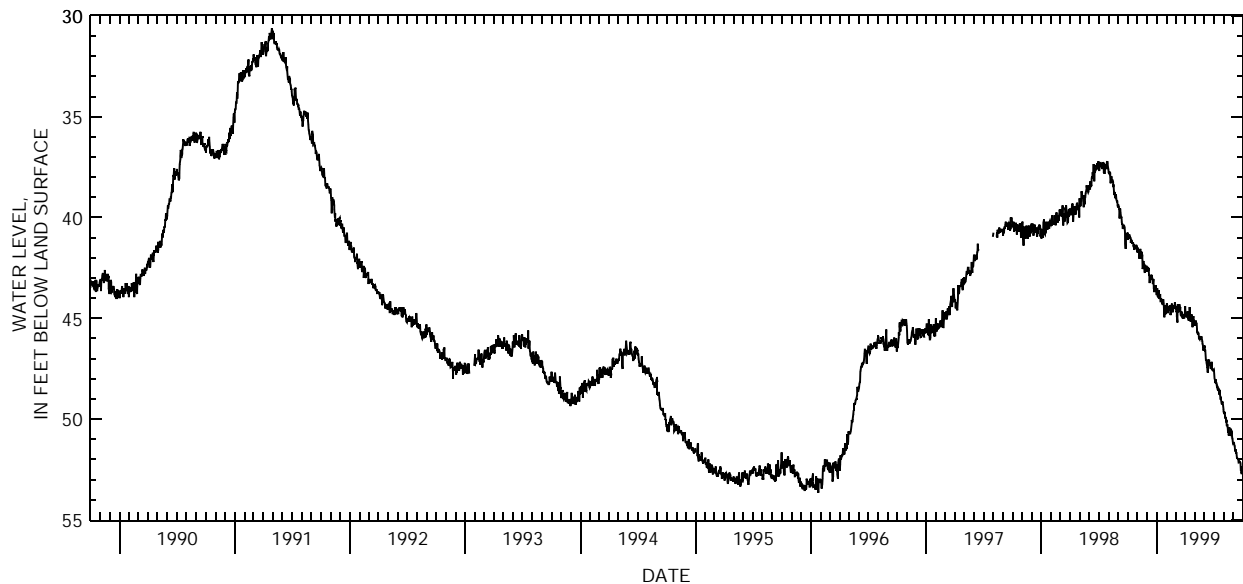
392712084191700. LOCAL NUMBER, W-5

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.

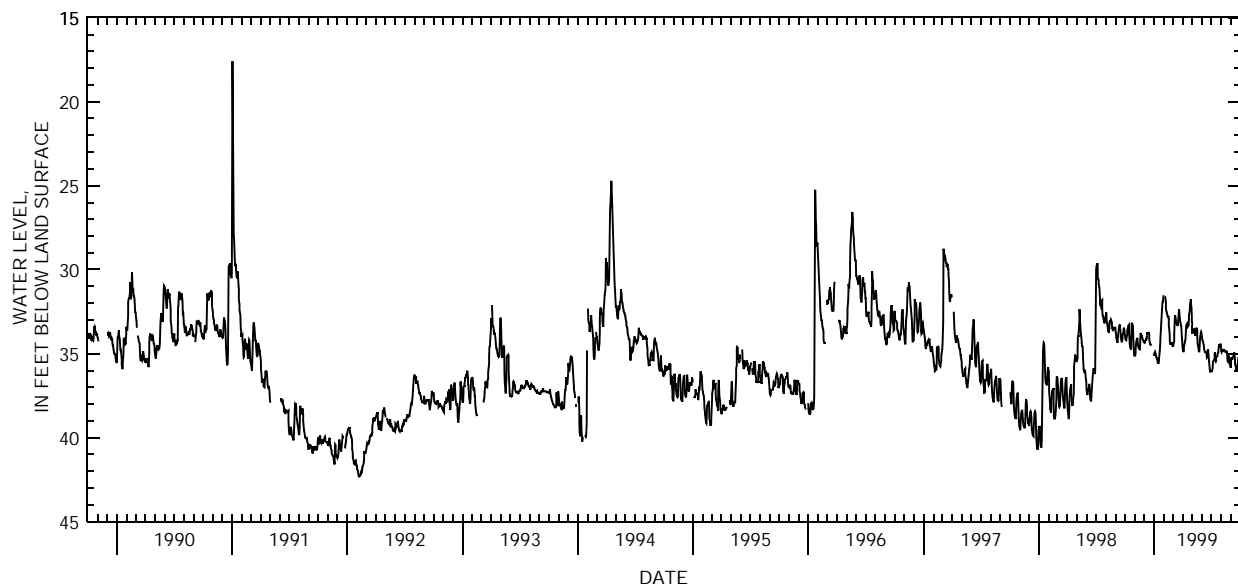
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 42.30 ft below land-surface datum, Feb. 7-8, 1992; minimum daily low, 17.60 ft below land-surface datum, Jan. 2, 1991.

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

305

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.

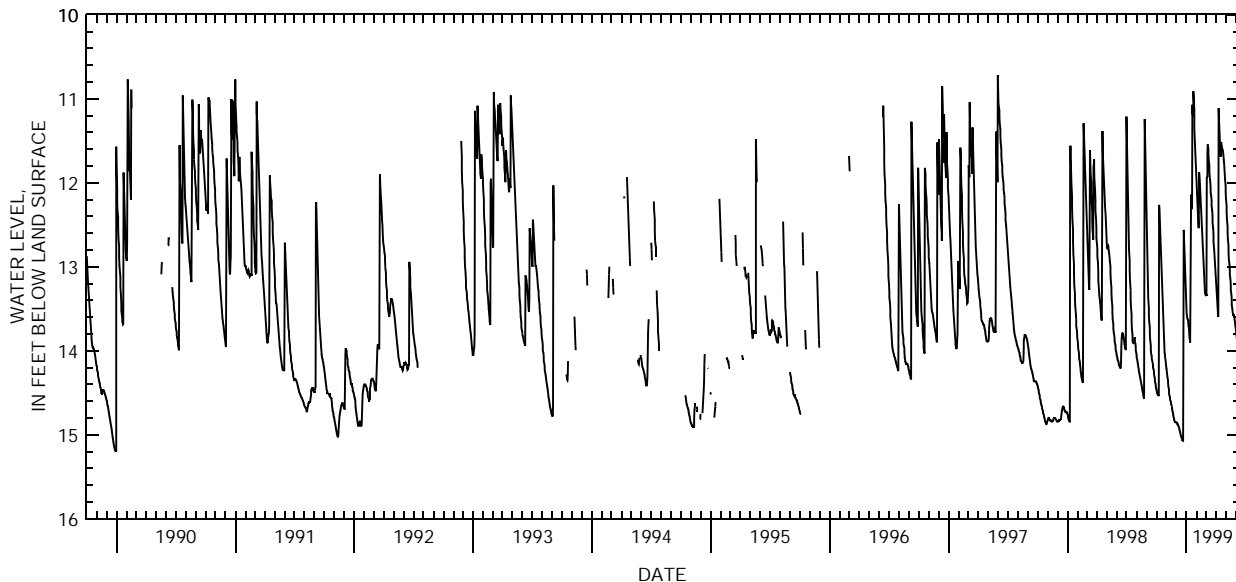
PERIOD OF RECORD.--June 1955 to current year.

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.

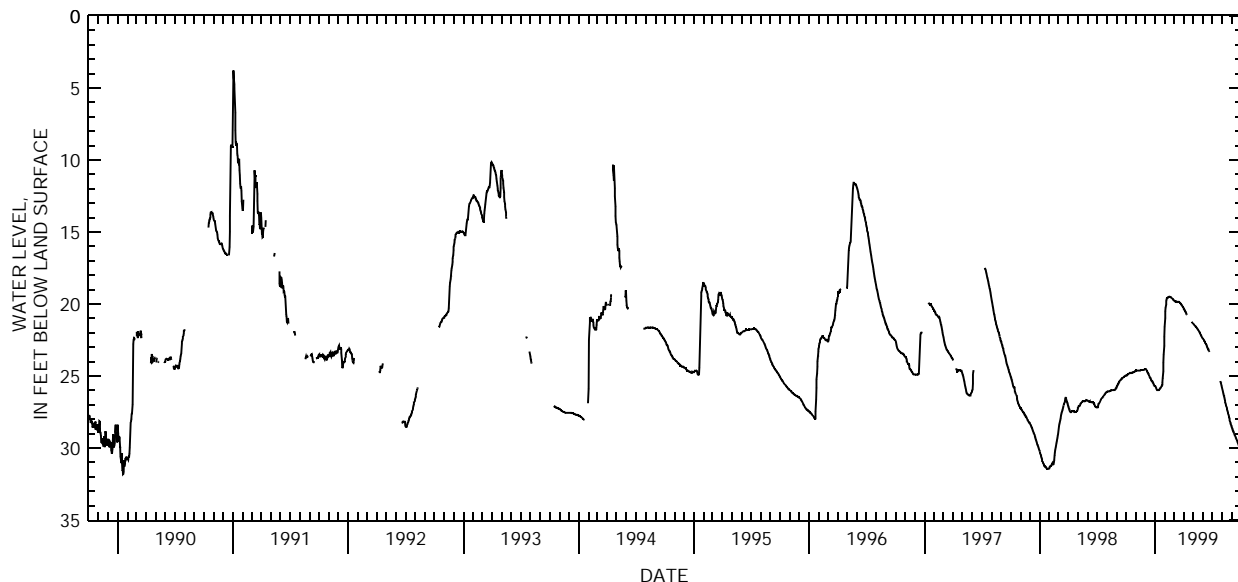
PERIOD OF RECORD.--July 1951 to current year.

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

307

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.

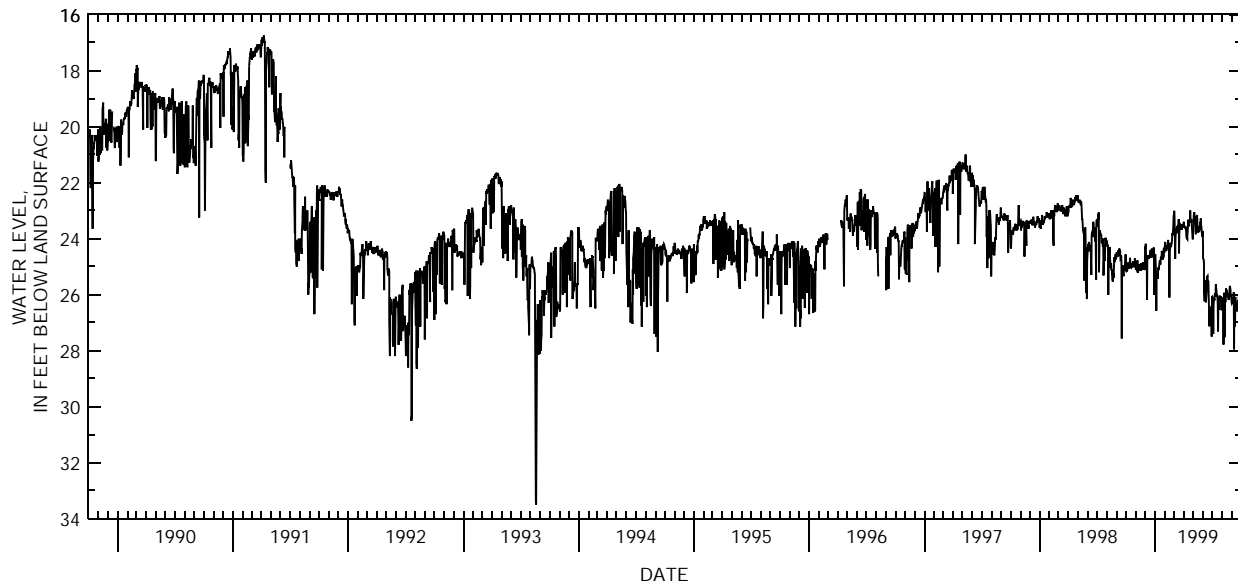
PERIOD OF RECORD.--April 1979 to current year.

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.

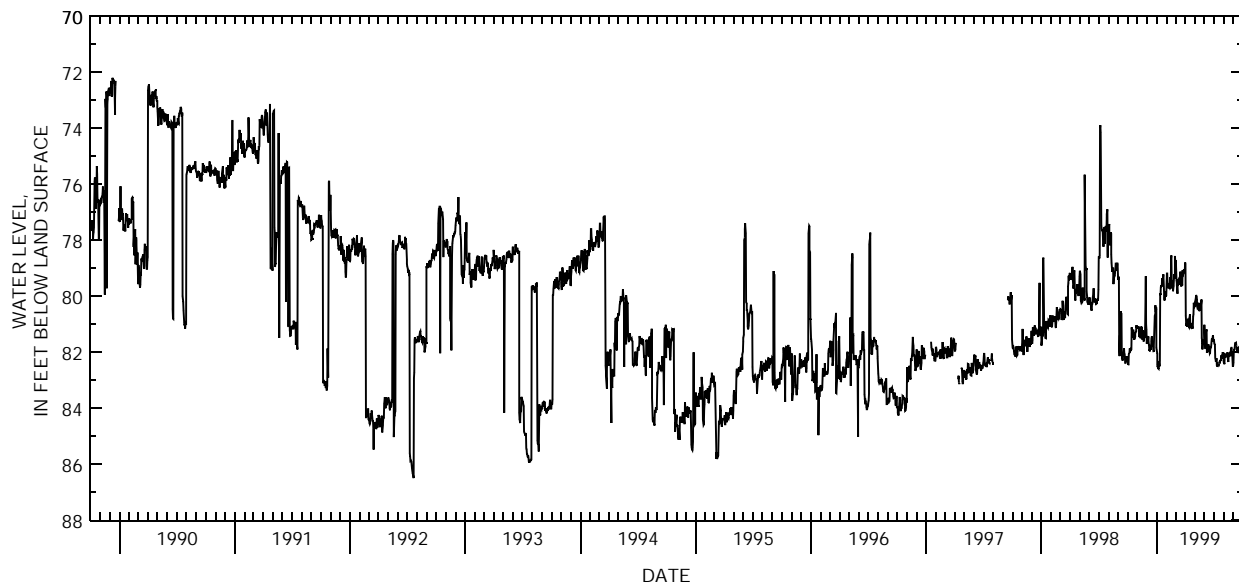
EXTREMES FOR PERIOD OF RECORD.--Maximum daily low, 92.80 ft below land-surface datum, July 21, 1971; minimum daily low, 69.87 ft below land-surface datum, Apr. 22, 1984.

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

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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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