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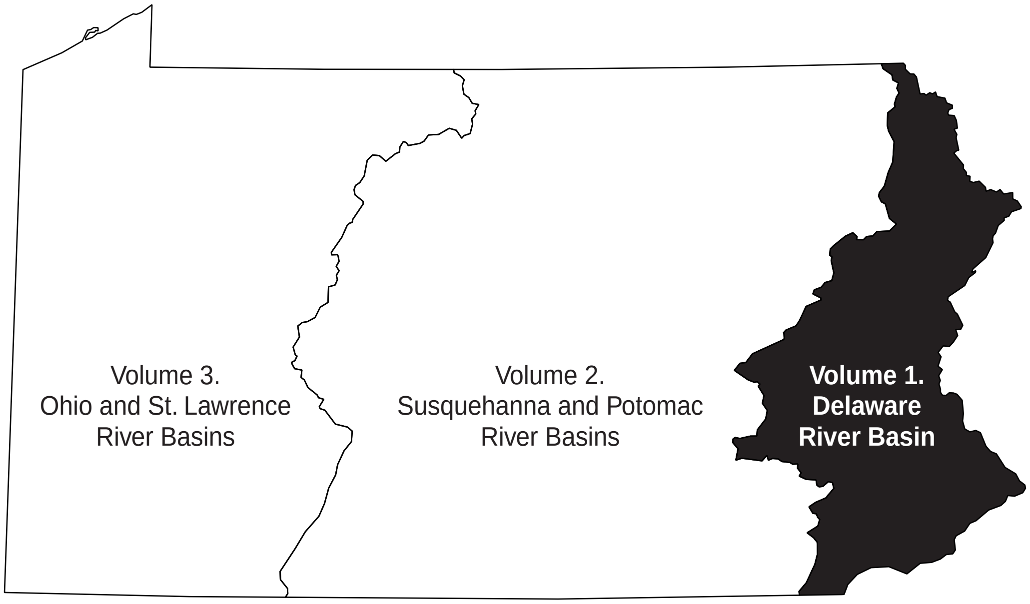
U.S. Geological Survey

Water Resources Data Pennsylvania Water Year 2005

Volume 1. Delaware River Basin

By R.R. Durlin, W.P. Schaffstall, and M.R. Beaver

Water-Data Report PA-05-1



Prepared in cooperation with the Pennsylvania Department of Environmental Protection, the Philadelphia District of the U.S. Army Corps of Engineers, the Chester County Water Resources Authority, and with other State, municipal, and Federal agencies.

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2006

PREFACE

This volume of the annual hydrologic data report of Pennsylvania 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 the 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 Pennsylvania are contained in 3 volumes.

Volume 1. Delaware River Basin
Volume 2. Susquehanna and Potomac River Basins
Volume 3. Ohio and St. Lawrence River Basins

Volume 1 was prepared in cooperation with the Commonwealth of Pennsylvania and other agencies under the general supervision of Patricia L. Lietman, Director, USGS Pennsylvania Water Science Center ; Robert A. Hainly, Assistant Director for Hydrologic Surveillance and Data Management; Mark R. Beaver, Chief of the Hydrologic Surveillance Program, New Cumberland, William P. Schaffstall (retired), and Randall R. Durlin, Chief, Williamsport Office. It is the product of a team effort by dedicated personnel of the U.S. Geological Survey who collected, compiled, analyzed, verified, and organized these 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 these data:

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13. ABSTRACT *(Maximum 200 words)*

Water resources data for the 2005 water year for Pennsylvania consist of records of discharge and water quality of streams; contents and elevations of lakes and reservoirs; and water levels and water quality of ground-water wells. This report, Volume 1 contains (1) discharge records for 75 continuous-record streamflow-gaging stations, 5 partial-record stations, 41 special-study and miscellaneous streamflow sites; (2) elevation and contents records for 13 lakes and reservoirs, and water-quality records for 5 lakes and reservoirs; (3) water-quality records for 24 gaging stations and 10 ungaged streamsites; (4) water-quality records for 73 special-study stations; (5) water-level records for 52 network observation wells; and (6) water-quality analyses of ground water from 42 ground-water wells. Site locations are shown in figures 6-19. Additional water data collected at various sites not involved in the systematic data-collection program are also presented. These data together with the data in Volumes 2 and 3, represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State, local, and Federal agencies in Pennsylvania.

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*Pennsylvania, *Hydrologic data, *Ground water, *Surface water, *Water quality, Gaging stations, Streamflow, Flow rates, Lakes, Reservoirs, Chemical analysis, Sediments, Water temperature, Water analysis, Water levels, Water wells, Data collection sites

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SURFACE-WATER STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME

[Letters after station name designate type of data: (d) discharge, (c) chemical, (sc) specific conductance, (t) water temperature, (do) dissolved oxygen, (%) dissolved oxygen, % saturation, (b) biological, (turb) turbidity, (e) elevation, gage heights, or contents.]

NORTH ATLANTIC SLOPE BASINS

[a] Beginning with the 2005 water year, data for those stations operated by the USGS New York Water Science Center will no longer be published in the Pennsylvania Water Data Report. Those data can be obtained by contacting the Director (518-285-5600; email - dc_ny@usgs.gov) of the USGS New York Water Science Center, 425 Jordan Road, Troy, NY 12180-8349.

SURFACE-WATER STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME

NORTH ATLANTIC SLOPE BASINS--Continued

SURFACE-WATER STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME

NORTH ATLANTIC SLOPE BASINS--Continued

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CHRISTINA RIVER BASIN

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[Letters after local well number designate type of data: (l) water level.]

GROUND-WATER RECORDS

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DELAWARE COUNTY

LEBANON COUNTY

LEHIGH COUNTY

MONROE COUNTY

GROUND-WATER WELLS, BY COUNTY, FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME

GROUND WATER RECORDS--Continued

The following continuous-record surface-water discharge stations (listed by downstream order) have been discontinued. Daily streamflow records were collected and published for the period of record shown for each station. Discontinued stations with less than 3 years of record have not been included. Information regarding these stations may be obtained from the USGS Pennsylvania Water Science Center office at the address given on the back of the title page of this report.

DISCONTINUED CONTINUOUS-RECORD SURFACE-WATER DISCHARGE STATIONS

Station name	Station number	Drainage area (mi^2)	Period of record (water years)
DELAWARE RIVER BASIN			
North Branch Calkins Creek near Damascus	01427650	7.02	1965-73
Lackawaxen River at West Hawley	01430500	206	1922-37
Middle Creek near Hawley	01431000	78.4	1945-59
Stevens Creek near Sterling	01431620	0.68	1992-94
Ariel Creek near Ledgedale	01431673	15.6	1992-94
Unnamed tributary to Purdy Creek near Lakeville	01431683	0.34	1992-94
Purdy Creek at Lakeville	01431685	8.18	1992-94
Shohola Creek near Shohola	01432500	83.6	1920-28
Delaware River below Tocks Island Damsite, near Delaware Water Gap	01440200	3,850	1964-96
McMichaels Creek at Stroudsburg	01441000	65.3	1912-37
Pocono Creek near Stroudsburg	01441500	41.0	1912-19
Lehigh River at Tannery	01448000	322	1919-58
Martins Creek near East Bangor	01446600	10.4	1962-77
Delaware River at Easton	01446700	4,636	1967-77
Dilldown Creek near Long Pond	01448500	2.39	1949-96
Wild Creek at Hatchery	01449500	16.8	1941-78
Pohopoco Creek near Parryville	01450000	109	1941-69
Little Lehigh Creek near East Texas	01451420	51.2	1987-94
East Branch Monocacy Creek near Bath	01452300	5.35	1963-68
Saucon Creek at Lanark	01453500	12.1	1948-53
South Branch Saucon Creek at Friedensville	01454000	10.3	1948-53
Saucon Creek at Friedensville	01454500	26.6	1948-53
Cooks Creek at Durham Furnace	01457790	29.4	1991-93
Tinicum Creek near Ottsville	01458900	14.7	1991-93
Tohickon Creek at Point Pleasant	01460000	107	1884-98, 1901-12
Paunnacussing Creek at Carversville	01460800	6.49	1991-93

DISCONTINUED CONTINUOUS-RECORD SURFACE-WATER DISCHARGE STATIONS —Continued

Station name	Station number	Drainage area (mi^2)	Period of record (water years)
Pine Run at Chalfont	01464710	11.6	1990-92
Cooks Run at New Britain	01464741	3.08	1985-89
Neshaminy Creek near Rushland	01464750	91.0	1987-92
Little Neshaminy Cr. at Walton Road near Jacksonville	01464984	40.1	1986-92
Neshaminy Creek at Rushland	01465000	134	1885-1912, 32-33
Mill Creek near Wycombe	01465050	14.0	1990-93
Poquessing Creek at Trevose Road, Philadelphia	01465780	13.2	1965-70
Walton Run at Philadelphia	01465785	2.17	1965-77
Byberry Creek at Chalfont Road, Philadelphia	01465790	5.34	1966-77
Byberry Creek at Grant Avenue, Philadelphia	01465795	7.13	1965-70
Pennypack Creek at Pine Road, Philadelphia	01467042	37.9	1965-80
Pennypack Creek below Verree Road, Philadelphia	01467045	42.8	1965-70
Wooden Bridge Run at Philadelphia	01467050	3.35	1966-80
Tacony Creek near Jenkintown	01467083	5.25	1973-78
Rock Creek above Curtis Arboretum near Philadelphia	01467084	1.15	1972-78
Jenkintown Creek at Elkins Park	01467085	1.17	1974-78
Tacony Creek above Adams Avenue, Philadelphia	01467086	16.7	1966-86
Frankford Creek at Torresdale Avenue, Philadelphia	01467089	33.8	1967-80
Schuylkill River at Pottsville	01467500	53.4	1944-69
Little Schuylkill River at Drehersville	01470000	122	1948-50, 1964-65
Maiden Creek tributary at Lenhartsville	01470720	7.46	1966-79
Maiden Creek at Virginville	01470756	159	1973-94
Manatawny Creek near Pottstown	01471980	85.5	1974-2004
Pickering Creek near Chester Springs	01472174	5.98	1967-82
Perkiomen Creek near Frederick	01472500	152	1885-1912
Skippack Creek near Collegeville	01473120	53.7	1966-94
Schuylkill River at Norristown	01473500	1,760	1928-32
Wissahickon Creek at Bells Mill Road, Philadelphia	01473950	53.6	1966-70, 1974-81
Wissahickon Creek at Livezey Lane, Philadelphia	01473980	59.2	1967-70
Schuylkill River above Passayunk Ave. at Philadelphia	01474505	1,900	1979-93

DISCONTINUED CONTINUOUS-RECORD SURFACE-WATER DISCHARGE STATIONS —Continued

Station name	Station number	Drainage area (mi^2)	Period of record (water years)
Darby Creek at Waterloo Mills near Devon	01475300	5.1	1972-97
Darby Creek near Darby	01475510	37.4	1964-90
Cobbs Creek below Indian Creek near Upper Darby	01475540	10.6	1965-73
Naylor Creek at West Chester Pike near Philadelphia	01475545	1.10	1974-78
Cobbs Creek at Darby	01475550	22.0	1964-90
Crum Creek at Woodlyn	01476000	33.3	1932-37
Ridley Creek at Moylan	01476500	31.9	1932-54
Marsh Creek near Lyndell	01480680	17.8	1961-69
East Branch Brandywine Creek at Downingtown	01480800	81.6	1958-68
Valley Creek at Ravine Road near Downingtown	01480887	14.5	1990-97

The following continuous-record water-quality stations (listed by downstream order) have been discontinued. Daily records were collected and published for the period shown for each constituent. Discontinued stations with less than 3 years of record, or stations with data collection less than daily, have not been included. If a station had one constituent with 3 or more years of record, all constituents having daily values will be listed for that station regardless of the length of record. Information regarding these stations may be obtained from the USGS Pennsylvania Water Science Center office at the address given on the back of the title page of this report.

The following abbreviations are used in this table: --- (not determined); SC (specific conductance); pH; Temp (water temperature); DO (dissolved oxygen); Sed (sediment concentration and discharge); Biol (biological).

DISCONTINUED CONTINUOUS-RECORD SURFACE-WATER-QUALITY STATIONS

Station name	Station number	Drainage area (mi^2)	Type of Record	Period of record (water years)
DELAWARE RIVER BASIN				
Delaware Bay at Ship John Shoal Light, N.J.	01412350	---	SC, Temp	1968-86
Delaware River at Lordville, N.Y.	01427207	1,590	Temp	1968-71, 1973-96
Delaware River at Narrowsburg, N.Y.	01427740	2,023	SC, pH	1948-51
West Branch Lackawaxen River near Aldenville	01428750	40.6	Temp	1988-2004
West Branch Lackawaxen River at Prompton	01429000	59.7	Temp	1987-2004
Delaware River at Port Jervis, N.Y.	01434000	3,070	Temp	1957-60, 1973-94
Delaware River at Montague, N.J.	01438500	3,480	Temp	1956-57
			SC, pH	1956-73
Delaware River at Dingmans Ferry	01439000	3,542	Temp, SC, pH	1950-53
Delaware River near East Stroudsburg	01440090	3,830	SC, DO, Temp	1966-78
			pH	1972-78
Delaware River at Dunnfield, N.J.	01442750	4,150	Sed	1964-75
Delaware River near Richmond	01444800	4,378	Temp	1944-47, 1962-63
			SC	1962-63
Delaware River at Easton	01446700	4,636	SC, DO, Temp, pH	1967-77
Lehigh River at Stoddartsville	01447500	91.7	Temp	1981-2004
Tobyhanna Creek near Blakeslee	01447720	118	Temp	1980-2004
Lehigh River below Francis E. Walter Reservoir near White Haven	01447800	290	Temp	1988-2004
Pohopoco Creek at Kresgeville	01449360	49.9	Temp	1969-2004
Pohopoco Creek below Beltzville Lake near Parryville	01449800	96.4	Temp	1969-2004
Lehigh River at Walnutport	01451000	889	Sed	1948-53
Jordan Creek near Schnecksville	01451800	53.0	Sed	1967-69

DISCONTINUED CONTINUOUS-RECORD SURFACE-WATER-QUALITY STATIONS —Continued

Station name	Station number	Drainage area (mi^2)	Type of Record	Period of record (water years)
Jordan Creek at Allentown	01452000	75.8	Sed	1967-69
Lehigh River at Bethlehem	01453000	1,279	SC, pH	1906-07, 1956-72
Delaware River at Burlington-Bristol Bridge	01464600	7,163	Temp	1954-75, 1979-80
			DO	1961-75, 1978-80
			SC, pH	1967-75, 1978-80
Neshaminy Creek near Langhorne	01465500	210	Sed	1956-58, 1965-69
Poquessing Creek at Trevose Road, Philadelphia	01465770	5.08	Sed	1965-69
Poquessing Creek above Byberry Creek, Philadelphia	01465780	13.2	Sed	1965-70
Walton Run at Philadelphia	01465785	2.17	Sed	1965-68
Byberry Creek at Chalfont Road, Philadelphia	01465790	5.34	Sed	1966-68, 1970
Byberry Creek at Grant Avenue, Philadelphia	01465795	7.13	Sed	1965-70
Poquessing Creek at Grant Avenue, Philadelphia	01465798	21.4	Sed	1965-70
Delaware River at Torresdale Intake, Philadelphia	01467030	7,781	Temp	1956-57, 1960-81
			DO	1961-81
			SC	1963-81
			pH	1968-81
Pennypack Creek at Pine Road, Philadelphia	01467042	37.9	Sed	1965-69
Pennypack Creek below Verree Road, Philadelphia	01467045	42.8	Sed	1965-69
Wooden Bridge Run at Philadelphia	01467049	3.35	Sed	1965-70
Delaware River at Palmyra, N.J.	01467060	7,850	Sed	1962-64
Tacony Creek at County Line, Philadelphia	01467084	16.2	Sed	1966-69
Frankford Creek at Torresdale Avenue, Philadelphia	01467088	33.8	Sed	1966-70
Delaware River at Lehigh Avenue, Philadelphia	01467100	7,935	SC, DO, Temp, pH	1949-68
Delaware River at Wharton Street, Philadelphia	01467300	7,998	Temp, SC, pH, DO	1949-68
Delaware River at League Island, Philadelphia	01467400	8,072	SC, DO, Temp, pH	1949-68
Schuylkill River at Port Carbon	01467470	27.1	SC, pH, Sed	1949-51, 1963
Schuylkill River at Pottsville	01467500	53.4	SC, pH	1948-51, 1963-66
			Sed	1963-66
West Branch Schuylkill River at Cressona	01467950	52.5	Sed	1963-66

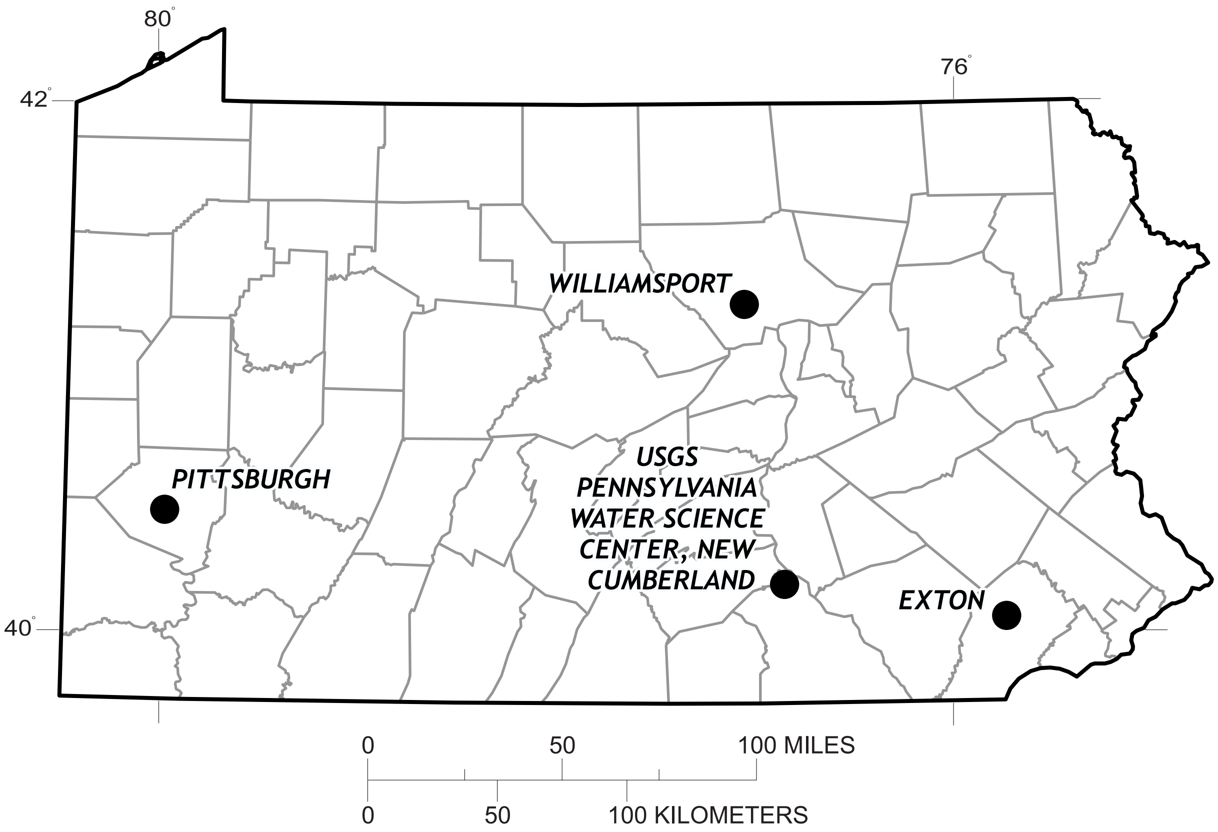
DISCONTINUED CONTINUOUS-RECORD SURFACE-WATER-QUALITY STATIONS —Continued

Station name	Station number	Drainage area (mi^2)	Type of Record	Period of record (water years)
Schuylkill River at Landingville	01468500	133	SC, pH, Temp Sed	1947-53 1947-53, 1963-65
Schuylkill River at Auburn	01469000	160	Sed, SC, pH	1947-51, 1963-65
Little Schuylkill River at South Tamaqua	01469700	65.7	SC, pH Sed	1948-51, 1963 1950-53, 1963
Little Schuylkill River at Drehersville	01470000	122	SC, pH, Temp, Sed	1947-51, 1963-65
Schuylkill River at Berne	01470500	355	Temp SC, pH Sed	1948-53, 1957-81 1963-81 1947-81
Maiden Creek tributary at Lenhartsville	01470720	7.46	Sed	1963-65
Maiden Creek near East Berkley	01470760	192	Sed	1963-65
Tulpehocken Creek near Bernville	01470779	66.5	Temp	1978-2004
Tulpehocken Creek at Blue Marsh Damsite near Reading	01470960	175	Temp	1969-2004
Tulpehocken Creek near Reading	01471000	211	Sed	1963-65
Schuylkill River at Pottstown	01472000	1,147	Temp Sed, pH SC	1944-51, 1956, 1963-66 1948-51, 1963-66 1948-51, 1963-66, 1985-89
Pigeon Creek near Bucktown	01472054	4.20	Biol	1970-83
Pigeon Creek at Porters Mill	01472065	6.97	Biol	1970-83
Stony Run at Spring City	01472110	4.07	Biol	1970-83
Schuylkill River at Black Rock Dam at Mont Clare	01472119	---	SC, DO	1986-90
French Creek at Trythall	01472126	5.06	Biol	1971-83
French Creek near Knauertown	01472129	11.7	Biol	1970-83
Pickering Creek near Chester Springs	01472174	5.98	Sed	1967-69
Perkiomen Creek at Graterford	01473000	279	SC, pH, Temp Sed	1946-51, 1948-53 1963-66
Schuylkill River at Norristown Dam at Bridgeport	01473499	---	SC, DO	1985-90

DISCONTINUED CONTINUOUS-RECORD SURFACE-WATER-QUALITY STATIONS —Continued

Station name	Station number	Drainage area (mi^2)	Type of Record	Period of record (water years)
Schuylkill River at Plymouth Dam	01473675	---	SC, DO	1985-90
Schuylkill River at Flat Rock Dam at West Manayunk	01473780	---	SC, DO	1985-90
Schuylkill River at Manayunk	01473800	893	SC, pH Sed Temp	1947-70 1947-86 1956-70
Wissahickon Creek at Fort Washington	01473900	40.8	Sed	1963-69
Wissahickon Creek at Bells Mill Road, Philadelphia	01473950	53.6	Sed	1966-69
Wissahickon Creek at Livezey Lane, Philadelphia	01473980	59.2	Sed	1966-69
Wissahickon Creek at mouth, Philadelphia	01474000	64.0	Sed	1966-69
Darby Creek near Darby	01475510	37.4	Sed	1965-69
Cobbs Creek at US Highway 1 near Philadelphia	01475530	4.78	Sed	1965-70
Cobbs Creek below Indian Creek near Upper Darby	01475540	9.65	Sed	1965-69
Cobbs Creek at Darby	01475550	22.0	Sed	1965-69
Crum Creek near Paoli	01475830	6.16	Biol	1970-83
Delaware River at Eddystone	01476200	10,190	SC, DO, Temp, pH	1949-68
Delaware River at Marcus Hook	01477200	10,370	SC, DO, Temp, pH	1949-77
West Branch Brandywine Creek near Honey Brook	01480300	18.7	Sed	1965-66, 1968
East Branch Brandywine Creek near Struble Dam	01480647	4.36	Biol	1972-82
Marsh Creek near Lyndell	01480680	17.8	Temp Sed	1965-66 1965-66, 1968
Marsh Creek near Downingtown	01480695	20.3	Temp	1973-87
Brandywine Creek at Chadds Ford	01481000	287	Sed	1963-70
Delaware River at Delaware Memorial Bridge, Del.	01482100	11,030	Temp DO SC pH	1956-81 1962-81 1963-81 1968-81

USGS PENNSYLVANIA WATER SCIENCE CENTER LOCATIONS AND ADDRESSES



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INTRODUCTION

The USGS Pennsylvania Water Science Center, in cooperation with State, municipal, and Federal agencies, collects a large amount of data pertaining to the water resources of Pennsylvania each water year. These data, accumulated during many water 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 Geological Survey, these data are published annually in this report series entitled "Water Resources Data - Pennsylvania, Volumes 1, 2, and 3." Volume 1 contains data for the Delaware River Basin; Volume 2, the Susquehanna and Potomac River Basins; and Volume 3, the Ohio and St. Lawrence River Basins.

This report, Volume 1, contains: (1) discharge records for 75 continuous-record streamflow-gaging stations, 5 partial-record stations, 41 special study and miscellaneous streamflow sites; (2) elevation and contents records for 13 lakes and reservoirs, and water quality records for 5 lakes and reservoirs; (3) water-quality records for 24 gaging stations and 10 ungaged streamsites; (4) water-quality records for 73 special-study stations; (5) water-level records for 52 network observation wells; and (6) water-quality analyses of ground water from 42 ground-water wells. Additional water data collected at various sites not involved in the systematic data-collection program may also be presented.

Publications similar to this report are published annually by the Geological Survey for all States. For the purpose of archiving, these official reports have an identification 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 PA-05-1." These water data reports, beginning with the 1971 water year, are for sale as paper copy or microfiche by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

The annual series of Water Data Reports for Pennsylvania began with the 1961 water-year report and contained only data relating to quantities of surface water. With the 1964 water year, a companion report (part 2) was introduced that contained only data relating to water quality. Beginning with the 1975 water year the report was changed to its present format of three volumes (by river basin), with each volume containing 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 Pennsylvania were published in U.S. Geological Survey 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," which was released in numbered parts as determined by natural drainage basins. For the 1961-70 water years, these data were published in two 5-year reports. Data prior to 1961 are included in two reports: "Compilation of Records of Surface Waters of the United States through 1950," and "Compilation of Records of Surface Waters of the United States, October 1950 to September 1960." Data for Pennsylvania are published in Parts 1, 3, and 4. Data on chemical quality, temperature, and suspended sediment for the 1941-70 water years were published annually under the title "Quality of Surface Waters of the United States," and ground-water levels for the 1935-74 water years were published under the title "Ground-Water Levels in the United States." The above mentioned Water-Supply Papers may be consulted in the libraries of the principal cities of the United States and may be purchased from the U.S. Geological Survey, Information Services, Box 25286, Denver, CO 80225.

Information for ordering specific reports may be obtained from the USGS Pennsylvania Water Science Center at the address given on the back of the title page or by phoning the Scientific and Technical Products Section, at (717) 730-6940. Information on the availability of unpublished data or statistical analyses may be obtained from the USGS Pennsylvania Water Science Center Information Specialist by telephone at (717) 730-6916 or by FAX at (717) 730-6997.

COOPERATION

The U.S. Geological Survey (USGS) and organizations of the Commonwealth of Pennsylvania have had cooperative agreements for the systematic collection of surface-water records during the periods 1919-21 and 1931 to date, water-quality records from 1944 to date, and ground-water records from 1925 to date. Organizations that supplied data are acknowledged in station manuscripts. Organizations that assisted in collecting data for this report through cooperative agreements with the USGS are listed below.

The Commonwealth of Pennsylvania,
Department of Environmental Protection, Kathleen A. McGinty, Secretary through the following:
Office of Water Management, Cathleen C. Myers, Deputy Secretary;
    Bureau of Water Standards and Facility Regulation, Frederick A. Marrocco, Director;
    Bureau of Watershed Management, Stuart I. Gansell, Director;
    Bureau of Waterways Engineering, Michael D. Conway, Director

Bucks County Commissioners, Charles H. Martin, Chairman;
Chester County Health Department, David Jackson, Executive Director;
Chester County Water Resources Authority, Janet L. Bowers, Executive Director;
City of Allentown, Roy Afflerbach, Mayor;
City of Bethlehem, John B. Callahan, Mayor;

COOPERATION--Continued

City of Philadelphia, Water Department, Kumar Kishinchand, Water Commissioner;
City of Wilmington, Delaware, James M. Baker, Mayor;
Delaware County Solid Waste Authority, Joseph W. Vasturia, Chief Executive Officer;
Delaware Geological Survey, John Talley, Director;
Delaware River Basin Commission, Carol R. Collier, Executive Director;
Hazelton City Authority, Water Department, Randy J. Cahalan, Operation Manager;
Monroe County Conservation District, Craig Todd, District Manager;
North Penn Water Authority, Anthony J. Bellitto, Jr., Executive Director;
North Wales Water Authority, Peter. S. Lukens, Executive Director.

Federal Energy Regulatory Commission Licensee:
PPL Electric Utilities Corporation.

The following Federal agency assisted in the data-collection program by providing funds or services: Corps of Engineers, U.S. Army, Philadelphia District, the U.S. Environmental Protection Agency, Region III, and the National Park Service.

The following organizations aided in collecting records: Palmer Water Company, Aqua Pennsylvania Water Company, Borough of Tamaqua, Womelsdorf-Robesonia Joint Water Authority, Forest Park Water Company, and the City of Coatesville.

SUMMARY OF HYDROLOGIC CONDITIONS

Surface Water

The Delaware River Basin extends from the confluence of the river's East and West branch headwaters at Hancock, New York, located in the Catskill Mountains, southward 330 miles to the mouth of the Delaware Bay. In addition to Pennsylvania, the Delaware River drains parts of the states of New York, New Jersey, Delaware, and Maryland. The river is fed by 216 tributaries, the largest being the Schuylkill and Lehigh Rivers in Pennsylvania. Of the 13,539-mi^2 (square mile) drainage basin, 6,422 mi^2 (50.3 percent of the basin's total area) are within the Commonwealth of Pennsylvania (Delaware River Basin Commission, 2005).

Precipitation and Streamflow

Precipitation for the 2005 water year was slightly below normal and streamflows, on average, slightly above normal. Data from 28 selected National Oceanic and Atmospheric Administration climatological sites, located within 3 climatological regions in the Delaware River basin in Pennsylvania, indicate the annual total precipitation for the Delaware River basin in Pennsylvania averaged 42.6 inches. This average is about 90 percent of the 1971-2000 basinwide average of 47.0 inches.

For the period October to December average basinwide precipitation was about normal with an average surplus of 0.20 inches. Precipitation totals averaged about 1.3 inches above normal from January to March. During April, May, and June precipitation averaged about 2.3 inches below normal throughout the basin. Basinwide precipitation during July, August, and September averaged about 3.8 inches below normal. The greatest surplus basinwide, with an average of 1.9 inches above normal, occurred in April. The greatest deficit basinwide, with an average of 3.2 inches below normal, occurred in September. Precipitation for the water year was about 4.6 inches below the 1971-2000 basinwide average. The precipitation data are from the National Oceanic and Atmospheric Administration (Northeast Region Climate Center) and National Weather Service records.

Monthly precipitation at two index stations in the Delaware River basin were used as indicator sites within the basin. The 2005 water year monthly precipitation was compared with the 1971-2000 mean monthly precipitation recorded at Pleasant Mount and Allentown, Pennsylvania (fig. 1). The indicator sites show normal to above-normal precipitation at both sites for November through April. The greatest surplus at the Allentown site occurred in April and at Pleasant Mount occurred in January. The greatest deficit at the indicator sites, with an average of 3.1 inches below normal, occurred in May.

Streamflow varied seasonably throughout the basin and generally reflected the precipitation patterns within the basin unless the stream was regulated. Following a continuing pattern defined by the above-normal precipitation that fell in the basin during the 2004 water year, the mean annual streamflow for unregulated Delaware River basin streams during the 2005 water year was slightly above normal. (Normal streamflows are defined as streamflows between the 25th and 75th percentiles of the streamflows measured during the period 1971-2000.)

The Delaware River Basin and its tributaries experienced flooding as a result of two early spring rainstorms. The first was on March 28-29 and a second on April 2-3. This rainfall combined with snowmelt resulted in flooding on the main stem of the Delaware River that exceeded the peaks caused by Tropical Storm Ivan in September 2004. At many streamflow sites along the main stem, the peaks exceeded the August 1955 flood.

Using 39 unregulated sites with greater than 15 years of record, no new record high annual mean streamflows were recorded during the water year. Using those same 39 sites, new record instantaneous maximums were recorded at two sites as a result of the April flooding.

Two U.S. Geological Survey streamflow-gaging stations within the basin were selected as indicators of basinwide streamflow conditions. Figure 2 compares the 2005 water year monthly and annual mean streamflows with the median of the monthly and annual mean streamflows for 1971 through 2000 at the indicator sites. The 2005 water year annual mean streamflow of the Bush Kill at Shoemakers in the upper Delaware River basin was 111 percent of the 1971-2000 median of the mean annual streamflows. The mean annual streamflow of the Schuylkill River at Pottstown in the lower Delaware River basin was 116 percent of the 1971-2000 median of the mean annual streamflows.

Monthly streamflows were above normal in the Bush Kill for October, December, January, and April (fig. 2). Monthly streamflows were above normal in the Schuylkill River at Pottstown during October through January and April. The remaining months had normal streamflows, except for May, June, August, and September when streamflows were below normal (fig. 2).

There were no drought declarations affecting the Delaware River basin during the 2005 water year. All 67 Pennsylvania counties remained in a normal status for the entire water year.

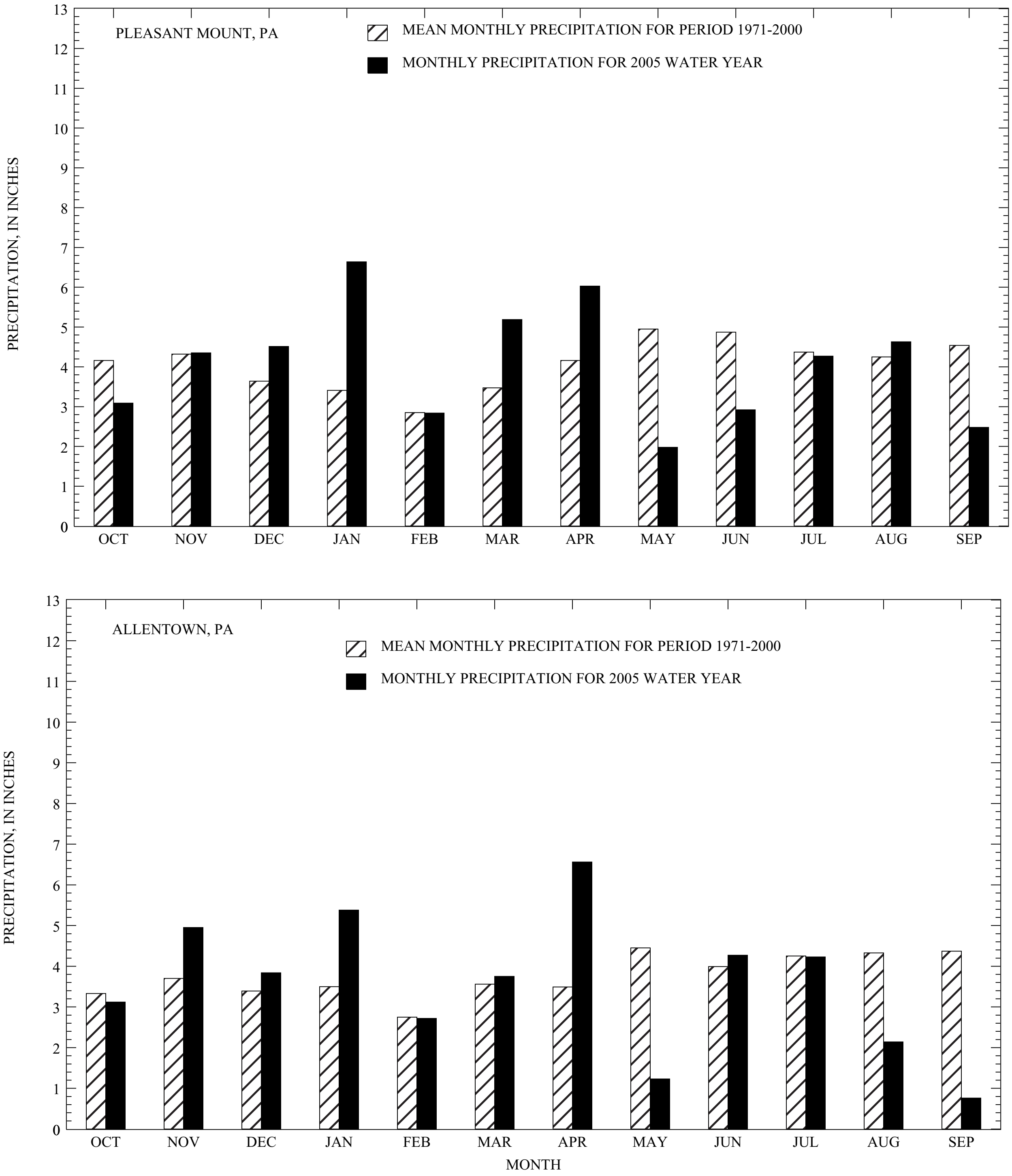
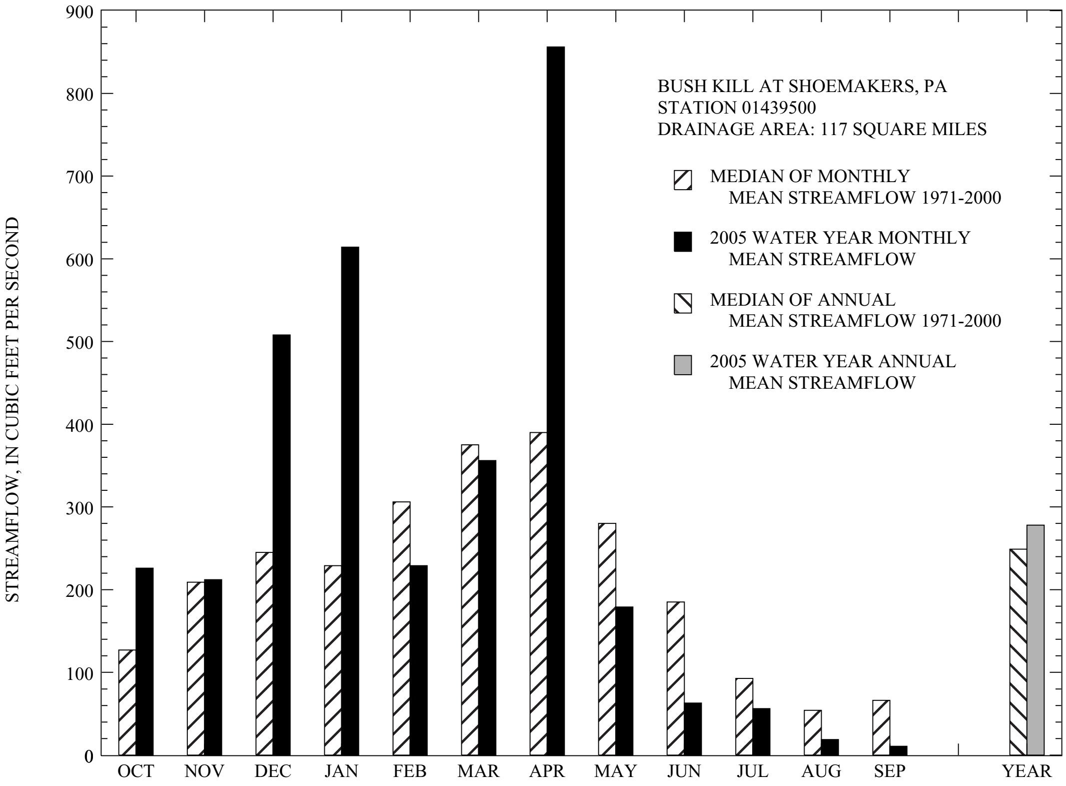


Figure 1.--Comparison of monthly precipitation in the Delaware River Basin at Pleasant Mount and Allentown, Pa. during the 2005 water year with mean monthly precipitation for the period 1971 through 2000.



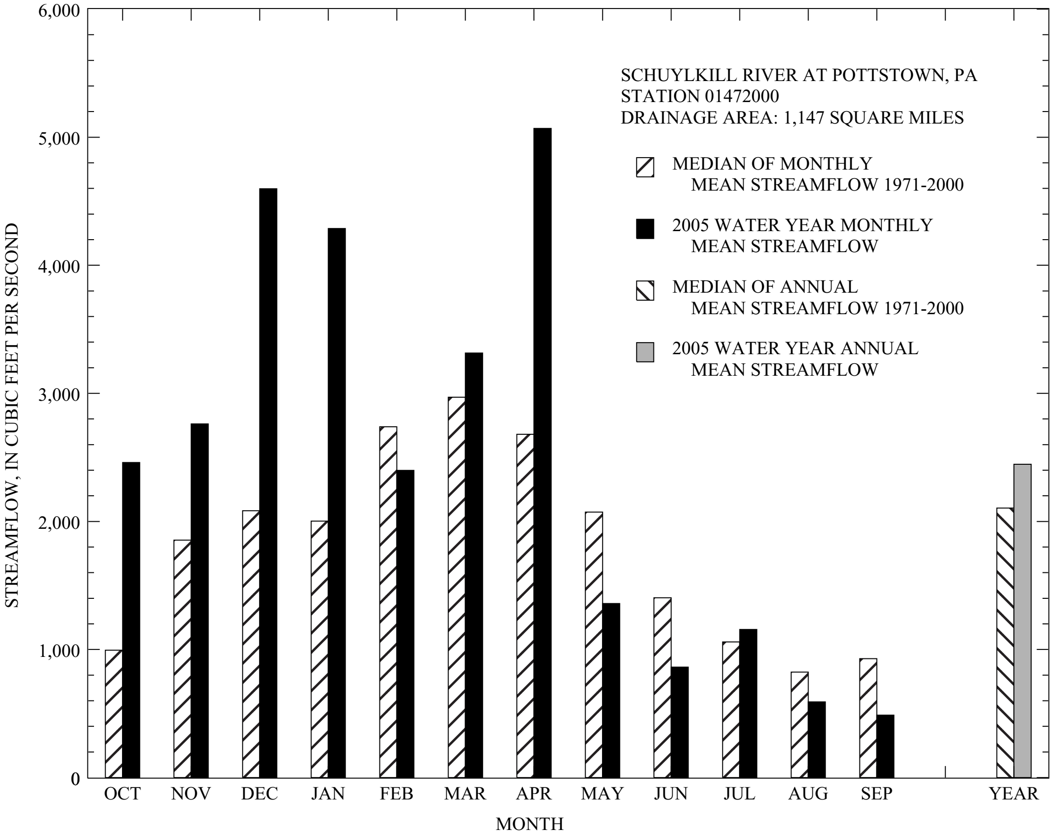


Figure 2.--Comparison of streamflow at two long-term streamflow-gaging stations during the 2005 water year with the median monthly and annual mean streamflow for the period 1971 through 2000.

Reservoirs

Total combined capacity of the major reservoirs in the Delaware River basin within Pennsylvania is 659,390 acre-feet. Total combined drainage areas into these reservoirs is about 1,130 square miles or 18 percent of the total Delaware River basin drainage area within the Commonwealth of Pennsylvania. Combined storage in 13 major reservoirs in the Delaware River basin within Pennsylvania decreased slightly from 272,300 acre-feet (41.3 percent of total combined capacity) on September 30, 2004 to 246,179 acre-feet (37.3 percent of total combined capacity) on September 30, 2005. This decrease in water storage in the basin for the year is a reflection of the above-normal storage conditions in effect in October 2004 as a result of high streamflows in September 2004. About two-thirds of the combined reservoir storage decrease was the result of the increase in usable storage now in effect at Lake Wallenpaupack (station 01431700).

Water Quality

As part of an ongoing program, the USGS maintains a network of continuous-record water-quality monitoring sites along the Delaware River and its tributaries. Water temperature, dissolved oxygen, pH, and specific conductance are monitored at most sites from April through November. A primary concern to water-resource managers of the Lower Delaware River Basin is the upstream migration of saline water from the Delaware Bay. The salinity and dissolved-solid content in the water are indirectly measured by specific conductance.

Water quality of the Delaware Estuary was monitored between Trenton, N.J., and Reedy Island Jetty, Delaware. Streamflow is a vital factor that influences the water quality of the estuary. Increased streamflow usually results in better water quality by limiting salt-water intrusion and diluting the concentration of dissolved minerals, both of which contribute to a lower specific conductance and chloride level. Increased freshwater streamflow also aids in maintaining lower water temperature during warm weather and in supporting higher dissolved-oxygen levels.

In general, streamflow for the Delaware River continued the trend begun in 2004 and was above normal going into the 2005 water year. The annual mean streamflow as recorded at Delaware River at Trenton, N.J., was 132 percent of the period of record mean annual streamflow. The highest sustained streamflows occurred in early April as a direct result of two early spring rainstorms, the first on March 28-29 and a second on April 2-3. This rain combined with snowmelt to cause major flooding in the basin. The highest momentary streamflows (peaks) occurred on April 4. (For additional streamflow information refer to Delaware River at Trenton, N.J., station 01463500, pages 152-180). Higher than normal sustained streamflows in the Delaware River generally continued through April. Beginning with May and continuing though September streamflows began to drop and by the end of September were nearing record lows. As a reflection of these streamflows, the monthly mean specific conductance at the U.S. Geological Survey water-quality monitoring station on the Delaware River at Reedy Island Jetty, Delaware, was lowest in April and highest in September. Generally higher than normal flows through April, resulted in the monthly mean conductance at Reedy Island for the months of October through January and the month of April to be 47 percent, 77 percent, 27 percent, 55 percent and 56 percent, respectively, of the normal mean monthly conductance for those months for the 40-year period of record.

Figure 3 compares the 2005 water year monthly mean specific conductance with the mean monthly values for the period 1965 through 2004. The mean monthly values of specific conductance were lower than the mean for the period of record for October through January and April. Higher streamflows early in the water year kept the migration of saline water, (commonly known as "The Salt Line") at or downstream of River Mile 72, a location about 4 miles upstream of the Delaware Memorial Bridge, into early summer. During the summer months and continuing into late September, the salt line continued to migrate upstream. The furthermost upstream location for the 2005 water year was River Mile 86, which occurred September 29 and 30, during a sustained low-flow period. The instantaneous maximum conductance was recorded at Reedy Island on September 28. For perspective, the most upstream point of the Salt Line ever recorded (River Mile 102) occurred during the drought of the mid 1960’s (Delaware River Basin Commission, 2004). Specific conductance data, along with other water-quality data from the Delaware River at Reedy Island Jetty, Del., can be found on pages 370-377.

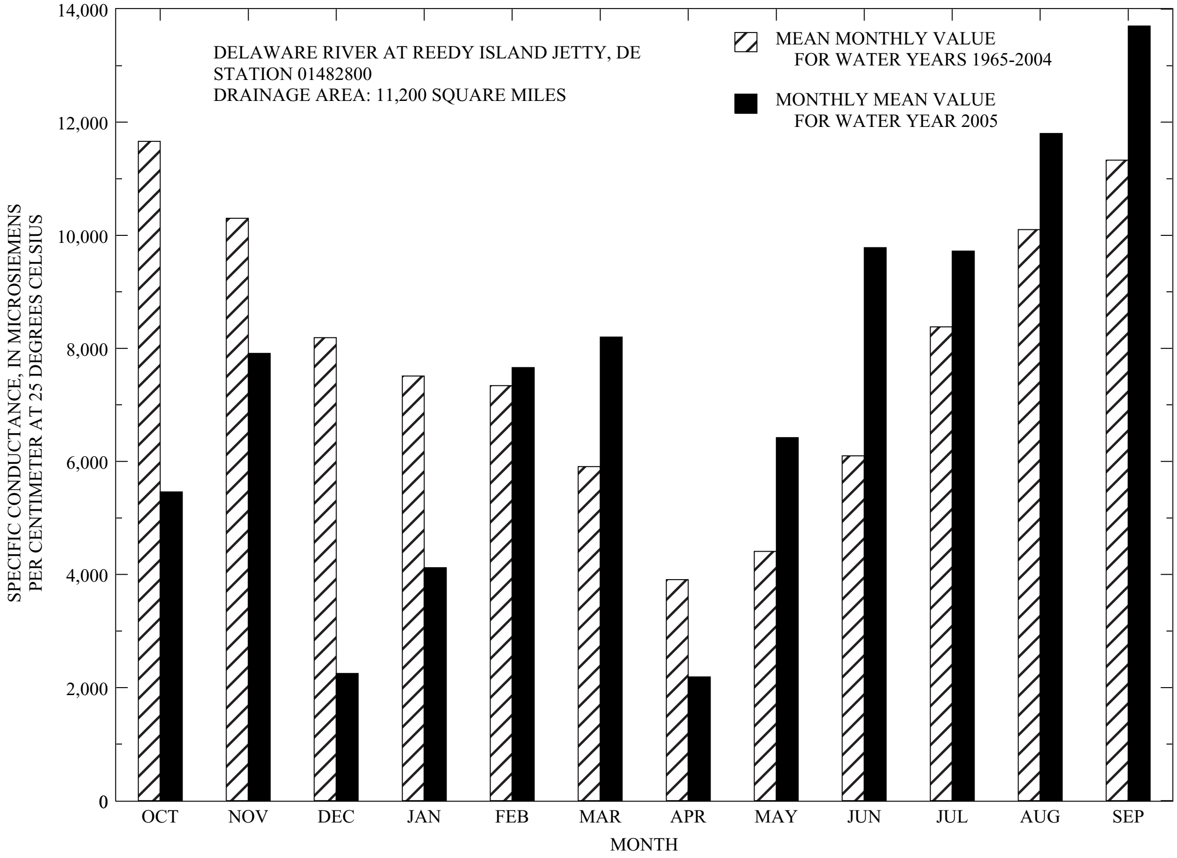


Figure 3.--Monthly mean specific conductance measured in the Delaware River at Reedy Island Jetty, Delaware for the 2005 water year and the mean monthly specific conductance for the period 1965 through 2004.

Ground Water

With some lag time, seasonal ground-water levels during the year generally reflect seasonal precipitation variations. A comparison of the monthly precipitation variation received in the Delaware River basin in the 2005 water year (fig. 1) and recorded ground-water levels shows that this scenario was the case for this year. Ground-water levels by the end of September 2004 were generally above to much-above normal within the basin (Durlin and Schaffstall, 2005). Water levels in all 15 observation wells in the basin began the water year at normal to much-above-normal conditions. A comparison between seasonal ground-water levels for the 2005 water year and long-term seasonal ground-water levels is shown in figure 4.

During the fall season, in spite of slightly below-normal precipitation, ground-water levels continued to remain above to much-above normal at 13 of 15 indicator sites within the basin. By the end of the winter season, only 10 of 15 indicator wells were above to much-above-normal levels. By the end of the spring season, only 6 of 15 wells remained above to much-above normal, with 4 of 15 wells returning to normal levels. This is a reflection of below normal precipitation during May and June, combined with the onset of the growing season. The ground-water levels showed a response to the continuing precipitation deficit in the summer months. By the end of the summer season, ground-water levels, in the observation wells, gradually decreased to normal or below normal categories at 11 of 15 indicator wells. At five of the observation wells, those located in Montgomery County (MG225 and MG917), Bucks County (BK929), Chester County (CH10), and Northampton County (NP820), new high water levels were recorded in April. None of the indicator wells had a new record low during the 2005 water year.

References

Delaware River Basin Commission, 2005, Delaware River Basin Selected Flow and Storage Data, accessed April 19, 2006, at URL *[http://www.state.nj.us/drbc/data.htm]*.

Durlin, R. R., and Schaffstall, W. P., 2005, Water Resources Data, Pennsylvania, water year 2003: U.S. Geological Survey Water-Data Report PA-04-1, 651 p.

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Pennsylvania Department of Environmental Protection, 2006, Drought News Room, accessed April 19, 2006, at URL [http://www.dep.state.pa.us/dep/subject/hotopics/drought/news.htm].

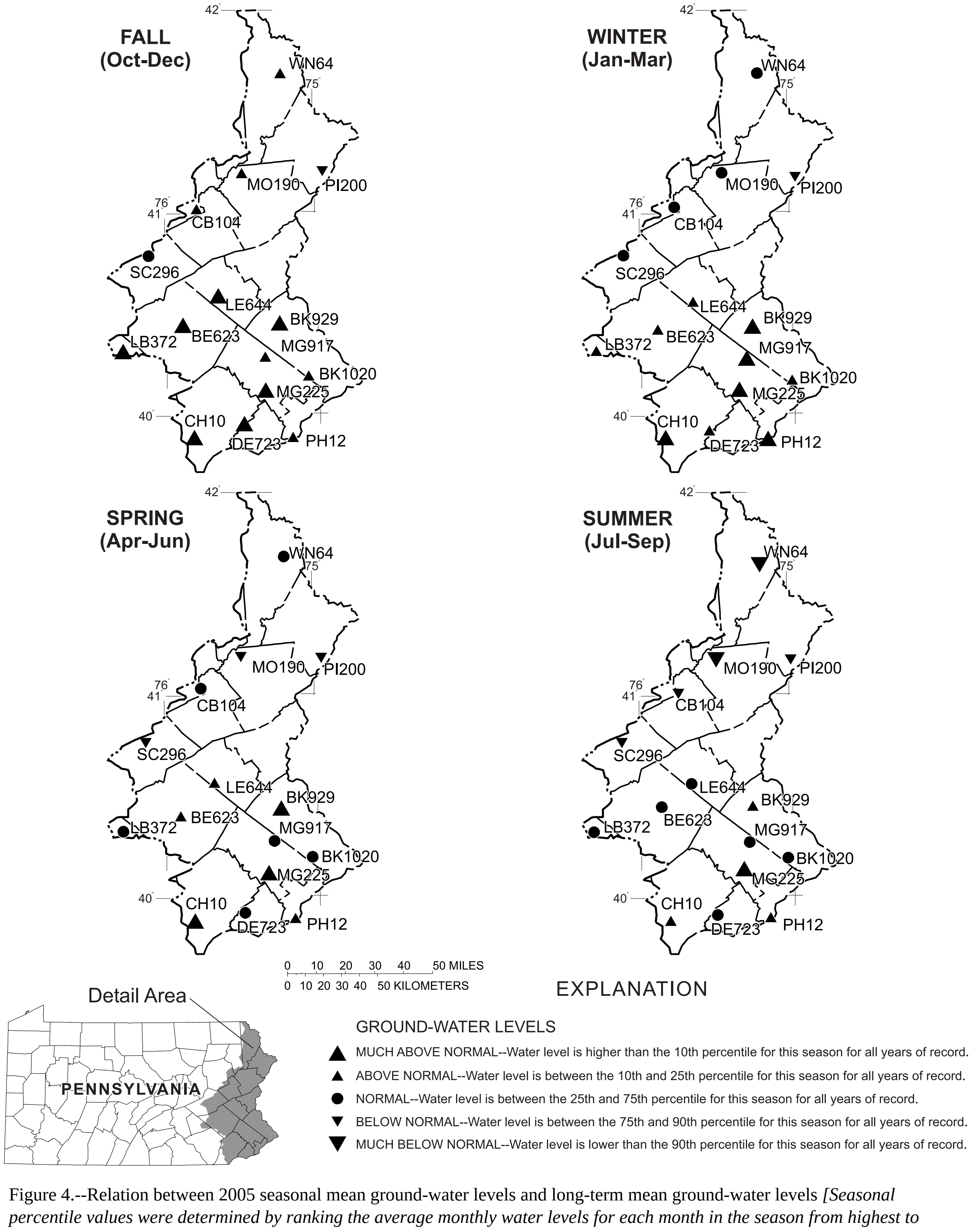

Figure 4.--Relation between 2005 seasonal mean ground-water levels and long-term mean ground-water levels *[Seasonal percentile values were determined by ranking the average monthly water levels for each month in the season from highest to lowest for all years of record and averaging the ranks for the three months. A water level that is higher than the seasonal 10th percentile value would be expected to occur only once in a ten-year period. Conversely, a water level that is lower than the seasonal 90th percentile value also would be expected to occur only once during a ten-year period.]*

SPECIAL NETWORKS AND PROGRAMS

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

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

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

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

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

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

The **USGS National Streamflow Information Program** (NSIP) is a long-term program with goals to provide framework streamflow data across the Nation. Included in the program are creation of a permanent Federally funded streamflow network, research on the nature of streamflow, regional assessments of streamflow data and databases, and upgrades in the streamflow information delivery systems. Additional information about NSIP may be accessed from *http://water.usgs.gov/nsip/*.

EXPLANATION OF THE RECORDS

The surface-water and ground-water records in this report are for the 2005 water year that began October 1, 2004, and ended September 30, 2005. 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 and ecological data for streamflow stations, ground-water-level data, and water-quality data for ground-water wells. The location of these stations and wells are shown in figures 6-10 and 14-18. The following sections of the introductory text are presented to provide users with a more detailed explanation of how these hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

Station Identification Numbers

Each data station in this report, whether a streamsite or a well, is assigned a unique identification number. This number is unique in that it applies specifically to a given station and to no other. The number usually is assigned when a station is first established and is retained for that station indefinitely. The systems used by the U.S. Geological Survey to assign identification numbers for surface-water stations and for ground-water well sites differ, but both are based on geographic location. The "*downstream order*" system is used for regular surface-water stations and the "*latitude-longitude*" system is used for wells and, in Pennsylvania, for some miscellaneous surface-water sites where only random water-quality samples or discharge measurements are made.

Downstream-order system

Since October 1, 1950, the order of listing hydrologic-station records in Survey 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 on which a station is situated with respect to the stream to which it is immediately tributary is indicated by an indention in a list of stations in the front of the report. Each indention represents one rank. This downstream-order system of indention shows 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 in downstream order. In assigning station numbers, no distinction is made between partial-record and continuous-record 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. A station number can be from 8 to 15 digits in length and normally appears to the left of the station name. For example, an 8-digit number for a station such as 01470500, includes a 2-digit part number "*01*" plus a 6-digit downstream-order number "*470500*." The part number designates major river basins; for example, part "*01*" is the North Atlantic Slope Basin.

Latitude-longitude system

The identification numbers for wells and miscellaneous surface-water sites are assigned based on the grid system of latitude and longitude. The system provides the geographic location of the well or miscellaneous site and a unique number for each site. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of latitude, the next seven digits denote the degrees, minutes, and seconds of longitude, and the last two digits (assigned sequentially) identify the wells or other sites within a 1-second grid (fig. 5).

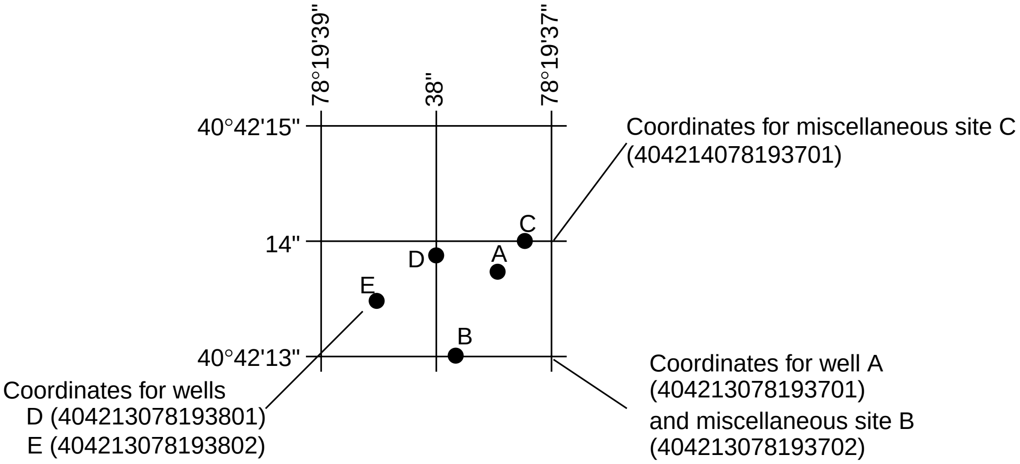

Figure 5.--System for numbering wells and miscellaneous sites (latitude and longitude).

A local well number is also assigned to the wells and consists of a 2-letter abbreviation of the county in which the well is located and a sequential number assigned at the time the well was scheduled.

EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS

Data Collection and Computation

The base data collected at gaging stations (fig. 6-13) consist of records of stage and measurements of discharge of streams or canals, and stage, surface area, and volume of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from a water-stage recorder that is either downloaded electronically in the field to a laptop computer or similar device or is transmitted using telemetry such as GOES satellite, land-line or cellular-phone modems, or by radio transmission. Measurements of discharge are made with a current meter or acoustic Doppler current profiler, using the general methods adopted by the USGS. These methods are described in standard textbooks, USGS Water-Supply Paper 2175, and the Techniques of Water-Resources Investigations of the United States Geological Survey (TWRIs), Book 3, Chapters A1 through A19 and Book 8, Chapters A2 and B2, which may be accessed from *http://water.usgs.gov/pubs/twri/*. The methods are consistent with the American Society for Testing and Materials (ASTM) standards and generally follow the standards of the International Organization for Standardization (ISO).

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

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

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

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

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

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

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

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

Data Presentation

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

Station manuscript

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

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

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

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

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

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

REMARKS.--All periods of estimated daily discharge either will be identified by date in this paragraph of the station description for water-discharge stations or flagged in the daily discharge table. (See section titled Identifying Estimated Daily Discharge.) Information is presented relative to the accuracy of the records, to special methods of computation, and to conditions that affect natural flow at the station. In addition, information may be presented pertaining to average discharge data for the period of record; to extremes data for the period of record and the current year; and possibly, to other pertinent items. For reservoir stations, information is given on the dam forming the reservoir, the capacity, the outlet works and spillway, and the purpose and use of the reservoir.

COOPERATION.--Records provided by a cooperating organization or obtained for the U.S. Geological Survey by a cooperating organization are identified here.

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

PEAK DISCHARGES FOR CURRENT YEAR.--Peaks given here are similar to those found in the summary statistics table, except the peak discharge listing may include secondary peaks. For stations meeting certain criteria, all peak discharges and stages occurring during the water year and greater than a selected base discharge (see Definition of Terms) are presented under this heading. The peaks greater than the base discharge, excluding the highest one, are referred to as secondary peaks. Peak discharges are not published for streams for which the peaks are subject to substantial control by man. 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.—Records are revised if errors in published records are discovered. Appropriate updates are made in the USGS distributed data system, NWIS, and subsequently to its Web-based national data system, NWISWeb *(http://water.usgs.gov/nwis/nwis)*. Users are encouraged to obtain all required data from NWIS or NWISWeb to ensure that they have the most recent data updates. Updates to NWISWeb are made on an annual basis.

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

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

Peak discharge greater than base discharge

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

Data table of daily mean values

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

Statistics of monthly mean data

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

Summary statistics

A table titled "SUMMARY STATISTICS" follows the statistics of monthly mean data tabulation. This table consists of four columns, with the first column containing the line headings of the statistics being reported. The table provides a statistical summary of yearly, daily, and instantaneous flows, not only for the current water year but also for the previous calendar year and for a designated period, as appropriate. The designated period selected, "WATER YEARS ____-____," will consist of all of the station record within the specified water years, including complete months of record for partial water years, and may coincide with the period of record for the station. The water years for which the statistics are computed are consecutive, unless a break in the station record is indicated in the manuscript. All of the calculations for the statistical characteristics designated ANNUAL (see line headings below), except for the "ANNUAL 7-DAY MINIMUM" statistic, are calculated for the designated period using complete water years. The other statistical characteristics may be calculated using partial water years.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Data collected at partial-record stations follow the information for continuous-record sites. Data for partial-record discharge stations are presented in two tables. The first table lists annual maximum stage and discharge at crest-stage stations, and the second table lists discharge measurements at low-flow partial-record stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. These measurements are often made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for 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. This identification is shown either by flagging individual daily values with the letter “*e*” and noting in a table footnote, “*e–Estimated*,” or by listing the dates of the estimated record in the REMARKS paragraph of the station description.

Accuracy of Field Data and Computed Results

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

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

Values of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 ft^3/s; to the nearest tenths between 1.0 and 10 ft^3/s; to whole numbers between 10 and 1,000 ft^3/s; and to three significant figures above 1,000 ft^3/s. The number of significant figures used is based solely on the magnitude of the discharge value. The same rounding rules apply to discharge values listed for partial-record stations.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. For such stations, 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 Data Records Available

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

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

EXPLANATION OF WATER-QUALITY RECORDS

Collection and Examination of Data

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

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

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

Water Analysis

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

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

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

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

Records of Surface-Water Quality

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

Classification of records

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

A careful distinction needs to be made between *continuous records* as used in this report and *continuous recordings* that refer to a continuous graph or a series of discrete values recorded at short intervals. Some records of water quality, such as temperature and specific conductance, may be obtained through continuous recordings; however, because of costs, most data are obtained only monthly or less frequently. Locations of stations for which records on the quality of surface water appear in this report are shown in figures 6-10 and 14-18.

Accuracy of the records

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

Rating classifications for continuous water-quality records

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

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

Arrangement of records

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

Onsite measurements and sample collection

In obtaining water-quality data, a major concern is assuring that the data obtained represent the naturally occurring quality of the water. To ensure this, certain measurements, such as water temperature, pH, and dissolved oxygen, must be made onsite when the samples are collected. To assure that measurements made in the laboratory also represent the naturally occurring water, carefully prescribed procedures must be followed in collecting the samples, in treating the samples to prevent changes in quality pending analysis, and in shipping the samples to the laboratory. Procedures for onsite measurements and for collecting, treating, and shipping samples are given in TWRIs Book 1, Chapter D2; Book 3, Chapters A1, A3, and A4; and Book 9, Chapters A1-A9. Most of the methods used for collecting and analyzing water samples are described in the TWRIs, which may be accessed from *http://water.usgs.gov/pubs/twri/*. Also, detailed information on collecting, treating, and shipping samples can be obtained from the USGS Pennsylvania Water Science Center (see address that is shown on the back of title page in this report).

Water temperature

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

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

Sediment

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

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

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

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

Laboratory measurements

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

Data presentation

For continuing-record stations, information pertinent to the history of station operation is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, drainage area, period of record, type of data available, instrumentation, general remarks, cooperation, and extremes for parameters currently measured daily. Tables of chemical, physical, biological, radiochemical data, and so forth, obtained at a frequency less than daily are presented first. Tables of "*daily values*" of specific conductance, pH, water temperature, dissolved oxygen, and suspended sediment then follow in sequence.

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

LOCATION.--See Data Presentation information in the "Records of Stage and Water Discharge" section of this report (same comments apply).

DRAINAGE AREA.--See Data Presentation under "Records of Stage and Water Discharge" section of this report (same comments apply).

PERIOD OF RECORD.--This indicates the time periods for which published water-quality records for the station are available. The periods are shown separately for records of parameters measured daily or continuously and those measured less often 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 recorder, sediment pumping sampler, or other sampling device is in operation at a station.

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

COOPERATION.--Records provided by a cooperating organization or obtained for the Geological Survey by a cooperating organization are identified here.

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

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

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

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

Remark codes

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

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

Water-Quality-Control Data

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

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

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

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

Blank samples

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

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

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

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

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

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

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

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

Reference samples

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

Replicate samples

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

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

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

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

Spike samples

Spike samples are samples to which known quantities of a solution with one or more well-established analyte concentrations have been added. These samples are analyzed to determine the extent of matrix interference or degradation on the analyte concentration during sample processing and analysis.

EXPLANATION OF GROUND-WATER-LEVEL RECORDS

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

Site Identification Numbers

Each well is identified by means of (1) a 15-digit number that is based on latitude and longitude and (2) a local number that is produced for local needs. (See "Numbering System for Wells and Miscellaneous Sites" in this report for a detailed explanation)

Data Collection and Computation

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

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

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

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

Data Presentation

Water-level data are presented in alphabetical order by county. The primary identification number for a given well is the 15-digit site identification number that appears in the upper left corner of the table. The secondary identification number is the local or county well number. Well locations are shown and each well is identified by its local well or county well number on a map in this report (fig. 7-9).

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

The following comments clarify information presented in these various headings.

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

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

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

INSTRUMENTATION.--This paragraph provides information on both the frequency of measurement and the collection method used, allowing the user to better evaluate the reported water-level extremes by knowing whether they are based on continuous, monthly, or some other frequency of measurement.

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

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

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

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

Water-level tables

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

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

Hydrographs

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

GROUND-WATER-QUALITY DATA

Data Collection and Computation

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

Most methods for collecting and analyzing water samples are described in the TWRIs, which may be accessed from *http://water.usgs.gov/pubs/twri/*. Procedures for onsite measurements and for collecting, treating, and shipping samples are given in TWRI, Book 1, Chapter D2; Book 3, Chapter C2; and Book 5, Chapters A1, A3, and A4. Also, detailed information on collecting, treating, and shipping samples may be obtained from the USGS Pennsylvania Water Science Center (see address shown on back of title page in this report).

Laboratory Measurements

Analysis for sulfide and measurement of alkalinity, pH, water temperature, specific conductance, and dissolved oxygen are performed onsite. All other sample analyses are performed at the USGS laboratory in Lakewood, Colorado, unless otherwise noted. Methods used by the USGS laboratory are given in TWRI, Book 1, Chapter D2; Book 3, Chapter C2; and Book 5, Chapters A1, A3, and A4, which may be accessed from *http://water.usgs.gov/pubs/twri/*.

ACCESS TO USGS WATER DATA

The USGS provides near real-time stage and discharge data for many of the gaging stations equipped with the necessary telemetry and historic daily-mean and peak-flow discharge data for most current or discontinued gaging stations through the World Wide Web (WWW). These data may be accessed from *http://water.usgs.gov*.

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

DEFINITION OF TERMS

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

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

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

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

Adjusted discharge is discharge data that have been mathematically adjusted (for example, to remove the effects of a daily tide cycle or reservoir storage).

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Bottom material (See "Bed material")

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

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

Cell volume (biovolume) determination is one of several common methods used to estimate biomass of algae in aquatic systems. Cell members of algae are used frequently in aquatic surveys as an indicator of algal production. However, cell numbers alone cannot represent true biomass because of considerable cell-size variation among the algal species. Cell volume (μm^3) is determined by obtaining critical cell measurements or cell dimensions (for example, length, width, height, or radius) for 20 to 50 cells of each important species to obtain an average biovolume per cell. Cells are categorized according to the correspondence of their cellular shape to the nearest geometric solid or combinations of simple solids (for example, spheres, cones, or cylinders). Representative formulae used to compute biovolume are as follows:

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

pi (π) is the ratio of the circumference to the diameter of a circle; pi = 3.14159….

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

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

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

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

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

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

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

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

Confined aquifer is a term used to describe an aquifer containing water between two relatively impermeable bound-aries. The water level in a well tapping a confined aquifer stands above the top of the confined aquifer and can be higher or lower than the water table that may be present in the material above it. In some cases, the water level can rise above the ground surface, yielding a flowing well.

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

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

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

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

Cubic foot per second (CFS, ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point in 1 second. It is equivalent to approximately 7.48 gallons per second or approximately 449 gallons per minute, or 0.02832 cubic meters per second. The term "second-foot" sometimes is used synonymously with "cubic foot per second" but is now obsolete.

Cubic foot per second-day (CFS-DAY, Cfs-day, $[(ft^3/s)/d]$) is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, 1.98347 acre-feet, 646,317 gallons, or 2,446.6 cubic meters. The daily mean discharges reported in the daily value data tables numerically are equal to the daily volumes in cfs-days, and the totals also represent volumes in cfs-days.

Cubic foot per second per square mile [CFSM, $(ft^3/s)/mi^2$] is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming the runoff is distributed uniformly in time and area. (See also "Annual runoff")

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

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

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

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

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

Diatoms *(Bacillariophyta)* are unicellular or colonial algae with a siliceous cell wall. The abundance of diatoms in phytoplankton samples is expressed as the number of cells per milliliter (cells/mL) or biovolume in cubic micrometers per milliliter (mm^3/mL). The abundance of diatoms in periphyton samples is given in cells per square centimeter ($cells/cm^2$) or biovolume per square centimeter (mm^3/cm^2). (See also "Phytoplankton" and "Periphyton")

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

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

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

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

Dissolved-solids concentration in water is the quantity of dissolved material in a sample of water. It is determined either analytically by the "residue-on-evaporation" method, or mathematically by totaling the concentrations of individual constituents reported in a comprehensive chemical analysis. During the analytical determination, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. In the mathematical calculation, the bicarbonate value, in milligrams per liter, is multiplied by 0.4917 to convert it to carbonate. Alternatively, alkalinity concentration (as mg/L $CaCO_3$) can be converted to carbonate concentration by multiplying by 0.60.

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

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

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

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

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

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

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

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

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

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

Escherichia coli (E. coli) are bacteria present in the intestine and feces of warmblooded animals. *E. coli* are a member species of the fecal coliform group of indicator bacteria. In the laboratory, they are defined as those bacteria that produce yellow or yellow-brown colonies on a filter pad saturated with urea substrate broth after primary culturing for 22 to 24 hours at 44.5 ˚C on mTEC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample. (See also “Bacteria”)

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

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

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

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

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

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

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

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

Flow-duration percentiles are values on a scale of 100 that indicate the percentage of time for which a flow is exceeded. For example, the 90th percentile of river flow is the streamflow exceeded 90 percent of the time in the period of interest.

Gage datum is a horizontal surface used as a zero point for measurement of stage or gage height. This surface usually is located slightly below the lowest point of the stream bottom such that the gage height is usually slightly greater than the maximum depth of water. Because the gage datum is not an actual physical object, the datum is usually defined by specifying the elevations of permanent reference marks such as bridge abutments and survey monuments, and the gage is set to agree with the reference marks. Gage datum is a local datum that is maintained independently of any national geodetic datum. However, if the elevation of the gage datum relative to the national datum (North American Vertical Datum of 1988 or National Geodetic Vertical Datum of 1929) has been determined, then the gage readings can be converted to elevations above the national datum by adding the elevation of the gage datum to the gage reading.

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

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

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

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

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

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

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

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

Hardness of water is a physical-chemical characteristic that commonly is recognized by the increased quantity of soap required to produce lather. It is computed as the sum of equivalents of polyvalent cations (primarily calcium and magnesium) and is expressed as the equivalent concentration of calcium carbonate ($CaCO_3$).

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

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

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

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

Horizontal datum (See “Datum”)

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

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

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

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

International Boundary Commission Survey Datum refers to a geodetic datum established at numerous monuments along the United States-Canada boundary by the International Boundary Commission.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Micrograms per gram (UG/G, µg/g) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the element per unit mass (gram) of material analyzed.

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

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

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

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

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

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

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

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

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

National Geodetic Vertical Datum of 1929 (NGVD 29) is a fixed reference adopted as a standard geodetic datum for elevations determined by leveling. It formerly was called “Sea Level Datum of 1929” or “mean sea level.” Although the datum was derived from the mean sea level at 26 tide stations**,** it does not necessarily represent local mean sea level at any particular place. *See NOAA Web site: http://www.ngs.noaa.gov/faq.shtml#WhatVD29VD88* (See “North American Vertical Datum of 1988”)

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

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

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

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

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

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

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

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

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

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meter (m^2), acre, or hectare. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

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

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

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

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

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

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

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

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

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

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

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

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

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

Pesticides are chemical compounds used to control undesirable organisms. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides.

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

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

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

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

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

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

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

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

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

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

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

Reach, as used in this report, is a length of stream that is chosen to represent a uniform set of physical, chemical, and biological conditions within a segment. It is the principal sampling unit for collecting physical, chemical, and biological data.

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

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

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

Return period (See “Recurrence interval”)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Stage (See “Gage height”)

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

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

Substrate is the physical surface upon which an organism lives.

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

0	no gravel or larger substrate	3	26-50 percent
1	> 75 percent	4	5-25 percent
2	51-75 percent	5	< 5 percent

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

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

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

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

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

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

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

Suspended-sediment discharge (tons/d) is the rate of sediment transport, as measured by dry mass or volume, that passes a cross section in a given time. It is calculated in units of tons per day as follows: concentration (mg/L) x discharge (ft^3/s) x 0.0027. (See also “Sediment,” “Suspended sediment,” and “Suspended-sediment concentration”)

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

Suspended solids, total residue at 105 ˚C concentration is the concentration of inorganic and organic material retained on a filter, expressed as milligrams of dry material per liter of water (mg/L). An aliquot of the sample is used for this analysis.

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

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

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

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchial 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:	Arthropeda
Class:	Insecta
Order:	Ephemeroptera
Family:	Ephemeridae
Genus:	*Hexagenia*
Species:	*Hexagenia limbata*

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

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

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

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

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

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

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. This group includes coliforms that inhabit the intestine of warmblooded animals and those that inhabit soils. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria that ferment lactose with gas formation within 48 hours at 35 °C. In the laboratory, these bacteria are defined as all the organisms that produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35 °C plus or minus 1.0 °C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 milliliters of sample. (See also "Bacteria")

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

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

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

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

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

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

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

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

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

Turbidity is an expression of the optical properties of a liquid that causes light rays to be scattered and absorbed rather than transmitted in straight lines through water. Turbidity, which can make water appear cloudy or muddy, is caused by the presence of suspended and dissolved matter, such as clay, silt, finely divided organic matter, plankton and other microscopic organisms, organic acids, and dyes (ASTM International, 2003, D1889–00 Standard test method for turbidity of water, *in* ASTM International, Annual Book of ASTM Standards, Water and Environmental Technology, v. 11.01: West Conshohocken, Pennsylvania, 6 p.). The color of water, whether resulting from dissolved compounds or suspended particles, can affect a turbidity measurement. To ensure that USGS turbidity data can be understood and interpreted properly within the context of the instrument used and site conditions encountered, data from each instrument type are stored and reported in the National Water Information System (NWIS) using parameter codes and measurement reporting units that are specific to the instrument type, with specific instruments designated by the method code. The respective measurement units, many of which also are in use internationally, fall into two categories: (1) the designations NTU, NTRU, BU, AU, and NTMU signify the use of a broad spectrum incident light in the wavelength range of 400-680 nanometers (nm), but having different light detection configurations; (2) The designations FNU, FNRU, FBU, FAU, and FNMU generally signify an incident light in the range between 780-900 nm, also with varying light detection configurations. These reporting units are equivalent when measuring a calibration solution (for example, formazin or polymer beads), but their respective instruments may not produce equivalent results for environmental samples. Specific reporting units are as follows:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Vertical datum (See "Datum")

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

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

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

Water year in USGS reports dealing with surface-water supply is the 12-month period October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 2002, is called the "2002 water year."

Watershed (See "Drainage basin")

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

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

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

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

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

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

Techniques of Water-Resources Investigations of the U.S. Geological Survey

The USGS publishes a series of manuals, the Techniques of Water-Resources Investigations, 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.

Reports in the Techniques of Water-Resources Investigations series, which are listed below, are online at *http://water.usgs.gov/pubs/twri/*. Printed copies are for sale by the USGS, Information Services, Box 25286, Federal Center, Denver, Colorado 80225 (authorized agent of the Superintendent of Documents, Government Printing Office), telephone 1-888-ASK-USGS. Please telephone 1-888-ASK-USGS for current prices, and refer to the title, book number, chapter number, and mention the "U.S. Geological Survey Techniques of Water-Resources Investigations." Products can then be ordered by telephone, or online at http://www.usgs.gov/sales.html, or by FAX to (303)236-469 of an order form available online at *http://mac.usgs.gov/isb/pubs/forms/*. Prepayment by major credit card or by a check or money order payable to the "U.S. Geological Survey" is required.

Book 1. Collection of Water Data by Direct Measurement

Section D. Water Quality

1–D1.*Water temperature—Influential factors, field measurement, and data presentation*, by H.H. Stevens, Jr., J.F. Ficke, and G.F. Smoot: USGS–TWRI book 1, chap. D1. 1975. 65 p.

1–D2.*Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W.W. Wood: USGS–TWRI book 1, chap. D2. 1976. 24 p.

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Section D. Surface Geophysical Methods

2–D1.*Application of surface geophysics to ground-water investigations,* by A.A.R. Zohdy, G.P. Eaton, and D.R. Mabey: USGS–TWRI book 2, chap. D1. 1974. 116 p.

2–D2.*Application of seismic-refraction techniques to hydrologic studies,* by F.P. Haeni: USGS–TWRI book 2, chap. D2. 1988. 86 p.

Section E. Subsurface Geophysical Methods

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2–E2.*Borehole geophysics applied to ground-water investigations,* by W.S. Keys: USGS–TWRI book 2, chap. E2. 1990. 150 p.

Section F. Drilling and Sampling Methods

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

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Section A. Surface-Water Techniques

3–A1.*General field and office procedures for indirect discharge measurements,* by M.A. Benson and Tate Dalrymple: USGS–TWRI book 3, chap. A1. 1967. 30 p.
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3–A8.*Discharge measurements at gaging stations,* by T.J. Buchanan and W.P. Somers: USGS–TWRI book 3, chap. A8. 1969. 65 p.
3–A9.*Measurement of time of travel in streams by dye tracing,* by F.A. Kilpatrick and J.F. Wilson, Jr.: USGS–TWRI book 3, chap. A9. 1989. 27 p.
3–Al0.*Discharge ratings at gaging stations,* by E.J. Kennedy: USGS–TWRI book 3, chap. A10. 1984. 59 p.
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3–A13.*Computation of continuous records of streamflow,* by E.J. Kennedy: USGS–TWRI book 3, chap. A13. 1983. 53 p.
3–A14.*Use of flumes in measuring discharge,* by F.A. Kilpatrick and V.R. Schneider: USGS–TWRI book 3, chap. A14. 1983. 46 p.
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3–A17.*Acoustic velocity meter systems,* by Antonius Laenen: USGS–TWRI book 3, chap. A17. 1985. 38 p.
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3–A21*Stream-gaging cableways,* by C. Russell Wagner: USGS–TWRI book 3, chap. A21. 1995. 56 p.

Section B. Ground-Water Techniques

3–B1. *Aquifer-test design, observation, and data analysis,* by R.W. Stallman: USGS–TWRI book 3, chap. B1. 1971. 26 p.
3–B2.*Introduction to ground-water hydraulics, a programed text for self-instruction,* by G.D. Bennett: USGS–TWRI book 3, chap. B2. 1976. 172 p.
3–B3.*Type curves for selected problems of flow to wells in confined aquifers,* by J.E. Reed: USGS–TWRI book 3, chap. B3. 1980. 106 p.
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3–B5.*Definition of boundary and initial conditions in the analysis of saturated ground-water flow systems—An introduction,* by O.L. Franke, T.E. Reilly, and G.D. Bennett: USGS–TWRI book 3, chap. B5. 1987. 15 p.
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3–B8.*System and boundary conceptualization in ground-water flow simulation,* by T.E. Reilly: USGS–TWRI book 3, chap. B8. 2001. 29 p.

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

Book 4. Hydrologic Analysis and Interpretation

Section A. Statistical Analysis

4–A1.*Some statistical tools in hydrology,* by H.C. Riggs: USGS–TWRI book 4, chap. A1. 1968. 39 p.
4–A2.*Frequency curves,* by H.C. Riggs: USGS–TWRI book 4, chap. A2. 1968. 15 p.
4–A3.*Statistical methods in water resources,* by D.R. Helsel and R.M. Hirsch: USGS–TWRI book 4, chap. A3. 1991. Available only online at http://water.usgs.gov/pubs/twri/twri4a3/. (Accessed August 30, 2002.)

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

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5–A4.*Methods for collection and analysis of aquatic biological and microbiological samples,* by L.J. Britton and P.E. Greeson, editors: USGS–TWRI book 5, chap. A4. 1989. 363 p.
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5–A6.*Quality assurance practices for the chemical and biological analyses of water and fluvial sediments,* by L.C. Friedman and D.E. Erdmann: USGS–TWRI book 5, chap. A6. 1982. 181 p.

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

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6–A4.*A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 2: Derivation of finite-element equations and comparisons with analytical solutions,* by R.L. Cooley: USGS–TWRI book 6, chap. A4. 1992. 108 p.
6–A5.*A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 3: Design philosophy and programming details,* by L.J. Torak: USGS–TWRI book 6, chap. A5. 1993. 243 p.
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77 p.

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Section C. Computer Programs

7–C1.*Finite difference model for aquifer simulation in two dimensions with results of numerical experiments,* by P.C. Trescott, G.F. Pinder, and S.P. Larson: USGS–TWRI book 7, chap. C1. 1976. 116 p.
7–C2.*Computer model of two-dimensional solute transport and dispersion in ground water,* by L.F. Konikow and J.D. Bredehoeft: USGS–TWRI book 7, chap. C2. 1978. 90 p.
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Book 8. Instrumentation

Section A. Instruments for Measurement of Water Level

8–A1.*Methods of measuring water levels in deep wells,* by M.S. Garber and F.C. Koopman: USGS–TWRI book 8, chap. A1. 1968. 23 p.

8–A2.*Installation and service manual for U.S. Geological Survey manometers*, by J.D. Craig: USGS–TWRI book 8, chap. A2. 1983. 57 p.

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

Book 9. Handbooks for Water-Resources Investigations

Section A. National Field Manual for the Collection of Water-Quality Data

9–A1.*National field manual for the collection of water-quality data: Preparations for water sampling*, by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A1. 1998. 47 p.
9–A2.*National field manual for the collection of water-quality data: Selection of equipment for water sampling*, edited by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A2. 1998. 94 p.
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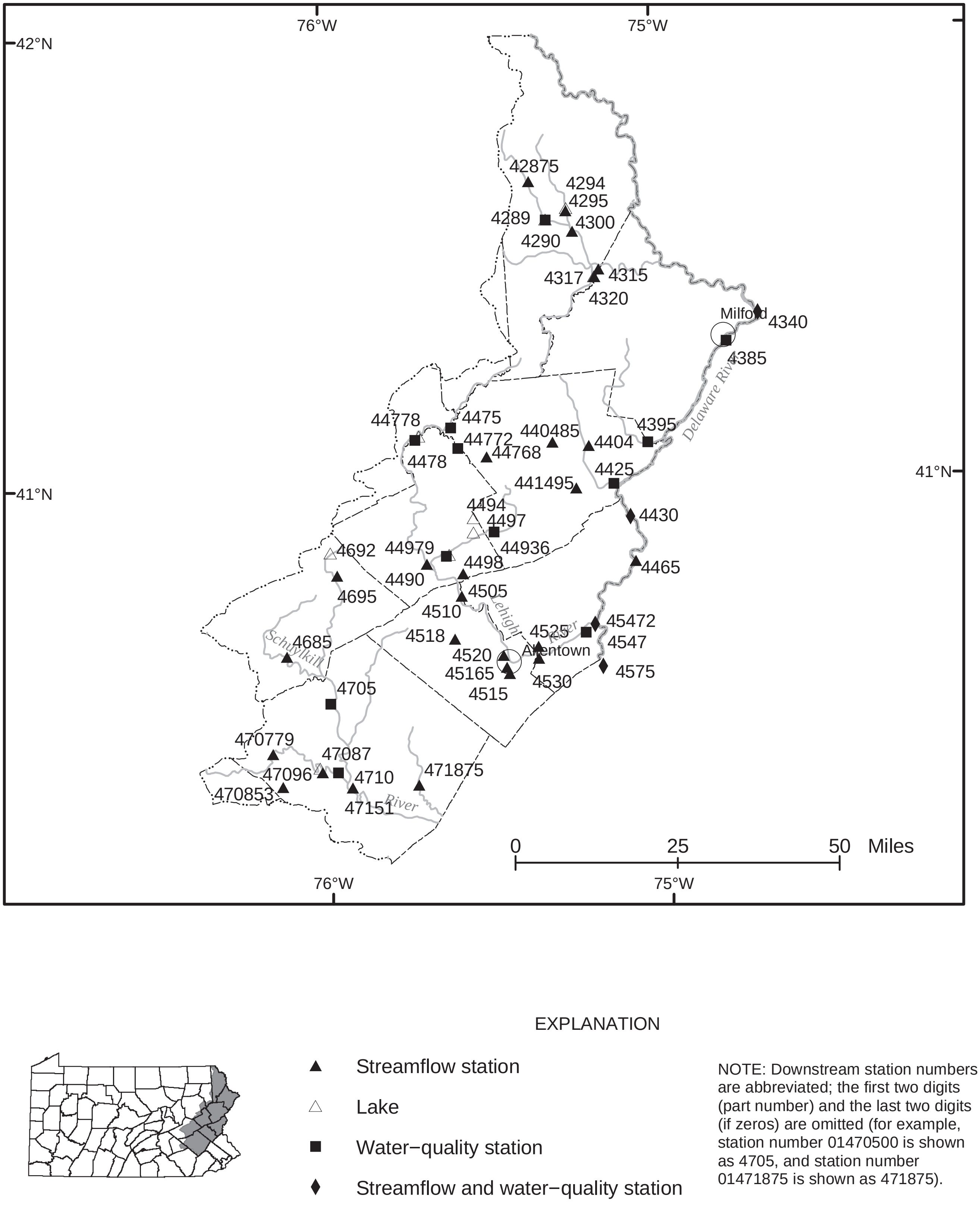


NOTE: Downstream station numbers are abbreviated; the first two digits (part number) and the last two digits (if zeros) are omitted (for example, station number 01470500 is shown as 4705, and station number 01471875 is shown as 471875).

Figure 6.--Location of continuous-record data-collection stations in the upper Delaware River Basin.

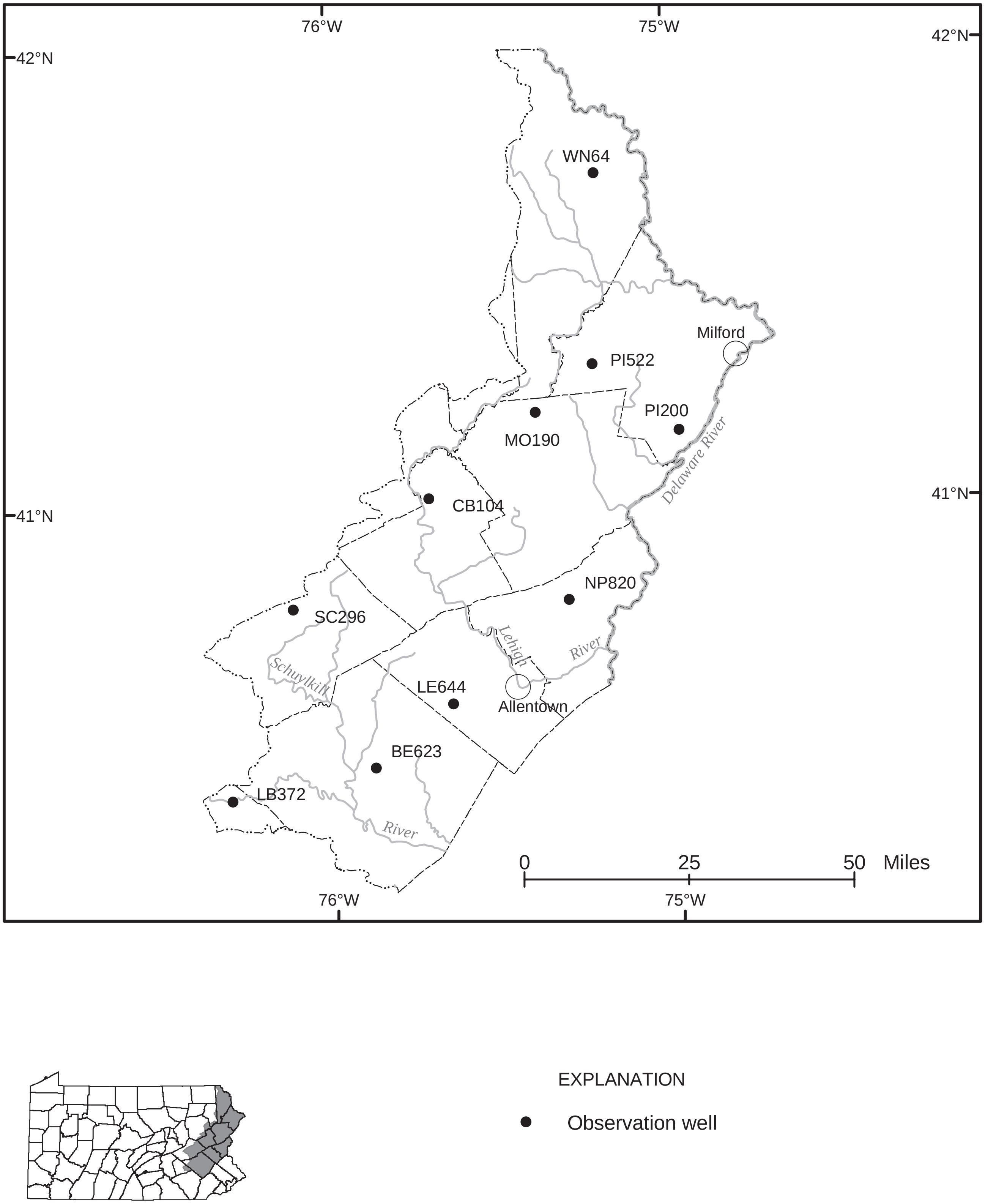
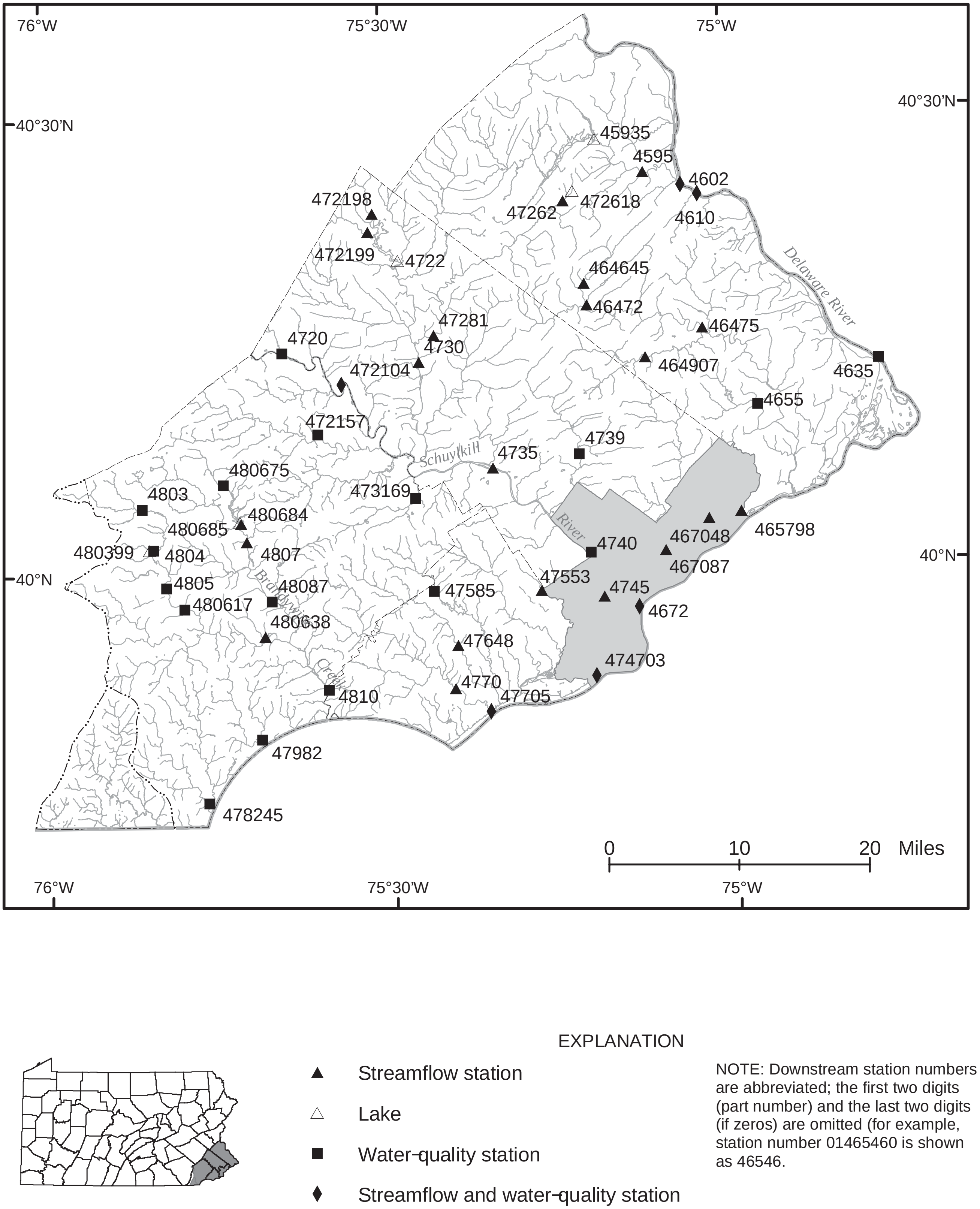


Figure 7.--Location of continuous-record observation wells in the upper Delaware River Basin.



NOTE: Downstream station numbers are abbreviated; the first two digits (part number) and the last two digits (if zeros) are omitted (for example, station number 01465460 is shown as 46546.

Figure 8.--Location of continuous-record data-collection stations in the lower Delaware River Basin.

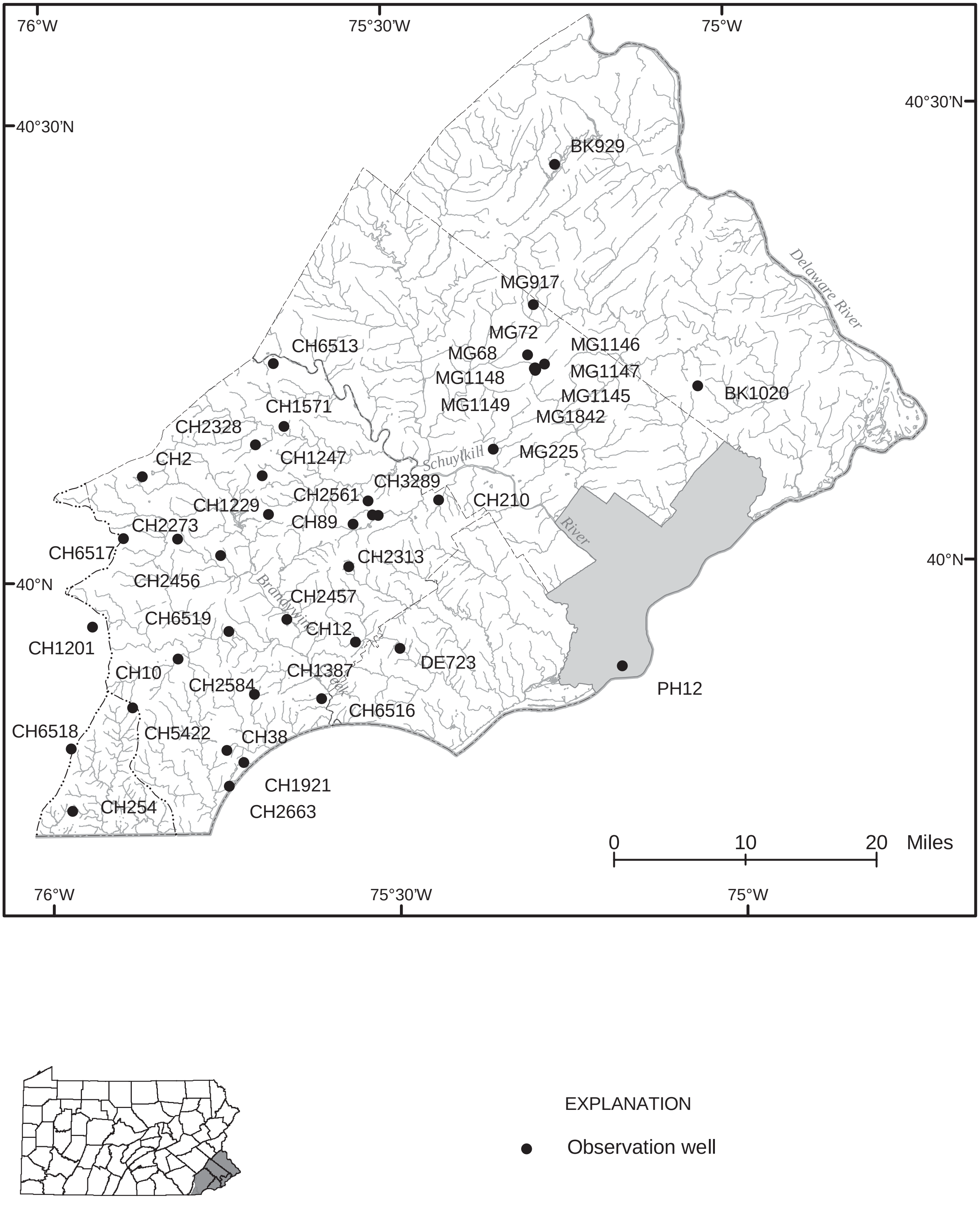
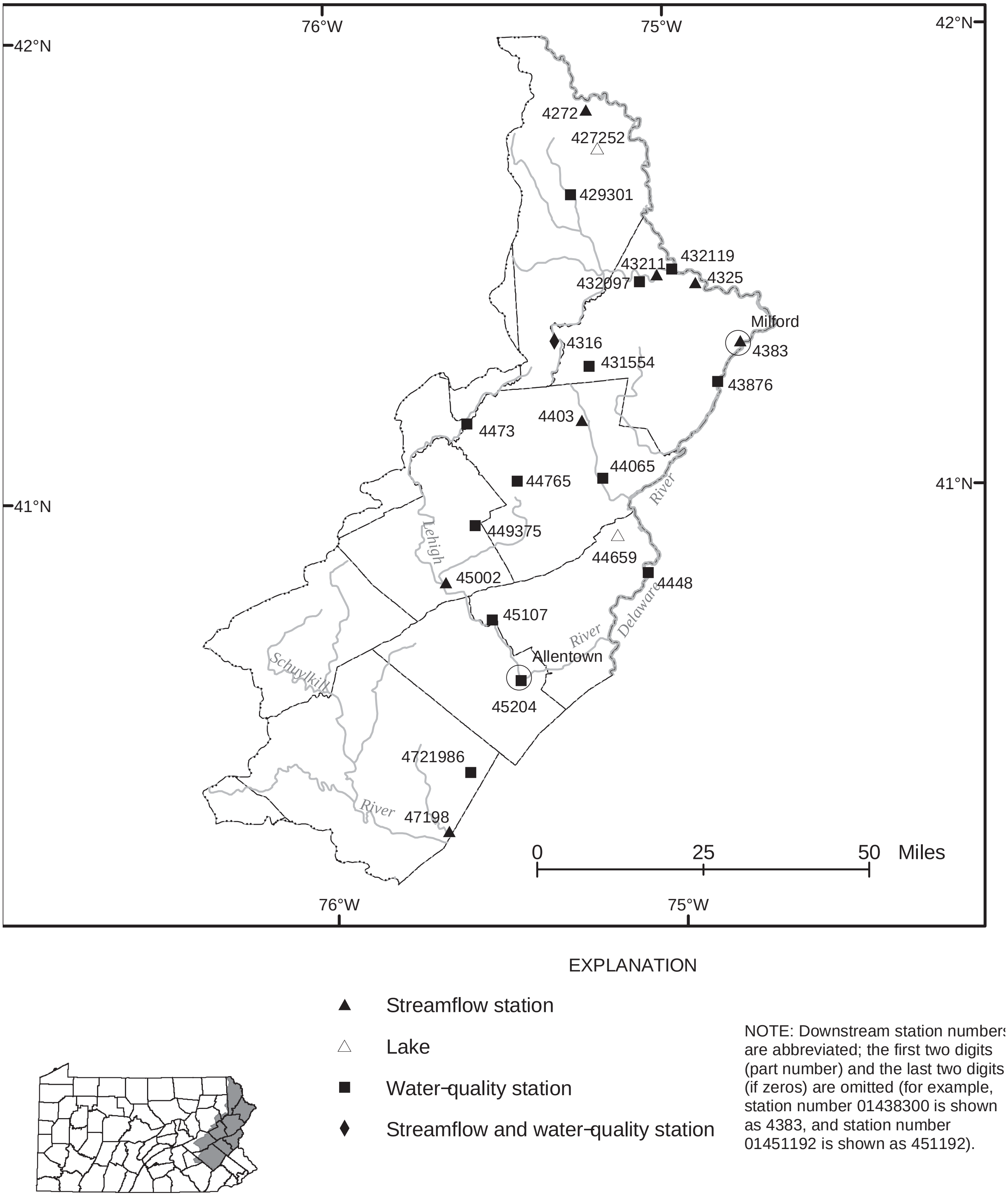


Figure 9.--Location of continuous-record observation wells in the lower Delaware River Basin.



EXPLANATION

▲ Streamflow station

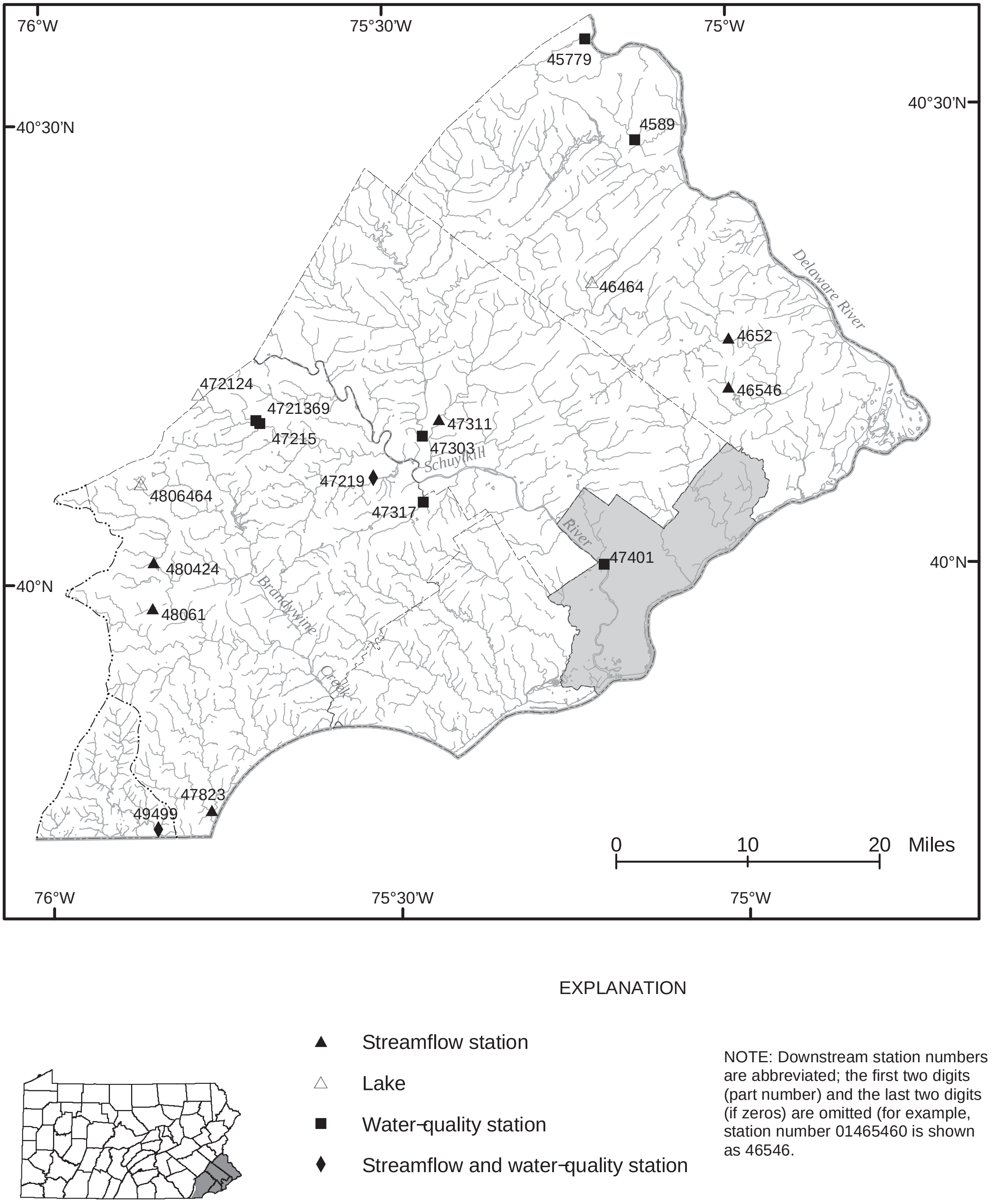
△ Lake

■ Water-quality station

♦ Streamflow and water-quality station

NOTE: Downstream station number are abbreviated; the first two digits (part number) and the last two digits (if zeros) are omitted (for example, station number 01438300 is shown as 4383, and station number 01451192 is shown as 451192).

Figure 10.--Location of partial-record data-collection stations in the upper Delaware River Basin.



EXPLANATION

▲ Streamflow station

△ Lake

■ Water-quality station

◆ Streamflow and water-quality station

NOTE: Downstream station numbers are abbreviated; the first two digits (part number) and the last two digits (if zeros) are omitted (for example, station number 01465460 is shown as 46546.

Figure 11.--Location of partial-record data-collection stations in the lower Delaware River Basin.

SPECIAL NOTES, REMARK CODES, AND SELECTED CONSTITUENT DEFINITIONS

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NOTES--Traditionally, dissolved trace-element concentrations have been reported at the microgram per liter(µG/L) level. Recent evidence, mostly from large rivers, indicates that actual dissolved-phase concentrations for a number of trace elements are within the range of 10's to 100's of nanograms per liter (ng/L). Data above the µG/L level should be viewed with caution. Such data may actually represent elevated environmental concentrations from natural or human causes; however, these data could reflect contamination introduced during sampling, processing, or analysis. To confidently produce dissolved trace-element data with insignificant contamination, the U.S. Geological Survey began using new trace-element protocols at some stations in water year 1994. Full implementation of the protocols took place during the 1995 water year.

--Sample handling procedures at all **National Trends Network** stations were changed substantially on January 11, 1994, in order to reduce contamination from the sample shipping container. The data for samples before and after that date are different and not directly comparable. A tabular summary of the differences based on a special intercomparison study, is available from the NADP/NTN Coordination Office, Colorado State University, Fort Collins, CO 80523 (Telephone: 303-491-5643).

--In March 1989 a bias was discovered in the turbidimetric method for sulfate analysis for those samples analyzed by the U.S. Geological Survey National Water-Quality Laboratory indicating that values below 75 mg/L have a median positive bias of 2 mg/L above the true value for the period between 1982 and 1989.

--**Methylene blue active substance (MBAS)** determinations made from January 1, 1970, through August 29, 1993, at the National Water Quality Laboratory in Denver (Analyzing Agency Code 80020) are positively biased. These data can be corrected on the basis of the following equation, if concentrations of dissolved nitrate plus nitrite, as nitrogen, and dissolved chloride, determined concurrently with the MBAS data are applied:

$$MBASCOR = M - 0.0088N - 0.00019C$$

where:

MBASCOR = corrected MBAS concentration, in mg/L;
M = reported MBAS concentration, in mg/L;
N = dissolved nitrate plus nitrite, as nitrogen, in mg/L; and
C = dissolved chloride concentration, in mg/L.

The detection limit of the new method is 0.02 mg/L, whereas the detection limit for the old method was 0.01 mg/L. A detection limit of 0.02 mg/L should be used with corrected MBAS data from January 1, 1970, through August 29, 1993.

****

Remark Codes.--The following remark codes may appear with the data tables in this report:

PRINTED OUTPUT	REMARK
E,e	Estimated value.
>	Actual value is known to be greater than the value shown.
<	Actual value is known to be less than the value shown.
M	Presence of material verified but not quantified.
K	Results based on colony count outside the acceptance 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).
ND	Material specifically analyzed for but not detected.
V	Analyte was detected in both the environmental sample and the associated blanks.

****

EXPLANATION OF CODES USED TO DEFINE SAMPLE COLLECTION PROCEDURES (partial listing)

(71999) SAMPLE PURPOSE CODES:

10--Routine
15--NAWQA
20--NASQAN
30--Benchmark
50--GW Network

(82398) SAMPLE METHOD CODES:

10--Equal width increment
20--Equal discharge increment
30--Single vertical
40--Multiple verticals
50--Point sample
70--Grab sample
120--Velocity integrated
4040--Submersible pump
8010--Other

(84164) SAMPLER TYPE: (partial list)

110--Sewage sampler

3011--US D-77

3035--DH-76 Trace metal sampler with teflon gasket and nozzle

3039--D-77 Trace metal

3040--D-77 Trace metal modified teflon bag sampler

3045--DH-81 with Teflon cap and nozzle

8010--Other (other than a defined sampler type)

SPECIAL NOTES, REMARK CODES AND SELECTED CONSTITUENT DEFINITIONS--Continued

Explanation of selected abbreviations used in constituent definitions in water-quality tables:

AC-FT	acre-feet
BOT MAT	bottom material (Unconsolidated material of which a streambed, lake, pond, reservoir, or estuary bottom is composed.)
COLS/100 ML	colonies per 100 milliliters
DIS	dissolved
FET	fixed end-point titration
FLD	field (Measurement determined at field site.)
F/S	feet per second
G/M	gallons per minute
G/SQM; MG/M2	grams or milligrams per square meter
IT	incremental titration
KF AGAR	nutrient medium for growth of fecal streptococcal bacteria
µG/L	micrograms per liter
µS/CM	microsiemens per centimeter
MG/L	milligrams per liter
MG/M2	milligrams per square meter
MM OF HG	millimeters of mercury
NONCARB	noncarbonate
NTU	nephelometric turbidity unit
PCI/L	picocuries per liter
REC	recoverable
TOT	total
T/DAY	tons per day
WH IT	whole water, incremental titration (Alkalinity, bicarbonate, and carbonate as determined by incremental titration of unfiltered water at the field site.)
2 SIGMA	Counting statistic that represents error in the reported radon, uranium, or tritium value caused by variations in sample counting, background radiation, volume of sample, and decay since sample was collected.
0.7µ GF	0.7 micron glass-fiber filter (Water filtered through a glass-fiber membrane filter with openings that are 0.7 microns in size.)

****

(00027) AGENCY COLLECTING SAMPLE CODES: (partial listing)

1028 --U.S. Geological Survey

(00028) AGENCY ANALYZING SAMPLE CODES: (partial listing)

1028 --U.S. Geological Survey
80020 --U.S. Geological Survey, National Water-Quality Laboratory, Denver, Colorado
9813 --Pennsylvania Department of Environmental Protection
83613 --USGS Water Science Center, Water-Quality Laboratory, Troy, New York

MEDIUM CODES: (partial listing)

9-- Surface water.
6-- Ground water.
R-- Quality-control sample. Surface water.
S-- Quality-control sample. Ground water.
Q-- Quality-control sample. Artificial.

‘SURFACE-WATER RECORDS
NORTH ATLANTIC SLOPE BASINS
DELAWARE RIVER BASIN
LACKAWAXEN RIVER BASIN

01428750 WEST BRANCH LACKAWAXEN RIVER NEAR ALDENVILLE, PA

LOCATION.--Lat 41°40'28", long 75°22'35", Wayne County, Hydrologic Unit 02040104, on right bank at steel bridge on State Highway 247, 0.3 mi downstream from Johnson Creek, and 2.0 mi northwest of Aldenville.

DRAINAGE AREA.--40.6 mi^2.

PERIOD OF RECORD.--Occasional discharge measurements and annual maximums, water years 1975-86. October 1986 to current year. Published as station number 01427950, 1975-88.

GAGE.--Water-stage recorder. Datum of gage is 1,244.60 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges and those above 1,400 ft^3/s, which are poor. Satellite and landline telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s and maximum (*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Nov. 28	1245	2,000	6.17	Mar. 29	1315	1,470	4.79
Jan. 14	0730	2,820	5.56	Apr. 2	2345	*10,600	*7.57

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	141	50	420	e60	e40	e60	748	90	17	11	11	14
2	116	45	275	49	e40	e60	2800	74	16	15	8.3	11
3	99	53	176	112	e35	e55	3980	71	15	11	7.6	9.1
4	82	62	133	339	e35	e55	762	63	16	9.7	7.2	8.2
5	67	111	112	163	e35	e50	435	56	21	13	7.4	7.8
6	60	77	94	139	e30	e50	360	50	22	13	7.4	7.5
7	56	66	104	125	e30	e60	346	46	29	16	6.9	7.2
8	50	59	161	127	e30	e140	305	42	18	23	9.5	7.0
9	44	51	128	116	e30	e120	223	38	15	22	12	9.6
10	41	45	488	103	e80	e90	166	35	13	15	8.5	8.8
11	39	44	484	96	e120	e75	130	34	13	12	7.7	7.0
12	37	48	319	112	e100	e65	105	31	12	11	7.3	6.6
13	30	47	207	131	e90	e50	87	29	12	10	7.9	6.5
14	31	39	150	1530	e80	e45	74	28	11	9.5	12	6.4
15	42	37	117	560	e150	e40	64	46	12	9.1	8.8	7.3
16	110	32	101	336	e200	e40	57	32	13	8.9	8.6	7.2
17	68	28	86	215	e180	e35	52	28	17	9.4	9.2	7.0
18	53	27	74	148	e140	37	46	25	15	9.5	8.0	6.8
19	351	27	63	e100	e120	38	43	24	14	9.2	7.9	7.2
20	226	32	41	e90	e110	37	43	23	12	9.4	7.8	10
21	143	38	63	e80	e100	39	43	21	11	8.4	7.4	12
22	121	28	64	e75	e90	43	37	21	10	9.4	6.9	9.3
23	100	26	189	e70	e80	59	62	21	9.6	9.1	6.7	9.7
24	89	47	194	e65	e80	58	276	21	8.8	8.4	6.7	11
25	79	182	e100	e60	e75	53	146	21	8.8	e8.0	6.4	11
26	73	115	e95	e55	e70	48	105	21	8.8	e9.0	6.3	16
27	63	88	e90	e50	e70	57	121	20	8.9	e10	6.3	18
28	58	865	e85	e50	e65	175	101	22	9.3	11	7.1	12
29	53	462	e80	e50	---	1200	82	28	9.8	9.0	7.2	13
30	76	250	e80	e45	---	861	81	21	12	8.2	41	13
31	61	---	e75	e45	---	641	---	19	---	8.3	23	---
TOTAL	2659	3081	4848	5296	2305	4436	11880	1101	410.0	345.5	296.0	287.2
MEAN	85.8	103	156	171	82.3	143	396	35.5	13.7	11.1	9.55	9.57
MAX	351	865	488	1530	200	1200	3980	90	29	23	41	18
MIN	30	26	41	45	30	35	37	19	8.8	8.0	6.3	6.4
CFSM	2.11	2.53	3.85	4.21	2.03	3.52	9.75	0.87	0.34	0.27	0.24	0.24
IN.	2.44	2.82	4.44	4.85	2.11	4.06	10.89	1.01	0.38	0.32	0.27	0.26

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2005, BY WATER YEAR (WY)

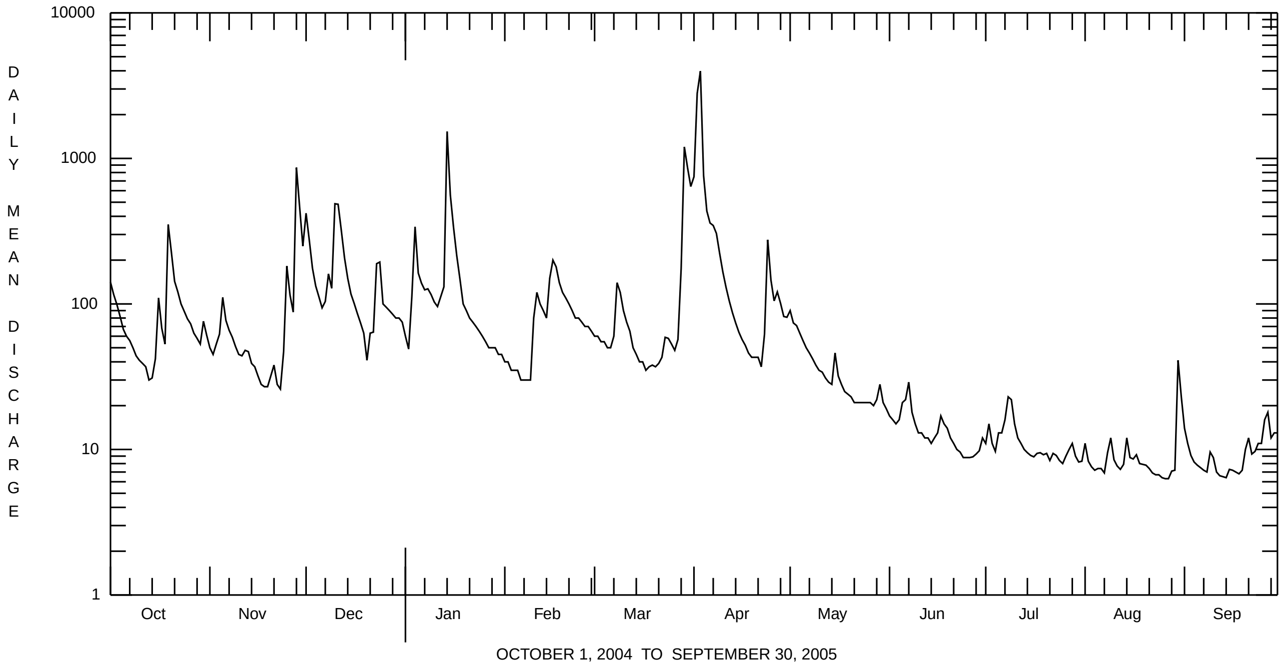
MEAN	60.3	95.2	97.7	89.9	83.9	139	170	93.6	55.2	24.8	27.8	47.8
MAX	142	199	232	228	192	259	419	258	200	63.0	155	221
(WY)	2003	1987	1997	1996	1990	2003	1993	1989	1989	1989	1994	2004
MIN	6.46	12.0	15.5	21.9	29.2	87.0	58.7	34.6	13.7	6.92	5.89	7.41
(WY)	1992	1999	1999	1989	2004	1989	1988	2001	2005	1999	1999	1991

e Estimated.

01428750 WEST BRANCH LACKAWAXEN RIVER NEAR ALDENVILLE, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1987 - 2005	
ANNUAL TOTAL	34829		36944.7			
ANNUAL MEAN	95.2		101		82.0	
HIGHEST ANNUAL MEAN					113	2003
LOWEST ANNUAL MEAN					48.0	1999
HIGHEST DAILY MEAN	1980	Sep 18	3980	Apr 3	3980	Apr 3 2005
LOWEST DAILY MEAN	11	Jul 10	6.3	Aug 26,27	**e**4.0	Aug 6 1999
ANNUAL SEVEN-DAY MINIMUM	13	Jul 4	6.6	Aug 22	**a**4.4	Jul 31 1999
MAXIMUM PEAK FLOW			**b**10600	Apr 2	**bc**10600	Apr 2 2005
MAXIMUM PEAK STAGE			7.57	Apr 2	**d**8.00	Jan 19 1996
ANNUAL RUNOFF (CFSM)	2.34		2.49		2.02	
ANNUAL RUNOFF (INCHES)	31.91		33.85		27.44	
10 PERCENT EXCEEDS	184		170		179	
50 PERCENT EXCEEDS	61		43		44	
90 PERCENT EXCEEDS	24		8.3		9.9	

a Computed using estimated daily discharges.
b From rating curve extended above 1,400 ft^3/s.
c Peak stage of 7.57 ft.
d Gage height due to backwater from ice jam.
e Estimated.



01429000 WEST BRANCH LACKAWAXEN RIVER AT PROMPTON, PA

LOCATION.--Lat 41°35'14", long 75°19'38", Wayne County, Hydrologic Unit 02040103, on left bank 500 ft downstream from Prompton Reservoir, 1,500 ft upstream from bridge on U.S. Highway 6 at Prompton, and 2,000 ft upstream from Van Auken Creek.

DRAINAGE AREA.--59.7 mi^2.

PERIOD OF RECORD.--August 1944 to current year. Prior to October 1952, published as Lackawaxen River at Prompton.

REVISED RECORDS.--WSP 1432: 1948-49. WDR PA-71-1: 1970(M).

GAGE.--Water-stage recorder. Datum of gage is 1,083.78 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since 1960 by Prompton Reservoir (station 01428900) 500 ft upstream. Satellite and landline telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 23, 1942 reached a stage of 16.7 ft, from floodmark, discharge not determined.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	253	80	482	94	67	81	832	120	31	13	10	20
2	196	72	490	93	64	81	1660	111	30	13	10	20
3	158	71	353	100	61	77	2530	105	28	13	9.8	18
4	131	71	269	262	59	71	2370	98	27	13	9.4	16
5	110	104	214	282	57	66	1470	91	27	13	9.1	14
6	95	108	179	241	55	65	745	84	27	15	9.0	12
7	85	107	167	215	55	64	567	76	27	15	8.6	11
8	78	103	223	191	56	102	495	67	27	19	9.3	10
9	72	94	235	187	62	123	392	63	26	22	11	9.8
10	66	82	367	170	111	115	242	60	26	23	11	9.5
11	61	76	739	156	140	104	199	57	24	23	11	9.1
12	57	76	534	154	126	97	186	52	23	22	10	8.6
13	55	76	391	162	111	91	172	49	22	21	11	8.2
14	53	71	307	818	98	81	152	47	22	19	11	7.8
15	54	66	235	907	158	74	132	47	23	17	12	7.8
16	103	65	192	498	251	71	116	47	22	16	12	8.0
17	105	61	163	349	309	67	102	46	23	15	12	8.0
18	90	58	137	266	261	67	91	44	22	15	11	7.8
19	233	56	122	196	199	68	85	42	21	14	11	7.5
20	375	55	100	172	168	69	80	40	21	14	10	7.4
21	277	57	82	147	149	71	74	39	21	12	9.8	8.1
22	214	56	80	120	135	75	68	37	20	12	9.4	8.4
23	174	54	101	115	121	90	69	36	18	12	8.8	8.8
24	145	54	245	109	103	99	161	35	16	11	8.3	8.7
25	124	109	207	106	99	97	210	34	16	10	7.7	8.9
26	111	161	150	104	87	92	178	34	15	10	7.2	10
27	100	149	122	96	83	96	158	33	14	10	6.9	15
28	90	747	98	83	79	203	152	32	13	11	7.0	15
29	81	1030	92	76	---	1260	133	32	13	11	7.3	16
30	83	530	92	75	---	1200	121	32	13	10	8.9	16
31	89	---	89	72	---	862	---	32	---	9.9	17	---
TOTAL	3918	4499	7257	6616	3324	5779	13942	1722	658	453.9	306.5	335.4
MEAN	126	150	234	213	119	186	465	55.5	21.9	14.6	9.89	11.2
MAX	375	1030	739	907	309	1260	2530	120	31	23	17	20
MIN	53	54	80	72	55	64	68	32	13	9.9	6.9	7.4

01429000 WEST BRANCH LACKAWAXEN RIVER AT PROMPTON, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2005, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	66.0	99.7	120	105	121	212	231	131	75.3	38.6	31.1	51.6
MAX	307	362	309	312	369	620	556	329	260	133	127	365
(WY)	1978	1973	1997	1979	1981	1977	1993	1989	1973	1984	1994	2003
MIN	7.15	7.65	17.3	19.1	19.0	60.4	86.5	45.8	17.5	9.66	6.82	6.67
(WY)	1965	1965	1999	1981	1980	1981	1988	1965	1962	1999	1999	1964

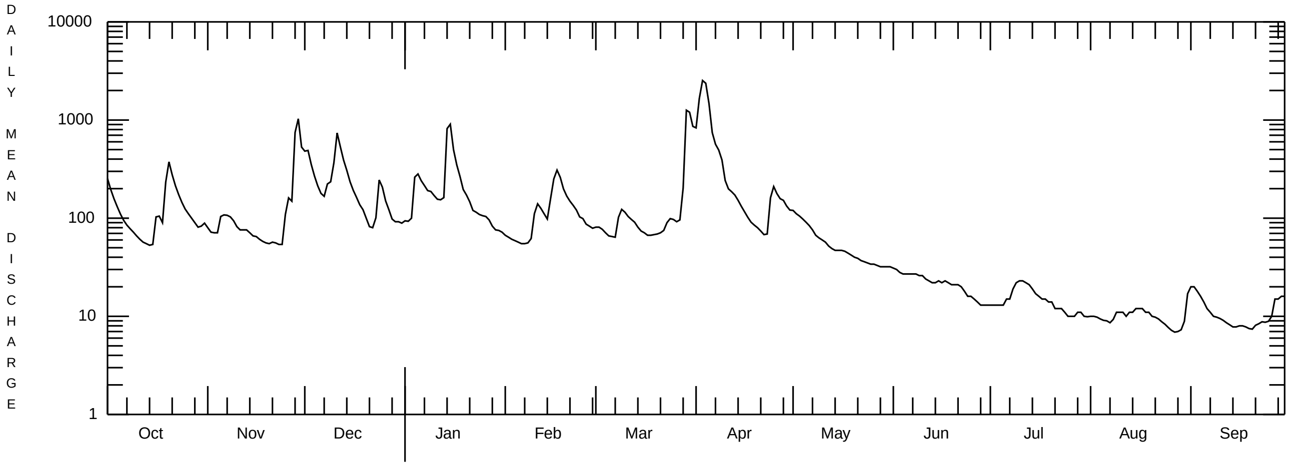
SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1961 - 2005	
ANNUAL TOTAL	51433		48810.8			
ANNUAL MEAN	141		134		107	
HIGHEST ANNUAL MEAN					178	2003
LOWEST ANNUAL MEAN					49.7	1965
HIGHEST DAILY MEAN	1970	Sep 18	2530	Apr 3	2530	Apr 3 2005
LOWEST DAILY MEAN	24	Jul 12	6.9	Aug 27	1.8	Oct 22 1966
ANNUAL SEVEN-DAY MINIMUM	26	Jul 8	7.6	Aug 23	2.0	Oct 22 1966
MAXIMUM PEAK FLOW			2580	Apr 3	3610	Mar 14 1977
MAXIMUM PEAK STAGE			5.84	Apr 3	7.00	Mar 14 1977
INSTANTANEOUS LOW FLOW					1.8	Oct 22 1966
10 PERCENT EXCEEDS	267		252		245	
50 PERCENT EXCEEDS	90		71		58	
90 PERCENT EXCEEDS	40		10		14	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 1960, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	62.2	113	136	130	125	221	264	139	63.6	54.3	45.8	47.0
MAX	376	213	243	245	230	409	539	301	155	190	304	153
(WY)	1956	1946	1951	1952	1951	1945	1958	1947	1960	1947	1955	1960
MIN	15.2	23.7	28.8	36.2	46.4	104	57.4	38.6	16.4	10.3	1.33	11.6
(WY)	1958	1958	1947	1948	1958	1960	1946	1951	1959	1955	1960	1957

SUMMARY STATISTICS	WATER YEARS 1945 - 1960	
ANNUAL MEAN	117	
HIGHEST ANNUAL MEAN	152	1952
LOWEST ANNUAL MEAN	78.1	1957
HIGHEST DAILY MEAN	2440	Aug 19 1955
LOWEST DAILY MEAN	.00	Jul 27 1960
ANNUAL SEVEN DAY MINIMUM	.00	Jul 27 1960
MAXIMUM PEAK FLOW	**a**5860	Aug 18 1955
MAXIMUM PEAK STAGE	9.24	Aug 18 1955
INSTANTANEOUS LOW FLOW	**b**.00	Jul 26 1960
ANNUAL RUNOFF (CFSM)	1.95	
ANNUAL RUNOFF (INCHES)	26.56	
10 PERCENT EXCEEDS	257	
50 PERCENT EXCEEDS	62	
90 PERCENT EXCEEDS	15	

a From rating curve extended above 3,600 ft^3/s.
b No flow July 26 to Aug. 25, 1960, result of construction work upstream.



OCTOBER 1, 2004 TO SEPTEMBER 30, 2005

LACKAWAXEN RIVER BASIN

01429500 DYBERRY CREEK NEAR HONESDALE, PA

LOCATION.--Lat 41°36'26", long 75°16'03", Wayne County, Hydrologic Unit 02040103, on right bank 180 ft upstream from unnamed tributary, 1,700 ft downstream from General Edgar Jadwin Reservoir, 2.1 mi north of Honesdale, and 2.6 mi upstream from mouth.

DRAINAGE AREA.--64.6 mi^2.

PERIOD OF RECORD.--October 1943 to current year. Published as "*at Dyberry*" October 1943 to September 1959 and as "*near Dyberry*" October 1959 to September 1961.

REVISED RECORDS.--WSP 1382: 1947(M), 1950(M), 1951-53.

GAGE.--Water-stage recorder. Datum of gage is 970.70 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1957, nonrecording gage at site 1.9 mi upstream at datum 13.70 ft higher.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated since October 1959 by General Edgar Jadwin Reservoir (station 01429400) 1,700 ft upstream. Several measurements of water temperature were made during the year. Satellite and landline telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 23, 1942 reached a stage of 15.86 ft, from floodmarks, site and datum then in use, discharge not determined.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	213	86	646	110	81	91	1160	152	27	16	17	29
2	161	77	596	101	77	97	1610	130	23	14	13	18
3	138	81	307	124	75	e70	2300	115	21	15	10	13
4	119	85	227	457	76	83	2190	105	22	12	9.4	10
5	106	183	193	278	74	74	1890	95	21	14	8.7	8.4
6	96	123	167	202	75	80	1540	86	20	23	8.3	7.6
7	88	101	190	204	77	83	1070	80	25	20	7.7	7.1
8	81	90	332	187	81	160	438	74	20	31	9.4	6.5
9	76	81	243	193	90	e130	263	68	20	42	24	6.6
10	68	75	568	164	187	124	204	63	23	27	14	7.0
11	64	74	1030	160	e150	100	171	59	22	20	11	5.9
12	58	80	590	171	135	97	148	55	21	16	10	6.0
13	54	86	342	196	111	90	132	49	19	15	11	5.7
14	51	74	252	986	98	83	119	46	17	13	12	6.0
15	62	71	e180	1020	253	80	106	56	16	12	13	e7.0
16	297	69	165	435	327	78	96	51	16	12	10	e7.0
17	139	66	155	287	e300	77	89	43	18	12	9.6	e6.5
18	100	63	136	198	211	82	82	35	16	16	8.9	e6.5
19	541	61	130	148	e150	87	76	35	16	14	8.4	e6.5
20	547	62	e94	177	146	90	71	32	14	12	7.9	e6.0
21	242	70	e90	150	137	98	71	29	13	11	7.5	e6.0
22	187	64	96	e130	133	111	65	28	13	10	7.2	e5.5
23	156	60	165	137	117	145	81	28	13	13	6.8	e5.5
24	136	65	376	131	103	135	402	29	12	14	6.4	e5.0
25	123	268	173	e120	96	123	315	30	13	11	7.1	e5.0
26	112	221	120	e110	e100	114	184	30	11	9.8	7.8	e5.5
27	102	141	e100	e100	e100	133	163	32	11	10	7.7	e7.5
28	94	857	e90	e95	e90	422	179	36	13	13	8.9	7.2
29	87	1340	107	e93	---	1550	146	44	13	12	9.7	7.9
30	103	662	102	92	---	1590	131	33	20	9.8	21	8.0
31	101	---	100	86	---	1360	---	31	---	9.4	38	---
TOTAL	4502	5436	8062	7042	3650	7637	15492	1779	529	479.0	351.4	239.4
MEAN	145	181	260	227	130	246	516	57.4	17.6	15.5	11.3	7.98
MAX	547	1340	1030	1020	327	1590	2300	152	27	42	38	29
MIN	51	60	90	86	74	70	65	28	11	9.4	6.4	5.0

e Estimated.

01429500 DYBERRY CREEK NEAR HONESDALE, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 2005, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	64.7	113	130	116	138	233	244	139	78.7	42.3	32.5	57.3
MAX	292	413	388	402	466	552	572	397	291	170	145	506
(WY)	1977	1973	1997	1996	1981	1977	1993	1989	1972	1973	1994	2003
MIN	4.17	5.48	17.4	20.8	20.2	73.0	83.6	43.3	12.0	3.23	5.21	2.26
(WY)	1965	1965	1999	1981	1980	1981	1985	1965	1962	1962	1999	1980

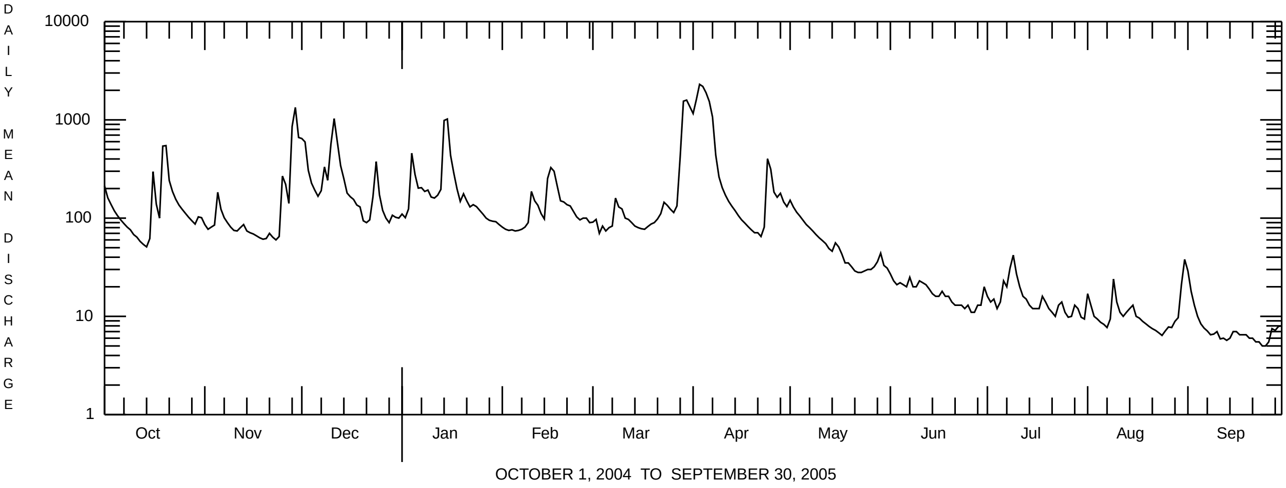
SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1960 - 2005	
ANNUAL TOTAL	55343		55198.8			
ANNUAL MEAN	151		151		116	
HIGHEST ANNUAL MEAN					189	2003
LOWEST ANNUAL MEAN					51.4	1965
HIGHEST DAILY MEAN	2290	Sep 19	2300	Apr 3	2460	Jan 20 1996
LOWEST DAILY MEAN	19	Jul 4,11,12	**e**5.0	Sep 24,25	1.2	Jul 29 1970
ANNUAL SEVEN-DAY MINIMUM	23	Jul 1	**a**5.5	Sep 20	1.8	Oct 5 1980
MAXIMUM PEAK FLOW			2340	Apr 2	2750	Sep 18 2004
MAXIMUM PEAK STAGE			6.99	Apr 2	7.44	Sep 18 2004
INSTANTANEOUS LOW FLOW					**b**0.00	Oct 2 1968
10 PERCENT EXCEEDS	294		282		252	
50 PERCENT EXCEEDS	90		80		58	
90 PERCENT EXCEEDS	35		8.4		10	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1959, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	53.7	110	128	119	109	236	262	145	55.8	68.9	45.7	30.5
MAX	348	263	255	248	227	539	628	345	127	293	339	90.8
(WY)	1956	1946	1953	1952	1951	1945	1958	1947	1946	1952	1955	1952
MIN	10.2	18.8	20.4	29.0	47.4	91.8	59.9	44.4	19.2	8.16	5.82	5.30
(WY)	1948	1947	1947	1944	1958	1949	1946	1955	1959	1955	1953	1953

SUMMARY STATISTICS	WATER YEARS 1944 - 1959	
ANNUAL MEAN	114	
HIGHEST ANNUAL MEAN	170	1952
LOWEST ANNUAL MEAN	77.2	1957
HIGHEST DAILY MEAN	5880	Jul 10 1952
LOWEST DAILY MEAN	2.0	Oct 5 1953
ANNUAL SEVEN DAY MINIMUM	2.3	Sep 29 1953
MAXIMUM PEAK FLOW	**c**15500	Jul 10 1952
MAXIMUM PEAK STAGE	**d**14.60	Jul 10 1952
ANNUAL RUNOFF (CFSM)	1.76	
ANNUAL RUNOFF (INCHES)	23.91	
10 PERCENT EXCEEDS	252	
50 PERCENT EXCEEDS	54	
90 PERCENT EXCEEDS	9.4	

a Computed using estimated daily discharges.
b Result of shutoff at General Jadwin Reservoir.
c From rating curve extended above 2,500 ft^3/s on basis of slope-area measurement at gage height 13.78 ft.
d Site and datum then in use.
e Estimated.



01430000 LACKAWAXEN RIVER NEAR HONESDALE, PA

LOCATION.--Lat 41°33'43", long 75°14'54", Wayne County, Hydrologic Unit 02040103, on right bank at Lemnitzer Bridge (Brown Street), on U.S. Highway 6, and 1.2 mi downstream from Dyberry Creek and Honesdale.

DRAINAGE AREA.--164 mi^2.

PERIOD OF RECORD.--October 1948 to September 1969, October 1985 to current year. Occasional discharge measurements and annual maximums, water years 1974-85.

REVISED RECORDS.--WDR PA 90-1: 1989. WDR PA 94-1: 1989(M).

GAGE.--Water-stage recorder. Datum of gage is 946.34 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated since 1960 by Prompton Reservoir (station 01428900) and at high flow since 1959 by General Edgar Jadwin Reservoir (station 01429400). Several measurements of water temperature were made during the year. Satellite and landline telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of May 1942 reached a stage of 24.5 ft, from data furnished by Corps of Engineers, discharge about 34,000 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	641	206	1550	250	e210	e200	2510	344	80	40	34	51
2	470	189	1490	237	e200	e200	4940	303	74	36	31	40
3	383	191	909	296	e190	e190	6350	274	69	36	28	34
4	312	199	659	957	e160	e190	4840	254	70	33	26	30
5	263	373	529	758	e160	e180	3490	233	66	35	25	28
6	227	297	441	580	e160	e180	2420	211	72	46	25	26
7	207	260	471	538	159	179	1830	190	73	42	23	25
8	191	237	734	499	162	e290	1120	173	67	62	33	23
9	178	213	632	498	183	e310	818	162	65	77	39	22
10	165	196	1330	430	369	e300	570	156	67	57	32	22
11	152	185	2350	404	394	e260	461	152	65	47	29	21
12	142	194	1550	415	312	232	407	141	62	41	28	21
13	135	202	1020	464	267	214	369	129	57	38	29	20
14	127	182	755	2460	234	202	327	123	53	36	e29	22
15	170	170	553	2460	501	194	286	137	49	34	e29	22
16	530	166	451	1280	742	183	255	131	50	34	e30	22
17	321	159	400	870	811	179	229	121	51	37	29	22
18	240	152	337	e660	597	185	208	113	48	40	27	21
19	1160	147	309	e600	e470	193	192	109	46	37	26	20
20	1370	147	e270	e480	e370	200	176	102	43	34	26	20
21	773	158	e240	e360	350	212	168	96	41	32	25	20
22	559	152	207	e320	321	241	156	91	40	31	24	20
23	443	142	352	e290	286	308	192	89	39	32	22	21
24	372	152	813	e290	e260	306	739	88	38	34	22	20
25	321	435	473	e280	e240	285	651	88	37	30	21	20
26	286	512	328	e270	e230	269	451	87	36	28	21	23
27	258	370	e280	e270	e220	304	391	88	34	28	21	30
28	232	2320	e250	e250	e210	1030	412	94	46	31	22	32
29	211	2920	238	e240	---	4370	347	107	47	31	21	32
30	229	1560	232	e220	---	3570	316	95	46	28	26	31
31	232	---	230	e220	---	2790	---	89	---	27	59	---
TOTAL	11300	12786	20383	18146	8768	17946	35621	4570	1631	1174	862	761
MEAN	365	426	658	585	313	579	1187	147	54.4	37.9	27.8	25.4
MAX	1370	2920	2350	2460	811	4370	6350	344	80	77	59	51
MIN	127	142	207	220	159	179	156	87	34	27	21	20

e Estimated.

01430000 LACKAWAXEN RIVER NEAR HONESDALE, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 1969, 1986 - 2005, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	166	294	312	286	281	564	569	337	202	91.7	88.3	159
MAX	504	650	925	884	716	1133	1464	985	634	255	364	1140
(WY)	2003	1987	1997	1996	1990	1986	1993	1989	2003	1996	1994	2003
MIN	14.5	16.5	39.1	73.5	106	261	240	123	43.9	20.3	17.2	12.3
(WY)	1965	1965	1999	1961	1963	1965	1988	2001	1962	1965	1964	1964

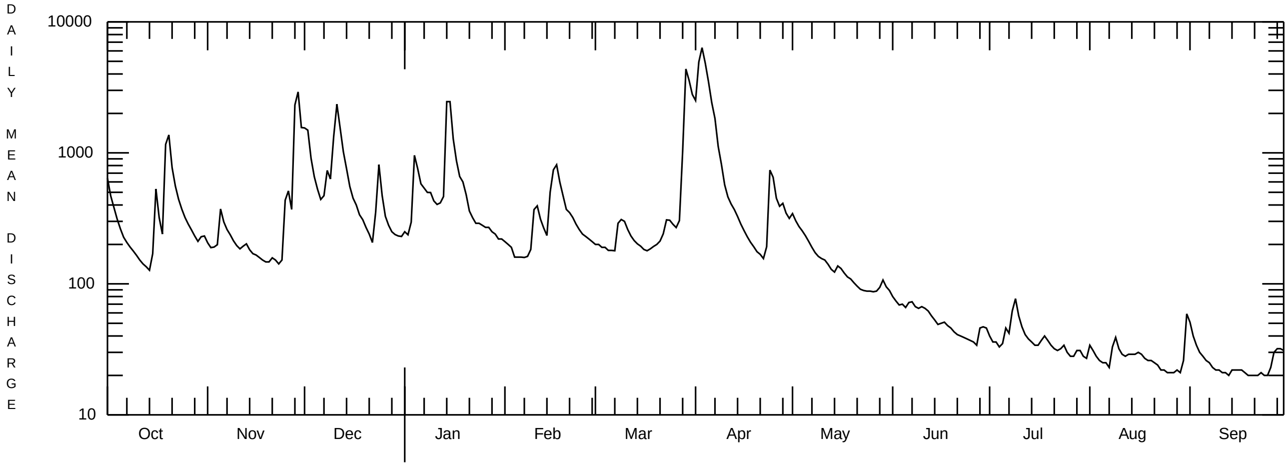
SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1960 - 1969 1986 - 2005	
ANNUAL TOTAL	135381		133948			
ANNUAL MEAN	370		367		279	
HIGHEST ANNUAL MEAN					484	2003
LOWEST ANNUAL MEAN					130	1965
HIGHEST DAILY MEAN	6920	Sep 18	6350	Apr 3	6920	Sep 18 2004
LOWEST DAILY MEAN	54	Jul 11	20	Sep 13**a**	8.8	Sep 25 1964
ANNUAL SEVEN-DAY MINIMUM	63	Jul 6	20	Sep 19	9.7	Sep 21 1964
MAXIMUM PEAK FLOW			8550	Apr 2	10100	Sep 18 2004
MAXIMUM PEAK STAGE			9.62	Apr 2	10.54	Sep 18 2004
INSTANTANEOUS LOW FLOW					6.2	Sep 25 1964
10 PERCENT EXCEEDS	774		740		610	
50 PERCENT EXCEEDS	210		190		152	
90 PERCENT EXCEEDS	93		26		29	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 1959, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	151	281	412	377	364	538	746	322	126	112	125	83.1
MAX	955	520	649	669	664	788	1458	592	304	425	865	189
(WY)	1956	1956	1951	1962	1951	1951	1958	1952	1956	1952	1955	1952
MIN	37.9	80.6	154	130	127	291	379	108	47.8	26.2	20.6	26.2
(WY)	1949	1958	1956	1956	1958	1949	1955	1951	1959	1955	1953	1957

SUMMARY STATISTICS	WATER YEARS 1949 - 1959	
ANNUAL MEAN	302	
HIGHEST ANNUAL MEAN	428	1952
LOWEST ANNUAL MEAN	209	1957
HIGHEST DAILY MEAN	8920	Aug 19 1955
LOWEST DAILY MEAN	12	Aug 29 1953
ANNUAL SEVEN DAY MINIMUM	12	Aug 29 1953
MAXIMUM PEAK FLOW	**b**18600	Aug 18 1955
MAXIMUM PEAK STAGE	15.52	Aug 18 1955
ANNUAL RUNOFF (CFSM)	1.84	
ANNUAL RUNOFF (INCHES)	25.06	
10 PERCENT EXCEEDS	695	
50 PERCENT EXCEEDS	152	
90 PERCENT EXCEEDS	32	

a Also Sept. 19-22, 24, 25.
b From rating curve extended above 11,000 ft^3/s.



01431500 LACKAWAXEN RIVER AT HAWLEY, PA

LOCATION.--Lat 41°28'34", long 75°10'21", Wayne County, Hydrologic Unit 02040103, on left bank at bridge on Church Street in Hawley, 700 ft upstream from Wallenpaupack Creek, and 3,000 ft downstream from Middle Creek.

DRAINAGE AREA.--290 mi^2.

PERIOD OF RECORD.--July 1908 to September 1917, August 1938 to current year. Monthly discharge only for some periods, published in WSP 1302. October 1917 to December 1919, gage heights and discharge measurements only, in reports of Water Supply Commission of Pennsylvania.

REVISED RECORDS.--WSP 1951: 1938-41. WSP 1302: 1909-17. WSP 1432: 1942. WSP 1502: 1956.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 869.00 ft above National Geodetic Vertical Datum of 1929. Prior to 1938, nonrecording gage at same site and datum, and Aug 20, 1955, to Feb. 13, 1956, nonrecording gage at site 1,000 ft downstream at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Regulation since 1960 by Prompton Reservoir (station 01428900) 14.9 mi upstream, and at high flow since 1959 by General Edgar Jadwin Reservoir (station 01429400) 13.0 mi upstream. Several measurements of water temperature were made during the year. Satellite and landline telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1936 reached a stage of 19.1 ft at present site, 13.9 ft at former site, from floodmarks, discharge, 27,600 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1130	385	2470	504	e500	e370	4010	584	143	100	37	75
2	835	345	2570	483	e480	e370	7620	527	133	78	41	63
3	690	345	1530	554	e460	e350	17100	473	127	68	35	50
4	579	362	1130	1660	e380	e340	9190	436	132	61	32	43
5	495	653	923	1360	353	330	6830	400	130	58	30	38
6	430	565	788	1050	331	325	5430	369	136	77	30	36
7	400	476	821	960	326	349	3930	335	180	83	26	35
8	362	427	1250	912	329	635	1920	312	146	118	66	33
9	334	384	1100	950	361	654	1250	292	127	170	75	32
10	314	354	2100	812	711	575	933	276	126	140	52	32
11	284	338	4280	768	749	483	756	265	134	106	42	e31
12	268	356	2640	768	590	442	660	253	132	85	41	e31
13	251	397	1700	850	504	414	600	228	126	73	78	e30
14	237	355	1310	4870	446	383	541	224	109	67	67	e32
15	235	325	982	4470	788	361	486	242	97	59	124	e31
16	838	312	801	2240	1230	356	438	233	95	56	67	e31
17	583	297	719	1490	1380	346	403	210	118	59	55	e31
18	434	283	628	1070	1010	369	375	195	109	66	45	e30
19	1750	274	585	877	763	392	343	184	97	60	41	e30
20	2500	273	479	851	683	423	321	175	91	55	39	e29
21	1350	298	e420	e710	626	458	309	166	81	48	36	e30
22	963	290	e400	e640	589	526	288	159	76	45	33	e32
23	773	272	679	e630	537	668	350	156	73	45	32	e33
24	656	271	1580	e600	470	632	1360	156	68	45	30	e32
25	581	633	932	e550	e440	591	1090	155	62	43	27	e32
26	523	828	660	e530	e400	567	756	154	60	39	28	e34
27	474	612	582	e530	e390	656	643	155	59	38	28	e34
28	432	3690	517	e530	e380	2030	670	161	83	38	35	34
29	398	4860	498	e520	---	8330	584	191	122	40	36	35
30	428	2530	465	e500	---	6090	539	178	153	37	37	35
31	445	---	458	e500	---	4540	---	160	---	34	66	---
TOTAL	19972	21790	35997	33739	16206	33355	69725	8004	3325	2091	1411	1074
MEAN	644	726	1161	1088	579	1076	2324	258	111	67.5	45.5	35.8
MAX	2500	4860	4280	4870	1380	8330	17100	584	180	170	124	75
MIN	235	271	400	483	326	325	288	154	59	34	26	29

e Estimated.

01431500 LACKAWAXEN RIVER AT HAWLEY, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 2005, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	272	457	565	512	561	1008	1023	606	370	177	142	239
MAX	1056	1643	1671	1915	1434	2651	2392	1826	1475	680	522	1830
(WY)	1977	1973	1997	1996	1976	1977	1994	1989	1972	1984	1994	2003
MIN	20.8	25.7	62.6	92.0	133	280	348	196	63.6	29.7	26.1	20.5
(WY)	1965	1965	1999	1981	1980	1981	1988	1962	1965	1965	1999	1964

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1960 - 2005	
ANNUAL TOTAL	237672		246689			
ANNUAL MEAN	649		676		494	
HIGHEST ANNUAL MEAN					841	2003
LOWEST ANNUAL MEAN					204	1965
HIGHEST DAILY MEAN	12700	Sep 18	17100	Apr 3	17100	Apr 3 2005
LOWEST DAILY MEAN	88	Jul 11	26	Aug 7	14	Aug 12 1999
ANNUAL SEVEN-DAY MINIMUM	103	Jul 6	**a**30	Sep 15	15	Aug 7 1999
MAXIMUM PEAK FLOW			**b**19600	Apr 3	**b**19600	Apr 3 2005
MAXIMUM PEAK STAGE			15.24	Apr 3	15.24	Apr 3 2005
10 PERCENT EXCEEDS	1280		1250		1130	
50 PERCENT EXCEEDS	398		354		258	
90 PERCENT EXCEEDS	169		35		54	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1909-17, 1939-59, BY WATER YEAR (WY) (PRIOR TO REGULATION)

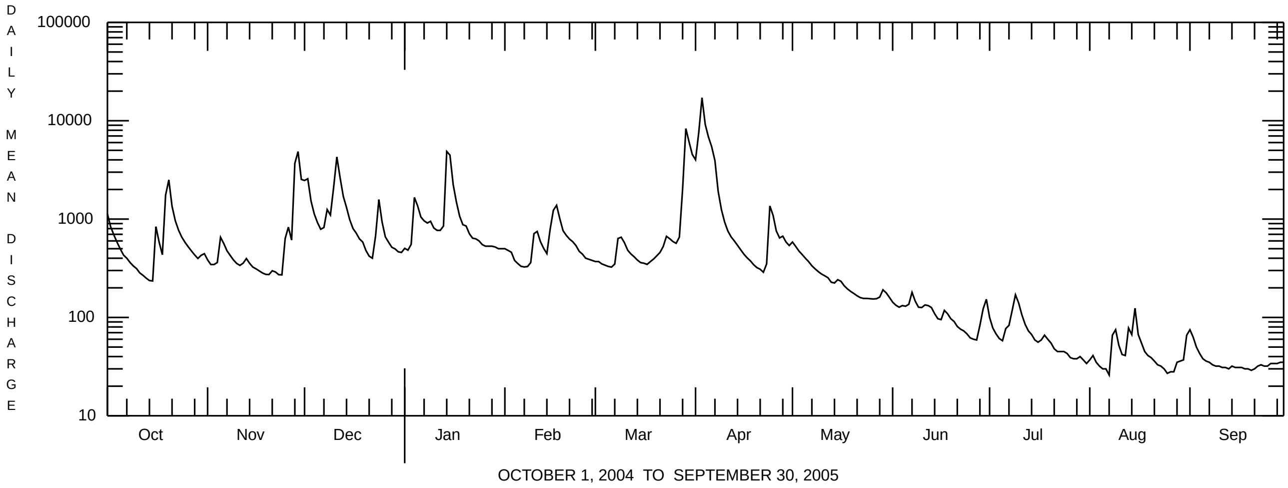
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	239	388	482	527	555	1019	1117	629	296	236	209	156
MAX	1773	1116	1166	1235	1279	2985	2644	1531	680	1246	2485	601
(WY)	1956	1956	1951	1913	1909	1945	1940	1942	1916	1947	1955	1945
MIN	25.4	28.6	89.0	116	180	353	280	166	79.7	38.2	32.1	24.6
(WY)	1910	1910	1909	1944	1940	1915	1946	1941	1959	1955	1957	1909

SUMMARY STATISTICS	WATER YEARS 1909 - 1917 1939 - 1959	
ANNUAL MEAN	487	
HIGHEST ANNUAL MEAN	748	1952
LOWEST ANNUAL MEAN	316	1917
HIGHEST DAILY MEAN	28100	May 23 1942
LOWEST DAILY MEAN	8.0	Sep 8 1909
ANNUAL SEVEN DAY MINIMUM	12	Sep 4 1909
MAXIMUM PEAK FLOW	**b**51900	Aug 19 1955
MAXIMUM PEAK STAGE	**c**24.80	Aug 19 1955
ANNUAL RUNOFF (CFSM)	1.68	
ANNUAL RUNOFF (INCHES)	22.83	
10 PERCENT EXCEEDS	1110	
50 PERCENT EXCEEDS	242	
90 PERCENT EXCEEDS	49	

a Computed using estimated daily discharges.

b From rating curve extended above 12,000 ft^3/s on basis of slope-area measurement at gage height 20.1 ft.

c From floodmark.



01432000 WALLENPAUPACK CREEK AT WILSONVILLE, PA

LOCATION.--Lat 41°27'33", long 75°11'08", Pike County, Hydrologic Unit 02040103, at hydroelectric plant of Pennsylvania Power and Light Co., at lower end of penstock, at Kimble, and 1.2 mi south of Hawley.

DRAINAGE AREA.--228 mi^2.

PERIOD OF RECORD.--October 1909 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 756: Drainage area. WSP 1302: 1918, 1923-24. WSP 1432: 1920-21. WSP 2102: 1966 (monthly mean). WDR PA-92-1: 1990.

GAGE.--Daily discharge determined from flow through turbines, computed from records of generator output and flow over roller gates on basis of head on gates. Prior to Nov. 3, 1925, nonrecording gage at site 1,000 ft downstream from dam at datum 1,146.78 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. No flow over spillway or roller gates. Flow regulated since 1925 by Lake Wallenpaupack (station 01431700).

COOPERATION.--Records of generator load, operation of power plant, net operation head, water-surface elevations in lake, and daily discharges furnished by Pennsylvania Power and Light Co., in connection with a Federal Energy Regulatory Commission project.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	858	337	1070	597	645	647	1650	0	0	453	158	306
2	906	310	1140	582	674	694	1670	238	0	0	140	279
3	906	230	1210	268	684	592	6260	250	0	0	151	0
4	821	314	1190	375	866	594	3170	336	0	0	133	0
5	821	317	1080	548	467	582	3430	401	0	458	378	0
6	826	0	1090	689	400	509	3600	328	0	418	0	205
7	827	0	1170	799	497	660	2950	0	0	513	0	345
8	907	286	1060	878	430	564	1910	0	0	497	0	296
9	903	293	1120	887	526	617	1720	0	371	0	0	245
10	906	315	1060	1060	558	574	1720	0	324	0	0	284
11	829	296	779	1130	570	526	1720	0	0	505	378	0
12	908	516	704	1060	2	45	1720	0	0	731	357	168
13	896	0	1080	1050	0	0	1720	0	847	490	0	222
14	908	0	1060	1070	277	404	1730	0	710	615	0	136
15	829	201	1180	1000	321	375	1720	0	389	637	0	171
16	832	527	1200	1000	266	452	20	0	449	81	0	288
17	832	399	1150	1390	329	383	0	0	280	0	0	0
18	530	569	676	1310	274	414	510	0	0	650	0	0
19	493	297	839	1390	0	0	942	0	0	712	0	180
20	529	0	707	1320	0	0	965	0	433	530	0	207
21	436	0	606	1340	0	349	804	0	582	634	0	159
22	587	369	737	1390	494	464	667	0	490	649	0	241
23	637	261	662	1460	763	521	0	0	520	5	0	209
24	722	309	671	1430	646	447	0	0	419	0	0	266
25	970	0	422	1350	477	393	546	0	0	534	257	0
26	1070	0	847	1360	558	0	904	0	0	313	623	0
27	654	0	869	1290	597	0	708	0	545	292	1070	0
28	405	0	954	1410	547	353	635	0	575	375	0	0
29	631	775	833	1470	---	400	260	0	517	546	0	0
30	4	1070	930	1370	---	731	0	0	295	0	15	0
31	0	---	903	877	---	1250	---	0	---	0	0	---
TOTAL	22383	7991	28999	33150	11868	13540	43651	1553	7746	10638	3660	4207
MEAN	722	266	935	1069	424	437	1455	50.1	258	343	118	140
MAX	1070	1070	1210	1470	866	1250	6260	401	847	731	1070	345
MIN	0.00	0.00	422	268	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

01432000 WALLENPAUPACK CREEK AT WILSONVILLE, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1926 - 2005, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	277	251	369	458	438	405	472	346	385	344	304	341
MAX	750	1012	1242	1070	1112	1125	1500	1849	1573	965	995	1018
(WY)	1956	1956	1997	1978	1978	1998	1958	1996	1972	1928	1969	1987
MIN	1.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	1996	2001	1926	1926	1926	1926	1926	1926	1958	1956	1956	1956

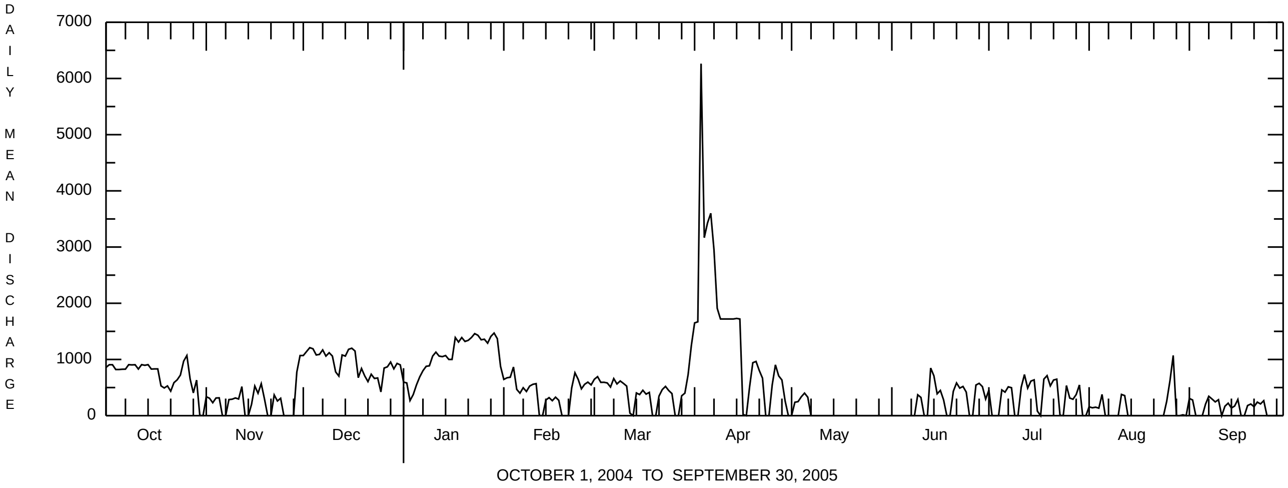
SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1926 - 2005	
ANNUAL TOTAL	186852.00		189386.00			
ANNUAL MEAN	511		519		365	
HIGHEST ANNUAL MEAN					638	1996
LOWEST ANNUAL MEAN					86.9	1926
HIGHEST DAILY MEAN	1620	Aug 14,15	6260	Apr 3	9650	May 25 1996
LOWEST DAILY MEAN	0.00	Feb 1**a**	0.00	Oct 31**a**	0.00	Nov 4 1925**a**
ANNUAL SEVEN-DAY MINIMUM	0.00	Apr 24	0.00	May 7	0.00	Nov 4 1925
10 PERCENT EXCEEDS	1030		1140		922	
50 PERCENT EXCEEDS	422		405		247	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1910 - 1925, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	235	271	384	490	426	868	831	468	307	206	143	144
MAX	542	627	1043	1219	1031	1656	1677	682	838	575	532	366
(WY)	1913	1920	1921	1911	1915	1920	1916	1924	1917	1916	1915	1915
MIN	28.0	32.0	69.5	104	156	344	396	283	115	57.0	49.0	35.0
(WY)	1910	1910	1923	1918	1920	1924	1925	1922	1921	1912	1910	1910

SUMMARY STATISTICS	WATER YEARS 1910 - 1925	
MEAN	397	
HIGHEST MEAN	527	1916
LOWEST MEAN	279	1923
HIGHEST DAILY MEAN	4840	Mar 29 1914
LOWEST DAILY MEAN	8.0	Sep 30 1917
SEVEN-DAY MINIMUM	10	Aug 14 1911
10 PERCENT EXCEEDS	910	
50 PERCENT EXCEEDS	240	
90 PERCENT EXCEEDS	60	

a Many days each year.



LAKES AND RESERVOIRS IN LACKAWAXEN RIVER BASIN

01428900 PROMPTON RESERVOIR.--Lat 41°35'18", long 75°19'39", Wayne County, Hydrologic Unit 02040103, at dam on West Branch Lackawaxen River, 0.3 mi north of Prompton, 0.4 mi upstream from highway bridge, and 0.5 mi upstream from Van Auken Creek. DRAINAGE AREA, 59.6 mi^2. PERIOD OF RECORD, December 1960 to current year. GAGE, data collection platform (U.S. Army Corps of Engineers datum).

REMARKS.--Reservoir formed by an earth and rockfill dam with ungated bedrock spillway at elevation 1,205.00 ft. Storage began July 1960. Capacity at elevation 1,205.00 ft is 51,700 acre-ft. Ordinary minimum (conservation) pool is 1,125.00 ft, capacity, 3,420 acre-ft. Reservoir is used for flood control and recreation. Figures given herein represent total contents. Regulation is accomplished by discharge through an ungated tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 9,130 acre-ft, Apr. 3, 2005, elevation, 1,140.90 ft; minimum (after first filling), 2,500 acre-ft, June 5, 1991, elevation, 1,121.46 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 9,130 acre-ft, Apr. 3, elevation, 1,140.90 ft; minimum contents, 2,900 acre-ft, Aug. 27, elevation, 1,122.86 ft.

01429400 GENERAL EDGAR JADWIN RESERVOIR.--Lat 41°36'44", long 75°15'55", Wayne County, Hydrologic Unit 02040103, at dam on Dyberry Creek, 0.4 mi upstream from unnamed tributary, 2.4 mi north of Honesdale, and 2.9 mi upstream from mouth. DRAINAGE AREA, 64.5 mi^2. PERIOD OF RECORD, October 1959 to current year. GAGE, data collection platform (U.S. Army Corps of Engineers datum).

REMARKS.--Reservoir formed by an earth and rockfill dam with ungated concrete spillway at elevation 1,053.00 ft. Storage began October 1959. Capacity at elevation of 1,053.00 ft is 24,500 acre-ft. Reservoir is used for flood control. Figures given herein represent total contents. Regulation is accomplished by discharge through an ungated tunnel. Since Oct. 1, 1996, pool elevations below 990 ft NGVD are not recorded.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 7,600 acre-ft, Apr. 3, 2005, elevation, 1,020.51 ft; minimum contents, no storage many times.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 7,600 acre-ft, Apr. 3, elevation, 1,020.51 ft; minimum contents, no storage many times.

01431700 LAKE WALLENPAUPACK.--Lat 41°27'35", long 75°11'10", Wayne County, Hydrologic Unit 02040103, at dam on Wallenpaupack Creek at Wilsonville, 1.2 mi south of Hawley, and 1.5 mi upstream from mouth. DRAINAGE AREA, 228 mi^2. PERIOD OF RECORD, January 1926 to current year. GAGE, vertical staff. Datum of gage is sea level (levels by Pennsylvania Power and Light Co.).

REMARKS.--Lake formed by concrete gravity-type and earthfill dam, with concrete spillway in two sections at elevation 1,176.00 ft. Spillway equipped with 14 ft high roller gate on each section. Storage began Nov. 3, 1925; water in reservoir first reached minimum pool elevation January 1926. Minimum pool elevation for usable storage since Sept. 30, 2004 is 1,160.00 ft. From 1984 to Sept. 30, 2004, minimum pool elevation for usable storage was 1,170.00 ft, which resulted in contents that are 48,900 acre-ft less than those currently used. Minimum pool elevation for usable storage prior to 1984 was 1,160.00 ft. Figures given herein represent usable contents.

COOPERATION.--Records provided by Pennsylvania Power and Light Co.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 178,200 acre-ft, (pre-1984 contents), Aug. 19-21, 1955, elevation, 1,193.45 ft; minimum (after first filling), 12,280 acre-ft (pre-1984 contents), Mar. 28, 1958, elevation, 1,162.60 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 158,400 acre-ft, Apr. 3, elevation, 1,190.1 ft; minimum contents, 94,620 acre-ft, Sept. 24, elevation 1,178.7 ft.

Lakes and Reservoirs in Lackawaxen River Basin--Continued

MONTHEND ELEVATION, IN FEET ABOVE SEA LEVEL, AND CONTENTS AT 2400 HRS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in ft^3/s)	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in ft^3/s)
	01428900 Prompton Reservoir			01429400 General Edgar Jadwin Reservoir		
Sept. 30	1,126.60	3,950	---	--	0	---
Oct. 31	1,125.27	3,580	-6.0	--	0	0
Nov. 30	1,127.25	4,130	+9.2	--	0	0
Dec. 31	1,125.32	3,590	-8.8	--	0	0
CAL YR 2004	--	--	-0.7	--	--	0
Jan. 31	1,125.16	3,540	-0.8	--	0	0
Feb. 28	1,125.24	3,570	+0.5	--	0	0
Mar. 31	1,129.01	4,620	+17.1	996.19	1,330	+21.6
Apr. 30	1,126.01	3,780	-14.1	--	0	-22.4
May 31	1,124.23	3,280	-8.1	--	0	0
June 30	1,123.27	3,020	-4.4	--	0	0
July 31	1,123.05	2,950	-1.1	--	0	0
Aug. 31	1,123.27	3,020	+1.1	--	0	0
Sept. 30	1,123.18	2,990	-0.5	--	0	0
WTR YR 2005	--	--	-1.3	--	--	0

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in ft^3/s)
	01431700 Lake Wallenpaupack		
Sept. 30	1,186.1	[a]135,400	---
Oct. 31	1,182.8	116,900	-301
Nov. 30	1,185.3	130,900	+235
Dec. 31	1,184.5	126,500	-71.6
CAL YR 2004	--	--	-0.7
Jan. 31	1,183.9	123,100	-55.3
Feb. 28	1,183.3	119,700	-61.2
Mar. 31	1,186.2	136,000	+265
Apr. 30	1,184.8	128,100	-133
May 31	1,186.1	135,400	+119
June 30	1,185.0	129,300	-103
July 31	1,181.8	111,400	-291
Aug. 31	1,180.6	104,900	-106
Sept. 30	1,178.8	95,160	-164
WTR YR 2005	--	--	-55.6

[a] Contents were obtained using minimum pool elevation for usable storage of 1,160.00 ft, used since 2005 water year. Contents for 2004 water year were obtained using minimum pool elevation for usable storage of 1,170.00 ft.

01438500 DELAWARE RIVER AT MONTAGUE, NJ

LOCATION.--Lat 41°18'33", long 74°47'43", Pike County, PA, Hydrologic Unit 02040104, on right bank 1,500 ft upstream from toll bridge (on U.S. Route 206) between Montague, NJ and Milford, PA, 0.8 mi downstream from Sawkill Creek, and at river mile 246.3.

DRAINAGE AREA.--3,480 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1936 to September 1939 (gage heights only, published as "at Milford, PA"). October 1939 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WDR-NJ-81-2: 1980.

GAGE.--Water-stage recorder. Datum of gage is 369.93 ft above NGVD of 1929. Prior to Feb. 9, 1940, nonrecording gage on upstream side of left span of subsequently dismantled bridge at present site at datum 70 ft lower.

REMARKS.-- Records good, except for estimated daily discharges, which are fair. Diurnal fluctuation at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lake Wallenpaupack, Cliff Lake, and by Pepacton, Cannonsville, Swinging Bridge, Toronto, and Neversink Reservoirs. Information on the above lakes and reservoir can be found in the annual Water-Data Report NJ-05-1. Several measurements of water temperature were made during the year. Satellite gage-height telemetry at station.

DISCHARGE, CUBIC FEET PER SECOND (CONTINUED)
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15,800	3,700	18,700	7,590	5,680	5,050	36,000	8,260	1,910	2,600	1,740	1,950
2	12,800	3,720	26,800	7,460	5,500	5,050	51,000	7,920	1,920	2,500	1,810	1,970
3	11,500	3,850	19,500	6,890	5,350	4,980	176,000	7,320	1,800	1,790	1,820	1,880
4	10,200	3,690	15,700	9,990	5,310	4,420	111,000	6,820	1,730	1,810	1,740	1,500
5	8,910	4,570	13,600	12,000	4,740	4,360	54,900	6,410	1,700	1,560	1,710	1,590
6	7,890	4,660	12,100	11,200	4,390	4,120	37,500	6,580	1,680	1,980	1,810	1,670
7	6,970	3,740	11,000	10,900	4,680	4,360	29,000	5,650	2,060	2,330	1,680	1,640
8	6,780	3,410	12,400	10,200	4,470	5,610	23,200	5,230	2,560	2,920	1,760	1,830
9	5,940	3,660	12,700	10,500	4,550	6,440	19,300	4,890	2,390	3,160	1,990	1,790
10	5,160	3,390	13,500	9,710	5,920	5,630	16,200	4,280	2,520	2,290	2,000	1,790
11	4,570	3,100	22,600	9,320	7,870	5,120	13,900	3,970	2,620	2,040	1,850	1,950
12	4,310	3,160	22,800	8,950	6,650	4,800	12,000	3,660	2,410	2,260	2,110	1,770
13	4,110	3,300	19,000	9,090	5,360	4,760	10,700	3,340	2,350	2,530	2,210	1,800
14	3,900	2,920	16,200	32,800	4,730	4,390	9,720	3,070	3,180	2,330	2,080	1,890
15	3,790	2,790	13,600	55,300	6,270	4,420	8,750	3,220	2,680	2,360	2,250	1,820
16	4,310	3,000	12,000	33,800	9,600	4,110	7,090	3,440	2,340	2,320	1,780	1,860
17	5,800	3,310	10,800	24,400	11,500	4,060	5,560	3,160	2,400	1,600	1,550	1,620
18	4,710	3,170	9,250	e17,000	10,600	3,830	4,990	3,030	2,250	1,570	1,630	1,330
19	5,010	3,230	8,470	e13,500	8,870	3,770	5,200	2,630	1,970	2,210	1,580	1,570
20	11,000	3,010	e7,200	e12,500	8,270	3,530	5,010	2,270	1,930	2,240	1,630	1,730
21	8,590	2,800	e5,900	e9,900	7,500	3,870	4,870	2,140	2,270	1,950	1,630	1,790
22	6,950	2,920	e5,100	e7,800	7,010	4,490	4,580	2,080	2,330	2,010	1,610	1,760
23	6,510	3,400	6,590	e7,100	6,950	5,220	4,010	2,060	2,000	2,050	1,710	1,860
24	5,820	3,280	15,800	e6,900	6,340	5,630	7,610	2,130	2,040	1,750	1,750	1,820
25	5,640	3,870	15,600	e7,700	5,610	5,510	12,000	2,070	1,960	1,650	1,720	1,870
26	5,450	6,150	12,500	e8,000	5,250	5,230	10,000	2,100	1,810	1,960	1,770	1,770
27	5,170	6,260	e10,500	e6,900	5,120	4,850	9,140	2,070	1,890	1,830	2,710	1,560
28	4,520	10,900	e9,500	e6,200	5,290	7,900	11,000	2,050	2,470	1,770	2,600	1,370
29	4,420	33,300	8,940	e6,500	---	57,000	10,400	2,200	2,450	1,780	1,950	1,640
30	4,140	21,300	8,520	e6,700	---	56,100	8,750	2,230	2,800	1,920	1,860	1,720
31	3,860	---	8,000	6,560	---	40,200	---	2,090	---	1,740	2,120	---
TOTAL	204,530	163,560	404,870	393,360	179,380	288,810	719,380	118,370	66,420	64,810	58,160	52,110
MEAN	6,598	5,452	13,060	12,690	6,406	9,316	23,980	3,818	2,214	2,091	1,876	1,737
MAX	15,800	33,300	26,800	55,300	11,500	57,000	176,000	8,260	3,180	3,160	2,710	1,970
MIN	3,790	2,790	5,100	6,200	4,390	3,530	4,010	2,050	1,680	1,560	1,550	1,330

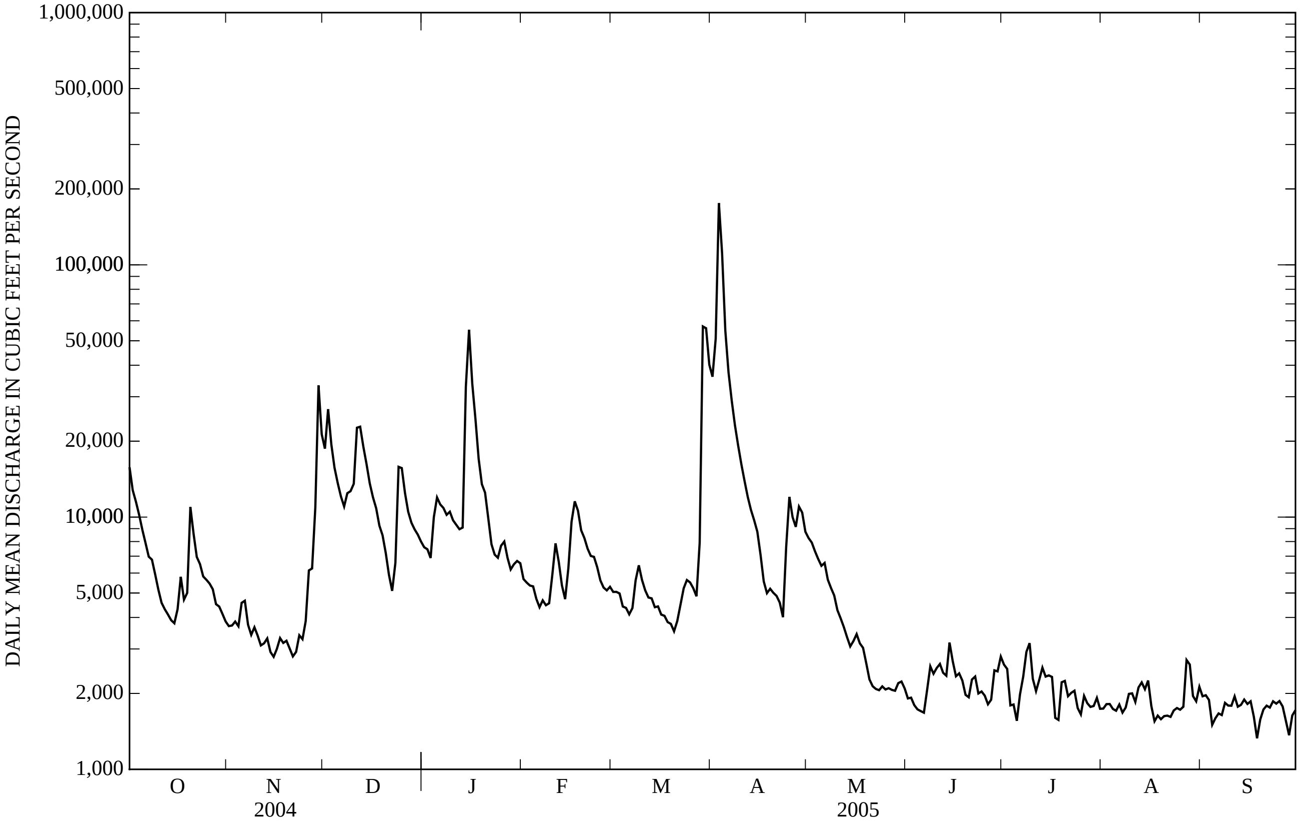
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2005, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3,478	5,140	6,350	5,892	5,846	9,903	11,890	7,295	4,519	3,037	2,687	2,996
MAX	15,690	13,010	18,830	15,600	15,120	24,480	31,560	16,090	15,200	11,220	14,230	17,200
(WY)	(1956)	(2004)	(1997)	(1996)	(1976)	(1945)	(1940)	(1943)	(1972)	(1945)	(1955)	(2004)
MIN	807	995	1,665	1,318	1,748	3,191	3,322	2,215	1,214	864	715	892
(WY)	(1942)	(1965)	(1999)	(1981)	(1980)	(1981)	(1985)	(1965)	(1965)	(1954)	(1954)	(1941)

01438500 DELAWARE RIVER AT MONTAGUE, NJ--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1940 - 2005	
ANNUAL TOTAL	2,727,890		2,713,760			
ANNUAL MEAN	7,453		7,435		5,748	
HIGHEST ANNUAL MEAN					8,730	2004
LOWEST ANNUAL MEAN					2,309	1965
HIGHEST DAILY MEAN	116,000	Sep 19	176,000	Apr 3	187,000	Aug 19, 1955
LOWEST DAILY MEAN	1,610	Jul 3	1,330	Sep 18	412	Aug 23, 1954
ANNUAL SEVEN-DAY MINIMUM	1,730	Jun 29	1,620	Aug 17	565	Jul 1, 1965
MAXIMUM PEAK FLOW			206,000	Apr 3	250,000a	Aug 19, 1955
MAXIMUM PEAK STAGE			31.69	Apr 3	35.15	Aug 19, 1955
INSTANTANEOUS LOW FLOW			1,050	Sep 18	382	Aug 24, 1954
10 PERCENT EXCEEDS	13,500		13,100		12,100	
50 PERCENT EXCEEDS	5,450		4,360		3,480	
90 PERCENT EXCEEDS	2,290		1,770		1,610	

a From rating curve extended above 105,000 ft^3/s on basis of flood-routing study.
e Estimated.



01438500 DELAWARE RIVER AT MONTAGUE, NJ--Continued

WATER-QUALITY RECORDS

LOCATION.--Lat 41°18'33", long 74°47'43", Pike County, PA, Hydrologic Unit at tollbridge (on U.S. Route 206) between Montague, NJ and Milford, PA, 1.1 mi downstream from Sawkill Creek, and at river mile 246.0.

PERIOD OF RECORD.--Water years 1956-73, 1976-78, July 1991 to current year.

REMARKS.-- Total nitrogen (00600) equals the sum of dissolved ammonia plus organic nitrogen (00623), dissolved nitrite plus nitrate nitrogen (00631), and total particulate nitrogen (49570).

COOPERATION.--Field data and samples for laboratory analyses were provided by the New Jersey Department of Environmental Protection. Concentrations of ammonia in samples collected during November to December and August to September; orthophosphate in every sampling period except February to March; and nitrite, biochemical oxygen demand, total suspended residue, fecal coliform, E. coli, and enterococcus bacteria were determined by the New Jersey Department of Health and Senior Services, Public Health and Environmental Laboratories, Environmental and Chemical Laboratory Services.

COOPERATIVE NETWORK SITE DESCRIPTOR.-- Delaware River Main Stem, New Jersey Department of Environmental Protection Watershed Management Area 1.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Instantaneous discharge, cfs (00061)	Turbdty white light, det ang 90+/-30 corrctd NTRU (63676)	UV absorbance, 254 nm, wat flt units /cm (50624)	UV absorbance, 280 nm, wat flt units /cm (61726)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)
NOV													
03...	1115	3,870	.7	.086	.064	755	11.1	102	7.3	84	18.0	11.3	23
MAR													
02...	1015	5,190	1.3	.062	.047	742	13.7	98	7.0	92	2.5	.5	21
MAY													
12...	0930	3,690	1.2	.064	.049	757	7.7	80	7.2	85	17.5	17.4	22
SEP													
08...	0830	2,120	.7	.050	.037	757	7.3	84	7.3	93	--	21.6	25

Date	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)	Residue on evap. at 180degC wat flt mg/L (70300)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, fltrd, mg/L as N (00623)
NOV													
03...	6.81	1.35	.87	6.06	17	9.16	<.1	1.3	5.2	41	47	2	.15
MAR													
02...	6.34	1.27	.68	7.37	13	12.3	<.1	3.2	7.0	47	47	--	.12
MAY													
12...	6.57	1.35	.78	7.05	14	11.1	<.1	.6	6.1	42	54	--	.20
SEP													
08...	7.46	1.54	.86	7.09	19	11.5	<.1	1.6	6.8	49	57	1	.17

Date	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Total nitrogen, water, fltrd, mg/L (00602)	Total nitrogen, water, unfltrd mg/L (00600)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)
NOV													
03...	.013	E.06	E.002	.04	--	.25	<.010	.007	.010	.5	<.1	.5	2.5
MAR													
02...	<.040	.24	--	.03	.36	.39	<.006	E.002	.009	.3	<.1	.3	1.9
MAY													
12...	<.040	.06	--	.10	.26	.36	<.010	.004	.011	.4	<.1	.4	2.2
SEP													
08...	.035	.16	.002	<.02	.33	--	E.005	.011	.014	.1	<.1	.1	1.8

01438500 DELAWARE RIVER AT MONTAGUE, NJ--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005--Continued

Date	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)
NOV				
03...	<1.0	11	--	--
MAR				
02...	--	E5.9	1	14
MAY				
12...	<1.0	7.1	1	10
SEP				
08...	<1.0	7.9	--	--

Remark codes used in this table:
< -- Less than.
E -- Estimated.

WATER-COLUMN BACTERIA ANALYSES

Samples were collected synoptically over a 30-day period during the summer.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Instantaneous discharge, cfs (00061)	Entero-cocci, m-E MF, water, col/ 100 mL (31649)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coliform, ECbroth water, MPN/ 100 mL (31615)
JUL					
28...	0908	1,960	40	<100	20
AUG					
04...	0815	1,830	260	<100	<20
11...	0820	1,880	310	<100	20
18...	0825	1,620	150	100	20
25...	0825	1,760	210	100	20

Remark codes used in this table:
< -- Less than.

01439500 BUSH KILL AT SHOEMAKERS, PA
(Pennsylvania Water-Quality Network Station)

LOCATION.--Lat 41°05'17", long 75°02'17", Monroe County, Hydrologic Unit 02040104, on right bank 30 ft downstream from bridge on township route 523, 0.1 mi downstream from Saw Creek, 0.7 mi northwest of Shoemakers, and 2.0 mi southwest of Bushkill.

DRAINAGE AREA.--117 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1908 to current year. Monthly discharge only for some periods, published in WSP 1302. Prior to October 1928, published as Bushkill Creek near Shoemakers; October 1928 to September 1952, published as Bushkill Creek at Shoemakers.

REVISED RECORDS.--WSP 756: Drainage area. WSP 1202: 1921, 1932(M), 1933, 1935-36, 1938(M), 1939-40, 1942, 1945, 1946(M), 1948(M). WSP 1302: 1909-15, 1920(M), 1922-29. WDR PA-89-1: 1988.

GAGE.--Water-stage recorder. Datum of gage is 421.13 ft above National Geodetic Vertical Datum of 1929. Sept. 19, 1908, to Aug. 12, 1938, nonrecording gage, and Aug. 13, 1938, to June 20, 1956, water-stage recorder at site 50 ft upstream at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year. Satellite telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,100 ft^3/s and maximum (*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Nov. 28	2015	1,350	3.67	Mar. 29	0530	2,260	4.60
Jan. 14	1415	3,620	5.86	Apr. 3	0345	*5,670	*7.51

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	561	138	925	330	e200	188	1070	461	87	98	16	26
2	472	126	880	305	e190	180	2140	401	82	89	15	26
3	405	122	709	294	e180	e160	4800	350	85	62	14	21
4	353	122	601	466	e150	e150	2960	306	95	49	13	17
5	310	155	531	453	e140	e140	1950	273	90	42	12	15
6	282	141	470	497	e140	e140	1380	250	87	50	12	13
7	259	130	462	517	e140	155	1070	235	104	87	13	12
8	239	124	540	540	146	232	930	218	92	115	15	11
9	224	119	487	578	146	198	751	203	85	131	41	9.4
10	205	114	617	530	201	e180	612	192	78	104	40	8.9
11	185	112	748	531	189	e170	517	181	71	83	33	8.4
12	173	123	654	526	166	160	440	171	86	68	26	8.0
13	163	136	576	523	153	153	379	155	76	66	21	7.6
14	162	124	509	2660	156	147	333	151	62	69	e23	8.4
15	157	119	447	e2300	393	141	299	173	53	58	e35	12
16	191	116	402	e1500	421	141	265	158	50	52	26	13
17	172	111	375	e1100	418	139	247	141	69	57	22	11
18	151	108	344	e760	367	144	225	131	60	59	19	9.6
19	239	108	321	e570	292	152	210	122	52	56	17	8.4
20	282	109	252	e540	e300	170	197	119	47	51	17	7.4
21	238	123	e250	e450	312	202	186	111	42	39	16	7.1
22	210	120	e240	e370	290	217	173	107	37	33	15	6.8
23	186	114	443	e360	270	253	405	107	36	30	13	6.4
24	165	121	850	e360	243	270	888	106	34	27	12	6.2
25	156	237	622	e340	226	261	705	105	31	24	11	6.2
26	153	257	526	e300	e200	265	557	105	30	26	10	6.3
27	146	226	463	e290	e190	297	556	103	28	29	10	7.3
28	138	814	412	e280	183	765	528	100	33	30	12	6.8
29	133	1070	e390	e290	---	2130	456	109	37	23	15	7.4
30	134	828	359	e260	---	1780	442	101	71	21	19	8.1
31	149	---	337	e220	---	1350	---	95	---	18	19	---
TOTAL	6993	6367	15742	19040	6402	11030	25671	5540	1890	1746	582	321.7
MEAN	226	212	508	614	229	356	856	179	63.0	56.3	18.8	10.7
MAX	561	1070	925	2660	421	2130	4800	461	104	131	41	26
MIN	133	108	240	220	140	139	173	95	28	18	10	6.2
CFSM	1.93	1.81	4.34	5.25	1.95	3.04	7.31	1.53	0.54	0.48	0.16	0.09
IN.	2.22	2.02	5.01	6.05	2.04	3.51	8.16	1.76	0.60	0.56	0.19	0.10

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1909 - 2005, BY WATER YEAR (WY)

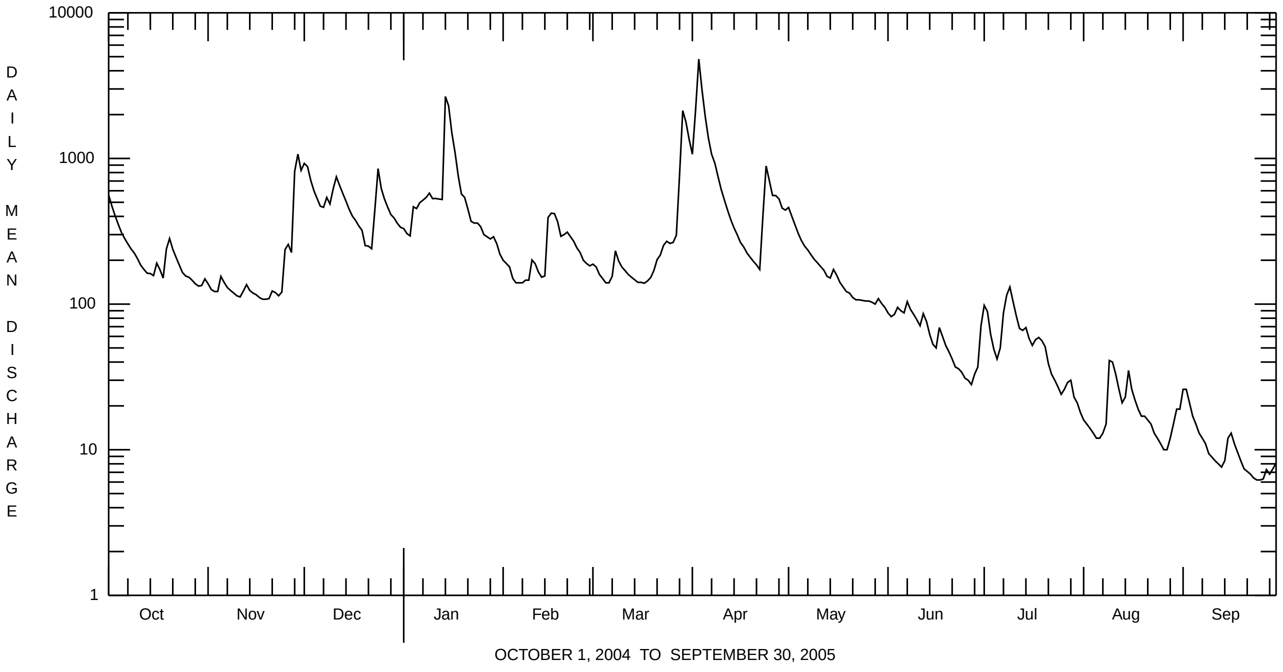
MEAN	128	212	270	262	270	431	432	302	197	126	101	99.5
MAX	773	643	841	807	706	1119	1002	773	919	747	864	735
(WY)	1956	1933	1997	1979	1909	1936	1993	1989	1972	1945	1955	2004
MIN	7.74	13.6	21.7	44.2	39.7	156	141	90.7	32.8	13.4	8.33	4.39
(WY)	1965	1965	1999	1981	1934	1981	1985	1941	1962	1999	1964	1964

e Estimated.

01439500 BUSH KILL AT SHOEMAKERS, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1909 - 2005	
ANNUAL TOTAL	113821		101324.7			
ANNUAL MEAN	311		278		236	
HIGHEST ANNUAL MEAN					419	1928
LOWEST ANNUAL MEAN					95.4	1965
HIGHEST DAILY MEAN	3770	Sep 18	4800	Apr 3	11800	Aug 19 1955
LOWEST DAILY MEAN	24	Jul 11	6.2	Sep 24,25	2.6	Sep 25 1964
ANNUAL SEVEN-DAY MINIMUM	31	Jul 5	6.6	Sep 22	2.7	Sep 21 1964
MAXIMUM PEAK FLOW			[a]5670	Apr 3	[a]23400	Aug 19 1955
MAXIMUM PEAK STAGE			7.51	Apr 3	[b]13.95	Aug 19 1955
INSTANTANEOUS LOW FLOW					2.6	Sep 25 1964
ANNUAL RUNOFF (CFSM)	2.66		2.37		2.01	
ANNUAL RUNOFF (INCHES)	36.19		32.22		27.37	
10 PERCENT EXCEEDS	579		565		522	
50 PERCENT EXCEEDS	230		153		160	
90 PERCENT EXCEEDS	80		15		27	

[a] From rating curve extended above 2,600 ft^3/s on basis of slope-area measurement of peak flow.
[b] From floodmark.



01439500 BUSH KILL AT SHOEMAKERS, PA--Continued
(Pennsylvania Water-Quality Network Station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 2002 to current year.

REMARKS.--Other data for the Water-Quality Network can be found on pages 386-432. Some values for "*dissolved*" parameters exceed values for the corresponding "*total*" parameter. These results are within the limits of analytical precision and methods.

COOPERATION.--Samples were collected as part of the Pennsylvania Department of Environmental Protection Water-Quality Network (WQN) with cooperation from the Pennsylvania Department of Environmental Protection.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conductance, wat unf lab, µS/cm 25 degC (90095)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Calcium water unfltrd recover -able, mg/L (00916)
NOV 2004 04...	0900	1028	9813	115	13.3	6.8	6.6	41	39	7.4	12	3.0	3.1
JAN 2005 06...	1630	1028	9813	528	13.4	6.0	6.8	41	42	2.1	11	2.6	2.9
MAR 10...	1030	1028	9813	E180	15.6	7.0	7.1	52	42	.1	14	3.8	3.8
MAY 19...	0900	1028	9813	125	10.9	7.0	7.1	48	40	13.4	13	3.2	3.4
JUL 07...	1130	1028	9813	103	8.7	6.4	7.2	46	41	22.1	14	3.8	3.7
SEP 12...	0950	1028	9813	7.7	10.2	7.1	7.3	86	77	16.7	23	6.8	6.3

Date	Magnesium, water, fltrd, mg/L (00925)	Magnesium, water, unfltrd recover -able, mg/L (00927)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 105degC wat flt mg/L (00515)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia water, unfltrd mg/L as N (00610)	Nitrate water unfltrd mg/L as N (00620)	Nitrite water, unfltrd mg/L as N (00615)	Total nitrogen, water, unfltrd mg/L (00600)	Orthophosphate, water, unfltrd mg/L as P (70507)	Phosphorus, water, unfltrd mg/L (00665)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)
NOV 2004 04...	.96	1.0	9	5.2	28	<2	<.020	<.04	<.040	.21	.01	.01	1.4
JAN 2005 06...	.85	.92	7	6.2	40	2	<.020	.05	<.040	.23	<.01	.02	.7
MAR 10...	1.1	1.2	8	7.0	--	<2	<.020	.07	<.040	.08	<.01	<.01	1.2
MAY 19...	.93	1.0	7	6.5	78	<2	<.020	.05	<.040	.14	.02	.03	.4
JUL 07...	1.1	1.1	8	5.5	28	<2	.080	.14	<.040	.53	.03	.04	1.1
SEP 12...	1.9	1.7	14	7.4	--	4	.040	.94	<.040	1.1	.15	.18	.4

Date	Aluminum, water, fltrd, µg/L (01106)	Aluminum, water, unfltrd recover -able, µg/L (01105)	Copper, water, fltrd, µg/L (01040)	Copper, water, unfltrd recover -able, µg/L (01042)	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recover -able, µg/L (01045)	Lead, water, fltrd, µg/L (01049)	Lead, water, unfltrd recover -able, µg/L (01051)	Manganese, water, fltrd, µg/L (01056)	Manganese, water, unfltrd recover -able, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recover -able, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)
NOV 2004 04...	40	40	<4	<4	50	90	<1.0	<1.0	2	4	<4.0	<4.0	<5.0
JAN 2005 06...	30	60	<4	<4	50	100	<1.0	<1.0	2	8	<4.0	<4.0	<5.0
MAR 10...	20	30	<4	<4	40	60	<1.0	<1.0	3	4	<4.0	<4.0	<5.0
MAY 19...	10	40	<4	<4	30	70	<1.0	<1.0	2	7	<4.0	<4.0	<5.0
JUL 07...	20	40	<4	<4	80	120	<1.0	<1.0	5	10	<4.0	<4.0	<5.0
SEP 12...	20	20	<4	<4	<20	20	<1.0	<1.0	7	7	<4.0	<4.0	<5.0

Date	Zinc, water, unfltrd recover -able, µg/L (01092)
NOV 2004 04...	<5.0
JAN 2005 06...	5.4
MAR 10...	<5.0
MAY 19...	<5.0
JUL 07...	<5.0
SEP 12...	<5.0

01439500 BUSH KILL AT SHOEMAKERS, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES

REMARKS.--Samples were collected using a D-Frame net with a mesh size of 500 µm. Samples represent counts per 100 animal (approximate) subsamples.

Date	10/28/04
Benthic macroinvertebrate	Count
Mollusca	
Gastropoda (SNAILS)	
Basommatophora	
Lymnaeidae	
Fossaria	1
Bivalvia (CLAMS)	
Veneroida	
Sphaeriidae	
Sphaerium	1
Arthropoda	
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
Acentrella	5
Ephemerellidae	
Dannella	3
Ephemerella	4
Heptageniidae	
Epeorus	17
Rhithrogena	8
Stenonema	7
Isonychiidae	
Isonychia	5
Leptophlebiidae	
Paraleptophlebia	20
Plecoptera (STONEFLIES)	
Leuctridae	1
Perlidae	
Acroneuria	4
Neoperla	1
Pteronarcyidae	
Pteronarcys	1
Taeniopterygidae	
Taeniopteryx	2
Trichoptera (CADDISFLIES)	
Glossosomatidae	
Glossosoma	4
Hydropsychidae	
Cheumatopsyche	6
Hydropsyche	2
Potamyia	1
Lepidostomatidae	
Lepidostoma	1
Leptoceridae	
Oecetis	2
Philopotamidae	
Chimarra	2
Dolophilodes	1

01439500 BUSH KILL AT SHOEMAKERS, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES--Continued

Date	10/28/04
Benthic macroinvertebrate	Count
Diptera (TRUE FLIES)	
Athericidae	
Atherix	1
Chironomidae (MIDGES)	6
Simuliidae (BLACK FLIES)	
Simulium	1
Total Organisms	107
Total Taxa	26

01440400 BRODHEAD CREEK NEAR ANALOMINK, PA

LOCATION.--Lat 41°05'05", long 75°12'54", Monroe County, Hydrologic Unit 02040104, on left bank, along State Highway 447, 1.5 mi upstream from Paradise Creek, 1.6 mi southeast of Henryville, and 2.3 mi north of Analomink.

DRAINAGE AREA.--65.9 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 586.50 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 12, 1957, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year. Satellite telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,100 ft^3/s and maximum (*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Nov. 28	1130	3,380	6.89	Mar. 28	2330	2,490	6.10
Dec. 23	1900	1,600	5.13	Apr. 2	2130	*9,750	*10.59
Jan. 14	0700	4,280	7.58				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	246	72	672	180	e100	117	633	221	48	36	15	26
2	202	68	512	165	e98	107	3180	188	45	31	15	21
3	180	67	396	163	96	97	e3090	176	44	26	14	18
4	158	70	327	313	94	e90	e1310	160	55	23	14	17
5	140	101	282	264	92	e85	e923	147	48	22	15	16
6	127	84	250	320	92	e85	e765	137	44	23	15	15
7	117	76	283	328	94	95	e669	130	53	26	15	15
8	109	73	353	338	97	140	e538	120	45	40	24	14
9	103	68	292	334	110	e110	e459	112	44	48	49	14
10	98	64	486	306	146	e100	e382	106	45	36	29	13
11	90	63	572	303	128	100	e255	101	39	29	22	13
12	84	72	435	309	112	96	e211	95	65	25	19	13
13	79	79	359	314	104	93	e189	87	60	26	17	13
14	77	71	301	2310	109	89	176	84	55	31	19	12
15	79	66	256	1140	349	86	156	108	43	28	29	14
16	136	62	223	766	302	86	143	99	39	25	23	21
17	100	61	203	597	275	87	134	81	42	26	21	15
18	91	60	181	e370	230	91	124	74	36	25	19	14
19	173	59	172	e340	e190	96	117	69	34	23	18	12
20	167	60	e160	301	e170	108	111	66	31	23	18	12
21	129	69	e150	e240	177	120	107	65	29	20	17	11
22	116	64	141	e220	161	126	100	62	27	19	16	11
23	103	61	536	e210	148	150	202	63	27	18	15	10
24	96	79	726	e220	135	160	525	62	25	18	14	9.7
25	91	249	442	e200	128	146	337	61	23	17	14	9.6
26	87	205	323	174	e110	146	261	58	22	17	14	10
27	83	159	275	e170	e100	161	294	54	22	17	14	12
28	79	1430	e240	e160	108	754	263	52	22	18	19	10
29	76	929	220	e140	---	1620	222	65	32	16	23	9.7
30	79	636	202	e140	---	967	217	56	52	16	20	9.5
31	76	---	187	e110	---	749	---	53	---	16	25	---
TOTAL	3571	5277	10157	11445	4055	7057	16093	3012	1196	764	601	410.5
MEAN	115	176	328	369	145	228	536	97.2	39.9	24.6	19.4	13.7
MAX	246	1430	726	2310	349	1620	3180	221	65	48	49	26
MIN	76	59	141	110	92	85	100	52	22	16	14	9.5
CFSM	1.75	2.67	4.97	5.60	2.20	3.45	8.14	1.47	0.60	0.37	0.29	0.21
IN.	2.02	2.98	5.73	6.46	2.29	3.98	9.08	1.70	0.68	0.43	0.34	0.23

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 2005, BY WATER YEAR (WY)

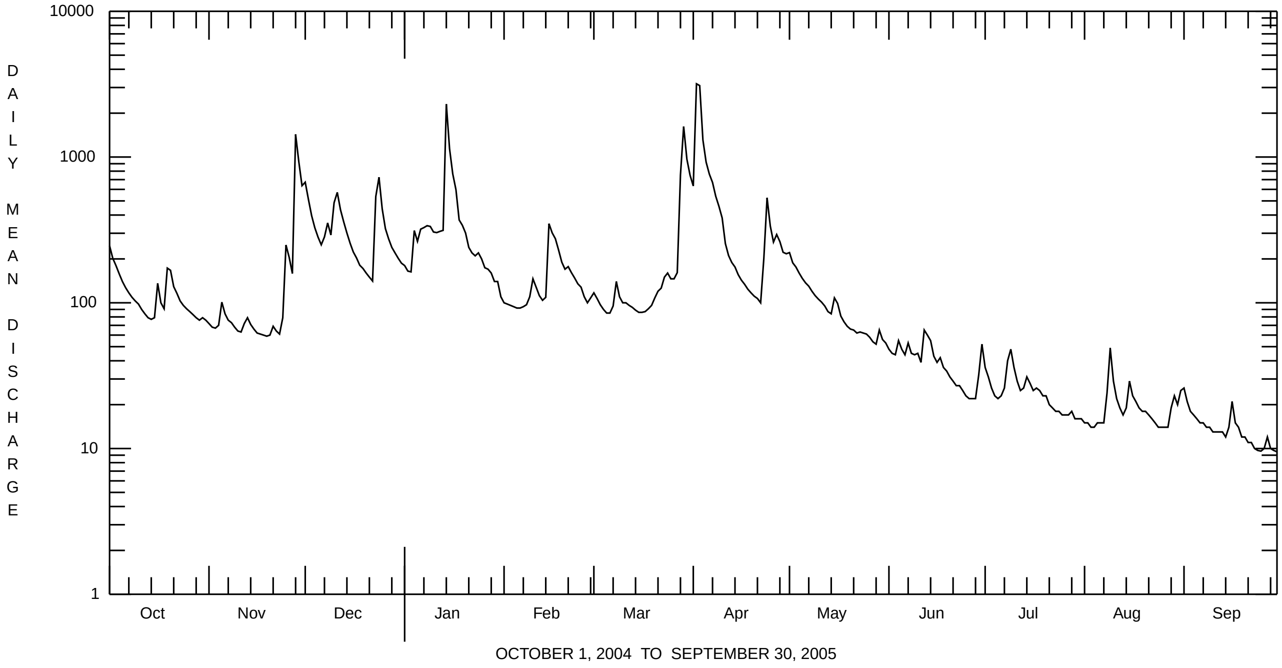
MEAN	77.8	128	178	157	155	248	253	178	113	57.2	47.5	62.5
MAX	237	336	508	559	371	537	596	440	474	380	300	464
(WY)	1977	1973	1997	1996	1981	1977	1983	1989	1972	1969	2004	1987
MIN	8.36	10.2	19.8	15.1	41.8	92.7	84.0	62.3	23.2	10.6	7.91	7.56
(WY)	1964	1965	1999	1981	1980	1989	1985	1962	1962	1999	1999	1964

e Estimated.

01440400 BRODHEAD CREEK NEAR ANALOMINK, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1958 - 2005	
ANNUAL TOTAL	66404		63638.5			
ANNUAL MEAN	181		174		138	
HIGHEST ANNUAL MEAN					213	1973
LOWEST ANNUAL MEAN					59.6	1965
HIGHEST DAILY MEAN	2720	Sep 18	3180	Apr 2	6070	Jul 28 1969
LOWEST DAILY MEAN	22	Jul 11	9.5	Sep 30	5.1	Aug 13 1999
ANNUAL SEVEN-DAY MINIMUM	24	Jul 5	10	Sep 24	5.5	Aug 7 1999
MAXIMUM PEAK FLOW			[a]9750	Apr 2	[a]12900	Jul 28 1969
MAXIMUM PEAK STAGE			10.59	Apr 2	11.82	Jul 28 1969
INSTANTANEOUS LOW FLOW					4.9	Aug 7 1999[b]
ANNUAL RUNOFF (CFSM)	2.75		2.65		2.09	
ANNUAL RUNOFF (INCHES)	37.48		35.92		28.39	
10 PERCENT EXCEEDS	336		339		297	
50 PERCENT EXCEEDS	124		91		86	
90 PERCENT EXCEEDS	47		16		17	

[a] From rating curve extended above 1,400 ft^3/s on basis of slope-area measurement of peak flow.
[b] Also Aug. 8, 12, 13, Sept. 5, 1999.



01440485 SWIFTWATER CREEK AT SWIFTWATER, PA

LOCATION.--Lat 41°05'38", long 75°19'21", Monroe County, Hydrologic Unit 02040104, on left bank at Aventis Pasteur Laboratories complex, at Discovery Drive in Swiftwater, Pocono Township, and 3.0 mi above mouth.

DRAINAGE AREA.--6.59 mi^2.

PERIOD OF RECORD.--April 2001 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,114.73 ft above National Geodetic Vertical Datum of 1929. Prior to Apr. 18, 2001, nonrecording gage at site 500 ft downstream (datum undetermined).

REMARKS.--Records fair except those above 640 ft^3/s and those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year. Satellite telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 250 ft^3/s and maximum (*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Nov. 28	1015	1,500	3.99	Mar. 29	0000	258	2.25
Dec. 23	1745	269	2.34	Apr. 2	1945	*3,780	*5.30
Jan. 14	0530	1,340	3.85				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	13	54	23	19	17	54	22	11	7.6	6.1	6.1
2	25	13	46	21	17	16	737	22	11	7.2	6.0	5.5
3	24	13	37	22	16	15	276	21	11	6.9	5.9	5.3
4	22	14	33	28	16	15	80	20	13	7.0	5.8	5.2
5	21	15	30	25	16	15	57	19	11	7.3	5.9	5.2
6	21	13	28	29	16	14	49	19	11	7.2	5.8	5.1
7	19	12	30	30	16	15	44	18	12	7.0	6.1	5.1
8	17	12	34	29	16	20	41	18	10	10	8.1	5.0
9	17	12	30	28	17	e18	36	18	10	9.1	7.0	5.0
10	15	12	47	28	18	e15	33	17	10	7.5	6.2	5.0
11	14	12	54	28	16	15	31	16	9.9	6.9	6.1	4.7
12	15	13	44	28	15	15	29	16	9.7	6.8	6.2	4.6
13	15	13	36	31	15	14	28	16	9.5	14	6.1	4.7
14	14	12	32	325	17	14	27	16	9.1	13	7.2	5.0
15	20	12	29	90	40	14	26	16	8.9	8.0	8.0	8.2
16	30	12	27	67	29	14	25	15	8.9	7.7	6.2	7.4
17	19	11	26	51	27	13	24	14	8.7	9.0	6.0	5.4
18	16	11	24	45	24	14	23	14	8.5	8.4	6.0	5.1
19	27	12	23	41	23	14	22	14	8.6	7.5	6.5	4.8
20	25	12	21	43	22	14	21	14	8.3	7.0	6.1	4.9
21	20	12	19	e42	22	15	21	14	8.1	6.7	5.8	4.9
22	21	12	19	e40	21	15	20	13	8.0	6.7	5.5	4.7
23	19	11	77	e36	20	17	25	13	7.9	6.5	5.5	4.9
24	19	16	62	e38	19	17	31	13	7.6	6.3	5.5	4.8
25	18	44	41	e35	18	16	25	13	7.4	7.8	5.4	4.9
26	17	34	32	e32	18	16	21	13	7.3	6.6	5.2	5.4
27	16	27	30	e30	17	17	24	12	7.3	7.6	5.4	5.0
28	15	343	27	e28	17	70	23	13	7.4	7.4	7.4	4.6
29	14	75	26	e23	---	140	22	13	8.9	6.4	6.1	4.8
30	15	50	25	e24	---	77	22	12	9.6	6.4	6.0	4.6
31	14	---	24	21	---	62	---	11	---	6.2	7.4	---
TOTAL	592	873	1067	1361	547	763	1897	485	279.6	239.7	192.5	155.9
MEAN	19.1	29.1	34.4	43.9	19.5	24.6	63.2	15.6	9.32	7.73	6.21	5.20
MAX	30	343	77	325	40	140	737	22	13	14	8.1	8.2
MIN	14	11	19	21	15	13	20	11	7.3	6.2	5.2	4.6
CFSM	2.90	4.42	5.22	6.66	2.96	3.73	9.60	2.37	1.41	1.17	0.94	0.79
IN.	3.34	4.93	6.02	7.68	3.09	4.31	10.71	2.74	1.58	1.35	1.09	0.88

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

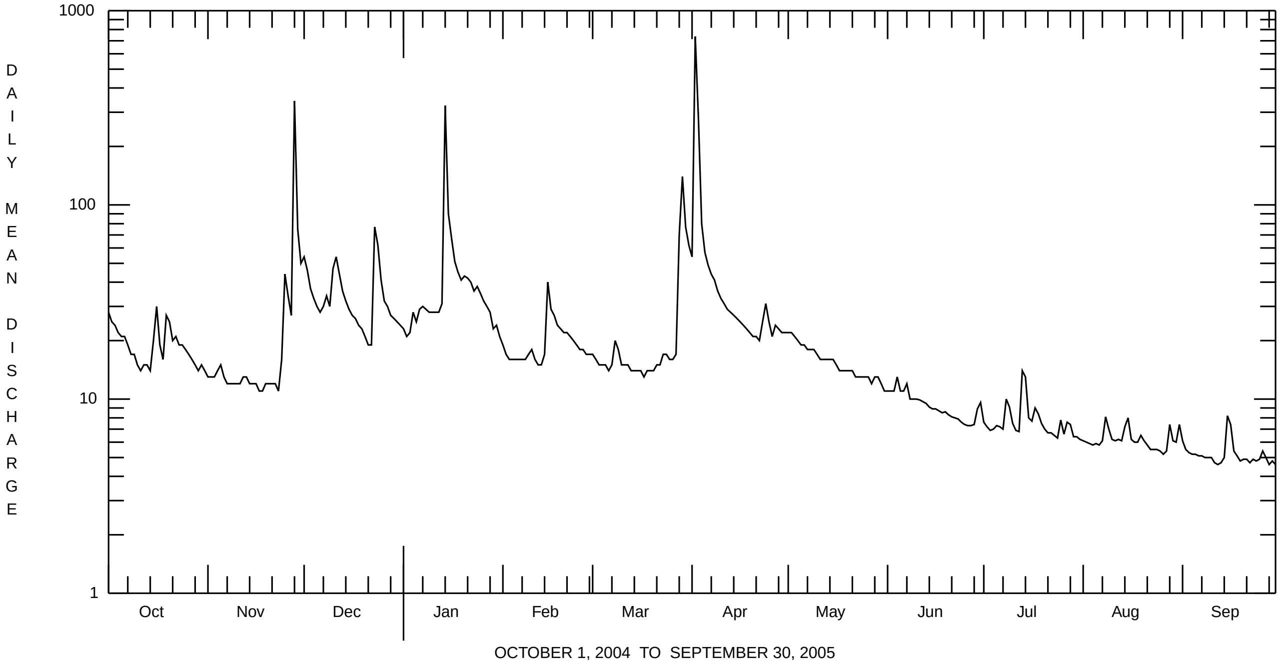
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	19.0	21.7	29.8	23.1	14.1	24.9	31.0	18.7	23.7	9.89	14.1	25.6
MAX	25.7	29.1	48.9	43.9	19.5	37.3	63.2	26.8	62.1	15.5	35.9	64.2
(WY)	2003	2005	2004	2005	2005	2003	2005	2004	2003	2003	2004	2004
MIN	5.65	5.90	11.3	7.81	10.5	18.0	18.1	13.1	9.32	7.73	5.59	5.20
(WY)	2002	2002	2002	2002	2002	2002	2004	2001	2005	2005	2002	2005

e Estimated.

01440485 SWIFTWATER CREEK AT SWIFTWATER, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 2001 - 2005	
ANNUAL TOTAL	9142.4		8452.7			
ANNUAL MEAN	25.0		23.2		22.1	
HIGHEST ANNUAL MEAN					26.7	2003
LOWEST ANNUAL MEAN					12.0	2002
HIGHEST DAILY MEAN	758	Sep 18	737	Apr 2	758	Sep 18 2004
LOWEST DAILY MEAN	5.7	Jul 11	4.6	Sep 12**a**	4.2	Sep 9 2002**b**
ANNUAL SEVEN-DAY MINIMUM	6.1	Jul 5	4.8	Sep 19	4.2	Sep 8 2002
MAXIMUM PEAK FLOW			**c**3780	Apr 2	**c**3780	Apr 2 2005
MAXIMUM PEAK STAGE			5.30	Apr 2	5.30	Apr 2 2005
ANNUAL RUNOFF (CFSM)	3.79		3.51		3.36	
ANNUAL RUNOFF (INCHES)	51.61		47.71		45.66	
10 PERCENT EXCEEDS	37		36		37	
50 PERCENT EXCEEDS	17		15		16	
90 PERCENT EXCEEDS	9.9		5.9		6.2	

a Also Sept. 28. 30.
b Also Sept. 10, 11, 13, 14, 2002.
c From rating curve extended above 640 ft^3/s.



01441495 POCONO CREEK ABOVE WIGWAM RUN NEAR STROUDSBURG, PA

LOCATION.--Lat 40°59'27", long 75°15'20", Monroe County, Hydrologic Unit 02040104, on right bank at bridge on SR2005, 150 ft upstream from Wigwam Run, 4.0 mi upstream from mouth, and 4.0 mi west of Stroudsburg, Pa.

DRAINAGE AREA.--38.9 mi^2.

PERIOD OF RECORD.--June 2002 to current year.

GAGE.--Water-stage recorder. Datum of gage is 574.57 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good below 250 ft^3/s, fair from 250 ft^3/s to 3,000 ft^3/s. Those above 3,000 ft^3/s and those for estimated daily discharges are poor. Several measurements of water temperature were made during the year. Satellite telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft^3/s and maximum (*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Nov. 28	1115	3,240	11.77	Mar. 28	2230	1,940	11.25
Jan. 14	0700	1,860	11.21	Apr. 2	2215	*7,120	*14.10

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	162	49	564	100	e60	68	274	139	29	23	11	20
2	136	46	372	89	e58	61	1940	113	27	20	11	15
3	120	45	281	91	54	57	3440	106	27	17	10	13
4	105	52	222	163	54	e54	1540	95	42	16	9.8	12
5	94	67	185	129	55	e50	800	87	33	15	9.8	11
6	86	54	160	199	55	e50	468	82	35	15	10	10
7	80	50	185	200	56	61	336	77	43	15	9.9	10
8	75	47	196	252	58	89	299	72	31	38	33	9.6
9	71	45	155	230	66	e65	209	65	35	33	27	9.5
10	68	44	317	205	83	e60	172	61	37	25	17	8.9
11	65	44	315	196	64	60	148	57	34	19	13	9.9
12	61	59	236	225	60	60	131	54	29	16	12	8.6
13	59	66	199	229	58	59	117	50	25	23	11	7.7
14	60	54	162	1070	66	57	104	50	23	31	13	7.8
15	70	50	132	597	215	56	94	66	21	26	31	11
16	134	48	118	392	149	56	87	53	23	29	17	40
17	81	46	111	286	133	56	82	47	25	30	14	19
18	68	45	e92	e200	111	58	77	44	21	29	13	15
19	134	45	e90	e160	98	61	72	40	20	22	15	12
20	96	47	e86	e140	89	69	67	40	20	18	18	11
21	76	53	e82	e120	94	74	64	40	18	16	15	10
22	69	48	74	e110	86	74	61	38	17	15	13	9.5
23	63	46	365	e110	81	83	160	36	16	14	11	9.1
24	58	60	359	e120	74	95	332	36	16	13	11	8.7
25	56	159	203	e100	72	94	159	35	15	15	9.8	8.6
26	53	98	162	95	68	93	132	34	14	15	9.5	10
27	51	80	141	e90	64	97	170	33	14	15	10	20
28	50	1320	122	e88	62	569	138	34	14	17	20	e12
29	49	615	114	e85	---	1000	118	42	27	14	23	e14
30	57	363	107	76	---	509	129	33	52	13	16	e16
31	55	---	102	65	---	345	---	31	---	12	19	---
TOTAL	2462	3845	6009	6212	2243	4240	11920	1790	783	619	462.8	378.9
MEAN	79.4	128	194	200	80.1	137	397	57.7	26.1	20.0	14.9	12.6
MAX	162	1320	564	1070	215	1000	3440	139	52	38	33	40
MIN	49	44	74	65	54	50	61	31	14	12	9.5	7.7
CFSM	2.04	3.29	4.98	5.15	2.06	3.52	10.2	1.48	0.67	0.51	0.38	0.32
IN.	2.35	3.68	5.75	5.94	2.14	4.05	11.40	1.71	0.75	0.59	0.44	0.36

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2005, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	122	133	195	132	62.7	153	202	80.8	128	36.8	71.1	135
MAX	152	145	248	200	80.1	229	397	123	324	57.2	187	280
(WY)	2003	2004	2004	2005	2005	2003	2005	2004	2003	2004	2004	2004
MIN	79.4	125	141	85.5	50.1	91.9	86.7	57.7	26.1	18.6	9.99	12.6
(WY)	2005	2003	2003	2004	2004	2004	2004	2005	2005	2002	2002	2005

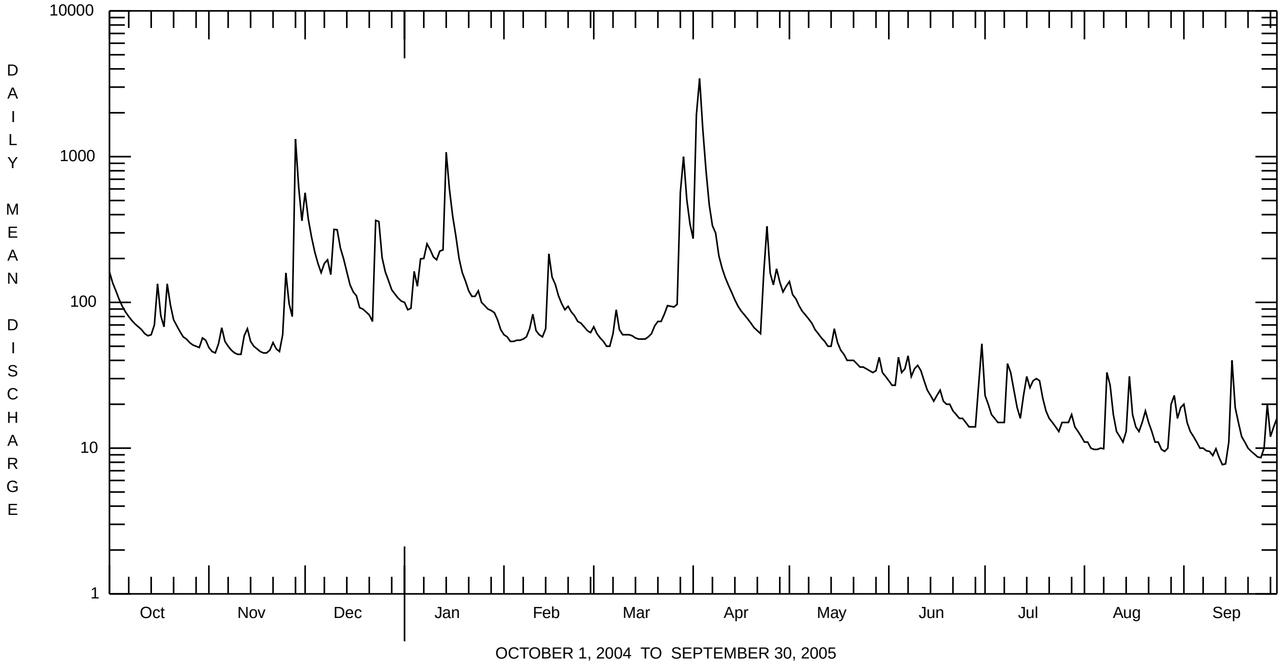
e Estimated.

McMICHAEL CREEK BASIN

01441495 POCONO CREEK ABOVE WIGWAM RUN NEAR STROUDSBURG, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 2002 - 2005	
ANNUAL TOTAL	42753		40964.7			
ANNUAL MEAN	117		112		127	
HIGHEST ANNUAL MEAN					140	2003
LOWEST ANNUAL MEAN					112	2005
HIGHEST DAILY MEAN	1840	Sep 18	3440	Apr 3	3440	Apr 3 2005
LOWEST DAILY MEAN	12	Jul 11	7.7	Sep 13	6.6	Aug 15 2002**a**
ANNUAL SEVEN-DAY MINIMUM	15	Jul 5	8.9	Sep 8	7.2	Sep 8 2002
MAXIMUM PEAK FLOW			**b**7120	Apr 2	**b**7120	Apr 2 2005
MAXIMUM PEAK STAGE			14.10	Apr 2	14.10	Apr 2 2005
INSTANTANEOUS LOW FLOW					5.1	Aug 20 2002
ANNUAL RUNOFF (CFSM)	3.00		2.89		3.25	
ANNUAL RUNOFF (INCHES)	40.88		39.17		44.19	
10 PERCENT EXCEEDS	200		204		250	
50 PERCENT EXCEEDS	76		58		75	
90 PERCENT EXCEEDS	39		13		21	

a Also Sept. 12, 2002.
b Rating extended above 3,000 ft^3/s based on slope-conveyance computations.



BRODHEAD CREEK BASIN

01442500 BRODHEAD CREEK AT MINISINK HILLS, PA
(Pennsylvania Water-Quality Network Station)

LOCATION.--Lat 40°59'55", long 75°08'35", Monroe County, Hydrologic Unit 02040104, on left bank at end of township route 646 at Minisink Hills, 500 ft upstream from Marshall Creek, 0.8 mi upstream from mouth, and 3.0 mi southeast of East Stroudsburg.

DRAINAGE AREA.--259 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1950 to current year.

REVISED RECORDS.--WSP 1232: 1951(P).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 301.84 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 19, 1955, water-stage recorder, and Aug. 23 to Nov. 24, 1955, nonrecording gage at site about 1,300 ft upstream at datum 2.19 ft higher. Nov. 25, 1955, to July 24, 1956, nonrecording gage at site 40 ft upstream at present datum.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year. Satellite telemetry at station. Flows may be affected by backwater from the Delaware River.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,300 ft^3/s and maximum (*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Nov. 28	1345	12,800	9.58	Mar. 29	0130	8,790	8.07
Dec. 1	1445	4,570	6.16	Apr. 3	0100	*25,900	14.16
Dec. 23	2100	6,200	6.93	Apr. 4	0100	**a**	20.99
Jan. 14	0845	11,700	9.15				

a Backwater from Delaware River.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1380	336	2900	484	e460	484	2000	887	228	165	81	109
2	1060	321	2070	436	e440	454	7850	e730	219	151	78	92
3	912	317	1470	423	e420	423	e12000	711	213	133	74	81
4	781	330	1120	781	413	e400	e5200	e630	264	124	68	74
5	677	441	919	640	407	384	e3800	e570	234	119	68	68
6	595	357	798	955	408	381	2770	533	264	122	71	63
7	542	326	890	1040	410	406	2250	512	361	119	71	59
8	504	319	1070	1300	419	e500	2080	483	238	201	142	57
9	470	307	807	1300	451	e450	1640	452	234	215	160	56
10	445	298	1580	1060	557	e440	1440	428	255	164	116	54
11	414	296	1920	1010	497	434	e1100	410	227	137	96	53
12	390	353	1350	1140	449	432	e930	389	220	124	86	53
13	366	403	1080	1100	427	425	e820	361	215	122	84	53
14	363	328	874	7010	471	418	e690	352	198	169	90	61
15	381	312	722	e4500	1410	404	e600	424	188	138	135	74
16	719	307	633	2980	1040	404	e560	399	171	143	108	132
17	471	300	583	e2200	944	403	e520	343	181	144	96	109
18	406	297	521	e1400	801	411	e480	318	171	155	87	81
19	757	296	497	e1200	e690	420	e460	301	159	132	89	71
20	720	298	e420	1110	e630	455	e430	296	154	121	98	65
21	560	318	e410	e940	660	490	e420	295	158	112	90	60
22	509	304	360	e900	613	488	459	279	151	105	80	55
23	458	296	1700	e890	583	549	790	270	139	100	73	53
24	425	317	2650	e880	541	627	1860	268	131	93	69	53
25	404	834	1240	e860	522	616	1130	265	125	97	65	51
26	387	687	e890	e680	e500	607	930	261	122	100	63	55
27	368	553	e750	e590	466	636	1020	252	120	98	63	80
28	356	5610	e620	e520	456	2660	941	248	125	108	80	73
29	342	3950	e560	e520	---	e6500	824	288	174	94	114	73
30	376	2170	537	e510	---	e4000	816	254	269	88	97	71
31	364	---	500	e480	---	2570	---	246	---	84	96	---
TOTAL	16902	21581	32441	39839	16085	28271	56810	12455	5908	3977	2788	2089
MEAN	545	719	1046	1285	574	912	1894	402	197	128	89.9	69.6
MAX	1380	5610	2900	7010	1410	6500	12000	887	361	215	160	132
MIN	342	296	360	423	407	381	420	246	120	84	63	51
CFSM	2.11	2.78	4.04	4.96	2.22	3.52	7.31	1.55	0.76	0.50	0.35	0.27
IN.	2.43	3.10	4.66	5.72	2.31	4.06	8.16	1.79	0.85	0.57	0.40	0.30

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

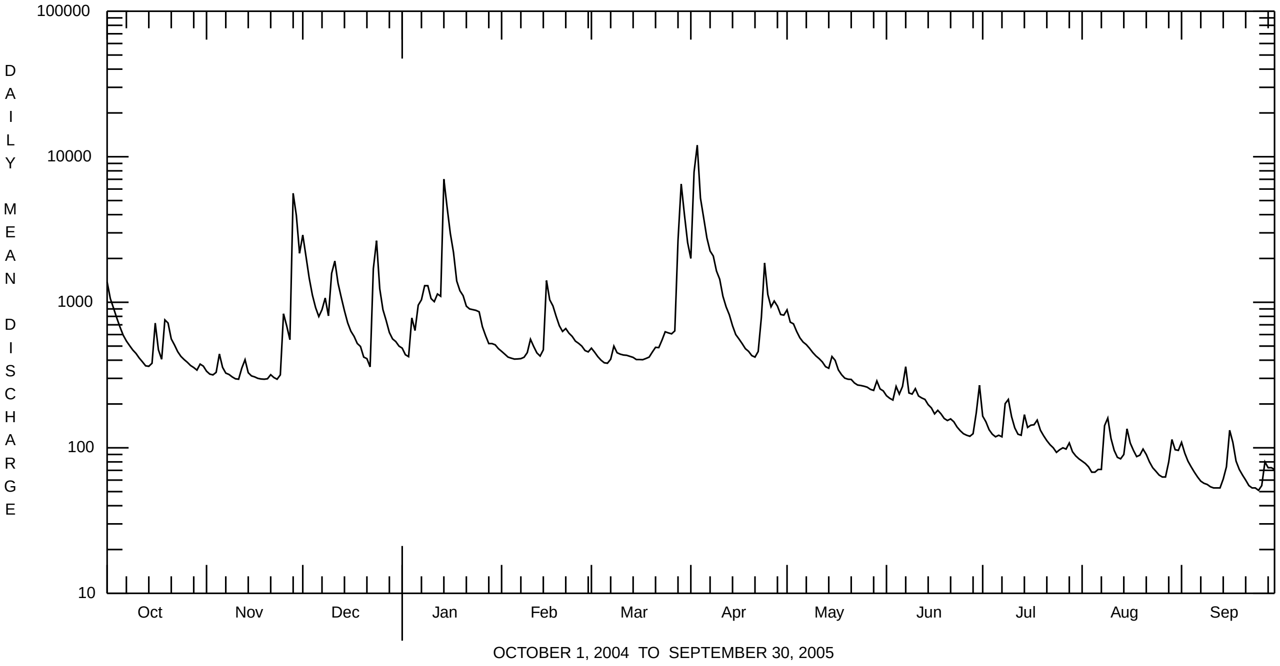
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	333	549	746	632	649	976	987	693	443	253	254	281
MAX	1560	1634	2321	2051	1498	2108	2293	1619	1988	923	2505	2167
(WY)	1956	1973	1997	1996	1951	1977	1983	1989	2003	1969	1955	2004
MIN	54.4	68.1	83.4	50.6	196	387	312	268	119	58.1	46.4	40.8
(WY)	1964	1965	1981	1981	1980	1985	1985	1962	1962	1999	1957	1964

e Estimated.

01442500 BRODHEAD CREEK AT MINISINK HILLS, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1951 - 2005	
ANNUAL TOTAL	277311		239146			
ANNUAL MEAN	758		655		566	
HIGHEST ANNUAL MEAN					957	1952
LOWEST ANNUAL MEAN					238	1965
HIGHEST DAILY MEAN	**e**13000	Sep 18	**e**12000	Apr 3	30500	Aug 19 1955
LOWEST DAILY MEAN	105	Jul 11	51	Sep 25	30	Sep 26 1964
ANNUAL SEVEN-DAY MINIMUM	122	Jul 5	55	Sep 7	33	Sep 6 1964
MAXIMUM PEAK FLOW			**bc**25900	Apr 3	**b**68800	Aug 19 1955
MAXIMUM PEAK STAGE			**a**20.99	Apr 4	**d**27.00	Aug 19 1955
INSTANTANEOUS LOW FLOW					29	Sep 27 1964
ANNUAL RUNOFF (CFSM)	2.93		2.53		2.18	
ANNUAL RUNOFF (INCHES)	39.83		34.35		29.68	
10 PERCENT EXCEEDS	1320		1220		1210	
50 PERCENT EXCEEDS	480		406		353	
90 PERCENT EXCEEDS	242		80		93	

a Backwater from Delaware River.
b From rating curve extended above 10,100 ft^3/s on basis of slope-area measurement of peak flow.
c Corresponding gage height of 14.16 ft.
d From floodmark, at site about 1,300 ft upstream at datum 2.19 ft higher.
e Estimated.



01442500 BRODHEAD CREEK AT MINISINK HILLS, PA--Continued
(Pennsylvania Water-Quality Network Station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 2002 to current year.

REMARKS.--Other data for the Water-Quality Network can be found on pages 386-432.

COOPERATION.--Samples were collected as part of the Pennsylvania Department of Environmental Protection Water-Quality Network (WQN) with cooperation from the Pennsylvania Department of Environmental Protection.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency col-lecting sample, code (00027)	Agency ana-lyzing sample, code (00028)	Instan-taneous dis-charge, cfs (00061)	Dis-solved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conduc-tance, wat unf lab, µS/cm 25 degC (90095)	Specif. conduc-tance, wat unf µS/cm 25 degC (00095)	Temper-ature, water, deg C (00010)	Hard-ness, water, mg/L as CaCO3 (00900)	Calcium water unfltrd recover -able, mg/L (00916)	Magnes-ium, water, unfltrd recover -able, mg/L (00927)
NOV 2004 03...	1330	1028	9813	320	12.9	8.0	7.2	160	153	11.4	44	14	2.3
JAN 2005 13...	1200	1028	9813	1020	13.3	7.0	7.0	150	143	4.3	36	11	1.9
MAR 10...	0830	1028	9813	E440	15.8	7.4	7.5	188	183	.1	45	14	2.3
MAY 19...	1130	1028	9813	302	12.1	8.4	7.9	170	164	13.8	47	15	2.2
JUL 07...	1330	1028	9813	120	9.0	7.8	7.8	212	215	21.1	60	19	2.8
SEP 12...	1200	1028	9813	55	9.2	7.7	7.8	265	263	19.0	74	24	3.1

Date	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 105degC wat flt mg/L (00515)	Residue total at 105 deg. C, sus-pended, mg/L (00530)	Ammonia water, unfltrd mg/L as N (00610)	Nitrate water unfltrd mg/L as N (00620)	Nitrite water, unfltrd mg/L as N (00615)	Total nitro-gen, water, unfltrd mg/L (00600)	Ortho-phos-phate, water, unfltrd mg/L as P (70507)	Phos-phorus, water, unfltrd mg/L (00665)	Organic carbon, water, unfltrd mg/L (00680)	Alum-inum, water, unfltrd recover -able, µg/L (01105)	Copper, water, unfltrd recover -able, µg/L (01042)
NOV 2004 03...	31	12	92	<2	.050	.37	<.040	.54	.07	.07	1.9	<200	<10
JAN 2005 13...	22	11	110	<2	.020	.47	<.040	.48	.01	.01	1.4	<200	<10
MAR 10...	25	12	100	<2	.070	.50	<.040	.61	.01	.02	1.4	<200	<10
MAY 19...	29	12	140	4	.070	.35	<.040	.44	.03	.04	--	<200	<10
JUL 07...	42	16	130	<2	.060	.49	<.040	.68	.08	.11	--	<200	<10
SEP 12...	52	19	230	10	.040	.63	.060	.86	.15	.18	--	<200	<10

Date	Iron, water, unfltrd recover -able, µg/L (01045)	Lead, water, unfltrd recover -able, µg/L (01051)	Mangan-ese, water, unfltrd recover -able, µg/L (01055)	Nickel, water, unfltrd recover -able, µg/L (01067)	Zinc, water, unfltrd recover -able, µg/L (01092)
NOV 2004 03...	40	<1.0	10	<50	<10
JAN 2005 13...	130	<1.0	20	<50	<10
MAR 10...	80	<1.0	30	<50	12
MAY 19...	60	<1.0	20	<50	10
JUL 07...	90	<1.0	20	<50	<10
SEP 12...	50	<1.0	30	<50	<10

01442500 BRODHEAD CREEK AT MINISINK HILLS, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES

REMARKS.--Samples were collected using a D-Frame net with a mesh size of 500 µm. Samples represent counts per 100 animal (approximate) subsamples.

Date	09/06/04
Benthic macroinvertebrate	Count
Arthropoda	
Crustacea	
Amphipoda (SCUDS)	
Gammaridae	
Gammarus	1
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
Acentrella	46
Baetis	4
Heptageniidae	
Epeorus	1
Trichoptera (CADDISFLIES)	
Philopotamidae	
Chimarra	1
Rhyacophilidae	
Rhyacophila	1
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	59
Empididae (DANCE FLIES)	
Hemerodromia	1
Simuliidae (BLACK FLIES)	
Simulium	11
Total Organisms	125
Total Taxa	9

01443000 DELAWARE RIVER AT PORTLAND, PA

LOCATION.--Lat 40°55'26", long 75°05'46", Northampton County, Hydrologic Unit 02040105, at footbridge connecting Portland, PA and Columbia, NJ, 0.5 mi upstream from Paulins Kill, and at river mile 207.5.

DRAINAGE AREA.--4,165 mi^2.

PERIOD OF RECORD.--Water years 1976 to current year.

REMARKS.--Total nitrogen (00600) equals the sum of dissolved ammonia plus organic nitrogen (00623), dissolved nitrite plus nitrate nitrogen (00631), and total particulate nitrogen (49570).

COOPERATION.--Concentrations of ammonia in samples collected during November to December and August to September; orthophosphate in every sampling period except February to March; and nitrite, biochemical oxygen demand, total suspended residue, fecal coliform, E. coli, and enterococcus bacteria were determined by the New Jersey Department of Health and Senior Services, Public Health and Environmental Laboratories, Environmental and Chemical Laboratory Services.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Delaware River Main Stem, New Jersey Department of Environmental Protection Watershed Management Area 1.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Instantaneous discharge, cfs (00061)	Turbdty white light, det ang 90+/-30 corrctd NTRU (63676)	UV absorbance, 254 nm, wat flt units /cm (50624)	UV absorbance, 280 nm, wat flt units /cm (61726)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)
NOV													
09...	1200	4,710	.9	.088	.067	765	13.3	109	7.4	97	6.0	7.2	28
FEB													
03...	0930	6,110	1.4	.061	.046	764	14.3	100	7.2	98	-3.5	.7	27
MAY													
02...	1240	10,300	2.4	.065	.050	753	11.1	101	6.9	83	15.0	10.8	23
AUG													
04...	0900	1,930	1.0	.056	.043	754	7.4	95	7.7	111	28.5	27.7	29

Date	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)	Residue on evap. at 180degC wat flt mg/L (70300)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, fltrd, mg/L as N (00623)
NOV													
09...	8.50	1.61	.89	6.47	22	10.6	<.1	2.2	5.7	50	65	3	.13
FEB													
03...	8.32	1.54	.71	6.52	18	10.6	E.1	3.9	8.0	52	49	--	.15
MAY													
02...	6.76	1.38	.65	5.99	15	9.81	E.1	2.2	6.9	43	55	--	.17
AUG													
04...	8.68	1.70	.94	7.72	22	12.9	<.1	1.3	7.4	54	60	1	.22

Date	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Total nitrogen, water, fltrd, mg/L (00602)	Total nitrogen, water, unfltrd mg/L (00600)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)
NOV													
09...	.011	.13	.002	.04	.27	.30	<.010	.008	.014	.3	<.1	.3	2.4
FEB													
03...	E.026	.37	--	<.02	.52	--	E.003	.008	.012	<.1	<.1	<.1	1.9
MAY													
02...	<.040	.17	--	.03	.34	.37	E.005	.006	.014	.2	<.1	.2	1.8
AUG													
04...	.033	<.06	--	.06	--	--	E.009	.014	.023	.4	<.1	.4	2.0

01443000 DELAWARE RIVER AT PORTLAND, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005--Continued

Date	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)
NOV				
09...	2.2	11	--	--
FEB				
03...	--	7.0	1	16
MAY				
02...	--	E5.8	4	111
AUG				
04...	<1.0	8.5	--	--

Remark codes used in this table:
< -- Less than.
E -- Estimated.

WATER-COLUMN BACTERIA ANALYSES

Samples were collected synoptically over a 30-day period during the summer.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Instantaneous discharge, cfs (00061)	Enterococci, m-E MF, water, col/ 100 mL (31649)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coliform, ECbroth water, MPN/ 100 mL (31615)
JUL					
28...	1030	2,120	70	<100	800
AUG					
04...	1030	2,000	10	<100	20
11...	1030	2,120	120	<100	80
18...	1030	1,810	430	<100	<20
29...	1020	2,210	140	<100	90

Remark codes used in this table:
< -- Less than.

01446500 DELAWARE RIVER AT BELVIDERE, NJ

LOCATION.--Lat 40°49'34", long 75°04'57", revised, Warren County, Hydrologic Unit 02040105, on left bank at Belvidere, 800 ft downstream from Pequest River, and at river mile 197.7.

DRAINAGE AREA.--4,535 mi^2.

PERIOD OF RECORD.--October 1922 to current year.

REVISED RECORDS.--WSP 781: 1933(M). WSP 951: 1940-41, Drainage area. WSP 1432: 1923, 1924(M).

GAGE.--Water-stage recorder. Datum of gage 226.43 ft above NGVD of 1929. Prior to Jan. 1, 1929, nonrecording gage at site 200 ft upstream at same datum.

REMARKS.--Records good. Diurnal fluctuations at medium and low flow caused by powerplants on tributary streams. Flow regulated by lakes Wallenpaupack and Cliff, and by Pepacton, Cannonsville, Swinging Bridge, Toronto, and Neversink Reservoirs and smaller reservoirs. Diversions from Pepacton, Cannonsville, and Neversink Reservoir. Information on the above lakes and reservoirs can be found in the annual Water-Data Report NJ-05-1. U. S. Geological Survey satellite gage-height telemetry and National Weather Service telephone gage-height telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 10, 1903, reached a stage of 28.6 ft, from floodmark, discharge, 220,000 ft^3/s, from rating curve extended above 170,000 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24,900	5,090	26,600	10,500	8,090	7,240	48,800	12,200	3,100	3,830	2,130	2,540
2	19,700	4,970	35,300	10,000	7,220	6,950	59,100	11,500	2,860	3,480	2,090	2,290
3	16,900	4,880	29,700	9,530	7,100	6,820	169,000	10,800	2,880	3,080	2,170	2,280
4	14,800	4,960	22,700	10,800	7,260	6,380	191,000	9,930	2,870	2,400	2,140	2,170
5	12,900	5,290	19,300	15,900	7,330	6,050	92,200	9,260	2,790	2,370	2,060	1,780
6	11,700	6,260	16,900	15,700	6,590	5,880	59,000	9,030	2,730	2,180	2,040	1,870
7	9,930	5,440	15,400	15,900	6,460	5,790	43,800	8,590	3,210	2,690	2,120	1,900
8	9,450	4,830	16,300	15,300	6,730	7,210	35,200	7,670	3,340	3,620	2,120	1,870
9	8,690	4,770	17,300	16,100	6,550	8,370	28,500	7,240	3,600	4,500	2,370	2,060
10	7,990	4,650	17,800	15,000	7,690	7,980	23,700	6,680	3,460	4,110	2,570	2,030
11	6,810	4,450	26,000	14,200	10,000	7,080	20,000	6,070	3,570	3,200	2,440	2,060
12	6,300	4,310	31,200	14,100	10,000	7,060	17,200	5,730	3,540	2,880	2,280	2,140
13	5,960	4,810	26,400	13,600	8,060	6,720	15,200	5,270	3,340	3,050	2,560	1,980
14	5,730	4,340	22,400	33,000	6,940	6,630	13,700	4,890	3,360	3,280	2,570	2,030
15	5,450	4,100	18,900	84,000	10,100	6,330	12,600	4,970	3,880	3,010	2,770	2,280
16	5,900	3,960	16,300	56,300	12,500	6,060	11,400	5,150	3,320	3,130	2,750	2,260
17	6,940	4,250	14,600	38,000	15,700	5,950	9,120	5,090	3,180	2,920	2,160	2,220
18	6,950	4,290	13,000	28,500	15,400	5,740	8,160	4,630	3,200	2,440	1,950	1,900
19	6,780	4,300	11,400	20,900	12,800	5,620	7,770	4,420	2,890	2,330	1,990	1,630
20	10,700	4,080	10,700	18,700	10,900	5,540	7,650	3,890	2,650	2,990	1,970	1,820
21	12,400	4,060	8,730	16,500	10,700	5,770	7,360	3,590	2,610	2,760	2,000	1,970
22	9,670	3,920	7,740	12,000	9,990	6,500	6,910	3,390	2,890	2,480	1,960	2,020
23	8,600	4,110	9,270	10,700	9,700	7,150	7,720	3,300	2,910	2,530	1,930	1,980
24	7,950	4,430	18,400	10,600	9,130	8,420	10,600	3,300	2,570	2,470	2,010	2,070
25	7,390	5,260	22,900	10,600	8,250	8,490	15,200	3,330	2,570	2,250	2,030	2,060
26	7,100	6,570	17,900	11,400	7,590	8,230	15,100	3,310	2,470	2,110	1,970	2,090
27	6,890	8,360	15,400	10,300	7,180	7,780	13,400	3,260	2,310	2,420	2,060	2,060
28	6,220	13,600	13,100	8,930	7,190	10,600	14,100	3,230	2,490	2,350	3,370	1,800
29	5,760	41,200	12,100	8,890	---	57,300	14,800	3,380	3,270	2,200	2,780	1,630
30	5,780	34,300	11,400	9,270	---	87,200	13,000	3,440	3,790	2,200	2,340	1,930
31	5,330	---	11,000	9,090	---	58,800	---	3,330	---	2,310	2,250	---
TOTAL	287,570	219,840	556,140	574,310	253,150	397,640	991,290	179,870	91,650	87,570	69,950	60,720
MEAN	9,276	7,328	17,940	18,530	9,041	12,830	33,040	5,802	3,055	2,825	2,256	2,024
MAX	24,900	41,200	35,300	84,000	15,700	87,200	191,000	12,200	3,880	4,500	3,370	2,540
MIN	5,330	3,920	7,740	8,890	6,460	5,540	6,910	3,230	2,310	2,110	1,930	1,630

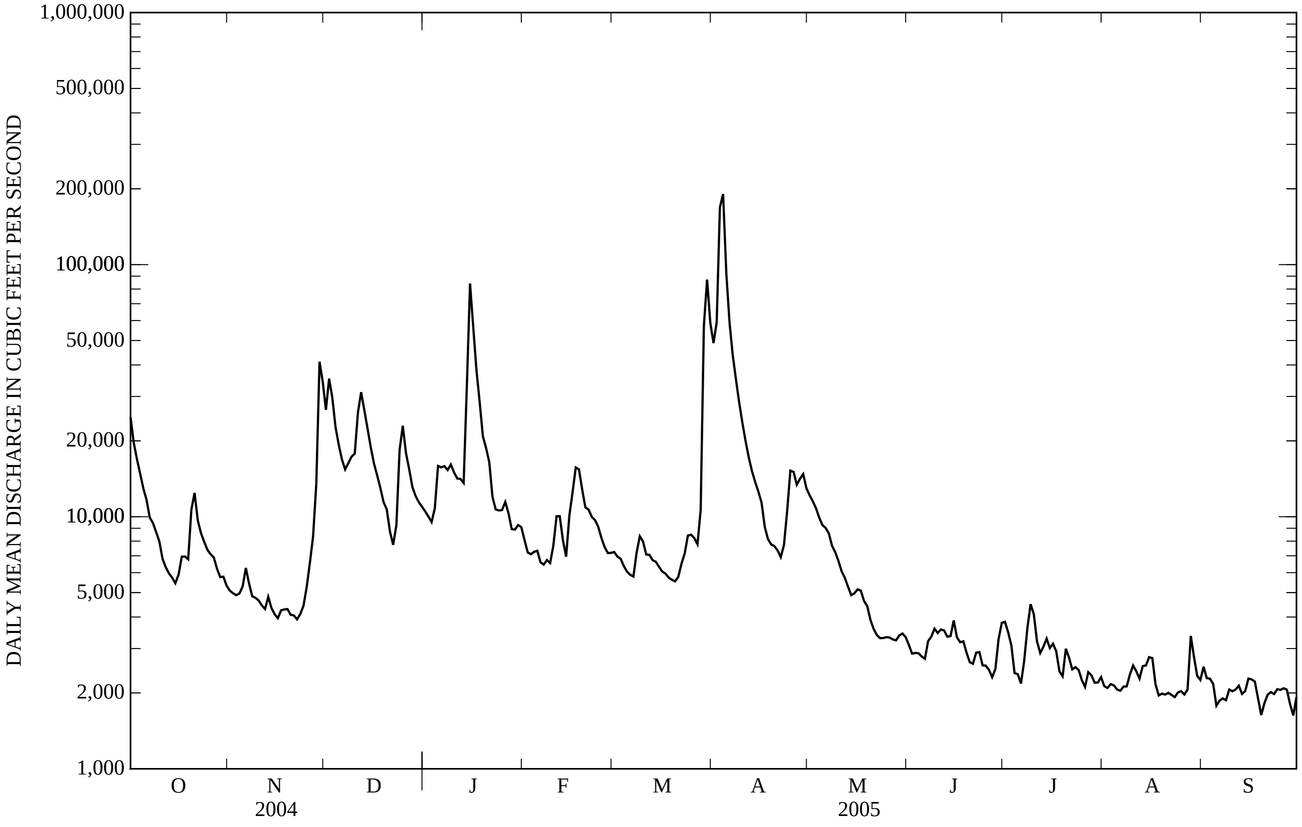
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1923 - 2005, BY WATER YEAR (WY)

MEAN	4,787	7,205	8,660	8,121	8,228	13,900	15,860	9,828	6,125	4,287	3,742	4,098
MAX	19,570	21,140	27,730	21,020	19,930	42,520	40,720	21,470	22,280	16,840	19,260	23,400
(WY)	(1956)	(1928)	(1997)	(1996)	(1976)	(1936)	(1940)	(1989)	(1972)	(1928)	(1955)	(2004)
MIN	1,055	1,226	1,481	1,683	2,452	5,243	4,512	3,261	1,590	1,017	881	1,199
(WY)	(1942)	(1965)	(1923)	(1981)	(1980)	(1981)	(1985)	(1965)	(1965)	(1965)	(1954)	(1941)

01446500 DELAWARE RIVER AT BELVIDERE, NJ--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1923 - 2005	
ANNUAL TOTAL	3,794,470		3,769,700			
ANNUAL MEAN	10,370		10,330		7,896	
HIGHEST ANNUAL MEAN					14,130	1928
LOWEST ANNUAL MEAN					2,990	1965
HIGHEST DAILY MEAN	167,000	Sep 19	191,000	Apr 4	191,000	Apr 4, 2005
LOWEST DAILY MEAN	2,240	Jul 4	1,630	Sep 19, 29	610	Aug 25, 1954
ANNUAL SEVEN-DAY MINIMUM	2,360	Jul 1	1,910	Sep 18	782	Aug 14, 1954
MAXIMUM PEAK FLOW			226,000	Apr 4	273,000a	Aug 19, 1955
MAXIMUM PEAK STAGE			27.22	Apr 4	30.21b	Aug 19, 1955
INSTANTANEOUS LOW FLOW			1,430	Sep 19	609	Sep 28, 1943
10 PERCENT EXCEEDS	18,300		18,500		16,600	
50 PERCENT EXCEEDS	7,860		6,070		5,050	
90 PERCENT EXCEEDS	3,440		2,120		1,970	

a From rating curve extended above 170,000 ft^3/s on basis of flood-routing study.
b From high-water mark in gage house.
e Estimated



01447500 LEHIGH RIVER AT STODDARTSVILLE, PA
(Pennsylvania Water-Quality Network Station)

LOCATION.--Lat 41°07'49", long 75°37'33", Monroe County, Hydrologic Unit 02040106, on left bank 75 ft upstream from bridge on State Highway 115, at Stoddartsville, 1.9 mi upstream from Tobyhanna Creek, and 4.0 mi southwest of Thornhurst.

DRAINAGE AREA.--91.7 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1943 to current year.

REVISED RECORDS.--WSP 1382: 1947, 1951.

GAGE.--Water-stage recorder. Datum of gage is 1,463.81 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1946, nonrecording gage at site 350 ft downstream at datum 2.14 ft lower.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Satellite and landline telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 22, 1942, reached a stage of 12.03 ft, from floodmark, present site and datum, discharge, 15,700 ft^3/s.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,300 ft^3/s and maximum (*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Nov. 28	1645	2,580	5.18	Mar. 29	0615	2,430	5.01
Jan. 14	1245	4,160	6.98	Apr. 3	0315	*6,500	*9.26

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	448	135	795	252	171	156	792	172	68	66	21	29
2	351	126	749	234	161	150	1740	157	59	47	24	23
3	303	123	533	237	156	135	5060	155	55	37	26	19
4	263	133	420	451	144	132	2020	143	85	31	19	17
5	236	190	359	400	135	125	1050	134	74	31	20	17
6	209	162	331	427	133	124	728	129	79	59	22	16
7	195	144	359	421	133	130	575	121	127	67	21	15
8	187	131	437	387	135	190	505	115	94	137	22	15
9	175	121	371	369	150	e170	423	111	73	144	24	15
10	167	114	508	329	211	e150	369	104	68	98	22	14
11	158	140	725	325	183	e140	330	98	60	66	20	14
12	152	160	552	367	158	140	298	94	57	54	21	14
13	144	143	450	469	144	131	276	85	51	47	23	14
14	143	134	384	2830	140	124	253	82	45	44	25	14
15	148	127	332	1740	232	119	233	102	40	47	28	14
16	287	120	e300	936	251	116	209	93	39	50	21	15
17	260	117	283	653	260	115	200	84	50	54	19	16
18	208	115	262	e490	236	117	190	79	47	46	17	15
19	304	114	251	e410	e200	123	180	75	45	43	17	15
20	309	118	e200	e390	e190	138	170	73	43	37	20	14
21	260	126	e190	355	195	157	163	71	38	33	18	14
22	251	113	194	e330	179	160	152	71	35	30	17	14
23	220	94	436	e330	173	202	175	68	33	29	19	14
24	196	95	845	e330	e160	222	322	70	30	27	17	13
25	180	186	533	e300	e150	200	268	70	30	31	15	13
26	168	187	e370	e270	149	188	218	74	30	31	15	14
27	157	146	e310	228	145	193	197	73	37	30	16	21
28	148	1430	296	217	140	491	186	72	32	31	28	17
29	141	1440	277	219	---	2090	170	91	40	25	31	15
30	154	742	254	209	---	1390	165	77	139	23	24	16
31	147	---	246	188	---	977	---	78	---	22	25	---
TOTAL	6669	7226	12552	15093	4814	8995	17617	3021	1703	1517	657	476
MEAN	215	241	405	487	172	290	587	97.5	56.8	48.9	21.2	15.9
MAX	448	1440	845	2830	260	2090	5060	172	139	144	31	29
MIN	141	94	190	188	133	115	152	68	30	22	15	13
CFSM	2.35	2.63	4.42	5.31	1.87	3.16	6.40	1.06	0.62	0.53	0.23	0.17
IN.	2.71	2.93	5.09	6.12	1.95	3.65	7.15	1.23	0.69	0.62	0.27	0.19

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 2005, BY WATER YEAR (WY)

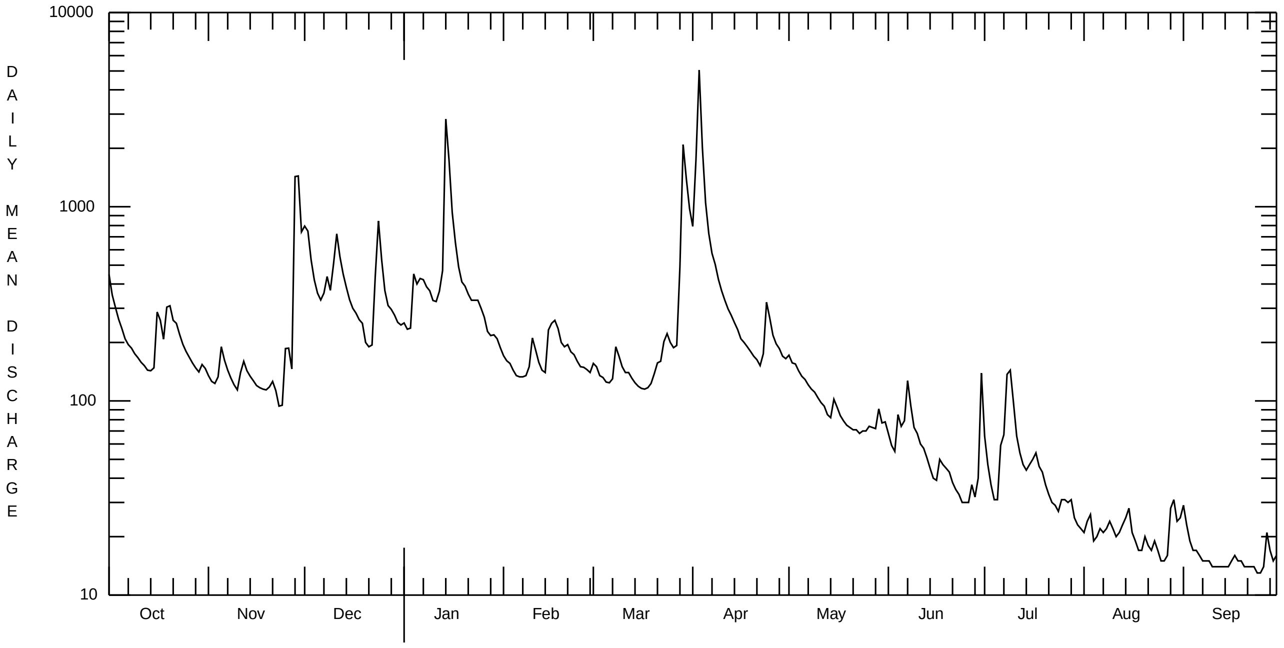
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	123	182	220	200	195	305	354	250	164	105	91.3	96.7
MAX	613	439	561	665	709	577	867	604	655	528	1101	574
(WY)	1956	1973	1974	1996	1981	1977	1993	1989	1972	1947	1955	2004
MIN	14.1	17.1	35.5	18.3	62.2	131	135	92.9	43.0	19.8	14.2	9.18
(WY)	1964	1965	1981	1981	1980	1989	1995	1995	1962	1965	1964	1964

e Estimated.

01447500 LEHIGH RIVER AT STODDARTSVILLE, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1944 - 2005	
ANNUAL TOTAL	88372		80340			
ANNUAL MEAN	241		220		191	
HIGHEST ANNUAL MEAN					282	2003
LOWEST ANNUAL MEAN					86.2	1965
HIGHEST DAILY MEAN	6050	Sep 18	5060	Apr 3	18900	Aug 19 1955
LOWEST DAILY MEAN	34	Jul 11	13	Sep 24,25	7.0	Sep 26 1964
ANNUAL SEVEN-DAY MINIMUM	38	Jul 5	14	Sep 20	7.4	Sep 21 1964
MAXIMUM PEAK FLOW			**a**6500	Apr 3	**a**31900	Aug 19 1955
MAXIMUM PEAK STAGE			9.26	Apr 3	**b**16.37	Aug 19 1955
INSTANTANEOUS LOW FLOW					7.0	Sep 26 1964
ANNUAL RUNOFF (CFSM)	2.63		2.40		2.08	
ANNUAL RUNOFF (INCHES)	35.85		32.59		28.23	
10 PERCENT EXCEEDS	437		422		392	
50 PERCENT EXCEEDS	168		139		130	
90 PERCENT EXCEEDS	82		19		32	

a From rating curve extended above 1,700 ft^3/s on basis of slope-area measurement of peak flow.
b From floodmark.



OCTOBER 1, 2004 TO SEPTEMBER 30, 2005

01447500 LEHIGH RIVER AT STODDARTSVILLE, PA--Continued
(Pennsylvania Water-Quality Network Station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1926 to 1982; April 2002 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Water year 1981 to September 30, 2004.

INSTRUMENTATION.--Temperature probe interfaced with a data collection platform.

REMARKS.--Water temperature records rated good. Interruptions in the record were due to malfunctions of the recording instrument. Some values for *"dissolved"* parameters exceed values for the corresponding *"total"* parameter. These results are within the limits of analytical precision and methods. Other data for the Water-Quality Network can be found on pages 386-432.

COOPERATION.--Samples were collected as part of the Pennsylvania Department of Environmental Protection Water-Quality Network (WQN) with cooperation from the Pennsylvania Department of Environmental Protection.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum recorded, 31.5°C, July 6, 1999; minimum, 0.0°C, many days during winters.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 26.5°C, July 5; minimum, 0.0°C, many days during winter.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conductance, wat unf lab, µS/cm 25 degC (90095)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Calcium water unfltrd recoverable, mg/L (00916)
NOV 2004													
17...	1200	1028	9813	116	13.6	6.9	6.4	60	54	3.4	15	4.6	4.6
JAN 2005													
04...	1430	1028	9813	473	9.3	5.7	6.6	56	52	4.0	13	4.0	4.0
MAR													
16...	1630	1028	9813	119	13.1	6.9	6.5	82	78	4.4	18	5.0	5.4
MAY													
10...	0900	1028	9813	104	10.9	7.0	7.0	67	67	13.9	15	4.4	4.5
JUL													
26...	0800	1028	9813	33	7.8	6.9	6.8	81	81	19.5	25	7.2	7.5
SEP													
19...	1100	1028	9813	15	9.9	7.1	7.4	91	90	16.4	25	8.0	7.7

Date	Magnesium, water, fltrd, mg/L (00925)	Magnesium, water, unfltrd recoverable, mg/L (00927)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 105degC wat flt mg/L (00515)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia water, unfltrd mg/L as N (00610)	Nitrate water unfltrd mg/L as N (00620)	Nitrite water, unfltrd mg/L as N (00615)	Total nitrogen, water, unfltrd mg/L (00600)	Orthophosphate, water, unfltrd mg/L as P (70507)	Phosphorus, water, unfltrd mg/L (00665)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)
NOV 2004													
17...	.94	.95	7	5.6	52	<2	<.020	.11	<.040	.27	<.01	.02	.8
JAN 2005													
04...	.84	.82	6	5.9	70	4	<.020	.16	<.040	.38	<.01	.01	.7
MAR													
16...	.99	1.0	6	6.5	68	<2	.020	.21	<.040	.31	<.01	<.01	.8
MAY													
10...	.95	.97	7	6.0	92	<2	<.020	<.04	<.040	.48	<.01	.01	--
JUL													
26...	1.4	1.5	12	5.5	58	<2	.020	.11	<.040	.17	<.01	.02	.4
SEP													
19...	1.6	1.5	16	5.3	110	<2	.020	<.04	<.040	.47	<.01	.01	.5

01447500 LEHIGH RIVER AT STODDARTSVILLE, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Alum- inum, water, fltrd, µg/L (01106)	Alum- inum, water, unfltrd recover -able, µg/L (01105)	Copper, water, fltrd, µg/L (01040)	Copper, water, unfltrd recover -able, µg/L (01042)	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recover -able, µg/L (01045)	Lead, water, fltrd, µg/L (01049)	Lead, water, unfltrd recover -able, µg/L (01051)	Mangan- ese, water, fltrd, µg/L (01056)	Mangan- ese, water, unfltrd recover -able, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recover -able, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)
NOV 2004													
17...	40	60	<4	<4	110	160	<1.0	<1.0	10	20	<4.0	<4.0	<5.0
JAN 2005													
04...	90	140	<4	<4	100	200	<1.0	<1.0	50	60	<4.0	<4.0	8.5
MAR													
16...	30	60	<4	<4	50	100	<1.0	<1.0	30	40	<4.0	<4.0	6.3
MAY													
10...	30	40	<4	<4	40	100	<1.0	<1.0	10	20	<4.0	<4.0	<5.0
JUL													
26...	20	40	<4	<4	60	120	<1.0	<1.0	10	30	<4.0	<4.0	<5.0
SEP													
19...	10	20	<4	<4	20	60	<1.0	<1.0	20	40	<4.0	<4.0	<5.0

Date	Zinc, water, unfltrd recover -able, µg/L (01092)
NOV 2004	
17...	5.4
JAN 2005	
04...	10
MAR	
16...	6.3
MAY	
10...	<5.0
JUL	
26...	42
SEP	
19...	<5.0

01447500 LEHIGH RIVER AT STODDARTSVILLE, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES

REMARKS.--Samples were collected using a D-Frame net with a mesh size of 500 µm. Samples represent counts per 100 animal (approximate) subsamples.

Date	08/26/04
Benthic macroinvertebrate	Count
Nemertea (PROBOSCIS WORMS)	
Enopla	
Hoplonemertea	
Tetrastemmatidae	
Prostoma	2
Mollusca	
Gastropoda (SNAILS)	
Basommatophora	
Ancylidae	
Ferrissia	2
Bivalvia (CLAMS)	
Veneroida	
Sphaeriidae	
Sphaerium	22
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Lumbriculida	
Lumbriculidae	2
Tubificida	
Naididae	1
Arthropoda	
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
Acentrella	13
Baetis	2
Ephemerellidae	
Attenella	2
Dannella	7
Eurylophella	1
Serratella	2
Heptageniidae	
Epeorus	7
Stenonema	14
Isonychiidae	
Isonychia	7
Leptophlebiidae	
Paraleptophlebia	9
Odonata (DRAGONFLIES AND DAMSELFLIES)	
Gomphidae	2
Plecoptera (STONEFLIES)	
Perlidae	
Acroneuria	2
Trichoptera (CADDISFLIES)	
Hydropsychidae	
Cheumatopsyche	4
Hydropsyche	4
Philopotamidae	
Chimarra	7
Dolophilodes	1
Rhyacophilidae	
Rhyacophila	4

01447500 LEHIGH RIVER AT STODDARTSVILLE, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES--Continued

Date	08/26/04
Benthic macroinvertebrate	Count
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
Oulimnius	2
Stenelmis	5
Psephenidae (WATER PENNIES)	
Psephenus	4
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	24
Total Organisms	152
Total Taxa	26

01447680 TUNKHANNOCK CREEK NEAR LONG POND, PA

LOCATION.--Lat 41°03'55", long 75°31'19", Monroe County, Hydrologic Unit 02040106, on left bank 0.6 mi downstream from unnamed tributary, 0.9 mi downstream from bridge on SR 4002, 3.0 mi west of Long Pond, and 5.0 mi upstream from mouth.

DRAINAGE AREA.--20.0 mi^2. At site used prior to July 7, 1966, 16.8 mi^2.

PERIOD OF RECORD.--March 1965 to current year.

REVISED RECORDS.--WDR PA-90-1: 1990 (monthly runoff); WDR PA-01-1: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,804.83 ft above National Geodetic Vertical Datum of 1929. Prior to July 7, 1966, nonrecording gage at site 0.8 mi upstream at different datum.

REMARKS.--Records fair except those for period June 21 to Sept. 22 and those for estimated daily discharges, which are poor. Diversion upstream to Wild Creek Basin since October 1969. Several measurements of water temperature were made during the year. Satellite telemetry at station.

COOPERATION.--Records of diversion provided by the city of Bethlehem.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	137	48	222	76	e50	36	196	63	25	11	6.2	17
2	113	46	186	76	e49	e38	324	58	21	7.5	5.9	16
3	92	40	149	69	49	e37	872	49	19	10	5.5	12
4	77	44	120	95	49	e34	704	45	25	7.6	5.0	9.5
5	67	50	98	101	48	e32	417	43	27	6.7	4.6	9.2
6	61	54	e88	99	47	e32	268	40	25	6.0	4.3	7.5
7	56	47	86	95	47	37	190	38	37	6.5	4.1	5.8
8	55	40	100	e90	48	e50	158	35	34	10	6.0	5.0
9	52	39	103	87	58	e48	139	38	29	14	11	4.2
10	49	38	116	79	66	e42	117	36	41	14	11	4.0
11	49	36	139	79	e62	37	102	34	37	11	8.8	3.9
12	47	40	133	81	54	35	92	32	28	8.8	7.8	3.5
13	47	48	114	99	45	34	84	34	22	11	8.0	3.4
14	46	46	92	341	44	32	78	32	18	15	8.8	3.4
15	53	41	74	395	96	e32	71	35	17	14	12	4.1
16	105	38	69	311	116	e32	66	36	16	12	13	4.1
17	118	35	65	e200	100	32	62	32	17	19	11	3.7
18	108	35	61	e150	e81	31	59	30	15	20	9.4	2.7
19	100	33	e56	113	e66	32	57	29	15	16	10	2.8
20	92	34	e54	96	52	34	53	29	15	11	13	2.9
21	86	37	e52	89	42	37	51	30	14	9.6	12	3.0
22	80	38	52	e80	49	39	51	29	17	8.1	9.6	3.7
23	70	36	114	e74	45	41	60	29	19	6.6	7.5	4.2
24	61	39	233	e80	43	46	116	28	19	7.0	6.1	4.4
25	54	90	e190	74	e40	45	108	26	18	8.0	5.2	4.5
26	50	102	162	71	e39	40	80	27	16	8.4	4.3	5.5
27	49	87	e110	e68	e38	38	67	27	14	8.0	4.4	5.7
28	47	282	e90	e62	38	77	71	27	13	8.0	10	7.0
29	44	391	77	e57	---	271	60	33	12	7.3	18	6.8
30	47	313	73	57	---	291	54	33	12	6.7	19	5.3
31	49	---	71	56	---	256	---	28	---	6.6	19	---
TOTAL	2161	2247	3349	3500	1561	1898	4827	1085	637	315.4	280.5	174.8
MEAN	69.7	74.9	108	113	55.8	61.2	161	35.0	21.2	10.2	9.05	5.83
MAX	137	391	233	395	116	291	872	63	41	20	19	17
MIN	44	33	52	56	38	31	51	26	12	6.0	4.1	2.7
(†)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

† Diversion to Wild Creek Basin, equivalent in cubic feet per second.
e Estimated.

01447680 TUNKHANNOCK CREEK NEAR LONG POND, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2005, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	36.3	45.3	56.4	48.4	44.6	65.5	81.0	57.6	44.9	27.8	22.2	31.4
MAX	93.2	90.4	161	137	89.3	148	209	115	146	89.5	63.6	142
(WY)	1978	2004	1997	1996	1996	1977	1993	1990	2003	1984	1990	1987
MIN	7.13	9.39	7.07	3.85	13.2	21.1	20.5	20.5	10.5	4.19	2.52	4.59
(WY)	2001	1981	1981	1981	1980	1989	1985	1999	1999	1999	1999	1995

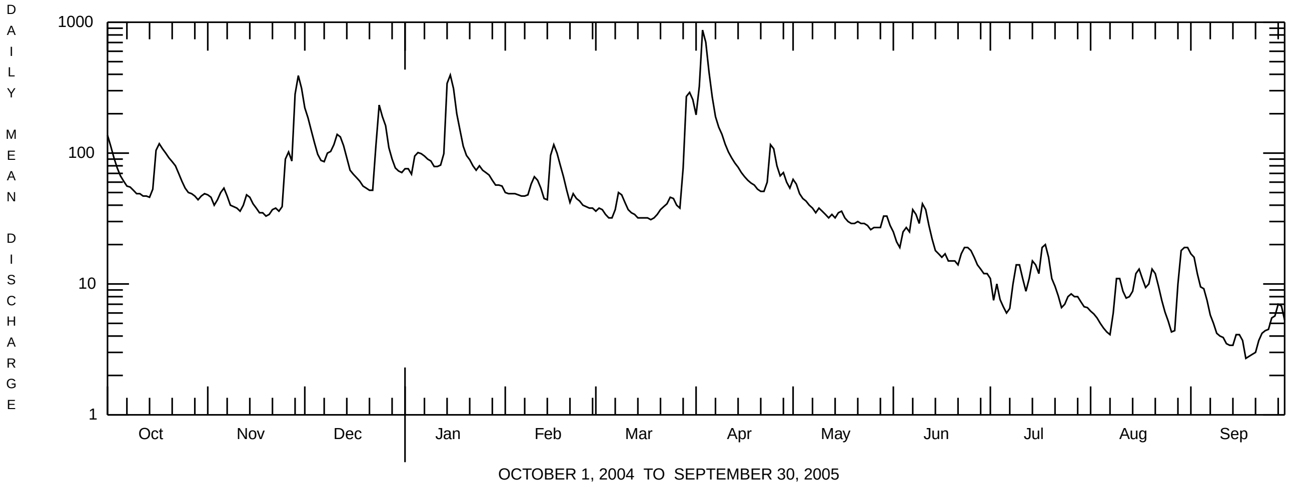
SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1970 - 2005	
ANNUAL TOTAL	22603		22035.7			
ANNUAL MEAN	61.8		60.4		46.8	
HIGHEST ANNUAL MEAN					72.7	2003
LOWEST ANNUAL MEAN					22.2	2001
HIGHEST DAILY MEAN	659	Sep 19	872	Apr 3	872	Apr 3 2005
LOWEST DAILY MEAN	12	Jul 6,8-11	2.7	Sep 18	1.4	Aug 11,12 1999
ANNUAL SEVEN-DAY MINIMUM	12	Jul 5	3.3	Sep 16	[a]1.7	Aug 7 1999
MAXIMUM PEAK FLOW			965	Apr 3	965	Apr 3 2005
MAXIMUM PEAK STAGE			5.27	Apr 3	5.27	Apr 3 2005
10 PERCENT EXCEEDS	113		114		95	
50 PERCENT EXCEEDS	41		40		33	
90 PERCENT EXCEEDS	24		6.6		10	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1969, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	21.5	29.2	37.5	25.7	23.3	55.7	42.6	38.3	38.8	26.6	27.7	16.0
MAX	36.3	35.8	63.0	33.0	27.8	64.7	53.3	49.0	83.3	77.1	80.8	26.6
(WY)	1966	1969	1969	1969	1968	1966	1967	1968	1969	1969	1969	1969
MIN	12.5	22.9	21.0	17.1	21.1	42.2	29.4	20.8	10.4	7.17	8.46	8.86
(WY)	1969	1966	1966	1966	1967	1969	1966	1965	1965	1965	1966	1966

SUMMARY STATISTICS	WATER YEARS 1965 - 1969	
ANNUAL TOTAL ANNUAL MEAN	33.8	
HIGHEST ANNUAL MEAN	47.0	1969
LOWEST ANNUAL MEAN	24.7	1966
HIGHEST DAILY MEAN	448	Jul 30 1969
LOWEST DAILY MEAN	4.0	Sep 13 1966
ANNUAL SEVEN DAY MINIMUM	4.7	Sep 8 1966
MAXIMUM PEAK FLOW	480	Jul 30 1969
MAXIMUM PEAK STAGE	4.34	Jul 30 1969
INSTANTANEOUS LOW FLOW	3.0	Mar 11 1969
ANNUAL RUNOFF (CFSM)	1.88	
ANNUAL RUNOFF (INCHES)	25.53	
10 PERCENT EXCEEDS	60	
50 PERCENT EXCEEDS	24	
90 PERCENT EXCEEDS	8.6	

[a] Computed using estimated daily discharges.



01447720 TOBYHANNA CREEK NEAR BLAKESLEE, PA
(Pennsylvania Water-Quality Network Station)

LOCATION.--Lat 41°05'05", long 75°36'21", Carbon County, Hydrologic Unit 02040106, on left bank 50 ft downstream from bridge on State Highway 940, 500 ft downstream from Shingle Mill Run, and 1.5 mi southwest of Blakeslee.

DRAINAGE AREA.--118 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,511.23 ft above National Geodetic Vertical Datum of 1929. Prior to Jan. 16, 1962, nonrecording gage at site 50 ft upstream at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Power generation at Pocono Lake about 5.0 mi upstream since 1985 and minor diversion from Tunkhannock Creek Basin into Wild Creek Basin. Satellite and landline telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 19, 1955, reached a stage of 19.41 ft, from floodmark, discharge, 35,300 ft^3/s, by slope-area measurement.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,600 ft^3/s and maximum (*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Nov. 28	1830	4,690	9.12	Mar. 29	0945	2,280	6.95
Dec. 24	0330	1,950	6.55	Apr. 3	0630	*11,500	*13.27
Jan. 14	1415	4,450	8.93				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	679	209	1030	370	e240	231	1020	285	90	51	56	68
2	536	201	923	363	e230	233	2710	255	84	48	36	61
3	441	187	723	355	228	203	9000	195	113	50	35	56
4	323	198	579	564	225	199	3510	228	92	49	34	52
5	298	266	488	613	212	e180	1650	181	91	47	34	51
6	309	e260	440	614	219	e170	1090	187	134	49	34	49
7	292	e240	444	617	223	190	852	180	140	68	34	47
8	260	189	542	537	229	e220	763	168	169	96	41	46
9	245	174	545	492	264	e250	650	144	96	137	44	44
10	220	153	699	440	326	e230	543	151	133	121	42	44
11	211	158	916	453	292	222	461	146	120	83	39	43
12	199	206	776	471	278	202	403	140	103	79	43	43
13	194	222	628	596	260	186	365	131	95	93	56	42
14	194	196	523	3510	273	176	337	129	81	264	88	45
15	215	178	431	2490	518	170	315	173	78	116	88	47
16	577	187	382	1280	580	174	276	152	121	119	88	43
17	580	189	357	883	542	159	260	104	80	118	85	38
18	455	170	333	629	439	172	249	138	76	114	81	36
19	497	170	322	519	341	179	238	124	75	92	87	35
20	514	156	e310	479	300	203	222	126	73	79	89	34
21	452	184	e270	e390	292	233	224	125	72	72	85	37
22	402	163	265	e390	282	226	211	125	70	70	81	45
23	347	153	789	e380	266	292	262	124	71	68	66	45
24	305	194	1700	e420	247	321	523	121	69	67	49	46
25	244	480	1070	e400	237	303	546	120	61	75	47	45
26	240	516	734	356	216	254	412	120	48	68	46	49
27	272	407	552	e310	211	248	343	119	46	57	47	52
28	237	3070	437	e300	211	631	327	121	43	69	63	49
29	208	2790	394	e290	---	2170	288	131	48	67	65	51
30	230	1330	370	287	---	1680	247	158	52	65	63	48
31	243	---	356	e260	---	1260	---	157	---	64	69	---
TOTAL	10419	13196	18328	20058	8181	11567	28297	4758	2624	2615	1815	1391
MEAN	336	440	591	647	292	373	943	153	87.5	84.4	58.5	46.4
MAX	679	3070	1700	3510	580	2170	9000	285	169	264	89	68
MIN	194	153	265	260	211	159	211	104	43	47	34	34
CFSM	2.85	3.73	5.01	5.48	2.48	3.16	7.99	1.30	0.74	0.71	0.50	0.39
IN.	3.28	4.16	5.78	6.32	2.58	3.65	8.92	1.50	0.83	0.82	0.57	0.44

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2005, BY WATER YEAR (WY)

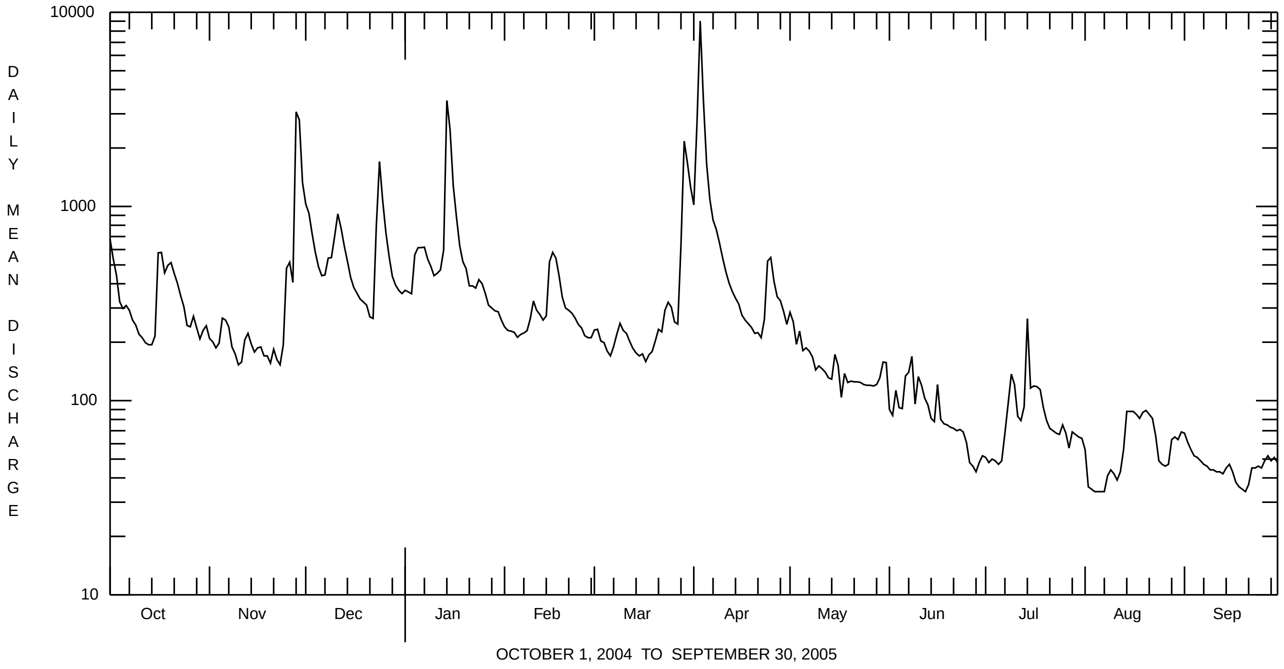
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	200	269	310	281	268	413	470	319	234	147	124	184
MAX	598	644	827	1019	768	948	1247	784	826	481	372	882
(WY)	1977	1973	1997	1996	1981	1977	1993	1989	2003	1969	1969	2004
MIN	31.2	48.1	58.0	40.6	100	172	162	134	64.1	30.3	34.3	28.0
(WY)	1964	1965	1981	1981	1980	1989	1985	1999	1999	1999	1964	1964

e Estimated.

01447720 TOBYHANNA CREEK NEAR BLAKESLEE, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1962 - 2005	
ANNUAL TOTAL	132045		123249			
ANNUAL MEAN	361		338		268	
HIGHEST ANNUAL MEAN					406	2003
LOWEST ANNUAL MEAN					129	1965
HIGHEST DAILY MEAN	7740	Sep 18	9000	Apr 3	9000	Apr 3 2005
LOWEST DAILY MEAN	43	Jul 11	34	Aug 4-7**a**	21	Aug 12 1999**b**
ANNUAL SEVEN-DAY MINIMUM	45	Jul 5	35	Aug 2	23	Sep 21 1964
MAXIMUM PEAK FLOW			**c**11500	Apr 3	**c**11500	Apr 3 2005
MAXIMUM PEAK STAGE			13.27	Apr 3	13.27	Apr 3 2005
INSTANTANEOUS LOW FLOW					16	Aug 8 1991
ANNUAL RUNOFF (CFSM)	3.06		2.86		2.27	
ANNUAL RUNOFF (INCHES)	41.63		38.85		30.87	
10 PERCENT EXCEEDS	646		603		535	
50 PERCENT EXCEEDS	240		203		180	
90 PERCENT EXCEEDS	126		48		58	

a Also Sept. 20.
b Also Sept. 3, 4, 1999.
c From rating curve extended above 9,300 ft^3/s.



01447720 TOBYHANNA CREEK NEAR BLAKESLEE, PA--Continued
(Pennsylvania Water-Quality Network Station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1930 to 1982, 2002 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Water year 1980 to September 30, 2004.

REMARKS.--Some values for *"dissolved"* parameters exceed values for the corresponding *"total"* parameter. These results are within the limits of analytical precision and methods. Other data for the Water-Quality Network can be found on pages 386-432.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conductance, wat unf lab, µS/cm 25 degC (90095)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Calcium water unfltrd recover -able, mg/L (00916)
NOV 2004													
17...	1330	1028	9813	134	12.9	6.6	6.4	71	62	4.8	14	3.9	3.8
JAN 2005													
04...	1530	1028	9813	605	--	5.8	6.5	67	61	3.6	13	4.0	3.7
MAR													
16...	1200	1028	9813	182	13.8	6.6	6.6	109	104	2.7	17	4.8	4.7
MAY													
10...	1100	1028	9813	137	10.5	6.8	6.8	81	81	14.1	14	3.7	3.7
JUL													
25...	1650	1028	9813	71	8.4	6.5	6.8	94	87	24.8	19	5.3	5.3
SEP													
19...	1000	1028	9813	35	9.1	6.3	7.2	100	98	16.3	21	6.2	5.8

Date	Magnesium, water, fltrd, mg/L (00925)	Magnesium, water, unfltrd recover -able, mg/L (00927)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 105degC wat flt mg/L (00515)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia water, unfltrd mg/L as N (00610)	Nitrate water unfltrd mg/L as N (00620)	Nitrite water, unfltrd mg/L as N (00615)	Total nitrogen, water, unfltrd mg/L (00600)	Orthophosphate, water, unfltrd mg/L as P (70507)	Phosphorus, water, unfltrd mg/L (00665)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)
NOV 2004													
17...	1.0	1.0	6	3.9	--	<2	<.020	.21	<.040	.40	<.01	.01	.6
JAN 2005													
04...	.98	.91	6	4.7	48	<2	<.020	.23	<.040	.48	<.01	.01	1.3
MAR													
16...	1.2	1.2	5	4.8	82	<2	.030	.31	<.040	.48	<.01	<.01	.8
MAY													
10...	1.1	1.1	5	4.0	88	<2	<.020	.13	<.040	.54	<.01	.02	.2
JUL													
25...	1.4	1.3	10	4.5	62	<2	.020	.14	<.040	.37	<.01	.02	.5
SEP													
19...	1.8	1.6	10	4.4	130	2	<.020	.16	<.040	.28	<.01	.01	.3

01447720 TOBYHANNA CREEK NEAR BLAKESLEE, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Alum- inum, water, fltrd, µg/L (01106)	Alum- inum, water, unfltrd recover -able, µg/L (01105)	Copper, water, fltrd, µg/L (01040)	Copper, water, unfltrd recover -able, µg/L (01042)	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recover -able, µg/L (01045)	Lead, water, fltrd, µg/L (01049)	Lead, water, unfltrd recover -able, µg/L (01051)	Mangan- ese, water, fltrd, µg/L (01056)	Mangan- ese, water, unfltrd recover -able, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recover -able, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)
NOV 2004													
17...	70	90	<4	<4	160	240	<1.0	<1.0	20	30	<4.0	<4.0	12
JAN 2005													
04...	120	170	<4	<4	120	200	<1.0	<1.0	40	50	<4.0	<4.0	22
MAR													
16...	50	100	<4	<4	60	110	<1.0	<1.0	30	40	<4.0	<4.0	12
MAY													
10...	50	80	<4	<4	60	140	<1.0	<1.0	20	30	<4.0	<4.0	6.9
JUL													
25...	30	60	<4	<4	100	270	<1.0	<1.0	20	60	<4.0	<4.0	<5.0
SEP													
19...	20	30	<4	<4	40	190	<1.0	<1.0	10	30	<4.0	<4.0	39

Date	Zinc, water, unfltrd recover -able, µg/L (01092)
NOV 2004	
17...	9.2
JAN 2005	
04...	24
MAR	
16...	17
MAY	
10...	7.4
JUL	
25...	<5.0
SEP	
19...	29

01447720 TOBYHANNA CREEK NEAR BLAKESLEE, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES

REMARKS.--Samples were collected using a D-Frame net with a mesh size of 500 µm. Samples represent counts per 100 animal (approximate) subsamples.

Date	08/25/04
Benthic macroinvertebrate	Count
Platyhelminthes	
Turbellaria (FLATWORMS)	
Tricladida	
Planariidae	1
Nemertea (PROBOSCIS WORMS)	
Enopla	
Hoplonemertea	
Tetrastemmatidae	
Prostoma	3
Mollusca	
Bivalvia (CLAMS)	
Veneroida	
Sphaeriidae	
Sphaerium	5
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Lumbriculida	
Lumbriculidae	5
Polychaeta	
Sabellida	
Sabellidae	
Manayunkia speciosa	1
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
Acentrella	8
Baetis	8
Ephemerellidae	
Attenella	2
Dannella	4
Heptageniidae	
Epeorus	2
Stenonema	17
Isonychiidae	
Isonychia	2
Leptophlebiidae	
Paraleptophlebia	8
Plecoptera (STONEFLIES)	
Perlidae	
Acroneuria	3
Trichoptera (CADDISFLIES)	
Hydropsychidae	
Cheumatopsyche	9
Hydropsyche	8
Philopotamidae	
Chimarra	4
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
Oulimnius	7
Stenelmis	8
Psephenidae (WATER PENNIES)	
Psephenus	3

01447720 TOBYHANNA CREEK NEAR BLAKESLEE, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES--Continued

Date	08/25/04
Benthic macroinvertebrate	Count
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	27
Simuliidae (BLACK FLIES)	
Simulium	1
Tipulidae (CRANE FLIES)	
Antocha	1
Dicranota	1
Total Organisms	138
Total Taxa	24

01447800 LEHIGH RIVER BELOW FRANCIS E. WALTER RESERVOIR NEAR WHITE HAVEN, PA

LOCATION.--Lat 41°06'17", long 75°43'57", Luzerne County, Hydrologic Unit 02040106, on right bank 0.7 mi downstream from Francis E. Walter Reservoir, 2.0 mi upstream from Fawn Run, and 4.0 mi northeast of White Haven.

DRAINAGE AREA.--290 mi^2.

PERIOD OF RECORD.--October 1957 to current year. Prior to October 1962 published as "*below Bear Creek Reservoir*", October 1962 to September 1971 published as "*below Francis E. Walter Reservoir*."

GAGE.--Water-stage recorder. Datum of gage is 1,212.95 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--No estimated daily discharges. Records good. Flow regulated since February 1961 by Francis E. Walter Reservoir (station 01447780) 0.7 mi upstream. Satellite and landline telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of August 1955 reached a discharge of 54,200 ft^3/s based on slope-area measurement at site 4.9 mi downstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1710	499	2940	787	760	457	3750	553	230	271	118	130
2	1170	498	3590	793	782	462	2050	502	187	540	95	140
3	1310	454	3490	710	593	462	273	471	168	493	81	125
4	922	432	2660	1160	493	412	3740	474	183	213	81	92
5	626	465	2450	1480	489	384	7300	422	205	193	81	79
6	475	448	1700	1410	483	383	7640	387	223	195	81	79
7	525	454	1160	1450	446	483	7900	387	236	219	81	79
8	609	492	1340	1400	426	620	6110	339	236	219	81	79
9	597	512	1410	1310	431	620	5080	313	237	224	81	79
10	439	462	1470	1020	644	618	4590	303	246	229	81	79
11	398	382	1640	959	716	535	3510	289	520	221	81	79
12	403	385	1720	1050	631	487	2260	321	411	205	81	70
13	403	390	1840	1180	624	447	1390	442	196	203	111	65
14	409	395	1540	1140	611	371	957	542	204	210	132	65
15	542	477	1100	1670	844	371	586	337	214	215	145	84
16	809	519	1010	3190	1190	371	586	270	147	216	158	77
17	992	508	916	3440	1230	371	558	260	145	218	158	65
18	887	455	887	3350	1050	354	348	252	139	215	125	65
19	898	382	871	3220	716	330	241	246	131	215	120	65
20	1140	379	731	3070	619	336	244	248	132	213	134	65
21	1040	379	542	2000	626	531	245	248	131	202	144	56
22	914	382	478	1130	630	635	314	248	124	180	130	51
23	870	381	580	1110	632	787	504	248	120	441	119	51
24	724	376	1860	1100	550	872	403	248	119	408	118	56
25	531	388	2700	1170	509	743	273	251	380	101	95	63
26	487	583	2510	1280	508	675	436	248	156	131	81	71
27	493	688	1780	1190	506	675	541	271	91	143	81	99
28	499	548	1130	809	475	615	666	494	82	142	81	106
29	499	2860	969	702	---	2320	647	477	78	127	100	94
30	499	4400	859	696	---	5220	571	237	181	118	112	81
31	499	---	785	687	---	4570	---	237	---	118	114	---
TOTAL	22319	19973	48658	45663	18214	26517	63713	10565	5852	7038	3281	2389
MEAN	720	666	1570	1473	650	855	2124	341	195	227	106	79.6
MAX	1710	4400	3590	3440	1230	5220	7900	553	520	540	158	140
MIN	398	376	478	687	426	330	241	237	78	101	81	51

01447800 LEHIGH RIVER BELOW FRANCIS E. WALTER RESERVOIR NEAR WHITE HAVEN, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2005, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	462	646	739	661	635	1009	1123	761	553	339	274	376
MAX	1435	1488	2079	2596	1542	2018	3198	1968	2218	1165	1153	1910
(WY)	1978	1986	1997	1996	1981	1977	1993	1989	2003	1973	1969	2004
MIN	68.5	68.1	142	131	197	326	341	311	135	66.1	55.9	43.2
(WY)	1964	1965	1999	1981	1980	1981	1966	2001	1962	1999	1999	1964

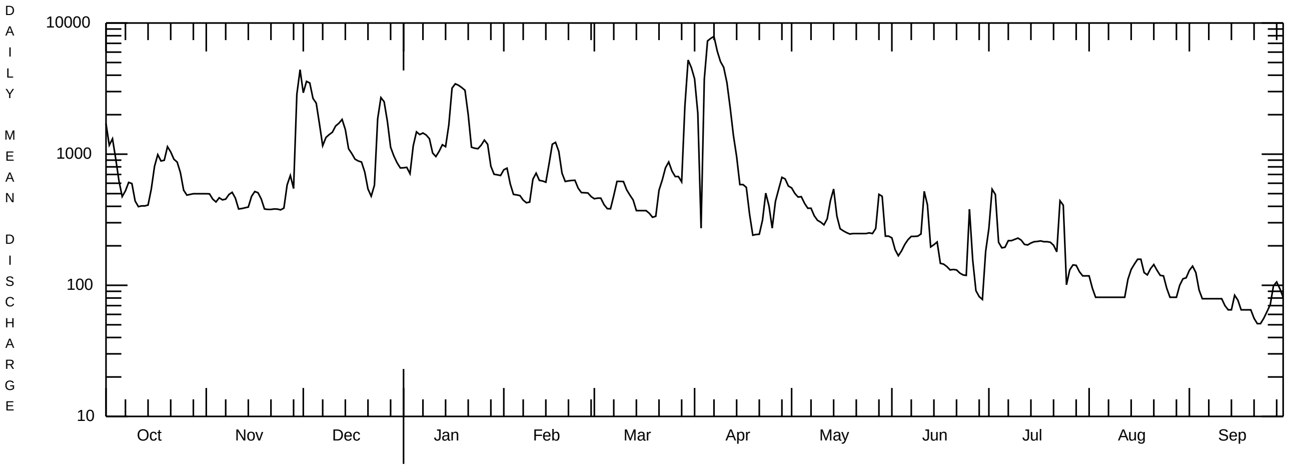
SUMMARY STATISTICS	**FOR 2004 CALENDAR YEAR**		**FOR 2005 WATER YEAR**		**WATER YEARS 1961 - 2005**	
ANNUAL TOTAL	296764		274182			
ANNUAL MEAN	811		751		631	
HIGHEST ANNUAL MEAN					957	2003
LOWEST ANNUAL MEAN					289	1965
HIGHEST DAILY MEAN	7060	Sep 20	7900	Apr 7	11000	Jan 29 1996
LOWEST DAILY MEAN	110	Jul 8-11	51	Sep 22,23	22	Jul 20 1965**a**
ANNUAL SEVEN-DAY MINIMUM	126	Jul 6	58	Sep 19	33	Jul 19 1965
MAXIMUM PEAK FLOW			8140	Apr 6	**b**11700	Apr 13 1993
MAXIMUM PEAK STAGE			7.78	Apr 6	8.86	Apr 13 1993
INSTANTANEOUS LOW FLOW					**c**1.3	Nov 14 1961
10 PERCENT EXCEEDS	1700		1650		1340	
50 PERCENT EXCEEDS	514		447		417	
90 PERCENT EXCEEDS	270		82		109	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1960, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	378	571	1002	692	678	790	1886	909	425	245	190	371
MAX	502	854	1504	778	1039	926	2536	1134	521	339	270	744
(WY)	1960	1960	1958	1960	1960	1958	1958	1958	1960	1960	1960	1960
MIN	173	347	371	549	467	610	1262	520	310	195	129	135
(WY)	1958	1958	1959	1959	1959	1960	1959	1959	1959	1959	1959	1959

SUMMARY STATISTICS	**WATER YEARS 1958 - 1960**	
ANNUAL TOTAL ANNUAL MEAN	676	
HIGHEST ANNUAL MEAN	807	1960
LOWEST ANNUAL MEAN	478	1959
HIGHEST DAILY MEAN	10700	Dec 21 1957
LOWEST DAILY MEAN	50	Oct 4 1957
ANNUAL SEVEN DAY MINIMUM	63	Oct 1 1957
MAXIMUM PEAK FLOW	**b**13800	Dec 21 1957
MAXIMUM PEAK STAGE	9.85	Dec 21 1957
ANNUAL RUNOFF (CFSM)	2.33	
ANNUAL RUNOFF (INCHES)	31.69	
10 PERCENT EXCEEDS	1390	
50 PERCENT EXCEEDS	440	
90 PERCENT EXCEEDS	141	

a Also July 22, 23, 1965.
b From rating curve extended above 11,500 ft^3/s.
c Result of shutoff at reservoir.



OCTOBER 1, 2004 TO SEPTEMBER 30, 2005

LEHIGH RIVER BASIN

01449000 LEHIGH RIVER AT LEHIGHTON, PA

LOCATION.--Lat 40°49'45", long 75°42'20", Carbon County, Hydrologic Unit 02040106, on left bank 190 ft downstream from highway bridge at Lehighton, and 0.3 mi upstream from Mahoning Creek.

DRAINAGE AREA.--591 mi^2.

PERIOD OF RECORD.--October 1945 to September 1948 (monthly discharge only, published in WSP 1302). October 1982 to current year. Gage height records beginning 1935 are contained in reports of the U.S. Weather Bureau. Miscellaneous measurements, water years 1977-78, 1980-81, and annual maximum, 1982.

REVISED RECORDS.--WDR PA-99-1: 1985(M).

GAGE.--Water-stage recorder. Datum of gage is 444.26 ft above National Geodetic Vertical Datum of 1929. Prior to August 1970, at same site at datum 2.0 ft higher. Prior to December 1982, nonrecording gage at highway bridge 190 ft upstream at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated by Francis E. Walter Reservoir (station 01447780) since February 1961. Several measurements of water temperature were made during the year. Satellite and landline telemetry at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3610	1030	6730	1760	e1300	1100	6220	1310	555	493	253	283
2	2230	996	6030	1690	e1400	1060	8110	1230	516	721	252	273
3	2640	969	6220	1630	1320	1020	12800	1130	459	714	228	264
4	2100	922	4620	2030	1090	978	7490	1100	518	458	214	242
5	1720	1060	4190	2650	1070	894	9830	1070	521	412	210	214
6	1360	970	3540	2850	1050	888	9150	976	522	430	217	200
7	1320	930	2590	2980	1030	902	9110	960	739	437	215	196
8	1330	925	2750	2930	987	e1200	7980	939	604	543	226	194
9	1420	957	2720	3010	1040	e1100	6650	823	555	585	319	193
10	1180	936	3250	2520	1230	e1100	6090	855	581	537	242	189
11	1050	824	4110	2390	1410	1140	5150	786	814	478	222	187
12	1020	913	3680	2490	1230	1030	3780	774	728	427	215	187
13	998	993	3530	2780	1200	1010	2740	807	535	416	250	179
14	1020	888	3320	8310	1220	894	2110	1080	440	545	267	174
15	1040	884	2430	5750	1920	866	1620	942	486	466	331	177
16	1690	980	2260	6330	2190	867	1410	767	429	443	304	302
17	1580	963	2070	6070	2350	869	1400	689	398	558	290	251
18	1600	954	1930	5470	2100	880	1250	662	390	510	277	198
19	1550	841	1860	5050	1700	854	963	627	363	454	248	183
20	1920	834	1680	4750	1430	899	921	651	361	422	268	177
21	1790	871	1430	3990	1480	1030	895	658	354	401	268	175
22	1710	839	1270	2450	1420	1270	861	619	347	377	260	167
23	1540	819	2320	2430	1390	1460	1150	606	331	586	241	160
24	1460	853	4430	e2280	1320	1770	1810	595	325	574	232	158
25	1200	1420	4700	e2200	1200	1680	1180	592	534	360	227	158
26	1090	1430	4230	2240	1160	1540	1100	579	374	321	207	172
27	1080	1510	3530	e2100	1130	1560	1350	564	354	313	199	207
28	1060	6420	e2500	e1700	1110	2710	1350	800	293	332	252	214
29	1040	5930	2140	1510	---	8300	1400	931	286	298	303	216
30	1090	7320	2010	1460	---	8970	1310	642	441	271	254	207
31	1080	---	1800	1390	---	7680	---	584	---	257	257	---
TOTAL	46518	46181	99870	97190	38477	57521	117180	25348	14153	14139	7748	6097
MEAN	1501	1539	3222	3135	1374	1856	3906	818	472	456	250	203
MAX	3610	7320	6730	8310	2350	8970	12800	1310	814	721	331	302
MIN	998	819	1270	1390	987	854	861	564	286	257	199	158
CFSM	2.54	2.60	5.45	5.30	2.33	3.14	6.61	1.38	0.80	0.77	0.42	0.34
IN.	2.93	2.91	6.29	6.12	2.42	3.62	7.38	1.60	0.89	0.89	0.49	0.38

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 2005, BY WATER YEAR (WY)

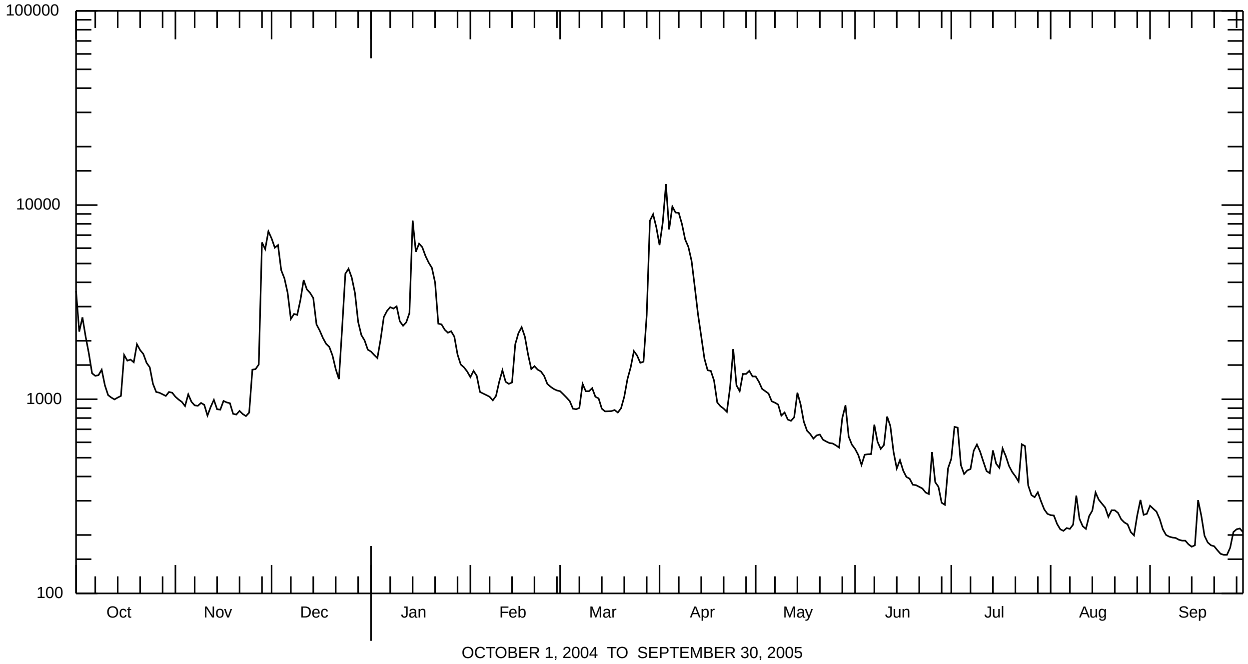
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	894	1311	1712	1372	1272	1924	2355	1669	1213	724	599	845
MAX	2135	2366	4120	4151	2470	3164	6010	4038	4404	1955	1686	3767
(WY)	2004	1986	1997	1996	1984	1986	1993	1989	2003	1984	2003	1987
MIN	238	286	267	532	566	926	895	657	325	152	154	181
(WY)	1983	1999	1999	1989	1987	1989	1995	1999	1999	1999	1999	1995

e Estimated.

01449000 LEHIGH RIVER AT LEHIGHTON, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1983 - 2005	
ANNUAL TOTAL	597590		570422			
ANNUAL MEAN	1633		1563		1323	
HIGHEST ANNUAL MEAN					1954	2003
LOWEST ANNUAL MEAN					758	1985
HIGHEST DAILY MEAN	11300	Sep 18	12800	Apr 3	15100	Apr 16 1983
LOWEST DAILY MEAN	308	Jul 11	158	Sep 24,25	104	Aug 30 1999
ANNUAL SEVEN-DAY MINIMUM	362	Jul 5	167	Sep 20	120	Aug 6 1999
MAXIMUM PEAK FLOW			**a**16100	Apr 3	**a**22900	Jan 27 1996
MAXIMUM PEAK STAGE			9.96	Apr 3	12.55	Jan 27 1996
ANNUAL RUNOFF (CFSM)	2.76		2.64		2.24	
ANNUAL RUNOFF (INCHES)	37.61		35.90		30.42	
10 PERCENT EXCEEDS	3310		3640		2730	
50 PERCENT EXCEEDS	1160		987		906	
90 PERCENT EXCEEDS	628		237		288	

a From rating curve extended above 16,000 ft^3/s.



01449360 POHOPOCO CREEK AT KRESGEVILLE, PA

LOCATION.--Lat 40°53'51", long 75°30'10", Monroe County, Hydrologic Unit 02040106, on right bank 20 ft downstream from bridge on U.S. Highway 209 at Kresgeville, 0.2 mi downstream from Middle Creek, and 13 mi upstream from mouth.

DRAINAGE AREA.--49.9 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 659.72 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Satellite and landline telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft^3/s and maximum (*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Nov. 28	1215	1,500	8.07	Mar. 29	0800	1,110	7.02
Dec. 23	1830	595	5.70	Apr. 3	0845	*1,920	*8.84
Jan. 14	1730	988	6.85				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	251	96	516	142	104	97	321	130	57	34	24	25
2	214	91	446	131	100	89	787	113	54	32	24	22
3	190	88	358	132	97	85	1670	111	52	31	23	21
4	172	94	297	162	96	83	952	106	63	30	23	20
5	156	104	254	142	95	e80	609	103	52	30	22	20
6	144	88	224	192	94	80	460	101	53	33	22	20
7	134	85	225	227	93	87	377	99	66	30	22	19
8	125	82	225	280	93	108	347	96	51	49	24	19
9	119	78	193	326	98	e90	280	92	48	42	28	19
10	113	76	274	289	108	e80	245	90	52	36	24	18
11	107	76	289	262	96	84	221	87	48	31	22	18
12	102	99	264	283	90	84	202	84	46	30	23	18
13	98	100	240	267	86	83	188	80	44	36	27	17
14	99	84	215	740	102	80	175	81	42	36	25	18
15	138	81	189	712	222	82	161	101	41	31	30	23
16	236	79	174	477	170	85	151	83	42	30	25	21
17	142	78	165	367	160	84	142	76	44	49	23	21
18	119	78	151	291	142	86	134	73	40	46	22	19
19	164	76	145	e240	129	87	127	70	39	34	23	18
20	151	79	127	232	124	92	120	74	38	30	25	18
21	143	82	122	207	128	95	114	71	37	28	23	18
22	145	75	117	179	120	92	110	66	37	28	21	17
23	130	73	264	198	115	102	144	64	35	27	20	17
24	124	81	372	e180	108	117	210	62	34	25	20	16
25	119	133	256	162	104	119	136	61	34	41	19	16
26	113	117	218	148	99	119	122	59	33	31	19	17
27	108	108	196	133	95	125	133	57	32	29	20	21
28	104	998	173	e110	94	416	121	60	33	29	33	17
29	101	853	164	e110	---	944	113	65	34	26	30	17
30	115	457	155	117	---	569	123	64	43	25	24	17
31	105	---	148	110	---	400	---	71	---	24	25	---
TOTAL	4281	4689	7156	7548	3162	4824	8995	2550	1324	1013	735	567
MEAN	138	156	231	243	113	156	300	82.3	44.1	32.7	23.7	18.9
MAX	251	998	516	740	222	944	1670	130	66	49	33	25
MIN	98	73	117	110	86	80	110	57	32	24	19	16
CFSM	2.77	3.13	4.63	4.88	2.26	3.12	6.01	1.65	0.88	0.65	0.48	0.38
IN.	3.19	3.50	5.33	5.63	2.36	3.60	6.71	1.90	0.99	0.76	0.55	0.42

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 2005, BY WATER YEAR (WY)

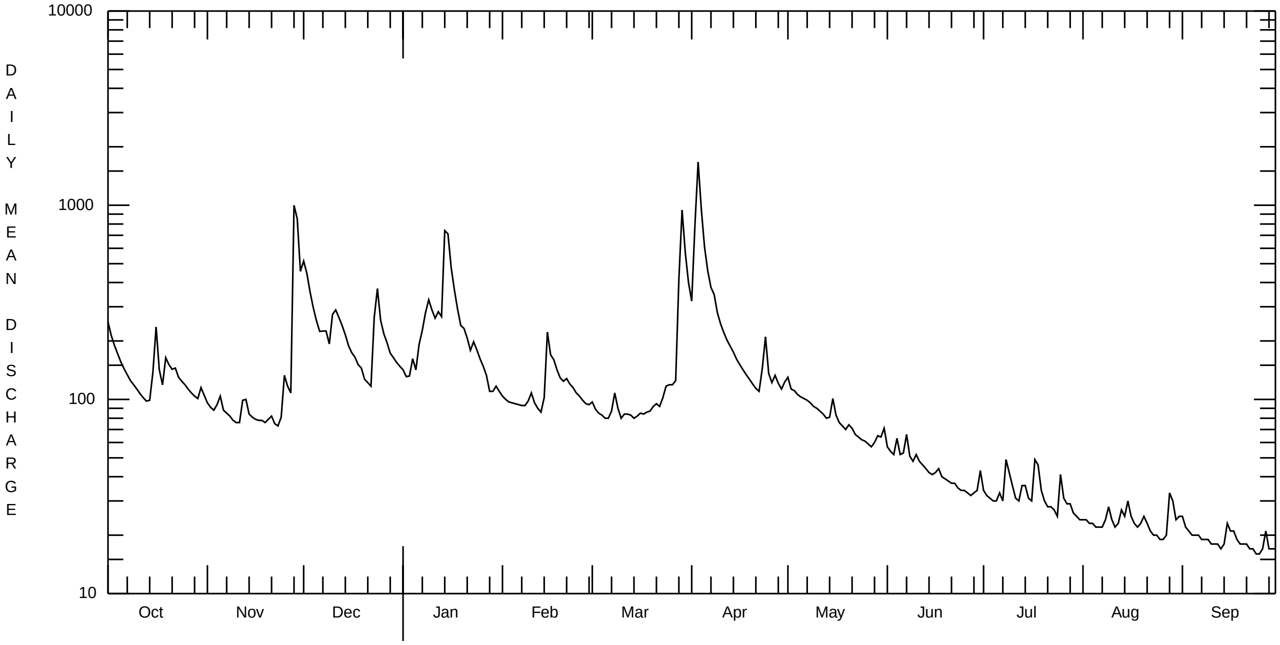
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	68.2	94.8	131	116	113	157	159	123	98.8	64.3	52.7	61.9
MAX	181	203	354	323	191	330	369	270	359	165	193	274
(WY)	1977	1973	1997	1979	1998	1977	1983	1989	2003	1969	1969	2004
MIN	18.9	24.7	18.1	13.9	45.0	60.2	47.9	56.9	35.9	18.2	14.0	15.5
(WY)	1981	1981	1999	1981	1980	1985	1985	1995	1999	1999	1999	1980

e Estimated.

01449360 POHOPOCO CREEK AT KRESGEVILLE, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1967 - 2005	
ANNUAL TOTAL	46257		46844			
ANNUAL MEAN	126		128		103	
HIGHEST ANNUAL MEAN					154	2003
LOWEST ANNUAL MEAN					46.5	1985
HIGHEST DAILY MEAN	1490	Sep 18	1670	Apr 3	1670	Apr 3 2005
LOWEST DAILY MEAN	41	Jul 11	16	Sep 24,25	9.9	Aug 7 1999
ANNUAL SEVEN-DAY MINIMUM	45	Jul 5	17	Sep 20	11	Aug 2 1999
MAXIMUM PEAK FLOW			**a**1920	Apr 3	**a**2080	Jul 29 1969
MAXIMUM PEAK STAGE			8.84	Apr 3	9.21	Jul 29 1969
ANNUAL RUNOFF (CFSM)	2.53		2.57		2.07	
ANNUAL RUNOFF (INCHES)	34.48		34.92		28.13	
10 PERCENT EXCEEDS	215		258		202	
50 PERCENT EXCEEDS	93		92		75	
90 PERCENT EXCEEDS	63		22		27	

a From rating curve extended above 1,000 ft^3/s.



OCTOBER 1, 2004 TO SEPTEMBER 30, 2005

01449800 POHOPOCO CREEK BELOW BELTZVILLE LAKE NEAR PARRYVILLE, PA

LOCATION.--Lat 40°50'44", long 75°38'46", Carbon County, Hydrologic Unit 02040106, on right bank 0.1 mi upstream from Sawmill Run, 0.4 mi downstream from Beltzville Dam, 1.3 mi upstream from Bull Run, and 2.3 mi northeast of Parryville.

DRAINAGE AREA.--96.4 mi^2.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 492.05 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated entire period of record by Wild Creek Reservoir (station 01449700) and Penn Forest Reservoir (station 01449400), 7.3 mi and 10.0 mi upstream respectively (reservoirs for city of Bethlehem), and Beltzville Lake (station 01449790). Diversion upstream from Tunkhannock Creek to Wild Creek Basin since October 1969. Satellite and landline telemetry at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	350	140	1010	302	191	186	1170	199	175	36	34	34
2	309	140	1190	301	191	207	516	234	175	36	34	34
3	309	122	1400	251	191	153	168	235	176	36	34	34
4	178	116	1180	307	191	120	940	223	180	36	34	34
5	111	116	1040	274	191	120	1360	192	182	36	34	34
6	173	116	608	304	191	120	1390	169	183	36	34	60
7	211	116	317	398	114	229	1410	171	181	35	34	86
8	205	113	376	430	70	238	1410	170	161	80	34	88
9	199	93	345	427	99	198	1390	189	139	146	34	89
10	201	81	359	584	135	198	1380	198	121	89	44	89
11	203	81	383	483	146	197	839	198	113	34	34	116
12	138	103	383	465	146	197	363	199	113	34	34	119
13	98	116	694	518	146	197	268	198	125	34	35	88
14	98	116	748	652	147	197	267	198	133	34	35	86
15	98	116	452	745	304	197	271	198	115	34	36	63
16	98	116	319	962	404	197	275	198	104	33	34	36
17	98	116	317	1040	304	197	276	198	104	33	34	36
18	272	116	316	1040	230	175	277	197	104	33	34	36
19	469	116	315	921	215	160	276	141	104	33	34	36
20	304	116	243	650	215	160	259	134	80	33	34	54
21	179	116	210	388	215	200	233	195	53	33	34	89
22	e180	116	229	301	215	229	199	195	39	33	34	89
23	e170	116	242	301	215	233	183	160	37	33	34	111
24	e160	116	404	301	179	236	183	142	36	33	34	140
25	e150	116	560	301	157	247	316	143	36	33	34	140
26	124	142	560	301	157	254	339	143	36	33	34	114
27	127	157	608	301	157	254	329	119	36	33	34	89
28	140	177	613	203	157	285	258	104	36	33	35	89
29	140	902	419	146	---	830	199	104	36	34	34	89
30	137	1380	311	146	---	1410	199	104	36	33	34	82
31	140	---	301	174	---	1380	---	146	---	34	34	---
TOTAL	5769	5603	16452	13917	5273	9201	16943	5394	3149	1266	1069	2284
MEAN	186	187	531	449	188	297	565	174	105	40.8	34.5	76.1
MAX	469	1380	1400	1040	404	1410	1410	235	183	146	44	140
MIN	98	81	210	146	70	120	168	104	36	33	34	34

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 2005, BY WATER YEAR (WY)

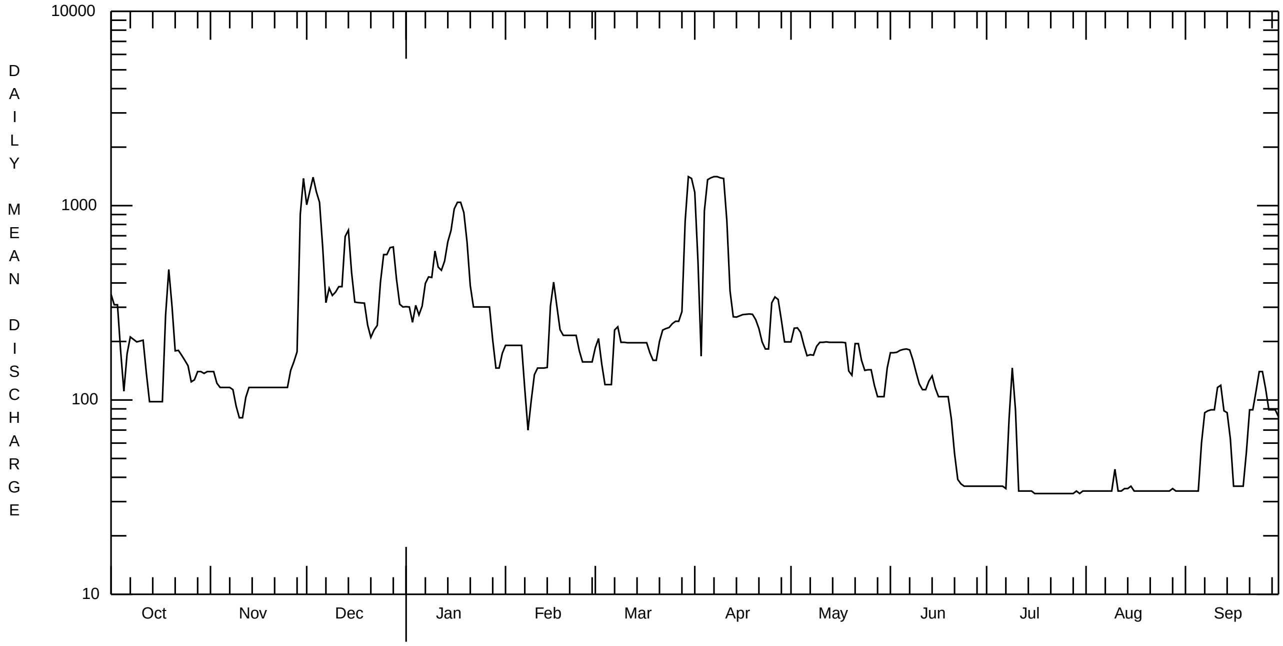
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	113	134	213	184	185	259	272	209	161	107	87.7	108
MAX	405	302	675	527	459	576	754	538	827	321	491	529
(WY)	1983	1971	1997	1979	1976	1977	1993	1990	2003	1975	1969	1987
MIN	12.7	19.2	14.4	33.3	17.0	16.2	32.5	25.2	46.7	32.4	18.0	29.2
(WY)	1996	1992	1992	1981	1981	1981	1981	1971	1999	1985	1985	1970

e Estimated.

01449800 POHOPOCO CREEK BELOW BELTZVILLE LAKE NEAR PARRYVILLE, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1968 - 2005	
ANNUAL TOTAL	78223		86320			
ANNUAL MEAN	214		236		169	
HIGHEST ANNUAL MEAN					276	2003
LOWEST ANNUAL MEAN					60.2	1985
HIGHEST DAILY MEAN	1510	Sep 20	1410	Mar 30[a]	1510	Sep 20 2004
LOWEST DAILY MEAN	39	Jul 3-8	33	Jul 16-28,30	9.5	Oct 12 1993
ANNUAL SEVEN-DAY MINIMUM	41	Jul 2	33	Jul 16	11	Oct 7 1993
MAXIMUM PEAK FLOW			1470	Mar 29	1740	May 8 1973[b]
MAXIMUM PEAK STAGE			5.55	Mar 29	5.99	Jun 22 2003
10 PERCENT EXCEEDS	384		496		377	
50 PERCENT EXCEEDS	143		157		107	
90 PERCENT EXCEEDS	81		34		36	

a Also April 7, 8.
b Also June 22, 2003.



OCTOBER 1, 2004 TO SEPTEMBER 30, 2005

01450500 AQUASHICOLA CREEK AT PALMERTON, PA

LOCATION.--Lat 40°48'22", long 75°35'54", Carbon County, Hydrologic Unit 02040106, on right bank 1,200 ft upstream from bridge on Sixth Street in Palmerton, and 1.2 mi upstream from mouth.

DRAINAGE AREA.--76.7 mi^2.

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

REVISED RECORDS.--WSP 1051: 1940-45 (monthly net diversion), Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 389.08 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records fair. Occasional diversion from Pohopoco Creek into Aquashicola Creek upstream of station. Several measurements of water temperature were made during the year. Satellite telemetry at station.

COOPERATION.--Records of diversion provided by Palmer Water Company.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s and maximum (*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Nov. 28	1745	3,400	6.84	Mar. 29	0445	2,510	5.56
Jan. 14	1800	1,570	4.11	Apr. 3	0500	*4,440	*8.18

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	509	133	738	175	125	136	442	162	60	48	28	27
2	404	125	736	162	119	126	1050	142	59	42	28	25
3	339	120	551	161	113	117	3220	141	59	38	24	23
4	291	126	434	179	113	110	1370	135	73	36	26	22
5	255	140	355	166	110	107	866	127	63	34	26	22
6	228	121	300	238	109	105	646	127	65	40	25	21
7	209	116	294	278	110	115	528	124	92	38	25	22
8	193	110	285	376	111	164	456	119	64	73	32	21
9	182	105	253	497	116	159	363	114	61	66	38	21
10	172	103	358	411	129	151	308	110	81	48	30	20
11	160	101	469	334	118	147	272	104	86	40	28	19
12	149	138	430	347	113	147	242	103	78	35	27	19
13	144	145	356	329	110	139	219	97	66	39	26	18
14	146	128	289	1040	129	135	199	96	60	61	28	20
15	179	125	248	1000	368	130	184	107	58	41	41	24
16	282	125	226	622	330	132	171	99	57	39	29	24
17	194	125	212	474	284	133	161	88	55	46	29	22
18	171	124	192	369	245	133	153	85	54	55	27	20
19	218	121	187	301	214	131	146	82	52	42	27	20
20	209	121	166	274	197	139	138	87	50	37	29	17
21	208	124	157	243	197	142	132	85	48	34	27	18
22	220	113	152	208	180	142	127	79	44	31	25	17
23	203	107	299	217	171	162	158	77	44	31	23	18
24	197	118	544	190	158	194	231	75	42	29	23	19
25	188	176	381	184	150	203	170	72	41	48	23	19
26	175	164	291	175	141	210	153	71	40	43	22	20
27	165	162	250	158	130	223	164	69	39	39	23	23
28	157	1870	214	141	129	742	155	72	40	37	35	19
29	149	1330	203	141	---	1850	144	80	43	31	39	19
30	162	643	192	142	---	820	152	67	71	30	27	19
31	148	---	182	131	---	558	---	66	---	29	28	---
TOTAL	6606	7259	9944	9663	4519	7902	12720	3062	1745	1280	868	618
MEAN	213	242	321	312	161	255	424	98.8	58.2	41.3	28.0	20.6
MAX	509	1870	738	1040	368	1850	3220	162	92	73	41	27
MIN	144	101	152	131	109	105	127	66	39	29	22	17
(†)	-2.5	-2.1	-3.7	-2.9	-1.4	-2.5	-4.0	-1.1	-0.8	-0.6	-0.6	-0.4

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2005, BY WATER YEAR (WY)

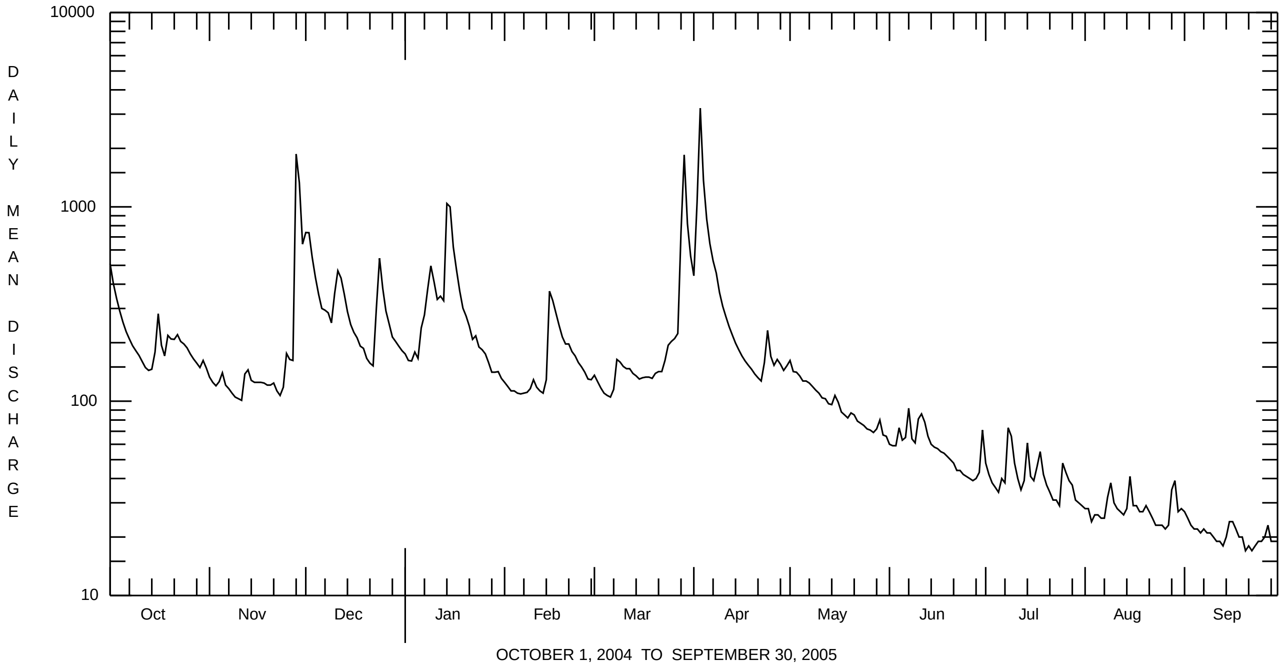
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	101	147	187	169	170	244	236	175	119	97.9	86.8	97.1
MAX	331	379	583	558	325	534	625	480	536	638	468	566
(WY)	1956	1973	1997	1996	1971	1977	1983	1989	2003	1945	1942	2004
MIN	17.2	21.6	30.2	19.4	38.4	86.5	74.7	55.9	38.8	19.8	13.7	15.2
(WY)	1964	1965	1999	1981	1940	1985	1985	1941	1955	1955	1964	1964

† Figures of net diversion, equivalent in cubic feet per second. Includes water diverted from Pohopoco Creek to Aquashicola Creek.

01450500 AQUASHICOLA CREEK AT PALMERTON, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1940 - 2005	
ANNUAL TOTAL	73914		66186			
ANNUAL MEAN	202		181		152	
HIGHEST ANNUAL MEAN					242	1952
LOWEST ANNUAL MEAN					69.2	1965
HIGHEST DAILY MEAN	4150	Sep 18	3220	Apr 3	4680	Jul 10 1945
LOWEST DAILY MEAN	33	Jul 11	17	Sep 20,22	9.1	Sep 15 1964
ANNUAL SEVEN-DAY MINIMUM	36	Jul 5	18	Sep 19	10	Sep 10 1964
MAXIMUM PEAK FLOW			**a**4440	Apr 3	**a**11700	Jul 10 1945
MAXIMUM PEAK STAGE			8.18	Apr 3	13.63	Jul 10 1945
INSTANTANEOUS LOW FLOW					2.6	Sep 12 1957
10 PERCENT EXCEEDS	309		357		305	
50 PERCENT EXCEEDS	138		126		100	
90 PERCENT EXCEEDS	79		25		35	

a From rating curve extended above 1,000 ft^3/s on basis of contracted-opening measurement of peak flow.



01451000 LEHIGH RIVER AT WALNUTPORT, PA

LOCATION.--Lat 40°45'25", long 75°36'12", Northampton County, Hydrologic Unit 02040106, on left bank 0.3 mi upstream from bridge on SR 4022 at Walnutport, and 0.4 mi upstream from Trout Creek.

DRAINAGE AREA.--889 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 350.27 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated by Wild Creek Reservoir (station 01449700) since January 1941, Penn Forest Reservoir (station 01449400) since October 1958, Francis E. Walter Reservoir (station 01447780) since February 1961, and Beltzville Lake (station 01449790) since February 1971. Several measurements of water temperature were made during the year. Satellite and landline telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 20.6 ft, May 23, 1942, from floodmarks, discharge not determined.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5330	1490	10300	2480	e1800	1610	8850	1870	881	602	312	345
2	3550	1440	8930	2370	e1900	1590	11700	1780	839	748	309	331
3	3840	1400	9270	2250	e1800	1480	24000	1700	783	797	282	313
4	3030	1340	7090	2660	1560	1370	12300	1630	857	627	252	290
5	2400	1520	6240	3350	1530	1260	13600	1560	848	514	247	256
6	2030	1410	5160	3980	1510	1270	12200	1430	843	555	251	238
7	1990	1340	3680	4390	1450	1390	11900	1400	1080	551	253	283
8	1970	1310	3880	4660	1330	e1900	10700	1370	927	745	276	280
9	2020	1310	3740	4990	1410	e1800	9030	1270	831	907	404	280
10	1780	1270	4720	4340	1650	e1700	8350	1290	911	759	324	276
11	1620	1170	6390	3900	1850	1730	6930	1220	1030	608	276	284
12	1510	1350	5500	3980	1660	1590	4890	1200	998	548	256	322
13	1410	1520	5260	4210	1600	1550	3600	1200	836	526	285	265
14	1440	1350	5060	12000	1670	1450	2840	1430	705	666	309	255
15	1500	1310	3670	9650	3410	1400	2360	1420	709	591	425	255
16	2250	1410	3210	9150	3560	1410	2060	1200	671	575	382	314
17	2000	1400	2940	8540	3560	1420	2050	1090	632	686	359	331
18	2170	1380	2720	7620	3050	1420	1920	1050	604	673	336	234
19	2520	1280	2630	6910	2520	1380	1610	973	577	584	309	211
20	2710	1250	2390	6270	2170	1430	1520	969	548	534	327	205
21	2390	1300	2130	5270	2220	1570	1450	1060	508	507	326	253
22	2370	1250	1830	e3400	2110	1870	1370	1000	471	478	312	245
23	2150	1220	3340	e3300	2050	2110	1630	957	449	587	289	239
24	2070	1270	6910	e3100	1910	2680	2630	906	432	644	269	287
25	1790	2030	6530	e3000	1730	2660	1900	901	549	548	263	288
26	1600	2030	5730	e2900	1660	2530	1800	889	557	440	246	295
27	1540	2110	4980	e2800	1600	2530	2050	849	471	408	226	290
28	1530	11100	3830	e2600	1580	5120	1970	997	399	424	305	300
29	1500	10400	3150	e2100	---	14600	1920	1210	392	382	413	303
30	1620	10600	2830	e1900	---	13000	1840	956	567	347	319	294
31	1580	---	2550	e1900	---	10900	---	871	---	320	316	---
TOTAL	67210	70560	146590	139970	55850	89720	170970	37648	20905	17881	9458	8362
MEAN	2168	2352	4729	4515	1995	2894	5699	1214	697	577	305	279
MAX	5330	11100	10300	12000	3560	14600	24000	1870	1080	907	425	345
MIN	1410	1170	1830	1900	1330	1260	1370	849	392	320	226	205
CFSM	2.44	2.65	5.32	5.08	2.24	3.26	6.41	1.37	0.78	0.65	0.34	0.31
IN.	2.81	2.95	6.13	5.86	2.34	3.75	7.15	1.58	0.87	0.75	0.40	0.35

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 2005, BY WATER YEAR (WY)

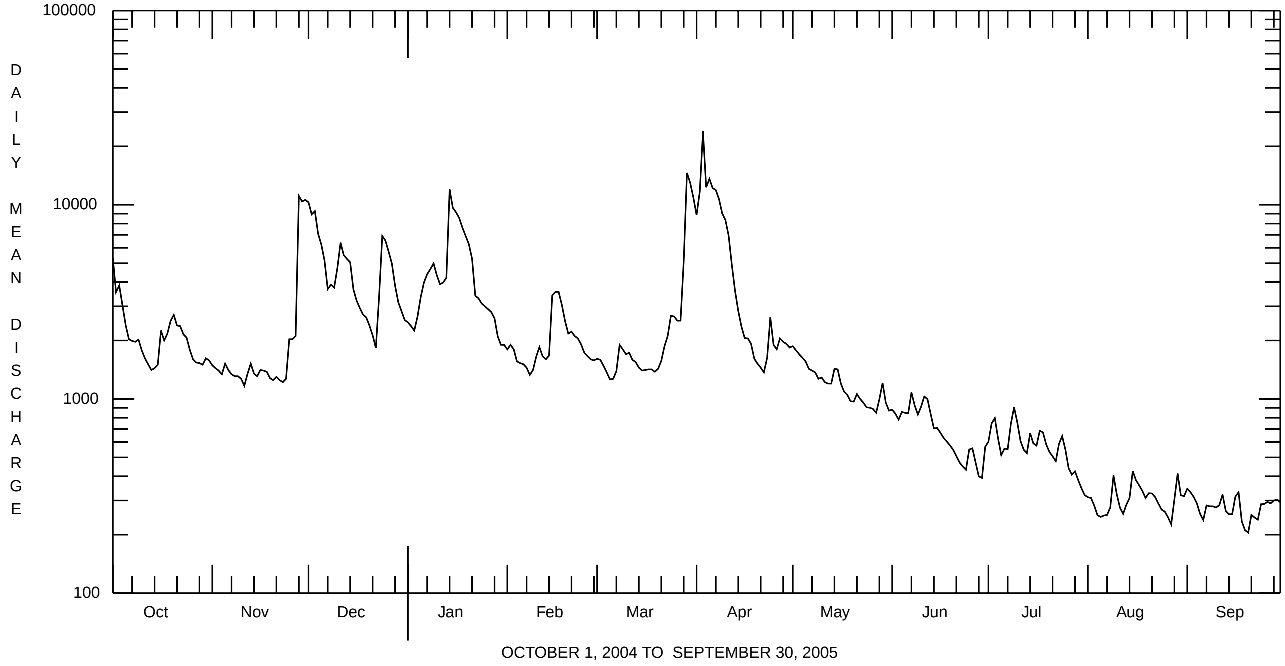
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1211	1828	2363	2064	2070	2972	3193	2320	1562	1067	907	1027
MAX	4857	3990	6352	6136	4464	6302	8455	6389	6889	4465	5264	5812
(WY)	1956	1973	1997	1979	1951	1977	1993	1989	2003	1947	1955	1987
MIN	194	251	370	223	790	1335	1156	908	477	241	226	179
(WY)	1964	1965	1981	1981	1980	1981	1985	1995	1999	1965	1964	1964

e Estimated.

01451000 LEHIGH RIVER AT WALNUTPORT, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1947 - 2005	
ANNUAL TOTAL	882841		835124			
ANNUAL MEAN	2412		2288		1880	
HIGHEST ANNUAL MEAN					3049	2003
LOWEST ANNUAL MEAN					859	1965
HIGHEST DAILY MEAN	20900	Sep 18	24000	Apr 3	62400	Aug 19 1955
LOWEST DAILY MEAN	512	Jul 11	205	Sep 20	134	Sep 18 1964
ANNUAL SEVEN-DAY MINIMUM	562	Jul 5	239	Sep 18	143	Sep 16 1964
MAXIMUM PEAK FLOW			30000	Apr 3	77800	Aug 19 1955
MAXIMUM PEAK STAGE			10.49	Apr 3	17.68	Aug 19 1955
INSTANTANEOUS LOW FLOW					[a]57	Jul 27 1965
ANNUAL RUNOFF (CFSM)	2.71		2.57		2.12	
ANNUAL RUNOFF (INCHES)	36.94		34.95		28.74	
10 PERCENT EXCEEDS	4610		5260		3890	
50 PERCENT EXCEEDS	1720		1440		1300	
90 PERCENT EXCEEDS	1000		298		413	

[a] Result of upstream shutoff.



LEHIGH RIVER BASIN

01451500 LITTLE LEHIGH CREEK NEAR ALLENTOWN, PA

LOCATION.--Lat 40°34'56", long 75°29'00", Lehigh County, Hydrologic Unit 02040106, on right bank at downstream side of bridge on Lehigh Parkway in Allentown, 0.8 mi upstream from Cedar Creek, and 2.9 mi upstream from mouth.

DRAINAGE AREA.--80.8 mi^2.

PERIOD OF RECORD.--October 1945 to current year. Prior to October 1946, published as "*at Allentown*".

REVISED RECORDS.--WDR PA 73-1: 1946(M), 1951(P), 1955(M), 1956(M), 1958(M), 1962(M), 1963(M), 1965(M), 1969(M), 1971(M). WDR PA-87-1: 1946 to 1986(P).

GAGE.--Water-stage recorder, crest-stage gage, and masonry control. Datum of gage is 253.41 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except those above 1,000 ft^3/s, which are poor. Occasional regulation at low flow by fish hatchery upstream. Several measurements of water temperature were made during the year. Satellite telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 900 ft^3/s and maximum (*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Oct. 15	2300	916	3.73	Apr. 3	0600	*5,030	*7.69
Nov. 28	1145	2,570	5.71	Apr. 8	0330	1,200	4.44
Mar. 29	0615	1,830	4.99				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	250	133	469	151	143	143	229	194	108	90	68	57
2	204	127	393	144	140	140	1220	179	106	134	68	55
3	185	123	238	143	139	133	2940	176	108	94	68	53
4	173	146	206	151	139	130	663	166	123	86	66	52
5	161	181	189	156	139	129	408	161	110	84	65	52
6	154	141	178	277	138	130	342	157	117	88	64	50
7	146	133	194	219	140	145	318	156	147	82	65	50
8	145	126	222	269	143	208	658	153	112	192	80	50
9	141	121	187	295	154	165	349	153	104	133	104	49
10	138	120	348	e220	182	146	298	149	102	96	70	48
11	134	120	326	e200	158	141	275	148	101	87	67	48
12	133	164	233	e220	142	144	e270	145	98	83	65	48
13	132	186	206	189	135	141	e260	141	96	82	64	46
14	152	142	189	545	190	137	239	142	95	86	65	47
15	282	132	174	490	378	133	226	141	92	85	87	67
16	356	126	167	287	215	130	215	145	102	84	65	52
17	192	124	164	239	198	129	209	138	102	93	64	69
18	156	122	158	201	167	126	204	134	92	127	62	57
19	231	120	158	189	153	125	200	132	91	86	67	51
20	204	124	149	191	147	127	195	147	91	81	65	50
21	170	137	143	180	152	129	190	143	89	78	61	48
22	173	124	144	167	152	124	183	132	87	77	60	48
23	155	122	309	173	154	181	283	129	86	75	58	47
24	147	126	400	170	149	265	385	126	86	74	57	46
25	143	157	202	170	146	180	235	125	84	85	56	46
26	139	133	177	166	141	156	205	123	83	79	55	46
27	136	122	170	157	138	148	205	120	86	77	55	46
28	133	1350	157	149	138	631	192	120	89	77	63	46
29	132	657	157	150	---	1060	181	118	115	73	61	46
30	158	274	154	151	---	396	191	114	109	71	58	46
31	145	---	152	147	---	272	---	111	---	69	58	---
TOTAL	5300	5913	6713	6556	4510	6344	11968	4418	3011	2808	2031	1516
MEAN	171	197	217	211	161	205	399	143	100	90.6	65.5	50.5
MAX	356	1350	469	545	378	1060	2940	194	147	192	104	69
MIN	132	120	143	143	135	124	181	111	83	69	55	46
CFSM	2.12	2.44	2.68	2.62	1.99	2.53	4.94	1.76	1.24	1.12	0.81	0.63
IN.	2.44	2.72	3.09	3.02	2.08	2.92	5.51	2.03	1.39	1.29	0.94	0.70

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 2005, BY WATER YEAR (WY)

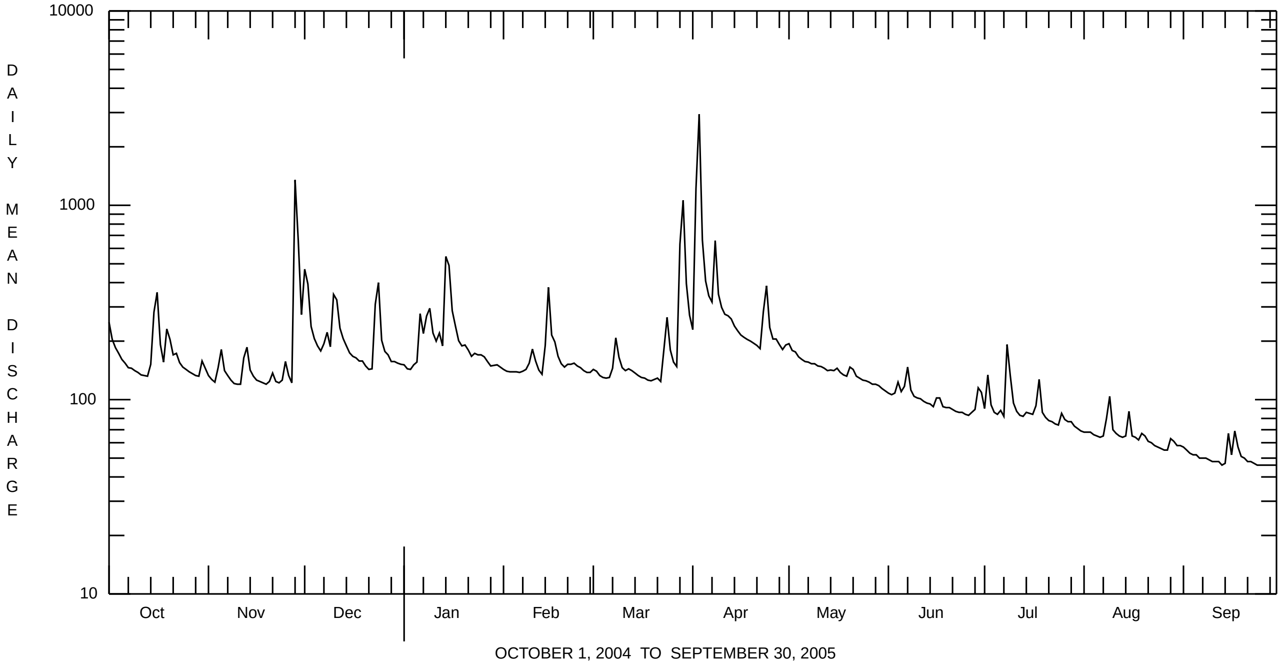
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	71.3	79.3	102	109	120	137	146	120	103	88.3	77.5	77.7
MAX	195	197	371	385	325	355	399	315	381	366	192	352
(WY)	1997	2005	1997	1979	1979	1994	2005	1984	1972	1984	1971	2004
MIN	27.3	28.1	25.7	26.6	37.7	43.1	37.1	35.8	29.2	26.5	26.5	28.9
(WY)	1964	1966	1966	1966	2002	1965	1966	1965	1965	1965	1965	1965

e Estimated.

01451500 LITTLE LEHIGH CREEK NEAR ALLENTOWN, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1946 - 2005	
ANNUAL TOTAL	63920		61088			
ANNUAL MEAN	175		167		103	
HIGHEST ANNUAL MEAN					203	1984
LOWEST ANNUAL MEAN					33.8	1966
HIGHEST DAILY MEAN	4700	Sep 18	2940	Apr 3	**e**4700	Sep 18 2004
LOWEST DAILY MEAN	64	Jul 11	46	Sep 13**a**	23	Dec 20 1965
ANNUAL SEVEN-DAY MINIMUM	69	Jul 5	46	Sep 24	23	Dec 18 1965
MAXIMUM PEAK FLOW			**b**5030	Apr 3	**b**11800	Jun 22 1972
MAXIMUM PEAK STAGE			7.69	Apr 3	11.80	Jun 22 1972
INSTANTANEOUS LOW FLOW			41	Sep 26	17	Feb 4 1965
ANNUAL RUNOFF (CFSM)	2.16		2.07		1.27	
ANNUAL RUNOFF (INCHES)	29.43		28.12		17.24	
10 PERCENT EXCEEDS	231		262		173	
50 PERCENT EXCEEDS	138		140		80	
90 PERCENT EXCEEDS	88		61		40	

a Also Sept. 24-30.
b From rating curve extended above 1,120 ft^3/s on basis of slope-area measurements at 8.34 ft and at peak flow.
e Estimated.



01451650 LITTLE LEHIGH CREEK AT TENTH STREET BRIDGE AT ALLENTOWN, PA

LOCATION.--Lat 40°35"47', long 75°28'28", Lehigh County, Hydrologic Unit 02040106, on left bank at bridge on Tenth Street, and 0.9 mi upstream from confluence with Jordan Creek in Allentown, Pa.

DRAINAGE AREA.--98.2 mi^2.

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

REVISED RECORDS.--WRD PA-98-1: 1997(M).

GAGE.--Water-stage recorder. Crest-stage gage and concrete control. Datum of gage is 245.63 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records fair. Diversion upstream for municipal water supply by city of Allentown. Several measurements of water temperature were made during the year. Satellite telemetry at station.

COOPERATION.--Records of diversion provided by city of Allentown.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 900 ft^3/s and maximum (*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Oct. 15	2200	1,330	4.65	Jan. 14	1230	1,080	4.34
Nov. 28	1200	2,450	5.85	Mar. 28	2200	1,820	5.21
Dec. 1	1200	943	4.15	Apr. 3	0700	*4,160	*7.32
Dec. 23	1915	1,010	4.24	Apr. 8	0345	1,150	4.42

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	281	175	566	191	181	180	273	234	124	100	78	80
2	245	175	456	184	184	183	1190	216	120	148	85	76
3	227	173	316	187	185	175	2460	209	132	116	78	64
4	215	205	269	199	177	163	800	192	153	106	82	63
5	205	224	245	202	179	161	519	187	129	94	75	65
6	195	186	233	367	179	163	418	192	182	98	74	63
7	183	180	268	278	181	180	391	193	188	91	75	63
8	186	177	294	363	186	268	796	188	127	273	132	66
9	184	169	251	344	205	219	433	179	117	163	125	62
10	181	157	446	257	238	190	368	176	116	114	83	63
11	177	154	399	241	209	179	343	169	115	97	82	60
12	171	225	300	270	181	195	326	175	115	94	82	66
13	158	237	266	237	171	201	314	170	114	113	76	60
14	189	182	248	688	238	191	297	158	108	117	75	62
15	402	168	231	536	448	184	282	161	108	97	107	89
16	447	173	223	336	284	184	275	171	114	102	77	69
17	237	168	216	287	256	184	270	166	119	164	83	98
18	196	157	205	248	208	176	254	161	112	181	75	77
19	305	162	205	231	193	173	248	149	109	112	87	63
20	251	175	197	236	188	176	234	179	99	105	79	62
21	219	179	194	229	193	183	226	174	98	89	75	60
22	225	156	187	217	198	177	225	152	98	87	77	60
23	195	155	415	222	199	262	363	146	105	90	71	61
24	197	168	460	219	186	336	496	151	104	89	75	66
25	193	203	261	222	182	233	283	152	93	106	71	60
26	187	176	222	214	185	198	242	147	92	97	69	54
27	179	152	209	201	181	188	243	133	97	88	77	64
28	168	1270	201	191	174	716	234	137	98	91	88	61
29	176	682	206	191	---	1000	222	143	199	94	77	61
30	222	324	200	193	---	433	226	138	137	89	74	63
31	190	---	193	187	---	309	---	126	---	79	73	---
TOTAL	6786	7087	8582	8168	5769	7760	13251	5224	3622	3484	2537	1981
MEAN	219	236	277	263	206	250	442	169	121	112	81.8	66.0
MAX	447	1270	566	688	448	1000	2460	234	199	273	132	98
MIN	158	152	187	184	171	161	222	126	92	79	69	54
(†)	3.1	5.1	4.3	6.2	6.8	6.0	5.2	5.7	8.9	9.5	10.7	9.0

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2005, BY WATER YEAR (WY)

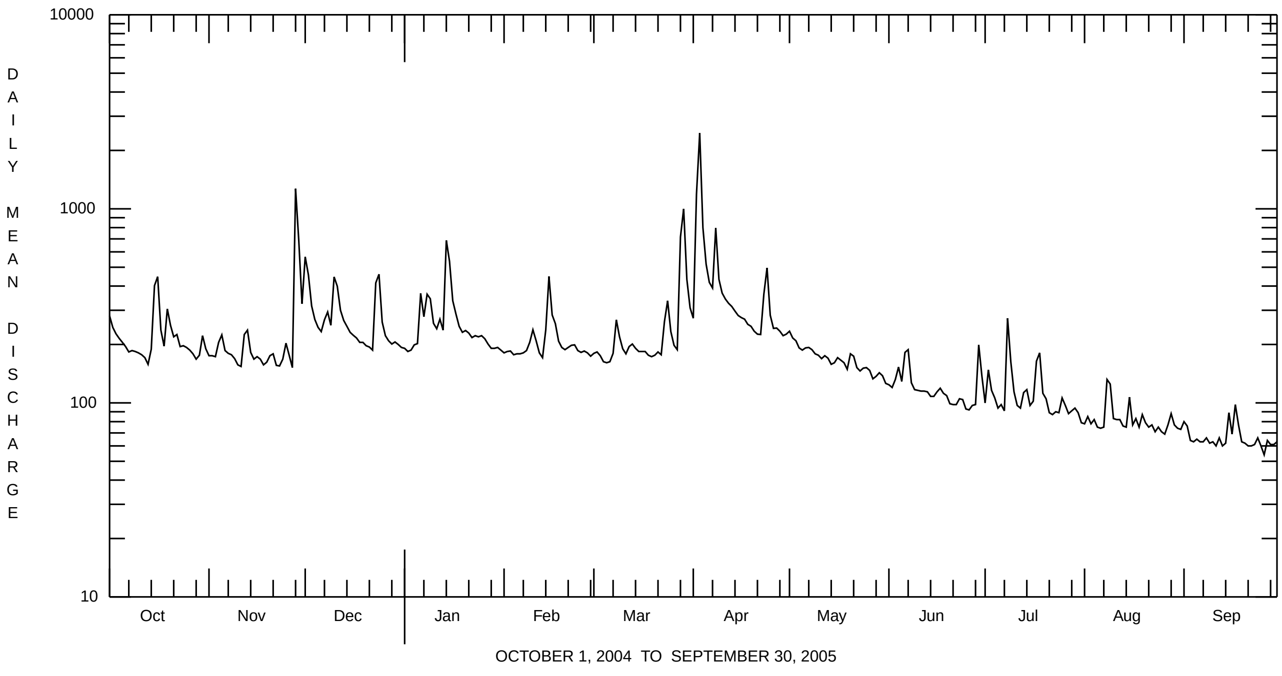
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	100	111	142	139	134	178	183	146	128	113	92.9	123
MAX	226	236	435	292	224	415	442	236	315	206	164	380
(WY)	2004	2005	1997	1996	2004	1994	2005	1989	2003	2003	2003	2004
MIN	48.5	57.0	52.0	49.5	45.6	62.9	64.4	66.7	64.8	41.0	41.5	46.7
(WY)	1993	2002	1999	2002	2002	2002	1992	1992	1999	1999	1999	1995

† Diversion for municipal supply of city of Allentown, equivalent in cubic feet per second.

01451650 LITTLE LEHIGH CREEK AT TENTH STREET BRIDGE AT ALLENTOWN, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1987 - 2005	
ANNUAL TOTAL	75502		74251			
ANNUAL MEAN	206		203		132	
HIGHEST ANNUAL MEAN					208	2004
LOWEST ANNUAL MEAN					64.6	1992
HIGHEST DAILY MEAN	**e**4600	Sep 18	2460	Apr 3	5200	Sep 9 1987
LOWEST DAILY MEAN	76	Jul 11	54	Sep 26	23	Aug 1 1999
ANNUAL SEVEN-DAY MINIMUM	86	Jul 5	60	Sep 20	30	Aug 1 1999
MAXIMUM PEAK FLOW			**a**4160	Apr 3	**a**9680	Sep 18 2004
MAXIMUM PEAK STAGE			7.32	Apr 3	**b**10.65	Sep 18 2004
10 PERCENT EXCEEDS	268		315		222	
50 PERCENT EXCEEDS	169		181		103	
90 PERCENT EXCEEDS	109		75		54	

a From rating curve extended above 1,870 ft^3/s on the basis of slope-area measurement at gage height 8.06 ft.
b From floodmark.
e Estimated.



01451800 JORDAN CREEK NEAR SCHNECKSVILLE, PA

LOCATION.--Lat 40°39'42", long 75°37'38", Lehigh County, Hydrologic Unit 02040106, on left bank 54 ft downstream from wooden covered bridge at Trexler-Lehigh County Game Preserve, 1.0 mi downstream from Mill Creek, and 1.1 mi southwest of Schnecksville.

DRAINAGE AREA.--53.0 mi^2.

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

REVISED RECORDS.--WDR PA-90-1: 1989.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 381.16 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 2, 1973, nonrecording gage at bridge 54 ft upstream at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year. Satellite telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 900 ft^3/s and maximum (*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Nov. 28	1315	2,420	7.39	Mar. 28	2345	2,480	7.47
Dec. 1	1315	1,150	5.50	Apr. 3	0030	*3,320	*8.52
Jan. 14	1430	1,210	5.60				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	322	61	739	85	e40	67	255	71	17	8.9	5.4	6.1
2	229	57	620	71	e40	56	1040	52	16	11	5.2	4.7
3	173	54	386	69	e40	52	2380	50	17	8.5	5.7	3.7
4	136	71	272	93	45	51	865	47	26	7.1	4.8	3.3
5	110	95	206	82	45	51	445	44	19	7.0	4.1	3.0
6	93	69	162	270	47	49	305	41	19	11	4.0	2.6
7	84	66	177	315	50	62	231	41	34	9.5	4.2	2.5
8	72	62	165	458	53	142	217	37	20	58	9.4	2.3
9	64	57	137	506	64	151	155	35	16	28	19	2.3
10	59	53	327	359	91	135	131	34	16	16	9.2	2.1
11	52	52	427	269	88	109	113	33	19	12	7.1	1.8
12	48	105	349	275	63	104	99	30	34	11	5.9	1.7
13	46	101	269	224	56	99	89	27	20	19	5.1	1.7
14	66	82	200	817	75	97	78	28	18	20	4.6	1.6
15	75	80	155	713	279	94	67	47	16	13	4.4	2.5
16	122	79	130	e400	226	94	60	37	15	12	4.5	3.3
17	79	74	116	e280	199	93	56	29	15	15	5.5	17
18	66	70	100	e175	163	91	52	26	14	31	4.7	6.9
19	148	64	93	e115	143	88	49	25	13	16	4.5	4.4
20	135	62	e75	e80	123	90	47	34	13	12	6.2	3.6
21	132	70	e70	e50	115	90	43	34	12	9.6	5.8	3.5
22	134	57	e75	e35	101	84	41	26	11	8.9	4.2	3.2
23	108	54	237	e35	95	155	74	24	10	8.1	3.3	3.0
24	99	65	283	e30	84	309	151	23	9.3	7.1	2.9	2.8
25	90	160	212	e30	78	325	71	24	9.0	11	2.6	2.5
26	81	125	e170	e35	72	276	59	23	8.5	11	2.5	3.2
27	73	121	e140	e30	65	220	71	21	8.8	8.2	2.7	5.2
28	64	1350	e110	e30	59	805	58	21	11	8.7	6.8	4.2
29	59	823	108	e30	---	1450	51	28	9.4	7.1	9.9	3.7
30	99	416	97	e35	---	569	64	21	9.7	6.3	6.6	3.4
31	75	---	90	e35	---	349	---	19	---	5.7	5.8	---
TOTAL	3193	4655	6697	6031	2599	6407	7417	1032	475.7	417.7	176.6	111.8
MEAN	103	155	216	195	92.8	207	247	33.3	15.9	13.5	5.70	3.73
MAX	322	1350	739	817	279	1450	2380	71	34	58	19	17
MIN	46	52	70	30	40	49	41	19	8.5	5.7	2.5	1.6
CFSM	1.94	2.93	4.08	3.67	1.75	3.90	4.66	0.63	0.30	0.25	0.11	0.07
IN.	2.24	3.27	4.70	4.23	1.82	4.50	5.21	0.72	0.33	0.29	0.12	0.08

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 2005, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	64.3	95.7	131	120	123	162	130	92.5	71.0	42.4	36.8	55.9
MAX	220	270	397	404	295	479	391	353	346	129	160	343
(WY)	1997	1971	1997	1979	1971	1994	1983	1989	1972	2004	2004	1987
MIN	8.37	12.4	12.0	6.85	35.2	41.3	31.0	31.5	9.18	1.68	3.36	3.69
(WY)	1973	2002	1999	1981	1980	1985	1985	1995	1966	1966	2002	1980

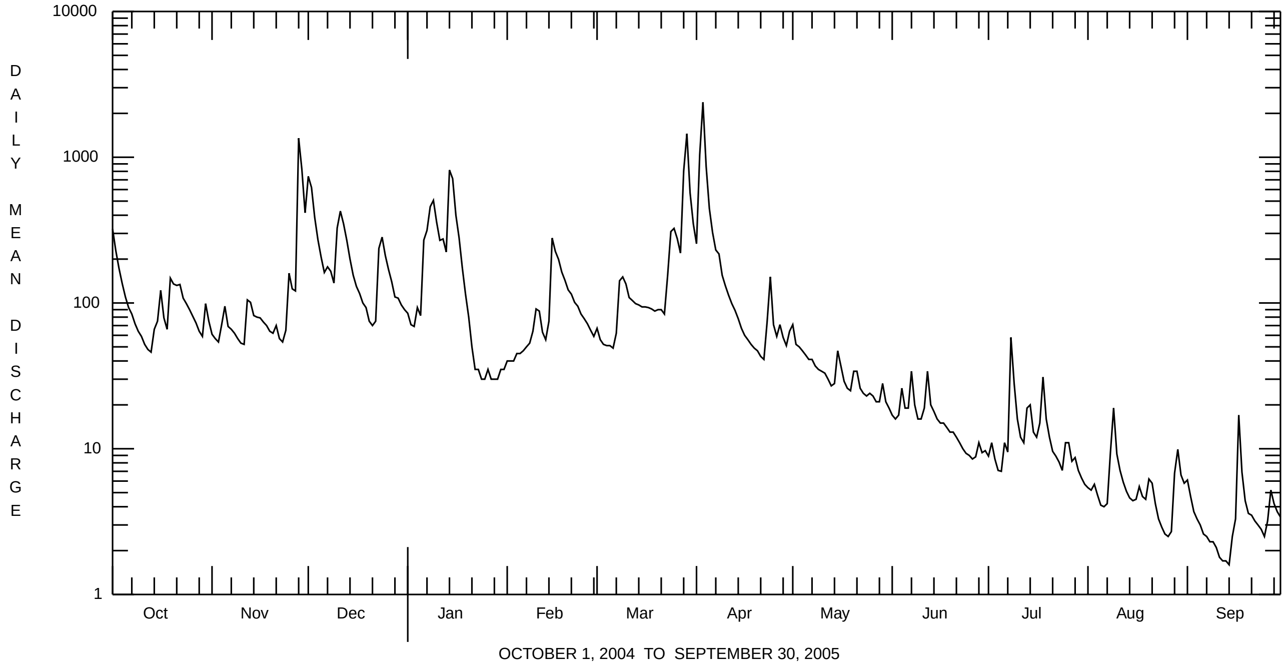
e Estimated.

01451800 JORDAN CREEK NEAR SCHNECKSVILLE, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1966 - 2005	
ANNUAL TOTAL	44453.2		39212.8			
ANNUAL MEAN	121		107		94.2	
HIGHEST ANNUAL MEAN					159	2003
LOWEST ANNUAL MEAN					43.9	1985
HIGHEST DAILY MEAN	2280	Sep 18	2380	Apr 3	2800	Sep 9 1987
LOWEST DAILY MEAN	9.2	Jul 11	1.6	Sep 14	0.54	Aug 7 1999
ANNUAL SEVEN-DAY MINIMUM	12	Jul 5	1.9	Sep 8	0.63	Aug 2 1999
MAXIMUM PEAK FLOW			**a**3420	Apr 3	**a**7100	Jun 22 1972
MAXIMUM PEAK STAGE			8.63	Apr 3	**b**12.32	Jun 22 1972
INSTANTANEOUS LOW FLOW			1.6	Sep 12-14	0.48	Aug 6 1999
ANNUAL RUNOFF (CFSM)	2.29		2.03		1.78	
ANNUAL RUNOFF (INCHES)	31.20		27.52		24.16	
10 PERCENT EXCEEDS	218		269		210	
50 PERCENT EXCEEDS	74		52		49	
90 PERCENT EXCEEDS	30		4.5		11	

a From rating curve extended above 2,010 ft^3/s on basis of contracted-opening measurement of peak flow.

b From floodmark.



OCTOBER 1, 2004 TO SEPTEMBER 30, 2005

01452000 JORDAN CREEK AT ALLENTOWN, PA

LOCATION.--Lat 40°37'23", long 75°28'58", Lehigh County, Hydrologic Unit 02040106, on right bank 200 ft upstream from bridge on State Highway 145, 0.5 mi northwest of city limits of Allentown, and 2.5 mi upstream from mouth.

DRAINAGE AREA.--75.8 mi^2.

PERIOD OF RECORD.--October 1944 to current year.

REVISED RECORDS.--WDR PA-76-1: 1970(M), 1971.

GAGE.--Water-stage recorder, crest-stage gage and rubble masonry control. Crest of control raised 1 ft in August 1958 and further modified filling in square notches on sides and notching center of dam at 17:1 slope in August 1974. Datum of gage is 259.82 ft above National Geodetic Vertical Datum of 1929 (Pennsylvania Department of Transportation datum).

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year. Satellite telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 23, 1942, reached a stage of approximately 7.1 ft, from floodmarks 650 ft downstream.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,300 ft^3/s and maximum (*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Nov. 28	1845	3,600	6.28	Mar. 29	0600	4,050	6.48
Dec. 1	1800	1,440	5.09	Apr. 3	0700	*5,750	*7.17
Jan. 14	1945	1,610	5.23				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	458	72	884	115	e60	93	335	109	27	13	10	9.1
2	315	66	887	104	e65	90	1030	87	25	15	11	8.9
3	248	63	521	98	e65	75	4280	82	26	11	10	8.3
4	198	72	346	120	68	69	1380	76	33	10	10	7.1
5	165	116	263	111	67	67	636	72	31	11	10	6.6
6	131	84	210	275	68	69	411	68	45	11	9.7	7.2
7	109	78	205	376	72	80	313	67	58	12	9.4	8.6
8	94	74	223	566	77	163	311	64	37	53	18	8.4
9	82	68	178	711	87	173	227	61	29	57	20	6.8
10	74	63	338	487	120	164	197	58	27	26	16	8.1
11	65	60	541	342	111	151	175	56	28	18	11	6.7
12	59	91	449	342	95	139	155	54	44	15	10	6.9
13	54	140	336	277	88	132	142	50	33	23	9.6	7.9
14	68	95	256	953	92	130	128	48	28	51	9.1	8.9
15	109	93	203	1080	304	124	115	64	25	25	9.3	9.3
16	162	92	174	570	257	123	104	59	23	21	9.5	9.0
17	101	87	158	378	253	121	97	50	22	34	9.6	9.1
18	85	81	139	250	207	118	92	44	21	56	9.5	7.0
19	153	75	129	186	171	114	86	40	19	33	11	7.1
20	164	71	93	e150	155	114	81	48	19	22	9.0	8.0
21	155	80	86	e120	154	120	77	58	18	18	7.9	8.0
22	159	67	101	e85	137	111	72	44	17	15	7.9	7.7
23	130	64	201	e80	129	153	107	39	16	12	8.3	7.6
24	113	62	424	e75	119	366	194	37	15	11	8.3	7.1
25	104	141	267	e75	109	399	118	38	14	15	7.8	6.1
26	94	144	217	e80	97	340	99	37	13	12	7.7	6.1
27	84	127	188	e70	93	269	103	34	13	14	8.3	6.2
28	75	1690	141	e65	92	710	99	33	12	12	12	7.5
29	69	1320	158	e60	---	2560	85	37	22	11	7.7	8.8
30	104	568	134	e65	---	855	87	33	16	11	8.2	8.5
31	94	---	122	e60	---	477	---	29	---	9.8	9.7	---
TOTAL	4075	5904	8572	8326	3412	8669	11336	1676	756	657.8	315.5	232.6
MEAN	131	197	277	269	122	280	378	54.1	25.2	21.2	10.2	7.75
MAX	458	1690	887	1080	304	2560	4280	109	58	57	20	9.3
MIN	54	60	86	60	60	67	72	29	12	9.8	7.7	6.1
CFSM	1.73	2.60	3.65	3.54	1.61	3.69	4.99	0.71	0.33	0.28	0.13	0.10
IN.	2.00	2.90	4.21	4.09	1.67	4.25	5.56	0.82	0.37	0.32	0.15	0.11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 2005, BY WATER YEAR (WY)

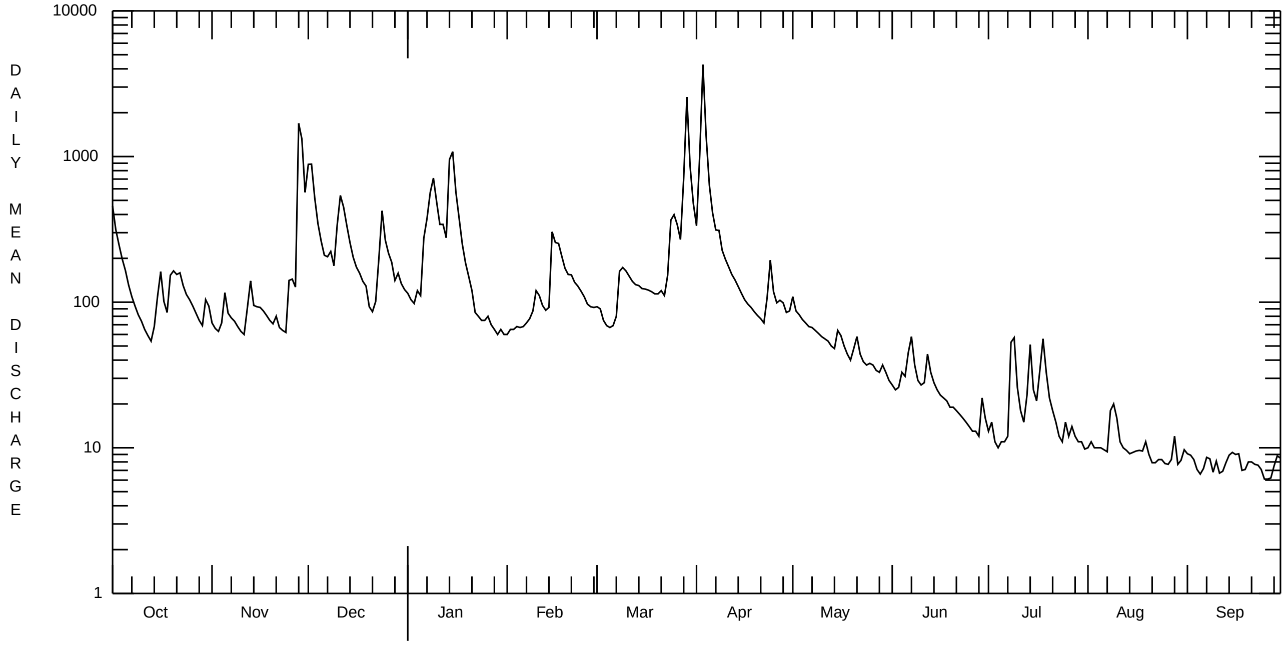
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	70.2	111	153	149	159	212	172	117	82.5	55.0	53.8	70.9
MAX	309	321	520	570	354	791	551	438	517	255	326	449
(WY)	1997	1971	1997	1996	1951	1994	1983	1989	1972	1945	1955	1987
MIN	3.93	8.62	14.0	8.45	34.3	55.0	38.0	22.3	5.89	1.21	1.81	2.83
(WY)	1964	1965	1999	1981	1980	1985	1985	1965	1965	1966	1966	1964

e Estimated.

01452000 JORDAN CREEK AT ALLENTOWN, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1945 - 2005	
ANNUAL TOTAL	59749		53931.9			
ANNUAL MEAN	163		148		117	
HIGHEST ANNUAL MEAN					203	1984
LOWEST ANNUAL MEAN					44.9	1965
HIGHEST DAILY MEAN	3440	Sep 18	4280	Apr 3	6650	Sep 9 1987
LOWEST DAILY MEAN	12	Jul 6	6.1	Sep 25,26	0.00	Jul 7 1966
ANNUAL SEVEN-DAY MINIMUM	13	Jul 5	6.9	Sep 22	0.06	Jul 9 1966
MAXIMUM PEAK FLOW			5750	Apr 3	**a**16200	Jun 23 1972
MAXIMUM PEAK STAGE			7.17	Apr 3	**b**11.61	Jun 23 1972
ANNUAL RUNOFF (CFSM)	2.15		1.95		1.54	
ANNUAL RUNOFF (INCHES)	29.32		26.47		20.96	
10 PERCENT EXCEEDS	263		323		252	
50 PERCENT EXCEEDS	99		74		62	
90 PERCENT EXCEEDS	40		9.0		12	

a From rating curve extended above 6,100 ft^3/s on basis of slope-area measurement of peak flow.
b From floodmark.



OCTOBER 1, 2004 TO SEPTEMBER 30, 2005

01452500 MONOCACY CREEK AT BETHLEHEM, PA

LOCATION.--Lat 40°38'28", long 75°22'47", Northampton County, Hydrologic Unit 02040106, on right bank 40 ft downstream from highway bridge at entrance to Monocacy Park at Bethlehem, and 2.1 mi upstream from mouth.

DRAINAGE AREA.--44.5 mi^2.

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

GAGE.--Water-stage recorder and crest-stage gage. Concrete control since July 17, 1969. Datum of gage is 247.24 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to May 15, 1962, nonrecording gage at site 40 ft upstream at same datum.

REMARKS.--No estimated daily discharges. Records fair. Some regulation at low flow since April 1954 by mill upstream. Several measurements of water temperature were made during the year. Satellite telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 10, 1945, reached a stage of 9.74 ft, from floodmarks, discharge, about 5,200 ft^3/s, by slope-area measurement.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft^3/s and maximum (*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Nov. 28	1730	776	4.41	Mar. 28	1745	535	3.89
Dec. 1	1730	526	3.82	Mar. 29	1730	372	3.46
Dec. 23	1745	360	3.38	Apr. 3	0530	*1,330	*5.44
Jan. 8	1245	368	3.41	Apr. 23	2345	396	3.55
Jan. 14	1145	494	3.75	June 29	2000	396	3.55

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	209	84	351	93	81	80	162	101	57	51	37	27
2	176	82	321	86	79	78	487	95	57	47	37	26
3	152	77	239	89	79	75	1000	92	59	45	35	26
4	138	86	179	99	79	74	555	88	63	43	34	26
5	124	94	148	93	79	73	370	86	58	42	34	25
6	119	81	133	152	81	71	279	85	77	43	31	25
7	112	77	136	135	81	75	232	84	73	41	31	25
8	110	73	135	229	81	98	238	83	60	85	35	25
9	108	72	122	229	81	90	178	81	56	56	33	24
10	102	72	179	201	92	87	162	80	57	46	30	24
11	94	71	181	171	85	87	144	79	62	44	30	24
12	93	93	171	177	83	87	134	76	59	43	31	24
13	91	93	154	152	80	85	128	74	53	54	29	24
14	94	77	139	362	91	84	116	74	53	48	29	24
15	95	76	127	335	156	83	107	79	51	44	28	28
16	129	73	123	244	135	81	105	76	52	48	28	24
17	102	77	117	192	131	84	104	72	51	53	28	24
18	96	75	107	153	121	81	99	69	49	60	28	24
19	120	74	108	138	108	77	95	67	47	49	28	23
20	106	74	101	133	100	75	93	74	46	45	28	23
21	105	75	94	122	101	78	91	71	44	43	27	23
22	119	70	91	107	96	76	90	67	46	42	27	23
23	108	67	162	108	93	93	168	66	41	41	27	22
24	101	66	153	99	90	114	196	64	40	40	26	23
25	99	83	122	96	88	111	129	64	42	65	26	23
26	97	72	113	94	84	110	113	63	41	47	26	23
27	96	67	106	90	83	108	111	62	46	43	26	23
28	90	513	98	85	81	261	101	61	50	42	40	22
29	86	395	97	86	---	420	97	63	106	40	32	23
30	96	251	96	85	---	266	100	60	80	39	28	23
31	87	---	93	81	---	196	---	59	---	38	27	---
TOTAL	3454	3240	4496	4516	2619	3458	5984	2315	1676	1467	936	723
MEAN	111	108	145	146	93.5	112	199	74.7	55.9	47.3	30.2	24.1
MAX	209	513	351	362	156	420	1000	101	106	85	40	28
MIN	86	66	91	81	79	71	90	59	40	38	26	22
CFSM	2.50	2.43	3.26	3.27	2.10	2.51	4.48	1.68	1.26	1.06	0.68	0.54
IN.	2.89	2.71	3.76	3.78	2.19	2.89	5.00	1.94	1.40	1.23	0.78	0.60

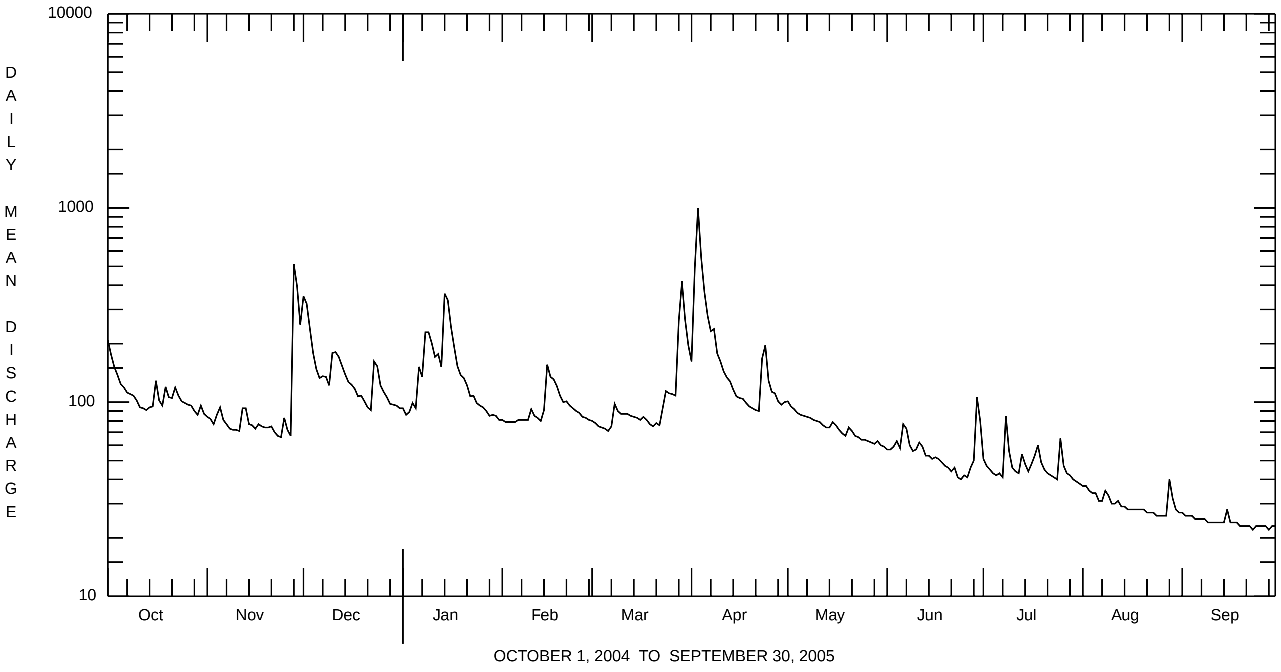
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 2005, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	41.0	46.8	57.4	59.6	64.6	75.1	75.7	58.5	52.1	44.2	40.7	43.1
MAX	118	111	191	201	163	216	199	129	142	141	88.2	245
(WY)	2004	2004	1997	1979	1979	1994	2005	1984	1972	1984	1984	2004
MIN	8.90	10.0	6.88	7.14	13.6	19.8	18.6	16.2	15.0	11.6	10.6	9.51
(WY)	1966	1966	1966	1966	2002	2002	1966	1965	1965	1966	1965	1965

01452500 MONOCACY CREEK AT BETHLEHEM, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1949 - 2005	
ANNUAL TOTAL	35643		34884			
ANNUAL MEAN	97.4		95.6		54.8	
HIGHEST ANNUAL MEAN					98.6	2004
LOWEST ANNUAL MEAN					15.5	1966
HIGHEST DAILY MEAN	2290	Sep 18	1000	Apr 3	2290	Sep 18 2004
LOWEST DAILY MEAN	30	Jul 11	22	Sep 23,28	5.2	Jan 1 1966
ANNUAL SEVEN-DAY MINIMUM	32	Jul 5	23	Sep 22	5.9	Dec 27 1965
MAXIMUM PEAK FLOW			**a**1330	Apr 3	**a**5470	Sep 18 2004
MAXIMUM PEAK STAGE			5.44	Apr 3	9.85	Sep 18 2004
INSTANTANEOUS LOW FLOW			21	Sep 30	3.0	Jan 9 1966
ANNUAL RUNOFF (CFSM)	2.19		2.15		1.23	
ANNUAL RUNOFF (INCHES)	29.80		29.16		16.74	
10 PERCENT EXCEEDS	149		162		99	
50 PERCENT EXCEEDS	76		81		42	
90 PERCENT EXCEEDS	42		27		21	

a From rating curve extended above 440 ft^3/s on basis of slope-area measurement at gage heights 5.47 and 9.74.



01453000 LEHIGH RIVER AT BETHLEHEM, PA

LOCATION.--Lat 40°36'55", long 75°22'45", Lehigh County, Hydrologic Unit 02040106, on left bank 110 ft upstream from bridge on New Street at Bethlehem, and 1,800 ft upstream from Monocacy Creek. Records include flow of Monocacy Creek.

DRAINAGE AREA.--1,279 mi^2 (includes that of Monocacy Creek). At site used prior to Oct. 1, 1928, 1,229 mi^2.

PERIOD OF RECORD.--October 1902 to January 1905, May 1909 to current year. Monthly discharge only for some periods, published in WSP 1302. Published as "at South Bethlehem" prior to October 1913.

REVISED RECORDS.--WSP 261: 1903-5. WSP 321: 1910-11. WSP 1051: Drainage area. WSP 1141: 1929-34(M). WSP 1302: 1914(M), 1916(M), 1918, 1921, 1927-28. WSP 1432: 1903, 1919(M), 1920-21, 1929, 1933.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 210.94 ft above National Geodetic Vertical Datum of 1929. Prior to October 1928, nonrecording gage at New Street bridge 120 ft downstream at same datum. Oct. 1, 1928, to Sept. 30, 1962, water-stage recorder at site 4,250 ft downstream at datum 2.49 ft lower. Oct. 1, 1963, to Dec. 14, 1975, water-stage recorder at site 40 ft downstream at same datum.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Flow regulated by Wild Creek Reservoir (station 01449700) since January 1941, Penn Forest Reservoir (station 01449400) since October 1958, Francis E. Walter Reservoir (station 01447780) since February 1961, and Beltzville Lake (station 01449790) since February 1971. Satellite and landline telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 28, 1902 reached a stage of 24.9 ft, from floodmark, present site and datum, discharge, about 88,000 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6600	2160	14300	3380	e2400	2340	10700	2980	1350	986	626	607
2	4640	2080	11700	3230	e2450	2330	15300	2760	1280	1090	628	601
3	4380	2030	11500	3130	e2350	2170	35900	2650	1250	1220	606	567
4	3780	2050	8910	3400	2290	1970	18100	2490	1370	1160	569	543
5	3150	2290	7560	4190	2210	1880	16800	2400	1340	852	544	517
6	2790	2100	6580	5250	2190	1860	14500	2230	1580	896	534	473
7	2670	1980	5010	5890	2170	1960	13800	2170	1760	898	544	500
8	2630	1930	5140	6590	2020	3000	13500	2100	1520	1660	682	518
9	2610	1910	4900	7300	2110	2890	10700	1980	1310	1600	773	512
10	2470	1840	6200	6090	2480	2700	9860	1950	1340	1250	693	510
11	2270	1780	8370	5370	2690	2630	8770	1880	1420	1030	606	492
12	2160	2040	7240	5400	2440	2470	6640	1840	1610	920	564	539
13	2010	2420	6510	5370	2300	2380	5190	1800	1410	958	541	519
14	2100	2060	6320	13600	2440	2280	4230	1930	1150	1100	593	493
15	2510	1970	5010	14200	4920	2170	3700	2200	1090	1030	709	584
16	3530	2030	4340	11300	4810	2180	3250	1950	1110	1000	702	475
17	2800	2040	4070	10300	4870	2180	3180	1710	1060	1270	662	699
18	2770	2000	3780	8950	4240	2170	3020	1610	988	1450	628	519
19	3300	1940	3640	7960	3660	2100	2660	1540	955	1060	641	449
20	3460	1890	3330	7380	3190	2130	2470	1580	912	935	605	430
21	3140	1960	2810	6490	3200	2270	2350	1690	867	861	609	439
22	3190	1870	2710	4360	3070	2590	2230	1560	822	824	596	466
23	2910	1810	3760	e3450	2980	3090	2850	1500	798	780	569	455
24	2800	1840	8720	e3350	2830	4260	4360	1420	774	1010	542	483
25	2580	2630	7790	e3400	2570	4230	3210	1420	752	e1200	524	503
26	2350	2770	6790	e3200	2430	3960	2890	1400	1010	e900	519	509
27	2240	2690	6100	e2800	2350	3780	3060	1350	815	768	507	530
28	2200	14100	4820	e2600	2300	6870	3080	1330	761	786	631	521
29	2160	15500	4220	e2500	---	20300	2890	1760	1050	757	689	538
30	2360	13000	3850	e2450	---	16100	2840	1620	1110	698	628	531
31	2330	---	3490	e2350	---	13100	---	1300	---	636	595	---
TOTAL	90890	98710	189470	175230	79960	126340	232030	58100	34564	31585	18859	15522
MEAN	2932	3290	6112	5653	2856	4075	7734	1874	1152	1019	608	517
MAX	6600	15500	14300	14200	4920	20300	35900	2980	1760	1660	773	699
MIN	2010	1780	2710	2350	2020	1860	2230	1300	752	636	507	430
CFSM	2.29	2.57	4.78	4.42	2.23	3.19	6.05	1.47	0.90	0.80	0.48	0.40
IN.	2.64	2.87	5.51	5.10	2.33	3.67	6.75	1.69	1.01	0.92	0.55	0.45

e Estimated.

01453000 LEHIGH RIVER AT BETHLEHEM, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 2005, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1636	2339	2980	2709	2737	3845	3921	3021	2150	1602	1354	1477
MAX	5778	5294	9067	7898	5820	7708	10180	7041	8199	6362	6192	6907
(WY)	1956	1952	1997	1979	1951	1977	1993	1989	2003	1945	1955	1987
MIN	406	474	514	286	1132	1632	1428	1053	681	366	405	334
(WY)	1964	1965	1981	1981	1980	1981	1985	1941	1965	1965	1964	1964

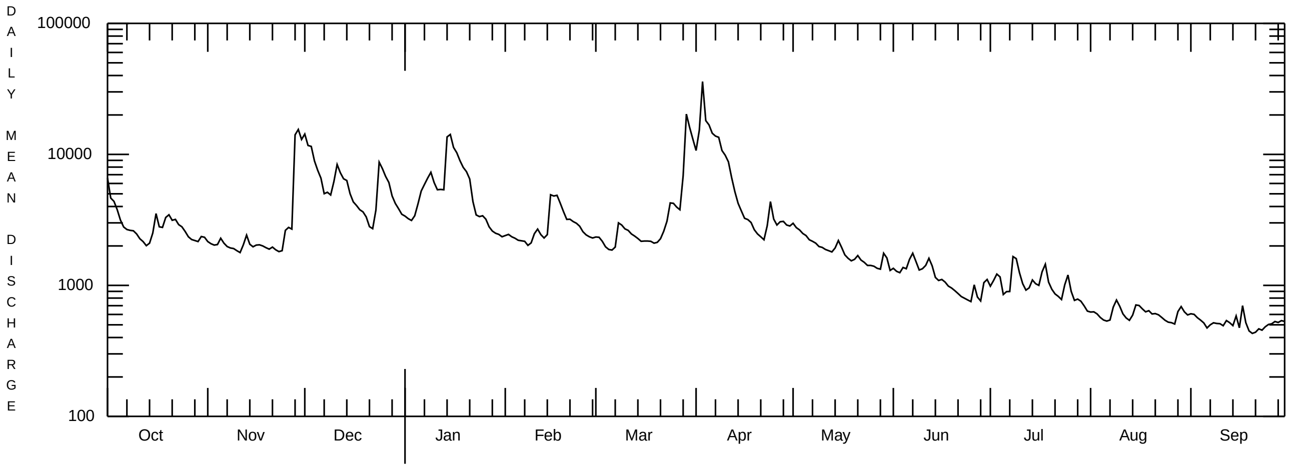
SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1941 - 2005	
ANNUAL TOTAL	1150935		1151260			
ANNUAL MEAN	3145		3154		2479	
HIGHEST ANNUAL MEAN					3973	1952
LOWEST ANNUAL MEAN					1165	1965
HIGHEST DAILY MEAN	**e**33500	Sep 18	35900	Apr 3	70400	Aug 19 1955
LOWEST DAILY MEAN	794	Jul 11	430	Sep 20	210	Jan 31 1981
ANNUAL SEVEN-DAY MINIMUM	886	Jul 5	461	Sep 19	216	Jan 26 1981
MAXIMUM PEAK FLOW			42600	Apr 3	**a**92000	May 23 1942
MAXIMUM PEAK STAGE			16.06	Apr 3	**b**25.90	May 23 1942
ANNUAL RUNOFF (CFSM)	2.46		2.47		1.94	
ANNUAL RUNOFF (INCHES)	33.48		33.48		26.34	
10 PERCENT EXCEEDS	5170		6700		4880	
50 PERCENT EXCEEDS	2290		2170		1790	
90 PERCENT EXCEEDS	1500		569		690	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1903-1904, 1909-1940, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1532	1827	2184	2346	2430	4134	3815	2280	1753	1530	1239	1214
MAX	4808	5660	5287	5287	5913	11920	7547	3681	4255	5182	4599	6407
(WY)	1903	1927	1939	1915	1915	1936	1940	1924	1928	1935	1933	1933
MIN	308	370	470	677	668	1887	1499	1020	832	572	428	374
(WY)	1911	1910	1931	1925	1934	1911	1915	1926	1921	1912	1910	1932

SUMMARY STATISTICS	WATER YEARS 1903 - 1904 1909 - 1940	
ANNUAL MEAN	2189	
HIGHEST ANNUAL MEAN	3600	1928
LOWEST ANNUAL MEAN	1262	1931
HIGHEST DAILY MEAN	47900	Aug 24 1933
LOWEST DAILY MEAN	160	Oct 15 1910
ANNUAL SEVEN-DAY MINIMUM	260	Oct 13 1910
MAXIMUM PEAK FLOW	64800	Aug 24 1933
MAXIMUM PEAK STAGE	18.70	Aug 24 1933
INSTANTANEOUS LOW FLOW	160	Oct 15 1910
ANNUAL RUNOFF (CFSM)	1.71	
ANNUAL RUNOFF (INCHES)	23.25	
10 PERCENT EXCEEDS	4420	
50 PERCENT EXCEEDS	1500	
90 PERCENT EXCEEDS	548	

a From rating curve extended above 58,000 ft^3/s on basis of slope-area measurement at gage height, 20.02 ft at present site and datum.
b From floodmark, present site and datum.
e Estimated.



OCTOBER 1, 2004 TO SEPTEMBER 30, 2005

01454700 LEHIGH RIVER AT GLENDON, PA
(Pennsylvania Water-Quality Network Station)

LOCATION.--Lat 40°40'09", long 75°14'12", Northampton County, Hydrologic Unit 02040106, on right bank 140 ft upstream from highway bridge in Hugh Moore Parkway at Glendon, 2.3 mi upstream from mouth, and 2.0 mi southwest of Easton.

DRAINAGE AREA.--1,359 mi^2.

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WDR PA-72-1: 1971(M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 164.30 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated by Francis E. Walter Reservoir (station 01447780), Penn Forest Reservoir (station 01449400), Wild Creek Reservoir (station 01449700), and since February 1971, by Beltzville Lake (station 01449790) about 60 mi upstream. Flows above 10,000 ft^3/s may be affected by backwater from the Delaware River. Several measurements of water temperature were made during the year. Satellite telemetry at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8020	2350	14700	3560	e2600	2530	10700	3160	1510	1150	752	732
2	5800	2240	12000	3410	e2650	2530	15900	2940	1470	1230	753	726
3	5270	2190	11600	3300	e2550	2380	e38000	2800	1440	1330	735	691
4	4670	2230	9310	3520	2500	2170	e19200	2630	1580	1270	701	667
5	3770	2560	7900	4300	2400	2090	e17800	2560	1520	998	673	646
6	3290	2300	6970	5640	2380	2060	e15400	2410	1830	1040	661	615
7	3100	2150	5400	6240	2370	2140	e14600	2340	1980	1030	663	616
8	3030	2050	5520	6970	2240	3200	14400	2280	1700	1940	775	636
9	2970	1980	5180	7730	2300	3090	11100	2170	1480	1780	887	632
10	2830	1940	6630	6510	2710	2890	10200	2110	1510	1520	831	627
11	2560	1880	8650	5760	2880	2810	9150	2060	1520	1340	740	613
12	2420	2190	7660	5780	2650	2680	6870	2010	1770	1210	695	640
13	2230	2750	6840	5700	2490	2600	5370	1960	1550	1190	671	641
14	2290	2220	6670	14300	2600	2500	4430	2030	1320	1200	692	603
15	2580	2090	5400	16100	5420	2360	3880	2310	1240	1150	859	735
16	4340	2130	4580	11400	5130	2350	3420	2120	1260	1110	817	612
17	3280	2150	4240	10400	5210	2360	3330	1880	1220	1460	779	765
18	3110	2110	3950	9210	4470	2350	3180	1790	1140	1660	750	658
19	3850	2060	3780	e8200	3860	2290	2870	1720	1110	1210	753	584
20	4140	2020	e3500	e7600	3410	2300	2650	1790	1070	1080	736	559
21	3650	2150	e3000	e6800	3390	2430	2520	1860	1030	1000	732	561
22	3790	2030	2910	e4800	3280	2690	2410	1740	983	965	715	591
23	3380	1920	3850	e3800	3190	3250	3390	1680	949	921	694	584
24	3210	1950	9170	e3700	3040	4540	4810	1610	926	1110	668	594
25	2960	2840	8010	e3700	2800	4440	3480	1610	881	1350	647	622
26	2650	3150	7080	e3500	2630	4100	3090	1590	1090	982	638	624
27	2460	2980	6410	e3100	2560	3900	3190	1530	953	880	633	652
28	2390	15300	5120	e2800	2500	6970	3240	1500	933	888	791	635
29	2340	16800	4460	e2700	---	21500	3020	1860	1420	869	804	647
30	2600	13200	4000	e2650	---	17700	3000	1800	1640	820	770	642
31	2600	---	3680	e2600	---	13100	---	1490	---	767	725	---
TOTAL	105580	105910	198170	185780	86210	134300	244600	63340	40025	36450	22740	19150
MEAN	3406	3530	6393	5993	3079	4332	8153	2043	1334	1176	734	638
MAX	8020	16800	14700	16100	5420	21500	38000	3160	1980	1940	887	765
MIN	2230	1880	2910	2600	2240	2060	2410	1490	881	767	633	559
CFSM	2.51	2.60	4.70	4.41	2.27	3.19	6.00	1.50	0.98	0.87	0.54	0.47
IN.	2.89	2.90	5.42	5.09	2.36	3.68	6.70	1.73	1.10	1.00	0.62	0.52

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 2005, BY WATER YEAR (WY)

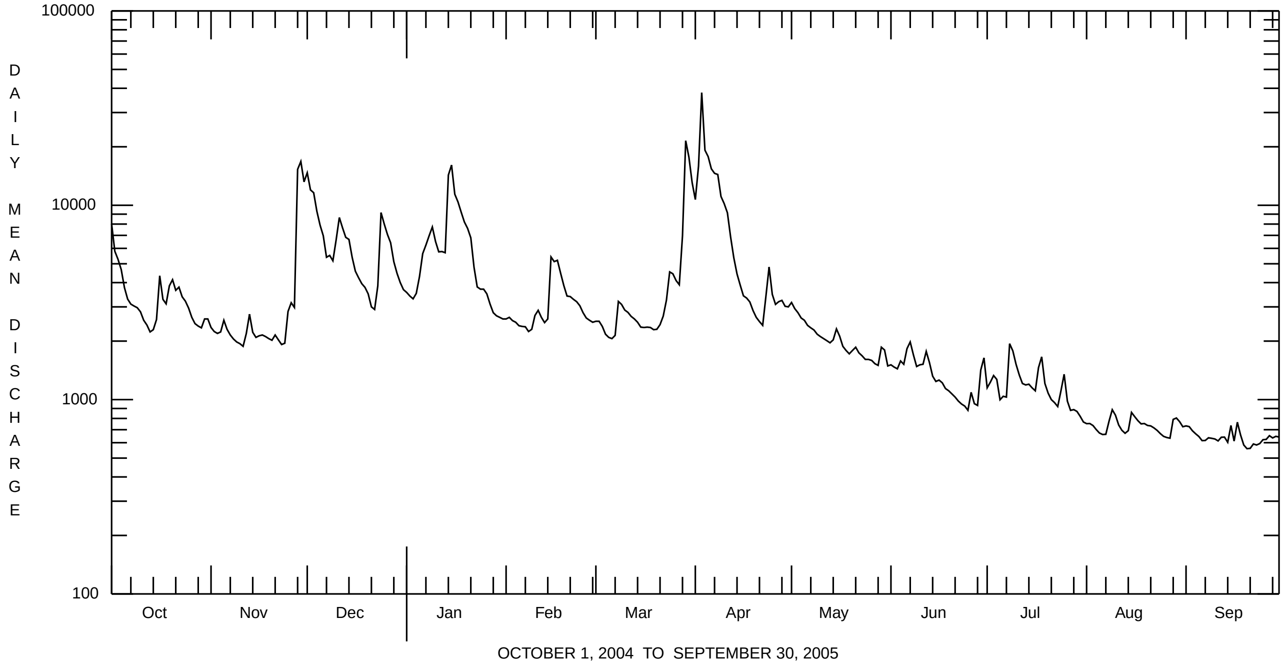
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2041	2697	3538	3118	3147	4269	4443	3340	2636	1817	1538	1845
MAX	5272	5438	9593	8414	5385	8344	10810	8542	8502	4641	4179	7920
(WY)	1977	1971	1997	1996	1976	1977	1993	1989	2003	1984	1969	1987
MIN	771	704	633	405	1278	1805	1639	1502	906	630	607	638
(WY)	1981	2002	1981	1981	1980	1981	1985	1995	1999	1999	1999	2005

e Estimated.

01454700 LEHIGH RIVER AT GLENDON, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1967 - 2005	
ANNUAL TOTAL	1290242		1242255			
ANNUAL MEAN	3525		3403		2867	
HIGHEST ANNUAL MEAN					3997	1984
LOWEST ANNUAL MEAN					1594	1985
HIGHEST DAILY MEAN	**e**32000	Sep 18	**e**38000	Apr 3	44300	Jun 23 1972
LOWEST DAILY MEAN	795	Jul 11	559	Sep 20	330	Jan 31 1981**a**
ANNUAL SEVEN-DAY MINIMUM	899	Jul 5	585	Sep 19	349	Jan 26 1981
MAXIMUM PEAK FLOW			**be**45500	Apr 3	**b**60600	Jun 23 1972**c**
MAXIMUM PEAK STAGE			**d**27.86	Apr 3	27.86	Apr 3 2005
ANNUAL RUNOFF (CFSM)	2.59		2.50		2.11	
ANNUAL RUNOFF (INCHES)	35.32		34.00		28.66	
10 PERCENT EXCEEDS	6160		7010		5650	
50 PERCENT EXCEEDS	2620		2360		2090	
90 PERCENT EXCEEDS	1690		695		860	

a Also Feb. 1, 1981.
b From rating curve extended above 36,000 ft^3/s.
c Gage height 24.86 ft.
d From floodmarks; backwater from Delaware River.
e Estimated.



01454700 LEHIGH RIVER AT GLENDON, PA--Continued
(Pennsylvania Water-Quality Network Station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 2002 to current year.

REMARKS.--Other data for the Water-Quality Network can be found on pages 386-432.

COOPERATION.--Samples were collected as part of the Pennsylvania Department of Environmental Protection Water-Quality Network (WQN) with cooperation from the Pennsylvania Department of Environmental Protection.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conductance, wat unf lab, µS/cm 25 degC (90095)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water unfltrd recover -able, mg/L (00916)	Magnesium, water, unfltrd recover -able, mg/L (00927)
NOV 2004 04...	1000	1028	9813	2060	11.6	7.7	7.8	276	272	10.8	95	23	9.2
JAN 2005 04...	1030	1028	9813	3430	13.3	7.6	7.8	236	237	6.5	77	19	7.3
MAR 31...	0950	1028	9813	13200	12.6	7.3	7.0	139	135	6.1	41	11	3.4
MAY 26...	1020	1028	9813	1590	10.7	7.8	8.0	330	322	13.2	120	30	12
JUL 20...	0950	1028	9813	1070	16.8	7.9	8.1	328	343	25.6	120	28	11
SEP 22...	1420	1028	9813	594	9.3	8.1	8.3	430	436	21.8	150	34	15

Date	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Fluoride, water, unfltrd mg/L (00951)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 105degC wat flt mg/L (00515)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia water, unfltrd mg/L as N (00610)	Nitrate water unfltrd mg/L as N (00620)	Nitrite water, unfltrd mg/L as N (00615)	Total nitrogen, water, unfltrd mg/L (00600)	Orthophosphate, water, unfltrd mg/L as P (70507)	Phosphorus, water, unfltrd mg/L (00665)	Organic carbon, water, unfltrd mg/L (00680)	Aluminum, water, unfltrd recover -able, µg/L (01105)
NOV 2004 04...	64	<.2	27	150	<2.0	.170	2.0	.070	2.6	.15	.20	2.6	<200
JAN 2005 04...	50	<.2	22	130	6.0	.150	1.9	<.040	2.2	.07	.09	1.9	<200
MAR 31...	21	<.2	13	74	230	.060	1.2	<.040	1.4	.03	.04	--	490
MAY 26...	82	<.2	36	230	<2.0	.170	2.5	<.040	2.9	.13	.14	--	<200
JUL 20...	84	<.2	34	190	<2.0	.050	2.1	.060	2.4	.14	.16	--	<200
SEP 22...	115	<.2	39	310	26	.050	3.2	.060	3.4	.34	.39	--	<200

Date	Copper, water, unfltrd recover -able, µg/L (01042)	Cyanide amenable to chlorination wat unf mg/L (00722)	Iron, water, unfltrd recover -able, µg/L (01045)	Lead, water, unfltrd recover -able, µg/L (01051)	Manganese, water, unfltrd recover -able, µg/L (01055)	Nickel, water, unfltrd recover -able, µg/L (01067)	Zinc, water, unfltrd recover -able, µg/L (01092)	Phenolic compounds, water, unfltrd µg/L (32730)
NOV 2004 04...	<10	<1.00	90	<1.0	20	<50	45	<5
JAN 2005 04...	<10	<1.00	150	<1.0	40	<50	66	<5
MAR 31...	<10	<1.00	730	2.1	100	<50	58	<5
MAY 26...	<10	<1.00	60	<1.0	30	<50	37	--
JUL 20...	<10	<1.00	140	<1.0	30	<50	21	<5
SEP 22...	<10	<1.00	60	<1.0	30	<50	12	<5

LEHIGH RIVER BASIN

01454700 LEHIGH RIVER AT GLENDON, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES

REMARKS.--Samples were collected using a D-Frame net with a mesh size of 500 µm. Samples represent counts per 100 animal (approximate) subsamples.

Date	10/13/04
Benthic macroinvertebrate	Count
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Lumbriculida	
Lumbriculidae	3
Tubificida	
Enchytraeidae	1
Arthropoda	
Acariformes	
Hydrachnidia (WATER MITES)	1
Crustacea	
Amphipoda (SCUDS)	
Gammaridae	
Gammarus	3
Isopoda (AQUATIC SOWBUGS)	
Asellidae	
Caecidotea	1
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
Acentrella	5
Ephemerellidae	
Eurylophella	1
Serratella	1
Heptageniidae	4
Epeorus	2
Plecoptera (STONEFLIES)	
Taeniopterygidae	
Taeniopteryx	3
Trichoptera (CADDISFLIES)	
Glossosomatidae	
Protoptila	1
Hydropsychidae	
Cheumatopsyche	3
Hydropsyche	30
Lepidoptera (MOTHS AND BUTTERFLIES)	
Pyralidae	
Petrophila	1
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
Oulimnius	1
Stenelmis	2
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	35
Empididae (DANCE FLIES)	
Hemerodromia	1
Simuliidae (BLACK FLIES)	
Simulium	2
Total Organisms	101
Total Taxa	20

01454720 LEHIGH RIVER AT EASTON, PA

LOCATION.--Lat 40°41'12", long 75°12'32", Northampton County, Hydrologic Unit 02040106, on left bank, near bridge on U.S. Highway 611 in Easton.

DRAINAGE AREA.--1,364 mi^2.

PERIOD OF RECORD.--October 1961 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1963 to current year.
pH: November 1972 to current year.
WATER TEMPERATURE: October 1961 to current year.
DISSOLVED OXYGEN: June 1966 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1961. Probes interfaced with a data collection platform since the 1986 water year.

REMARKS.--Specific conductance record rated good except for period Apr. 13 to June 1, which is fair. pH record rated good. Water temperature record rated good. Dissolved oxygen record rated fair except for periods May 20-28 and June 9-29, which are poor. Beginning with the 1978 water year, no data were recorded during the months of October through March. Other interruptions in the record were due to malfunctions of the pump or recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 581 microsiemens, Aug. 19, 1963; minimum, 70 microsiemens, Nov. 14, 1970.
pH: Maximum, 8.7, July 18, 19, 1991; minimum, 6.0, Mar. 16, 1978.
WATER TEMPERATURE: Maximum, 30.5°C, July 29, 1970, July 21, 1980; minimum, 0.0°C, many days during winters.
DISSOLVED OXYGEN: Maximum, 15.7 mg/L, Apr. 14, 1986; minimum, 0.0 mg/L, Aug. 4, 1966.

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° CELSIUS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			**NOVEMBER**			**DECEMBER**			**JANUARY**	
1	172	147	161	---	---	---	---	---	---	---	---	---
2	200	172	179	---	---	---	---	---	---	---	---	---
3	208	189	199	---	---	---	---	---	---	---	---	---
4	199	190	192	---	---	---	---	---	---	---	---	---
5	218	199	211	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	218	147	188	---	---	---	---	---	---	---	---	---

01454720 LEHIGH RIVER AT EASTON, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° CELSIUS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	149	146	148	252	229	242
2	---	---	---	---	---	---	159	143	152	249	235	239
3	---	---	---	---	---	---	149	114	126	252	235	241
4	---	---	---	---	---	---	---	---	---	251	232	245
5	---	---	---	---	---	---	---	---	---	258	234	250
6	---	---	---	---	---	---	---	---	---	263	251	255
7	---	---	---	---	---	---	---	---	---	273	250	262
8	---	---	---	---	---	---	---	---	---	273	255	264
9	---	---	---	---	---	---	---	---	---	278	256	268
10	---	---	---	---	---	---	---	---	---	288	273	279
11	---	---	---	---	---	---	---	---	---	288	280	284
12	---	---	---	---	---	---	---	---	---	292	282	288
13	---	---	---	---	---	---	---	---	---	293	284	287
14	---	---	---	---	---	---	226	202	214	296	282	288
15	---	---	---	---	---	---	240	226	232	286	253	270
16	---	---	---	---	---	---	258	240	247	271	253	263
17	---	---	---	---	---	---	259	252	256	290	270	280
18	---	---	---	---	---	---	258	252	256	302	284	293
19	---	---	---	---	---	---	272	255	262	306	293	299
20	---	---	---	---	---	---	288	272	283	325	295	310
21	---	---	---	---	---	---	293	283	289	324	318	321
22	---	---	---	---	---	---	298	287	293	319	313	316
23	---	---	---	---	---	---	295	266	285	317	307	311
24	---	---	---	---	---	---	268	220	240	325	314	318
25	---	---	---	---	---	---	244	219	229	335	324	328
26	---	---	---	---	---	---	259	244	252	336	330	333
27	---	---	---	---	---	---	255	225	248	336	331	334
28	---	---	---	---	---	---	249	223	235	341	322	334
29	---	---	---	---	---	---	241	229	236	339	305	332
30	---	---	---	---	---	---	241	228	235	305	292	297
31	---	---	---	148	143	145	---	---	---	316	286	297
MONTH	---	---	---	148	143	145	298	114	236	341	229	288

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	336	316	325	386	299	341	430	421	426	417	395	406
2	338	330	334	389	375	383	429	421	425	420	412	416
3	338	333	336	376	346	364	440	424	430	418	411	414
4	354	336	348	348	322	332	451	437	444	418	410	413
5	350	338	342	335	318	325	459	445	452	417	407	412
6	---	---	---	364	329	350	468	457	461	417	404	408
7	---	---	---	377	364	373	473	462	466	415	409	412
8	---	---	---	377	319	359	473	461	466	437	415	425
9	---	---	---	329	298	306	463	433	446	445	437	442
10	342	332	335	338	314	322	438	419	429	446	431	437
11	344	332	337	329	319	323	423	419	420	441	432	436
12	336	306	327	354	327	338	432	416	422	437	428	432
13	333	304	317	373	354	365	442	426	432	435	417	423
14	340	315	324	381	355	369	451	433	444	419	409	412
15	360	340	348	383	369	380	444	429	437	425	407	416
16	366	352	362	376	356	364	431	407	415	425	408	415
17	367	356	362	368	337	358	411	401	404	424	411	417
18	372	359	366	338	313	323	414	398	406	426	420	422
19	375	366	371	341	311	324	424	413	418	420	398	402
20	375	368	372	365	341	350	429	418	423	405	393	397
21	375	369	372	379	365	371	433	419	427	421	405	415
22	385	375	381	387	379	383	431	421	424	449	419	438
23	398	385	392	394	386	390	426	417	420	464	449	457
24	405	398	402	402	388	398	425	414	418	456	447	452
25	414	404	411	398	338	365	---	---	---	455	442	448
26	422	412	416	347	314	327	---	---	---	444	431	437
27	416	360	390	374	326	349	447	437	440	432	412	420
28	384	361	377	405	374	396	448	436	443	416	399	406
29	401	373	390	419	404	412	446	405	431	415	405	409
30	398	282	309	414	404	409	407	391	401	418	407	412
31	---	---	---	425	411	419	396	388	391	---	---	---
MONTH	422	282	359	425	298	360	473	388	430	464	393	422

01454720 LEHIGH RIVER AT EASTON, PA--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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

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

01454720 LEHIGH RIVER AT EASTON, PA--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			**NOVEMBER**			**DECEMBER**			**JANUARY**	
1	16.9	16.3	16.6	---	---	---	---	---	---	---	---	---
2	16.3	15.9	16.1	---	---	---	---	---	---	---	---	---
3	16.1	15.3	15.7	---	---	---	---	---	---	---	---	---
4	15.8	15.2	15.5	---	---	---	---	---	---	---	---	---
5	15.5	14.8	15.1	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	16.9	14.8	15.8	---	---	---	---	---	---	---	---	---

01454720 LEHIGH RIVER AT EASTON, PA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	8.2	6.2	7.2	13.0	11.9	12.5
2	---	---	---	---	---	---	9.1	8.1	8.3	13.1	12.4	12.8
3	---	---	---	---	---	---	9.1	7.5	8.5	12.8	12.0	12.5
4	---	---	---	---	---	---	---	---	---	12.6	11.7	12.3
5	---	---	---	---	---	---	---	---	---	13.1	12.0	12.6
6	---	---	---	---	---	---	---	---	---	13.1	12.4	12.6
7	---	---	---	---	---	---	---	---	---	13.6	12.2	12.8
8	---	---	---	---	---	---	---	---	---	14.9	13.5	14.1
9	---	---	---	---	---	---	---	---	---	16.4	14.8	15.5
10	---	---	---	---	---	---	---	---	---	17.7	16.4	16.9
11	---	---	---	---	---	---	---	---	---	18.8	17.6	18.1
12	---	---	---	---	---	---	---	---	---	19.3	18.6	18.9
13	---	---	---	---	---	---	---	---	---	18.6	17.6	18.1
14	---	---	---	---	---	---	12.6	10.9	11.7	18.2	17.3	17.7
15	---	---	---	---	---	---	12.7	11.6	12.2	19.0	18.1	18.5
16	---	---	---	---	---	---	12.8	11.5	12.2	19.2	18.3	18.7
17	---	---	---	---	---	---	13.3	11.6	12.5	18.7	18.0	18.4
18	---	---	---	---	---	---	14.4	12.5	13.4	18.2	17.5	17.9
19	---	---	---	---	---	---	15.3	13.6	14.5	18.1	17.3	17.6
20	---	---	---	---	---	---	16.8	15.0	15.8	17.6	15.8	16.9
21	---	---	---	---	---	---	17.1	16.2	16.7	16.1	15.1	15.6
22	---	---	---	---	---	---	16.5	14.1	15.3	15.9	15.6	15.8
23	---	---	---	---	---	---	14.1	12.7	13.2	17.0	15.7	16.4
24	---	---	---	---	---	---	13.0	11.8	12.5	16.6	15.4	16.3
25	---	---	---	---	---	---	11.8	10.7	11.1	15.4	14.4	14.9
26	---	---	---	---	---	---	12.1	10.3	11.1	14.4	14.1	14.2
27	---	---	---	---	---	---	13.0	11.8	12.3	16.6	14.2	15.3
28	---	---	---	---	---	---	13.6	12.5	13.1	17.7	16.1	16.9
29	---	---	---	---	---	---	13.4	12.4	12.9	18.3	16.9	17.6
30	---	---	---	---	---	---	13.0	12.3	12.5	18.3	17.8	18.1
31	---	---	---	6.8	6.2	6.6	---	---	---	18.7	17.7	18.1
MONTH	---	---	---	6.8	6.2	6.6	17.1	6.2	12.3	19.3	11.7	16.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	19.8	18.1	19.0	25.4	24.3	24.9	26.3	25.1	25.7	24.2	22.9	23.5
2	20.2	19.1	19.5	25.5	24.0	24.7	26.6	25.2	25.9	24.2	22.8	23.5
3	19.5	18.6	19.2	24.8	23.8	24.3	27.2	25.5	26.2	24.1	22.7	23.2
4	19.7	18.3	18.9	24.8	23.5	24.1	27.5	25.9	26.6	23.3	22.3	22.8
5	20.9	19.2	20.1	24.6	23.6	24.1	27.5	26.4	26.9	23.2	22.0	22.5
6	---	---	---	24.6	23.2	23.9	26.9	25.9	26.3	23.1	21.9	22.4
7	---	---	---	24.0	23.3	23.6	26.5	25.2	25.7	23.1	21.8	22.4
8	---	---	---	23.5	21.3	22.2	26.0	24.5	25.1	23.1	21.6	22.4
9	---	---	---	22.0	20.7	21.3	24.5	23.7	24.0	23.0	21.7	22.2
10	24.5	23.6	24.0	23.5	21.7	22.5	24.9	22.9	23.8	22.6	21.4	21.9
11	24.3	23.6	23.9	24.8	22.8	23.7	26.0	24.0	24.8	22.3	20.9	21.6
12	24.5	23.5	24.0	25.7	23.6	24.6	26.5	24.9	25.5	22.4	21.0	21.7
13	24.9	24.1	24.4	25.6	24.1	24.7	27.4	25.7	26.4	22.8	21.2	21.8
14	26.1	24.6	25.2	25.3	23.9	24.5	28.1	26.5	27.3	22.8	21.7	22.2
15	26.2	25.0	25.5	25.8	24.2	24.9	27.9	26.6	26.8	23.4	22.2	22.7
16	25.0	23.8	24.6	25.5	24.6	25.0	26.7	25.1	25.5	23.8	22.6	23.1
17	23.8	22.3	23.2	24.9	24.3	24.5	25.3	24.2	24.8	24.1	23.2	23.7
18	22.3	21.0	21.7	25.3	24.2	24.6	25.4	23.9	24.5	23.9	22.9	23.3
19	21.0	20.1	20.5	26.6	25.0	25.7	25.3	24.0	24.3	23.7	22.6	23.0
20	20.9	19.4	20.1	27.3	25.4	26.3	24.0	23.5	23.8	23.4	22.5	22.8
21	22.3	19.8	20.9	27.7	25.6	26.6	25.3	23.2	24.2	22.9	21.9	22.3
22	22.5	20.6	21.5	27.8	25.7	26.7	25.1	23.5	24.3	22.7	21.3	21.9
23	23.5	20.9	22.1	27.4	25.9	26.6	25.0	23.6	24.2	22.5	21.6	22.0
24	24.0	21.6	22.7	26.7	25.2	25.9	24.6	23.5	23.9	22.2	20.9	21.3
25	24.9	22.3	23.5	25.8	24.6	25.1	---	---	---	21.6	20.5	20.8
26	25.6	23.2	24.4	26.7	24.4	25.5	---	---	---	20.7	20.1	20.2
27	25.2	24.1	24.7	27.4	25.3	26.3	23.3	22.4	22.8	20.4	19.7	20.0
28	25.7	23.9	24.7	27.0	25.5	26.2	23.1	22.2	22.4	20.3	19.1	19.6
29	25.7	24.3	24.9	26.6	25.0	25.8	22.9	21.7	22.2	20.2	19.0	19.3
30	24.9	24.0	24.4	26.5	24.7	25.5	23.4	22.0	22.6	19.0	18.0	18.4
31	---	---	---	26.4	25.0	25.7	23.7	22.9	23.2	---	---	---
MONTH	26.2	18.1	22.6	27.8	20.7	24.8	28.1	21.7	24.8	24.2	18.0	21.9

01454720 LEHIGH RIVER AT EASTON, PA--Continued

OXYGEN, DISSOLVED (MG/L), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	9.4	9.1	9.2	---	---	---	---	---	---	---	---	---
2	9.4	9.3	9.3	---	---	---	---	---	---	---	---	---
3	9.5	9.3	9.4	---	---	---	---	---	---	---	---	---
4	9.4	9.3	9.4	---	---	---	---	---	---	---	---	---
5	9.5	9.4	9.4	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	9.5	9.1	9.3	---	---	---	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	---	---	---	12.5	11.9	12.2	10.7	10.1	10.3
2	---	---	---	---	---	---	11.9	10.8	11.5	10.8	10.1	10.4
3	---	---	---	---	---	---	11.8	10.4	11.1	10.9	10.2	10.6
4	---	---	---	---	---	---	---	---	---	11.2	10.5	10.8
5	---	---	---	---	---	---	---	---	---	11.3	10.6	10.9
6	---	---	---	---	---	---	---	---	---	11.1	10.4	10.7
7	---	---	---	---	---	---	---	---	---	11.0	10.3	10.6
8	---	---	---	---	---	---	---	---	---	10.8	10.0	10.4
9	---	---	---	---	---	---	---	---	---	10.7	9.6	10.2
10	---	---	---	---	---	---	---	---	---	10.3	9.1	9.7
11	---	---	---	---	---	---	---	---	---	10.0	8.7	9.3
12	---	---	---	---	---	---	---	---	---	9.8	8.3	9.0
13	---	---	---	---	---	---	---	---	---	10.1	8.6	9.2
14	---	---	---	---	---	---	10.9	10.6	10.8	10.0	8.8	9.2
15	---	---	---	---	---	---	10.7	10.4	10.6	9.2	8.3	8.8
16	---	---	---	---	---	---	10.9	10.6	10.7	8.7	8.1	8.3
17	---	---	---	---	---	---	10.9	10.5	10.8	9.2	8.0	8.5
18	---	---	---	---	---	---	10.6	10.3	10.5	9.6	8.3	8.9
19	---	---	---	---	---	---	10.3	9.8	10.1	9.5	8.6	9.0
20	---	---	---	---	---	---	9.8	9.2	9.6	10.3	8.0	9.1
21	---	---	---	---	---	---	9.7	9.0	9.3	10.9	9.9	10.4
22	---	---	---	---	---	---	9.8	9.3	9.5	11.0	10.4	10.6
23	---	---	---	---	---	---	10.1	9.2	9.8	10.7	10.1	10.5
24	---	---	---	---	---	---	10.2	9.7	9.9	10.1	9.9	10.0
25	---	---	---	---	---	---	10.8	10.2	10.4	10.5	10.0	10.2
26	---	---	---	---	---	---	11.0	10.5	10.8	10.8	10.3	10.5
27	---	---	---	---	---	---	10.6	10.2	10.4	10.7	9.8	10.4
28	---	---	---	---	---	---	10.4	10.0	10.2	9.8	9.1	9.5
29	---	---	---	---	---	---	10.7	10.0	10.3	9.7	9.0	9.4
30	---	---	---	---	---	---	10.5	10.0	10.2	9.9	9.1	9.4
31	---	---	---	12.5	12.0	12.2	---	---	---	10.1	9.2	9.6
MONTH	---	---	---	12.5	12.0	12.2	12.5	9.0	10.4	11.3	8.0	9.8

01454720 LEHIGH RIVER AT EASTON, PA--Continued

OXYGEN, DISSOLVED (MG/L), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			**JULY**			**AUGUST**			**SEPTEMBER**	
1	9.6	8.9	9.2	5.9	4.9	5.3	9.5	7.3	8.3	9.2	7.7	8.3
2	9.5	8.6	8.9	6.3	5.3	5.8	9.5	7.1	8.2	9.3	7.7	8.5
3	8.8	8.3	8.6	6.6	5.5	6.1	9.6	7.2	8.3	9.6	7.9	8.6
4	8.8	7.8	8.3	6.8	5.9	6.3	9.3	6.8	8.0	9.9	8.1	8.8
5	8.8	8.2	8.4	6.6	5.8	6.2	9.1	6.6	7.8	10.0	8.2	9.0
6	---	---	---	7.0	5.8	6.3	8.8	6.2	7.4	10.0	8.3	9.0
7	---	---	---	6.5	5.8	6.1	8.6	6.1	7.2	10.1	8.4	9.1
8	---	---	---	6.3	5.5	6.0	8.0	6.5	6.9	10.1	8.3	9.1
9	---	---	---	6.5	5.9	6.3	8.3	6.6	7.4	10.3	8.2	9.0
10	8.1	7.3	7.6	6.8	6.2	6.5	8.5	6.6	7.5	10.3	8.2	9.1
11	8.2	7.3	7.6	7.0	6.2	6.6	8.6	6.7	7.5	10.4	8.5	9.3
12	---	---	---	7.3	6.1	6.6	9.0	6.8	7.7	10.6	8.4	9.3
13	---	---	---	7.8	6.6	7.1	9.9	6.9	8.1	10.4	8.2	9.1
14	---	---	---	7.4	6.6	6.9	9.9	6.9	8.3	10.2	8.1	8.9
15	8.0	7.1	7.5	7.6	6.3	6.9	9.1	6.3	7.8	9.8	7.9	8.7
16	7.9	7.0	7.4	7.6	6.4	6.9	9.1	7.3	8.1	9.4	7.4	8.0
17	8.4	7.4	7.9	7.1	6.5	6.7	9.0	7.5	8.2	8.8	7.1	8.0
18	9.0	7.8	8.4	7.1	6.1	6.6	9.0	7.2	7.9	9.1	7.2	7.9
19	10.0	8.8	9.3	7.3	6.3	6.8	8.7	7.2	7.8	9.1	7.3	8.2
20	10.4	9.5	9.8	7.8	6.4	7.0	8.7	7.4	8.0	9.0	7.3	8.1
21	9.9	9.3	9.6	8.3	6.5	7.3	9.0	7.5	8.2	9.0	7.6	8.1
22	9.8	9.0	9.3	8.5	6.7	7.4	9.1	7.5	8.3	9.5	7.6	8.4
23	9.9	8.8	9.3	8.8	6.4	7.4	9.3	7.5	8.3	9.3	7.4	8.1
24	9.9	8.4	9.1	8.3	6.2	7.3	9.4	7.7	8.4	9.8	7.5	8.3
25	---	---	---	7.7	6.6	7.3	---	---	---	9.7	7.6	8.3
26	---	---	---	7.8	6.7	7.2	---	---	---	9.2	7.8	8.2
27	---	---	---	7.8	6.5	7.0	9.9	8.4	9.1	9.7	7.8	8.5
28	---	---	---	7.9	6.1	6.9	9.7	8.3	8.7	9.9	7.9	8.8
29	---	---	---	8.5	5.8	7.1	9.6	8.4	8.8	9.6	8.0	8.5
30	5.9	5.0	5.3	9.2	6.7	7.8	9.3	8.2	8.7	10.4	8.3	9.1
31	---	---	---	9.6	7.1	8.2	9.1	7.9	8.4	---	---	---
MONTH	10.4	5.0	8.4	9.6	4.9	6.8	9.9	6.1	8.0	10.6	7.1	8.6

CROSS-SECTION ANALYSES, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Sampling depth, feet (00003)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Location in X-sect. looking dwnstrm ft from l bank (00009)
SEP 2005									
22...	1330	1028	1028	.50	8.9	7.9	435	21.1	42
22...	1331	1028	1028	5.00	8.8	7.9	434	20.9	42
22...	1332	1028	1028	10.00	8.8	7.8	434	20.8	42
22...	1335	1028	1028	.50	8.8	7.9	435	21.2	72
22...	1336	1028	1028	5.00	8.8	7.9	435	21.1	72
22...	1337	1028	1028	10.00	8.7	7.9	434	20.8	72
22...	1340	1028	1028	.50	8.8	7.9	435	21.3	105
22...	1341	1028	1028	5.00	8.7	7.9	435	20.9	105
22...	1342	1028	1028	10.00	8.6	7.8	434	20.8	105
22...	1345	1028	1028	.50	8.8	7.9	435	21.1	159
22...	1346	1028	1028	5.00	8.7	7.9	435	20.9	159
22...	1347	1028	1028	10.00	8.6	7.9	434	20.7	159
22...	1355	1028	1028	.50	8.8	7.9	436	21.1	189
22...	1356	1028	1028	5.00	8.8	7.9	436	20.9	189
22...	1357	1028	1028	10.00	8.7	7.9	434	20.7	189
22...	1401	1028	1028	.50	8.8	7.9	435	21.0	225
22...	1402	1028	1028	5.00	8.8	7.9	435	20.9	225
22...	1403	1028	1028	10.00	8.7	7.9	434	20.7	225
22...	1406	1028	1028	.50	8.9	7.9	435	21.0	258
22...	1407	1028	1028	5.00	8.8	7.9	435	20.9	258
22...	1408	1028	1028	10.00	8.6	7.9	434	20.7	258
22...	1410	1028	1028	.50	8.8	7.9	434	21.0	264
22...	1411	1028	1028	5.00	8.7	7.9	435	20.8	264
22...	1412	1028	1028	--	--	--	--	--	280

LAKES AND RESERVOIRS IN LEHIGH RIVER BASIN

01447780 FRANCIS E. WALTER RESERVOIR (formerly published as Bear Creek Reservoir).--Lat 41°06'45", long 75°43'15", Luzerne County, Hydrologic Unit 02040106, at dam on Lehigh River, 2,200 ft downstream from Bear Creek, and 5.0 mi northeast of White Haven. DRAINAGE AREA, 289 mi^2. PERIOD OF RECORD, February 1961 to current year. GAGE, water-stage recorder (U.S. Army Corps of Engineers datum).

REMARKS.--Reservoir formed by an earthfill embankment covered with a rock shell, with concrete spillway at elevation 1,450.0 ft. Storage began Feb. 17, 1961; reservoir first reached conservation pool in June 1961. Total capacity (elevation 1,450.0 ft) is 110,700 acre-ft of which 108,700 acre-ft is controlled storage above elevation 1,300.0 ft, (conservation pool). Dead storage is 2,000 acre-ft. Flow regulated by three gates and low-flow by-pass system. Reservoir is used for flood control and recreation. Satellite telemetry at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 62,100 acre-ft, Sept. 28, 1985, elevation, 1,417.08 ft; minimum contents (after establishment of conservation pool), 980 acre-ft, July 6, 1982, elevation, 1,287.70 ft.

EXTREMES FOR CURRENT YEAR.--Maximum recorded contents, 51,030 acre-ft, Apr. 4, elevation, 1,407.81 ft; minimum contents, 1,510 acre-ft, Apr. 14, 15, elevation, 1,296.24 ft.

01449400 PENN FOREST RESERVOIR.--Lat 40°55'45", long 75°33'45", Carbon County, Hydrologic Unit 02040106, at dam on Wild Creek, 0.7 mi upstream from hatchery, 2.6 mi upstream from Wild Creek Dam, 4.4 mi upstream from mouth, and 10.0 mi northeast of Palmerton. DRAINAGE AREA, 16.5 mi^2. PERIOD OF RECORD, October 1958 to current year. GAGE, water-stage recorder. Datum of gage is sea level (levels by city of Bethlehem).

REMARKS.--Reservoir formed by a roller-compacted concrete dam with ungated concrete spillway at elevation 1,000.60 ft (capacity, 18,510 acre-ft). Storage began October 1958. Reservoir is used for municipal water supply. Regulation by valves on pipe through dam. Figures given herein represent total contents and include diversion since October 1969 from Tunkhannock Creek Basin to Wild Creek Basin.

COOPERATION.--Records provided by city of Bethlehem.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 20,800 acre-ft, Apr. 16, 1983, elevation, 1,001.69 ft; minimum contents, 0 acre-ft, many days during 1996, 1997, 1998, and 1999 water years, elevation, 890.60 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 18,930 acre-ft, Jan. 15, elevation, 1,001.41 ft; minimum contents, 9,410 acre-ft, Sept. 30, elevation, 974.81 ft.

01449700 WILD CREEK RESERVOIR.--Lat 40°53'50", long 75°33'50", Carbon County, Hydrologic Unit 02040106, at dam on Wild Creek, 1.6 mi upstream from mouth, 2.4 mi south of hatchery, and 7.5 mi northeast of Palmerton. DRAINAGE AREA, 22.2 mi^2. PERIOD OF RECORD, January 1941 to current year. GAGE, nonrecording gage. Datum of gage is sea level (levels by city of Bethlehem).

REMARKS.--Reservoir formed by earthfill dam with concrete ungated spillway at elevation 820.00 ft. Storage began January 27, 1941; reservoir first reached minimum contents pool elevation in February 1941. Total capacity at elevation 820.00 ft is 12,500 acre-ft of which 12,000 acre-ft is controlled storage. Reservoir is used for municipal water supply. Regulation by valves on pipe through dam. Figures given herein represent usable contents and include diversion since October 1969 from Tunkhannock Creek Basin to Wild Creek Basin.

COOPERATION.--Records provided by city of Bethlehem.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 12,880 acre-ft, May 23, 1942, elevation, 822.93 ft; minimum contents (after first filling), 2,680 acre-ft, Nov. 15, 1966, elevation, 774.10 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 12,320 acre-ft, Apr. 3, elevation, 821.06 ft; minimum contents, 9,470 acre-ft, Sept. 14, elevation 810.55 ft.

01449790 BELTZVILLE LAKE.--Lat 40°50'56", long 75°38'19", Carbon County, Hydrologic Unit 02040106, at dam on Pohopoco Creek, 0.4 mi upstream from gaging station on Pohopoco Creek, 0.6 mi upstream from Sawmill Run, and 2.3 mi northeast of Parryville. DRAINAGE AREA, 96.3 mi^2. PERIOD OF RECORD, February 1971 to current year. GAGE, water-stage recorder (U.S. Army Corps of Engineers datum).

REMARKS.--Lake formed by an earth and rockfill dam with ungated, partially lined spillway at an elevation of 651.00 ft. Storage began Feb. 8, 1971. Capacity at elevation 651.00 ft is 68,300 acre-ft. Ordinary minimum contents (conservation) pool elevation is 628.00 ft, capacity, 41,250 acre-ft. Dead storage is 1,390 acre-ft. Lake is used for recreation, flood control, low-flow augmentation, and water supply. Figures given herein represent total contents. Regulation is accomplished by a multi-level water-quality outlet system, and two flood-control gates.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 49,920 acre-ft, Apr. 4, 2005, elevation, 636.42 ft; minimum contents, 15,110 acre-ft, Mar. 31, 1983, elevation, 588.79 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 49,920 acre-ft, Apr. 4, elevation, 636.42 ft; minimum contents, 37,510 acre-ft, Sept. 30, elevation, 623.95 ft.

Lakes and Reservoirs in Lehigh River Basin--Continued

MONTHEND ELEVATION, IN FEET ABOVE SEA LEVEL, AND CONTENTS AT 2400 HRS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in ft^3/s)	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in ft^3/s)
	01447780 Francis E. Walter Reservoir			01449400 Penn Forest Reservoir		
Sept. 30	1,308.89	2,670	---	1,001.03	18,730	--
Oct. 31	1,302.85	2,050	-10.1	1,000.75	18,590	-2.3
Nov. 30	1,358.11	14,780	+214	1,001.19	18,810	+3.7
Dec. 31	1,300.54	1,840	-210	1,000.86	18,640	-2.8
CAL YR 2004	--	--	-5.9	--	--	0
Jan. 31	1,312.59	3,130	+21.0	1,000.86	18,640	0
Feb. 28	1,302.22	1,990	-20.5	1,000.83	18,630	-0.2
Mar. 31	1,340.80	8,680	+109	996.12	16,610	-32.9
Apr. 30	1,334.72	7,100	-26.6	997.53	17,210	+10.1
May 31	1,329.36	5,920	-19.2	987.68	13,370	-62.5
June 30	1,325.68	5,190	-12.3	980.58	11,050	-39.0
July 31	1,299.92	1,790	-55.3	980.00	10,860	-3.1
Aug. 31	1,301.42	1,920	+2.1	980.44	11,010	+2.4
Sept. 30	1,300.20	1,810	-1.8	974.81	9,410	-26.9
WTR YR 2005	--	--	-1.2	--	--	-12.9

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in ft^3/s)	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in ft^3/s)
	01449700 Wild Creek Reservoir			01449790 Beltzville Lake		
Sept. 30	820.50	12,150	---	627.65	40,920	--
Oct. 31	820.15	12,040	-1.8	627.99	41,240	+5.2
Nov. 30	820.82	12,250	+3.5	631.95	45,150	+65.7
Dec. 31	820.30	12,090	-2.6	627.98	41,230	-63.8
CAL YR 2004	--	--	0	--	--	-0.1
Jan. 31	820.23	12,070	-0.3	628.23	41,470	+3.9
Feb. 28	820.19	12,060	-0.2	628.14	41,380	+1.6
Mar. 31	820.52	12,160	+1.6	628.91	42,110	+11.9
Apr. 30	820.39	12,120	-0.7	628.06	41,310	-13.4
May 31	820.41	12,120	0	628.52	41,740	-0.3
June 30	818.85	11,760	-6.1	628.02	41,270	-7.9
July 31	817.23	11,310	-7.3	628.08	41,330	+1.0
Aug. 31	812.49	10,010	-21.1	627.67	40,940	-6.3
Sept. 30	814.26	10,500	+8.2	623.95	37,510	-57.6
WTR YR 2005	--	--	-2.3	--	--	-4.7

01457500 DELAWARE RIVER AT RIEGELSVILLE, NJ

LOCATION.--Lat 40°35'40", long 75°11'24", Warren County, Hydrologic Unit 02040105, at suspension bridge at Riegelsville, NJ, 600 ft upstream from Musconetcong River, and at river mile 174.8. Water-quality samples are collected from the bridge and are unaffected by the flow of the Musconetcong River.

DRAINAGE AREA.--6,328 mi^2.

PERIOD OF RECORD.--Water years 1934, 1943, 1950, 1960-79, 1991 to current year.

REMARKS.--Total nitrogen (00600) equals the sum of dissolved ammonia plus organic nitrogen (00623), dissolved nitrite plus nitrate nitrogen (00631), and total particulate nitrogen (49570). The flow of the Musconetcong River is included in the instantaneous discharge, cfs (00061).

COOPERATION.---Field data and samples for laboratory analyses were provided by the New Jersey Department of Environmental Protection. Concentrations of ammonia in samples collected during November to December and August to September; orthophosphate in every sampling period except February to March; and nitrite, biochemical oxygen demand, total suspended residue, fecal coliform, E. coli, and enterococcus bacteria were determined by the New Jersey Department of Health and Senior Services, Public Health and Environmental Laboratories, Environmental and Chemical Laboratory Services.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Delaware River Main Stem, New Jersey Department of Environmental Protection Watershed Management Area 11.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Instantaneous discharge, cfs (00061)	Turbdty white light, det ang 90+/-30 corrctd NTRU (63676)	UV absorbance, 254 nm, wat flt units /cm (50624)	UV absorbance, 280 nm, wat flt units /cm (61726)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)
NOV 23...	1045	6,660	.9	.065	.049	762	10.8	95	7.8	204	7.5	9.6	72
FEB 02...	1030	11,600	2.1	.058	.044	772	13.1	91	7.5	184	-5.0	.8	61
MAY 25...	1030	5,700	1.2	.047	.036	753	8.8	89	7.9	242	--	15.2	86
AUG 09...	1015	3,820	4.3	.051	.038	760	6.6	80	7.9	258	21.5	25.1	87

Date	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)	Residue on evap. at 180degC wat flt mg/L (70300)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, fltrd, mg/L as N (00623)
NOV 23...	18.5	6.26	1.55	10.6	51	15.9	E.1	3.0	16.2	107	116	2	.13
FEB 02...	16.1	5.12	1.17	9.62	41	15.3	<.1	5.0	15.5	98	99	--	.24
MAY 25...	21.6	7.69	1.66	12.7	60	19.8	E.1	3.2	20.3	129	136	--	.23
AUG 09...	22.3	7.71	2.13	13.2	64	21.3	E.1	3.5	22.4	137	147	13	.28

Date	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Total nitrogen, water, fltrd, mg/L (00602)	Total nitrogen, water, unfltrd mg/L (00600)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)
NOV 23...	E.007	1.04	.007	.06	1.2	1.2	.031	.036	.045	.3	<.1	.3	2.1
FEB 02...	.104	1.04	--	<.02	1.3	--	.029	.036	.042	.2	<.1	.2	1.9
MAY 25...	.040	1.24	--	.05	1.5	1.5	.049	.058	.070	.4	<.1	.4	1.8
AUG 09...	.059	1.32	--	.06	1.6	1.7	.086	.113	.128	.5	<.1	.5	2.1

01457500 DELAWARE RIVER AT RIEGELSVILLE, NJ--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005--Continued

Date	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)
NOV				
23...	E1.5	15	--	--
FEB				
02...	--	14	1	31
MAY				
25...	<1.0	17	2	31
AUG				
09...	E1.9	21	--	--

Remark codes used in this table:
< -- Less than.
E -- Estimated.

WATER-COLUMN BACTERIA ANALYSES

Samples were collected synoptically over a 30-day period during the summer.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Instantaneous discharge, cfs (00061)	Enterococci, m-E MF, water, col/ 100 mL (31649)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coliform, ECbroth water, MPN/ 100 mL (31615)
JUL					
28...	0915	3,700	130	<100	110
AUG					
04...	0915	3,370	120	<100	40
11...	0915	3,870	220	200	80
18...	0915	3,250	140	<100	20
29...	1215	4,660	310	<100	230

Remark codes used in this table:
< -- Less than.

TOHICKON CREEK BASIN

01459350 NOCKAMIXON RESERVOIR NEAR OTTSVILLE, PA

LOCATION.--Lat 40°28'13", long 75°11'10", Bucks County, Hydrologic Unit 02040105, at dam on Tohickon Creek, 6.2 mi upstream from gaging station on Tohickon Creek, 1.3 mi east of Ottsville, and 2.9 mi upstream from Mink Run.

DRAINAGE AREA.-- 73.3 mi^2.

PERIOD OF RECORD.--October 2003 to current year. December 1973 to September 2000.

GAGE.--Nonrecording gage. Datum of gage is sea level (levels by Pennsylvania Department of Environmental Protection).

REMARKS.--Reservoir formed by earthfill dam with concrete spillway at elevation 395.0 ft. Storage began December 1973. Total capacity is 66,500 acre-ft at elevation 410 ft. Reservoir is used primarily for recreation, but can be used for water supply and flood control.

COOPERATION.--Records furnished by Pennsylvania Department of Environmental Protection.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 45,390 acre-ft, Sept. 17, 1999, elevation, 398.50 ft; minimum contents (after first filling), 15,900 acre-ft, around Dec. 31, 1975, elevation, 372.78 ft.

EXTREMES FOR CURRENT YEAR.--Records not furnished to determine extremes.

MONTHEND ELEVATION, IN FEET ABOVE SEA LEVEL, AND CONTENTS AT 2400 HRS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in ft^3/s)
Sept. 30	397.40	43,700	---
Oct. 31	395.04	40,300	-55.3
Nov. 30	395.90	41,500	+20.2
Dec. 31	395.20	40,500	-16.3
Jan. 31	396.30	42,000	+24.4
Feb. 28	[a]397.00	43,100	+19.8
Mar. 31	397.60	44,000	+14.6
Apr. 30	395.12	40,400	-60.5
May 31	394.90	40,100	-4.9
June 30	395.00	40,200	+1.7
July 31	394.72	39,800	-6.5
Aug. 31	394.90	40,100	+4.9
Sept. 30	394.48	39,500	-10.1
WTR YR 2005	--	--	-5.8

a Estimated. Ice cover on reservoir.

01459500 TOHICKON CREEK NEAR PIPERSVILLE, PA

LOCATION.--Lat 40°26'01", long 75°07'01", Bucks County, Hydrologic Unit 02040105, on right bank at site of Traugers bridge, 1.5 mi northeast of Pipersville, and 4.5 mi upstream from mouth.

DRAINAGE AREA.--97.4 mi^2.

PERIOD OF RECORD.--July 1935 to current year.

REVISED RECORDS.--WDR PA-75-1: 1974.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 258.96 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Flow regulated since December 1973 by Nockamixon Reservoir about 6.2 mi upstream. Several measurements of water temperature were made during the year. Satellite telemetry at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	426	57	1190	80	e90	105	232	168	19	39	9.5	8.6
2	221	47	1020	82	e95	95	2700	151	17	48	8.5	7.4
3	135	45	457	79	e90	81	4740	114	18	47	7.6	6.0
4	93	91	258	102	75	71	1480	90	27	35	6.6	5.0
5	67	302	171	144	64	66	517	73	30	28	5.8	4.2
6	51	393	126	773	55	66	296	60	31	34	5.3	3.5
7	43	307	220	687	65	181	199	54	65	117	4.6	2.9
8	38	28	443	716	90	522	761	51	57	759	5.6	2.7
9	35	23	360	718	165	428	544	42	45	617	10	2.5
10	33	22	1160	399	480	248	297	39	45	247	13	2.5
11	32	21	1030	242	453	163	179	37	42	104	13	2.4
12	29	66	540	306	257	180	122	38	36	61	12	2.2
13	26	339	320	266	159	207	97	31	30	42	10	2.1
14	30	268	201	1890	277	180	81	28	27	37	9.8	2.3
15	34	162	136	1460	1500	137	68	27	24	32	21	2.5
16	50	107	103	520	806	106	60	26	20	47	21	2.4
17	56	82	91	291	557	92	57	25	17	124	20	2.4
18	47	68	79	162	333	80	54	23	15	109	18	2.3
19	55	60	78	e120	180	336	186	21	12	78	16	2.2
20	72	55	e80	e90	118	303	26	23	10	52	15	2.1
21	69	65	e60	e80	114	29	26	26	9.2	37	14	1.9
22	87	64	51	e67	106	22	26	27	9.0	29	13	1.8
23	77	61	162	e63	117	112	41	26	8.6	25	11	1.9
24	63	64	570	e65	121	565	828	24	7.5	20	8.8	1.9
25	52	246	356	e75	119	440	489	24	6.8	21	7.3	2.0
26	46	197	178	e80	101	258	229	24	6.4	21	6.2	2.4
27	42	128	120	e75	91	165	169	24	10	19	5.9	2.9
28	36	2450	83	e65	87	1220	165	23	12	18	7.1	2.1
29	33	2020	72	e67	---	2260	111	23	15	15	8.0	2.4
30	43	598	68	e70	---	769	94	22	58	13	8.9	2.4
31	59	---	70	e80	---	374	---	20	---	11	9.2	---
TOTAL	2180	8436	9853	9914	6765	9861	14874	1384	729.5	2886	331.7	89.9
MEAN	70.3	281	318	320	242	318	496	44.6	24.3	93.1	10.7	3.00
MAX	426	2450	1190	1890	1500	2260	4740	168	65	759	21	8.6
MIN	26	21	51	63	55	22	26	20	6.4	11	4.6	1.8

e Estimated.

01459500 TOHICKON CREEK NEAR PIPERSVILLE, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2005, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	95.9	174	241	235	211	310	243	185	88.6	78.1	50.4	100
MAX	528	553	813	916	436	867	707	579	498	602	232	504
(WY)	1997	1976	1997	1979	1984	1994	1983	1984	2003	1984	1978	2004
MIN	5.87	5.12	3.61	16.4	28.3	43.1	36.9	29.1	5.73	2.11	3.92	3.00
(WY)	1983	2002	1999	1977	1974	1976	1985	1999	1999	1999	2002	2005

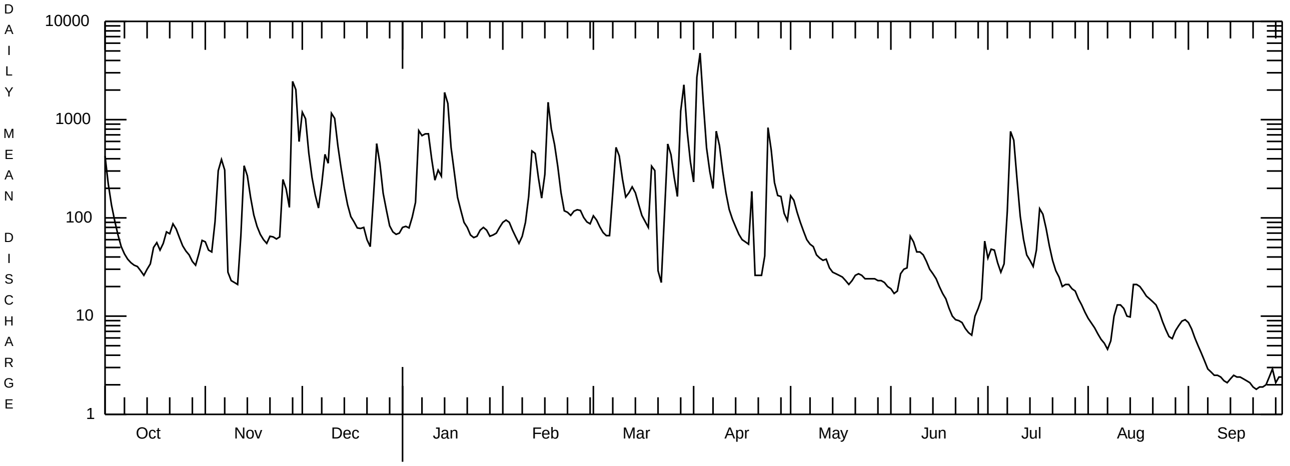
SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1974 - 2005	
ANNUAL TOTAL	80036.0		67304.1			
ANNUAL MEAN	219		184		168	
HIGHEST ANNUAL MEAN					300	1984
LOWEST ANNUAL MEAN					74.0	2002
HIGHEST DAILY MEAN	3850	Jul 28	4740	Apr 3	6810	Dec 5 1993
LOWEST DAILY MEAN	5.0	Jul 11	1.8	Sep 22	1.5	Oct 26 2001
ANNUAL SEVEN-DAY MINIMUM	6.7	Jul 5	2.0	Sep 19	1.7	Sep 12 1991
MAXIMUM PEAK FLOW			8210	Apr 2	**a**18600	Sep 16 1999
MAXIMUM PEAK STAGE			9.02	Apr 2	11.90	Sep 16 1999
10 PERCENT EXCEEDS	434		455		405	
50 PERCENT EXCEEDS	82		63		49	
90 PERCENT EXCEEDS	24		6.7		6.1	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1936 - 1973, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	43.4	138	183	190	235	300	217	121	79.0	54.0	66.8	54.3
MAX	367	601	464	501	572	795	612	430	413	288	515	513
(WY)	1956	1973	1973	1949	1971	1936	1952	1948	1972	1938	1955	1960
MIN	1.46	3.51	11.5	37.8	42.5	133	35.2	15.9	4.64	1.68	1.12	1.21
(WY)	1965	1965	1966	1966	1947	1949	1946	1955	1965	1957	1957	1957

SUMMARY STATISTICS	WATER YEARS 1936 - 1973	
ANNUAL MEAN	140	
HIGHEST ANNUAL MEAN	240	1973
LOWEST ANNUAL MEAN	45.8	1965
HIGHEST DAILY MEAN	6820	Sep 12 1960
LOWEST DAILY MEAN	.10	Sep 24 1941**b**
ANNUAL SEVEN DAY MINIMUM	.47	Jul 24 1955
MAXIMUM PEAK FLOW	**a**16000	Aug 18 1955
MAXIMUM PEAK STAGE	11.26	Aug 18 1955
INSTANTANEOUS LOW FLOW	.05	Sep 24 1941
ANNUAL RUNOFF (CFSM)	1.43	
ANNUAL RUNOFF (INCHES)	19.48	
10 PERCENT EXCEEDS	325	
50 PERCENT EXCEEDS	37	
90 PERCENT EXCEEDS	3.8	

a From rating curve extended above 13,600 ft^3/s on basis of slope-area measurement at gage height 10.48 ft.
b Also Sept. 29, Oct. 6, 1941.



OCTOBER 1, 2004 TO SEPTEMBER 30, 2005

DELAWARE RIVER BASIN

01460200 DELAWARE RIVER BELOW TOHICKON CREEK AT POINT PLEASANT, PA

LOCATION.--Lat 40°25'06", long 75°03'42", Bucks County, Hydrologic Unit 02040105, on right bank at Forest Park Water Company pump station, 0.2 mi downstream from Tohickon Creek and 0.4 mi southeast of Point Pleasant.

DRAINAGE AREA.--6,570 mi^2.

PERIOD OF RECORD.--May 2000 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: May 2000 to current year.
pH: May 2000 to current year.
WATER TEMPERATURE: May 2000 to current year.
DISSOLVED OXYGEN: May 2000 to current year.

INSTRUMENTATION.--Probes interfaced with a data collection platform with 30-minute recording interval. Satellite and landline telemetry at station.

REMARKS.--Specific conductance, water temperature, and pH records rated good. Dissolved oxygen record rated fair except for period July 22 to Sept. 30, which is poor. Data collection discontinued Nov. 1 to Apr. 30 most years. Other interruptions in the record due to intermittent pumping. (See Distributary from Bradshaw Reservoir, station 01472618).

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 298 microsiemens, Dec. 12, 2002; minimum recorded, 77 microsiemens, Sept. 5, 6, 2003.
pH: Maximum recorded, 9.6, Apr. 25, 30, May 3, 2003; minimum recorded, 6.7, Aug. 14, 2004.
WATER TEMPERATURE: Maximum, 32.5°C, Aug. 9, 2001; minimum, 2.0°C, Jan. 19-21, 2002.
DISSOLVED OXYGEN: Maximum, 15.5 mg/L, Nov. 25, 2000; minimum, 6.1 mg/L, Aug. 11, 2001.

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° CELSIUS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	154	152	153
3	---	---	---	---	---	---	---	---	---	158	153	155
4	---	---	---	---	---	---	---	---	---	165	157	159
5	---	---	---	---	---	---	---	---	---	165	161	163
6	---	---	---	---	---	---	---	---	---	165	162	163
7	---	---	---	---	---	---	---	---	---	167	161	163
8	---	---	---	---	---	---	---	---	---	172	166	168
9	---	---	---	---	---	---	---	---	---	175	170	173
10	---	---	---	---	---	---	---	---	---	179	173	176
11	---	---	---	---	---	---	---	---	---	187	179	183
12	---	---	---	---	---	---	---	---	---	192	185	189
13	---	---	---	---	---	---	---	---	---	198	190	195
14	---	---	---	---	---	---	---	---	---	202	195	198
15	---	---	---	---	---	---	---	---	---	210	200	205
16	---	---	---	---	---	---	---	---	---	211	194	203
17	---	---	---	---	---	---	---	---	---	206	196	202
18	---	---	---	---	---	---	---	---	---	207	201	204
19	---	---	---	---	---	---	---	---	---	215	207	212
20	---	---	---	---	---	---	---	---	---	215	213	215
21	---	---	---	---	---	---	---	---	---	232	215	226
22	---	---	---	---	---	---	---	---	---	237	232	235
23	---	---	---	---	---	---	---	---	---	237	235	236
24	---	---	---	---	---	---	---	---	---	240	236	237
25	---	---	---	---	---	---	---	---	---	241	238	239
26	---	---	---	---	---	---	---	---	---	243	241	242
27	---	---	---	---	---	---	---	---	---	243	242	242
28	---	---	---	---	---	---	---	---	---	244	242	243
29	---	---	---	---	---	---	---	---	---	247	242	243
30	---	---	---	---	---	---	---	---	---	249	233	243
31	---	---	---	---	---	---	---	---	---	236	227	232
MONTH	---	---	---	---	---	---	---	---	---	249	152	203

01460200 DELAWARE RIVER BELOW TOHICKON CREEK AT POINT PLEASANT, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° CELSIUS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			**JULY**			**AUGUST**			**SEPTEMBER**		
1	234	225	228	263	223	231	265	254	259	240	237	238
2	243	234	239	250	230	239	263	258	261	241	231	236
3	248	242	245	254	230	247	264	259	262	242	235	238
4	249	240	246	248	235	245	265	258	262	243	231	238
5	254	246	250	260	246	253	265	257	262	239	229	235
6	254	248	253	260	240	254	267	261	264	247	233	240
7	257	249	254	---	---	---	270	265	268	252	242	248
8	249	234	240	---	---	---	271	257	264	245	238	243
9	251	236	246	---	---	---	275	259	266	252	244	250
10	239	235	237	---	---	---	276	258	265	255	245	250
11	244	236	240	---	---	---	262	248	257	249	244	246
12	242	236	238	---	---	---	248	243	245	249	243	246
13	243	229	238	---	---	---	249	244	246	245	234	240
14	239	232	236	---	---	---	250	237	243	250	244	247
15	237	231	234	269	249	257	241	227	233	248	239	245
16	232	225	228	265	250	259	242	238	240	249	239	243
17	245	231	236	---	---	---	242	231	235	243	234	240
18	246	240	242	---	---	---	252	242	245	246	232	239
19	246	237	240	---	---	---	260	252	256	253	246	250
20	249	240	244	---	---	---	262	257	258	253	239	250
21	253	245	250	262	241	252	265	259	263	253	236	245
22	256	250	253	252	241	247	265	258	262	249	243	246
23	256	247	251	256	249	254	262	255	259	247	243	244
24	256	246	250	265	253	259	262	258	261	247	242	245
25	266	255	259	262	257	259	263	248	256	246	240	244
26	271	259	266	268	257	261	---	---	---	243	234	240
27	279	268	274	257	240	249	---	---	---	235	226	231
28	278	258	269	250	246	248	---	---	---	238	231	234
29	268	255	264	259	250	256	---	---	---	240	232	235
30	289	242	260	264	256	261	234	217	220	247	240	242
31	---	---	---	264	257	261	238	234	235	---	---	---
MONTH	289	225	247	269	223	252	276	217	254	255	226	242

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	FEBRUARY			**MARCH**			**APRIL**			**MAY**		
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	7.6	7.4	7.5
3	---	---	---	---	---	---	---	---	---	7.7	7.3	7.4
4	---	---	---	---	---	---	---	---	---	7.8	7.3	7.5
5	---	---	---	---	---	---	---	---	---	8.3	7.4	7.6
6	---	---	---	---	---	---	---	---	---	8.4	7.6	7.8
7	---	---	---	---	---	---	---	---	---	8.7	7.6	8.1
8	---	---	---	---	---	---	---	---	---	8.8	7.8	8.2
9	---	---	---	---	---	---	---	---	---	9.0	7.8	8.4
10	---	---	---	---	---	---	---	---	---	9.2	7.8	8.6
11	---	---	---	---	---	---	---	---	---	9.3	7.8	8.7
12	---	---	---	---	---	---	---	---	---	9.3	7.8	8.7
13	---	---	---	---	---	---	---	---	---	9.3	7.8	8.8
14	---	---	---	---	---	---	---	---	---	9.3	7.9	8.8
15	---	---	---	---	---	---	---	---	---	9.2	7.7	8.6
16	---	---	---	---	---	---	---	---	---	9.2	7.6	8.4
17	---	---	---	---	---	---	---	---	---	9.0	7.5	8.2
18	---	---	---	---	---	---	---	---	---	8.8	7.4	8.0
19	---	---	---	---	---	---	---	---	---	8.6	7.5	7.9
20	---	---	---	---	---	---	---	---	---	7.8	7.4	7.5
21	---	---	---	---	---	---	---	---	---	7.8	7.3	7.6
22	---	---	---	---	---	---	---	---	---	7.7	7.4	7.5
23	---	---	---	---	---	---	---	---	---	7.8	7.4	7.6
24	---	---	---	---	---	---	---	---	---	7.7	7.4	7.5
25	---	---	---	---	---	---	---	---	---	7.6	7.4	7.5
26	---	---	---	---	---	---	---	---	---	7.8	7.5	7.6
27	---	---	---	---	---	---	---	---	---	8.0	7.5	7.7
28	---	---	---	---	---	---	---	---	---	8.1	7.6	7.7
29	---	---	---	---	---	---	---	---	---	8.4	7.5	7.8
30	---	---	---	---	---	---	---	---	---	8.7	7.7	8.0
31	---	---	---	---	---	---	---	---	---	9.0	7.8	8.3
MAX	---	---	---	---	---	---	---	---	---	9.3	7.9	8.8
MIN	---	---	---	---	---	---	---	---	---	7.6	7.3	7.4

01460200 DELAWARE RIVER BELOW TOHICKON CREEK AT POINT PLEASANT, PA--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
		JUNE			**JULY**			**AUGUST**			**SEPTEMBER**	
1	9.1	7.8	8.6	7.7	7.3	7.4	8.5	7.5	7.9	8.5	7.5	7.8
2	9.1	7.8	8.5	8.1	7.3	7.6	8.5	7.6	7.9	8.5	7.5	7.8
3	8.8	7.8	8.4	8.2	7.4	7.7	8.4	7.6	7.9	8.5	7.5	7.9
4	8.8	7.6	8.2	8.2	7.4	7.8	8.5	7.6	7.9	8.6	7.6	8.0
5	8.7	7.6	8.2	8.0	7.5	7.8	8.5	7.6	8.0	8.7	7.6	8.0
6	8.6	7.6	8.0	8.1	7.4	7.7	8.4	7.5	7.8	8.8	7.7	8.1
7	8.3	7.5	7.8	---	---	---	8.1	7.4	7.7	8.8	7.7	8.2
8	8.2	7.3	7.7	---	---	---	7.8	7.4	7.6	8.8	7.7	8.2
9	8.0	7.4	7.6	---	---	---	8.0	7.4	7.6	8.6	7.7	8.1
10	7.8	7.2	7.4	---	---	---	8.2	7.4	7.7	8.6	7.5	8.0
11	7.8	7.2	7.4	---	---	---	8.3	7.4	7.7	8.6	7.6	8.1
12	8.0	7.3	7.5	---	---	---	8.4	7.4	7.8	8.8	7.6	8.1
13	8.1	7.4	7.6	---	---	---	8.5	7.4	7.8	8.8	7.6	8.2
14	8.6	7.4	7.8	---	---	---	8.4	7.4	7.8	8.7	7.6	8.0
15	8.7	7.7	8.2	8.3	7.7	7.9	8.2	7.4	7.7	8.7	7.6	8.0
16	8.6	7.6	8.0	8.2	7.6	7.8	8.0	7.3	7.5	8.6	7.5	7.9
17	8.7	7.7	8.1	---	---	---	8.5	7.3	7.7	8.6	7.4	7.9
18	8.6	7.7	8.1	---	---	---	8.6	7.5	8.0	8.7	7.6	8.0
19	8.4	7.7	8.0	---	---	---	8.3	7.5	7.9	8.7	7.6	8.0
20	8.6	7.8	8.2	---	---	---	8.3	7.5	7.8	8.7	7.6	8.0
21	8.7	7.8	8.2	8.5	7.7	8.0	8.5	7.4	7.9	8.9	7.6	8.2
22	8.8	7.9	8.3	8.8	7.7	8.1	8.6	7.5	8.0	8.9	7.8	8.2
23	8.9	7.8	8.4	8.7	7.6	8.2	8.8	7.5	8.1	8.9	7.8	8.4
24	8.9	7.9	8.4	8.7	7.6	8.2	8.7	7.7	8.2	8.9	7.8	8.4
25	9.0	7.9	8.6	8.4	7.6	7.9	8.8	7.7	8.2	8.8	7.8	7.9
26	9.0	7.9	8.6	8.5	7.6	7.9	---	---	---	8.5	7.8	8.0
27	8.7	7.9	8.4	8.5	7.5	7.8	---	---	---	8.8	7.7	8.1
28	8.7	7.7	8.2	8.4	7.5	7.8	---	---	---	8.8	7.8	8.2
29	8.6	7.6	8.0	8.5	7.5	7.9	---	---	---	8.6	7.8	8.1
30	7.9	7.5	7.6	8.5	7.5	7.9	7.8	7.2	7.3	8.8	7.8	8.2
31	---	---	---	8.5	7.5	8.0	8.3	7.3	7.6	---	---	---
MAX	9.1	7.9	8.6	8.8	7.7	8.2	8.8	7.7	8.2	8.9	7.8	8.4
MIN	7.8	7.2	7.4	7.7	7.3	7.4	7.8	7.2	7.3	8.5	7.4	7.8

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			**MARCH**			**APRIL**			**MAY**	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	13.1	11.9	12.4
3	---	---	---	---	---	---	---	---	---	13.4	12.0	12.6
4	---	---	---	---	---	---	---	---	---	13.2	11.8	12.4
5	---	---	---	---	---	---	---	---	---	13.9	11.6	12.6
6	---	---	---	---	---	---	---	---	---	13.2	12.4	12.8
7	---	---	---	---	---	---	---	---	---	14.4	12.3	13.2
8	---	---	---	---	---	---	---	---	---	15.4	12.9	14.1
9	---	---	---	---	---	---	---	---	---	17.1	14.0	15.4
10	---	---	---	---	---	---	---	---	---	18.4	15.4	16.8
11	---	---	---	---	---	---	---	---	---	19.9	16.8	18.1
12	---	---	---	---	---	---	---	---	---	20.6	18.5	19.2
13	---	---	---	---	---	---	---	---	---	20.5	17.7	19.0
14	---	---	---	---	---	---	---	---	---	21.1	18.0	19.4
15	---	---	---	---	---	---	---	---	---	20.7	19.2	19.9
16	---	---	---	---	---	---	---	---	---	21.8	19.0	20.2
17	---	---	---	---	---	---	---	---	---	21.1	18.6	19.8
18	---	---	---	---	---	---	---	---	---	21.2	18.3	19.6
19	---	---	---	---	---	---	---	---	---	21.3	17.9	19.5
20	---	---	---	---	---	---	---	---	---	19.2	17.2	18.1
21	---	---	---	---	---	---	---	---	---	19.8	16.4	17.9
22	---	---	---	---	---	---	---	---	---	18.5	16.9	17.6
23	---	---	---	---	---	---	---	---	---	18.7	16.7	17.7
24	---	---	---	---	---	---	---	---	---	17.8	16.5	17.2
25	---	---	---	---	---	---	---	---	---	16.5	15.5	16.0
26	---	---	---	---	---	---	---	---	---	16.0	15.3	15.6
27	---	---	---	---	---	---	---	---	---	19.5	15.1	17.0
28	---	---	---	---	---	---	---	---	---	19.7	16.6	18.0
29	---	---	---	---	---	---	---	---	---	20.7	17.1	18.7
30	---	---	---	---	---	---	---	---	---	20.7	17.6	19.1
31	---	---	---	---	---	---	---	---	---	21.8	17.8	19.6
MONTH	---	---	---	---	---	---	---	---	---	21.8	11.6	17.0

01460200 DELAWARE RIVER BELOW TOHICKON CREEK AT POINT PLEASANT, PA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			**JULY**			**AUGUST**			**SEPTEMBER**	
1	22.4	19.1	20.5	28.4	26.9	27.4	29.9	27.0	28.2	27.6	24.3	25.7
2	22.1	19.5	20.5	29.2	26.5	27.6	30.8	26.9	28.7	27.8	24.1	25.8
3	20.6	19.8	20.2	28.2	25.6	26.8	31.6	27.1	29.2	26.5	23.9	25.2
4	22.8	19.6	21.0	28.7	24.8	26.6	32.0	28.0	29.9	26.8	23.1	24.8
5	25.2	20.7	22.7	27.3	25.6	26.4	31.4	28.7	30.0	26.9	23.1	24.9
6	26.0	22.4	23.8	28.7	25.5	27.0	30.5	27.9	29.1	27.0	23.0	24.8
7	26.5	23.1	24.6	---	---	---	29.0	27.2	28.1	26.9	22.9	24.7
8	27.7	23.6	25.5	---	---	---	28.0	26.6	27.2	27.0	23.0	24.8
9	27.6	24.7	26.1	---	---	---	26.9	25.9	26.4	26.0	23.2	24.4
10	27.3	25.6	26.3	---	---	---	29.0	25.3	27.0	26.4	22.4	24.2
11	27.8	25.6	26.6	---	---	---	30.1	26.2	27.9	25.7	21.9	23.7
12	28.1	25.8	26.9	---	---	---	30.6	27.0	28.7	25.7	22.0	23.7
13	28.8	25.9	27.2	---	---	---	31.5	28.0	29.6	26.2	22.3	24.1
14	30.0	26.7	28.1	---	---	---	31.6	28.7	30.1	24.8	22.9	23.9
15	29.6	27.1	28.2	29.0	26.5	27.5	30.5	28.1	29.2	26.4	23.9	25.0
16	28.1	26.0	27.1	28.7	27.0	27.6	28.1	27.0	27.5	26.9	24.3	25.4
17	26.6	24.3	25.4	---	---	---	29.4	25.8	27.4	26.6	24.8	25.7
18	24.8	23.0	24.0	---	---	---	28.9	25.5	27.1	26.7	23.8	25.2
19	23.4	22.2	22.7	---	---	---	26.9	25.8	26.2	26.9	23.3	25.1
20	24.8	21.2	22.8	---	---	---	27.2	25.3	26.0	25.1	23.7	24.4
21	25.6	21.5	23.5	31.5	27.7	29.5	29.4	25.5	27.2	26.0	22.9	24.2
22	25.4	22.5	23.8	31.5	28.0	29.7	28.7	25.3	27.0	25.1	22.0	23.6
23	26.6	22.2	24.2	30.7	27.9	29.2	28.2	24.5	26.3	25.2	22.8	24.0
24	26.9	23.0	24.8	30.1	26.5	28.3	27.5	24.6	25.9	24.9	21.8	23.0
25	28.3	23.8	25.9	29.6	26.4	27.9	27.5	23.4	25.3	22.6	21.6	22.0
26	29.2	25.1	27.0	30.9	26.8	28.7	---	---	---	22.2	21.2	21.7
27	27.4	25.9	26.4	31.8	27.8	29.6	---	---	---	22.9	20.5	21.6
28	29.7	25.6	27.3	30.7	27.2	28.7	---	---	---	22.3	18.9	20.8
29	28.6	27.0	27.7	30.1	26.8	28.3	---	---	---	20.9	19.2	20.1
30	28.6	26.9	27.5	30.3	26.9	28.4	---	---	---	20.9	17.9	19.2
31	---	---	---	30.0	26.9	28.3	---	---	---	---	---	---
MONTH	30.0	19.1	24.9	31.8	24.8	28.1	32.0	23.4	27.8	27.8	17.9	23.9

OXYGEN, DISSOLVED (MG/L), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			**MARCH**			**APRIL**			**MAY**	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	10.8	9.6	10.2
7	---	---	---	---	---	---	---	---	---	11.0	9.4	10.1
8	---	---	---	---	---	---	---	---	---	11.1	9.1	10.1
9	---	---	---	---	---	---	---	---	---	11.3	8.9	10
10	---	---	---	---	---	---	---	---	---	11.5	8.6	10.1
11	---	---	---	---	---	---	---	---	---	11.8	8.3	9.9
12	---	---	---	---	---	---	---	---	---	12.0	8.0	9.8
13	---	---	---	---	---	---	---	---	---	12.9	8.0	10.3
14	---	---	---	---	---	---	---	---	---	12.8	8.1	10.3
15	---	---	---	---	---	---	---	---	---	11.8	7.8	9.7
16	---	---	---	---	---	---	---	---	---	12.1	7.4	9.6
17	---	---	---	---	---	---	---	---	---	11.4	7.5	9.5
18	---	---	---	---	---	---	---	---	---	11.1	7.8	9.3
19	---	---	---	---	---	---	---	---	---	10.8	7.7	9.2
20	---	---	---	---	---	---	---	---	---	8.7	7.5	8.1
21	---	---	---	---	---	---	---	---	---	9.7	7.5	8.6
22	---	---	---	---	---	---	---	---	---	9.5	7.9	8.7
23	---	---	---	---	---	---	---	---	---	9.8	8.1	8.9
24	---	---	---	---	---	---	---	---	---	9.3	8.0	8.7
25	---	---	---	---	---	---	---	---	---	9.7	8.2	8.9
26	---	---	---	---	---	---	---	---	---	10.2	8.8	9.4
27	---	---	---	---	---	---	---	---	---	10.6	9.1	9.8
28	---	---	---	---	---	---	---	---	---	10.4	8.9	9.6
29	---	---	---	---	---	---	---	---	---	10.6	8.3	9.2
30	---	---	---	---	---	---	---	---	---	11.0	8.1	9.5
31	---	---	---	---	---	---	---	---	---	11.4	8.5	10
MONTH	---	---	---	---	---	---	---	---	---	12.9	7.4	9.5

01460200 DELAWARE RIVER BELOW TOHICKON CREEK AT POINT PLEASANT, PA--Continued

OXYGEN, DISSOLVED (MG/L), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			**JULY**			**AUGUST**			**SEPTEMBER**	
1	11.9	8.6	10.2	7.7	5.6	6.6	8.8	6.8	7.8	---	---	---
2	12.2	8.0	9.8	8.4	5.8	7.1	8.5	6.7	7.5	---	---	---
3	10.7	7.8	9.3	8.8	6.2	7.5	7.9	6.3	7.1	---	---	---
4	10.9	7.5	9.1	9.1	6.3	7.8	7.4	5.7	6.6	---	---	---
5	10.4	7.3	8.8	8.7	6.3	7.4	8.1	5.4	6.8	---	---	---
6	10.0	6.8	8.1	8.7	6.1	7.3	8.6	6.8	7.6	---	---	---
7	9.0	6.3	7.6	7.9	6.0	6.8	8.5	7.0	7.7	---	---	---
8	8.9	5.7	7.3	---	---	---	8.4	7.2	7.7	---	---	---
9	8.7	6.0	7.2	---	---	---	8.7	7.3	8.0	---	---	---
10	8.0	5.7	6.6	---	---	---	8.8	7.4	8.1	---	---	---
11	7.9	5.8	6.6	---	---	---	8.9	7.2	8.0	---	---	---
12	8.2	5.7	6.9	---	---	---	8.1	6.6	7.3	---	---	---
13	8.6	6.3	7.4	---	---	---	7.9	6.1	7.0	---	---	---
14	9.2	6.3	7.7	---	---	---	7.6	5.8	6.7	---	---	---
15	9.0	6.0	7.5	8.4	6.7	7.5	---	---	---	---	---	---
16	8.6	6.0	7.2	8.3	6.5	7.2	---	---	---	---	---	---
17	9.0	6.1	7.5	---	---	---	---	---	---	---	---	---
18	9.0	6.6	7.8	---	---	---	---	---	---	---	---	---
19	8.8	6.8	7.7	---	---	---	---	---	---	---	---	---
20	9.5	6.9	8.4	---	---	---	---	---	---	---	---	---
21	9.6	7.5	8.5	8.1	6.0	7.0	---	---	---	8.9	6.3	7.8
22	9.3	7.0	8.2	8.5	5.9	7.0	---	---	---	9.0	7.2	7.9
23	9.5	7.4	8.4	9.0	6.4	7.7	---	---	---	9.0	6.9	7.9
24	9.6	7.4	8.5	9.7	7.2	8.3	---	---	---	9.2	7.1	8.1
25	9.6	7.3	8.5	9.5	7.3	8.2	---	---	---	9.3	6.9	7.8
26	9.8	7.0	8.4	9.4	7.3	8.3	---	---	---	8.9	7.3	8.0
27	9.3	6.6	7.9	9.3	7.1	8.1	---	---	---	9.4	7.3	8.2
28	9.4	6.7	8.0	9.2	7.1	8.1	---	---	---	9.6	7.4	8.5
29	9.0	6.4	7.5	9.3	7.1	8.1	---	---	---	9.4	7.6	8.4
30	8.1	6.0	6.9	9.2	6.9	8.0	---	---	---	9.9	7.5	8.8
31	---	---	---	9.2	7.0	8.1	---	---	---	---	---	---
MONTH	12.2	5.7	8.0	9.7	5.6	7.6	8.9	5.4	7.4	9.9	6.3	8.1

CROSS-SECTION ANALYSES, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Sampling depth, feet (00003)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Location in X-sect. looking dwnstrm ft from l bank (00009)
SEP 2005									
21...	1257	1028	1028	.50	9.5	8.4	245	23.6	114
21...	1258	1028	1028	3.00	9.4	8.4	245	23.6	114
21...	1304	1028	1028	.50	9.6	8.6	243	24.1	207
21...	1305	1028	1028	3.00	9.5	8.6	243	24.1	207
21...	1310	1028	1028	.50	9.8	8.6	243	24.1	324
21...	1311	1028	1028	2.50	9.7	8.6	243	24.1	324
21...	1315	1028	1028	.50	10.0	8.7	243	24.3	384
21...	1316	1028	1028	2.50	10.0	8.7	243	24.3	384
21...	1319	1028	1028	.50	10.0	8.7	244	24.4	450
21...	1322	1028	1028	.50	10.0	8.7	244	24.4	510
21...	1327	1028	1028	.50	9.8	8.6	246	24.4	546
21...	1328	1028	1028	.50	10.0	8.7	246	24.6	576
21...	1330	1028	1028	.50	10.3	8.7	246	24.9	630
21...	1331	1028	1028	.50	11.4	8.9	246	25.7	648
21...	1332	1028	1028	--	--	--	--	--	675

01461000 DELAWARE RIVER AT LUMBERVILLE, PA

LOCATION.--Lat 40°24'27", long 75°02'16", Bucks County, Hydrologic Unit 02040105, at pedestrian bridge at Lumberville, 1.4 mi upstream from Lockatong Creek, and at river mile 155.4.

DRAINAGE AREA.--6,598 mi^2.

PERIOD OF RECORD.--Water years 1976 to current year.

REMARKS.--Total nitrogen (00600) equals the sum of dissolved ammonia plus organic nitrogen (00623), dissolved nitrite plus nitrate nitrogen (00631), and total particulate nitrogen (49570).

COOPERATION.--Field data and samples for laboratory analyses were provided by the New Jersey Department of Environmental Protection. Concentrations of ammonia in samples collected during November to December and August to September; orthophosphate in every sampling period except February to March; and nitrite, biochemical oxygen demand, total suspended residue, fecal coliform, E. coli, and enterococcus bacteria were determined by the New Jersey Department of Health and Senior Services, Public Health and Environmental Laboratories, Environmental and Chemical Laboratory Services.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Delaware River Main Stem, New Jersey Department of Environmental Protection Watershed Management Area 11.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Instantaneous discharge, cfs (00061)	Turbdty white light, det ang 90+/-30 corrctd NTRU (63676)	UV absorbance, 254 nm, wat flt units /cm (50624)	UV absorbance, 280 nm, wat flt units /cm (61726)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)
NOV 09...	0900	7,620	.9	.078	.060	770	11.1	93	8.2	212	4.9	7.8	75
FEB 03...	1100	11,500	1.9	.057	.044	770	14.4	98	--	197	3.2	.1	69
JUN 02...	1000	5,050	1.1	.059	.046	764	8.4	91	8.3	250	15.8	19.0	87
AUG 24...	0900	2,930	1.1	.054	.041	762	7.2	86	8.3	254	22.1	24.2	87

Date	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)	Residue on evap. at 180degC wat flt mg/L (70300)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, fltrd, mg/L as N (00623)
NOV 09...	19.6	6.41	1.54	11.4	53	18.0	E.1	3.3	16.7	113	122	10	.15
FEB 03...	17.8	5.86	1.23	10.9	46	18.2	E.1	5.6	15.8	108	107	--	.22
JUN 02...	21.9	7.86	1.71	13.1	65	21.3	<.1	2.9	18.6	131	140	--	.22
AUG 24...	22.0	7.75	2.06	14.1	66	22.4	E.1	3.5	20.1	137	145	2	.28

Date	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Total nitrogen, water, fltrd, mg/L (00602)	Total nitrogen, water, unfltrd mg/L (00600)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)
NOV 09...	.012	.90	.009	.07	1.1	1.1	.029	.025	.032	.4	<.1	.4	2.3
FEB 03...	.107	1.14	--	.10	1.4	1.5	.026	.033	.042	.6	<.1	.6	1.8
JUN 02...	<.040	1.17	--	.06	1.4	1.4	.018	.032	.049	.6	<.1	.6	2.3
AUG 24...	.048	1.13	--	.09	1.4	1.5	.079	.094	.101	.4	<.1	.4	2.0

DELAWARE RIVER BASIN

01461000 DELAWARE RIVER AT LUMBERVILLE, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005--Continued

Date	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Boron, water, fltrd, ug/L (01020)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)
NOV				
09...	E1.7	16	--	--
FEB				
03...	--	13	1	31
JUN				
02...	E1.4	18	1	14
AUG				
24...	<1.0	20	--	--

Remark codes used in this table:
< -- Less than.
E -- Estimated.

WATER-COLUMN BACTERIA ANALYSES

Samples were collected synoptically over a 30-day period during the summer.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Instantaneous discharge, cfs (00061)	Enterococci, m-E MF, water, col/ 100 mL (31649)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coliform, ECbroth water, MPN/ 100 mL (31615)
JUL					
06...	1006	3,800	50	300	40
13...	0949	4,970	170	600	230
20...	0947	4,740	80	100	110
27...	0952	3,860	220	<100	230
AUG					
03...	1002	3,260	310	<100	40

Remark codes used in this table:
< -- Less than.

01463500 DELAWARE RIVER AT TRENTON, NJ
(National Water-Quality Assessment Station)
(Pennsylvania Water-Quality Network Station)

LOCATION.--Lat 40°13'18", long 74°46'41", Mercer County, Hydrologic Unit 02040105, on left bank 450 ft upstream from Calhoun Street Bridge at Trenton, 0.5 mi upstream from Assunpink Creek, and at river mile 134.5.

DRAINAGE AREA.--6,780 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1913 to current year. October 1912 to February 1913 monthly discharge only, published in WSP 1302. Gage- height records collected in this vicinity since 1904 are contained in reports of the National Weather Service.

REVISED RECORDS.--WSP 951: Drainage area. WSP 1302: 1913-20. WSP 1382: 1924, 1928.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929. Prior to Sept. 30, 1965, at datum 7.77 ft higher. Feb. 24, 1913 to Oct. 2, 1928, nonrecording gage on downstream side of highway bridge at site 450 ft downstream.

REMARKS.--Records good, except estimated discharges which are fair. Diurnal fluctuations at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lakes Wallenpaupack and Hopatcong, and by Pepacton, Cannonsville, Swinging Bridge, Toronto, Cliff Lake, Neversink, Wild Creek, and Merrill Creek Reservoirs and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs. Diversion to Bradshaw and Merrill Creek Reservoirs and to Delaware and Raritan Canal. Water diverted just above station by borough of Morrisville, PA, and city of Trenton for municipal supply. Information on the above lakes and reservoirs can be found in the annual Water-Data Report NJ-05-1. Satellite gage-height and water-quality parameter telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 11, 1903, reached an elevation of about 28.5 ft above NGVD of 1929, discharge estimated, 295,000 ft^3/s. Maximum elevation known, 30.6 ft above NGVD of 1929, Mar. 8, 1904, from floodmark, due to ice jam.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 50,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov 29	2115	61,500	15.05	Mar 30	1815	105,000	18.14
Jan 15	1845	101,000	17.88	Apr 4	1430	*242,000	*25.33

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39,700	9,020	47,300	16,200	13,400	11,900	62,500	17,700	5,690	6,170	3,530	3,380
2	31,800	e8,550	48,800	15,600	12,100	11,700	72,100	16,700	5,380	6,050	3,290	3,610
3	26,000	8,410	48,100	15,000	11,600	11,200	161,000	15,900	5,180	5,510	3,250	3,380
4	23,300	8,530	38,000	15,100	11,400	10,800	230,000	14,900	5,510	5,040	3,260	3,300
5	20,200	9,960	31,700	19,300	11,500	10,000	140,000	14,000	5,430	4,360	3,200	3,170
6	17,500	10,100	28,100	25,600	11,300	9,830	81,900	13,100	5,180	4,080	3,070	2,780
7	16,000	10,300	25,100	26,600	10,600	9,700	62,500	13,000	6,220	4,070	3,070	2,740
8	14,600	8,880	25,200	26,200	10,800	12,300	56,900	12,100	6,270	6,050	3,470	2,800
9	14,100	8,120	25,500	29,500	11,100	14,300	45,400	11,300	5,910	9,740	3,610	2,800
10	13,100	8,130	30,100	26,600	12,700	13,800	38,400	10,700	5,950	7,760	3,780	2,960
11	12,000	7,740	34,400	23,700	14,600	12,600	33,700	9,970	6,070	6,370	3,820	2,950
12	10,700	7,710	41,800	23,400	15,600	12,100	28,700	9,330	6,150	5,140	3,610	2,940
13	10,100	10,400	38,000	22,800	13,900	11,900	24,500	8,830	5,960	4,710	3,430	3,110
14	9,640	9,680	33,300	35,000	12,400	11,400	21,500	8,320	5,580	5,010	3,620	3,030
15	9,640	8,300	29,000	88,900	20,200	10,800	19,400	8,310	5,470	5,210	4,150	3,360
16	10,900	7,840	24,600	78,200	20,800	10,600	17,500	8,590	5,700	4,940	4,150	3,550
17	11,500	7,700	22,000	55,100	23,500	10,200	15,900	8,380	5,300	5,570	4,080	3,240
18	12,000	7,930	20,100	43,200	23,600	10,100	14,100	7,940	5,030	6,910	3,430	3,420
19	11,800	7,800	17,900	34,500	20,500	10,000	13,100	7,400	4,970	5,170	3,100	2,940
20	13,400	7,730	16,600	30,100	17,200	9,900	12,700	7,280	4,620	4,360	3,170	2,520
21	18,200	7,740	15,000	28,200	16,500	9,790	12,000	6,930	4,310	4,700	3,110	2,700
22	16,500	7,510	13,000	23,800	16,000	10,200	11,600	6,520	4,220	4,340	3,090	2,760
23	14,500	7,230	13,300	17,900	15,300	11,600	11,500	6,160	4,490	3,990	3,000	2,890
24	13,300	7,470	25,300	e17,000	14,900	16,200	17,200	5,980	4,440	3,950	2,930	2,830
25	12,300	8,770	33,200	e18,000	14,000	16,400	19,300	5,960	4,070	4,170	2,990	2,920
26	11,600	10,900	29,800	17,800	12,800	15,400	21,200	6,010	3,990	4,310	3,030	2,970
27	11,000	12,100	25,100	17,100	12,000	14,600	18,900	5,890	4,360	3,650	3,020	3,080
28	10,700	27,000	21,500	15,900	11,600	18,500	19,000	5,690	4,150	3,810	3,140	2,980
29	9,720	55,700	19,100	14,600	---	53,500	19,600	5,830	4,140	3,730	4,690	2,790
30	9,580	55,800	17,500	14,100	---	e98,800	18,600	6,190	6,880	3,590	4,180	2,620
31	9,870	---	16,800	14,300	---	e80,400	---	6,000	---	3,500	3,610	---
TOTAL	465,250	373,050	855,200	849,300	411,900	570,520	1,320,700	290,910	156,620	155,960	106,880	90,520
MEAN	15,010	12,440	27,590	27,400	14,710	18,400	44,020	9,384	5,221	5,031	3,448	3,017
MAX	39,700	55,800	48,800	88,900	23,600	98,800	230,000	17,700	6,880	9,740	4,690	3,610
MIN	9,580	7,230	13,000	14,100	10,600	9,700	11,500	5,690	3,990	3,500	2,930	2,520

DELAWARE RIVER BASIN

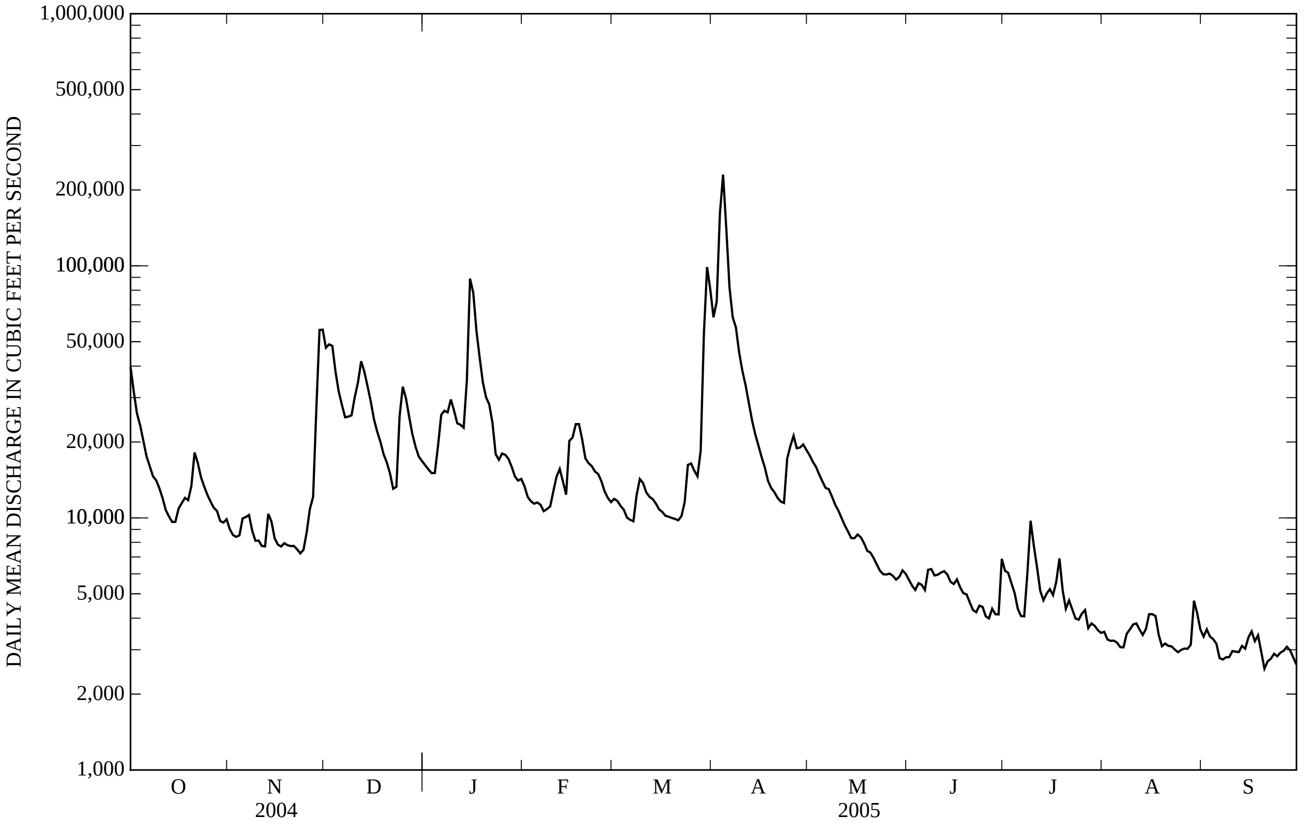
01463500 DELAWARE RIVER AT TRENTON, NJ

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1913 - 2005, BY WATER YEAR (WY)

MEAN	7,100	10,550	12,980	12,580	12,700	20,500	22,320	14,090	9,321	6,996	6,019	6,174
MAX	28,710	27,340	42,860	34,950	27,550	60,840	52,680	31,690	33,460	25,720	30,290	32,570
(WY)	(1956)	(1928)	(1997)	(1979)	(1951)	(1936)	(1940)	(1989)	(1972)	(1928)	(1955)	(2004)
MIN	1,632	1,868	2,037	2,539	3,500	7,715	6,828	5,074	2,572	1,548	1,808	1,762
(WY)	(1942)	(1915)	(1923)	(1981)	(1920)	(1981)	(1985)	(1995)	(1965)	(1965)	(1965)	(1932)

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1913 - 2005	
ANNUAL TOTAL	5,797,310		5,646,810			
ANNUAL MEAN	15,840		15,470		11,770	
HIGHEST ANNUAL MEAN					19,810	1928
LOWEST ANNUAL MEAN					4,708	1965
HIGHEST DAILY MEAN	181,000	Sep 19	230,000	Apr 4	279,000	Aug 20, 1955
LOWEST DAILY MEAN	3,590	Jul 7	2,520	Sep 20	1,240	Oct 31, 1914
ANNUAL SEVEN-DAY MINIMUM	3,750	Jul 4	2,790	Sep 19	1,310	Oct 31, 1914
MAXIMUM PEAK FLOW			242,000	Apr 4	329,000a	Aug 20, 1955
MAXIMUM PEAK STAGE			25.33	Apr 4	28.60b	Aug 20, 1955
INSTANTANEOUS LOW FLOW			2,380	Sep 20	1,180	Oct 31, 1963
10 PERCENT EXCEEDS	26,600		29,900		24,700	
50 PERCENT EXCEEDS	12,500		10,400		8,000	
90 PERCENT EXCEEDS	6,510		3,250		3,040	

a From rating curve extended above 230,000 ft^3/s, maximum flow since 1692.
b From high-water mark in gage house, current datum.
e Estimated



01463500 DELAWARE RIVER AT TRENTON, NJ--Continued
(National Water-Quality Assessment Station)
(Pennsylvania Water-Quality Network Station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1945 to current year.

PERIOD OF DAILY RECORD.--
DISSOLVED OXYGEN: October 1962 to current year. Recorded as once daily during 1979.
DISSOLVED OXYGEN PERCENT SATURATION: October 2001 to current year.
pH: June 1968 to current year. Recorded as once daily during 1979.
SPECIFIC CONDUCTANCE: October 1963 to current year. Recorded as once daily during years 1964 to 1968, 1979.
SUSPENDED SEDIMENT DISCHARGE: September 1949 to September 1981.
WATER TEMPERATURE: October 1944 to current year. Recorded as once daily during years 1945 to 1953, 1962, 1964, 1979.
TURBIDITY: November 2000 to current year.

INSTRUMENTATION.--
TEMPERATURE MONITOR (in-situ system, max-min recorded): October 1953 to September 1961.
TEMPERATURE / DISSOLVED-OXYGEN MONITOR (in-situ system):
October 1962 to September 1965: max-min recorded (only dissolved-oxygen concentration recorded during water year 1964).
October 1965 to May 1968: measurements recorded hourly.
WATER-QUALITY MONITOR (continuous pumping system, measurements recorded hourly):
June 1968 to August 1975: water withdrawn from raw-water intake within Trenton Water Filtration Plant, Trenton, NJ.
November 1975 to November 1978: water withdrawn from river outside Trenton Water Filtration Plant, Trenton, NJ.
December 1979 to September 1986: water withdrawn from raw-water intake within Trenton Water Filtration Plant, Trenton, NJ.
WATER-QUALITY MONITOR (in-situ system, measurements recorded hourly):
October 1986 to September 1995: probes located inside raw-water intake of Trenton Water Filtration Plant, Trenton, NJ.
October 1995 to September 19, 2005: monitor located inside raw-water intake of Morrisville Water Filtration Plant, Morrisville, PA, 1600 feet upstream from the gage house.
YSI turbidimeter 6026, November 2000 to May 2004.
YSI turbidimeter 6136. June 2004 to current year.
WATER-QUALITY MONITOR (intermittent pumping system, measurements recorded hourly):
September 20-30, 2005: water withdrawn from raw-water intake within Morrisville Water Filtration Plant, Morrisville, PA,

REMARKS.--Samples on Nov. 9 at 0901, May 4, 11, 18, May 24 at 0901, May 25, June 1, and Sept. 7 at 0931 were collected to fulfill the requirements of the Ambient Stream Monitoring Network. For definition of the type of quality-control data listed under SAMPLE TYPE, refer to "Water-Quality Control Data" in the Explanation of Water-Quality Records section of this report. Unpublished records of suspended-sediment discharge for the period Oct. 1, 1981, to Mar. 31, 1982, are available at the U.S. Geological Survey Office in West Trenton, NJ. Beginning October, 1999, pH daily value tables reported median instead of mean values. Continuous turbidity-record values less than 0.5 FNU were below the instrument reporting level. Missing continuous water-quality records are the result of instrument malfunction or interruption of flow through the filtration plant. The calibration of water-quality sensors is verified by regular inspections. Cleaning or recalibration is needed occasionally as a result of sensor fouling or drift. When a sensor is recalibrated, the continuous-record water-quality data for the period between inspections are adjusted to account for the difference between the sensor's response and a known value. The adjustment may be constant over the period or may be prorated. Continuous-record water-quality data for periods for which the difference between the sensor's response and a known value does not exceed recalibration criteria are considered to be reliable and are not adjusted. Recalibration criteria are listed in "Accuracy of the Records" in the Explanation of Water-Quality Records section of this report. Data from the following periods were adjusted:
DISSOLVED OXYGEN: Jan. 12 - 21, Feb. 16 - 28, Mar. 8 - 30, May 31 to June 27, July 14 to Aug. 1.
pH: Oct. 21 - 25, May 31 to June 27.
SPECIFIC CONDUCTANCE: Nov. 18 to Dec. 1.
TURBIDITY: Nov. 18 to Dec. 1, Mar. 29-30.

COOPERATION.--Samples were collected as part of the Delaware River Basin National Water-Quality Assessment Program (NAWQA) with cooperation from the Delaware River Basin Commission. Concentrations of selected nutrients, biochemical oxygen demand (BOD), and filtered hexavalent chromium (Cr^{6+}) in samples collected on Nov. 9 at 0901; filtered orthophosphate and BOD on May 24 at 0901; selected nutrients and BOD on Sept. 7 at 0931; and fecal coliform, E. coli, and enterococcus bacteria collected synoptically during May and June were determined by the New Jersey Department of Health and Senior Services, Public Health and Environmental Laboratories, Environmental and Chemical Laboratory Services. Concentrations of Cr6 in samples collected on May 24 at 0901 and Sept. 7 at 0931 were determined by a commercial laboratory certified by the New Jersey Department of Environmental Protection.

COOPERATIVE NETWORK SITE DESCRIPTOR.--Delaware River Main Stem, New Jersey Department of Environmental Protection Watershed Management Area 11.

EXTREMES FOR PERIOD OF DAILY RECORD.--
DISSOLVED OXYGEN: Maximum, 20.0 mg/L, Feb. 11, 1989; minimum, 4.0 mg/L, Nov. 9, 1972, Sept. 9, 1995.
DISSOLVED OXYGEN PERCENT SATURATION: Maximum, 172%, June 14, 2005; minimum, 59%, Aug. 9, 2005.
pH: Maximum, 10.3 standard units, Aug. 9, 10, 1983; minimum, 5.3 standard units, June 22, 1972.
SPECIFIC CONDUCTANCE: Maximum, 468 microsiemens/cm, Jan. 11, 1999; minimum, 63 microsiemens/cm, July 7, 1984.
WATER TEMPERATURE: Maximum, 34.0°C, June 18, 1957; minimum, -0.6°C, on many days during winter months in water years 1954-57.
TURBIDITY: Maximum, 760 FNU, Sept. 18, 2004; minimum, <0.5 FNU, on many days in water year 2005.

EXTREMES FOR CURRENT YEAR.--
DISSOLVED OXYGEN: Maximum, 17.7 mg/L, Mar. 22; minimum, 4.7 mg/L, Aug. 5, 6.
DISSOLVED OXYGEN, PERCENT OF SATURATION: Maximum, 172%, June 14; minimum, 59%, Aug. 9.
pH: Maximum, 9.8 standard units, June 15; minimum, 6.8 standard units, Nov. 30, Dec. 1.
SPECIFIC CONDUCTANCE: Maximum, 278 microsiemens/cm, July 1; minimum, 73 microsiemens/cm, Apr. 4.
WATER TEMPERATURE: Maximum, 31.8°C, July 27; minimum, 0.0°C, on several days during January.
TURBIDITY: Maximum, 370 FNU, Apr. 4; minimum, <0.5 FNU, on many days.

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Instan- taneous dis- charge, cfs (00061)	Turbdty white light, det ang 90+/-30 corrctd NTRU (63676)	UV absorb- ance, 254 nm, wat flt units /cm (50624)	UV absorb- ance, 280 nm, wat flt units /cm (61726)	Baro- metric pres- sure, mm Hg (00025)	Dis- solved oxygen, mg/L (00300)	Dis- solved oxygen, percent of sat- uration (00301)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unf uS/cm 25 degC (00095)	Temper- ature, air, deg C (00020)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)
NOV													
09...	0900	8,190	.9	.076	.058	773	11.2	94	8.4	204	4.0	8.2	72
09...	0901	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
12...	0910	23,100	4.5	--	--	764	13.6	103	7.5	168	5.5	3.8	--
MAR													
29...	0900	45,400	110	.099	.078	748	12.4	101	7.2	189	9.5	5.9	54
MAY													
24...	0900	5,950	1.7	.051	.038	751	9.0	95	7.9	251	16.5	17.0	87
24...	0901	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
15...	0850	5,270	3.0	--	--	758	7.9	100	8.0	248	30.0	26.6	--
SEP													
07...	0930	2,770	1.2	.044	.033	764	9.2	108	8.3	236	18.0	23.4	78
07...	0931	--	--	--	--	--	--	--	--	--	--	--	--

Date	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)	Alka- linity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicar- bonate, wat flt incrm. titr., field, mg/L (00453)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of consti- tuents mg/L (70301)	Residue on evap. at 180degC wat flt mg/L (70300)
NOV													
09...	18.9	6.06	1.55	10.7	51	46	56	16.6	E.1	3.0	16.1	104	116
09...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN													
12...	--	--	--	--	--	30	36	16.7	--	--	13.0	--	--
MAR													
29...	14.5	4.41	1.37	13.2	37	33	41	23.4	<.1	4.4	13.6	99	118
MAY													
24...	21.8	7.91	1.77	12.9	63	61	74	21.7	E.1	2.8	19.9	131	139
24...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL													
15...	--	--	--	--	--	57	69	21.5	--	--	18.1	--	--
SEP													
07...	19.8	6.94	1.76	12.3	60	59	71	20.9	E.1	3.0	17.4	122	142
07...	--	--	--	--	--	--	--	--	--	--	--	--	--

Date	Ammonia + org-N, water, fltrd, mg/L as N (00623)	Ammonia water, fltrd, mg/L as N (00608)	Ammonia water, unfltrd mg/L as N (00610)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Partic- ulate nitro- gen, susp, water, mg/L (49570)	Total nitro- gen, wat unf by anal ysis, mg/L (62855)	Total nitro- gen, water, fltrd, mg/L (00602)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, fltrd, mg/L (00666)	Phos- phorus, water, unfltrd mg/L (00665)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inor- ganic carbon, suspnd sedimnt total, mg/L (00688)
NOV													
09...	.15	<.04	--	.82	.008	.04	1.02	.98	.014	.020	.027	.3	<.1
09...	--	.012	.011	--	.007	--	--	--	.024	--	--	--	--
JAN													
12...	--	E.02	--	.98	E.004	--	1.15	--	.013	--	.035	--	--
MAR													
29...	.25	.061	.07	1.00	.008	.70	2.00	1.3	.018	.030	.31	7.4	.2
MAY													
24...	.23	E.023	E.03	1.26	.017	.12	1.62	1.5	.026	.040	.065	1.0	<.1
24...	--	--	--	--	--	--	--	--	.031	--	--	--	--
JUL													
15...	--	<.04	--	.90	E.005	--	1.32	--	.043	--	.092	--	--
SEP													
07...	.24	<.04	--	1.08	.008	.04	1.32	1.3	.063	.087	.091	.4	<.1
07...	--	.035	.036	--	--	--	--	--	.067	--	--	--	--

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	COD, high level, water, unfltrd mg/L (00340)	Suspended sediment concentration mg/L (80154)	Suspended sediment discharge, tons/d (80155)
NOV						
09...	.3	2.2	--	10	1	22
09...	--	--	2.1	--	--	--
JAN						
12...	--	--	--	--	6	374
MAR						
29...	7.3	2.1	--	30	227	27,800
MAY						
24...	1.0	1.9	--	<10	4	64
24...	--	--	E1.7	--	--	--
JUL						
15...	--	--	--	--	7	100
SEP						
07...	.4	1.8	--	<10	1	7.5
07...	--	--	2.0	--	--	--

Remark codes used in this table:
< -- Less than.
E -- Estimated.

WATER-COLUMN TRACT-ELEMENT ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Arsenic water, fltrd, ug/L (01000)	Arsenic water unfltrd ug/L (01002)	Barium, water, unfltrd recover -able, ug/L (01007)	Beryllium, water, unfltrd recover -able, ug/L (01012)	Boron, water, fltrd, ug/L (01020)	Boron, water, unfltrd recover -able, ug/L (01022)	Cadmium water, fltrd, ug/L (01025)	Cadmium water, unfltrd ug/L (01027)	Chromium(VI) water, fltrd, ug/L (01032)	Chromium, water, fltrd, ug/L (01030)	Chromium, water, unfltrd recover -able, ug/L (01034)	Copper, water, fltrd, ug/L (01040)
NOV													
09...	0900	--	<2	23.1	<.06	16	17	--	E.04	--	<.8	<.8	1.1
09...	0901	--	--	--	--	--	--	--	--	<5	--	--	--
MAR													
29...	0900	--	E1	48.4	.31	11	14	--	.29	--	E.5	3.4	3.3
MAY													
24...	0900	--	<2	27.0	<.06	17	13	--	.07	--	<.8	<.8	2.9
24...	0901	--	--	--	--	--	--	--	--	<10	--	--	--
AUG													
27...	0930	2.4	2.0	--	--	--	--	E.02	.05	--	<.8	.29	2.4
29...	1125	7.8	6.4	--	--	--	--	E.02	.04	--	<.8	.40	1.9
SEP													
07...	0930	--	1.8	26.5	<.06	19	19	--	E.03	--	.16	.24	2.3
07...	0931	--	--	--	--	--	--	--	--	<10	--	--	--

DELAWARE RIVER BASIN

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005--Continued

Date	Copper, water, unfltrd recover -able, ug/L (01042)	Iron, water, unfltrd recover -able, ug/L (01045)	Lead, water, fltrd, ug/L (01049)	Lead, water, unfltrd recover -able, ug/L (01051)	Mangan- ese, water, unfltrd recover -able, ug/L (01055)	Mercury water, fltrd, ug/L (71890)	Mercury water, unfltrd recover -able, ug/L (71900)	Nickel, water, fltrd, ug/L (01065)	Nickel, water, unfltrd recover -able, ug/L (01067)	Selen- ium, water, unfltrd ug/L (01147)	Silver, water, unfltrd recover -able, ug/L (01077)	Zinc, water, fltrd, ug/L (01090)	Zinc, water, unfltrd recover -able, ug/L (01092)
NOV													
09...	1.7	250	E.06	.09	6.5	<.01	<.01	.95	1.22	<.4	<.16	7.2	8
09...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
29...	8.2	3,220	.28	10.7	247	<.01	.01	1.66	4.99	E.3	E.08	9.1	67
MAY													
24...	2.2	80	.17	.25	28.8	<.01	<.01	2.01	.94	E.3	<.16	4.9	7
24...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
27...	1.7	--	--	--	--	--	--	--	--	--	--	4.0	4
29...	1.2	--	--	--	--	--	--	--	--	--	--	4.5	5
SEP													
07...	1.7	40	.28	.17	15.5	<.01	<.01	1.10	.99	E.3	<.16	3.2	3
07...	--	--	--	--	--	--	--	--	--	--	--	--	--

Remark codes used in this table:
< -- Less than.
E -- Estimated.

WATER-COLUMN VOLATILE ORGANIC COMPOUND ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	1,1,1-Tri-chloro-ethane, water, unfltrd ug/L (34506)	CFC-113 water unfltrd ug/L (77652)	1,1-Di-chloro-ethane, water unfltrd ug/L (34496)	1,1-Di-chloro-ethene, water, unfltrd ug/L (34501)	1,2-Di-chloro-benzene water unfltrd ug/L (34536)	1,2-Di-chloro-ethane, water, unfltrd ug/L (32103)	1,2-Di-chloro-propane water unfltrd ug/L (34541)	1,3-Di-chloro-benzene water unfltrd ug/L (34566)	1,4-Di-chloro-benzene water unfltrd ug/L (34571)	Benzene water unfltrd ug/L (34030)	Bromo-di-chloro-methane water unfltrd ug/L (32101)	Chloro-benzene water unfltrd ug/L (34301)
NOV													
09...	0900	<.1	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1	<.1	<.1	<.1
MAR													
29...	0900	<.1	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1	<.1	<.1	<.1
MAY													
24...	0900	<.1	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1	<.1	<.1	<.1
SEP													
07...	0930	<.1	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1	<.1	<.1	<.1

Date	cis-1,2-Di-chloro-ethene, water, unfltrd ug/L (77093)	Di-bromo-chloro-methane water unfltrd ug/L (32105)	Di-chloro-di-fluoro-methane wat unf ug/L (34668)	Di-chloro-methane water unfltrd ug/L (34423)	Di-ethyl ether, water, unfltrd ug/L (81576)	Diiso-propyl ether, water, unfltrd ug/L (81577)	Ethyl-benzene water unfltrd ug/L (34371)	Methyl tert-pentyl ether, water, unfltrd ug/L (50005)	meta- + para-Xylene, water, unfltrd ug/L (85795)	o-Xylene, water, unfltrd ug/L (77135)	Styrene water unfltrd ug/L (77128)	t-Butyl ethyl ether, water, unfltrd ug/L (50004)	Methyl t-butyl ether, water, unfltrd ug/L (78032)
NOV													
09...	<.1	<.2	<.2	<.2	<.2	<.2	<.1	<.2	<.2	<.1	<.1	<.1	<.2
MAR													
29...	<.1	<.2	<.2	<.2	<.2	<.2	<.1	<.2	<.2	<.1	<.1	<.1	<.2
MAY													
24...	<.1	<.2	<.2	<.2	<.2	<.2	<.1	<.2	<.2	<.1	<.1	<.1	<.2
SEP													
07...	<.1	<.2	<.2	<.2	<.2	<.2	<.1	<.2	<.2	<.1	<.1	<.1	.6

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

WATER-COLUMN VOLATILE ORGANIC COMPOUND ANALYSES

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005--Continued

Date	Tetra-chloro-ethene, water, unfltrd ug/L (34475)	Tetra-chloro-methane water unfltrd ug/L (32102)	Toluene water unfltrd ug/L (34010)	trans-1,2-Di-chloro-ethene, water, unfltrd ug/L (34546)	Tri-bromo-methane water unfltrd ug/L (32104)	Tri-chloro-ethene, water, unfltrd ug/L (39180)	Tri-chloro-fluoro-methane water unfltrd ug/L (34488)	Tri-chloro-methane water unfltrd ug/L (32106)	Vinyl chlor-ide, water, unfltrd ug/L (39175)
NOV									
09...	<.1	<.2	<.1	<.1	<.2	<.1	<.2	<.1	<.2
MAR									
29...	<.1	<.2	<.1	<.1	<.2	<.1	<.2	<.1	<.2
MAY									
24...	<.1	<.2	<.1	<.1	<.2	<.1	<.2	<.1	<.2
SEP									
07...	<.1	<.2	<.1	<.1	<.2	<.1	<.2	<.1	<.2

Remark codes used in this table:
< -- Less than.

WATER-COLUMN PESTICIDE ANALYSES

REMARKS.--Pesticides in filtered water were determined using laboratory schedule 2003 in November, January, March, and May; and schedule 2033 in July and September (listed in their entirety, with laboratory reporting levels, in "Laboratory Measurements" in the Explanation of Water-Quality Records section of this report). Only filtered-water pesticides detected in samples from this station are listed in the following table. Pesticides in unfiltered water were determined using laboratory schedule 1608. All schedule-1608 compounds are included in the following table.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Sample type	CIAT, water, fltrd, ug/L (04040)	3,4-Di-chloro-aniline water fltrd, ug/L (61625)	3,5-Di-chloro-aniline water, fltrd, ug/L (61627)	Aceto-chlor, water, fltrd, ug/L (49260)	Ala-chlor, water, fltrd, ug/L (46342)	Aldrin, water, unfltrd ug/L (39330)	alpha-Endo-sulfan, water, unfltrd ug/L (34361)	alpha-HCH, water, unfltrd ug/L (39337)	Aroclor 1016 + 1242, water, unfltrd ug/L (81648)
NOV											
09...	0900	Environmental	E.011	.006	--	<.006	<.005	<.12	<.1	<.09	<.3
JAN											
12...	0910	Environmental	E.011	<.004	--	<.006	<.005	--	--	--	--
MAR											
29...	0900	Environmental	E.017	<.004	--	<.006	<.005	<.20	<.5	<.15	<.5
MAY											
24...	0900	Environmental	E.020	<.004	--	<.006	<.005	<.20	<.5	<.15	<.5
JUL											
12...	*0929*	*Field Blank*	*<.006*	*<.004*	*<.004*	*<.006*	*<.005*	--	--	--	--
15...	0850	Environmental	E.016	<.004	<.004	<.006	<.005	--	--	--	--
SEP											
07...	0930	Environmental	<.013	<.004	<.004	<.006	<.005	<.20	<.5	<.15	<.5

Date	Aroclor 1221, water, unfltrd ug/L (39488)	Aroclor 1232, water, unfltrd ug/L (39492)	Aroclor 1248, water, unfltrd ug/L (39500)	Aroclor 1254, water, unfltrd ug/L (39504)	Aroclor 1260, water, unfltrd ug/L (39508)	Atra-zine, water, fltrd, ug/L (39632)	beta-Endo-sulfan, water, unfltrd ug/L (34356)	beta-HCH, water, unfltrd ug/L (39338)	Car-baryl, water, fltrd 0.7u GF ug/L (82680)	Chlor-dane, tech-nical, water, unfltrd ug/L (39350)	cis-Chlor-dane, water, unfltrd ug/L (39062)	cis-Propi-cona-zole, water, fltrd, ug/L (79846)	DCPA, water fltrd 0.7u GF ug/L (82682)
NOV													
09...	<3	<.3	<.3	<.3	<.3	.061	<.12	<.09	<.041	<.3	<.3	--	<.003
JAN													
12...	--	--	--	--	--	.010	--	--	<.041	--	--	--	<.003
MAR													
29...	<5	<.5	<.5	<.5	<.5	.017	<.20	<.15	<.041	<.5	<.5	--	M
MAY													
24...	<5	<.5	<.5	<.5	<.5	.027	<.20	<.15	<.041	<.5	<.5	--	<.003
JUL													
12...	--	--	--	--	--	*<.007*	--	--	*<.041*	--	--	*<.008*	*<.003*
15...	--	--	--	--	--	.020	--	--	<.041	--	--	<.008	<.003
SEP													
07...	<5	<.5	<.5	<.5	<.5	.015	<.20	<.15	<.041	<.5	<.5	<.008	<.003

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005--Continued

Date	delta-HCH, water, unfltrd ug/L (34259)	Desulfinyl fipronil, water, fltrd, ug/L (62170)	Diazinon, water, fltrd, ug/L (39572)	Dieldrin, water, unfltrd ug/L (39380)	Endosulfan sulfate water unfltrd ug/L (34351)	Endrin aldehyde, water, unfltrd ug/L (34366)	Endrin, water, unfltrd ug/L (39390)	Desulfinyl-fipronil amide, wat flt ug/L (62169)	Fipronil sulfide water, fltrd, ug/L (62167)	Fipronil sulfone water, fltrd, ug/L (62168)	Fipronil, water, fltrd, ug/L (62166)	Heptachlor epoxide water unfltrd ug/L (39420)	Heptachlor, water, unfltrd ug/L (39410)
NOV													
09...	<.27	<.012	<.005	<.04	<1.8	<.6	<.18	<.029	<.013	<.024	<.016	<2.4	<.09
JAN													
12...	--	<.012	<.005	--	--	--	--	<.029	<.013	<.024	<.016	--	--
MAR													
29...	<.45	<.012	<.005	<.10	<3.0	<1.0	<.30	<.029	<.013	<.024	<.016	<4.0	<.15
MAY													
24...	<.45	<.012	<.005	<.10	<3.0	<1.0	<.30	<.029	<.013	<.024	<.016	<4.0	<.15
JUL													
12...	--	*<.012*	*<.005*	--	--	--	--	*<.029*	*<.013*	*<.024*	*<.016*	--	--
15...	--	E.004	<.005	--	--	--	--	<.029	<.013	<.024	E.007	--	--
SEP													
07...	<.45	E.005	<.005	<.10	<3.0	<1.0	<.30	<.029	<.013	<.024	<.016	<4.0	<.15

Date	Hexazinone, water, fltrd, ug/L (04025)	Lindane water, unfltrd ug/L (39340)	Metalaxyl, water, fltrd, ug/L (61596)	Metolachlor, water, fltrd, ug/L (39415)	Metribuzin, water, fltrd, ug/L (82630)	Myclobutanil water, fltrd, ug/L (61599)	p,p'-DDD, water, unfltrd ug/L (39310)	p,p'-DDE, water, unfltrd ug/L (39320)	p,p'-DDT, water, unfltrd ug/L (39300)	Prometon, water, fltrd, ug/L (04037)	Simazine, water, fltrd, ug/L (04035)	Terbuthylazine, water, fltrd, ug/L (04022)	Toxaphene, water, unfltrd ug/L (39400)
NOV													
09...	<.013	<.09	<.005	.011	<.006	<.008	<.3	<.12	<.3	<.01	.007	<.01	<6
JAN													
12...	<.013	--	<.005	.011	<.006	<.008	--	--	--	<.06	<.005	<.01	--
MAR													
29...	<.013	<.15	<.005	.019	<.006	<.008	<.5	<.20	<.5	<.02	.009	<.01	<10
MAY													
24...	<.013	<.15	<.005	.025	<.006	<.008	<.5	<.20	<.5	<.04	.011	<.01	<10
JUL													
12...	*<.013*	--	*<.005*	*<.006*	*<.006*	*<.008*	--	--	--	*<.01*	*<.005*	*<.01*	--
15...	<.013	--	<.005	.011	E.006	<.008	--	--	--	<.03	.010	<.01	--
SEP													
07...	<.013	<.15	<.005	.008	<.006	<.008	<.5	<.20	<.5	<.01	.025	<.01	<10

Date	trans-Chlordane, water, unfltrd ug/L (39065)	trans-Propiconazole, water, fltrd, ug/L (79847)	Trifluralin, water, fltrd 0.7u GF ug/L (82661)
NOV			
09...	<.3	--	<.009
JAN			
12...	--	--	<.009
MAR			
29...	<.5	--	E.002
MAY			
24...	<.5	--	<.009
JUL			
12...	--	*<.01*	*<.009*
15...	--	<.01	<.009
SEP			
07...	<.5	<.01	<.009

Remark codes used in this table:
< -- Less than.
E -- Estimated.
M -- Presence verified but not quantified.

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

WATER-COLUMN BACTERIA ANALYSES
Samples were collected synoptically over a 30-day period during the summer.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Instantaneous discharge, cfs (00061)	Enterococci, m-E MF, water, col/ 100 mL (31649)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coliform, ECbroth water, MPN/ 100 mL (31615)
MAY					
04...	1000	14,900	480	<100	20
11...	0945	9,980	<10	<100	<20
18...	0945	8,040	<10	<100	<20
25...	0940	5,860	20	<100	20
JUN					
01...	0945	5,610	10	<100	20

Remark codes used in this table:
< -- Less than.

Analyses of pesticides in surface-water samples (schedule 2003)

Selected water samples from NAWQA study sites were analyzed for pesticides by use of NWQL schedule 2003. This table lists the pesticides on the schedule, the unit of measure (micrograms per liter, ug/L), the USGS National Water Information System parameter code, and the reporting level. Only pesticides measured at or above the minimum reporting level for one or more samples are listed in the water-quality tables.

SCHEDULE DESCRIPTION.--Moderate-use pesticides and selected degradates in filtered water extracted on C-18 Solid Phase Extraction (SPE) cartridge and analyzed by Gas Chromatography/Mass Spectrometry (GC/MS).

PCODE.--The USGS/EPA parameter code.

COMMON NAME.--Common or trade name(s) for constituent.

LRL.--Laboratory reporting level..

PCode	Common Name	LRL (ug/L)	PCode	Common Name	LRL (ug/L)
49295	1-Naphthol	0.0882	62169	Desulfinylfipronil amide	0.029
61618	2-Chloro-2,6-diethylacetanilide	0.005	62167	Fipronil sulfide	0.013
61620	2-Ethyl-6-methylaniline	0.0045	62168	Fipronil sulfone	0.024
61625	3,4-Dichloroaniline	0.0045	62170	Desulfinylfipronil	0.012
61633	4-Chloro-2-methylphenol	0.0056	62166	Fipronil	0.016
49260	Acetochlor	0.006	04095	Fonofos	0.003
46342	Alachlor	0.005	04025	Hexazinone	0.0129
82660	2,6-Diethylaniline	0.006	61593	Iprodione	0.538
39632	Atrazine	0.007	61594	Isofenphos	0.0034
82686	Azinphos-methyl	0.05	61652	Malaoxon	0.0298
61635	Azinphos-methyl-oxon	0.07	39532	Malathion	0.027
82673	Benfluralin	0.01	61596	Metalaxyl	0.0051
82680	Carbaryl	0.041	61598	Methidathion	0.0058
38933	Chlorpyrifos	0.005	82667	Parathion-methyl	0.015
61636	Chlorpyrofos-oxygen analog	0.0562	39415	Methachlor	0.006
82687	cis-Permethrin	0.006	82630	Metribuzin	0.006
61585	Cyfluthrin	0.0267	61599	Myclobutanil	0.008
61586	Cypermethrin	0.0086	61664	Paraoxon-methyl	0.0299
82682	Dacthal	0.003	82683	Pendimethalin	0.022
04040	2-Chloro-4-isopropylamino-6-amino-s-trizine	0.006	82664	Phorate	0.011
39572	Diazinon	0.005	61666	Phorate oxygen analog	0.1048
61638	Diazinon, oxygen analog	0.006	61601	Phosmet	0.0079
38775	Dichlorvos	0.0118	61668	Phosmet oxon	0.0511
38454	Dicrotophos	0.0843	04037	Prometon	0.01
39381	Dieldrin	0.009	04036	Prometryn	0.0054
82662	Dimethoate	0.0061	82676	Propyzamide	0.004
82346	Ethion	0.004	04035	Simazine	0.005
61644	Ethion monoxon	0.002	82670	Tebuthiuron	0.016
61591	Fenamiphos	0.029	82675	Terbufos	0.017
61645	Fenamiphos sulfone	0.0491	61674	Terbufos oxygen analog sulfone	0.0676
61646	Fenamiphos sulfoxide	0.0387	04022	Terbuthylazine	0.0102
61649	Fonofos oxon	0.003	82661	Trifluralin	0.009

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

Analyses of pesticides in surface-water samples (schedule 2033)

Selected water samples from NAWQA study sites were analyzed for pesticides by use of NWQL schedule 2033. This table lists the pesticides on the schedule, the unit of measure (micrograms per liter, ug/L), the USGS National Water Information System parameter code, and the reporting level. Only pesticides measured at or above the minimum reporting level for one or more samples are listed in the water-quality tables.

SCHEDULE DESCRIPTION.--Moderate-use pesticides and selected degradates in filtered water extracted on C-18 Solid Phase Extraction (SPE) cartridge and analyzed by Gas Chromatography/Mass Spectrometry (GC/MS).

PCODE.--The USGS/EPA parameter code.

COMMON NAME.--Common or trade name(s) for constituent.

LRL.--Laboratory reporting level.

PCode	Common Name	LRL (ug/L)	PCode	Common Name	LRL (ug/L)
49295	1-Naphthol	0.0882	61591	Fenamiphos	0.029
61618	2-Chloro-2,6-diethylacetanilide	0.005	61645	Fenamiphos sulfone	0.0491
61620	2-Ethyl-6-methylaniline	0.0045	61646	Fenamiphos sulfoxide	0.0387
61625	3,4-Dichloroaniline	0.0045	62169	Desulfinylfipronil amide	0.029
61627	3,5-Dichloroaniline	0.0043	62167	Fipronil sulfide	0.013
61633	4-Chloro-2-methylphenol	0.0056	62168	Fipronil sulfone	0.024
49260	Acetochlor	0.006	62170	Desulfinylfipronil	0.012
46342	Alachlor	0.005	62166	Fipronil	0.016
82660	2,6-Diethylaniline	0.006	04095	Fonofos	0.003
39632	Atrazine	0.007	04025	Hexazinone	0.0129
82686	Azinphos-methyl	0.05	61593	Iprodione	0.538
61635	Azinphos-methyl-oxon	0.07	61594	Isofenphos	0.0034
82673	Benfluralin	0.01	61595	lambda-Cyhalothrin	0.0089
82680	Carbaryl	0.041	61652	Malaoxon	0.0298
82674	Carbofuran	0.02	39532	Malathion	0.027
38933	Chlorpyrifos	0.005	61596	Metalaxyl	0.0051
61636	Chlorpyrofos-oxygen analog	0.0562	61598	Methidathion	0.0058
82687	cis-Permethrin	0.006	82667	Parathion-methyl	0.015
79846	cis-Propiconazole	0.008	39415	Methachlor	0.006
04041	Cyanazine	0.018	82630	Metribuzin	0.006
61585	Cyfluthrin	0.0267	82671	Molinate	0.003
61586	Cypermethrin	0.0086	61599	Myclobutanil	0.008
82682	Dacthal	0.003	61600	Oxyfluorfen	0.0073
04040	2-Chloro-4-isopropylamino-6-amino-s-trizine	0.006	61664	Paraoxon-methyl	0.0299
39572	Diazinon	0.005	82683	Pendimethalin	0.022
61638	Diazinon, oxygen analog	0.006	82664	Phorate	0.011
38775	Dichlorvos	0.0118	61666	Phorate oxygen analog	0.1048
38454	Dicrotophos	0.0843	61601	Phosmet	0.0079
39381	Dieldrin	0.009	61668	Phosmet oxon	0.0511
82662	Dimethoate	0.0061	04037	Prometon	0.01
82677	Disulfoton	0.021	04036	Prometryn	0.0054
61640	Disulfoton sulfone	0.0059	82676	Propyzamide	0.004
34362	alpha-Endosulfan	0.0047	82679	Propanil	0.011
61590	Endosulfan sulfate	0.0138	82685	Propargite	0.023
82668	EPTC	0.004	04035	Simazine	0.005

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

Analyses of pesticides in surface-water samples (schedule 2033)--Continued

PCode	Common Name	LRL (ug/L)	PCode	Common Name	LRL (ug/L)
82346	Ethion	0.004	62852	Tebuconazole	0.0136
61644	Ethion monoxon	0.002	82670	Tebuthiuron	0.016
82672	Ethoprophos	0.005	61606	Tefluthrin	0.0077
			82675	Terbufos	0.017
			61674	Terbufos oxygen analog sulfone	0.0676
			04022	Terbuthylazine	0.0102
			82681	Thiobencarb	0.010
			61610	Tribufos	0.0044
			82661	Trifluralin	0.009
			79847	trans-Propiconazole	0.0133

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued
(Pennsylvania Water-Quality Network Station)

PERIOD OF RECORD.--April 2002 to current year.

REMARKS.--Other data for the Water-Quality Network can be found on pages 386-432.

COOPERATION.--Samples were collected as part of the Pennsylvania Department of Environmental Protection Water-Quality Network (WQN) with cooperation from the Pennsylvania Department of Environmental Protection.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conductance, wat unf lab, µS/cm 25 degC (90095)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water unfltrd recover -able, mg/L (00916)	Magnesium, water, unfltrd recover -able, mg/L (00927)
NOV 2004 09...	0910	1028	9813	8190	11.2	8.4	8.0	198	204	8.2	73	19	6.3
JAN 2005 12...	0900	1028	9813	23100	13.6	7.5	7.9	165	168	3.8	51	14	4.2
MAR 29...	0910	1028	9813	45900	12.4	7.2	7.7	192	189	5.9	65	17	5.7
MAY 24...	0910	1028	9813	5950	9.0	7.9	8.0	248	251	17.0	89	23	7.7
JUL 12...	0920	1028	9813	5190	8.2	8.2	8.1	218	222	26.2	73	19	6.4
SEP 07...	0935	1028	9813	2770	9.2	8.3	7.4	229	236	23.4	80	19	7.8

Date	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Fluoride, water, unfltrd mg/L (00951)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 105degC wat flt mg/L (00515)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia water, unfltrd mg/L as N (00610)	Nitrate water mg/L as N (00620)	Nitrite water, unfltrd mg/L as N (00615)	Total nitrogen, water, unfltrd mg/L (00600)	Orthophosphate, water, unfltrd mg/L as P (70507)	Phosphorus, water, unfltrd mg/L (00665)	Organic carbon, water, unfltrd mg/L (00680)	Aluminum, water, unfltrd recover -able, µg/L (01105)
NOV 2004 09...	52	<.2	16	140	6.0	<.020	.85	<.040	1.1	.02	.03	2.6	<200
JAN 2005 12...	37	<.2	13	68	4.0	.020	1.0	<.040	1.1	.02	.03	2.1	<200
MAR 29...	37	<.2	14	120	190	.070	1.1	<.040	2.1	.03	.24	--	3940
MAY 24...	65	<.2	21	160	6.0	.030	1.2	<.040	1.6	.03	.05	--	<200
JUL 12...	56	<.2	17	480	6.0	.030	.85	<.040	1.1	.04	.08	--	<200
SEP 07...	61	<.2	17	140	10	.020	1.1	<.040	1.3	.06	.08	--	<200

Date	Copper, water, unfltrd recover -able, µg/L (01042)	Cyanide amenable to chlorination wat unf mg/L (00722)	Iron, water, unfltrd recover -able, µg/L (01045)	Lead, water, unfltrd recover -able, µg/L (01051)	Manganese, water, unfltrd recover -able, µg/L (01055)	Nickel, water, unfltrd recover -able, µg/L (01067)	Zinc, water, unfltrd recover -able, µg/L (01092)	Phenolic compounds, water, unfltrd µg/L (32730)
NOV 2004 09...	<10	<1.00	80	<1.0	<10	<50	53	<5
JAN 2005 12...	<10	<1.00	210	<1.0	20	<50	32	<5
MAR 29...	<10	<1.00	5580	9.7	250	<50	68	<5
MAY 24...	<10	<1.00	80	<1.0	30	<50	12	<5
JUL 12...	<10	<1.00	190	<1.0	40	<50	12	<5
SEP 07...	<10	<1.00	40	<1.0	20	<50	<10	<5

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES

REMARKS.--Samples were collected using a D-Frame net with a mesh size of 500 µm. Samples represent counts per 100 animal (approximate) subsamples.

Date	10/14/04
Benthic macroinvertebrate	Count
Platyhelminthes	
Turbellaria (FLATWORMS)	
Tricladida	
Planariidae	2
Nematoda (NEMATODES)	5
Mollusca	
Bivalvia (CLAMS)	
Veneroida	
Corbiculidae	
Corbicula fluminea	3
Annelida	
Hirudinea (LEECHES)	
Arhynchobdellida	
Erpobdellidae	
Erpobdella	1
Oligochaeta (AQUATIC EARTHWORMS)	
Lumbriculida	
Lumbriculidae	1
Tubificida	
Naididae	1
Arthropoda	
Crustacea	
Copepoda	1
Isopoda (AQUATIC SOWBUGS)	
Asellidae	
Caecidotea	1
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
Acentrella	3
Baetis	1
Ephemerellidae	
Serratella	10
Heptageniidae	
Stenonema	7
Isonychiidae	
Isonychia	2
Trichoptera (CADDISFLIES)	
Glossosomatidae	
Protoptila	1
Hydropsychidae	
Cheumatopsyche	5
Hydropsyche	4
Lepidostomatidae	
Lepidostoma	1
Philopotamidae	
Chimarra	5

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES--Continued

Date	10/14/04
Benthic macroinvertebrate	Count
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
Optioservus	2
Stenelmis	36
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	17
Simuliidae (BLACK FLIES)	
Simulium	3
Total Organisms	112
Total Taxa	22

DELAWARE RIVER BASIN

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° CELSIUS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	197	194	195	108	87	98	153	149	150
2	141	132	137	196	192	194	117	108	114	155	153	154
3	153	140	146	199	193	196	115	104	108	156	153	154
4	153	150	152	200	197	198	112	106	109	162	153	157
5	159	151	154	200	194	197	119	112	116	169	151	164
6	165	156	161	205	199	202	123	119	121	154	138	143
7	169	165	167	202	186	194	131	123	126	170	154	166
8	178	169	175	195	184	188	145	131	139	168	157	160
9	---	---	---	201	194	197	145	136	140	167	154	161
10	---	---	---	209	201	205	141	132	135	164	159	161
11	---	---	---	209	202	205	141	131	138	164	161	162
12	---	---	---	209	204	207	131	110	118	176	162	165
13	202	192	197	212	204	206	110	107	109	182	174	178
14	205	199	202	214	207	210	115	110	113	175	146	164
15	210	203	207	207	204	205	121	115	118	154	102	123
16	215	208	209	213	207	209	131	121	125	108	100	103
17	223	197	207	218	213	214	138	131	134	112	102	108
18	---	---	---	219	214	217	142	138	139	119	112	116
19	187	181	183	214	204	208	149	142	145	127	119	122
20	192	186	190	207	204	205	156	149	152	137	127	132
21	191	148	173	206	200	203	159	153	155	145	137	141
22	154	146	149	209	206	207	169	153	162	148	145	146
23	164	154	160	210	206	208	179	169	175	---	---	---
24	167	162	164	208	204	205	205	158	182	---	---	---
25	170	165	168	205	199	201	158	115	129	174	169	173
26	173	170	172	201	192	199	117	112	114	175	172	174
27	176	172	174	193	163	181	121	116	118	177	168	171
28	179	175	178	163	118	145	127	121	124	173	169	171
29	187	178	181	144	99	119	139	127	134	179	172	176
30	190	184	187	99	80	92	144	139	142	181	178	179
31	195	189	192	---	---	---	149	144	147	184	179	182
MONTH	223	132	175	219	80	194	205	87	132	184	100	154
	FEBRUARY			MARCH			APRIL			MAY		
1	182	178	179	204	199	202	107	102	104	---	---	---
2	187	179	182	209	198	203	109	100	107	---	---	---
3	192	186	190	227	206	219	113	87	101	---	---	---
4	192	188	190	218	209	212	96	73	80	---	---	---
5	191	187	188	209	204	207	111	80	95	---	---	---
6	191	186	188	212	208	210	---	---	---	---	---	---
7	199	189	194	213	206	209	---	---	---	---	---	---
8	202	197	200	213	210	211	---	---	---	---	---	---
9	202	197	199	225	212	219	---	---	---	---	---	---
10	204	199	202	225	208	217	---	---	---	---	---	---
11	206	201	204	213	208	210	---	---	---	---	---	---
12	202	178	190	214	208	210	---	---	---	---	---	---
13	182	177	179	217	211	213	---	---	---	---	---	---
14	189	179	186	222	215	219	---	---	---	---	---	---
15	208	176	187	217	213	215	---	---	---	---	---	---
16	211	189	202	217	212	215	---	---	---	---	---	---
17	192	171	181	216	214	215	---	---	---	219	211	215
18	172	159	164	218	214	215	---	---	---	217	212	215
19	163	159	160	217	213	215	---	---	---	225	217	221
20	166	161	164	216	212	214	---	---	---	229	224	226
21	172	165	168	217	213	215	---	---	---	234	226	229
22	176	166	172	219	214	217	---	---	---	247	234	242
23	185	176	182	216	210	214	---	---	---	249	246	247
24	185	180	183	217	205	208	---	---	---	250	247	248
25	185	181	183	226	217	222	---	---	---	249	247	248
26	200	185	193	219	207	213	---	---	---	253	247	250
27	224	200	212	211	204	208	---	---	---	253	250	251
28	208	204	206	207	195	204	---	---	---	255	249	252
29	---	---	---	199	138	179	---	---	---	253	248	251
30	---	---	---	138	96	110	---	---	---	254	250	252
31	---	---	---	106	97	101	---	---	---	258	238	248
MONTH	224	159	187	227	96	205	---	---	---	---	---	---

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° CELSIUS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	245	234	240	278	235	255	268	255	260	236	227	233
2	246	235	239	235	215	220	264	252	258	241	233	236
3	251	242	247	245	224	236	263	254	258	243	231	237
4	255	248	251	247	239	242	265	255	260	242	233	237
5	259	251	255	245	239	241	263	253	259	245	235	239
6	266	254	258	252	240	245	265	255	258	239	232	236
7	260	251	256	252	240	245	263	255	259	248	232	238
8	270	245	259	248	233	243	266	248	260	252	242	246
9	254	244	248	245	209	223	263	253	257	250	240	245
10	262	241	251	255	214	230	268	253	261	251	241	247
11	246	237	242	228	219	223	272	256	264	254	246	250
12	250	239	244	231	219	224	261	250	257	251	242	246
13	248	238	243	237	228	232	253	238	244	249	243	246
14	246	230	239	243	234	240	247	241	244	249	233	240
15	244	234	240	252	239	244	247	229	238	247	198	232
16	245	233	239	252	236	243	239	225	230	244	218	237
17	237	230	233	247	237	241	241	233	236	248	240	243
18	248	232	241	239	227	233	240	227	233	248	236	242
19	250	243	245	246	226	237	247	235	242	245	235	238
20	247	240	244	250	241	245	257	244	251	---	---	---
21	252	244	248	258	246	252	259	252	255	---	---	---
22	257	252	254	256	239	246	263	252	259	---	---	---
23	258	253	255	250	241	244	265	257	261	249	247	248
24	255	249	251	256	243	251	263	253	258	248	245	246
25	254	247	250	263	252	257	261	254	257	248	245	246
26	262	253	257	262	252	257	265	251	257	248	243	245
27	269	252	259	265	254	260	257	249	254	243	239	242
28	270	256	264	260	242	250	261	252	256	239	231	235
29	271	258	265	252	241	247	261	249	254	238	232	236
30	265	236	254	262	246	255	254	217	233	237	235	236
31	---	---	---	264	253	259	230	216	222	---	---	---
MONTH	271	230	249	278	209	243	272	216	251	254	198	241
YEAR	278	73	203									

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	8.5	7.7	8.0	7.3	6.8	7.3	7.5	7.4	7.5
2	7.5	7.4	7.5	8.6	7.9	8.2	7.4	7.3	7.4	7.6	7.5	7.5
3	7.6	7.5	7.5	8.7	8.0	8.2	7.3	7.3	7.3	7.6	7.5	7.5
4	7.6	7.5	7.6	8.2	7.7	8.0	7.3	7.2	7.3	7.6	7.5	7.5
5	7.6	7.6	7.6	8.4	7.7	8.0	7.4	7.3	7.4	7.6	7.5	7.6
6	7.7	7.6	7.6	8.5	7.9	8.1	7.4	7.4	7.4	7.5	7.4	7.4
7	7.7	7.6	7.6	8.5	7.7	8.1	7.4	7.4	7.4	7.5	7.4	7.4
8	7.7	7.6	7.7	8.5	7.8	8.2	7.5	7.4	7.5	7.4	7.4	7.4
9	---	---	---	8.7	8.0	8.3	7.5	7.5	7.5	7.4	7.4	7.4
10	---	---	---	8.7	8.2	8.3	7.5	7.4	7.5	7.4	7.4	7.4
11	---	---	---	8.8	8.1	8.3	7.5	7.5	7.5	7.4	7.4	7.4
12	---	---	---	---	---	---	7.5	7.4	7.4	7.5	7.4	7.5
13	8.0	7.8	7.9	8.4	7.8	8.0	7.4	7.3	7.4	7.5	7.5	7.5
14	7.9	7.8	7.8	8.5	7.9	8.2	7.4	7.3	7.4	7.6	7.5	7.5
15	7.9	7.8	7.9	8.7	8.1	8.3	7.4	7.4	7.4	7.6	7.0	7.2
16	8.1	7.8	7.9	8.7	8.2	8.4	7.4	7.4	7.4	7.1	7.0	7.0
17	8.0	7.8	7.9	8.8	8.2	8.5	7.4	7.4	7.4	7.1	7.0	7.1
18	---	---	---	8.7	8.2	8.4	7.4	7.4	7.4	7.1	7.1	7.1
19	8.2	7.8	7.9	8.9	8.1	8.4	7.4	7.4	7.4	7.1	7.1	7.1
20	7.9	7.8	7.8	8.5	8.0	8.3	7.4	7.4	7.4	7.2	7.1	7.1
21	7.9	7.7	7.8	8.6	7.8	8.0	7.4	7.4	7.4	7.5	7.1	7.2
22	8.0	7.5	7.8	8.8	7.9	8.3	7.4	7.4	7.4	7.5	7.1	7.2
23	8.3	7.7	7.9	8.6	8.1	8.3	7.6	7.4	7.5	---	---	---
24	8.1	7.7	7.9	8.1	7.8	8.0	7.6	7.5	7.6	---	---	---
25	8.2	7.8	7.9	8.2	7.7	7.8	7.5	7.2	7.3	7.4	7.3	7.4
26	8.0	7.7	7.8	8.2	7.6	7.8	7.2	7.1	7.2	7.4	7.4	7.4
27	8.3	7.7	8.0	8.3	7.7	7.9	7.2	7.2	7.2	7.4	7.3	7.4
28	8.4	7.8	8.0	7.9	7.4	7.5	7.2	7.2	7.2	7.4	7.3	7.3
29	8.0	7.8	7.9	7.6	7.2	7.4	7.3	7.2	7.3	7.4	7.3	7.3
30	8.0	7.7	7.8	7.2	6.8	7.0	7.4	7.3	7.3	7.4	7.4	7.4
31	8.4	7.7	8.0	---	---	---	7.5	7.4	7.4	7.6	7.4	7.5
MAX	8.4	7.8	8.0	8.9	8.2	8.5	7.6	7.5	7.6	7.6	7.5	7.6
MIN	7.5	7.4	7.5	7.2	6.8	7.0	7.2	6.8	7.2	7.1	7.0	7.0
		FEBRUARY			MARCH			APRIL			MAY	
1	7.5	7.5	7.5	8.0	7.7	7.8	7.2	7.1	7.2	---	---	---
2	7.6	7.5	7.5	8.1	7.7	7.9	7.3	7.2	7.2	---	---	---
3	7.6	7.5	7.6	8.2	7.8	8.0	7.5	7.2	7.3	---	---	---
4	7.6	7.6	7.6	8.2	7.8	7.9	7.5	7.0	7.1	---	---	---
5	7.7	7.6	7.6	8.4	7.8	8.0	7.3	7.1	7.1	---	---	---
6	7.7	7.6	7.6	8.5	7.8	8.1	---	---	---	---	---	---
7	7.7	7.6	7.6	8.6	8.0	8.3	---	---	---	---	---	---
8	7.7	7.6	7.7	8.3	7.9	8.0	---	---	---	---	---	---
9	7.7	7.6	7.7	8.4	7.8	8.1	---	---	---	---	---	---
10	7.7	7.6	7.7	8.5	7.8	8.2	---	---	---	---	---	---
11	7.8	7.7	7.7	8.6	7.8	8.2	---	---	---	---	---	---
12	7.7	7.6	7.6	8.7	7.8	8.4	---	---	---	---	---	---
13	7.6	7.5	7.6	8.8	8.0	8.5	---	---	---	---	---	---
14	7.6	7.5	7.6	8.9	8.1	8.6	---	---	---	---	---	---
15	7.7	7.5	7.6	9.0	8.2	8.6	---	---	---	---	---	---
16	7.7	7.6	7.6	9.1	8.4	8.8	---	---	---	---	---	---
17	7.6	7.6	7.6	9.1	8.4	8.8	---	---	---	9.0	8.6	8.9
18	7.6	7.5	7.5	9.2	8.6	8.9	---	---	---	8.7	8.5	8.7
19	7.5	7.4	7.5	9.2	8.5	8.9	---	---	---	8.6	8.1	8.5
20	7.6	7.4	7.5	9.0	8.0	8.4	---	---	---	8.2	7.6	8.0
21	7.6	7.5	7.5	9.0	7.6	8.3	---	---	---	7.9	7.3	7.6
22	7.6	7.5	7.6	9.4	8.6	9.1	---	---	---	8.0	7.3	7.8
23	7.7	7.6	7.6	9.1	7.8	8.3	---	---	---	8.3	7.6	8.1
24	7.7	7.6	7.7	8.0	7.5	7.8	---	---	---	8.3	7.8	8.0
25	7.8	7.6	7.7	7.9	7.5	7.8	---	---	---	8.2	7.8	8.0
26	7.8	7.6	7.7	8.6	7.7	7.9	---	---	---	8.3	7.7	8.0
27	7.9	7.7	7.8	8.4	7.6	8.1	---	---	---	8.6	7.9	8.0
28	7.9	7.7	7.8	8.1	7.4	7.7	---	---	---	8.6	7.7	8.2
29	---	---	---	7.6	7.3	7.4	---	---	---	8.4	7.7	8.2
30	---	---	---	7.3	7.1	7.1	---	---	---	8.6	7.6	8.3
31	---	---	---	7.3	7.1	7.2	---	---	---	9.0	7.7	8.4
MAX	7.9	7.7	7.8	9.4	8.6	9.1	---	---	---	---	---	---
MIN	7.5	7.4	7.5	7.3	7.1	7.1	---	---	---	---	---	---

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	9.2	8.1	8.8	8.2	7.6	7.8	8.5	7.7	8.2	8.6	7.5	8.2
2	9.3	8.7	9.1	8.5	7.4	8.0	8.6	7.8	8.3	8.7	7.6	8.2
3	9.2	8.3	8.9	8.8	7.6	8.2	8.6	7.8	8.3	8.7	7.5	8.3
4	9.2	8.0	8.7	8.9	7.8	8.5	8.6	7.7	8.2	8.7	7.6	8.4
5	9.3	8.2	8.8	8.8	7.8	8.4	8.6	7.3	8.1	8.7	7.6	8.3
6	9.5	8.1	8.8	8.6	7.6	8.2	8.5	7.4	8.2	8.7	7.6	8.2
7	9.5	7.7	8.9	8.3	7.6	7.9	8.2	7.3	7.8	8.8	7.6	8.5
8	9.4	8.2	8.9	7.8	7.4	7.5	7.8	7.3	7.5	8.8	7.6	8.4
9	9.6	8.1	8.9	7.5	7.1	7.4	7.6	7.2	7.4	8.8	7.6	8.4
10	9.3	8.3	8.8	8.3	7.4	7.6	8.1	7.4	7.7	8.8	7.7	8.5
11	9.3	7.8	8.6	8.6	7.6	8.1	8.4	7.6	7.8	8.8	7.6	8.5
12	9.6	8.1	8.7	8.7	7.7	8.3	8.4	7.6	8.0	8.9	7.6	8.4
13	9.2	8.0	8.6	8.6	7.9	8.3	8.3	7.6	8.0	8.9	7.6	8.5
14	9.5	8.5	9.0	8.6	7.7	8.2	8.5	7.7	8.0	8.6	7.6	8.1
15	9.8	8.6	9.4	8.6	7.8	8.2	8.4	7.6	8.1	8.5	7.1	7.5
16	9.7	8.5	9.3	8.3	7.6	7.8	8.1	7.6	7.8	8.5	7.1	7.7
17	9.3	8.5	8.9	8.1	7.4	7.6	8.4	7.5	7.9	8.3	7.4	7.7
18	9.0	8.0	8.7	7.9	7.5	7.6	8.5	7.6	8.1	8.3	7.4	7.8
19	8.9	8.0	8.6	8.3	7.4	7.6	8.3	7.6	8.0	8.3	7.4	7.8
20	9.0	7.8	8.3	8.7	7.6	8.1	8.3	7.5	7.9	---	---	---
21	8.9	8.2	8.7	8.8	7.9	8.4	8.4	7.6	8.0	---	---	---
22	9.0	8.4	8.7	8.9	7.7	8.4	8.5	7.7	8.2	---	---	---
23	9.1	8.2	8.7	8.9	8.0	8.6	8.5	7.7	8.2	8.2	7.7	8.1
24	9.2	8.5	8.9	8.8	7.9	8.4	8.6	7.8	8.4	8.3	7.8	8.1
25	9.4	8.2	9.1	8.6	7.5	8.1	8.7	7.9	8.3	8.3	7.8	8.2
26	9.5	8.6	9.2	8.6	7.6	8.1	8.8	8.0	8.5	8.2	7.8	8.0
27	9.3	8.6	8.8	8.5	7.7	8.2	8.6	8.0	8.4	8.3	7.6	8.0
28	8.9	8.1	8.6	8.2	7.5	8.0	8.4	7.7	8.2	8.4	7.8	8.2
29	8.8	8.3	8.6	8.3	7.3	7.9	8.4	7.5	8.0	8.3	7.8	8.1
30	8.5	7.9	8.1	8.1	7.4	7.8	8.4	7.4	7.8	8.5	7.8	8.2
31	---	---	---	8.5	7.5	8.0	8.5	7.4	8.0	---	---	---
MAX	9.8	8.7	9.4	8.9	8.0	8.6	8.8	8.0	8.5	8.9	7.8	8.5
MIN	8.5	7.7	8.1	7.5	7.1	7.4	7.6	7.2	7.4	8.2	7.1	7.5

YEAR			
	MAX	MAXIMUM 9.8	MINIMUM 7.1
	MIN	MAXIMUM 8.7	MINIMUM 6.8
	MEDIAN	MAXIMUM 9.4	MINIMUM 7.0

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	12.8	12.3	12.5	7.8	7.4	7.6	4.3	3.2	3.8
2	16.7	16.2	16.3	13.0	12.3	12.6	7.6	6.8	7.3	4.4	3.9	4.1
3	16.4	15.7	16.1	13.1	12.1	12.8	6.8	6.1	6.5	4.9	4.4	4.6
4	16.3	15.3	15.8	12.1	11.0	11.5	6.1	5.5	5.8	5.5	4.9	5.1
5	15.9	15.0	15.5	11.1	10.1	10.7	5.7	5.4	5.5	5.7	5.5	5.6
6	15.4	14.2	14.9	10.3	9.7	10	5.4	5.2	5.3	5.5	4.5	5.0
7	15.1	13.9	14.6	10.2	9.5	9.8	5.2	5.2	5.2	4.5	3.7	4.1
8	15.3	14.1	14.8	9.7	8.6	9.3	5.8	5.2	5.5	3.7	3.4	3.5
9	---	---	---	8.7	7.6	8.3	5.9	5.5	5.7	3.6	3.4	3.5
10	---	---	---	8.0	7.3	7.6	6.4	5.9	6.2	3.9	3.4	3.6
11	---	---	---	8.1	7.3	7.7	6.8	6.4	6.6	3.9	3.6	3.7
12	---	---	---	7.8	7.1	7.5	6.5	6.3	6.4	3.9	3.8	3.8
13	14.0	13.3	13.8	7.4	6.5	7.0	6.4	5.9	6.2	4.2	3.7	3.9
14	13.9	13.7	13.8	6.7	5.9	6.4	5.9	5.2	5.7	5.9	4.2	5.2
15	14.1	13.8	14.0	6.8	6.0	6.3	5.2	4.0	4.6	5.7	2.6	4.3
16	13.9	13.3	13.6	6.6	6.0	6.2	4.0	3.4	3.6	2.7	2.2	2.4
17	13.3	12.1	12.7	7.1	6.0	6.5	3.4	2.9	3.1	2.2	1.7	2.1
18	---	---	---	7.5	6.6	7.2	3.0	2.4	2.7	1.7	0.7	1.3
19	12.2	11.6	11.8	8.5	7.5	8.1	3.1	2.6	2.8	0.7	0.0	0.3
20	11.7	11.4	11.6	8.7	8.4	8.6	2.7	1.0	1.6	0.2	0.0	0.1
21	11.7	11.4	11.5	9.2	8.7	8.9	1.0	0.6	0.8	0.1	0.0	0.0
22	11.6	11.0	11.3	9.3	8.9	9.1	1.0	0.3	0.7	0.0	0.0	0.0
23	11.8	10.8	11.4	9.5	9.2	9.4	3.2	0.9	1.8	---	---	---
24	11.7	11.0	11.3	10.4	9.5	9.9	3.5	2.7	3.1	---	---	---
25	11.3	10.8	11.1	11.3	10.1	10.8	2.7	1.7	2.3	0.4	0.0	0.1
26	11.3	11.0	11.2	10.1	8.5	9.2	1.7	1.1	1.2	1.0	0.3	0.7
27	11.4	10.8	11.1	8.5	8.0	8.2	1.1	0.7	0.9	0.9	0.0	0.4
28	11.9	11.0	11.4	9.6	8.1	8.8	0.7	0.3	0.6	0.2	0.0	0.1
29	11.3	11.0	11.2	9.2	8.0	8.8	1.0	0.5	0.8	0.2	0.0	0.1
30	12.0	11.2	11.6	8.0	7.4	7.6	1.9	1.0	1.4	0.9	0.0	0.4
31	13.0	11.9	12.4	---	---	---	3.2	1.9	2.5	1.5	0.5	1.0
MONTH	16.7	10.8	13.0	13.1	5.9	8.9	7.8	0.3	3.9	5.9	0.0	2.5
		FEBRUARY			MARCH			APRIL			MAY	
1	1.3	0.3	0.9	2.7	1.8	2.2	6.1	5.0	5.5	---	---	---
2	1.2	0.3	0.8	3.2	2.0	2.6	8.1	6.1	6.7	---	---	---
3	1.4	0.7	1.1	2.9	1.9	2.5	8.1	6.3	7.4	---	---	---
4	2.4	1.4	2.0	3.1	1.9	2.5	6.3	5.6	5.8	---	---	---
5	3.3	2.2	2.7	3.7	2.3	3.0	6.2	5.6	5.9	---	---	---
6	3.3	2.5	3.0	3.8	2.9	3.3	---	---	---	---	---	---
7	3.6	2.8	3.2	5.4	3.6	4.4	---	---	---	---	---	---
8	3.7	3.2	3.4	5.8	3.3	4.8	---	---	---	---	---	---
9	3.7	3.4	3.6	3.3	2.4	2.8	---	---	---	---	---	---
10	4.0	3.5	3.8	2.9	1.8	2.4	---	---	---	---	---	---
11	3.5	2.7	3.0	3.1	1.9	2.5	---	---	---	---	---	---
12	2.9	2.0	2.4	3.9	2.3	3.1	---	---	---	---	---	---
13	2.5	1.6	2.1	4.8	3.3	4.0	---	---	---	---	---	---
14	2.9	2.2	2.4	5.2	3.8	4.5	---	---	---	---	---	---
15	4.3	2.9	3.5	5.4	3.9	4.7	---	---	---	---	---	---
16	4.3	3.6	3.9	5.7	4.5	5.1	---	---	---	---	---	---
17	3.8	3.2	3.4	5.6	4.8	5.2	---	---	---	20.3	19.2	19.7
18	3.2	2.1	2.6	6.5	5.0	5.7	---	---	---	20.5	18.7	19.5
19	2.1	1.1	1.6	7.0	5.7	6.3	---	---	---	20.6	18.6	19.5
20	1.8	0.9	1.4	6.7	6.3	6.5	---	---	---	19.1	16.7	17.8
21	1.8	1.1	1.4	7.0	6.2	6.5	---	---	---	18.9	15.8	17.3
22	2.6	1.6	2.1	8.0	6.2	7.1	---	---	---	18.2	17.2	17.7
23	3.3	2.2	2.8	7.6	6.1	6.9	---	---	---	18.3	16.7	17.4
24	3.3	2.6	2.9	6.1	5.3	5.7	---	---	---	17.5	16.3	17.0
25	3.3	2.2	2.7	5.7	5.1	5.3	---	---	---	16.3	15.1	15.6
26	2.9	2.1	2.6	5.7	4.8	5.3	---	---	---	15.1	14.6	14.9
27	3.2	2.0	2.7	5.9	5.4	5.7	---	---	---	18.1	14.7	16.4
28	3.1	2.1	2.6	6.0	5.7	5.8	---	---	---	19.8	16.9	18.2
29	---	---	---	6.1	5.5	5.9	---	---	---	20.0	17.1	18.5
30	---	---	---	5.5	4.1	4.5	---	---	---	20.3	18.1	19.2
31	---	---	---	5.0	4.1	4.5	---	---	---	21.4	18.4	19.8
MONTH	4.3	0.3	2.5	8.0	1.8	4.6	---	---	---	---	---	---

DELAWARE RIVER BASIN

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	21.5	19.2	20.3	28.0	26.7	27.2	29.3	26.7	27.9	26.8	24.7	25.8
2	21.2	19.5	20.3	28.2	26.0	27.0	30.3	27.4	28.8	27.1	24.3	25.7
3	20.2	19.3	19.6	27.8	26.0	26.8	31.2	27.8	29.5	26.1	24.3	25.3
4	21.4	18.9	20.0	28.2	25.1	26.6	31.6	28.7	30.1	25.8	23.5	24.8
5	24.6	20.6	22.5	27.9	25.7	26.8	31.1	28.9	30.1	25.9	23.4	24.6
6	26.1	22.9	24.4	28.3	25.6	26.8	30.6	28.6	29.7	25.6	23.3	24.5
7	25.9	23.2	24.6	27.5	25.6	26.4	29.8	27.9	28.6	25.6	23.1	24.4
8	27.1	24.5	25.8	25.6	22.8	23.7	28.2	26.2	26.9	25.8	23.3	24.6
9	27.8	25.2	26.4	24.6	21.7	23.1	26.8	25.7	26.2	25.0	23.4	24.2
10	27.3	25.7	26.4	25.9	23.6	24.6	28.5	25.4	26.8	24.9	22.7	23.9
11	27.7	25.5	26.6	27.1	24.5	25.8	29.8	26.6	28.1	24.9	22.4	23.7
12	28.1	25.9	27.0	28.5	25.5	26.9	30.3	27.6	29.0	25.2	22.8	24.0
13	28.3	26.4	27.4	27.4	25.8	26.5	30.6	28.6	29.5	25.7	23.1	24.4
14	29.4	26.9	28.1	27.6	25.7	26.6	31.5	29.0	30.2	25.1	23.7	24.2
15	29.5	27.5	28.4	28.8	26.4	27.4	30.2	28.5	29.2	25.7	24.0	24.7
16	28.1	26.5	27.4	28.3	27.0	27.6	28.5	26.7	27.4	26.8	24.6	25.6
17	26.5	24.9	25.7	28.1	26.8	27.3	28.3	25.6	26.9	26.4	25.1	25.7
18	25.1	23.5	24.3	28.5	26.8	27.6	28.4	25.8	27.1	26.1	24.2	25.3
19	23.7	22.3	22.9	29.9	27.2	28.4	27.4	26.0	26.4	26.0	23.6	24.9
20	23.7	21.4	22.5	30.8	27.7	29.2	26.9	25.3	26.0	---	---	---
21	25.3	21.5	23.4	30.9	27.9	29.5	28.8	25.9	27.2	---	---	---
22	25.7	23.0	24.3	31.5	28.5	30.0	28.4	26.3	27.4	---	---	---
23	26.1	22.8	24.4	30.7	28.7	29.7	27.4	25.4	26.5	25.0	23.1	24.0
24	26.8	23.3	25.0	29.9	27.0	28.5	26.9	24.9	26.0	24.4	22.6	23.3
25	28.0	24.3	26.0	29.3	26.8	28.1	26.7	23.8	25.3	22.8	21.5	22.2
26	29.1	25.7	27.3	30.9	27.5	29.1	26.0	24.2	25.2	22.3	21.4	21.9
27	28.1	25.9	26.8	31.8	28.7	30.2	25.8	24.3	25.0	22.5	21.0	21.8
28	28.5	25.2	26.7	30.3	27.9	29.1	25.5	24.0	24.7	21.8	19.8	20.8
29	28.2	27.0	27.6	29.6	27.0	28.3	26.1	24.1	25.1	20.8	19.2	20.1
30	28.1	26.6	27.3	29.3	27.3	28.4	26.6	25.1	25.8	19.7	17.6	18.8
31	---	---	---	28.6	27.0	27.8	26.9	25.4	26.1	---	---	---
MONTH	29.5	18.9	25.0	31.8	21.7	27.5	31.6	23.8	27.4	27.1	17.6	23.8
YEAR	31.8	0.0	14.0									

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	12.3	9.9	11.1	---	---	---	14.2	13.7	14.0
2	9.4	9.3	9.3	12.5	10.3	11.4	12.8	12.4	12.6	13.8	13.6	13.7
3	9.6	9.2	9.4	12.7	10.3	11.3	13.0	12.4	12.8	13.6	13.3	13.5
4	9.6	9.1	9.5	11.4	10.5	11.0	13.4	13.0	13.2	13.3	12.9	13.2
5	9.8	9.4	9.6	12.3	10.3	11.2	13.6	13.3	13.4	13.0	12.8	12.9
6	10.0	9.4	9.9	13.0	11.2	11.9	13.6	13.5	13.6	13.1	12.2	12.8
7	10.2	9.8	10.0	13.3	11.2	12.1	13.6	13.5	13.6	13.5	13.0	13.3
8	10.2	9.7	10	13.4	11.2	12.3	13.5	13.3	13.4	13.7	13.4	13.6
9	---	---	---	14.2	11.7	12.9	13.4	13.3	13.4	13.6	13.3	13.5
10	---	---	---	14.8	12.4	13.3	13.3	12.8	13.0	13.6	13.2	13.4
11	---	---	---	15.2	12.6	13.7	12.9	12.6	12.8	13.3	13.1	13.2
12	---	---	---	13.4	12.3	12.8	12.9	12.7	12.8	14.0	12.6	13.5
13	11.0	10.4	10.7	14.2	12.2	13.0	13.0	12.8	12.9	13.9	13.7	13.8
14	10.9	10.4	10.6	14.8	12.8	13.7	13.4	12.9	13.1	13.7	13.1	13.4
15	11.1	10.5	10.7	15.4	13.1	14.1	14.0	13.4	13.7	14.4	13.1	13.6
16	11.4	10.5	10.9	15.6	13.2	14.2	14.4	14.0	14.2	14.4	13.9	14.2
17	11.4	10.6	11.0	15.8	12.9	14.2	14.5	14.3	14.4	14.9	14.2	14.5
18	---	---	---	15.0	12.9	13.8	14.6	14.4	14.5	15.2	14.7	15.0
19	11.9	11.4	11.6	15.4	12.4	13.7	14.4	14.2	14.3	15.5	15.2	15.4
20	12.1	11.4	11.7	13.4	12.1	12.7	14.8	14.2	14.6	15.6	15.5	15.5
21	---	---	---	13.7	11.5	12.5	15.2	14.8	15.1	15.9	15.6	15.7
22	---	---	---	14.5	11.7	13.0	15.4	15.1	15.3	15.8	15.4	15.6
23	---	---	---	13.5	11.7	12.5	15.2	14.2	14.9	---	---	---
24	---	---	---	12.1	10.7	11.6	14.4	14.1	14.2	---	---	---
25	---	---	---	12.2	10.5	11.3	14.7	14.3	14.5	15.2	14.9	15.1
26	11.5	10.7	11.0	13.0	10.5	11.7	15.0	14.7	14.9	14.9	14.6	14.7
27	12.0	10.7	11.3	13.7	11.1	12.4	15.1	14.9	15.0	14.8	14.6	14.7
28	12.4	10.7	11.4	12.5	10.8	11.8	15.7	15.0	15.3	14.9	14.7	14.8
29	11.4	10.7	11.1	12.4	11.1	11.9	15.3	15.1	15.2	14.8	14.5	14.7
30	11.4	10.5	10.9	---	---	---	15.1	14.8	15.0	14.5	14.1	14.3
31	12.3	10.4	11.1	---	---	---	14.8	14.2	14.5	14.1	13.9	14.0
MONTH	---	---	---	15.8	9.9	12.5	15.7	12.4	14.0	15.9	12.2	14.1
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	14.6	13.7	14.1	14.0	13.0	13.5	---	---	---
2	---	---	---	14.8	13.8	14.3	13.0	12.1	12.7	---	---	---
3	14.2	13.8	14.0	15.2	13.8	14.4	12.6	12.0	12.2	---	---	---
4	14.1	13.6	13.8	15.4	14.1	14.6	13.9	12.6	13.2	---	---	---
5	13.7	13.5	13.6	15.9	14.2	14.9	---	---	---	---	---	---
6	13.9	13.5	13.7	15.9	14.1	14.9	---	---	---	---	---	---
7	13.9	13.4	13.6	15.8	14.1	14.9	---	---	---	---	---	---
8	13.7	13.4	13.5	14.5	12.6	13.4	---	---	---	---	---	---
9	13.7	13.2	13.5	15.4	13.4	14.4	---	---	---	---	---	---
10	13.5	13.1	13.3	16.3	14.3	15.3	---	---	---	---	---	---
11	13.8	13.3	13.6	16.5	14.5	15.4	---	---	---	---	---	---
12	14.4	13.4	14.0	16.4	14.3	15.4	---	---	---	---	---	---
13	14.6	14.0	14.3	16.4	14.1	15.2	---	---	---	---	---	---
14	14.5	14.0	14.3	16.8	13.6	15.1	---	---	---	---	---	---
15	14.2	13.4	13.9	17.0	13.8	15.2	---	---	---	---	---	---
16	14.0	13.4	13.8	17.2	13.7	15.4	---	---	---	---	---	---
17	14.4	13.8	14.0	17.1	13.0	14.9	---	---	---	11.1	8.8	9.9
18	14.7	13.8	14.4	17.6	13.7	15.5	---	---	---	10.8	8.6	9.7
19	15.3	14.6	15.0	17.4	13.0	15.1	---	---	---	10.6	9.0	9.6
20	15.5	15.0	15.1	14.8	12.9	13.6	---	---	---	9.5	7.6	8.8
21	15.1	14.8	14.9	15.8	11.5	13.8	---	---	---	9.8	6.7	8.4
22	15.0	14.6	14.8	17.7	13.4	15.3	---	---	---	10.3	7.7	8.8
23	14.6	14.2	14.4	14.9	12.0	13.2	---	---	---	10.1	8.1	9.2
24	14.6	13.8	14.1	13.5	11.7	12.6	---	---	---	10.1	7.6	9.2
25	14.6	13.8	14.1	13.7	12.4	13.0	---	---	---	10.5	8.9	9.7
26	14.5	13.8	14.1	14.8	12.1	13.5	---	---	---	10.8	8.9	9.9
27	14.6	13.9	14.2	13.9	11.5	12.8	---	---	---	11.3	9.5	10.5
28	14.3	13.6	14.0	---	---	---	---	---	---	11.1	9.0	10.2
29	---	---	---	---	---	---	---	---	---	11.7	9.0	10.4
30	---	---	---	---	---	---	---	---	---	12.0	8.7	10.5
31	---	---	---	13.6	13.2	13.4	---	---	---	13.1	8.7	11.1
MONTH	15.5	13.1	14.1	17.7	11.5	14.4	---	---	---	---	---	---

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	13.9	9.6	11.6	8.7	6.1	7.3	9.2	7.3	8.3	10.4	6.7	8.6
2	13.4	9.2	11.3	9.9	6.3	8.0	9.6	6.9	8.1	10.6	7.0	8.8
3	11.8	8.7	10.4	10.8	6.7	8.5	9.6	6.7	8.0	10.6	6.9	8.8
4	12.4	8.3	10.4	11.5	6.9	9.1	9.6	6.3	7.8	11.1	7.1	9.1
5	12.4	8.7	10.7	10.5	7.0	8.7	9.2	4.7	7.4	11.2	7.1	9.0
6	12.7	7.6	10.1	10.7	6.7	8.5	9.2	4.7	7.3	11.5	7.2	9.2
7	13.5	6.4	10	8.9	6.5	7.9	8.1	5.2	6.9	11.6	7.2	9.4
8	12.1	6.7	9.9	8.7	6.7	7.8	7.5	5.3	6.5	11.6	7.0	9.3
9	12.5	6.6	9.9	9.2	6.5	8.0	7.8	4.8	6.6	11.4	7.0	9.1
10	11.2	6.7	9.2	10.7	7.7	9.0	9.1	6.3	7.8	11.5	7.1	9.2
11	---	---	---	11.3	8.1	9.5	9.4	6.9	8.1	11.5	6.9	9.2
12	---	---	---	11.1	7.8	9.5	9.2	6.8	8.1	11.6	7.0	9.2
13	---	---	---	10.7	7.8	9.1	9.0	6.6	7.8	11.5	7.0	9.1
14	13.1	8.0	10.3	9.6	7.0	8.3	9.3	6.7	7.9	9.8	6.8	8.2
15	---	---	---	9.7	6.9	8.2	9.1	6.7	7.8	9.4	6.7	7.9
16	---	---	---	8.4	6.4	7.4	8.7	7.0	7.9	9.9	5.6	7.8
17	---	---	---	8.6	6.3	7.4	9.8	7.1	8.5	9.4	6.7	8.0
18	11.4	6.5	9.2	8.4	6.8	7.4	9.5	7.3	8.4	9.7	6.8	8.1
19	---	---	---	9.2	6.6	7.8	8.8	7.0	7.9	9.6	7.1	8.2
20	---	---	---	10.3	6.8	8.7	9.4	7.0	8.2	---	---	---
21	---	---	---	11.1	7.5	9.1	9.5	7.0	8.3	---	---	---
22	11.4	8.9	9.9	11.3	6.9	9.1	9.5	6.8	8.1	---	---	---
23	---	---	---	11.4	7.4	9.3	10.0	6.9	8.4	9.2	7.6	8.3
24	---	---	---	11.0	7.4	9.2	10.2	7.0	8.6	9.3	7.6	8.4
25	---	---	---	9.3	6.2	8.0	10.3	7.3	8.8	9.5	8.0	8.7
26	---	---	---	10.6	7.4	8.8	10.6	7.4	9.1	9.3	8.0	8.7
27	---	---	---	10.4	6.9	8.5	10.2	7.6	8.9	9.6	7.9	8.8
28	11.4	7.3	9.4	9.3	6.8	8.1	10.0	7.2	8.6	9.8	8.2	9.0
29	9.8	7.5	8.7	10.3	6.3	8.5	9.8	7.0	8.4	9.4	8.2	8.8
30	8.9	6.3	7.4	9.2	5.9	8.0	9.7	6.7	8.2	10.0	8.4	9.3
31	---	---	---	10.3	7.2	8.9	9.8	6.9	8.3	---	---	---
MONTH	---	---	---	11.5	5.9	8.4	10.6	4.7	8.0	11.6	5.6	8.7
YEAR	17.7	4.7	11.5									

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

OXYGEN DIS. PERCENT, IN % OF SATURATION, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	116	93	105	---	---	---	108	104	106
2	96	95	95	119	97	107	106	103	105	106	104	105
3	98	93	96	121	98	107	105	101	104	106	104	105
4	98	91	96	105	96	101	107	104	106	105	103	104
5	99	94	97	112	93	101	108	105	107	104	102	103
6	100	94	98	116	99	105	108	106	108	103	96	100
7	101	97	99	119	98	107	107	106	107	103	101	102
8	102	96	99	118	99	107	108	105	106	103	102	102
9	---	---	---	122	100	110	108	106	107	103	100	102
10	---	---	---	125	103	112	107	104	105	102	100	101
11	---	---	---	129	105	115	105	103	105	101	99	100
12	---	---	---	113	102	107	105	103	104	106	96	102
13	107	100	104	118	100	108	105	104	104	106	104	105
14	106	100	103	121	103	111	106	104	105	106	105	106
15	108	102	104	126	105	115	108	105	107	107	104	105
16	110	101	105	127	106	115	109	106	108	106	102	104
17	108	100	104	131	104	116	109	107	108	107	103	105
18	---	---	---	125	106	114	109	107	108	107	104	106
19	111	106	108	132	104	116	107	105	106	107	106	106
20	112	105	108	114	104	109	105	103	104	108	106	107
21	---	---	---	119	99	108	107	104	106	109	107	108
22	---	---	---	127	101	113	108	105	107	108	106	107
23	---	---	---	118	102	109	108	106	107	---	---	---
24	---	---	---	108	96	102	107	106	106	---	---	---
25	---	---	---	112	94	102	107	105	106	105	102	104
26	105	97	100	114	91	102	106	105	106	104	103	103
27	110	97	103	117	94	105	106	105	105	103	101	102
28	115	97	105	107	93	102	109	104	107	102	101	102
29	104	97	101	108	94	103	107	106	107	102	99	101
30	105	96	100	---	---	---	108	106	107	101	99	99
31	117	96	105	---	---	---	108	106	107	101	98	99
MONTH	---	---	---	132	91	108	109	101	106	109	96	103
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	108	99	103	111	104	107	---	---	---
2	---	---	---	111	100	105	105	103	104	---	---	---
3	101	98	99	113	100	106	103	101	102	---	---	---
4	101	98	100	115	102	107	111	102	106	---	---	---
5	103	99	101	120	104	111	---	---	---	---	---	---
6	104	100	102	121	105	112	---	---	---	---	---	---
7	105	100	102	125	107	115	---	---	---	---	---	---
8	104	101	102	115	97	104	---	---	---	---	---	---
9	104	100	102	116	100	107	---	---	---	---	---	---
10	102	100	101	120	103	112	---	---	---	---	---	---
11	104	99	102	123	105	113	---	---	---	---	---	---
12	105	99	103	125	104	115	---	---	---	---	---	---
13	107	101	104	128	106	116	---	---	---	---	---	---
14	106	102	105	132	104	117	---	---	---	---	---	---
15	106	102	105	134	105	118	---	---	---	---	---	---
16	107	103	105	137	106	121	---	---	---	---	---	---
17	109	103	105	135	102	118	---	---	---	123	96	109
18	108	103	106	143	108	124	---	---	---	120	93	106
19	110	105	107	142	103	122	---	---	---	118	97	105
20	111	106	108	121	105	110	---	---	---	103	81	93
21	108	105	107	130	93	113	---	---	---	106	69	88
22	110	105	107	150	109	126	---	---	---	109	81	92
23	110	105	107	125	96	108	---	---	---	108	83	97
24	109	102	104	108	92	101	---	---	---	105	79	95
25	109	101	104	108	97	102	---	---	---	105	90	97
26	108	100	104	118	95	106	---	---	---	108	88	99
27	109	101	105	112	91	102	---	---	---	120	94	107
28	105	101	103	---	---	---	---	---	---	122	93	108
29	---	---	---	---	---	---	---	---	---	129	94	112
30	---	---	---	---	---	---	---	---	---	133	92	114
31	---	---	---	105	101	104	---	---	---	148	93	123
MONTH	111	98	104	150	91	111	---	---	---	---	---	---

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

OXYGEN DIS. PERCENT, IN % OF SATURATION, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	158	104	129	112	76	92	119	92	107	131	81	106
2	151	100	126	127	78	101	128	88	106	134	84	108
3	131	95	114	138	83	107	130	86	106	131	83	108
4	140	90	116	148	84	114	131	82	104	137	84	110
5	149	97	125	134	87	109	124	61	99	138	84	109
6	157	89	121	138	82	108	123	61	97	141	85	111
7	167	75	121	112	81	98	105	67	90	142	85	114
8	153	81	123	102	80	92	94	67	82	143	83	112
9	160	81	124	111	75	94	98	59	82	138	83	109
10	142	83	115	132	92	109	117	77	99	139	83	110
11	---	---	---	143	97	118	124	87	105	139	80	110
12	---	---	---	143	96	119	123	87	105	141	82	110
13	---	---	---	136	97	114	120	86	103	141	82	109
14	172	101	133	122	86	104	127	88	106	117	81	99
15	---	---	---	126	86	104	120	87	103	115	80	95
16	---	---	---	108	81	95	111	89	100	124	68	97
17	---	---	---	110	80	94	126	87	107	117	82	98
18	138	77	111	108	85	94	123	90	106	120	82	99
19	---	---	---	122	83	102	110	87	98	119	84	100
20	---	---	---	139	87	114	118	85	101	---	---	---
21	---	---	---	150	96	121	123	86	105	---	---	---
22	140	104	119	154	89	122	123	85	103	---	---	---
23	---	---	---	153	96	123	127	85	105	111	89	100
24	---	---	---	146	94	119	128	85	107	110	88	99
25	---	---	---	122	78	102	129	87	108	110	91	100
26	---	---	---	143	94	116	131	89	111	107	91	100
27	---	---	---	142	90	114	126	91	108	111	89	100
28	147	89	118	123	87	106	122	86	104	112	90	101
29	125	95	111	136	79	110	121	84	102	104	90	98
30	114	79	94	121	75	104	121	82	102	110	88	100
31	---	---	---	133	91	114	123	85	103	---	---	---
MONTH	---	---	---	154	75	108	131	59	102	143	68	104
YEAR	172	59	106									

DELAWARE RIVER BASIN

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

TURBIDITY, WATER, MONOCHROME NEAR INFRA-RED LED LIGHT, 780-900 NM, DETECTION ANGLE 90 +/-2.5 DEGREES, FNU
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	2.4	0.7	1.1	26	11	19	2.7	1.8	2.3
2	12	6.5	8.3	3.5	0.7	1.0	30	9.2	18	2.4	1.5	2.0
3	10	4.6	6.2	1.2	0.7	0.8	27	6.7	13	2.4	1.6	1.9
4	6.6	3.5	4.8	1.1	0.6	0.8	12	7.2	9.4	2.0	1.3	1.6
5	5.7	3.1	4.2	4.3	1.1	2.6	7.5	4.3	5.9	3.5	1.8	2.4
6	4.9	2.4	3.6	3.1	1.3	1.8	6.1	3.9	4.9	11	2.5	5.0
7	3.8	1.8	3.0	2.4	0.9	1.4	5.5	3.3	4.0	11	6.2	8.4
8	3.6	1.8	2.8	1.6	0.8	1.1	5.0	2.4	4.0	9.0	3.6	5.3
9	---	---	---	1.1	0.7	0.8	4.4	2.6	3.5	13	8.2	9.6
10	---	---	---	1.3	0.8	0.9	11	2.8	6.7	10	2.6	5.0
11	---	---	---	1.1	0.8	0.9	8.1	5.9	7.2	3.2	2.2	2.6
12	---	---	---	2.9	0.7	1.1	14	6.6	9.1	3.5	2.0	2.8
13	3.2	1.0	1.4	2.9	0.8	2.0	16	7.5	11	4.4	2.8	3.3
14	1.7	0.9	1.2	4.0	1.5	2.4	8.9	4.0	6.1	66	2.3	25
15	1.6	0.8	1.1	1.6	1.1	1.3	6.0	3.1	3.9	96	48	74
16	2.0	0.7	1.2	3.8	<0.5	1.1	3.9	2.6	3.2	87	19	45
17	8.4	1.8	5.0	2.5	<0.5	0.6	3.1	2.5	2.8	20	12	16
18	---	---	---	1.2	<0.5	<0.5	3.4	2.0	2.5	15	8.6	11
19	2.6	1.4	1.8	<0.5	<0.5	<0.5	3.2	1.8	2.3	16	6.5	8.0
20	2.9	1.4	2.0	<0.5	<0.5	<0.5	2.6	1.7	2.2	7.2	4.7	5.5
21	6.7	2.2	3.4	<0.5	<0.5	<0.5	2.3	1.3	2.0	---	---	---
22	5.5	1.7	3.4	0.5	<0.5	<0.5	2.5	1.2	1.8	---	---	---
23	4.8	1.5	2.7	<0.5	<0.5	<0.5	21	1.3	2.6	---	---	---
24	2.4	1.1	1.7	<0.5	<0.5	<0.5	46	11	25	---	---	---
25	1.7	0.9	1.2	1.2	<0.5	<0.5	46	12	23	3.6	2.5	3.0
26	2.1	0.9	1.2	1.4	<0.5	0.8	23	11	16	3.8	2.2	2.8
27	1.6	1.0	1.2	1.9	<0.5	1.0	18	6.1	13	3.6	2.4	3.0
28	1.7	0.9	1.1	92	0.5	24	7.1	4.0	5.3	3.4	2.2	2.8
29	2.0	0.8	1.1	70	14	49	4.6	3.0	3.7	3.0	1.7	2.3
30	1.5	0.8	1.0	36	12	21	3.9	2.7	3.1	2.6	1.9	2.2
31	1.7	0.8	1.1	---	---	---	3.0	1.8	2.4	2.3	1.4	1.9
MONTH	12	0.7	2.6	92	<0.5	---	46	1.2	7.6	96	1.3	9.4
	FEBRUARY			MARCH			APRIL			MAY		
1	2.5	1.4	2.0	1.9	1.2	1.5	24	8.5	14	---	---	---
2	2.5	1.5	1.9	1.7	1.1	1.4	210	6.1	30	---	---	---
3	2.2	1.3	1.7	2.0	1.1	1.5	260	150	200	---	---	---
4	2.3	1.2	1.6	2.9	1.1	1.4	370	180	290	---	---	---
5	2.1	1.6	1.8	1.7	1.2	1.3	---	---	---	---	---	---
6	2.1	1.4	1.7	1.4	1.0	1.2	---	---	---	---	---	---
7	1.9	1.3	1.6	1.4	1.0	1.2	---	---	---	---	---	---
8	1.9	1.3	1.6	4.5	1.1	3.0	---	---	---	---	---	---
9	2.0	1.3	1.7	3.4	2.4	2.9	---	---	---	---	---	---
10	4.5	1.7	2.6	3.1	1.8	2.4	---	---	---	---	---	---
11	5.1	2.9	3.9	2.3	1.5	1.8	---	---	---	---	---	---
12	4.4	2.1	3.2	1.9	1.2	1.6	---	---	---	---	---	---
13	4.1	2.4	2.9	1.9	1.3	1.5	---	---	---	---	---	---
14	3.3	2.2	2.6	1.6	1.0	1.3	---	---	---	---	---	---
15	42	3.1	23	1.3	0.9	1.2	---	---	---	---	---	---
16	23	13	17	1.3	0.9	1.1	---	---	---	---	---	---
17	16	7.7	10	1.4	0.6	1.0	---	---	---	---	---	---
18	8.9	3.8	5.8	1.5	0.8	1.1	---	---	---	---	---	---
19	7.3	3.8	5.3	1.5	0.7	1.0	---	---	---	---	---	---
20	6.2	3.1	4.3	1.7	0.8	1.2	---	---	---	---	---	---
21	4.9	2.1	3.1	1.5	0.8	1.2	---	---	---	---	---	---
22	3.4	2.2	2.7	1.5	0.9	1.3	---	---	---	---	---	---
23	2.6	1.7	2.2	1.5	0.8	1.1	---	---	---	---	---	---
24	2.7	1.8	2.2	6.0	1.1	3.9	---	---	---	2.0	0.8	1.1
25	2.8	1.7	1.9	4.2	1.9	3.0	---	---	---	1.2	0.7	0.9
26	2.2	1.6	1.8	3.0	1.7	2.3	---	---	---	1.5	0.6	0.8
27	2.0	1.5	1.7	2.1	1.1	1.6	---	---	---	---	---	---
28	1.9	1.3	1.6	32	1.0	3.7	---	---	---	1.2	0.6	0.8
29	---	---	---	140	14	75	---	---	---	1.6	0.7	0.9
30	---	---	---	98	42	70	---	---	---	3.7	0.7	1.3
31	---	---	---	55	17	29	---	---	---	1.2	0.6	0.9
MONTH	42	1.2	4.0	140	0.6	7.2	---	---	---	---	---	---

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

TURBIDITY, WATER, MONOCHROME NEAR INFRA-RED LED LIGHT, 780-900 NM, DETECTION ANGLE 90 +/-2.5 DEGREES, FNU
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	2.5	0.8	1.1	4.3	0.9	1.9	2.2	0.7	1.5	2.7	<0.5	0.8
2	1.8	1.0	1.3	3.9	0.9	2.1	2.6	1.3	1.7	1.2	<0.5	0.8
3	1.4	0.9	1.2	2.6	0.7	1.2	2.4	1.3	1.7	1.1	0.6	0.8
4	2.0	1.0	1.4	1.6	0.7	1.1	19	1.4	4.4	1.0	<0.5	0.7
5	4.5	1.0	1.8	2.1	0.6	1.1	9.4	2.3	4.2	1.3	<0.5	0.6
6	7.3	1.1	2.2	2.2	0.7	1.2	4.6	2.3	3.0	2.0	<0.5	0.7
7	4.6	2.0	3.5	2.1	1.3	1.7	3.8	1.5	2.4	0.9	<0.5	0.5
8	5.0	1.8	3.2	8.0	1.5	3.1	3.9	1.2	2.4	0.8	<0.5	0.5
9	19	2.3	5.2	13	3.4	7.2	2.6	0.7	1.4	1.1	<0.5	0.6
10	17	4.9	8.7	11	3.4	6.4	1.6	0.8	1.1	1.1	<0.5	0.6
11	---	---	---	11	3.3	6.3	2.3	0.9	1.4	1.0	<0.5	0.6
12	---	---	---	15	2.8	5.5	2.1	1.0	1.4	0.9	<0.5	0.6
13	---	---	---	4.3	2.3	3.4	2.1	0.9	1.4	1.2	<0.5	0.6
14	---	---	---	3.5	0.9	1.9	2.1	1.0	1.4	1.0	<0.5	0.5
15	---	---	---	3.0	0.6	1.4	2.7	1.1	1.9	13	<0.5	2.3
16	---	---	---	2.0	<0.5	0.8	2.1	0.8	1.5	12	0.6	2.5
17	---	---	---	3.1	<0.5	1.3	2.9	1.0	1.6	1.7	<0.5	0.8
18	---	---	---	7.8	1.2	3.2	2.0	0.8	1.3	1.1	<0.5	0.6
19	---	---	---	7.7	2.3	4.0	1.2	0.7	0.9	1.2	<0.5	0.6
20	---	---	---	4.0	1.2	2.2	1.8	0.7	1.0	---	---	---
21	---	---	---	9.9	1.0	2.8	2.1	0.7	1.1	---	---	---
22	---	---	---	3.9	<0.5	1.4	1.5	0.6	0.9	---	---	---
23	---	---	---	7.1	1.7	3.9	1.4	<0.5	0.8	2.4	0.7	1.4
24	---	---	---	8.0	4.2	6.1	2.8	<0.5	0.7	2.3	0.6	1.3
25	---	---	---	9.8	4.4	7.4	0.9	<0.5	0.6	1.7	0.7	1.2
26	---	---	---	9.7	1.5	5.8	1.9	<0.5	0.8	2.7	1.2	1.6
27	---	---	---	1.8	0.7	1.2	1.0	0.5	0.7	2.8	1.1	1.7
28	1.4	0.7	1.1	1.8	0.6	1.1	1.0	0.5	0.8	2.0	0.7	1.3
29	1.2	0.7	1.0	1.5	<0.5	1.0	1.3	0.6	0.8	2.5	0.6	0.9
30	6.4	0.6	1.5	2.0	<0.5	0.7	1.6	0.5	0.9	1.6	0.5	0.8
31	---	---	---	2.7	<0.5	1.3	1.9	0.6	0.9	---	---	---
MONTH	---	---	---	15	<0.5	2.9	19	<0.5	1.5	13	<0.5	1.0
YEAR	370	<0.5	6.1									

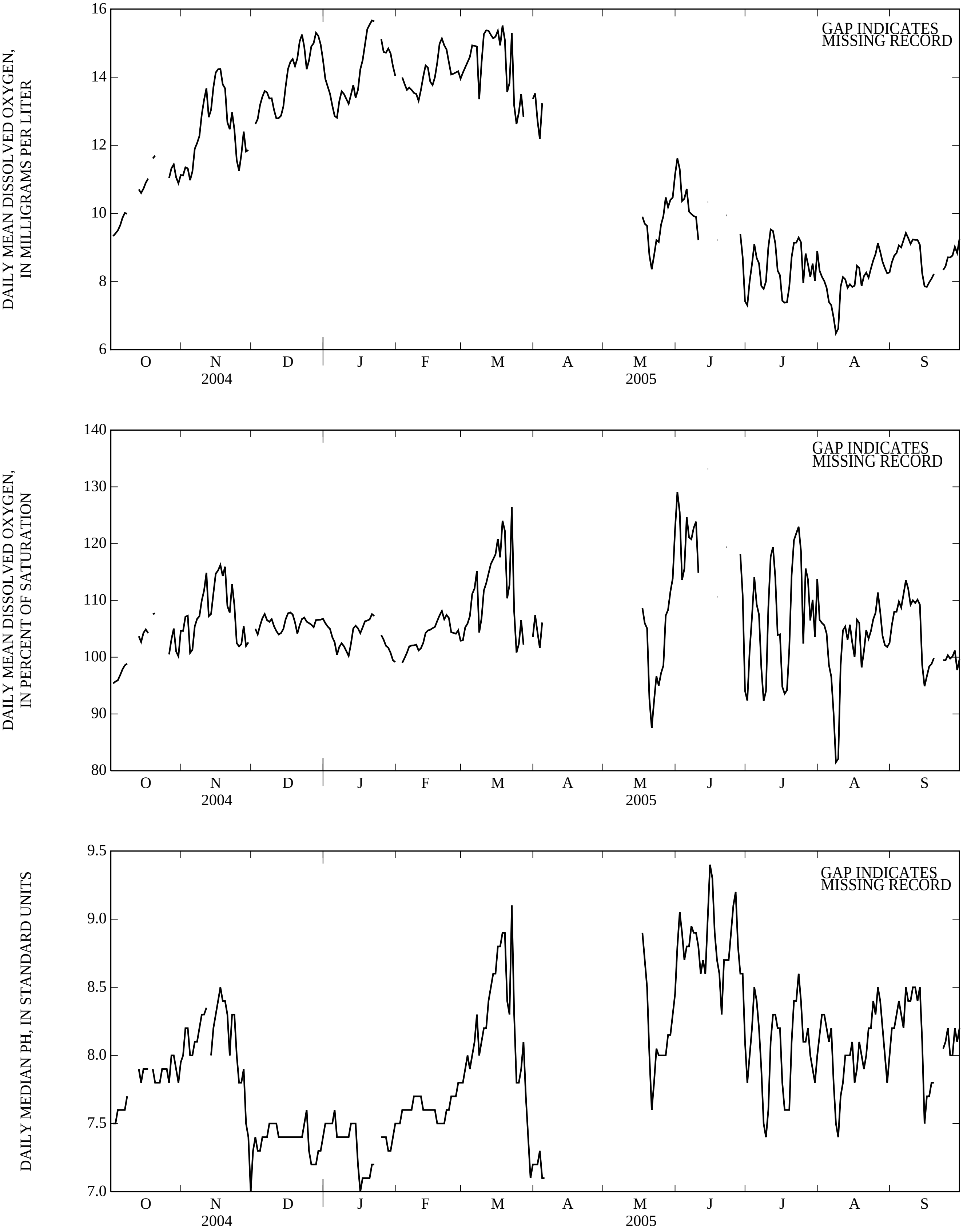


Figure 12.--Daily mean water-quality monitor values recorded at 01463500, Delaware River at Trenton, water year 2005.

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

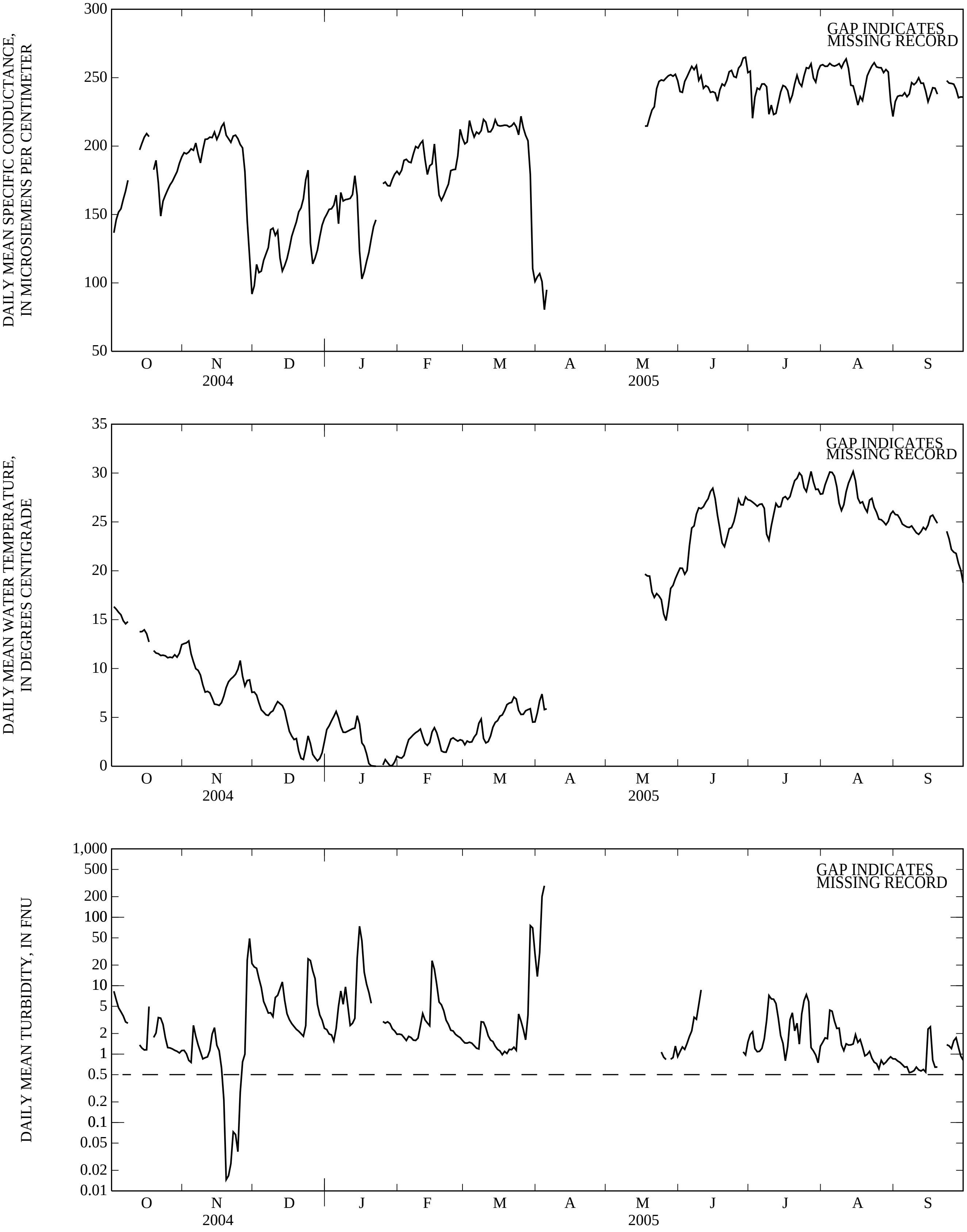


Figure 12.--Daily mean water-quality monitor values recorded at 01463500, Delaware River at Trenton, NJ, water year 2005. [--- turbidimeter instrument reporting level; values less than 0.5 FNU are approximate]

01464645 NORTH BRANCH NESHAMINY CREEK BELOW LAKE GALENA NEAR NEW BRITAIN, PA

LOCATION.--Lat 40°18'44", long 75°12'25", Bucks County, Hydrologic Unit 02040201, on left bank 0.3 mi downstream from Lake Galena (Peace Valley Reservoir), 1.5 mi west of New Britain, 2.0 mi north of Chalfont on Callowhill Road, and 4.0 mi west of Doylestown.

DRAINAGE AREA.--16.2 mi^2.

PERIOD OF RECORD.--November 1985 to current year.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Elevation of gage is 280 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated by Lake Galena (Peace Valley Reservoir). Several measurements of water temperature were made during the year. Satellite and landline telemetry at station.

COOPERATION.--Records of change in contents in Lake Galena provided by Forest Park Water Company.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	98	31	48	28	28	31	56	30	31	39	37	33
2	62	31	39	28	28	30	473	28	33	35	38	36
3	46	30	38	28	28	29	883	28	32	31	38	35
4	35	33	37	28	28	29	241	27	30	32	40	33
5	31	32	36	29	28	29	117	31	29	34	42	36
6	33	32	36	34	29	29	74	29	34	34	42	37
7	33	32	41	31	29	33	54	29	31	33	39	36
8	33	29	43	37	30	34	103	28	34	46	37	39
9	33	28	45	41	31	31	79	28	37	51	35	38
10	32	27	135	40	34	31	57	28	34	35	35	36
11	32	27	136	37	31	31	44	33	34	33	39	36
12	32	30	95	46	30	31	35	32	36	32	40	36
13	28	30	68	45	29	31	29	31	39	35	41	38
14	28	27	54	271	39	31	29	32	39	36	41	39
15	29	27	43	217	67	30	28	32	37	33	42	39
16	32	28	35	112	70	28	28	34	38	32	37	35
17	32	28	32	71	67	27	28	35	35	39	39	33
18	31	27	31	51	54	27	28	33	37	36	37	33
19	32	29	31	39	43	27	28	35	36	34	38	37
20	31	27	31	32	35	27	28	32	37	33	36	36
21	31	27	29	29	33	27	28	28	36	35	37	35
22	30	27	29	29	31	27	31	29	35	35	34	35
23	30	27	33	28	31	32	31	29	36	35	36	e37
24	29	28	31	27	31	30	30	28	38	36	36	e36
25	29	29	30	27	31	28	29	30	40	34	36	e36
26	29	28	29	28	31	28	29	28	40	34	34	e34
27	29	28	29	29	31	28	30	28	39	37	33	33
28	28	61	29	29	31	83	29	31	32	35	30	33
29	28	37	28	29	---	189	29	30	32	34	33	37
30	30	36	28	29	---	111	30	31	33	33	44	33
31	31	---	28	29	---	74	---	32	---	34	35	---
TOTAL	1067	913	1377	1558	1008	1253	2738	939	1054	1095	1161	1070
MEAN	34.4	30.4	44.4	50.3	36.0	40.4	91.3	30.3	35.1	35.3	37.5	35.7
MAX	98	61	136	271	70	189	883	35	40	51	44	39
MIN	28	27	28	27	28	27	28	27	29	31	30	33
(≠)	-27.2	+10.9	+2.9	+1.3	+2.3	+5.0	-14.5	+3.7	+2.9	+3.3	-9.1	-22.9

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 2005, BY WATER YEAR (WY)

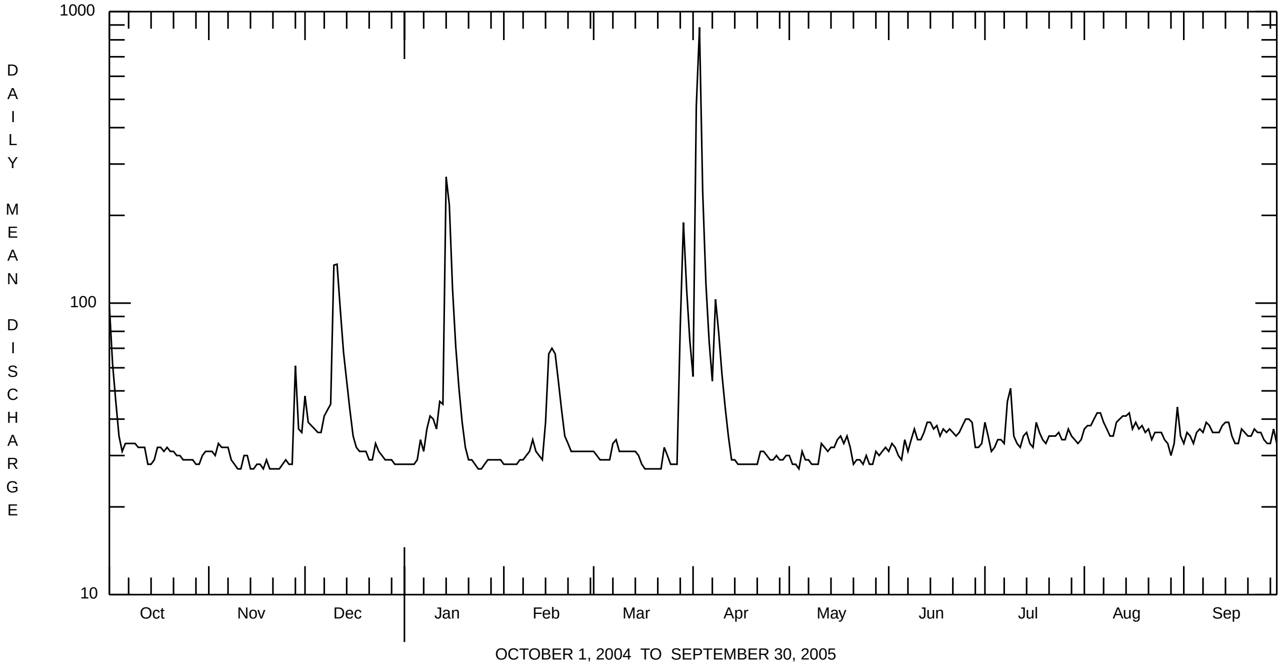
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	26.0	26.3	49.8	35.2	28.4	39.8	35.6	29.0	28.7	24.8	21.9	27.9
MAX	81.8	86.4	145	80.4	58.8	123	91.3	81.1	85.6	66.9	43.8	114
(WY)	1997	1996	1997	1996	1988	1994	2005	1998	2003	2004	2003	1999
MIN	3.91	5.85	17.5	6.62	5.36	4.75	4.68	6.55	5.38	4.92	4.97	3.63
(WY)	1989	1992	1995	1986	1989	1988	1988	1986	1986	1990	1987	1988

≠ Change in contents, equivalent in cubic feet per second, in Lake Galena.
e Estimated.

01464645 NORTH BRANCH NESHAMINY CREEK BELOW LAKE GALENA NEAR NEW BRITAIN, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1986 - 2005	
ANNUAL TOTAL	14424		15233			
ANNUAL MEAN	39.4		41.7		31.6	
HIGHEST ANNUAL MEAN					47.8	2004
LOWEST ANNUAL MEAN					13.1	1992
HIGHEST DAILY MEAN	718	Sep 29	883	Apr 3	1040	Sep 17 1999
LOWEST DAILY MEAN	23	Mar 15	27	Nov 10**a**	3.1	Dec 22 1989
ANNUAL SEVEN-DAY MINIMUM	24	Mar 12	27	Mar 16	3.1	Dec 22 1989
MAXIMUM PEAK FLOW			**b**1770	Apr 2	**b**2340	Sep 16 1999
MAXIMUM PEAK STAGE			4.83	Apr 2	4.96	Sep 16 1999
10 PERCENT EXCEEDS	43		45		54	
50 PERCENT EXCEEDS	30		33		25	
90 PERCENT EXCEEDS	26		28		5.3	

a Also Nov. 11, 14, 15, 18, 20-23; Jan. 24, 25; Mar. 17-22; May 4.
b From rating curve extended above 580 ft^3/s on basis of slope-conveyance computation.



01464720 NORTH BRANCH NESHAMINY CREEK AT CHALFONT, PA

LOCATION.--Lat 40°17'17", long 75°12'15"', Bucks County, Hydrologic Unit 02040201, on right bank 250 ft upstream from Route 202 bridge in Chalfont, and 0.6 mi upstream from mouth.

DRAINAGE AREA.--31.5 mi^2.

PERIOD OF RECORD.--December 1990 to current year.

REVISED RECORDS.--WDR PA-99-1: 1993-98(M).

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 250 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Diversion for municipal supply by Forest Park Water Company upstream of gage. Flow regulated by Lake Galena (Peace Valley Reservoir) 1.8 mi upstream, drainage area 15.8 mi^2, normal pool capacity 6,539 acre-ft. Several measurements of water temperature were made during the year. Satellite and landline telemetry at station.

COOPERATION.--Records of diversion provided by Forest Park Water Company.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	115	17	189	22	20	30	60	21	8.5	15	8.1	7.7
2	65	17	83	22	18	28	1120	16	9.6	16	8.3	9.0
3	43	15	55	20	17	25	1290	14	13	9.7	8.2	8.7
4	30	43	43	22	17	25	383	13	21	7.2	8.9	9.5
5	23	60	37	27	18	23	151	12	13	8.7	8.3	9.0
6	22	28	35	74	21	24	96	13	16	14	8.5	9.7
7	22	23	69	46	25	42	69	14	24	43	8.5	9.7
8	19	20	67	83	30	64	217	12	12	102	8.1	11
9	19	14	68	67	38	38	114	11	11	62	7.4	11
10	19	15	286	48	69	32	73	9.5	10	20	7.1	8.0
11	17	14	199	42	41	29	52	10	10	12	9.2	8.8
12	17	33	120	67	29	31	38	11	9.5	8.9	9.2	8.2
13	12	65	81	51	26	29	30	9.6	11	8.9	7.5	10
14	24	30	59	634	79	26	27	9.7	9.7	12	13	11
15	21	23	44	305	219	24	23	9.7	8.6	9.5	27	13
16	28	21	35	136	114	22	22	9.3	8.5	20	13	9.4
17	22	19	30	85	90	20	21	11	7.4	79	13	7.6
18	17	16	28	53	64	20	19	8.8	8.2	38	10	8.1
19	28	17	29	38	44	20	18	9.1	8.4	19	10	10
20	24	18	29	32	35	20	16	15	7.5	14	10	9.6
21	20	21	26	28	33	19	15	15	7.4	13	9.6	7.4
22	21	18	23	33	33	18	17	11	6.5	9.8	6.6	7.9
23	19	16	53	35	37	55	19	11	7.0	10	8.3	8.9
24	17	19	59	32	33	73	25	9.0	7.5	10	9.0	8.5
25	17	33	32	22	33	35	17	10	7.4	13	9.6	9.7
26	e18	23	28	22	30	28	16	9.5	7.5	11	7.3	9.9
27	e14	20	25	21	28	26	21	8.8	7.4	13	7.2	8.8
28	14	446	23	25	28	251	17	9.4	6.2	14	7.8	8.6
29	14	106	22	23	---	331	15	11	6.7	9.0	8.4	12
30	18	54	22	19	---	134	18	10	8.5	7.8	24	8.4
31	21	---	22	19	---	85	---	10	---	7.5	11	---
TOTAL	780	1264	1921	2153	1269	1627	4019	353.4	299.0	637.0	312.1	279.1
MEAN	25.2	42.1	62.0	69.5	45.3	52.5	134	11.4	9.97	20.5	10.1	9.30
MAX	115	446	286	634	219	331	1290	21	24	102	27	13
MIN	12	14	22	19	17	18	15	8.8	6.2	7.2	6.6	7.4
(†)	23.9	23.4	23.1	23.1	23.2	23.1	23.4	24.8	28.2	27.4	29.7	28.8
(≠)	-27.2	+10.9	+2.9	+1.3	+2.3	+5.0	-14.5	+3.7	+2.9	+3.3	-9.1	-22.9

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 2005, BY WATER YEAR (WY)

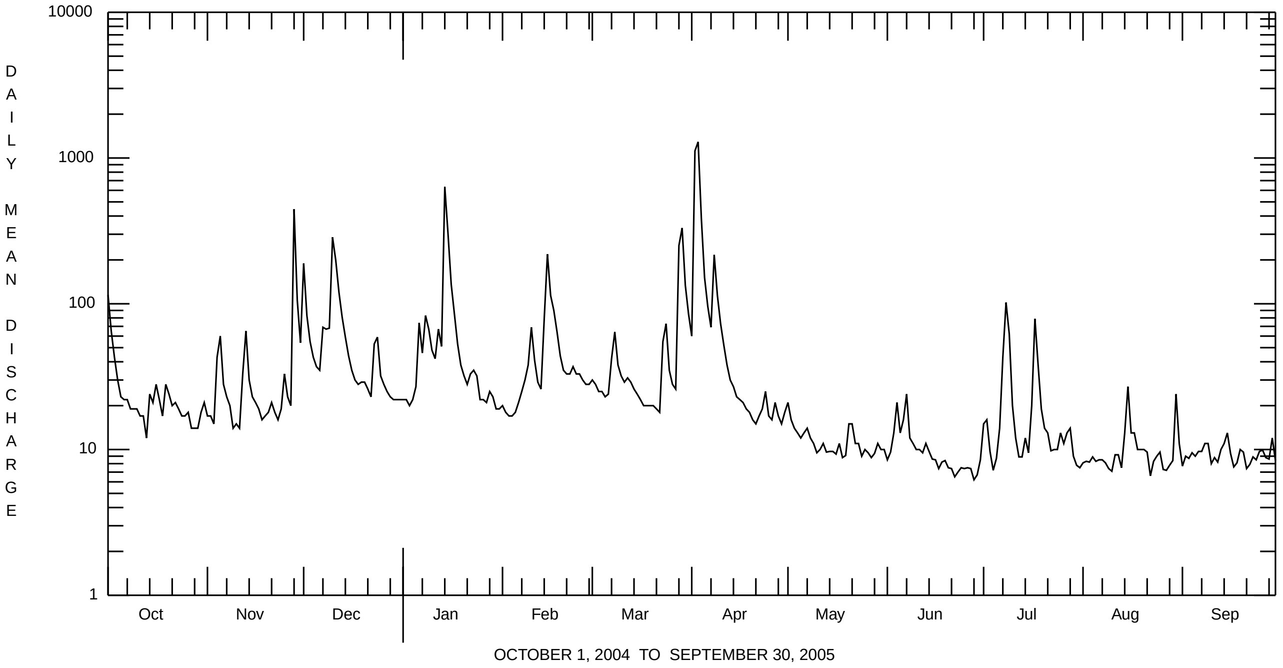
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	31.8	33.4	69.3	59.0	39.9	75.1	55.4	29.9	31.0	23.4	22.3	35.4
MAX	131	108	236	209	74.6	222	134	136	136	94.1	67.5	197
(WY)	1997	1996	1997	1996	1998	1994	2005	1998	2003	2004	1994	1999
MIN	6.76	4.86	5.06	7.43	6.09	18.6	11.8	11.1	5.92	7.65	4.82	5.86
(WY)	2002	2002	2002	2002	2002	2002	1995	1995	1995	1999	1995	1992

† Diversion by Forest Park Water Company, equivalent in cubic feet per second.
≠ Change in contents, equivalent in cubic feet per second, in Lake Galena.
e Estimated.

01464720 NORTH BRANCH NESHAMINY CREEK AT CHALFONT, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1991 - 2005	
ANNUAL TOTAL	17482.6		14913.6			
ANNUAL MEAN	47.8		40.9		42.5	
HIGHEST ANNUAL MEAN					67.0	1996
LOWEST ANNUAL MEAN					12.1	2002
HIGHEST DAILY MEAN	1370	Sep 29	1290	Apr 3	2090	Sep 16 1999
LOWEST DAILY MEAN	6.0	Jul 5	6.2	Jun 28	2.3	Aug 18 1991
ANNUAL SEVEN-DAY MINIMUM	6.6	Jun 30	7.1	Jun 22	3.0	Aug 12 1991
MAXIMUM PEAK FLOW			**a**4160	Apr 2	**a**6930	Sep 16 1999
MAXIMUM PEAK STAGE			9.38	Apr 2	11.36	Sep 16 1999
10 PERCENT EXCEEDS	72		69		82	
50 PERCENT EXCEEDS	21		19		16	
90 PERCENT EXCEEDS	11		8.4		6.5	

a From rating curve extended above 1,270 ft^3/s on basis of velocity-area study of peak flow at gage height 11.36 ft.



NESHAMINY CREEK BASIN

01464750 NESHAMINY CREEK NEAR RUSHLAND, PA

LOCATION.--Lat 40°15'37", long 75°02'07'", Bucks County, Hydrologic Unit 02040201, on left bank at bridge on Rushland Road, 2,000 ft upstream from confluence with Little Neshaminy Creek.

DRAINAGE AREA.--91.0 mi^2.

PERIOD OF RECORD.--December 1986 to September 1992; October 2001 to current year.

REVISED RECORDS.--WDR PA-02-1: 1988-92 (P).

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 160 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those greater than 916 ft^3/s and those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year. Satellite and landline telemetry at station. Flow regulated by Lake Galena (Peace Valley Reservoir) and diversion for municipal supply by Forest Park Water Company on North Branch Neshaminy Creek.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than a base discharge of 1,950 ft^3/s and maximum(*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Nov. 28	1115	3.950	10.04	Apr. 2	2130	*5,990	*12.93
Jan. 14	1345	3,690	9.65	July 16	2100	2,400	7.70
Mar. 28	2230	2,780	8.27				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	315	57	720	79	e120	125	199	113	31	166	32	28
2	176	53	356	73	e125	125	2290	84	30	265	32	23
3	130	51	204	71	e130	108	2890	73	34	69	32	23
4	104	99	159	82	124	98	838	66	124	45	30	21
5	87	384	137	100	124	95	414	58	61	38	29	22
6	75	120	122	339	137	97	269	57	78	81	27	23
7	70	88	248	240	161	165	212	54	202	207	26	24
8	64	78	303	349	170	363	615	54	69	645	26	23
9	59	64	193	305	180	206	305	50	50	299	41	25
10	58	56	968	182	344	148	217	48	44	116	31	24
11	54	55	600	149	226	136	180	45	48	75	26	21
12	52	99	332	284	146	145	150	43	40	59	26	21
13	51	434	243	188	125	132	132	42	36	49	25	21
14	83	156	188	1760	191	113	118	37	38	48	23	22
15	89	110	149	761	886	101	107	38	35	47	186	29
16	104	94	130	351	319	94	96	36	32	318	59	29
17	79	83	118	235	281	88	90	36	33	466	42	23
18	60	76	105	166	195	84	88	34	30	327	38	23
19	109	71	102	e130	149	77	82	31	30	113	32	21
20	108	70	92	e125	128	82	77	48	31	80	37	23
21	77	105	95	e110	128	87	71	85	30	64	32	22
22	70	81	90	e95	138	79	71	48	29	54	28	22
23	65	71	223	e80	160	151	78	42	39	48	25	24
24	61	72	370	e70	157	420	218	40	32	43	24	25
25	58	156	143	e75	131	176	101	37	33	56	23	24
26	56	109	108	e80	125	136	80	39	32	59	23	25
27	50	84	98	e90	124	120	93	36	38	46	23	33
28	50	1810	94	e110	120	804	87	34	51	82	29	30
29	48	551	86	e120	---	1040	71	37	38	49	28	26
30	54	230	80	e130	---	368	73	34	145	38	40	32
31	72	---	78	e120	---	248	---	32	---	35	44	---
TOTAL	2588	5567	6934	7049	5344	6211	10312	1511	1543	4087	1119	732
MEAN	83.5	186	224	227	191	200	344	48.7	51.4	132	36.1	24.4
MAX	315	1810	968	1760	886	1040	2890	113	202	645	186	33
MIN	48	51	78	70	120	77	71	31	29	35	23	21
CFSM	0.92	2.04	2.46	2.50	2.10	2.20	3.78	0.54	0.57	1.45	0.40	0.27
IN.	1.06	2.28	2.83	2.88	2.18	2.54	4.22	0.62	0.63	1.67	0.46	0.30

STATISTICS OF MONTHLY MEAN DATA FOR PERIOD OF DAILY RECORD, BY WATER YEAR (WY)

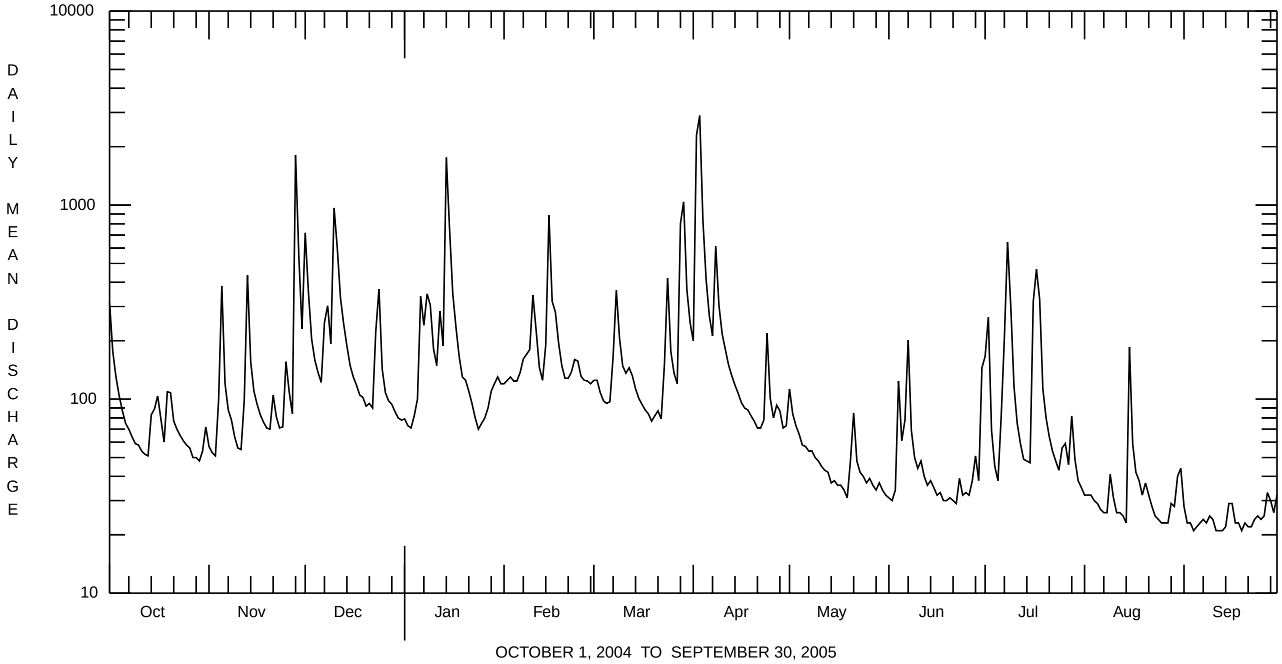
MEAN	95.9	136	178	166	157	183	183	159	150	130	75.6	106
MAX	270	270	477	311	315	391	344	374	443	315	149	298
(WY)	2004	2004	2004	1990	1988	2003	2005	1989	1989	1989	2003	2004
MIN	28.2	22.6	37.1	62.5	41.2	95.7	61.9	48.7	30.4	32.5	32.2	24.4
(WY)	2002	2002	2002	2002	2002	1990	1988	2005	1991	1992	1987	2005

e Estimated.

01464750 NESHAMINY CREEK NEAR RUSHLAND, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		FOR PERIOD OF DAILY RECORD	
ANNUAL TOTAL	62116		52997			
ANNUAL MEAN	170		145		144	
HIGHEST ANNUAL MEAN					214	1989,2004
LOWEST ANNUAL MEAN					66.4	2002
HIGHEST DAILY MEAN	3850	Sep 29	2890	Apr 3	3850	Sep 29 2004
LOWEST DAILY MEAN	22	Jul 11	21	Sep 4**a**	15	Aug 14 1987
ANNUAL SEVEN-DAY MINIMUM	27	Jul 5	22	Sep 8	16	Sep 14 1992
MAXIMUM PEAK FLOW			**b**5990	Apr 2	**b**7750	Sep 29 2004
MAXIMUM PEAK STAGE			12.93	Apr 2	15.04	Sep 29 2004
ANNUAL RUNOFF (CFSM)	1.87		1.60		1.58	
ANNUAL RUNOFF (INCHES)	25.39		21.66		21.52	
10 PERCENT EXCEEDS	333		301		303	
50 PERCENT EXCEEDS	90		80		72	
90 PERCENT EXCEEDS	40		28		25	

a Also Sept. 11-13, 19.
b From rating curve extended above 916 ft^3/s based on slope-area measurement at gage height 10.33 ft.



01464907 LITTLE NESHAMINY CREEK AT VALLEY ROAD NEAR NESHAMINY, PA

LOCATION.--Lat 40°13'45", long 75°07'12"', Bucks County, Hydrologic Unit 02040201, on left bank just upstream from bridge on Valley Road, 6.8 mi upstream from confluence with Neshaminy Creek, 3.0 mi downstream from Bradford Dam, 2.0 mi downstream from Park Creek, and 1.1 mi east of Neshaminy.

DRAINAGE AREA.--26.8 mi^2.

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

REVISED RECORDS.--WDR PA-01-1: 1999, 2000 (P).

GAGE.--Water stage recorder and crest-stage gage. Datum of gage is 190.42 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Satellite and landline telemetry at station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than a base discharge of 2,100 ft^3/s and maximum(*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Nov. 28	1130	2,250	6.70	Apr. 2	2145	*3,580	*8.26
Jan. 14	1115	2,270	6.73	July 17	2030	2,630	7.18

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	81	17	332	26	22	42	46	52	5.3	64	5.0	4.1
2	34	16	95	23	21	41	1460	25	4.9	166	4.6	2.8
3	27	16	59	23	20	36	771	22	18	28	4.0	2.3
4	22	147	46	27	19	32	286	17	53	14	3.3	2.0
5	19	114	39	58	22	30	84	15	15	14	3.0	1.6
6	16	33	34	152	29	32	65	14	38	49	2.8	1.8
7	14	24	138	80	40	90	55	13	110	37	2.8	1.9
8	13	20	96	172	54	142	207	12	20	316	2.9	1.8
9	13	17	88	89	83	63	75	11	11	82	3.7	1.6
10	13	15	395	57	134	45	56	10	8.0	31	3.4	1.7
11	12	14	152	51	64	42	47	9.5	8.2	18	2.7	1.5
12	12	85	75	125	42	45	42	8.6	5.9	12	2.2	1.5
13	12	183	59	63	35	39	38	7.7	4.9	9.4	2.2	1.7
14	44	46	47	914	142	32	33	7.7	4.9	8.3	2.8	1.7
15	25	32	40	204	305	28	28	7.1	4.3	7.3	36	5.3
16	32	26	35	80	91	26	25	6.8	3.8	301	9.1	2.2
17	24	24	34	60	75	24	24	6.7	3.5	611	8.6	2.1
18	16	20	30	e44	49	23	23	5.8	3.0	200	4.7	2.0
19	68	18	30	e46	37	21	21	5.3	2.8	51	3.7	1.8
20	33	19	27	e38	32	24	18	29	2.9	31	4.5	2.0
21	22	33	26	e31	37	25	17	22	2.6	20	3.5	2.0
22	20	21	21	e28	47	22	16	12	5.1	14	2.7	1.9
23	17	19	250	e25	58	107	32	9.4	4.0	11	2.2	1.9
24	15	21	125	e27	48	120	44	8.7	2.6	8.5	2.0	1.9
25	14	52	51	e30	41	51	22	7.9	2.1	14	1.7	1.7
26	13	28	37	e32	38	39	17	7.9	2.1	11	1.9	2.1
27	13	22	33	e26	38	33	27	7.6	7.9	9.6	2.6	3.4
28	13	901	28	e24	39	489	21	7.1	14	16	3.7	2.4
29	12	180	27	e23	---	259	16	8.6	8.9	8.2	13	2.2
30	23	63	26	e23	---	76	27	6.5	252	6.2	28	2.6
31	20	---	27	e22	---	55	---	5.5	---	5.2	7.2	---
TOTAL	712	2226	2502	2623	1662	2133	3643	388.4	628.7	2173.7	180.5	65.5
MEAN	23.0	74.2	80.7	84.6	59.4	68.8	121	12.5	21.0	70.1	5.82	2.18
MAX	81	901	395	914	305	489	1460	52	252	611	36	5.3
MIN	12	14	21	22	19	21	16	5.3	2.1	5.2	1.7	1.5
CFSM	0.86	2.77	3.01	3.16	2.21	2.57	4.53	0.47	0.78	2.62	0.22	0.08
IN.	0.99	3.09	3.47	3.64	2.31	2.96	5.05	0.54	0.87	3.02	0.25	0.09

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2005, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	29.9	46.9	62.0	45.6	53.5	72.0	54.4	28.1	62.8	33.6	25.0	63.1
MAX	86.5	102	169	84.6	84.2	105	121	46.8	211	97.7	47.5	174
(WY)	2004	2004	2004	2005	2004	2003	2005	2002	2001	2004	2000	1999
MIN	3.22	3.40	2.47	17.8	9.04	38.3	15.4	12.5	3.06	1.40	5.41	2.18
(WY)	2002	2002	1999	2002	2002	2002	2002	2005	1999	1999	2002	2005

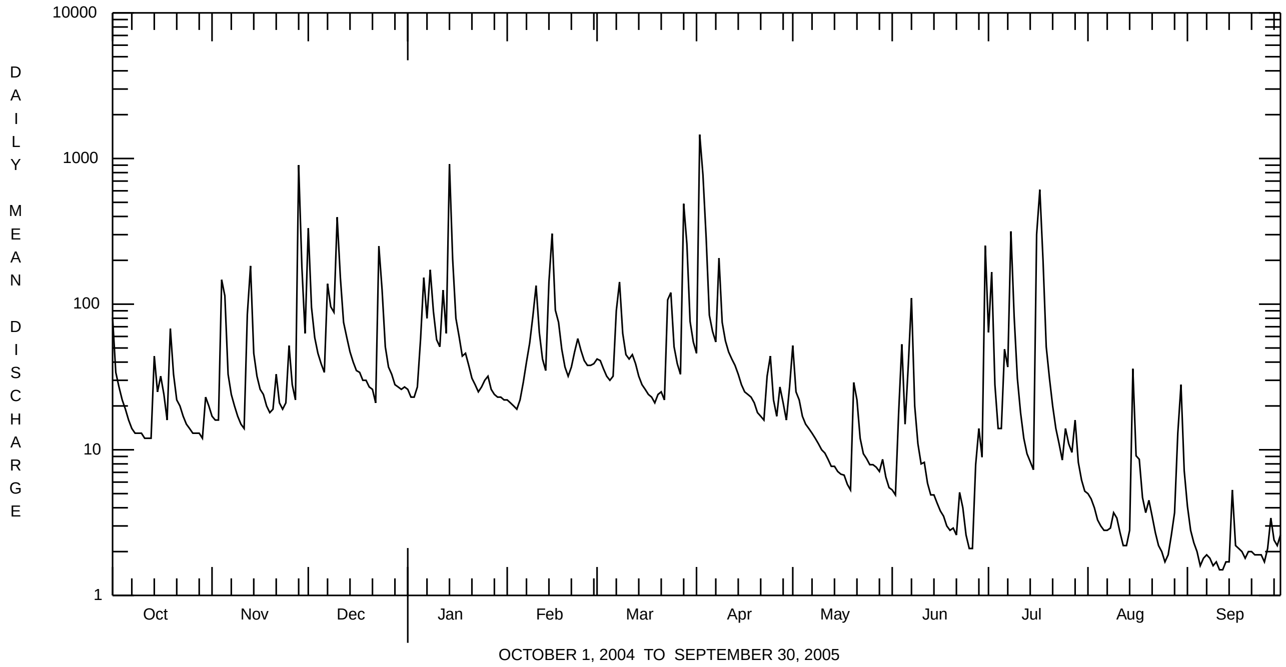
e Estimated.

NESHAMINY CREEK BASIN

01464907 LITTLE NESHAMINY CREEK AT VALLEY ROAD NEAR NESHAMINY, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1999 - 2005	
ANNUAL TOTAL	22016.2		18937.8			
ANNUAL MEAN	60.2		51.9		49.0	
HIGHEST ANNUAL MEAN					75.3	2004
LOWEST ANNUAL MEAN					16.1	2002
HIGHEST DAILY MEAN	1390	Sep 29	1460	Apr 2	2830	Sep 16 1999
LOWEST DAILY MEAN	3.0	Jul 11	1.5	Sep 11,12	0.24	Aug 2 1999
ANNUAL SEVEN-DAY MINIMUM	4.4	Jul 5	1.6	Sep 8	0.27	Aug 1 1999
MAXIMUM PEAK FLOW			**a**3580	Apr 2	**a**11300	Jun 16 2001
MAXIMUM PEAK STAGE			8.26	Apr 2	**b**14.57	Jun 16 2001
INSTANTANEOUS LOW FLOW			1.3	Sep 12,25	0.15	Aug 8 1999
ANNUAL RUNOFF (CFSM)	2.24		1.94		1.83	
ANNUAL RUNOFF (INCHES)	30.55		26.28		24.83	
10 PERCENT EXCEEDS	117		95		94	
50 PERCENT EXCEEDS	22		22		17	
90 PERCENT EXCEEDS	7.8		2.6		3.8	

a From rating curve extended above 758 ft^3/s on basis of contracted-opening measurements at gage height 11.68 and at peak flow.
b From outside high-water mark.



01465500 NESHAMINY CREEK NEAR LANGHORNE, PA
(Pennsylvania Water-Quality Network Station)

LOCATION.--Lat 40°10'26", long 74°57'26", Bucks County, Hydrologic Unit 02040201, on left bank at bridge on State Highway 213, 0.3 mi downstream from Mill Creek, and 1.7 mi west of Langhorne.

DRAINAGE AREA.--210 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1934 to current year.

REVISED RECORDS.--WSP 1332: 1949. WSP 1432: 1936-37. WDR PA-83-1: 1982(P).

GAGE.--Water-stage recorder. Datum of gage is 40.57 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Some regulation at low flow by mills above station. Flow regulated by upstream reservoirs on Little Neshaminy Creek, Robin Run, Pine Run, North Branch Neshaminy Creek, and Core Creek (combined flood control capacity, about 9,560 acre-ft). Occasional regulation by Springfield Lake, capacity, 2,000 acre-ft, completed in 1934; no significant regulation except during period May 1934 to January 1944, when the lake was filling, and in September 1949, July 1954, July through October 1957, and September, October 1961. Interceptor sewer installed along left bank during May and June 1966. Several measurements of water temperature were made during the year. Satellite and landline telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 23, 1933 reached a stage of 17.3 ft, from floodmark, discharge, about 30,000 ft^3/s, from rating curve extended as explained in footnotes on next page.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than a base discharge of 4,500 ft^3/s and maximum(*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Nov. 28	1530	8,620	10.19	Mar. 29	0015	5,810	8.19
Jan. 14	1630	8,020	9.82	Apr. 3	0430	*14,000	*12.87

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	869	117	1720	223	e200	311	450	324	80	350	80	74
2	365	106	1060	210	e210	304	4680	237	75	1090	76	55
3	283	101	528	204	218	278	8120	199	97	246	75	49
4	232	195	390	216	193	254	2180	180	286	147	70	47
5	197	1000	337	258	198	246	1060	165	177	113	65	44
6	172	278	301	807	219	245	735	154	201	163	63	44
7	158	200	559	661	262	345	576	149	763	489	59	44
8	149	171	926	787	304	948	1600	145	219	1570	79	44
9	139	148	455	896	398	558	874	137	145	1030	81	44
10	134	130	2250	459	791	356	588	130	142	308	81	44
11	124	124	1550	373	569	322	468	125	131	205	67	42
12	116	169	820	754	334	333	389	121	110	159	60	41
13	112	1110	573	488	285	315	353	112	93	134	57	40
14	115	379	438	3970	456	277	325	106	88	125	55	43
15	222	251	357	2020	2420	255	296	105	83	120	270	158
16	187	213	318	899	831	240	271	104	72	320	153	163
17	174	191	298	622	690	228	257	96	67	1610	101	79
18	137	176	275	429	453	220	249	95	64	1400	86	59
19	209	164	265	e350	349	208	236	89	61	318	73	49
20	262	158	253	e350	308	213	224	127	60	218	69	46
21	171	209	e200	e300	313	226	211	212	58	171	75	45
22	155	189	e210	e280	331	209	201	138	59	147	62	43
23	141	164	629	e265	374	289	207	113	85	128	54	40
24	130	161	1240	e255	361	1070	392	105	65	111	49	40
25	124	264	405	e265	321	425	252	103	56	115	49	38
26	119	243	305	e275	301	321	209	100	53	152	48	39
27	111	185	e250	e220	293	281	205	98	85	115	53	46
28	105	4250	e225	e200	288	1640	228	91	145	153	67	49
29	102	1680	247	e180	---	2800	188	89	108	127	68	43
30	112	611	230	e185	---	902	204	89	562	98	134	42
31	142	---	224	e190	---	577	---	82	---	86	106	---
TOTAL	5768	13337	17838	17591	12270	15196	26228	4120	4290	11518	2485	1634
MEAN	186	445	575	567	438	490	874	133	143	372	80.2	54.5
MAX	869	4250	2250	3970	2420	2800	8120	324	763	1610	270	163
MIN	102	101	200	180	193	208	188	82	53	86	48	38

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 2005, BY WATER YEAR (WY)

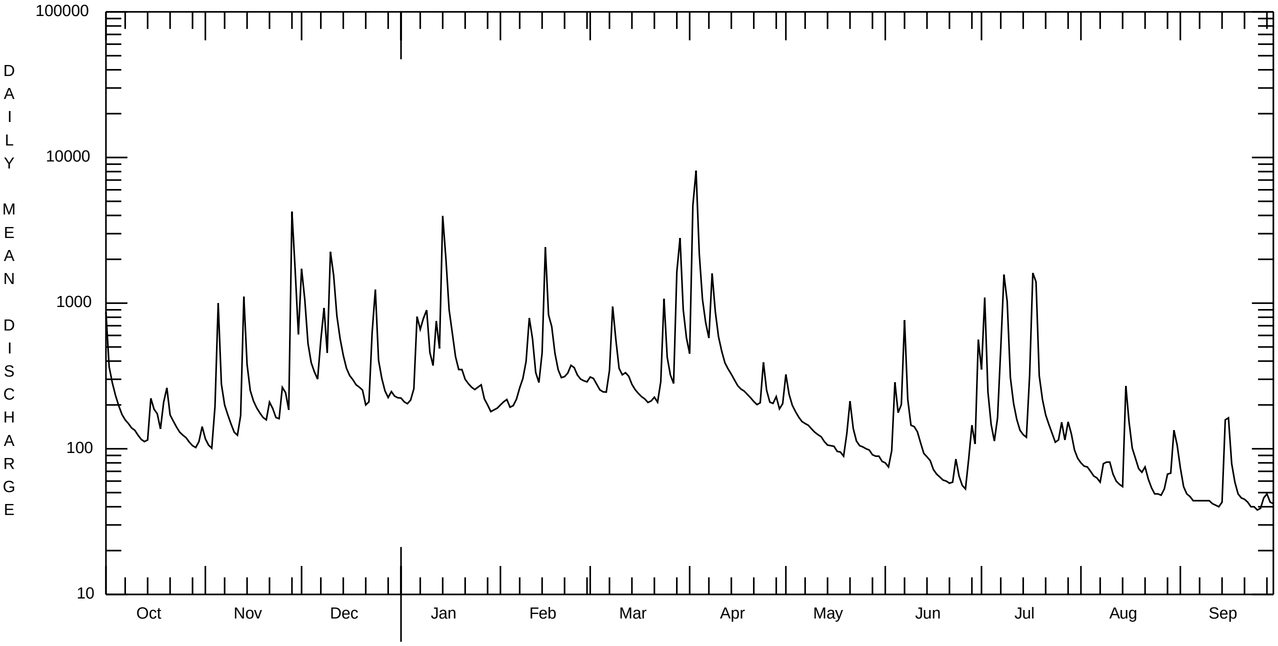
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	137	246	377	407	454	538	440	284	217	192	168	173
MAX	840	1170	1424	1509	1074	1246	1455	862	1049	1161	1694	1330
(WY)	1997	1973	1997	1979	1939	1936	1983	1989	2003	1938	1955	1999
MIN	13.8	23.2	34.3	47.2	75.9	105	89.8	54.5	33.7	21.8	15.1	15.4
(WY)	1958	1937	1966	1981	2002	1985	1985	1963	1965	1957	1966	1951

e Estimated.

01465500 NESHAMINY CREEK NEAR LANGHORNE, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1935 - 2005	
ANNUAL TOTAL	147971		132275			
ANNUAL MEAN	404		362		302	
HIGHEST ANNUAL MEAN					565	1973
LOWEST ANNUAL MEAN					121	1985
HIGHEST DAILY MEAN	11900	Sep 29	8120	Apr 3	27300	Aug 19 1955
LOWEST DAILY MEAN	42	Jul 11	38	Sep 25	2.9	Sep 8 1957
ANNUAL SEVEN-DAY MINIMUM	50	Jul 5	42	Sep 20	8.2	Aug 26 1944
MAXIMUM PEAK FLOW			[a]14000	Apr 3	[a]49300	Aug 19 1955
MAXIMUM PEAK STAGE			12.87	Apr 3	[b]22.84	Aug 19 1955
INSTANTANEOUS LOW FLOW			37	Sep 13[c]	1.9	Sep 8 1957
10 PERCENT EXCEEDS	829		789		586	
50 PERCENT EXCEEDS	210		201		141	
90 PERCENT EXCEEDS	84		59		33	

[a] From rating curve extended above 6,720 ft^3/s on basis of slope-area measurement of peak flow at gage height 22.84 ft.
[b] From floodmark.
[c] Also Sept. 14, 25.



OCTOBER 1, 2004 TO SEPTEMBER 30, 2005

01465500 NESHAMINY CREEK NEAR LANGHORNE, PA--Continued
(Pennsylvania Water-Quality Network Station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 2002 to current year.

REMARKS.--Other data for the Water-Quality Network can be found on pages 386-432.

COOPERATION.--Samples were collected as part of the Pennsylvania Department of Environmental Protection Water-Quality Network (WQN) with cooperation from the Pennsylvania Department of Environmental Protection.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conductance, wat unf lab, µS/cm 25 degC (90095)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water unfltrd recover -able, mg/L (00916)	Magnesium, water, unfltrd recover -able, mg/L (00927)
NOV 2004													
09...	1040	1028	9813	151	14.0	7.1	7.9	403	390	7.6	130	32	12
JAN 2005													
12...	1100	1028	9813	947	13.9	7.7	8.0	380	379	5.1	110	28	11
MAR													
29...	1010	1028	9813	2600	11.5	7.3	7.6	260	253	7.2	70	17	6.7
MAY													
24...	1050	1028	9813	105	9.3	7.8	8.0	485	479	15.8	140	34	12
JUL													
12...	1100	1028	9813	161	8.9	6.7	8.0	400	400	25.4	120	29	11
SEP													
07...	1220	1028	9813	44	10.4	8.0	7.8	537	549	21.6	140	36	13

Date	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 105degC wat flt mg/L (00515)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia water, unfltrd mg/L as N (00610)	Nitrate water unfltrd mg/L as N (00620)	Nitrite water, unfltrd mg/L as N (00615)	Total nitrogen, water, unfltrd mg/L (00600)	Orthophosphate, water, unfltrd mg/L as P (70507)	Phosphorus, water, unfltrd mg/L (00665)	Organic carbon, water, unfltrd mg/L (00680)	Aluminum, water, unfltrd recover -able, µg/L (01105)	Copper, water, unfltrd recover -able, µg/L (01042)
NOV 2004													
09...	86	29	260	14	.210	2.3	<.040	2.8	.14	.18	4.0	240	<10
JAN 2005													
12...	71	28	250	14	<.020	2.4	<.040	2.7	.12	.12	3.1	660	<10
MAR													
29...	38	14	160	220	.100	1.0	<.040	2.1	.07	.33	--	5300	10
MAY													
24...	82	36	260	<2.0	.050	2.7	<.040	3.2	.16	.19	--	<200	<10
JUL													
12...	83	37	470	<2.0	.040	1.8	<.040	2.0	.13	.17	--	<200	<10
SEP													
07...	94	43	340	14	.040	1.5	<.040	1.8	.19	.21	--	<200	<10

Date	Iron, water, unfltrd recover -able, µg/L (01045)	Lead, water, unfltrd recover -able, µg/L (01051)	Manganese, water, unfltrd recover -able, µg/L (01055)	Nickel, water, unfltrd recover -able, µg/L (01067)	Zinc, water, unfltrd recover -able, µg/L (01092)
NOV 2004					
09...	80	<1.0	20	<50	19
JAN 2005					
12...	720	<1.0	30	<50	12
MAR					
29...	7300	12	260	<50	40
MAY					
24...	110	<1.0	30	<50	<10
JUL					
12...	200	<1.0	40	<50	<10
SEP					
07...	140	<1.0	30	<50	18

01465500 NESHAMINY CREEK NEAR LANGHORNE, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES

REMARKS.--Samples were collected using a D-Frame net with a mesh size of 500 µm. Samples represent counts per 100 animal (approximate) subsamples.

Date	08/11/04
Benthic macroinvertebrate	Count
Platyhelminthes	
Turbellaria (FLATWORMS)	
Tricladida	
Planariidae	6
Nemertea (PROBOSCIS WORMS)	
Enopla	
Hoplonemertea	
Tetrastemmatidae	
Prostoma	1
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Tubificida	
Naididae	2
Arthropoda	
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
Baetis	21
Heptageniidae	
Stenonema	1
Trichoptera (CADDISFLIES)	
Glossosomatidae	1
Helicopsychidae	
Helicopsyche	8
Hydropsychidae	
Cheumatopsyche	4
Hydropsyche	8
Hydroptilidae	
Leucotrichia	3
Philopotamidae	
Chimarra	7
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
Optioservus	3
Stenelmis	50
Psephenidae (WATER PENNIES)	
Psephenus	2
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	18
Simuliidae (BLACK FLIES)	
Simulium	2
Total Organisms	137
Total Taxa	16

POQUESSING CREEK BASIN

01465798 POQUESSING CREEK AT GRANT AVENUE, PHILADELPHIA, PA

LOCATION.--Lat 40°03'25", long 74°59'08", Philadelphia County, Hydrologic Unit 02040202, on right bank 600 ft upstream from Interstate Highway 95, 3,000 ft upstream from mouth, and in northeast Philadelphia.

DRAINAGE AREA.--21.4 mi^2.

PERIOD OF RECORD.--July 1965 to current year. Records for 1971-74 published in WDR PA-81-1.

REVISED RECORD.--WDR PA-86-1: 1985.

GAGE.--Water-stage recorder, crest-stage gage, and concrete low-water control. Datum of gage is 2.68 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year. Flow occasionally affected by tide.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft^3/s and maximum (*):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Nov. 28	1030	2,460	8.95	June 6	2300	1,550	7.59
Jan. 14	----	2,580	9.10	July 7	0145	1,540	7.57
Mar. 28	1700	1,400	7.33	July 8	1330	2,050	8.38
Apr. 2	1900	3,100	9.75	July 17	2200	*4,070	*10.84

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	5.6	207	11	e11	36	21	96	6.9	65	6.7	4.6
2	12	6.0	29	10	12	28	995	17	6.8	134	6.5	4.1
3	9.9	5.9	17	10	13	20	156	16	59	11	6.4	3.6
4	8.5	181	14	15	19	17	46	13	62	7.9	5.9	3.3
5	7.6	55	13	71	24	17	33	13	10	12	5.6	3.3
6	7.0	12	12	70	24	18	28	12	200	16	5.6	3.3
7	6.8	8.9	83	27	22	25	25	12	114	227	5.5	3.2
8	6.7	7.8	58	70	21	68	132	11	20	466	9.7	3.3
9	6.7	7.3	46	25	22	25	33	11	10	34	8.7	3.3
10	6.6	7.0	157	17	28	20	25	10	136	14	7.0	3.2
11	6.3	7.1	48	26	18	18	22	10	23	10	5.6	3.0
12	6.3	106	24	67	14	23	21	9.9	10	8.9	5.2	2.9
13	6.4	119	19	19	13	17	20	9.0	8.5	8.3	4.8	2.9
14	8.5	17	16	e380	109	16	19	8.3	8.0	8.0	4.8	47
15	8.2	12	14	e23	138	15	17	8.4	7.3	7.7	49	31
16	20	10	13	e19	43	15	16	8.3	7.1	14	12	6.0
17	8.9	9.3	13	e18	29	14	16	8.0	6.6	723	15	4.1
18	6.6	8.9	12	e17	19	14	16	8.0	6.1	184	5.5	3.6
19	103	8.5	e11	16	17	14	16	7.9	6.1	16	5.8	3.2
20	13	8.8	e10	16	16	23	15	97	6.1	9.1	6.4	3.1
21	10	13	11	14	32	18	15	19	5.9	7.7	4.7	2.9
22	12	8.5	11	12	38	14	15	9.8	21	8.1	4.4	2.9
23	6.9	8.0	82	e11	25	123	16	8.9	19	8.2	4.0	2.9
24	6.6	12	33	e9.5	19	56	27	8.6	6.2	7.1	3.8	3.0
25	10	21	14	e10	26	22	15	10	5.6	30	3.8	2.6
26	6.4	13	e12	e11	23	18	13	10	5.3	9.4	3.9	2.8
27	6.3	8.2	e11	e10	20	16	15	8.6	59	7.8	29	9.1
28	6.1	540	e10	e9.0	21	397	13	7.8	42	20	14	3.3
29	6.1	34	11	e9.5	---	75	13	7.8	13	7.6	5.8	3.0
30	21	18	11	e10	---	28	83	7.4	135	7.1	5.7	4.6
31	7.4	---	11	e10	---	23	---	7.1	---	6.7	4.8	---
TOTAL	375.8	1278.8	1033	1043.0	816	1233	1897	490.8	1025.5	2095.6	265.6	179.1
MEAN	12.1	42.6	33.3	33.6	29.1	39.8	63.2	15.8	34.2	67.6	8.57	5.97
MAX	103	540	207	380	138	397	995	97	200	723	49	47
MIN	6.1	5.6	10	9.0	11	14	13	7.1	5.3	6.7	3.8	2.6

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2005, BY WATER YEAR (WY)

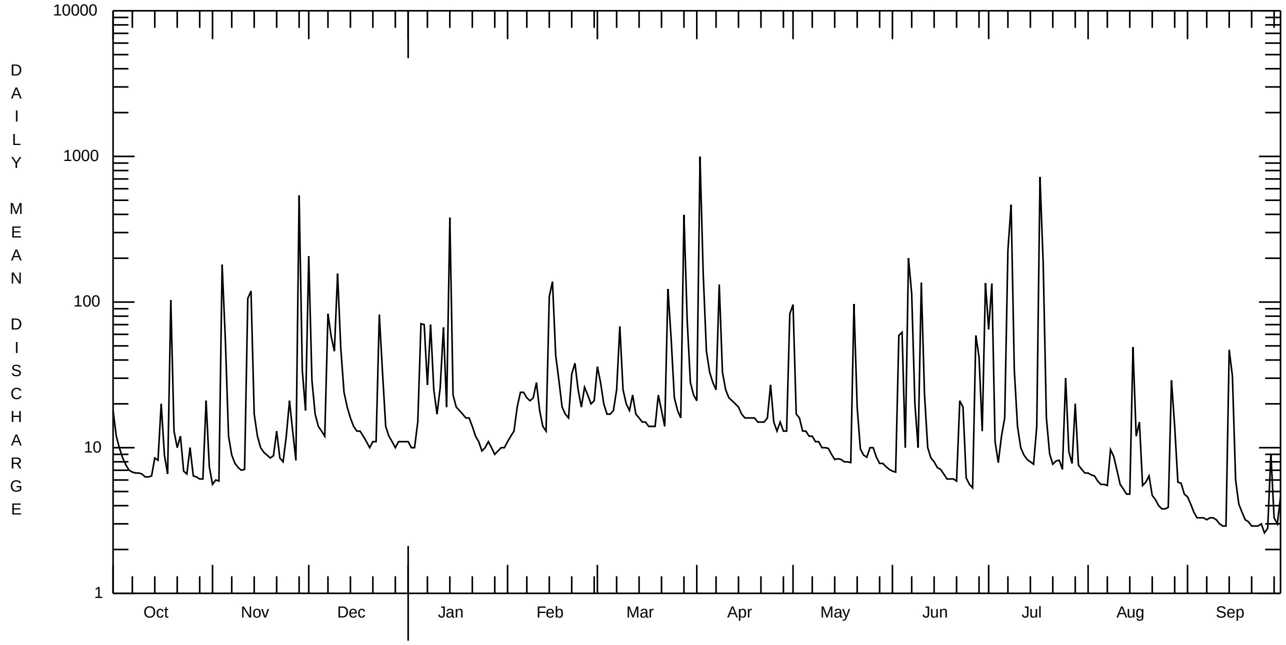
MEAN	21.2	26.7	34.3	34.0	34.1	40.2	37.5	32.9	30.4	37.9	30.4	29.7
MAX	59.9	112	124	136	105	98.0	104	74.2	84.7	112	130	109
(WY)	1997	1973	1997	1979	1979	1994	1983	1989	1989	1989	1971	1999
MIN	3.63	4.23	3.58	4.34	6.03	9.17	8.91	10.6	5.94	3.98	4.22	3.93
(WY)	2002	2002	1999	1981	2002	1985	1985	1977	1966	1999	1995	1970

e Estimated.

01465798 POQUESSING CREEK AT GRANT AVENUE, PHILADELPHIA, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1965 - 2005	
ANNUAL TOTAL	14903.1		11733.2			
ANNUAL MEAN	40.7		32.1		32.5	
HIGHEST ANNUAL MEAN					52.3	1979
LOWEST ANNUAL MEAN					15.7	2002
HIGHEST DAILY MEAN	1060	Sep 29	995	Apr 2	2490	Sep 16 1999
LOWEST DAILY MEAN	3.4	Jul 11	2.6	Sep 25	0.21	Aug 3 1999
ANNUAL SEVEN-DAY MINIMUM	4.8	Sep 21	2.9	Sep 20	0.33	Aug 1 1999
MAXIMUM PEAK FLOW			**a**4070	Jul 17	**a**9400	Jul 28 1982
MAXIMUM PEAK STAGE			10.84	Jul 17	15.35	Jul 28 1982
10 PERCENT EXCEEDS	73		63		61	
50 PERCENT EXCEEDS	13		12		12	
90 PERCENT EXCEEDS	6.3		5.3		4.3	

a From rating curve extended above 550 ft^3/s on basis of slope-area measurement of peak flow.



PENNYPACK CREEK BASIN

01467048 PENNYPACK CREEK AT LOWER RHAWN STREET BRIDGE, PHILADELPHIA, PA

LOCATION.--Lat 40°03'00", long 75°01'59", Philadelphia County, Hydrologic Unit 02040202, on left bank at downstream side of footbridge pier, 400 ft downstream from Lower Rhawn Street bridge, and 0.8 mi upstream from Wooden Bridge Run in Philadelphia.

DRAINAGE AREA.--49.8 mi^2.

PERIOD OF RECORD.--June 1965 to current year. Records for 1971-74 published in WDR PA-81-1.

REVISED RECORDS: WDR PA-81-1: 1974. WDR PA-89-1: 1988.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 21.27 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year. Satellite telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,700 ft^3/s and maximum (*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Nov. 28	1300	2,420	7.15	Apr. 3	0045	*5,030	*9.74
Jan. 14	1230	2,610	7.38	July 8	1530	1,800	6.36
Mar. 28	1900	1,800	6.41	July 17	2200	4,450	9.23

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	93	33	366	53	e49	106	95	175	31	77	40	33
2	72	33	107	50	e50	98	1710	73	32	223	39	24
3	64	32	78	51	51	83	1210	68	86	35	37	21
4	59	e250	68	58	57	76	215	60	147	25	38	19
5	53	192	62	143	65	74	166	58	43	27	36	19
6	49	56	59	171	67	75	145	57	120	52	31	19
7	47	46	194	97	67	89	135	58	233	212	29	19
8	45	42	144	188	68	181	318	54	60	671	52	18
9	43	39	104	102	78	103	139	51	46	98	50	18
10	43	37	358	76	107	86	e105	52	201	48	36	18
11	40	37	173	85	75	82	e100	49	120	37	32	17
12	40	164	103	168	60	91	e100	51	40	31	29	17
13	40	e170	91	85	56	78	e94	44	29	29	28	17
14	64	e107	80	1020	223	73	98	42	28	28	27	48
15	60	57	74	167	425	69	92	43	26	27	160	115
16	68	52	69	117	137	67	88	41	25	208	52	57
17	44	49	67	103	120	66	85	38	23	1110	79	26
18	37	47	63	89	91	65	83	38	22	672	34	24
19	180	46	64	e75	81	63	80	36	22	110	31	22
20	61	46	e60	e74	78	77	77	159	22	92	31	22
21	49	69	e54	e65	103	75	74	73	22	72	30	22
22	51	47	55	e57	113	63	71	43	22	64	26	18
23	39	44	256	e50	102	212	87	40	53	58	25	16
24	37	51	147	e45	86	165	132	38	22	50	23	16
25	37	79	73	e50	94	83	74	41	20	102	20	15
26	35	57	64	e55	88	74	68	41	19	71	20	18
27	34	44	e60	e50	82	70	74	37	87	55	35	36
28	34	926	e56	e45	85	613	66	34	95	72	57	19
29	e32	120	57	e46	---	244	61	35	e75	48	43	18
30	68	76	57	e47	---	116	130	31	214	48	95	21
31	42	---	55	e48	---	102	---	31	---	42	52	---
TOTAL	1660	3048	3318	3530	2758	3519	5972	1691	1985	4494	1317	772
MEAN	53.5	102	107	114	98.5	114	199	54.5	66.2	145	42.5	25.7
MAX	180	926	366	1020	425	613	1710	175	233	1110	160	115
MIN	32	32	54	45	49	63	61	31	19	25	20	15
CFSM	1.08	2.04	2.15	2.29	1.98	2.28	4.00	1.10	1.33	2.91	0.85	0.52
IN.	1.24	2.28	2.48	2.64	2.06	2.63	4.46	1.26	1.48	3.36	0.98	0.58

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2005, BY WATER YEAR (WY)

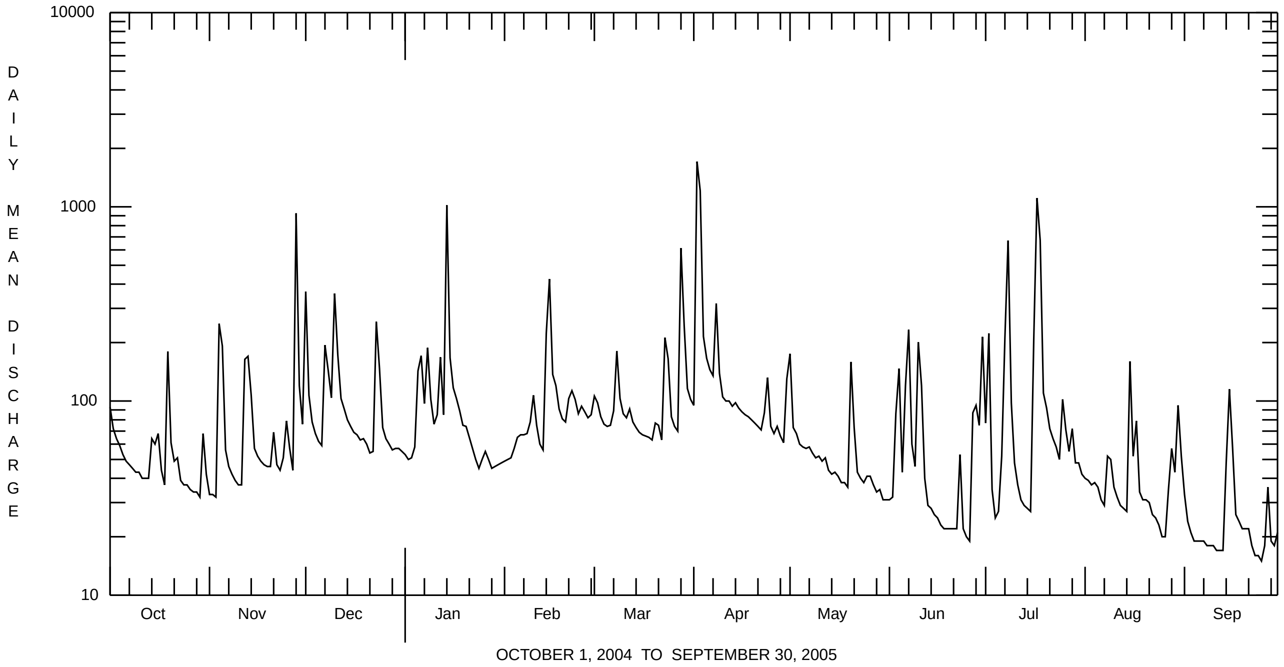
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	59.3	76.1	99.0	97.0	97.0	121	119	98.4	88.4	87.3	69.9	75.0
MAX	174	300	311	334	252	273	338	194	270	257	163	276
(WY)	1997	1973	1997	1979	1979	1994	1983	1978	2001	1975	1967	1999
MIN	18.1	17.5	18.5	14.0	27.1	33.5	32.5	42.5	21.4	18.2	15.7	17.4
(WY)	2002	1966	1999	1981	2002	1985	1985	1995	1995	1999	1966	1970

e Estimated.

01467048 PENNYPACK CREEK AT LOWER RHAWN STREET BRIDGE, PHILADELPHIA, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1965 - 2005	
ANNUAL TOTAL	38563		34064			
ANNUAL MEAN	105		93.3		91.0	
HIGHEST ANNUAL MEAN					165	1973
LOWEST ANNUAL MEAN					42.7	2002
HIGHEST DAILY MEAN	2800	Sep 29	1710	Apr 2	**e**4900	Sep 16 1999
LOWEST DAILY MEAN	17	Jul 11	15	Sep 25	7.8	Aug 7 1999
ANNUAL SEVEN-DAY MINIMUM	25	Sep 21	18	Sep 7	9.1	Aug 1 1999
MAXIMUM PEAK FLOW			**a**5030	Apr 3	**a**12400	Sep 16 1999
MAXIMUM PEAK STAGE			9.74	Apr 3	**b**14.77	Sep 16 1999
INSTANTANEOUS LOW FLOW			13	Sep 25,26	6.0	Oct 11 1966
ANNUAL RUNOFF (CFSM)	2.12		1.87		1.83	
ANNUAL RUNOFF (INCHES)	28.81		25.45		24.82	
10 PERCENT EXCEEDS	171		165		169	
50 PERCENT EXCEEDS	60		58		50	
90 PERCENT EXCEEDS	31		25		21	

a From rating curve extended above 3,900 ft^3/s on basis of slope-area measurement at gage height 13.15 ft.
b From high-water mark in gage shelter.
e Estimated.



FRANKFORD CREEK BASIN

01467087 FRANKFORD CREEK AT CASTOR AVENUE, PHILADELPHIA, PA

LOCATION.--Lat 40°00'57", long 75°05'50", Philadelphia County, Hydrologic Unit 02040203, on left bank at upstream side of Castor Avenue bridge, and 2.8 mi upstream from mouth in northeast Philadelphia.

DRAINAGE AREA.--30.4 mi^2.

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

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 16.56 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records fair except those greater than 500 ft^3/s. Satellite telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft^3/s and maximum (*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Apr. 2	1745	4,480	7.40	July 17	1945	*5,380	*8.14
June 6	2115	3,860	6.86	Aug. 15	0045	4,180	7.14
July 8	1100	3,330	6.37				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	10	184	19	20	33	28	60	13	71	8.3	12
2	15	11	24	20	20	27	889	25	13	179	8.5	6.8
3	13	11	20	19	19	23	108	24	70	10	8.5	6.2
4	11	213	19	22	22	22	60	22	39	9.3	8.1	6.4
5	11	31	18	77	25	22	52	21	15	12	8.6	6.6
6	11	13	17	53	24	22	48	21	216	26	18	6.6
7	10	13	95	28	23	26	45	21	56	42	8.0	6.0
8	9.9	12	39	78	23	64	143	20	15	449	19	6.0
9	9.4	11	61	26	24	26	43	21	13	22	14	5.3
10	9.3	11	108	23	29	24	41	20	120	13	8.9	5.6
11	8.6	11	37	51	21	24	39	20	18	11	8.7	6.1
12	8.5	120	25	54	20	27	37	19	12	11	8.0	6.1
13	8.5	68	24	24	19	23	36	18	11	10	8.1	5.7
14	22	17	22	484	198	22	35	17	11	10	7.8	41
15	11	15	21	41	91	21	33	17	10	13	223	109
16	18	14	21	34	52	21	33	16	12	63	37	11
17	11	13	20	32	28	21	32	15	9.9	546	25	22
18	8.9	13	20	30	24	20	32	15	8.8	55	9.3	10
19	123	13	21	29	23	19	31	15	8.8	19	8.6	6.0
20	11	14	20	29	22	26	30	118	9.1	14	9.3	6.0
21	13	18	19	28	36	21	30	21	9.2	13	7.9	6.0
22	16	12	20	21	32	18	29	17	11	12	6.7	5.4
23	9.7	12	135	25	26	146	96	16	11	12	6.8	6.0
24	9.4	19	31	28	24	38	56	15	9.2	11	6.7	6.4
25	9.6	24	22	27	29	22	25	16	9.1	23	6.3	5.9
26	9.3	14	21	25	25	21	24	16	9.0	13	6.2	9.4
27	9.3	13	21	23	23	20	28	14	79	13	33	16
28	9.5	352	19	22	25	342	23	13	40	20	22	4.5
29	9.2	24	20	24	---	49	22	15	76	10	152	6.5
30	29	18	19	21	---	31	104	13	31	10	20	8.7
31	10	---	19	20	---	28	---	12	---	10	11	---
TOTAL	483.1	1140	1162	1437	947	1249	2232	693	965.1	1732.3	733.3	365.2
MEAN	15.6	38.0	37.5	46.4	33.8	40.3	74.4	22.4	32.2	55.9	23.7	12.2
MAX	123	352	184	484	198	342	889	118	216	546	223	109
MIN	8.5	10	17	19	19	18	22	12	8.8	9.3	6.2	4.5
CFSM	0.51	1.25	1.23	1.52	1.11	1.33	2.45	0.74	1.06	1.84	0.78	0.40
IN.	0.59	1.40	1.42	1.76	1.16	1.53	2.73	0.85	1.18	2.12	0.90	0.45

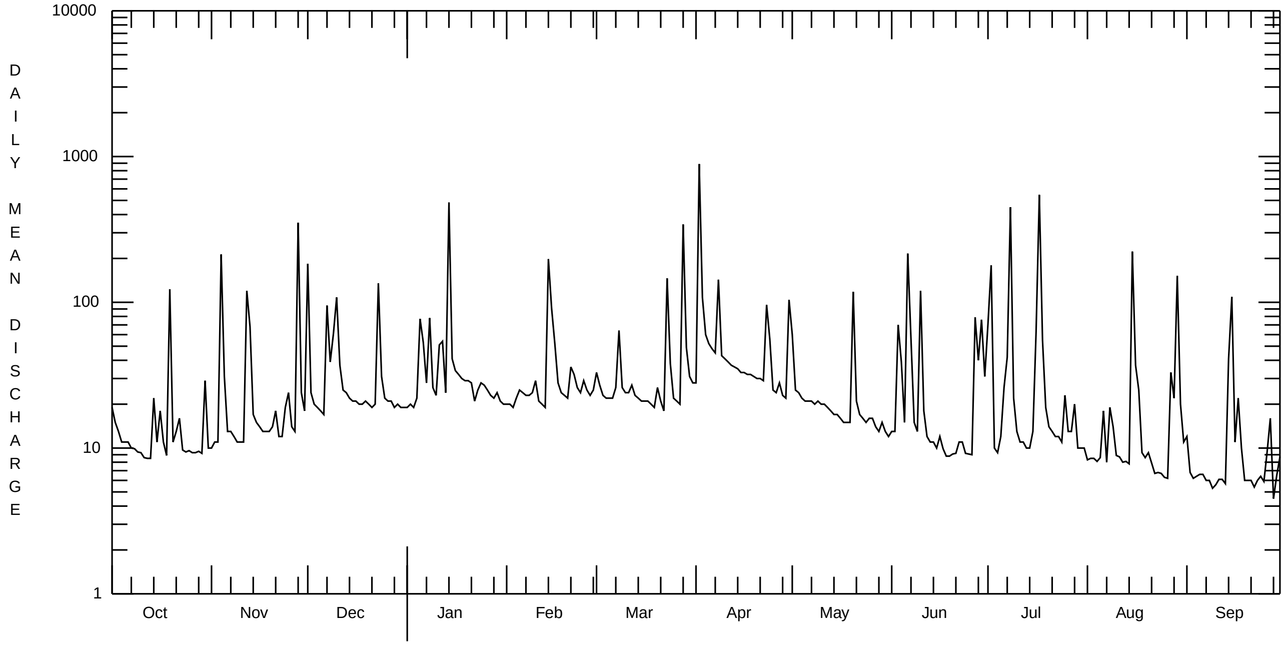
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 2005, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	27.3	33.6	39.4	34.8	35.7	49.7	48.4	46.9	42.6	50.4	39.9	46.5
MAX	86.5	81.7	145	61.8	80.4	91.4	143	98.4	111	116	83.3	143
(WY)	1997	1987	1997	1996	1988	1994	1983	1989	1989	1989	2004	1999
MIN	7.38	6.64	6.47	10.6	7.79	11.7	14.4	20.8	11.1	4.91	5.66	9.02
(WY)	2002	2002	1999	1985	2002	1985	2002	1986	1999	1999	1995	1998

01467087 FRANKFORD CREEK AT CASTOR AVENUE, PHILADELPHIA, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1982 - 2005	
ANNUAL TOTAL	20401.1		13139.0			
ANNUAL MEAN	55.7		36.0		41.3	
HIGHEST ANNUAL MEAN					65.1	2004
LOWEST ANNUAL MEAN					17.9	2002
HIGHEST DAILY MEAN	2290	Sep 28	889	Apr 2	3140	Sep 16 1999
LOWEST DAILY MEAN	8.5	Oct 12	4.5	Sep 28	0.39	Sep 25 2002
ANNUAL SEVEN-DAY MINIMUM	9.2	Oct 7	5.8	Sep 7	0.48	Sep 19 2002
MAXIMUM PEAK FLOW			5380	Jul 17	**a**13900	Sep 28 2004
MAXIMUM PEAK STAGE			8.14	Jul 17	13.94	Sep 28 2004
INSTANTANEOUS LOW FLOW			3.4	Sep 28	0.31	Sep 25 2002
ANNUAL RUNOFF (CFSM)	1.83		1.18		1.36	
ANNUAL RUNOFF (INCHES)	24.96		16.08		18.46	
10 PERCENT EXCEEDS	91		62		78	
50 PERCENT EXCEEDS	22		20		16	
90 PERCENT EXCEEDS	11		8.5		6.8	

a From rating curve extended above 8,000 ft^3/s on basis of slope-area measurement at gage height 9.97 ft.



OCTOBER 1, 2004 TO SEPTEMBER 30, 2005

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE AT PHILADELPHIA, PA

LOCATION.--Lat 39°57'14", long 75°08'16", Philadelphia County, Hydrologic Unit 02040202, on right bank at river end of pier 12, 150 ft upstream from Ben Franklin bridge, and at Philadelphia.

DRAINAGE AREA.--7,993 mi^2.

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

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1963 to current year.
pH: October 1967 to current year.
WATER TEMPERATURE: November 1960 to current year.
DISSOLVED OXYGEN: October 1961 to current year.

INSTRUMENTATION.--Water-quality monitor interfaced with a data collection platform.

REMARKS.--Water temperature and pH records rated good. Specific conductance records rated good except for period Oct. 1-18, which is poor. Dissolved oxygen record rated fair. Prior to July 1988, located on edge of pier 11 about 300 ft downstream of pier 12. Further information on this station is given in U.S. Geological Survey Water-Supply Paper 1809-0. Data collection discontinued during winter months. Other interruptions in the record were due to malfunctions of the pump or recording instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1,450 microsiemens, Nov. 20, 1964; minimum, 65 microsiemens, Sept. 15, 1979.
pH: Maximum, 8.7, Oct. 14, 1979; minimum, 4.7, Dec. 29, 1978.
WATER TEMPERATURE: Maximum, 31.0°C, July 13-15, 1966; minimum, 0.0°C, many days during winters.
DISSOLVED OXYGEN: Maximum, 14.1 mg/L, Dec. 14, 1962; minimum, 0.0 mg/L, on many days.

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° CELSIUS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			**NOVEMBER**			**DECEMBER**			**JANUARY**	
1	157	140	148	195	185	191	151	117	136	---	---	---
2	160	153	155	203	187	194	120	110	114	---	---	---
3	160	153	156	201	190	195	130	116	122	---	---	---
4	161	153	157	207	193	199	130	122	125	---	---	---
5	162	156	158	205	192	197	127	121	123	---	---	---
6	166	161	164	202	196	198	128	122	124	---	---	---
7	169	160	164	206	199	203	134	125	129	---	---	---
8	177	162	170	209	203	207	136	129	133	---	---	---
9	179	171	176	215	207	211	143	131	139	---	---	---
10	187	172	177	222	213	216	151	139	145	---	---	---
11	190	178	182	223	220	222	160	145	151	---	---	---
12	204	180	188	233	221	226	160	149	154	---	---	---
13	205	186	192	230	220	225	153	145	151	---	---	---
14	200	191	195	226	218	222	148	137	143	---	---	---
15	207	191	201	228	218	223	---	---	---	---	---	---
16	206	198	201	229	220	224	---	---	---	---	---	---
17	206	198	202	232	223	227	---	---	---	---	---	---
18	214	201	207	233	226	229	---	---	---	---	---	---
19	219	204	211	237	228	233	---	---	---	---	---	---
20	214	205	210	238	232	235	---	---	---	---	---	---
21	218	208	213	239	232	236	---	---	---	---	---	---
22	223	210	218	239	230	235	---	---	---	---	---	---
23	223	214	218	243	229	235	---	---	---	---	---	---
24	226	209	217	244	230	238	---	---	---	---	---	---
25	221	206	216	243	233	238	---	---	---	---	---	---
26	220	199	210	238	229	234	---	---	---	---	---	---
27	214	192	204	242	229	235	---	---	---	---	---	---
28	211	183	198	239	216	232	---	---	---	---	---	---
29	211	185	197	218	180	212	---	---	---	---	---	---
30	203	187	196	197	141	167	---	---	---	---	---	---
31	199	185	192	---	---	---	---	---	---	---	---	---
MONTH	226	140	190	244	141	218	160	110	135	---	---	---

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE AT PHILADELPHIA, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° CELSIUS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			**MARCH**			**APRIL**			**MAY**		
1	---	---	---	---	---	---	122	113	117	---	---	---
2	---	---	---	---	---	---	127	115	120	---	---	---
3	---	---	---	---	---	---	137	118	127	---	---	---
4	---	---	---	---	---	---	121	82	100	---	---	---
5	---	---	---	---	---	---	97	82	88	---	---	---
6	---	---	---	---	---	---	116	94	107	---	---	---
7	---	---	---	---	---	---	124	110	117	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	155	147	151	---	---	---
13	---	---	---	---	---	---	159	151	155	---	---	---
14	---	---	---	---	---	---	163	155	158	---	---	---
15	---	---	---	---	---	---	171	159	164	---	---	---
16	---	---	---	---	---	---	175	165	170	---	---	---
17	---	---	---	---	---	---	183	169	175	---	---	---
18	---	---	---	---	---	---	188	172	180	---	---	---
19	---	---	---	---	---	---	191	178	184	---	---	---
20	---	---	---	---	---	---	195	184	190	233	218	225
21	---	---	---	---	---	---	196	188	192	231	221	225
22	---	---	---	---	---	---	200	193	196	234	225	230
23	---	---	---	---	---	---	201	195	199	238	228	233
24	---	---	---	---	---	---	209	201	206	245	233	238
25	---	---	---	---	---	---	217	206	211	249	234	242
26	---	---	---	---	---	---	222	212	216	252	239	246
27	---	---	---	---	---	---	226	214	220	253	242	249
28	---	---	---	---	---	---	---	---	---	256	244	251
29	---	---	---	---	---	---	---	---	---	259	247	253
30	---	---	---	248	162	213	---	---	---	261	248	256
31	---	---	---	170	118	136	---	---	---	264	250	258
MONTH	---	---	---	248	118	174	226	82	163	264	218	242

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			**JULY**			**AUGUST**			**SEPTEMBER**		
1	268	255	260	---	---	---	291	265	277	335	295	313
2	271	258	263	305	274	287	290	268	279	345	295	318
3	273	260	266	298	275	285	293	267	281	342	297	319
4	275	262	266	304	278	288	300	272	284	343	300	321
5	273	261	267	307	282	293	297	273	285	350	301	324
6	277	256	268	312	285	296	298	274	285	359	302	328
7	277	257	265	312	286	299	301	275	288	353	305	329
8	273	256	263	319	269	296	303	276	291	355	308	331
9	272	257	263	303	263	282	302	280	292	358	309	333
10	273	256	263	294	261	276	302	281	291	367	310	335
11	269	254	261	293	260	276	302	284	292	371	315	339
12	269	249	260	292	259	276	307	282	293	368	318	339
13	270	252	261	293	263	278	306	281	293	383	315	340
14	274	254	265	280	250	266	317	284	296	387	320	351
15	286	260	275	278	247	262	316	284	296	395	317	345
16	291	270	282	280	252	263	320	286	301	388	312	343
17	289	268	281	280	251	263	323	286	303	390	317	349
18	292	271	282	271	237	250	321	282	301	400	314	350
19	293	272	282	267	236	249	323	284	303	390	315	350
20	296	273	285	267	235	249	326	286	305	404	320	358
21	298	274	285	270	238	251	324	285	305	396	315	352
22	---	---	---	272	242	255	312	263	286	413	320	360
23	---	---	---	270	242	256	---	---	---	398	325	360
24	303	276	290	270	243	256	---	---	---	427	319	364
25	301	276	289	272	244	261	334	296	313	418	328	368
26	299	275	288	277	251	264	335	295	315	412	323	364
27	304	278	291	279	254	267	337	297	316	415	317	353
28	302	279	291	282	257	270	---	---	---	453	331	377
29	300	277	289	285	261	273	---	---	---	468	351	395
30	---	---	---	286	262	273	341	295	316	430	336	379
31	---	---	---	291	263	274	351	295	317	---	---	---
MONTH	304	249	274	319	235	271	351	263	296	468	295	346

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE AT PHILADELPHIA, PA--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
		OCTOBER			**NOVEMBER**			**DECEMBER**			**JANUARY**	
1	6.8	6.7	6.8	6.8	6.8	6.8	7.1	6.7	6.8	---	---	---
2	6.8	6.7	6.8	6.9	6.8	6.8	6.8	6.8	6.8	---	---	---
3	6.8	6.7	6.8	6.8	6.8	6.8	6.8	6.8	6.8	---	---	---
4	6.8	6.7	6.8	6.9	6.7	6.8	6.9	6.8	6.9	---	---	---
5	6.8	6.7	6.8	6.9	6.7	6.8	6.9	6.8	6.8	---	---	---
6	6.8	6.7	6.8	7.0	6.8	6.9	6.8	6.8	6.8	---	---	---
7	6.8	6.7	6.8	7.0	6.8	6.9	6.8	6.8	6.8	---	---	---
8	6.8	6.8	6.8	7.0	6.8	6.9	6.8	6.8	6.8	---	---	---
9	6.8	6.8	6.8	7.0	6.8	6.9	6.9	6.8	6.8	---	---	---
10	6.8	6.8	6.8	7.0	6.8	6.9	6.8	6.8	6.8	---	---	---
11	6.8	6.8	6.8	7.0	6.8	6.9	6.9	6.8	6.8	---	---	---
12	6.9	6.8	6.8	---	---	---	6.9	6.9	6.9	---	---	---
13	6.9	6.8	6.9	---	---	---	6.9	6.8	6.9	---	---	---
14	7.0	6.8	6.9	---	---	---	6.9	6.8	6.8	---	---	---
15	7.0	6.9	6.9	---	---	---	---	---	---	---	---	---
16	7.0	6.9	7.0	6.9	6.9	6.9	---	---	---	---	---	---
17	7.0	7.0	7.0	6.9	6.8	6.9	---	---	---	---	---	---
18	7.0	6.9	7.0	6.9	6.8	6.8	---	---	---	---	---	---
19	7.0	6.9	6.9	6.8	6.8	6.8	---	---	---	---	---	---
20	7.0	6.9	7.0	6.8	6.8	6.8	---	---	---	---	---	---
21	7.0	7.0	7.0	6.8	6.8	6.8	---	---	---	---	---	---
22	7.1	7.0	7.0	6.8	6.8	6.8	---	---	---	---	---	---
23	7.1	7.0	7.1	6.8	6.8	6.8	---	---	---	---	---	---
24	7.1	7.0	7.0	6.8	6.7	6.8	---	---	---	---	---	---
25	7.1	7.0	7.0	6.8	6.7	6.7	---	---	---	---	---	---
26	7.0	7.0	7.0	6.9	6.8	6.8	---	---	---	---	---	---
27	7.0	7.0	7.0	6.9	6.8	6.8	---	---	---	---	---	---
28	7.0	6.9	7.0	6.9	6.8	6.8	---	---	---	---	---	---
29	6.9	6.9	6.9	7.0	6.9	7.0	---	---	---	---	---	---
30	6.9	6.8	6.9	7.0	6.8	6.9	---	---	---	---	---	---
31	6.9	6.8	6.8	---	---	---	---	---	---	---	---	---
MAX	7.1	7.0	7.1	7.0	6.9	7.0	7.1	6.9	6.9	---	---	---
MIN	6.8	6.7	6.8	6.8	6.7	6.7	6.8	6.7	6.8	---	---	---

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
		FEBRUARY			**MARCH**			**APRIL**			**MAY**	
1	---	---	---	---	---	---	7.3	7.2	7.2	7.3	7.2	7.2
2	---	---	---	---	---	---	7.3	7.3	7.3	7.3	7.2	7.3
3	---	---	---	---	---	---	7.4	7.3	7.3	7.3	7.2	7.2
4	---	---	---	---	---	---	7.4	7.2	7.3	7.3	7.2	7.2
5	---	---	---	---	---	---	7.2	7.2	7.2	7.2	7.2	7.2
6	---	---	---	---	---	---	7.2	7.2	7.2	7.2	7.2	7.2
7	---	---	---	---	---	---	7.3	7.2	7.2	7.2	7.1	7.2
8	---	---	---	---	---	---	---	---	---	7.2	7.1	7.2
9	---	---	---	---	---	---	---	---	---	7.2	7.1	7.2
10	---	---	---	---	---	---	---	---	---	7.2	7.1	7.1
11	---	---	---	---	---	---	---	---	---	7.2	7.0	7.1
12	---	---	---	---	---	---	7.4	7.3	7.3	7.2	7.1	7.1
13	---	---	---	---	---	---	7.3	7.3	7.3	7.2	7.1	7.1
14	---	---	---	---	---	---	7.3	7.2	7.2	7.2	7.1	7.2
15	---	---	---	---	---	---	7.3	7.2	7.3	7.2	7.0	7.2
16	---	---	---	---	---	---	7.3	7.3	7.3	7.1	7.0	7.1
17	---	---	---	---	---	---	7.3	7.3	7.3	7.1	7.0	7.1
18	---	---	---	---	---	---	7.3	7.3	7.3	7.1	7.0	7.0
19	---	---	---	---	---	---	7.3	7.3	7.3	7.3	7.0	7.1
20	---	---	---	---	---	---	7.3	7.2	7.3	7.2	7.1	7.2
21	---	---	---	---	---	---	7.3	7.2	7.3	7.2	7.1	7.1
22	---	---	---	---	---	---	7.3	7.3	7.3	7.2	7.1	7.1
23	---	---	---	---	---	---	7.3	7.3	7.3	7.2	7.1	7.1
24	---	---	---	---	---	---	7.4	7.3	7.3	7.1	7.0	7.1
25	---	---	---	---	---	---	7.4	7.3	7.3	7.1	7.0	7.1
26	---	---	---	---	---	---	7.4	7.3	7.4	7.1	7.0	7.0
27	---	---	---	---	---	---	7.5	7.3	7.4	7.1	7.0	7.0
28	---	---	---	---	---	---	7.4	7.4	7.4	7.0	7.0	7.0
29	---	---	---	---	---	---	7.4	7.3	7.4	7.0	6.9	7.0
30	---	---	---	7.7	7.4	7.6	7.3	7.3	7.3	7.0	6.9	7.0
31	---	---	---	7.4	7.2	7.3	---	---	---	7.1	6.9	7.0
MAX	---	---	---	7.7	7.4	7.6	7.5	7.4	7.4	7.3	7.2	7.3
MIN	---	---	---	7.4	7.2	7.3	7.2	7.2	7.2	7.0	6.9	7.0

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE AT PHILADELPHIA, PA--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
		JUNE			**JULY**			**AUGUST**			**SEPTEMBER**	
1	7.1	7.0	7.0	---	---	---	7.0	6.9	7.0	7.0	6.9	6.9
2	7.1	7.0	7.0	7.1	7.0	7.1	7.0	6.9	7.0	7.0	6.9	6.9
3	7.1	7.0	7.1	7.1	7.0	7.1	7.0	6.9	7.0	7.0	6.9	7.0
4	7.1	7.0	7.0	7.1	7.0	7.1	7.0	6.9	7.0	7.0	6.9	7.0
5	7.1	7.0	7.0	7.1	7.0	7.1	7.0	7.0	7.0	7.0	7.0	7.0
6	7.1	7.0	7.0	7.1	7.0	7.1	7.0	6.9	7.0	7.0	7.0	7.0
7	7.1	7.0	7.0	7.1	7.0	7.0	6.9	6.9	6.9	7.0	7.0	7.0
8	7.1	7.0	7.0	7.0	6.9	7.0	6.9	6.9	6.9	7.0	7.0	7.0
9	7.1	7.0	7.0	7.0	6.9	6.9	6.9	6.8	6.9	7.0	7.0	7.0
10	7.1	7.0	7.0	6.9	6.9	6.9	6.9	6.8	6.8	7.0	7.0	7.0
11	7.0	7.0	7.0	6.9	6.9	6.9	6.9	6.8	6.8	7.0	6.9	7.0
12	7.1	7.0	7.0	6.9	6.9	6.9	6.9	6.8	6.8	7.0	7.0	7.0
13	7.1	7.0	7.0	6.9	6.9	6.9	6.9	6.8	6.9	7.0	6.9	7.0
14	7.1	7.0	7.0	7.0	6.9	6.9	6.9	6.8	6.9	7.0	6.9	7.0
15	7.1	7.0	7.0	7.0	6.9	6.9	6.9	6.8	6.9	7.0	6.9	6.9
16	7.1	7.0	7.0	7.0	6.9	6.9	6.9	6.8	6.9	7.0	6.9	6.9
17	7.1	7.0	7.0	7.0	6.9	6.9	6.9	6.8	6.8	6.9	6.9	6.9
18	7.1	7.0	7.0	6.9	6.9	6.9	6.9	6.8	6.8	7.0	6.9	6.9
19	7.1	7.0	7.0	6.9	6.8	6.9	6.9	6.8	6.8	7.0	6.9	6.9
20	7.1	7.0	7.1	6.9	6.8	6.9	6.8	6.8	6.8	7.0	6.9	6.9
21	7.1	7.0	7.0	6.9	6.9	6.9	6.9	6.8	6.8	7.0	6.8	6.9
22	---	---	---	6.9	6.9	6.9	6.9	6.8	6.8	6.9	6.8	6.8
23	---	---	---	6.9	6.9	6.9	---	---	---	6.9	6.8	6.8
24	7.1	7.0	7.0	6.9	6.9	6.9	---	---	---	6.9	6.8	6.9
25	7.1	7.0	7.1	7.0	6.9	7.0	6.9	6.9	6.9	6.9	6.9	6.9
26	7.1	7.0	7.1	7.0	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
27	7.1	7.0	7.1	7.0	6.9	6.9	6.9	6.9	6.9	7.0	6.9	6.9
28	7.1	7.0	7.0	7.0	7.0	7.0	---	---	---	7.0	6.9	6.9
29	7.1	7.0	7.1	7.0	7.0	7.0	---	---	---	7.0	6.9	7.0
30	---	---	---	7.0	7.0	7.0	6.9	6.9	6.9	7.0	6.9	7.0
31	---	---	---	7.0	6.9	7.0	7.0	6.9	6.9	---	---	---
MAX	7.1	7.0	7.1	7.1	7.0	7.1	7.0	7.0	7.0	7.0	7.0	7.0
MIN	7.0	7.0	7.0	6.9	6.8	6.9	6.8	6.8	6.8	6.9	6.8	6.8

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			**NOVEMBER**			**DECEMBER**			**JANUARY**	
1	18.8	18.1	18.5	12.8	12.5	12.6	9.2	8.1	8.9	---	---	---
2	18.3	17.8	18.0	12.9	12.5	12.7	8.1	7.7	7.9	---	---	---
3	17.9	17.5	17.7	12.8	12.7	12.8	7.8	7.5	7.7	---	---	---
4	17.8	17.5	17.6	12.7	12.4	12.6	7.5	7.0	7.3	---	---	---
5	17.6	17.2	17.4	12.6	12.1	12.3	7.0	6.7	6.8	---	---	---
6	17.3	17.0	17.1	12.1	11.9	12.0	6.7	6.2	6.5	---	---	---
7	17.2	16.9	17.0	12.2	11.8	12.0	6.5	6.1	6.3	---	---	---
8	17.3	16.8	17.1	12.1	11.7	11.9	6.5	6.3	6.4	---	---	---
9	17.3	16.9	17.1	11.8	11.4	11.6	6.4	6.2	6.3	---	---	---
10	17.3	16.9	17.1	11.4	11.1	11.3	6.6	6.3	6.5	---	---	---
11	17.0	16.5	16.7	11.2	10.9	11.1	6.8	6.6	6.7	---	---	---
12	16.7	16.1	16.4	11.1	10.5	10.8	6.9	6.6	6.7	---	---	---
13	16.4	15.9	16.2	10.7	9.9	10.4	7.0	6.7	6.8	---	---	---
14	16.2	15.9	16.0	10.1	9.3	9.8	6.7	6.2	6.5	---	---	---
15	16.2	15.8	16.0	9.6	9.0	9.4	---	---	---	---	---	---
16	15.9	15.5	15.7	9.5	8.8	9.1	---	---	---	---	---	---
17	15.5	15.0	15.2	9.4	8.8	9.0	---	---	---	---	---	---
18	15.1	14.7	14.9	9.3	8.6	9.0	---	---	---	---	---	---
19	14.9	14.5	14.7	9.2	8.6	8.9	---	---	---	---	---	---
20	14.6	14.2	14.4	9.2	8.6	8.9	---	---	---	---	---	---
21	14.3	13.8	14.1	9.1	8.6	8.8	---	---	---	---	---	---
22	14.0	13.4	13.7	9.1	8.5	8.8	---	---	---	---	---	---
23	13.8	13.0	13.3	9.1	8.5	8.8	---	---	---	---	---	---
24	13.5	12.7	13.0	9.2	8.6	8.9	---	---	---	---	---	---
25	13.2	12.5	12.8	9.5	8.9	9.2	---	---	---	---	---	---
26	13.0	12.4	12.6	8.9	8.8	8.9	---	---	---	---	---	---
27	12.8	12.2	12.5	9.0	8.7	8.9	---	---	---	---	---	---
28	12.7	12.2	12.4	9.8	8.9	9.2	---	---	---	---	---	---
29	12.6	12.2	12.4	10.2	9.5	9.9	---	---	---	---	---	---
30	12.6	12.3	12.5	9.6	9.1	9.4	---	---	---	---	---	---
31	12.8	12.5	12.6	---	---	---	---	---	---	---	---	---
MONTH	18.8	12.2	15.2	12.9	8.5	10.3	9.2	6.1	7.0	---	---	---

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE AT PHILADELPHIA, PA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	5.9	5.1	5.5	13.9	13.6	13.7
2	---	---	---	---	---	---	7.4	5.9	6.4	13.8	13.5	13.7
3	---	---	---	---	---	---	8.6	7.4	8.0	13.9	13.6	13.7
4	---	---	---	---	---	---	8.1	6.3	7.1	13.8	13.6	13.7
5	---	---	---	---	---	---	6.5	6.0	6.3	13.9	13.4	13.7
6	---	---	---	---	---	---	7.5	6.5	7.0	13.9	13.4	13.6
7	---	---	---	---	---	---	8.6	7.3	7.7	13.8	13.3	13.5
8	---	---	---	---	---	---	---	---	---	13.9	13.5	13.7
9	---	---	---	---	---	---	---	---	---	14.4	13.7	14.0
10	---	---	---	---	---	---	---	---	---	14.8	14.2	14.4
11	---	---	---	---	---	---	---	---	---	15.3	14.6	14.8
12	---	---	---	---	---	---	11.8	11.4	11.6	15.5	15.2	15.3
13	---	---	---	---	---	---	12.0	11.6	11.8	15.8	15.2	15.5
14	---	---	---	---	---	---	12.4	11.8	12.0	16.3	15.5	15.9
15	---	---	---	---	---	---	12.2	11.9	12.0	16.8	16.1	16.4
16	---	---	---	---	---	---	12.2	11.9	12.0	17.4	16.5	16.8
17	---	---	---	---	---	---	12.4	11.9	12.2	17.9	16.9	17.3
18	---	---	---	---	---	---	12.9	12.3	12.5	18.4	17.1	17.6
19	---	---	---	---	---	---	13.5	12.7	13.0	18.7	17.5	18.0
20	---	---	---	---	---	---	14.1	13.2	13.6	18.5	17.6	18.0
21	---	---	---	---	---	---	14.6	13.8	14.2	18.6	17.5	18.0
22	---	---	---	---	---	---	14.5	14.1	14.3	18.8	17.7	18.2
23	---	---	---	---	---	---	14.8	14.1	14.4	18.8	17.9	18.4
24	---	---	---	---	---	---	14.9	14.4	14.6	18.6	18.1	18.3
25	---	---	---	---	---	---	15.0	14.3	14.6	18.3	17.8	18.0
26	---	---	---	---	---	---	15.2	14.4	14.9	18.0	17.5	17.7
27	---	---	---	---	---	---	15.2	14.8	15.1	18.2	17.5	17.9
28	---	---	---	---	---	---	15.0	14.3	14.8	18.5	17.9	18.2
29	---	---	---	---	---	---	14.8	13.9	14.3	18.7	18.1	18.4
30	---	---	---	7.0	6.4	6.9	14.4	13.6	13.9	18.8	18.4	18.6
31	---	---	---	6.5	5.3	5.7	---	---	---	19.2	18.6	18.9
MONTH	---	---	---	7.0	5.3	6.3	15.2	5.1	11.7	19.2	13.3	16.3

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	19.5	19.0	19.2	---	---	---	28.7	28.2	28.4	27.0	26.8	26.9
2	19.6	19.2	19.4	26.7	26.3	26.4	28.7	28.3	28.5	27.0	26.7	26.8
3	19.5	19.3	19.3	26.7	26.4	26.5	29.0	28.4	28.6	26.8	26.6	26.7
4	19.5	19.2	19.4	26.8	26.3	26.5	29.1	28.7	28.8	26.7	26.4	26.5
5	20.1	19.4	19.7	26.8	26.5	26.7	29.1	28.7	28.9	26.4	26.2	26.3
6	20.8	20.0	20.4	26.9	26.6	26.7	29.0	28.7	28.9	26.3	26.1	26.2
7	21.4	20.6	20.9	26.8	26.5	26.6	28.9	28.7	28.8	26.2	26.0	26.1
8	22.0	21.1	21.6	26.5	25.6	26.0	28.9	28.6	28.7	26.2	25.9	26.0
9	22.6	21.7	22.1	25.8	25.5	25.6	28.7	28.5	28.6	26.0	25.9	25.9
10	23.2	22.3	22.6	25.9	25.5	25.6	28.7	28.3	28.5	26.0	25.7	25.9
11	23.6	22.7	23.2	26.0	25.6	25.8	28.8	28.4	28.6	25.9	25.6	25.8
12	24.1	23.2	23.6	26.3	25.8	26.0	29.0	28.6	28.8	25.8	25.5	25.6
13	24.7	23.7	24.1	26.3	26.0	26.1	29.2	28.7	28.9	25.9	25.5	25.7
14	25.2	24.2	24.6	26.3	26.1	26.2	29.3	28.9	29.1	25.8	25.7	25.7
15	25.5	24.7	25.0	26.7	26.2	26.4	29.3	28.9	29.0	26.0	25.7	25.8
16	25.6	25.0	25.2	26.8	26.4	26.6	29.0	28.6	28.8	26.1	25.9	26.0
17	25.5	24.9	25.1	26.9	26.6	26.7	28.7	28.4	28.6	26.2	26.0	26.1
18	25.4	24.8	25.0	27.2	26.7	26.9	28.6	28.3	28.4	26.2	25.9	26.1
19	25.0	24.4	24.7	27.5	27.0	27.2	28.4	28.1	28.3	26.2	26.0	26.1
20	24.9	24.3	24.6	27.7	27.2	27.4	28.2	28.0	28.1	26.1	25.9	26.0
21	25.0	24.2	24.6	28.0	27.4	27.7	28.3	28.0	28.1	26.0	25.7	25.9
22	---	---	---	28.3	27.7	28.0	28.2	28.0	28.1	25.9	25.6	25.7
23	---	---	---	28.3	28.0	28.1	---	---	---	25.8	25.6	25.7
24	25.3	24.6	24.9	28.3	27.9	28.1	---	---	---	25.6	25.2	25.4
25	25.5	24.8	25.1	28.1	27.7	27.9	27.4	27.2	27.3	25.2	25.0	25.0
26	25.9	25.1	25.5	28.4	27.9	28.2	27.2	27.1	27.2	25.0	24.8	24.8
27	25.8	25.4	25.6	28.9	28.2	28.5	27.1	26.9	27.0	24.8	24.5	24.6
28	26.2	25.4	25.8	28.8	28.2	28.5	---	---	---	24.5	24.1	24.2
29	26.2	25.8	26.0	28.8	28.3	28.5	---	---	---	24.2	23.6	23.9
30	---	---	---	28.8	28.3	28.5	27.0	26.9	27.0	23.6	23.2	23.4
31	---	---	---	28.6	28.3	28.4	27.1	26.9	27.0	---	---	---
MONTH	26.2	19.0	23.2	28.9	25.5	27.1	29.3	26.9	28.3	27.0	23.2	25.7

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE AT PHILADELPHIA, PA--Continued

OXYGEN, DISSOLVED (MG/L), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	6.8	6.3	6.5	9.2	8.8	9.0	---	---	---	---	---	---
2	7.0	6.5	6.7	9.2	8.6	8.9	---	---	---	---	---	---
3	7.2	6.7	6.9	9.1	8.7	8.9	---	---	---	---	---	---
4	7.0	6.7	6.9	9.2	8.6	8.9	---	---	---	---	---	---
5	7.3	6.5	7.0	9.3	8.6	9.0	---	---	---	---	---	---
6	7.8	6.9	7.3	9.4	9.0	9.2	---	---	---	---	---	---
7	8.1	7.7	7.9	9.3	8.9	9.2	---	---	---	---	---	---
8	7.9	7.6	7.8	9.2	8.9	9.1	---	---	---	---	---	---
9	8.0	7.5	7.7	9.2	8.9	9.0	---	---	---	---	---	---
10	7.9	7.7	7.9	9.2	8.9	9.0	---	---	---	---	---	---
11	8.0	7.7	7.9	9.2	8.8	9.0	---	---	---	---	---	---
12	7.7	7.4	7.6	9.5	8.8	9.0	---	---	---	---	---	---
13	7.9	7.3	7.7	10.0	9.0	9.4	---	---	---	---	---	---
14	7.8	7.4	7.5	10.4	9.3	9.8	---	---	---	---	---	---
15	7.9	7.4	7.6	10.5	9.3	9.9	---	---	---	---	---	---
16	7.6	7.3	7.5	10.4	9.1	9.8	---	---	---	---	---	---
17	7.8	7.1	7.5	10.1	8.9	9.5	---	---	---	---	---	---
18	8.2	7.5	7.8	9.8	8.8	9.4	---	---	---	---	---	---
19	8.3	7.9	8.0	9.6	8.6	9.1	---	---	---	---	---	---
20	8.4	8.0	8.2	9.4	8.4	8.9	---	---	---	---	---	---
21	8.7	8.1	8.4	9.3	8.3	8.7	---	---	---	---	---	---
22	9.0	8.4	8.6	9.3	8.2	8.8	---	---	---	---	---	---
23	9.2	8.4	8.8	9.6	7.9	8.8	---	---	---	---	---	---
24	9.2	8.6	8.9	9.5	7.8	8.5	---	---	---	---	---	---
25	9.2	8.7	9.0	9.2	7.8	8.5	---	---	---	---	---	---
26	9.2	8.7	9.0	9.8	8.5	9.2	---	---	---	---	---	---
27	9.3	8.8	9.1	9.7	8.1	9.0	---	---	---	---	---	---
28	9.3	8.8	9.1	---	---	---	---	---	---	---	---	---
29	9.3	8.8	9.0	---	---	---	---	---	---	---	---	---
30	9.2	8.7	8.9	---	---	---	---	---	---	---	---	---
31	9.1	8.7	8.9	---	---	---	---	---	---	---	---	---
MONTH	9.3	6.3	8.0	10.5	7.8	9.1	---	---	---	---	---	---

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

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE AT PHILADELPHIA, PA--Continued

OXYGEN, DISSOLVED (MG/L), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			**JULY**			**AUGUST**			**SEPTEMBER**	
1	6.0	5.1	5.5	---	---	---	4.1	3.7	3.9	4.4	4.0	4.2
2	6.0	5.3	5.7	4.6	3.7	4.1	4.1	3.5	3.8	4.5	4.0	4.2
3	6.1	5.4	5.8	4.9	3.8	4.3	4.3	3.6	3.9	4.5	4.1	4.3
4	6.1	5.4	5.7	5.0	4.0	4.4	4.3	3.7	3.9	4.6	4.1	4.3
5	6.4	5.3	5.7	4.7	3.9	4.3	4.4	3.7	4.0	4.8	4.3	4.5
6	6.6	5.5	6.0	4.5	3.7	4.1	4.5	3.8	4.1	4.8	4.5	4.6
7	6.3	5.7	5.9	4.4	3.6	3.9	4.4	3.9	4.1	4.8	4.5	4.6
8	6.4	5.6	6.0	4.3	3.6	4.0	4.4	3.9	4.1	5.0	4.3	4.7
9	6.3	5.5	5.9	4.2	3.5	3.8	4.2	3.7	3.9	5.0	4.5	4.7
10	6.3	5.5	5.7	4.1	3.4	3.8	4.0	3.4	3.7	4.9	4.4	4.6
11	5.9	5.1	5.4	4.2	3.4	3.8	3.9	3.4	3.6	4.9	4.3	4.5
12	5.9	3.9	5.4	4.3	3.4	3.8	3.9	3.3	3.6	5.0	4.3	4.6
13	5.8	4.9	5.3	4.2	3.4	3.8	4.3	3.5	3.8	5.0	4.3	4.6
14	5.5	4.6	5.0	4.1	3.4	3.7	4.3	3.6	3.9	4.7	4.0	4.4
15	5.3	4.3	4.8	4.3	3.4	3.7	4.0	3.4	3.7	4.4	3.7	4.1
16	5.1	4.2	4.6	4.2	3.2	3.6	3.9	3.6	3.7	4.2	3.7	3.9
17	4.8	3.9	4.2	4.2	3.3	3.6	3.8	3.4	3.6	4.0	3.6	3.8
18	4.4	3.7	4.0	4.0	3.2	3.6	3.9	3.4	3.7	4.0	3.5	3.7
19	4.4	3.8	4.1	4.0	3.1	3.4	3.9	3.6	3.7	3.9	3.4	3.6
20	4.3	3.8	4.0	4.0	3.1	3.5	3.9	3.5	3.7	4.0	3.5	3.7
21	4.1	3.5	3.8	4.0	3.2	3.5	3.9	3.4	3.6	3.9	3.5	3.7
22	---	---	---	3.9	3.2	3.5	3.9	3.5	3.7	4.1	3.6	3.9
23	---	---	---	3.9	3.2	3.5	---	---	---	4.2	3.7	3.9
24	4.3	3.4	3.7	3.9	3.4	3.5	---	---	---	4.9	4.0	4.4
25	4.3	3.7	3.9	3.9	3.3	3.6	4.3	3.7	4.0	4.8	4.2	4.5
26	4.4	3.8	4.1	3.8	3.4	3.6	4.6	4.0	4.2	4.9	4.3	4.5
27	4.5	3.8	4.1	4.1	3.5	3.8	4.6	4.0	4.3	5.0	4.4	4.6
28	4.2	3.7	3.9	4.2	3.7	3.9	---	---	---	4.8	4.4	4.6
29	4.3	3.6	3.9	4.3	3.8	4.0	---	---	---	4.9	4.5	4.7
30	---	---	---	4.2	3.7	4.0	4.1	3.7	3.9	4.9	4.6	4.7
31	---	---	---	4.2	3.8	4.0	4.5	3.8	4.1	---	---	---
MONTH	6.6	3.4	4.9	5.0	3.1	3.8	4.6	3.3	3.9	5.0	3.4	4.3

CROSS-SECTION ANALYSES, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Sample location, cross section ft from rt bank (72103)	Sampling depth, feet (00003)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)
SEP 2005									
14...	1018	1028	1028	132	1.00	4.2	7.0	380	25.5
14...	1019	1028	1028	132	5.00	4.2	7.0	379	25.5
14...	1020	1028	1028	132	10.0	4.2	7.0	380	25.5
14...	1021	1028	1028	132	15.0	4.2	7.0	381	25.5
14...	1022	1028	1028	132	20.0	4.2	7.0	381	25.5
14...	1023	1028	1028	132	25.0	4.2	6.9	381	25.5
14...	1024	1028	1028	132	30.0	4.2	6.9	380	25.5
14...	1025	1028	1028	132	35.0	4.1	6.9	380	25.5
14...	1026	1028	1028	132	40.0	4.1	6.9	378	25.5
14...	1027	1028	1028	132	45.0	4.2	6.9	380	25.5
14...	1028	1028	1028	132	50.0	4.1	6.9	378	25.5
14...	1029	1028	1028	355	1.00	4.3	6.9	385	25.5
14...	1030	1028	1028	355	5.00	4.2	6.9	385	25.5
14...	1031	1028	1028	355	10.0	4.2	6.9	385	25.5
14...	1032	1028	1028	355	15.0	4.2	6.9	386	25.5
14...	1033	1028	1028	355	20.0	4.2	6.9	386	25.5
14...	1034	1028	1028	355	25.0	4.2	6.9	386	25.5
14...	1035	1028	1028	355	30.0	4.1	6.9	386	25.5
14...	1036	1028	1028	355	35.0	4.1	6.9	386	25.5
14...	1037	1028	1028	355	40.0	4.1	6.9	387	25.5
14...	1038	1028	1028	355	45.0	4.1	6.9	386	25.5
14...	1039	1028	1028	355	50.0	4.1	6.9	386	25.5
14...	1040	1028	1028	563	1.00	4.3	6.9	387	25.5
14...	1041	1028	1028	563	5.00	4.3	6.9	388	25.5
14...	1042	1028	1028	563	10.0	4.2	6.9	388	25.5
14...	1043	1028	1028	563	15.0	4.2	6.9	388	25.5
14...	1044	1028	1028	563	20.0	4.2	6.9	388	25.5
14...	1045	1028	1028	563	25.0	4.2	6.9	387	25.5
14...	1046	1028	1028	563	30.0	4.2	6.9	387	25.5
14...	1047	1028	1028	563	35.0	4.1	6.9	386	25.5
14...	1048	1028	1028	563	40.0	4.1	6.9	386	25.5
14...	1049	1028	1028	563	45.0	4.1	6.9	385	25.5

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE AT PHILADELPHIA, PA--Continued

CROSS-SECTION ANALYSES, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005--Continued

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Sample location, cross section ft from rt bank (72103)	Sampling depth, feet (00003)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)
SEP 2005									
14...	1050	1028	1028	563	50.0	4.0	6.9	385	25.5
14...	1051	1028	1028	744	1.00	4.2	6.9	390	25.5
14...	1052	1028	1028	744	5.00	4.2	6.9	391	25.5
14...	1053	1028	1028	744	10.0	4.2	6.9	391	25.5
14...	1054	1028	1028	744	15.0	4.2	6.9	390	25.5
14...	1055	1028	1028	744	20.0	4.2	6.9	391	25.5
14...	1056	1028	1028	744	25.0	4.2	6.9	390	25.5
14...	1057	1028	1028	744	30.0	4.2	6.9	389	25.5
14...	1058	1028	1028	744	35.0	4.2	6.9	389	25.5
14...	1059	1028	1028	744	40.0	4.2	6.9	389	25.5
14...	1100	1028	1028	744	45.0	4.2	6.9	388	25.5
14...	1101	1028	1028	744	50.0	4.2	6.9	387	25.5
14...	1102	1028	1028	963	1.00	4.2	6.9	393	25.5
14...	1103	1028	1028	963	5.00	4.2	6.9	393	25.5
14...	1104	1028	1028	963	10.0	4.2	6.9	393	25.5
14...	1105	1028	1028	963	15.0	4.2	6.9	393	25.5
14...	1106	1028	1028	963	20.0	4.2	6.9	393	25.5
14...	1107	1028	1028	963	25.0	4.2	6.9	393	25.5
14...	1108	1028	1028	963	30.0	4.2	6.9	393	25.5
14...	1109	1028	1028	963	35.0	4.2	6.9	393	25.5
14...	1110	1028	1028	963	40.0	4.2	6.9	393	25.5
14...	1111	1028	1028	963	45.0	4.2	6.9	393	25.5
14...	1112	1028	1028	963	50.0	4.2	6.9	392	25.5
14...	1113	1028	1028	1176	1.00	4.3	6.9	392	25.5
14...	1114	1028	1028	1176	5.00	4.3	6.9	392	25.5
14...	1115	1028	1028	1176	10.0	4.3	6.9	392	25.5
14...	1116	1028	1028	1176	15.0	4.2	6.9	391	25.5
14...	1117	1028	1028	1176	20.0	4.2	6.9	391	25.5
14...	1118	1028	1028	1176	25.0	4.2	6.9	391	25.5
14...	1119	1028	1028	1176	30.0	4.2	6.9	391	25.5
14...	1120	1028	1028	1176	35.0	4.2	6.9	391	25.5
14...	1121	1028	1028	1392	1.00	4.3	6.9	391	25.5
14...	1122	1028	1028	1392	5.00	4.3	6.9	391	25.5
14...	1123	1028	1028	1392	10.0	4.3	6.9	391	25.5
14...	1124	1028	1028	1392	15.0	4.3	6.9	392	25.5
14...	1125	1028	1028	1392	20.0	4.2	6.9	392	25.5
14...	1126	1028	1028	1392	25.0	4.2	6.9	391	25.5
14...	1127	1028	1028	1392	30.0	4.2	6.9	391	25.5
14...	1128	1028	1028	1584	1.00	4.3	6.9	380	25.5
14...	1129	1028	1028	1584	5.00	4.3	6.9	380	25.5
14...	1130	1028	1028	1584	10.0	4.3	6.9	381	25.5
14...	1131	1028	1028	1584	15.0	4.2	6.9	382	25.5
14...	1132	1028	1028	1584	20.0	4.2	6.9	382	25.5
14...	1133	1028	1028	1584	25.0	4.2	6.9	384	25.5
14...	1134	1028	1028	1771	1.00	4.3	6.9	375	25.5
14...	1135	1028	1028	1771	5.00	4.3	6.9	373	25.5
14...	1136	1028	1028	1771	10.0	4.2	6.9	372	25.5
14...	1137	1028	1028	1771	15.0	4.2	6.9	373	25.5
14...	1138	1028	1028	1771	20.0	4.2	6.9	373	25.5
14...	1139	1028	1028	1771	25.0	4.2	6.9	371	25.5
14...	1140	1028	1028	1979	1.00	4.3	6.9	360	25.4
14...	1141	1028	1028	1979	2.00	4.2	6.9	363	25.4
14...	1142	1028	1028	1979	4.00	4.2	6.9	354	25.4
14...	1143	1028	1028	2300	--	--	--	--	--

01468500 SCHUYLKILL RIVER AT LANDINGVILLE, PA

LOCATION.--Lat 40°37'45", long 76°07'30", Schuylkill County, Hydrologic Unit 02040203, on left bank 10 ft upstream from highway bridge on SR 2011 at Landingville, 0.1 mi upstream from Mahannon Creek, and 5.0 mi downstream from West Branch Schuylkill River.

DRAINAGE AREA.--133 mi^2.

PERIOD OF RECORD.--August 1947 to April 1953, October 1963 to September 1965, August 1973 to current year.

REVISED RECORDS.--WDR PA-75-1: 1973(P), 1974(P).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 470.64 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 27, 1947, nonrecording gage 10 ft downstream at same datum.

REMARKS.--No estimated daily discharges. Records good except those greater than 1,000 ft^3/s, which are fair. Several measurements of water temperature were made during the year. Satellite and landline telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in June 1972 reached a stage of 17.36 ft, discharge, about 14,000 ft^3/s.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,300 ft^3/s and maximum (*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Nov. 28	1130	*3,320	*9.84	Jan. 14	1100	2,830	8.80
Dec. 1	1130	2,010	7.21	Mar. 29	0000	2,670	8.45
Dec. 10	1800	1,580	6.49	Apr. 3	0330	3,030	9.97
Dec. 23	1800	1,810	6.88				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	565	258	1400	357	241	232	774	252	125	95	96	76
2	494	253	1110	335	225	214	1490	232	123	114	93	74
3	448	248	910	332	229	195	2530	227	133	83	94	69
4	405	277	759	363	213	186	1610	218	149	80	88	68
5	367	293	650	349	225	197	1190	212	126	85	85	69
6	339	250	562	685	224	200	984	208	142	145	84	68
7	315	236	560	598	212	215	843	202	204	173	84	67
8	296	223	513	805	197	301	770	195	148	501	98	66
9	281	212	476	762	208	300	645	189	136	276	119	66
10	264	205	942	667	233	285	576	174	138	197	88	64
11	248	201	1080	618	203	276	516	165	130	159	97	64
12	229	322	878	624	210	271	468	161	125	142	96	64
13	219	293	740	561	203	258	436	155	119	151	83	64
14	268	250	626	2120	284	236	397	165	111	164	82	64
15	270	244	551	1720	510	216	369	277	107	149	82	64
16	299	240	496	1200	407	223	348	169	104	169	81	71
17	227	231	458	937	380	221	328	156	105	200	80	80
18	204	230	430	747	344	223	312	151	101	193	77	64
19	321	223	406	638	336	236	298	147	96	157	103	64
20	255	241	360	591	320	255	289	178	94	140	83	63
21	232	245	332	527	330	260	271	160	94	128	77	62
22	247	226	316	488	305	248	262	148	91	122	74	62
23	219	216	811	468	296	409	308	145	90	116	71	61
24	210	301	823	411	273	559	351	144	96	109	70	61
25	203	603	663	378	264	517	274	140	92	138	69	60
26	197	493	577	354	255	485	252	135	87	109	68	69
27	192	462	503	331	252	457	258	131	89	118	68	74
28	188	2270	434	307	238	1140	229	153	90	114	148	63
29	186	1570	409	296	---	1880	217	153	130	105	88	66
30	393	1020	380	293	---	1240	247	137	140	101	79	64
31	283	---	358	269	---	955	---	130	---	98	80	---
TOTAL	8864	12336	19513	19131	7617	12890	17842	5409	3515	4631	2685	1991
MEAN	286	411	629	617	272	416	595	174	117	149	86.6	66.4
MAX	565	2270	1400	2120	510	1880	2530	277	204	501	148	80
MIN	186	201	316	269	197	186	217	130	87	80	68	60
CFSM	2.15	3.09	4.73	4.64	2.05	3.13	4.47	1.31	0.88	1.12	0.65	0.50
IN.	2.48	3.45	5.46	5.35	2.13	3.61	4.99	1.51	0.98	1.30	0.75	0.56

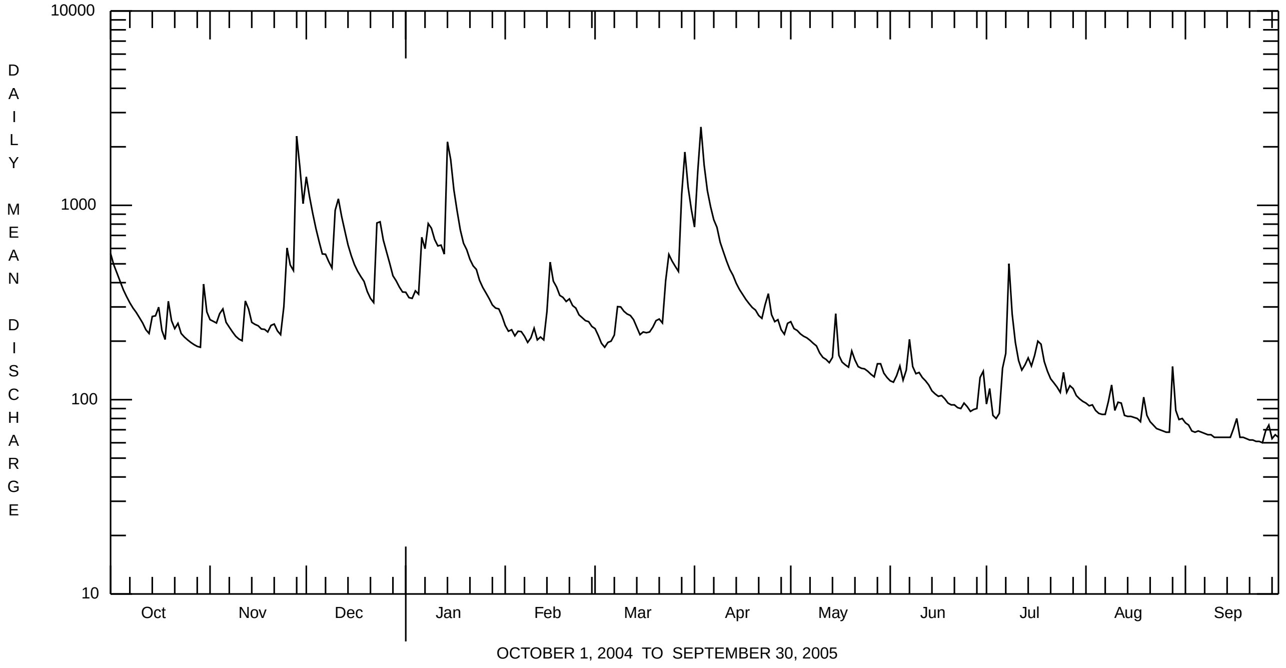
STATISTICS OF MONTHLY MEAN DATA FOR PERIOD OF DAILY RECORD, BY WATER YEAR (WY)

MEAN	184	265	353	334	312	438	431	347	244	174	144	164
MAX	760	569	918	887	620	929	1079	811	1002	471	455	524
(WY)	1977	1952	1997	1979	1981	1977	1993	1989	2003	1984	2004	2004
MIN	28.5	52.5	59.7	41.2	113	164	157	127	77.1	54.2	51.4	55.6
(WY)	1964	1965	1999	1981	2002	1985	1985	1965	1965	1965	2002	1964

01468500 SCHUYLKILL RIVER AT LANDINGVILLE, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		FOR PERIOD OF DAILY RECORD	
ANNUAL TOTAL	133739		116424			
ANNUAL MEAN	365		319		280	
HIGHEST ANNUAL MEAN					441	1952
LOWEST ANNUAL MEAN					122	1965
HIGHEST DAILY MEAN	3820	Sep 18	2530	Apr 3	4660	Apr 16 1983
LOWEST DAILY MEAN	111	Jul 11	60	Sep 25	21	Nov 4 1963
ANNUAL SEVEN-DAY MINIMUM	126	Jul 5	62	Sep 19	23	Oct 25 1963
MAXIMUM PEAK FLOW			3320	Nov 28	[a,b]8570	Nov 25 1950
MAXIMUM PEAK STAGE			9.84	Nov 28	13.85	Sep 18 2004
INSTANTANEOUS LOW FLOW			58	Sep 25	19	Oct 30 1963
ANNUAL RUNOFF (CFSM)	2.75		2.40		2.11	
ANNUAL RUNOFF (INCHES)	37.41		32.56		28.62	
10 PERCENT EXCEEDS	627		647		557	
50 PERCENT EXCEEDS	278		225		197	
90 PERCENT EXCEEDS	167		77		75	

[a] From rating curve extended above 5,000 ft^3/s.
[b] Gage height, 13.29 ft.



01469500 LITTLE SCHUYLKILL RIVER AT TAMAQUA, PA

LOCATION.--Lat 40°48'25", long 75°58'20", Schuylkill County, Hydrologic Unit 02040203, on left bank along State Highway 309, 0.6 mi upstream from Tamaqua, and 0.8 mi upstream from Panther Creek.

DRAINAGE AREA.--42.9 mi^2.

PERIOD OF RECORD.--October 1919 to current year. June 1916 to September 1919, gage heights and discharge measurements only, in reports of Water Supply Commission of Pennsylvania.

REVISED RECORDS.--WSP 756: Drainage area. WSP 971: 1942. WSP 1302: 1922, 1926-30. WSP 1432: 1920-21, 1933.

GAGE.--Water-stage recorder and broad-crested weir. Datum of gage is 817.48 ft above National Geodetic Vertical Datum of 1929. Prior to June 21, 1929, nonrecording gage at site 3,600 ft downstream at datum 28.64 ft lower.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Still Creek Reservoir (station 01469200) 6.5 mi upstream. Several measurements of water temperature were made during the year. Satellite and landline telemetry at station.

COOPERATION.--Records of diversion and change in contents of Still Creek Reservoir provided by the Borough of Tamaqua.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	165	74	502	112	72	82	335	70	35	24	22	26
2	152	71	441	102	69	75	582	63	33	22	42	24
3	142	70	344	102	67	67	1150	60	32	20	55	23
4	122	73	277	120	66	62	802	57	41	19	55	21
5	108	83	227	111	64	60	598	56	35	19	55	21
6	99	73	188	177	63	58	497	55	44	37	53	21
7	92	68	181	190	61	62	384	53	58	25	51	22
8	88	65	172	228	61	85	283	52	44	65	53	24
9	82	61	150	256	65	80	217	53	39	49	35	24
10	77	59	289	232	81	74	180	54	40	33	32	23
11	70	58	382	217	74	74	155	53	37	26	31	23
12	65	84	323	224	67	72	138	51	35	24	30	23
13	62	87	273	222	65	70	125	49	33	32	30	24
14	74	73	223	821	76	68	115	51	32	43	29	24
15	79	70	182	782	169	66	109	64	30	30	31	23
16	100	70	156	545	144	65	108	54	30	28	28	25
17	77	70	141	413	140	66	98	50	30	27	28	24
18	64	70	127	291	129	69	88	47	43	37	28	23
19	87	69	118	236	118	74	78	45	61	32	30	23
20	81	71	105	204	111	83	75	48	44	27	30	23
21	74	75	94	172	117	94	73	44	25	24	28	23
22	86	69	92	149	107	96	70	42	31	22	26	23
23	78	64	241	144	101	122	77	39	61	21	21	24
24	73	79	356	126	93	154	96	38	61	20	20	27
25	73	172	257	119	91	151	79	37	61	24	19	27
26	71	154	212	109	83	154	71	37	60	22	20	29
27	68	145	178	97	78	158	73	35	59	22	22	29
28	66	809	149	88	76	386	67	38	48	22	50	27
29	66	716	136	86	---	904	63	42	35	20	40	28
30	96	489	126	83	---	633	66	39	27	19	31	21
31	84	---	119	79	---	467	---	39	---	18	27	---
TOTAL	2721	4191	6761	6837	2508	4731	6852	1515	1244	853	1052	722
MEAN	87.8	140	218	221	89.6	153	228	48.9	41.5	27.5	33.9	24.1
MAX	165	809	502	821	169	904	1150	70	61	65	55	29
MIN	62	58	92	79	61	58	63	35	25	18	19	21
(†)	5.2	5.3	5.2	5.0	5.0	5.5	4.9	5.7	4.8	4.6	4.6	4.8

† Diversion from Still Creek Reservoir, equivalent in cubic feet per second.

01469500 LITTLE SCHUYLKILL RIVER AT TAMAQUA, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1933 - 2005, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	51.1	82.2	106	91.4	93.3	142	142	106	67.8	50.4	41.6	46.0
MAX	317	242	321	338	242	365	475	315	430	394	226	259
(WY)	1977	1952	1997	1996	1951	1936	1993	1989	1972	1947	1933	1933
MIN	5.82	7.81	12.2	8.57	26.6	42.5	46.6	21.1	14.6	8.87	6.25	6.46
(WY)	1964	1942	1981	1981	1934	1985	1985	1941	1941	1965	1944	1964

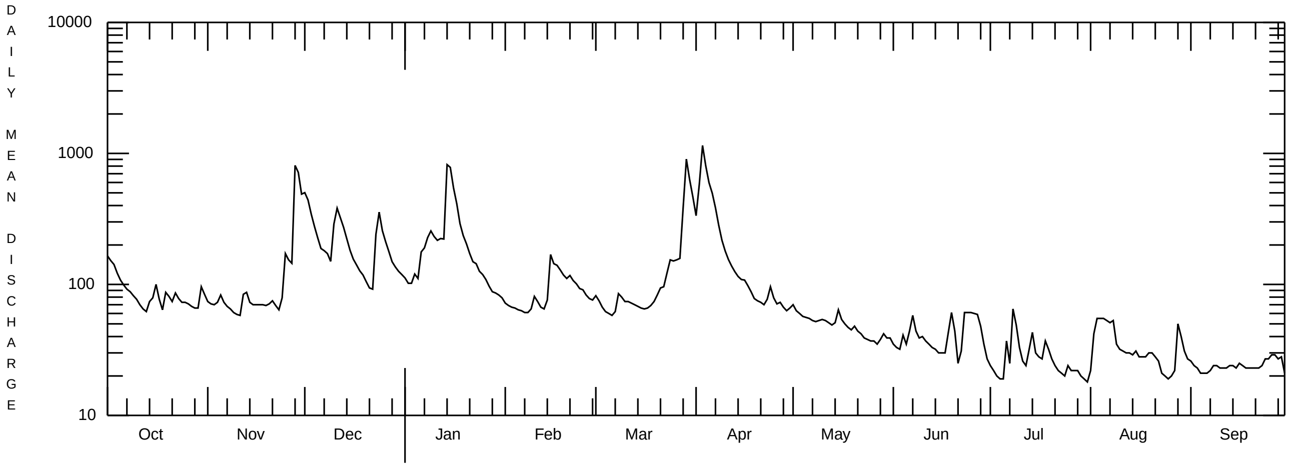
SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1933 - 2005	
ANNUAL TOTAL	45805		39987			
ANNUAL MEAN	125		110		85.0	
HIGHEST ANNUAL MEAN					155	1952
LOWEST ANNUAL MEAN					33.8	1965
HIGHEST DAILY MEAN	1490	Sep 18	1150	Apr 3	2790	Aug 24 1933
LOWEST DAILY MEAN	**e**33	Feb 18**a**	18	Jul 31	2.9	Sep 2 1966
ANNUAL SEVEN-DAY MINIMUM	**b**36	Feb 15	21	Jul 26	3.5	Aug 27 1966
MAXIMUM PEAK FLOW			1280	Apr 3	**c**7790	Aug 18 1955
MAXIMUM PEAK STAGE			5.32	Apr 3	11.10	Aug 18 1955
INSTANTANEOUS LOW FLOW					2.6	Sep 2 1966
10 PERCENT EXCEEDS	203		225		178	
50 PERCENT EXCEEDS	94		68		52	
90 PERCENT EXCEEDS	48		24		14	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1920 - 1932, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	73.0	96.5	101	78.7	103	188	143	112	74.4	57.0	33.7	37.7
MAX	227	308	241	266	344	410	227	208	209	185	81.5	152
(WY)	1928	1927	1928	1924	1925	1920	1928	1924	1922	1928	1927	1924
MIN	6.67	6.74	7.99	13.3	25.7	88.5	72.6	32.8	27.3	14.5	10.3	6.66
(WY)	1931	1931	1931	1931	1931	1931	1926	1926	1921	1923	1923	1932

SUMMARY STATISTICS	WATER YEARS 1920 - 1932	
ANNUAL TOTAL ANNUAL MEAN	91.5	
HIGHEST ANNUAL MEAN	145	1928
LOWEST ANNUAL MEAN	42.3	1931
HIGHEST DAILY MEAN	3600	Sep 30 1924
LOWEST DAILY MEAN	3.0	Dec 23 1930
ANNUAL SEVEN DAY MINIMUM	3.8	Dec 14 1930
MAXIMUM PEAK FLOW	5000	Sep 30 1924
INSTANTANEOUS LOW FLOW	1.8	Dec 18 1931
ANNUAL RUNOFF (CFSM)	2.13	
ANNUAL RUNOFF (INCHES)	28.97	
10 PERCENT EXCEEDS	201	
50 PERCENT EXCEEDS	54	
90 PERCENT EXCEEDS	12	

a Also July 11 (not estimated).
b Computed using estimated daily discharges.
c From rating curve extended above 3,200 ft^3/s on basis of contracted-opening measurement of peak flow.
e Estimated.



OCTOBER 1, 2004 TO SEPTEMBER 30, 2005

01470500 SCHUYLKILL RIVER AT BERNE, PA
(Pennsylvania Water-Quality Network Station)

LOCATION.--Lat 40°31'21", long 75°59'55", Berks County, Hydrologic Unit 02040203, on right bank 50 ft upstream from bridge on Township Route 558 at Berne, 0.5 mi upstream from Mill Creek, and 6.5 mi downstream from Little Schuylkill River.

DRAINAGE AREA.--355 mi^2.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 310.65 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Some regulation at low flow by mine pumpage and by Still Creek Reservoir (station 01469200) about 25 mi upstream. Several measurements of water temperature were made during the year. Satellite and landline telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,400 ft^3/s and maximum (*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Nov. 28	1530	*12,700	*11.43	Mar. 29	0330	8,530	9.89
Dec. 1	1530	5,380	8.51	Apr. 3	0800	11,400	10.99
Jan. 14	1530	7,580	9.50				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1750	633	3960	902	586	631	2280	627	280	223	189	153
2	1430	598	3540	831	553	587	3850	549	268	263	187	140
3	1250	588	2730	795	548	534	9750	531	269	200	203	132
4	1080	602	2180	924	528	498	5550	514	330	183	208	127
5	947	729	1810	853	527	492	3740	497	297	186	200	122
6	845	607	1530	1680	533	501	2900	487	267	334	199	122
7	780	568	1460	1800	528	540	2360	475	414	249	203	117
8	720	545	1430	2200	516	838	2070	459	325	770	213	117
9	666	516	1210	2410	544	886	1660	440	295	601	279	118
10	625	493	2160	2030	620	800	1460	423	312	381	205	117
11	575	482	3400	1760	567	757	1290	408	296	305	189	113
12	541	654	2640	1800	534	718	1150	394	285	264	212	113
13	512	772	2140	1600	519	679	1050	373	263	283	180	113
14	594	633	1750	5070	566	639	960	368	252	351	172	114
15	571	610	1480	5070	1780	588	872	576	240	311	169	118
16	750	600	1290	3460	1410	585	813	429	240	337	165	120
17	570	583	1180	2650	1270	580	765	378	248	428	168	155
18	494	574	1070	2030	1080	580	719	360	237	394	160	127
19	730	557	1000	1680	961	594	676	348	249	346	168	115
20	684	550	898	1530	885	628	641	383	251	296	200	112
21	598	593	800	1340	897	669	602	407	227	267	166	110
22	631	537	762	1170	830	657	570	350	211	251	152	108
23	571	523	1550	e1100	813	901	649	335	215	238	140	108
24	536	550	2810	e1050	738	1710	892	329	238	223	129	108
25	520	1290	2010	e930	706	1550	663	326	239	262	126	107
26	501	1210	1660	887	656	1410	593	316	229	245	125	115
27	481	1110	1420	798	635	1290	624	304	223	224	129	148
28	465	6420	1190	e740	612	2740	573	310	230	239	202	122
29	458	5220	1090	e700	---	7030	537	398	215	212	256	115
30	824	3220	1010	693	---	4140	558	320	335	201	171	123
31	730	---	937	646	---	2940	---	299	---	194	156	---
TOTAL	22429	32567	54097	51129	20942	37692	50817	12713	7980	9261	5621	3629
MEAN	724	1086	1745	1649	748	1216	1694	410	266	299	181	121
MAX	1750	6420	3960	5070	1780	7030	9750	627	414	770	279	155
MIN	458	482	762	646	516	492	537	299	211	183	125	107
CFSM	2.04	3.06	4.92	4.65	2.11	3.42	4.77	1.16	0.75	0.84	0.51	0.34
IN.	2.35	3.41	5.67	5.36	2.19	3.95	5.33	1.33	0.84	0.97	0.59	0.38

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 2005, BY WATER YEAR (WY)

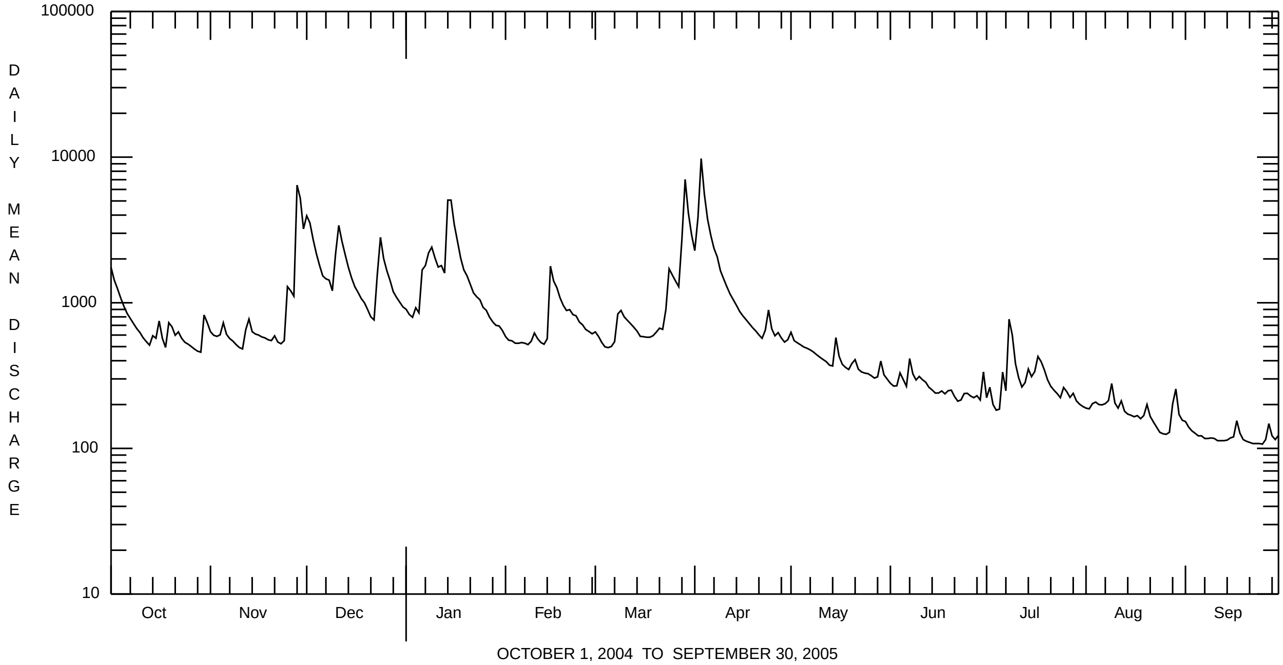
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	437	700	952	828	867	1181	1130	861	592	383	361	384
MAX	1896	1631	2932	2547	1735	2525	3319	2689	3410	1240	1594	1715
(WY)	1977	1971	1997	1979	1981	1994	1993	1989	1972	1984	1955	2004
MIN	75.7	120	125	88.4	274	462	424	314	148	104	105	94.6
(WY)	1964	1965	1981	1981	2002	1985	1985	1999	1965	1999	2002	1964

e Estimated.

01470500 SCHUYLKILL RIVER AT BERNE, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1947 - 2005	
ANNUAL TOTAL	372917		308877			
ANNUAL MEAN	1019		846		722	
HIGHEST ANNUAL MEAN					1182	1952
LOWEST ANNUAL MEAN					321	1965
HIGHEST DAILY MEAN	14100	Sep 18	9750	Apr 3	26000	Jun 23 1972
LOWEST DAILY MEAN	257	Jul 11	107	Sep 25	40	Sep 2 1949
ANNUAL SEVEN-DAY MINIMUM	295	Jul 5	110	Sep 19	52	Aug 30 1999
MAXIMUM PEAK FLOW			12700	Nov 28	**a**42800	Jun 22 1972
MAXIMUM PEAK STAGE			11.43	Nov 28	**b**19.00	Jun 22 1972
INSTANTANEOUS LOW FLOW			104	Sep 24,25	31	Sep 2 1949
ANNUAL RUNOFF (CFSM)	2.87		2.38		2.03	
ANNUAL RUNOFF (INCHES)	39.08		32.37		27.65	
10 PERCENT EXCEEDS	1700		1790		1490	
50 PERCENT EXCEEDS	702		557		460	
90 PERCENT EXCEEDS	459		156		159	

a From rating curve extended above 20,800 ft^3/s.
b From floodmark in gage shelter.



01470500 SCHUYLKILL RIVER AT BERNE, PA--Continued
(Pennsylvania Water-Quality Network Station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 2002 to current year.

REMARKS.--Some values for "*dissolved*" parameters exceed values for the corresponding "*total*" parameter. These results are within the limits of analytical precision and methods. Other data for the Water-Quality Network can be found on pages 386-432.

COOPERATION.--Samples were collected as part of the Pennsylvania Department of Environmental Protection Water-Quality Network (WQN) with cooperation from the Pennsylvania Department of Environmental Protection.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conductance, wat unf lab, µS/cm 25 degC (90095)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Calcium water unfltrd recover -able, mg/L (00916)
NOV 2004													
03...	1010	1028	9813	592	11.3	7.4	7.1	250	247	11.8	93	19	20
JAN 2005													
26...	1000	1028	9813	892	15.6	7.2	7.4	282	286	1.2	110	20	22
MAR													
03...	0900	1028	9813	534	16.1	7.2	7.6	334	338	1.4	120	23	24
MAY													
19...	1100	1028	9813	350	10.6	7.7	7.7	352	346	16.9	140	27	29
JUL													
14...	0900	1028	9813	431	7.4	7.6	7.6	322	337	24.7	130	27	27
SEP													
20...	0920	1028	9813	113	8.8	7.8	7.0	492	481	21.5	210	37	39

Date	Magnesium, water, fltrd, mg/L (00925)	Magnesium, water, unfltrd recover -able, mg/L (00927)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 105degC wat flt mg/L (00515)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia water, unfltrd mg/L as N (00610)	Nitrate water unfltrd mg/L as N (00620)	Nitrite water, unfltrd mg/L as N (00615)	Total nitrogen, water, unfltrd mg/L (00600)	Orthophosphate, water, unfltrd mg/L as P (70507)	Phosphorus, water, unfltrd mg/L (00665)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)
NOV 2004													
03...	11	10	21	71	130	<2.0	<.020	1.1	<.040	1.2	.01	.02	1.0
JAN 2005													
26...	13	14	22	90	190	4.0	.320	.80	<.040	1.3	<.01	.01	.7
MAR													
03...	14	14	27	92	250	10	.090	.98	<.040	1.1	.01	.01	1.0
MAY													
19...	16	17	30	120	270	2.0	<.020	.73	<.040	.76	.01	.02	.6
JUL													
14...	16	16	25	100	260	6.0	.030	.83	<.040	.99	.01	.03	1.1
SEP													
20...	25	26	51	170	390	8.0	.020	.79	<.040	.85	.02	.04	.5

SCHUYLKILL RIVER BASIN

01470500 SCHUYLKILL RIVER AT BERNE, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Alum-inum, water, fltrd, µg/L (01106)	Alum-inum, water, unfltrd recover-able, µg/L (01105)	Copper, water, fltrd, µg/L (01040)	Copper, water, unfltrd recover-able, µg/L (01042)	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recover-able, µg/L (01045)	Lead, water, fltrd, µg/L (01049)	Lead, water, unfltrd recover-able, µg/L (01051)	Mangan-ese, water, fltrd, µg/L (01056)	Mangan-ese, water, unfltrd recover-able, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recover-able, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)
NOV 2004													
03...	10	50	<4	<4	40	220	<1.0	2.0	210	220	8.2	8.4	21
JAN 2005													
26...	<10	150	<4	<4	60	500	<1.0	<1.0	790	870	16	21	43
MAR													
03...	10	80	<4	<4	20	290	<1.0	<1.0	580	620	11	14	23
MAY													
19...	20	90	<4	<4	40	220	<1.0	<1.0	150	320	5.8	8.0	6.1
JUL													
14...	60	160	<4	<4	20	340	<1.0	1.5	40	150	<4.0	4.8	<5.0
SEP													
20...	20	40	<4	<4	<20	50	<1.0	<1.0	10	40	<4.0	<4.0	<5.0

Date	Zinc, water, unfltrd recover-able, µg/L (01092)
NOV 2004	
03...	19
JAN 2005	
26...	58
MAR	
03...	30
MAY	
19...	13
JUL	
14...	8.1
SEP	
20...	<5.0

01470500 SCHUYLKILL RIVER AT BERNE, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES

REMARKS.--Samples were collected using a D-Frame net with a mesh size of 500 µm. Samples represent counts per 100 animal (approximate) subsamples.

Date	10/13/04
Benthic macroinvertebrate	Count
Nematoda (NEMATODES)	1
Mollusca	
Bivalvia (CLAMS)	
Veneroida	
Corbiculidae	
Corbicula fluminea	11
Sphaeriidae	
Pisidium	1
Sphaerium	1
Arthropoda	
Acariformes	
Hydrachnidia (WATER MITES)	1
Crustacea	
Isopoda (AQUATIC SOWBUGS)	
Asellidae	
Caecidotea	1
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Tubificida	
Naididae	1
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
Acentrella	1
Ephemerellidae	
Ephemerella	1
Heptageniidae	
Stenacron	7
Stenonema	13
Plecoptera (STONEFLIES)	
Taeniopterygidae	
Taeniopteryx	1
Trichoptera (CADDISFLIES)	
Glossosomatidae	
Protoptila	2
Hydropsychidae	
Cheumatopsyche	15
Hydropsyche	24
Hydroptilidae	
Hydroptila	2
Psychomyiidae	
Psychomyia	2
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
Optioservus	2

01470500 SCHUYLKILL RIVER AT BERNE, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES--Continued

Date	10/13/04
Benthic macroinvertebrate	Count
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	33
Empididae (DANCE FLIES)	
Hemerodromia	1
Simuliidae (BLACK FLIES)	
Simulium	1
Tipulidae (CRANE FLIES)	
Antocha	1
Total Organisms	123
Total Taxa	22

01470779 TULPEHOCKEN CREEK NEAR BERNVILLE, PA

LOCATION.--Lat 40°24'48", long 76°10'19", Berks County, Hydrologic Unit, 02040203, on left bank 30 ft downstream from Mill Road bridge at Kricks Mill, 0.4 mi upstream from Mill Creek, and 3.5 mi west of Bernville.

DRAINAGE AREA.--66.5 mi^2.

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

REVISED RECORDS.--WDR PA-96-1: 1975-83(P), 1988(P), 1990(P), 1993-94(P).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 311.26 ft above National Geodetic Vertical Datum of 1929 (Pennsylvania Department of Transportation datum).

REMARKS.--No estimated daily discharges. Records fair. Satellite and landline telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1972 reached a stage of about 9.5 ft, from information by local resident, discharge about 6,000 ft^3/s.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 950 ft^3/s and maximum (*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Nov. 28	1400	*1,080	*5.77	Apr. 3	0030	970	5.50

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	291	136	439	143	136	129	252	139	90	77	70	48
2	254	132	328	139	133	125	471	131	87	73	69	47
3	331	129	273	137	131	120	817	129	89	69	68	47
4	247	138	239	145	130	118	504	124	91	67	66	47
5	218	154	217	158	129	116	403	120	88	71	59	47
6	208	132	199	249	130	116	351	118	86	88	57	46
7	197	127	207	197	131	136	314	116	88	144	55	46
8	188	122	205	370	132	187	423	111	81	292	63	45
9	181	119	185	339	143	152	291	108	76	152	84	45
10	175	116	350	276	152	144	267	105	76	119	68	45
11	167	116	418	243	134	141	245	104	82	104	65	42
12	161	128	294	265	128	139	228	101	87	94	63	41
13	157	129	258	228	124	134	217	99	83	82	63	44
14	170	118	228	538	144	130	203	99	76	88	66	47
15	159	116	208	400	255	126	192	97	74	92	66	48
16	159	114	196	331	182	123	179	97	77	96	67	48
17	150	112	188	285	173	120	177	86	77	302	68	49
18	143	110	178	240	156	117	173	84	77	379	62	49
19	184	108	173	221	146	114	167	82	75	138	65	49
20	159	109	160	214	142	114	163	92	74	119	66	48
21	151	115	154	199	143	113	157	95	73	104	65	48
22	152	108	151	187	142	109	153	93	69	97	63	48
23	145	107	242	184	143	169	168	92	70	92	62	47
24	141	107	236	174	137	229	182	91	69	86	60	47
25	137	128	180	170	136	161	156	91	68	103	59	47
26	134	116	169	166	131	150	148	88	68	86	58	48
27	132	110	161	156	128	144	145	82	68	78	51	49
28	129	576	151	148	128	371	141	96	66	74	52	42
29	127	323	150	145	---	586	136	101	67	74	51	41
30	172	246	147	145	---	363	140	95	116	72	50	40
31	143	---	145	141	---	291	---	92	---	71	49	---
TOTAL	5462	4401	6829	6933	4019	5287	7563	3158	2368	3583	1930	1385
MEAN	176	147	220	224	144	171	252	102	78.9	116	62.3	46.2
MAX	331	576	439	538	255	586	817	139	116	379	84	49
MIN	127	107	145	137	124	109	136	82	66	67	49	40
CFSM	2.65	2.21	3.31	3.36	2.16	2.56	3.79	1.53	1.19	1.74	0.94	0.69
IN.	3.06	2.46	3.82	3.88	2.25	2.96	4.23	1.77	1.32	2.00	1.08	0.77

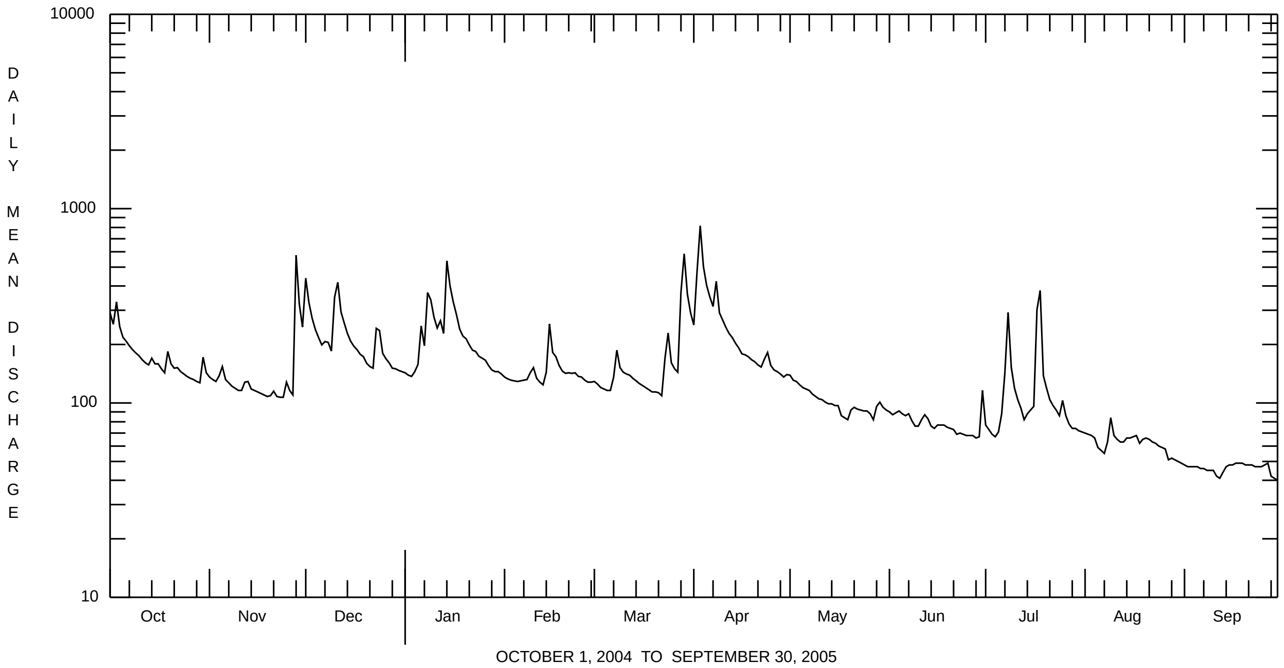
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 2005, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	83.5	95.7	120	132	129	165	150	111	103	88.3	70.1	71.1
MAX	250	181	288	385	264	468	367	277	284	216	213	217
(WY)	1977	1997	1997	1979	1979	1994	1993	1989	2003	1984	2004	2004
MIN	35.1	31.4	29.1	26.5	27.4	51.7	58.8	59.5	41.4	32.1	27.5	29.7
(WY)	2002	2002	2002	2002	2002	2002	1985	1999	1999	1999	2002	2002

01470779 TULPEHOCKEN CREEK NEAR BERNVILLE, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1975 - 2005	
ANNUAL TOTAL	57076		52918			
ANNUAL MEAN	156		145		109	
HIGHEST ANNUAL MEAN					164	1994
LOWEST ANNUAL MEAN					42.7	2002
HIGHEST DAILY MEAN	1160	Aug 13	817	Apr 3	2140	Jan 26 1978
LOWEST DAILY MEAN	68	Jul 10,11	40	Sep 30	15	Sep 8 2002
ANNUAL SEVEN-DAY MINIMUM	72	Jul 5	44	Sep 7	16	Sep 7 2002
MAXIMUM PEAK FLOW			1080	Nov 28	[a]7140	Jan 24 1979
MAXIMUM PEAK STAGE			5.77	Nov 28	10.16	Jan 24 1979
INSTANTANEOUS LOW FLOW			38	Sep 11	14	Sep 8 2002
ANNUAL RUNOFF (CFSM)	2.35		2.18		1.64	
ANNUAL RUNOFF (INCHES)	31.93		29.60		22.25	
10 PERCENT EXCEEDS	236		254		185	
50 PERCENT EXCEEDS	128		129		85	
90 PERCENT EXCEEDS	91		56		41	

[a] From rating curve extended above 2,600 ft^3/s on basis of contracted-opening measurement at 3,900 ft^3/s, gage height 8.01 ft.



01470853 FURNACE CREEK AT ROBESONIA, PA

LOCATION.--Lat 40°20'24", long 76°08'37", Berks County, Hydrologic Unit 02040202, on left bank 500 ft upstream from Furnace Street in Robesonia.

DRAINAGE AREA.--4.18 mi^2.

PERIOD OF RECORD.--October 1982 to September 2005. (Discontinued)

REVISED RECORDS.--WDR PA-87-1: 1986 (P).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 527.20 ft above National Geodetic Vertical Datum of 1929. Prior to Mar. 27, 1986, 760 ft downstream at different datum.

REMARKS.--Records poor. Flow slightly regulated by Furnace Creek Reservoir 0.6 mi upstream, until drained in early 2002. Reservoir now acts as a retention basin and releases water through an unregulated 10 in. outlet pipe. Several measurements of water temperature were made during the year. Satellite telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft^3/s and maximum (*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Apr. 3	1130	*49	*1.34	(No peaks above base discharge.)			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	6.9	21	9.5	e7.0	7.6	22	10	4.5	2.8	2.4	1.9
2	18	6.6	21	9.2	e7.3	7.3	25	8.9	4.4	2.7	2.4	1.8
3	17	6.6	21	9.2	7.7	e6.8	39	8.6	4.3	2.3	2.4	1.7
4	16	8.0	20	9.3	7.7	e6.5	33	8.2	5.1	2.3	2.1	1.7
5	11	10	20	10	7.8	e6.2	28	8.0	4.8	2.4	2.1	1.7
6	9.5	7.5	19	13	7.8	6.7	26	7.7	4.5	3.2	2.1	1.7
7	9.1	7.1	18	14	7.9	8.1	25	7.4	5.3	3.6	2.2	1.7
8	8.7	6.8	17	14	8.3	12	30	6.9	4.6	9.5	3.2	1.7
9	8.4	6.6	17	15	9.9	11	26	6.6	4.0	6.7	4.3	1.6
10	8.2	6.6	18	14	11	8.7	25	6.6	3.6	3.4	2.6	1.5
11	7.8	6.6	20	14	8.7	8.6	25	6.5	3.9	2.6	2.3	1.5
12	7.6	8.2	20	14	7.7	8.7	24	6.3	4.7	2.5	2.2	1.5
13	7.6	8.6	18	13	7.5	8.5	23	5.8	4.1	2.1	2.1	1.5
14	8.7	6.9	17	16	8.6	8.2	22	5.8	3.7	2.1	2.2	1.5
15	8.5	6.6	17	18	15	7.7	21	5.8	3.2	3.3	2.1	1.6
16	9.0	6.6	16	18	15	7.4	20	5.9	2.9	4.0	2.2	1.6
17	8.0	6.6	15	17	13	7.5	20	5.9	3.0	11	2.4	1.6
18	7.3	6.6	14	17	10	7.3	18	5.5	3.0	16	2.1	1.6
19	11	6.3	e11	16	8.8	7.3	14	5.2	3.0	15	2.1	1.6
20	8.8	6.5	e9.0	16	8.4	7.7	11	5.7	3.0	14	2.2	1.6
21	8.2	7.6	e9.2	e14	8.8	8.1	10	6.0	3.0	6.7	2.0	1.6
22	8.7	6.7	9.4	e12	8.6	7.4	10	5.8	3.0	2.9	1.9	1.6
23	7.7	6.5	12	e10	8.7	11	13	5.7	2.8	2.8	1.8	1.6
24	7.3	6.7	16	e8.0	8.2	16	16	5.5	2.8	2.8	1.8	1.6
25	7.0	9.1	15	e8.6	8.1	16	13	5.5	2.8	4.5	1.8	1.6
26	6.9	7.8	14	e9.2	7.7	13	10	5.4	2.8	3.2	1.8	1.6
27	6.8	6.8	11	e8.5	7.4	10	10	5.1	2.7	2.8	1.8	1.7
28	6.5	20	9.4	e6.0	7.4	18	9.5	5.3	2.8	2.9	2.2	1.7
29	6.3	21	9.3	e6.3	---	25	9.2	5.8	2.8	2.7	2.2	1.7
30	9.3	20	9.2	e6.6	---	24	9.9	4.8	2.8	2.6	2.1	1.7
31	7.6	---	9.2	e6.8	---	23	---	4.5	---	2.5	2.0	---
TOTAL	292.5	254.4	472.7	372.2	250.0	331.3	587.6	196.7	107.9	147.9	69.1	49.0
MEAN	9.44	8.48	15.2	12.0	8.93	10.7	19.6	6.35	3.60	4.77	2.23	1.63
MAX	20	21	21	18	15	25	39	10	5.3	16	4.3	1.9
MIN	6.3	6.3	9.0	6.0	7.0	6.2	9.2	4.5	2.7	2.1	1.8	1.5
CFSM	2.26	2.03	3.65	2.87	2.14	2.56	4.69	1.52	0.86	1.14	0.53	0.39
IN.	2.60	2.26	4.21	3.31	2.22	2.95	5.23	1.75	0.96	1.32	0.61	0.44

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 2005, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	3.58	5.78	8.28	7.32	8.27	11.6	12.1	9.00	5.90	4.40	3.42	3.21
MAX	9.44	12.8	22.0	14.3	15.2	26.7	31.8	24.7	16.7	11.7	16.8	10.6
(WY)	2005	2004	1997	1996	1996	1994	1993	1989	2003	1984	2004	2004
MIN	0.94	1.68	2.06	2.34	1.80	2.72	3.32	4.29	2.10	1.36	0.85	0.63
(WY)	1989	2001	2002	1983	2002	2002	1985	1997	1985	1983	1983	1983

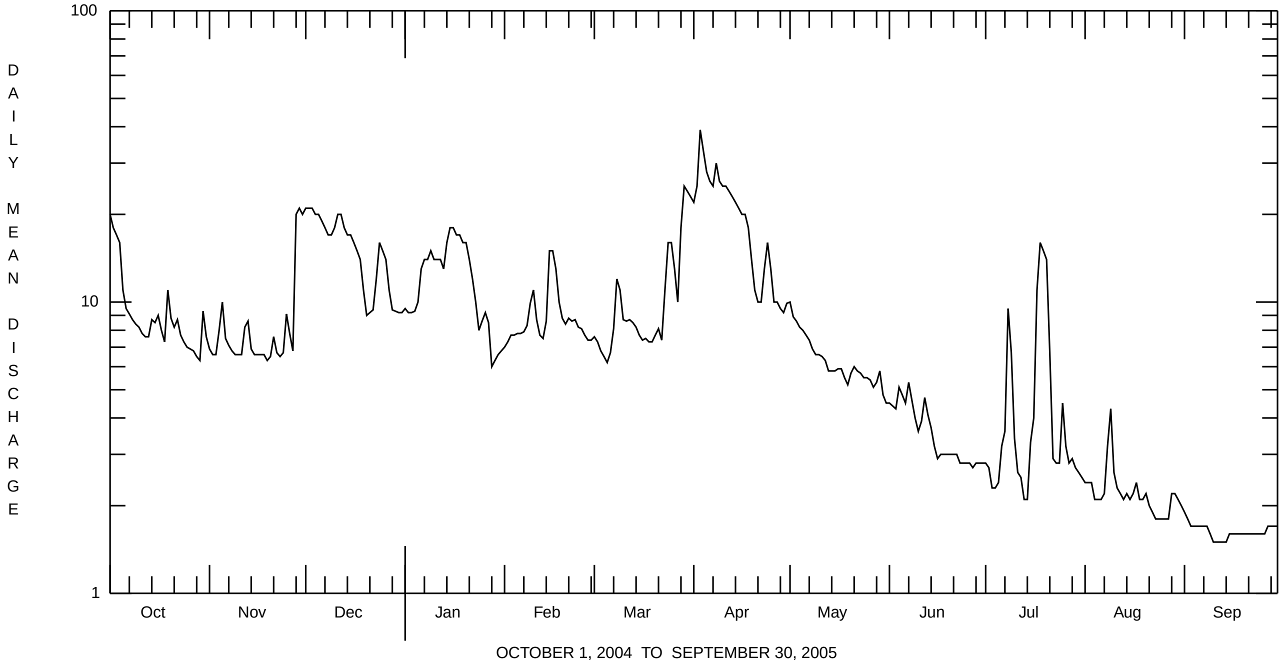
e Estimated.

SCHUYLKILL RIVER BASIN

01470853 FURNACE CREEK AT ROBESONIA, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1983 - 2005	
ANNUAL TOTAL	3702.5		3131.3			
ANNUAL MEAN	10.1		8.58		6.90	
HIGHEST ANNUAL MEAN					10.5	1994
LOWEST ANNUAL MEAN					2.76	2002
HIGHEST DAILY MEAN	72	Aug 13	39	Apr 3	139	Dec 5 1993
LOWEST DAILY MEAN	2.5	Jul 5,6	1.5	Sep 10-14	0.11	Sep 11 1983
ANNUAL SEVEN-DAY MINIMUM	2.9	Jun 23	1.5	Sep 9	0.19	Sep 16 1985
MAXIMUM PEAK FLOW			49	Apr 3	**a**718	Dec 17 2000
MAXIMUM PEAK STAGE			**b**1.72	Jan 29	**c**4.72	Jan 19 1996
ANNUAL RUNOFF (CFSM)	2.42		2.05		1.65	
ANNUAL RUNOFF (INCHES)	32.95		27.87		22.42	
10 PERCENT EXCEEDS	18		18		14	
50 PERCENT EXCEEDS	8.6		7.4		4.8	
90 PERCENT EXCEEDS	4.6		2.0		1.4	

a From rating curve extended above 308 ft^3/s on basis of slope-area measurement of peak flow at gage height 3.11 ft.
b Ice jam.
c From peak indicator; ice jam.



01470960 TULPEHOCKEN CREEK AT BLUE MARSH DAMSITE NEAR READING, PA

LOCATION.--Lat 40°22'14", long 76°01'32", Berks County, Hydrologic Unit 02040203, on right bank 1.0 mi upstream from Rebers Bridge and Plum Creek, 1.0 mi east of Blue Marsh, 3.0 mi north of Sinking Spring, and 5.5 mi northeast of Reading.

DRAINAGE AREA.--175 mi^2.

PERIOD OF RECORD.--May 1965 to current year.

REVISED RECORDS.--WDR PA-72-1: 1969-71 (M).

GAGE.--Water-stage recorder. Datum of gage is 230.06 ft above National Geodetic Vertical Datum of 1929 (Western Berks Water Authority datum). Prior to Nov. 25, 1974, water-stage recorder at site 0.3 mi downstream at same datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since April 1979 by Blue Marsh Lake (station 01470870) 0.8 mi upstream. Satellite and landline telemetry at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1290	251	1830	332	331	277	698	264	201	105	106	51
2	814	425	1810	332	275	277	869	264	159	105	100	51
3	809	418	1450	287	238	263	46	263	131	105	97	52
4	805	361	1150	307	240	248	1530	234	132	104	95	53
5	614	364	852	305	240	247	2480	214	133	72	119	53
6	413	371	419	529	240	247	2430	214	132	200	155	104
7	361	355	328	631	260	265	2430	214	131	196	156	157
8	361	255	430	610	273	336	1570	214	130	391	99	157
9	361	176	506	619	308	402	717	186	131	699	53	156
10	357	158	571	974	428	458	722	150	105	418	75	156
11	354	158	622	1170	352	377	564	137	88	145	86	214
12	273	217	629	927	277	325	484	138	88	121	86	208
13	219	280	757	634	277	325	497	139	113	105	87	150
14	372	280	857	709	203	356	500	139	128	128	88	153
15	398	279	852	970	635	345	426	139	128	146	101	111
16	355	278	842	971	585	372	391	154	103	147	111	56
17	354	235	641	968	408	372	400	164	86	285	111	58
18	385	208	497	959	431	348	354	164	87	950	111	58
19	617	208	497	954	431	317	285	162	88	880	98	58
20	763	210	491	700	430	317	260	128	88	561	90	111
21	628	211	369	481	430	226	264	104	88	348	90	165
22	543	211	290	438	362	142	275	103	88	229	123	191
23	462	211	295	438	317	126	289	133	88	208	150	235
24	456	211	303	359	317	473	297	156	63	208	154	251
25	367	211	304	339	301	492	266	168	46	178	154	248
26	317	238	306	361	277	376	316	175	46	157	172	179
27	315	254	709	334	277	376	368	130	65	135	192	203
28	314	270	805	263	277	362	374	102	93	123	192	247
29	312	874	600	226	---	728	298	103	104	118	127	244
30	310	1720	409	226	---	1260	265	103	105	115	51	220
31	304	---	332	290	---	695	---	162	---	115	51	---
TOTAL	14603	9898	20753	17643	9420	11730	20665	5120	3168	7797	3480	4350
MEAN	471	330	669	569	336	378	689	165	106	252	112	145
MAX	1290	1720	1830	1170	635	1260	2480	264	201	950	192	251
MIN	219	158	290	226	203	126	46	102	46	72	51	51

01470960 TULPEHOCKEN CREEK AT BLUE MARSH DAMSITE NEAR READING, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 2005, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	221	234	358	347	343	444	340	290	249	192	142	161
MAX	612	484	986	1151	596	1365	1016	1058	863	543	705	521
(WY)	1980	1997	1997	1979	1979	1994	1993	1989	2003	1984	2004	2004
MIN	51.4	61.7	61.3	84.5	75.2	106	49.8	123	69.9	64.9	55.4	54.0
(WY)	1996	2002	1999	2002	2002	2002	1985	1999	1979	2002	1981	1983

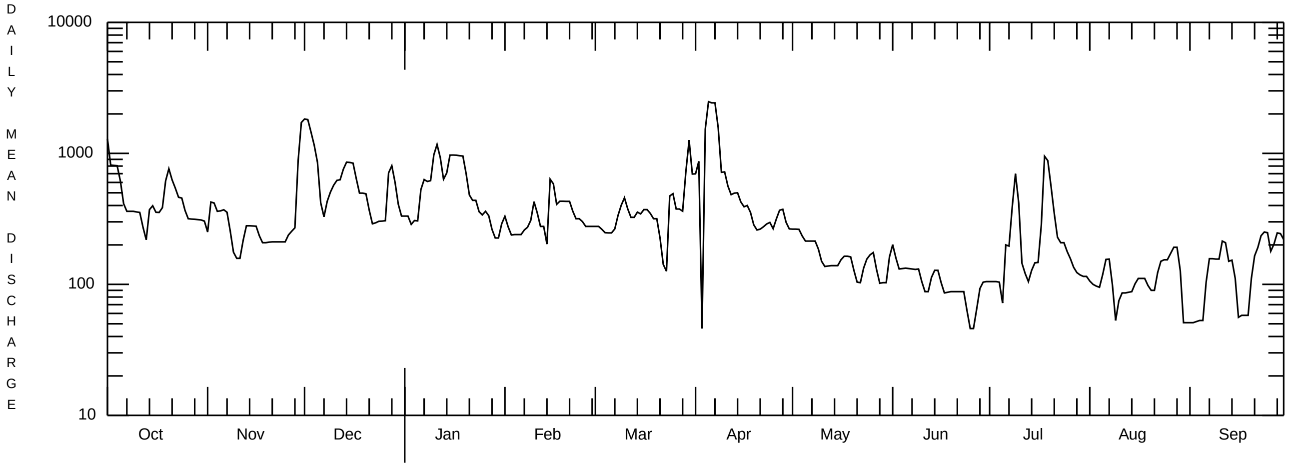
SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1979 - 2005	
ANNUAL TOTAL	150367		128627			
ANNUAL MEAN	411		352		277	
HIGHEST ANNUAL MEAN					435	1994
LOWEST ANNUAL MEAN					111	2002
HIGHEST DAILY MEAN	2970	Aug 15	2480	Apr 5	3950	Apr 18 1983
LOWEST DAILY MEAN	93	Sep 15	46	Apr 3**a**	25	Oct 7 1995
ANNUAL SEVEN-DAY MINIMUM	107	Apr 7	52	Aug 30	26	Oct 6 1995
MAXIMUM PEAK FLOW			2510	Apr 4	**b**4060	Dec 6 1993
MAXIMUM PEAK STAGE			6.63	Apr 4	8.02	Jun 26 2000
10 PERCENT EXCEEDS	785		719		555	
50 PERCENT EXCEEDS	314		265		180	
90 PERCENT EXCEEDS	128		96		64	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1978, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	180	236	333	333	373	423	363	261	285	233	175	150
MAX	701	464	827	761	790	832	706	423	1244	523	350	536
(WY)	1977	1976	1978	1978	1971	1978	1970	1973	1972	1969	1969	1975
MIN	56.2	58.3	69.9	100	146	163	144	89.2	60.4	45.0	31.9	43.4
(WY)	1967	1966	1966	1966	1969	1969	1966	1965	1965	1966	1966	1966

SUMMARY STATISTICS	WATER YEARS 1965 - 1978	
ANNUAL MEAN	283	
HIGHEST ANNUAL MEAN	416	1978
LOWEST ANNUAL MEAN	122	1966
HIGHEST DAILY MEAN	11000	Jun 23 1972
LOWEST DAILY MEAN	23	Sep 12 1966
ANNUAL SEVEN-DAY MINIMUM	25	Sep 7 1966
MAXIMUM PEAK FLOW	**b**16100	Jun 22 1972
MAXIMUM PEAK STAGE	**c**18.70	Jun 22 1972
ANNUAL RUNOFF (CFSM)	1.62	
ANNUAL RUNOFF (INCHES)	22.00	
10 PERCENT EXCEEDS	551	
50 PERCENT EXCEEDS	178	
90 PERCENT EXCEEDS	69	

a Also June 25, 26.
b From rating curve extended above 3,540 ft^3/s on basis of runoff comparison with downstream station.
c From floodmark.



OCTOBER 1, 2004 TO SEPTEMBER 30, 2005

01471000 TULPEHOCKEN CREEK NEAR READING, PA
(Pennsylvania Water-Quality Network Station)

LOCATION.--Lat 40°22'08", long 75°58'46", Berks County, Hydrologic Unit 02040203, on right bank 15 ft upstream from covered bridge on Township Route 921, 1.0 mi downstream from Cacoosing Creek, 2.5 mi upstream from mouth, and 3.5 mi northwest of town square in Reading.

DRAINAGE AREA.--211 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1950 to current year.

REVISED RECORDS.--WSP 1382: 1951-53, 1954 (M). WSP 2102: 1965 (M). WDR PA-72-1: 1971 (M).

GAGE.--Water-stage recorder. Datum of gage is 216.60 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since April 1979 by Blue Marsh Lake (station 01470870) 3.9 mi upstream. Several measurements of water temperature were made during the year. Satellite and landline telemetry at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1390	329	2020	414	399	351	842	338	235	133	128	63
2	918	527	1920	413	346	344	1250	333	199	134	119	62
3	907	515	1580	370	305	333	545	330	169	134	114	61
4	888	480	1250	383	305	313	1750	302	171	134	111	62
5	721	473	981	400	305	312	2770	276	169	109	131	62
6	522	473	541	650	305	313	2650	275	206	213	172	104
7	452	448	456	765	323	340	2650	275	192	233	172	172
8	445	347	549	805	341	433	1900	271	172	457	128	172
9	445	254	630	796	381	493	883	248	173	677	79	172
10	436	233	781	1090	509	555	868	213	147	441	88	172
11	428	232	846	1290	441	472	716	195	123	162	101	218
12	352	305	808	1070	345	404	623	194	122	158	99	226
13	288	369	893	777	343	400	628	194	145	139	100	165
14	451	359	975	1010	301	425	622	193	165	161	104	167
15	488	354	954	1190	723	415	545	193	165	176	115	133
16	435	354	941	1150	728	443	498	206	143	172	130	63
17	430	314	763	1120	519	439	504	212	117	320	131	63
18	456	279	610	1080	536	417	452	212	117	877	130	63
19	700	279	605	1070	529	382	375	211	117	864	120	62
20	834	281	589	844	525	381	340	188	117	573	106	107
21	708	285	466	610	525	300	342	155	114	372	106	176
22	643	279	369	552	457	210	351	152	114	247	131	195
23	550	279	467	555	400	248	403	176	114	224	167	240
24	544	281	450	465	395	568	413	204	92	224	172	257
25	449	290	425	430	379	618	348	212	68	203	172	257
26	382	305	413	455	350	481	394	220	69	179	186	192
27	382	322	767	418	348	474	450	180	83	163	210	208
28	378	540	903	343	350	722	460	148	115	152	214	253
29	376	961	710	300	---	1040	376	148	131	145	156	253
30	442	1740	515	300	---	1500	345	146	133	140	63	232
31	391	---	418	354	---	889	---	196	---	137	63	---
TOTAL	17231	12487	24595	21469	11713	15015	25293	6796	4197	8453	4018	4632
MEAN	556	416	793	693	418	484	843	219	140	273	130	154
MAX	1390	1740	2020	1290	728	1500	2770	338	235	877	214	257
MIN	288	232	369	300	301	210	340	146	68	109	63	61

01471000 TULPEHOCKEN CREEK NEAR READING, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 2005, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	257	287	424	375	392	514	417	352	301	226	173	186
MAX	651	589	1220	1069	663	1604	1191	1226	968	661	812	628
(WY)	1997	1997	1997	1996	1986	1994	1983	1989	2003	1984	2004	2004
MIN	78.3	67.6	80.1	99.8	94.5	134	64.2	155	98.8	80.2	63.1	63.0
(WY)	1996	2002	1999	1981	2002	2002	1985	1999	1999	2002	1981	1983

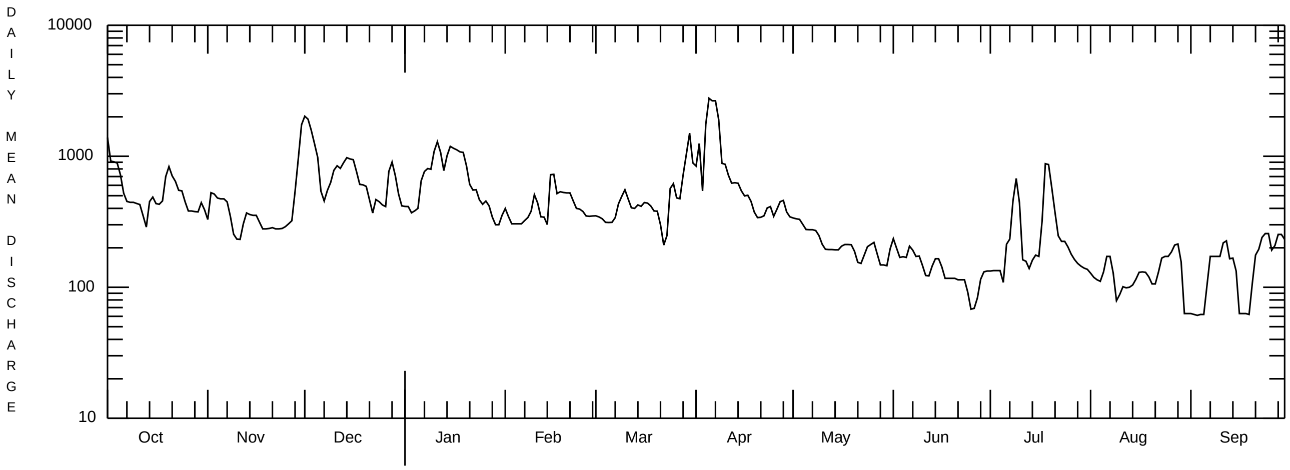
SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1980 - 2005	
ANNUAL TOTAL	181693		155899			
ANNUAL MEAN	496		427		325	
HIGHEST ANNUAL MEAN					531	1984
LOWEST ANNUAL MEAN					133	2002
HIGHEST DAILY MEAN	3240	Aug 15	2770	Apr 5	3950	Apr 18 1983
LOWEST DAILY MEAN	139	Jul 10,11	61	Sep 3	27	Sep 24 1991
ANNUAL SEVEN-DAY MINIMUM	150	Jul 5	62	Aug 30	35	Sep 19 1995
MAXIMUM PEAK FLOW			3010	Apr 8	**a**4060	Dec 6 1993
MAXIMUM PEAK STAGE			4.80	Apr 8	5.81	Dec 6 1993
10 PERCENT EXCEEDS	903		872		643	
50 PERCENT EXCEEDS	413		343		221	
90 PERCENT EXCEEDS	178		117		83	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1979, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	178	259	360	405	444	522	451	318	263	210	178	192
MAX	689	490	829	1193	917	914	806	712	1434	645	481	588
(WY)	1977	1973	1978	1979	1971	1978	1970	1953	1972	1969	1955	1975
MIN	55.8	67.5	84.4	124	178	202	170	116	72.8	57.5	41.9	54.8
(WY)	1964	1966	1966	1966	1969	1969	1966	1965	1965	1966	1966	1957

SUMMARY STATISTICS	WATER YEARS 1951 - 1979	
ANNUAL MEAN	314	
HIGHEST ANNUAL MEAN	491	1952
LOWEST ANNUAL MEAN	144	1966
HIGHEST DAILY MEAN	12000	Jun 23 1972
LOWEST DAILY MEAN	33	Sep 1 1966
ANNUAL SEVEN-DAY MINIMUM	35	Aug 28 1966
MAXIMUM PEAK FLOW	**a**17000	Jun 23 1972
MAXIMUM PEAK STAGE	**b**15.65	Jun 23 1972
INSTANTANEOUS LOW FLOW	23	Dec 1 1964
ANNUAL RUNOFF (CFSM)	1.49	
ANNUAL RUNOFF (INCHES)	20.23	
10 PERCENT EXCEEDS	613	
50 PERCENT EXCEEDS	211	
90 PERCENT EXCEEDS	86	

a From rating curve extended above 3,600 ft^3/s on basis of contracted-opening measurement of peak flow.
b From floodmark in gage shelter.



OCTOBER 1, 2004 TO SEPTEMBER 30, 2005

01471000 TULPEHOCKEN CREEK NEAR READING, PA--Continued
(Pennsylvania Water-Quality Network Station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 2002 to current year.

REMARKS.--Other data for the Water-Quality Network can be found on pages 386-432.

COOPERATION.--Samples were collected as part of the Pennsylvania Department of Environmental Protection Water-Quality Network (WQN) with cooperation from the Pennsylvania Department of Environmental Protection.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conductance, wat unf lab, µS/cm 25 degC (90095)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water unfltrd recover -able, mg/L (00916)	Magnesium, water, unfltrd recover -able, mg/L (00927)
NOV 2004													
03...	1120	1028	9813	512	11.1	8.0	8.3	396	391	12.7	170	48	12
JAN 2005													
26...	1130	1028	9813	458	15.6	8.0	8.1	402	401	3.7	180	50	13
MAR													
03...	1040	1028	9813	343	17.1	8.2	8.3	417	369	3.4	180	52	13
MAY													
19...	1230	1028	9813	212	12.3	8.4	8.4	393	386	17.2	170	48	13
JUL													
14...	1000	1028	9813	134	8.1	7.5	7.8	411	421	20.0	190	51	14
SEP													
20...	1120	1028	9813	61	8.1	7.7	8.0	448	442	20.6	200	51	16

Date	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 105degC wat flt mg/L (00515)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia water, unfltrd mg/L as N (00610)	Nitrate water unfltrd mg/L as N (00620)	Nitrite water, unfltrd mg/L as N (00615)	Total nitrogen, water, unfltrd mg/L (00600)	Orthophosphate, water, unfltrd mg/L as P (70507)	Phosphorus, water, unfltrd mg/L (00665)	Organic carbon, water, unfltrd mg/L (00680)	Aluminum, water, unfltrd recover -able, µg/L (01105)	Copper, water, unfltrd recover -able, µg/L (01042)
NOV 2004													
03...	134	20	240	2.0	<.020	5.3	.050	5.7	.01	.04	2.4	<200	<10
JAN 2005													
26...	128	21	260	4.0	.310	6.7	<.040	6.6	--	--	1.5	260	<10
MAR													
03...	132	22	310	14	.030	6.4	<.040	6.5	.03	.05	1.6	<200	<10
MAY													
19...	126	23	300	4.0	.030	5.6	<.040	5.5	.04	.06	--	<200	<10
JUL													
14...	142	23	320	8.0	.170	4.2	<.040	4.7	.07	.10	--	220	<10
SEP													
20...	148	26	300	8.0	.030	3.9	.060	4.0	.15	.17	--	<200	<10

Date	Iron, water, unfltrd recover -able, µg/L (01045)	Lead, water, unfltrd recover -able, µg/L (01051)	Manganese, water, unfltrd recover -able, µg/L (01055)	Nickel, water, unfltrd recover -able, µg/L (01067)	Zinc, water, unfltrd recover -able, µg/L (01092)
NOV 2004					
03...	20	<1.0	30	<50	<10
JAN 2005					
26...	270	<1.0	30	<50	<10
MAR					
03...	80	<1.0	20	<50	<10
MAY					
19...	100	<1.0	40	<50	<10
JUL					
14...	280	<1.0	40	<50	30
SEP					
20...	50	<1.0	40	<50	<10

01471000 TULPEHOCKEN CREEK NEAR READING, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES

REMARKS.--Samples were collected using a D-Frame net with a mesh size of 500 µm. Samples represent counts per 100 animal (approximate) subsamples.

Date	10/13/04
Benthic macroinvertebrate	Count
Platyhelminthes	
Turbellaria (FLATWORMS)	
Tricladida	
Planariidae	17
Nematoda (NEMATODES)	1
Mollusca	
Gastropoda (SNAILS)	
Basommatophora	
Ancylidae	
Ferrissia	4
Planorbidae	
Planorbella	1
Bivalvia (CLAMS)	
Veneroida	
Corbiculidae	
Corbicula fluminea	15
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Tubificida	
Naididae	4
Arthropoda	
Acariformes	
Hydrachnidia (WATER MITES)	14
Crustacea	
Amphipoda (SCUDS)	1
Insecta	
Ephemeroptera (MAYFLIES)	
Caenidae	
Caenis	3
Ephemerellidae	
Serratella	15
Heptageniidae	1
Stenonema	4
Tricorythidae	
Tricorythodes	1
Plecoptera (STONEFLIES)	
Taeniopterygidae	
Taeniopteryx	1
Trichoptera (CADDISFLIES)	
Hydropsychidae	
Cheumatopsyche	29
Hydropsyche	15
Hydroptilidae	
Leucotrichia	7
Lepidoptera (MOTHS AND BUTTERFLIES)	
Pyralidae	
Petrophila	1

01471000 TULPEHOCKEN CREEK NEAR READING, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES--Continued

Date	10/13/04
Benthic macroinvertebrate	Count
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
Optioservus	1
Stenelmis	8
Psephenidae (WATER PENNIES)	
Psephenus	1
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	50
Empididae (DANCE FLIES)	
Hemerodromia	3
Simuliidae (BLACK FLIES)	
Simulium	17
Tipulidae (CRANE FLIES)	
Antocha	2
Total Organisms	216
Total Taxa	25

01471510 SCHUYLKILL RIVER AT READING, PA

LOCATION.--Lat 40°20'05", long 75°56'12", Berks County, Hydrologic Unit 02040203, on left bank 200 ft downstream from bridge on Penn Street at Reading, and 1.0 mi downstream from Tulpehocken Creek.

DRAINAGE AREA.--880 mi^2.

PERIOD OF RECORD.--May 1914 to September 1915, October 1919 to September 1930, and July 1977 to current year. Prior to October 1914 monthly discharge only, published in WSP 1302. Diversion by Schuylkill Navigation Canal included during the navigation seasons of 1914-15.

REVISED RECORD.--WDR PA-78-1: 1977.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 185.50 ft above National Geodetic Vertical Datum of 1929 (Pennsylvania Railroad datum). May 7, 1914, to Sept. 30, 1930, and July 6, 1979, to Dec. 5, 1980, nonrecording gage. June 30, 1977, to July 5, 1979, water-stage recorder at site 1,500 ft downstream on right bank at same datum.

REMARKS.--No estimated daily discharges. Records fair. Flow regulated by Still Creek Reservoir (station 01469200) since February 1933, Blue Marsh Lake (station 01470870) since April 1979, and to some extent by Lake Ontelaunee. Several measurements of water temperature were made during the year. Satellite and landline telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 23, 1972, reached a stage of about 31.3 ft at site 1,500 ft downstream, from floodmarks, discharge, about 90,000 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4900	1490	7900	2050	1570	1630	4360	1570	774	587	407	333
2	3640	1620	8250	1960	1490	1560	6170	1450	697	561	392	327
3	3210	1570	6200	1860	1420	1450	17800	1390	654	552	395	319
4	2860	1590	4850	2010	1390	1350	12300	1290	729	474	398	312
5	2450	1850	3960	2000	1390	1320	8690	1220	733	508	401	312
6	2020	1650	3060	3140	1410	1340	6910	1200	818	739	476	334
7	1810	1530	2840	3950	1440	1420	6110	1180	1010	774	474	401
8	1720	1410	3050	4540	1480	1980	5700	1150	838	1540	460	382
9	1630	1240	2760	5480	1550	2300	3770	1090	751	1940	505	379
10	1560	1160	3840	4850	1800	2230	3320	1030	743	1260	439	375
11	1470	1120	6420	4400	1740	2030	2930	968	688	728	402	418
12	1340	1360	5340	4210	1540	1870	2610	944	680	634	412	448
13	1230	1880	4480	3540	1490	1780	2470	897	666	750	406	368
14	1500	1550	3920	7490	1480	1720	2310	870	651	908	385	398
15	1600	1470	3400	9720	3530	1620	2120	1050	610	764	386	387
16	1730	1460	3090	6750	3360	1610	1960	1070	606	945	413	295
17	1540	1400	2770	5310	2910	1590	1890	941	575	1280	411	309
18	1400	1310	2460	4310	2580	1560	1790	884	547	1710	395	321
19	1980	1290	2360	3690	2330	1520	1680	840	542	1640	391	293
20	2300	1270	2210	3290	2180	1540	1550	854	555	1210	415	312
21	1960	1380	1930	2820	2170	1520	1500	927	541	901	387	385
22	1880	1280	1830	2440	2040	1390	1450	803	507	696	386	390
23	1690	1230	2320	2440	1970	1650	1680	775	498	625	424	433
24	1600	1210	5290	2230	1850	3230	2120	806	505	597	409	450
25	1470	1980	3750	2160	1780	3130	1750	802	471	624	401	452
26	1360	2280	3130	2090	1660	2760	1610	792	469	609	408	409
27	1310	2100	3080	1910	1620	2550	1620	732	470	558	439	421
28	1280	7640	2910	1660	1590	4170	1610	683	500	564	486	502
29	1240	10100	2600	1600	---	12800	1460	826	569	490	583	469
30	1770	6870	2320	1640	---	8460	1430	744	631	447	376	452
31	1840	---	2110	1620	---	5540	---	727	---	428	345	---
TOTAL	59290	65290	114430	107160	52760	80620	112670	30505	19028	26043	13007	11386
MEAN	1913	2176	3691	3457	1884	2601	3756	984	634	840	420	380
MAX	4900	10100	8250	9720	3530	12800	17800	1570	1010	1940	583	502
MIN	1230	1120	1830	1600	1390	1320	1430	683	469	428	345	293

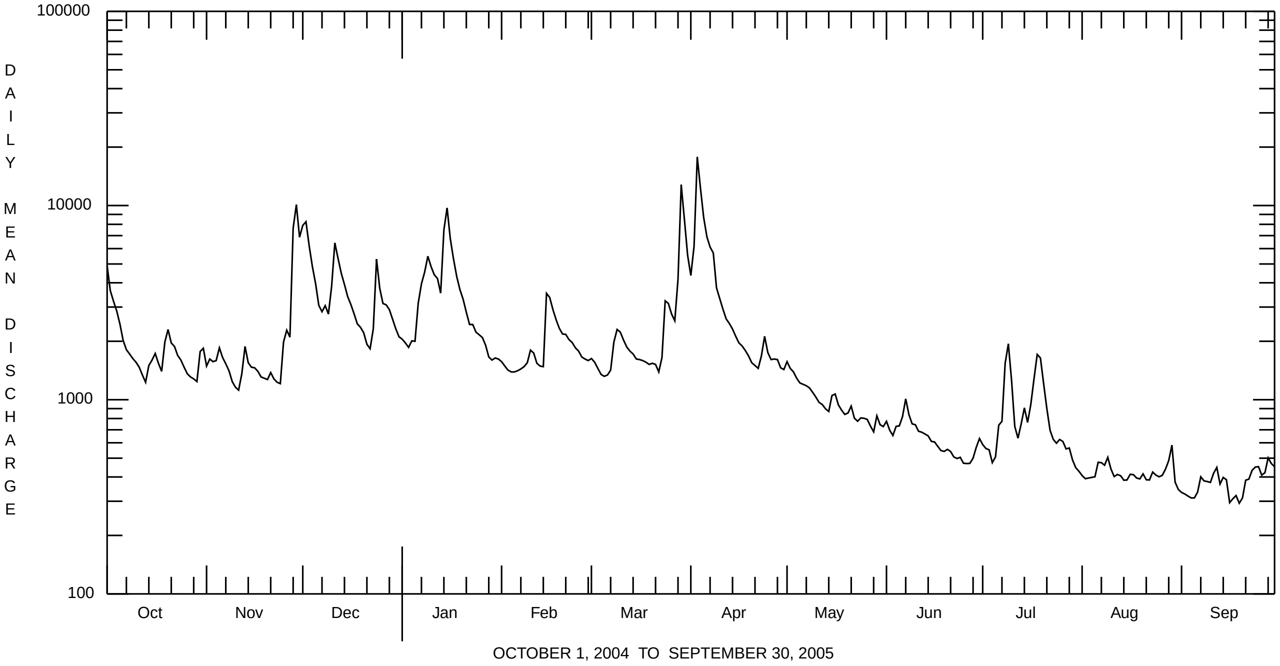
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 2005, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1127	1497	2136	1945	1897	2640	2434	1919	1430	989	807	903
MAX	3390	2791	5763	5682	3358	6484	6472	5493	5203	2907	3323	3428
(WY)	1980	1997	1997	1979	1984	1994	1983	1989	2003	1984	2004	2004
MIN	322	352	278	265	609	824	606	724	415	330	257	273
(WY)	1981	2002	1981	1981	2002	1985	1985	1999	1999	1999	2002	1983

01471510 SCHUYLKILL RIVER AT READING, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1977 - 2005	
ANNUAL TOTAL	830250		692189			
ANNUAL MEAN	2268		1896		1645	
HIGHEST ANNUAL MEAN					2559	1984
LOWEST ANNUAL MEAN					803	2002
HIGHEST DAILY MEAN	15600	Sep 19	17800	Apr 3	24700	Jan 25 1979
LOWEST DAILY MEAN	601	Jul 11	293	Sep 19	180	Oct 1 1980
ANNUAL SEVEN-DAY MINIMUM	688	Jul 5	326	Aug 31	224	Dec 24 1980
MAXIMUM PEAK FLOW			20500	Apr 3	**a**37500	Jan 25 1979
MAXIMUM PEAK STAGE			12.80	Apr 3	**b**17.50	Apr 16 1983
10 PERCENT EXCEEDS	3770		3930		3350	
50 PERCENT EXCEEDS	1760		1460		1120	
90 PERCENT EXCEEDS	1120		408		402	

a From rating curve extended above 31,000 ft^3/s, gage height 17.36 ft, at site 150 ft downstream.
b Discharge, 33,100 ft^3/s, from rating curve extended above 31,000 ft^3/s.



SCHUYLKILL RIVER BASIN

01471875 MANATAWNY CREEK NEAR SPANGSVILLE, PA

LOCATION.--Lat 40°20'22", long 75°44'33", Berks County, Hydrologic Unit 02040203, on left bank 200 ft north of powerline across stream, 1.2 mi south of Spangsville, and 1.3 mi north of SR 562 and Earlville.

DRAINAGE AREA.--56.9 mi^2.

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

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 265 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair except those for estimated daily discharges and those greater than 1,560 ft^3/s, which are poor. Several measurements of water temperature were made during the year. Satellite and landline telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,300 ft^3/s and maximum (*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Nov. 28	1200	*2,660	*7.45	Mar. 28	2130	2,050	6.81
Dec. 1	1245	1,310	5.88	Apr. 2	2215	2,590	7.38
Dec. 23	2115	1,350	5.93	Apr. 8	0430	2,020	6.77
Jan. 14	1430	1,700	6.39				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	126	94	558	123	e84	110	170	131	62	36	22	23
2	110	88	229	114	e81	104	911	111	62	41	22	21
3	104	86	187	115	e85	98	1500	109	65	34	21	20
4	97	137	166	129	e92	95	421	103	78	32	20	19
5	91	149	154	139	107	95	299	99	67	53	20	19
6	87	102	145	261	112	100	254	97	63	57	20	18
7	84	94	191	169	117	134	239	95	76	39	20	18
8	82	89	199	267	124	196	802	92	61	161	26	18
9	81	84	160	185	149	e120	264	88	58	53	27	18
10	80	82	343	154	175	109	230	86	59	34	23	18
11	76	83	245	146	124	108	206	85	58	30	21	17
12	75	137	179	181	109	114	189	82	56	28	21	18
13	74	141	167	150	103	110	178	79	54	31	20	17
14	124	99	151	747	172	105	165	79	53	37	20	18
15	149	92	139	251	336	99	154	79	51	36	30	27
16	190	89	133	199	178	97	147	85	52	45	23	21
17	108	86	133	177	160	96	142	77	62	62	26	37
18	91	85	126	e135	128	94	137	74	52	47	22	22
19	175	84	126	e128	114	92	132	73	52	33	24	19
20	118	86	109	e130	112	98	127	89	52	30	27	19
21	103	99	108	e125	120	99	122	85	50	27	23	19
22	102	86	111	e125	120	91	120	76	49	26	20	18
23	93	83	410	e128	124	218	181	73	49	25	20	19
24	89	89	250	e125	116	219	253	72	45	23	19	19
25	87	123	148	e120	111	134	142	73	45	31	18	18
26	85	93	131	e115	108	119	127	72	44	27	19	20
27	83	84	126	e110	105	114	133	68	45	27	20	24
28	81	1100	115	e100	105	756	119	67	49	30	28	20
29	82	250	120	e96	---	542	112	72	54	24	27	20
30	189	182	122	e90	---	223	132	67	54	23	24	21
31	111	---	124	e85	---	187	---	65	---	22	23	---
TOTAL	3227	4176	5605	5119	3571	4876	8108	2603	1677	1204	696	605
MEAN	104	139	181	165	128	157	270	84.0	55.9	38.8	22.5	20.2
MAX	190	1100	558	747	336	756	1500	131	78	161	30	37
MIN	74	82	108	85	81	91	112	65	44	22	18	17
CFSM	1.83	2.45	3.18	2.90	2.24	2.76	4.75	1.48	0.98	0.68	0.39	0.35
IN.	2.11	2.73	3.66	3.35	2.33	3.19	5.30	1.70	1.10	0.79	0.46	0.40

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 2005, BY WATER YEAR (WY)

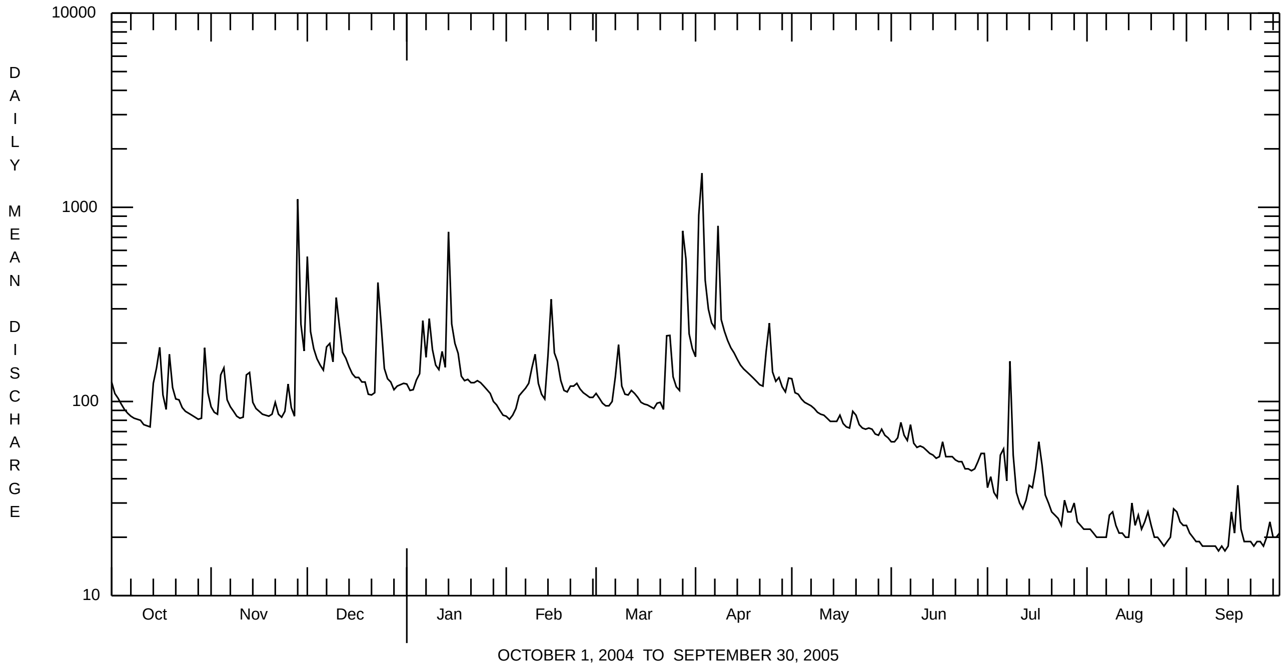
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	69.3	82.2	116	107	104	154	137	94.7	83.2	69.2	46.8	58.6
MAX	143	154	326	201	148	353	270	162	221	236	118	184
(WY)	2004	1997	1997	1996	2004	1994	2005	2002	2003	2004	2004	2003
MIN	27.4	28.4	21.1	42.0	35.8	54.6	69.4	50.8	26.3	14.6	13.6	18.9
(WY)	1998	2002	1999	2002	2002	2002	2002	1999	1999	1999	1999	1995

e Estimated.

01471875 MANATAWNY CREEK NEAR SPANGSVILLE, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1994 - 2005	
ANNUAL TOTAL	47288		41467			
ANNUAL MEAN	129		114		93.4	
HIGHEST ANNUAL MEAN					135	2004
LOWEST ANNUAL MEAN					49.6	2002
HIGHEST DAILY MEAN	1610	Jul 12	1500	Apr 3	1620	Oct 19 1996
LOWEST DAILY MEAN	39	Jul 11	17	Sep 11,13	8.8	Aug 3 1999
ANNUAL SEVEN-DAY MINIMUM	44	Jul 1	18	Sep 7	9.5	Aug 1 1999
MAXIMUM PEAK FLOW			[a]2660	Nov 28	[a]3890	Jul 12 2004
MAXIMUM PEAK STAGE			7.45	Nov 28	8.53	Jul 12 2004
INSTANTANEOUS LOW FLOW			17	Sep 11,13	7.5	Jan 17 2000
ANNUAL RUNOFF (CFSM)	2.27		2.00		1.64	
ANNUAL RUNOFF (INCHES)	30.92		27.11		22.31	
10 PERCENT EXCEEDS	190		188		171	
50 PERCENT EXCEEDS	96		92		64	
90 PERCENT EXCEEDS	61		21		24	

[a] From rating curve extended above 1,560 ft^3/s.



SCHUYLKILL RIVER BASIN

01472000 SCHUYLKILL RIVER AT POTTSTOWN, PA
(Pennsylvania Water-Quality Network Station)

LOCATION.--Lat 40°14'30", long 75°39'07", Montgomery County, Hydrologic Unit 02040203, on right bank 75 ft upstream from bridge on Hanover Street in Pottstown, and 0.3 mi downstream from Manatawny Creek.

DRAINAGE AREA.--1,147 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1927 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 117.86 ft above National Geodetic Vertical Datum of 1929. October 1927 to Nov. 22, 1928, nonrecording gage, and Nov. 23, 1928, to Dec. 26, 1972, recording gage at site 100 ft downstream at same datum. Dec. 27, 1972, to May 10, 1974, nonrecording gage 1.0 mi downstream at datum 2.83 ft lower.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Blue Marsh Lake (station 01470870) since April 1979, by Still Creek Reservoir (station 01469200) since February 1933, and by Lake Ontelaunee. Satellite and landline telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known prior to October 1926, 21.0 ft, Feb. 28, 1902, from floodmarks, discharge, about 53,900 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6160	1970	9230	2480	1930	2070	5680	2070	1060	803	604	471
2	4510	1940	10200	2360	1850	1990	8730	1940	1010	668	570	443
3	3950	1940	7710	2240	1750	1840	22100	1840	962	720	561	429
4	3500	2130	5970	2320	1720	1730	16700	1750	1060	614	557	417
5	3120	2650	5060	2570	1730	1690	11400	1640	1060	785	556	404
6	2590	2200	3980	3700	1760	1710	8850	1610	1080	1070	606	401
7	2300	1990	3700	4860	1810	1860	7660	1590	1500	1090	649	473
8	2170	1880	4080	5250	1880	2520	8710	1550	1210	2330	736	497
9	2060	1650	3580	6660	2000	2890	5450	1500	1010	2530	716	477
10	1980	1540	5200	5760	2400	2790	4680	1430	1040	1760	685	473
11	1870	1480	7490	5300	2340	2590	4200	1370	959	1040	587	471
12	1770	1790	6700	5290	1950	2370	3660	1320	924	891	551	569
13	1600	2650	5550	4490	1850	2250	3430	1280	894	871	579	481
14	1930	2100	4900	8970	1990	2130	3200	1240	891	1530	554	478
15	2260	1910	4270	12200	4300	2020	2970	1250	839	1110	556	629
16	2550	1850	3850	8560	4570	1950	2680	1500	785	1240	564	451
17	2130	1800	3540	6710	3840	1930	2570	1310	805	1520	609	423
18	1830	1700	3060	5440	3310	1900	2460	1230	742	2110	556	432
19	2520	1650	2900	4630	2910	1830	2300	1180	724	2120	577	397
20	2950	1630	2710	4280	2700	1860	2130	1220	736	1540	587	368
21	2540	1760	2400	3660	2680	1920	2040	1300	718	1250	576	443
22	2350	1680	2220	3100	2630	1740	1960	1200	680	974	520	482
23	2150	1590	3040	3060	2510	2240	2400	1110	647	873	549	514
24	2010	1570	6450	3060	2360	4270	3190	1140	642	829	552	550
25	1910	2080	4810	2760	2250	4120	2570	1130	615	864	529	561
26	1730	2710	3960	2650	2100	3520	2170	1130	599	855	527	570
27	1670	2480	3610	2430	2050	3210	2120	1100	591	834	563	504
28	1630	9200	3650	2100	1990	6380	2160	989	628	994	661	601
29	1580	12900	3210	2010	---	14700	1960	1100	659	756	758	613
30	2450	8410	2890	2030	---	11400	1920	1110	822	668	641	586
31	2490	---	2580	1960	---	7350	---	1000	---	631	500	---
TOTAL	76260	82830	142500	132890	67160	102770	152050	42129	25892	35870	18336	14608
MEAN	2460	2761	4597	4287	2399	3315	5068	1359	863	1157	591	487
MAX	6160	12900	10200	12200	4570	14700	22100	2070	1500	2530	758	629
MIN	1580	1480	2220	1960	1720	1690	1920	989	591	614	500	368

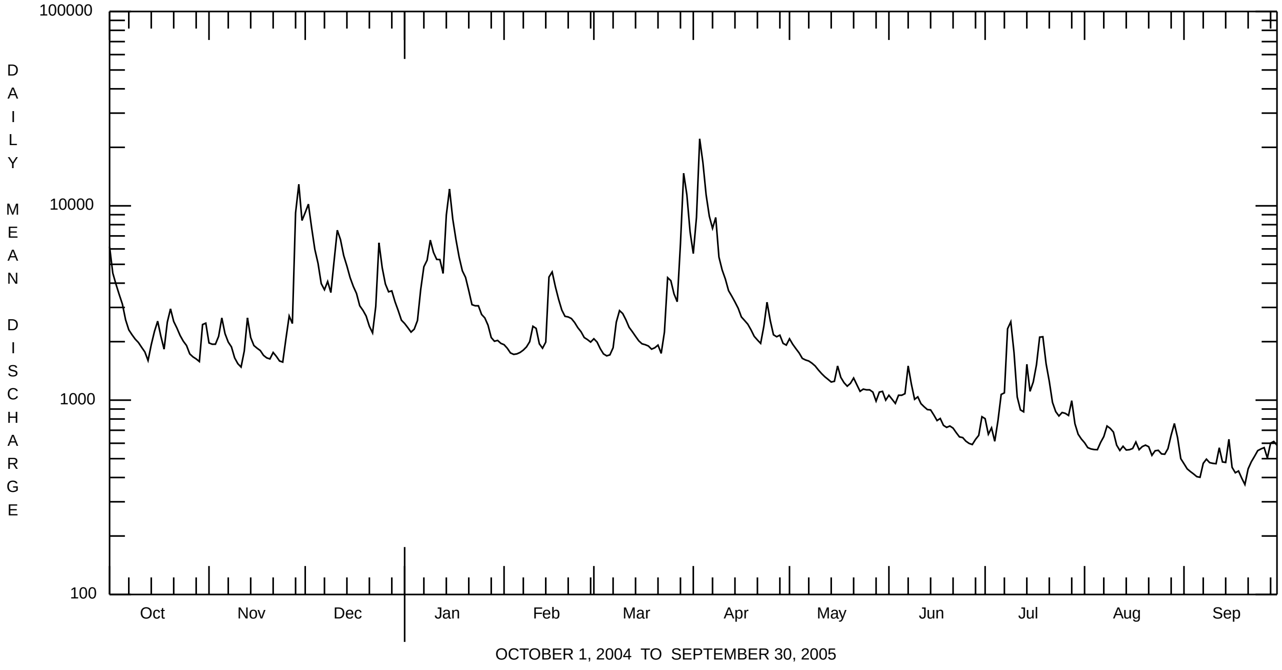
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 2005, BY WATER YEAR (WY)

MEAN	1178	1687	2239	2209	2422	3182	2934	2249	1611	1274	1066	1116
MAX	3870	3897	7359	7383	5117	8948	7820	7220	7634	3940	5290	3952
(WY)	1977	1951	1997	1979	1971	1936	1983	1989	1972	1984	1933	2004
MIN	258	309	419	316	540	1101	875	729	462	302	301	256
(WY)	1931	1931	1931	1981	1934	1981	1985	1965	1965	1966	1966	1932

01472000 SCHUYLKILL RIVER AT POTTSTOWN, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1928 - 2005	
ANNUAL TOTAL	1037532		893295			
ANNUAL MEAN	2835		2447		1928	
HIGHEST ANNUAL MEAN					3211	1984
LOWEST ANNUAL MEAN					843	1965
HIGHEST DAILY MEAN	21500	Sep 19	22100	Apr 3	71200	Jun 23 1972
LOWEST DAILY MEAN	639	Jul 11	368	Sep 20	175	Sep 19 1932
ANNUAL SEVEN-DAY MINIMUM	762	Jul 5	428	Sep 16	210	Sep 19 1932
MAXIMUM PEAK FLOW			24200	Apr 3	**a**95900	Jun 23 1972
MAXIMUM PEAK STAGE			13.35	Apr 3	**b**29.97	Jun 23 1972
10 PERCENT EXCEEDS	5100		5120		3880	
50 PERCENT EXCEEDS	2100		1870		1310	
90 PERCENT EXCEEDS	1280		561		478	

a From rating curve extended above 50,400 ft^3/s.
b From floodmark.



OCTOBER 1, 2004 TO SEPTEMBER 30, 2005

01472000 SCHUYLKILL RIVER AT POTTSTOWN, PA--Continued
(Pennsylvania Water-Quality Network Station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 2002 to current year.

REMARKS.--Other data for the Water-Quality Network can be found on pages 386-432.

COOPERATION.--Samples were collected as part of the Pennsylvania Department of Environmental Protection Water-Quality Network (WQN) with cooperation from the Pennsylvania Department of Environmental Protection.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conductance, wat unf lab, µS/cm 25 degC (90095)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water unfltrd recover -able, mg/L (00916)	Magnesium, water, unfltrd recover -able, mg/L (00927)
NOV 2004 03...	1230	1028	9813	1930	11.0	8.0	7.9	354	352	13.2	140	37	12
JAN 2005 26...	1310	1028	9813	2630	15.1	7.8	7.8	327	334	1.9	130	31	12
MAR 03...	1150	1028	9813	1840	16.4	8.2	8.1	395	396	2.8	140	35	12
MAY 19...	0920	1028	9813	1190	8.6	7.8	8.1	399	397	16.8	150	38	14
JUL 14...	1110	1028	9813	1470	6.5	7.5	7.8	299	320	24.6	120	30	11
SEP 20...	1240	1028	9813	361	7.5	7.9	8.0	511	482	23.5	200	45	20

Date	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Fluoride, water, unfltrd mg/L (00951)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 105degC wat flt mg/L (00515)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia water, unfltrd mg/L as N (00610)	Nitrate water mg/L as N (00620)	Nitrite water, unfltrd mg/L as N (00615)	Total nitrogen, water, unfltrd mg/L (00600)	Orthophosphate, water, unfltrd mg/L as P (70507)	Phosphorus, water, unfltrd mg/L (00665)	Organic carbon, water, unfltrd mg/L (00680)	Aluminum, water, unfltrd recover -able, µg/L (01105)
NOV 2004 03...	89	<.2	40	260	8.0	<.020	3.5	<.040	4.0	.07	.09	2.4	<200
JAN 2005 26...	69	<.2	47	170	10	.450	3.4	<.040	3.5	.06	.06	1.3	<200
MAR 03...	77	<.2	44	300	8.0	.120	3.4	.040	4.1	.05	.08	1.8	240
MAY 19...	91	<.2	58	300	10	<.020	3.2	<.040	3.4	.10	.12	--	<200
JUL 14...	71	<.2	36	240	74	.100	2.4	<.040	3.0	.12	.25	--	1940
SEP 20...	115	<.2	80	360	20	.040	3.2	<.040	3.4	.28	.32	--	<200

Date	Copper, water, unfltrd recover -able, µg/L (01042)	Cyanide amenable to chlorination wat unf mg/L (00722)	Iron, water, unfltrd recover -able, µg/L (01045)	Lead, water, unfltrd recover -able, µg/L (01051)	Manganese, water, unfltrd recover -able, µg/L (01055)	Nickel, water, unfltrd recover -able, µg/L (01067)	Zinc, water, unfltrd recover -able, µg/L (01092)	Phenolic compounds, water, unfltrd µg/L (32730)	Gross alpha radioac water unfltrd pCi/L (01519)	Gross beta radioac water unfltrd pCi/L (85817)	Tritium water unfltrd pCi/L (07000)
NOV 2004 03...	<10	<1.00	80	<1.0	30	<50	<10	<5	1.2	2	60
JAN 2005 26...	<10	<1.00	350	<1.0	210	<50	14	<5	.54	3	--
MAR 03...	<10	<1.00	470	1.7	180	<50	16	<5	.00	2	11
MAY 19...	<10	<1.00	140	<1.0	70	<50	14	<5	--	2	24
JUL 14...	<10	<1.00	2520	11	310	<50	56	<5	2.1	2	13
SEP 20...	<10	<1.00	100	<1.0	50	<50	<10	<5	.07	4	13

01472000 SCHUYLKILL RIVER AT POTTSTOWN, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES

REMARKS.--Samples were collected using a D-Frame net with a mesh size of 500 µm. Samples represent counts per 100 animal (approximate) subsamples.

Date	09/08/04
Benthic macroinvertebrate	Count
Platyhelminthes	
Turbellaria (FLATWORMS)	
Tricladida	
Planariidae	4
Nematoda (NEMATODES)	2
Nemertea (PROBOSCIS WORMS)	
Enopla	
Hoplonemertea	
Tetrastemmatidae	
Prostoma	1
Mollusca	
Bivalvia (CLAMS)	
Veneroida	
Corbiculidae	
Corbicula fluminea	1
Arthropoda	
Crustacea	
Amphipoda (SCUDS)	
Gammaridae	
Gammarus	1
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Lumbriculida	
Lumbriculidae	1
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
Baetis	28
Acentrella	14
Heptageniidae	
Stenonema	1
Tricorythidae	
Tricorythodes	5
Trichoptera (CADDISFLIES)	
Hydropsychidae	
Cheumatopsyche	1
Hydropsyche	1
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
Stenelmis	28
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	13
Simuliidae (BLACK FLIES)	
Simulium	12
Total Organisms	113
Total Taxa	15

01472104 SCHUYLKILL RIVER AT VINCENT DAM AT LINFIELD, PA

LOCATION.--Lat 40°12'22", long 75°33'57", Montgomery County, Hydrologic Unit 02040203, on left bank 100 ft upstream from Vincent Dam, and 0.3 mi south of Linfield.

DRAINAGE AREA.--1,189 mi^2.

PERIOD OF RECORD.--Water years 1986 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January 1986 to September 1990.
WATER TEMPERATURE: September 1989 to current year.
DISSOLVED OXYGEN: January 1986 to September 1990; March 1997 to current year.

INSTRUMENTATION.--Water-quality monitor January 1986 to September 1990, March 1997 to current year. In situ water temperature probe since October 1990. Probes interfaced with a data collection platform.

REMARKS.--Water temperature records rated good. Dissolved oxygen records rated fair except for period Aug. 25 to Sept. 14, which is poor. Dissolved oxygen collection discontinued October through March. Other interruptions in the record were due to pump intake sedimentation and instrument malfunctions.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 752 microsiemens, Sept. 15, 1989; minimum, 118 microsiemens, Sept. 15, 1987.
WATER TEMPERATURE: Maximum, 33.5°C, July 6, 1999; minimum, 0.0°C, many days during winters.
DISSOLVED OXYGEN: Maximum, 19.6 mg/L, Mar. 24, 1988; minimum, 0.8 mg/L, July 26, 1986.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 32.2°C, Aug. 14; minimum, 0.0°C, several days during winter.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	17.4	16.5	17.0	13.5	12.5	13.0	8.9	8.4	8.6	6.3	5.3	5.9
2	17.0	16.8	16.9	13.2	12.4	12.9	8.5	7.6	8.1	6.1	5.3	5.5
3	17.2	16.2	16.7	13.5	12.3	13.0	7.6	6.8	7.2	6.2	5.4	5.7
4	16.7	15.5	16.2	12.3	10.3	11.0	6.8	6.3	6.5	7.1	6.2	6.7
5	16.4	15.4	15.9	10.4	9.6	10.0	7.0	6.2	6.6	7.0	6.2	6.7
6	15.4	14.1	14.8	10.3	9.1	9.8	6.7	6.4	6.5	6.2	5.4	5.7
7	15.3	13.6	14.6	10.8	9.3	10.1	6.8	6.5	6.6	5.4	4.8	5.0
8	16.0	14.2	15.2	10.6	9.2	10.1	7.8	6.8	7.3	4.9	4.7	4.8
9	16.0	15.1	15.6	9.2	7.8	8.6	7.4	7.1	7.3	5.0	4.7	4.9
10	16.6	15.4	15.8	7.8	6.8	7.3	7.9	7.3	7.6	5.5	5.0	5.2
11	15.5	14.4	14.9	8.3	6.8	7.5	8.0	7.7	7.9	5.4	4.9	5.0
12	14.7	13.3	14.0	8.1	7.8	8.0	7.7	7.4	7.5	5.3	4.9	5.0
13	14.0	12.9	13.6	8.3	7.3	7.8	7.4	6.8	7.2	6.3	5.3	5.7
14	13.7	13.4	13.6	7.3	6.3	6.9	6.8	5.6	6.3	8.4	6.3	7.7
15	14.3	13.6	14.0	7.1	5.9	6.6	5.6	4.4	4.9	7.2	5.1	6.1
16	14.2	13.3	13.7	7.5	6.3	6.9	4.4	3.7	4.1	5.1	4.6	4.8
17	13.4	12.1	12.6	7.9	6.7	7.4	4.7	3.9	4.3	4.7	3.3	4.2
18	12.4	11.0	11.8	9.2	7.9	8.5	4.2	3.6	4.0	3.3	1.5	2.3
19	12.2	12.0	12.1	10.0	9.1	9.5	4.2	3.6	3.9	1.5	0.9	1.1
20	12.2	12.0	12.1	10.1	9.9	10.0	3.6	1.0	2.1	1.8	1.0	1.4
21	12.4	12.1	12.2	10.5	10.0	10.2	1.2	0.5	0.9	1.8	0.9	1.4
22	12.6	12.0	12.3	10.0	9.5	9.8	2.2	1.0	1.6	0.9	0.0	0.2
23	12.4	11.5	12.0	9.8	9.5	9.7	5.5	2.2	3.8	0.2	0.0	0.0
24	11.8	11.0	11.3	10.9	9.8	10.2	5.3	3.5	4.5	0.1	0.0	0.0
25	12.1	11.2	11.6	11.7	10.2	11.2	3.5	2.4	3.1	0.8	0.0	0.3
26	12.3	11.8	12.1	10.2	8.1	8.9	2.4	1.8	2.1	2.1	0.8	1.5
27	12.4	11.4	11.9	8.3	7.5	7.9	2.2	1.4	1.9	1.8	0.4	1.1
28	12.8	11.6	12.1	10.4	8.3	9.7	1.6	0.9	1.3	0.4	0.0	0.1
29	12.0	11.4	11.7	9.6	8.5	9.1	2.9	1.5	2.1	0.5	0.0	0.2
30	13.0	11.8	12.3	8.5	8.3	8.4	4.0	2.9	3.5	1.5	0.3	0.9
31	13.8	12.8	13.3	---	---	---	5.6	4.0	4.7	1.8	0.5	1.2
MONTH	17.4	11.0	13.7	13.5	5.9	9.3	8.9	0.5	5.0	8.4	0.0	3.4

01472104 SCHUYLKILL RIVER AT VINCENT DAM AT LINFIELD, PA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			**MARCH**			**APRIL**			**MAY**	
1	1.8	0.8	1.3	3.6	2.0	3.0	10.1	8.1	9.1	15.0	13.0	13.8
2	1.9	0.4	1.1	4.3	3.1	3.7	10.3	9.4	9.8	14.2	13.0	13.6
3	2.2	1.0	1.6	4.3	2.1	3.0	10.0	8.2	9.0	13.3	12.0	12.7
4	3.4	2.0	2.7	4.0	2.1	3.2	8.7	7.7	8.2	13.4	11.9	12.6
5	4.6	2.8	3.6	4.4	2.9	3.6	9.5	8.5	8.9	14.9	11.8	13.4
6	4.9	3.3	4.1	4.7	3.1	3.9	11.1	9.4	10.1	14.2	12.9	13.3
7	5.0	3.6	4.2	6.9	4.4	5.5	12.0	10.9	11.4	14.1	12.3	13.2
8	5.4	4.3	4.8	7.0	4.2	6.1	12.9	12.0	12.5	14.5	13.3	13.7
9	5.9	5.1	5.4	4.6	2.5	3.5	13.6	11.9	12.8	18.1	12.9	14.9
10	5.9	4.8	5.6	3.5	1.9	2.9	13.7	12.0	13.0	19.3	14.2	16.6
11	4.8	3.5	4.2	4.3	2.7	3.6	14.4	12.7	13.5	21.1	17.6	19.2
12	3.9	2.8	3.4	5.4	3.5	4.5	13.9	12.3	13.1	21.2	19.2	20.1
13	4.3	3.0	3.7	5.9	4.1	5.1	13.6	11.6	12.7	19.8	17.3	18.7
14	4.4	3.8	4.0	6.2	4.7	5.5	14.1	11.6	12.8	20.9	17.5	19.0
15	5.5	4.3	4.8	6.4	4.5	5.5	14.0	11.9	13.0	21.2	19.7	20.3
16	5.2	4.5	4.9	6.4	4.7	5.6	13.8	11.5	12.8	21.3	19.2	20.2
17	5.0	4.2	4.6	6.2	5.1	5.8	14.4	11.5	13.1	19.9	17.8	18.9
18	4.2	2.7	3.5	7.1	5.1	6.1	15.7	12.8	14.3	19.5	17.0	18.2
19	4.4	2.4	3.2	7.8	6.0	6.9	16.8	13.9	15.4	20.3	17.0	18.6
20	4.2	2.1	3.0	7.5	6.9	7.2	18.4	15.8	17.1	19.1	16.0	17.5
21	4.2	2.5	3.3	7.0	6.5	6.9	18.2	16.8	17.6	17.2	14.9	16.2
22	4.6	3.5	4.0	8.5	5.8	7.1	17.2	13.5	15.2	17.9	16.6	17.1
23	5.3	4.1	4.7	8.1	6.4	7.3	13.7	12.7	13.2	18.4	16.6	17.3
24	4.8	3.2	4.4	6.5	5.5	6.1	13.6	12.4	12.9	17.6	16.0	16.8
25	3.8	2.3	3.0	6.5	6.0	6.2	12.4	10.9	11.5	16.1	14.7	15.3
26	3.9	2.0	3.1	6.9	5.7	6.4	13.3	10.4	11.8	16.0	14.3	15.0
27	4.3	2.7	3.7	7.1	6.5	6.8	14.8	13.2	13.8	18.3	15.0	16.5
28	4.1	2.4	3.4	6.9	6.5	6.7	15.0	13.2	14.1	20.0	17.5	18.4
29	---	---	---	7.2	6.4	6.7	14.5	12.9	13.7	20.3	17.2	18.6
30	---	---	---	8.1	7.1	7.6	14.1	13.3	13.5	20.6	17.9	19.1
31	---	---	---	8.3	7.9	8.1	---	---	---	21.9	17.5	19.6
MONTH	5.9	0.4	3.7	8.5	1.9	5.5	18.4	7.7	12.7	21.9	11.8	16.7

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			**JULY**			**AUGUST**			**SEPTEMBER**	
1	22.4	19.0	20.6	28.4	26.2	27.1	29.4	26.2	27.5	27.5	23.9	25.5
2	21.7	19.4	20.6	29.3	25.7	27.2	30.7	26.3	28.2	27.8	23.4	25.4
3	20.5	18.3	19.4	27.9	24.8	26.2	31.5	27.1	29.1	26.5	23.3	24.8
4	20.8	18.1	19.2	28.4	23.9	26.1	31.6	27.9	29.7	26.0	22.2	24.0
5	23.9	19.4	21.4	26.8	25.2	26.0	30.9	28.0	29.3	26.0	22.1	23.9
6	25.5	22.0	23.6	26.6	23.8	25.1	29.7	27.2	28.4	26.2	21.9	23.7
7	25.4	22.1	23.8	25.8	24.1	24.9	28.2	26.2	27.2	25.8	21.6	23.6
8	27.0	23.3	25.1	24.1	21.1	22.2	26.9	24.9	25.9	25.4	21.4	23.3
9	27.1	24.3	25.7	23.6	20.4	22.0	25.9	24.2	24.9	24.7	21.9	23.1
10	27.5	24.9	26.1	25.5	22.1	23.7	27.6	24.4	25.9	25.2	21.2	23.0
11	28.1	25.5	26.6	27.0	23.0	24.9	29.8	25.3	27.3	25.0	21.1	22.9
12	28.5	25.3	26.8	28.2	24.9	26.5	30.8	26.5	28.5	25.2	21.4	23.2
13	28.7	25.9	27.2	27.7	25.4	26.5	31.9	28.0	29.7	26.1	22.0	23.9
14	29.1	26.2	27.6	26.5	25.2	25.9	32.2	28.7	30.2	25.0	23.2	24.0
15	29.0	26.5	27.6	27.1	25.0	25.8	29.8	27.9	28.7	26.6	23.8	24.9
16	27.0	24.6	25.9	26.2	25.0	25.6	27.9	25.1	26.6	27.4	24.7	25.9
17	25.2	22.8	23.9	25.5	24.5	24.8	27.8	23.9	25.6	27.3	25.0	26.0
18	23.2	21.2	22.2	27.2	24.1	25.4	28.1	24.5	26.2	26.7	23.7	25.1
19	22.0	20.5	21.0	26.6	24.8	25.7	26.4	24.6	25.5	26.6	22.9	24.6
20	22.8	19.8	21.2	27.8	24.5	26.1	26.3	23.7	24.8	25.1	23.5	24.2
21	25.0	20.2	22.5	28.3	25.0	26.7	29.0	24.8	26.5	25.4	21.9	23.5
22	25.4	22.3	23.7	28.9	25.8	27.4	28.4	24.7	26.5	24.7	21.3	23.0
23	26.7	22.2	24.3	29.0	26.3	27.5	27.1	23.8	25.5	25.1	22.3	23.5
24	27.4	23.3	25.2	28.4	24.9	26.6	26.4	23.4	24.8	23.9	21.8	22.8
25	28.7	23.8	26.1	28.4	25.1	26.5	26.4	22.3	24.3	22.2	21.2	21.6
26	29.6	25.2	27.2	30.0	25.7	27.7	25.0	23.0	24.0	22.1	20.8	21.4
27	27.6	25.8	26.7	31.4	27.4	29.0	24.6	22.6	23.6	23.0	20.6	21.6
28	29.4	25.0	26.9	28.6	26.2	27.5	23.9	23.2	23.5	21.8	18.9	20.3
29	28.5	26.8	27.5	28.7	25.1	26.9	25.6	22.7	23.9	20.5	18.8	19.8
30	28.6	26.3	27.3	28.8	25.7	27.0	26.1	24.0	24.9	19.8	16.9	18.3
31	---	---	---	28.8	25.6	27.2	26.9	25.0	25.7	---	---	---
MONTH	29.6	18.1	24.4	31.4	20.4	26.1	32.2	22.3	26.5	27.8	16.9	23.4
YEAR	32.2	0.0	14.2									

01472104 SCHUYLKILL RIVER AT VINCENT DAM AT LINFIELD, PA--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			**MARCH**			**APRIL**			**MAY**	
1	---	---	---	---	---	---	10.6	10.1	10.4	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	9.0	8.9	8.9	---	---	---
10	---	---	---	---	---	---	9.2	8.9	9.0	---	---	---
11	---	---	---	---	---	---	9.0	8.8	8.9	---	---	---
12	---	---	---	---	---	---	9.2	8.7	8.9	---	---	---
13	---	---	---	---	---	---	9.2	8.9	9.1	---	---	---
14	---	---	---	---	---	---	9.3	9.1	9.2	---	---	---
15	---	---	---	---	---	---	9.7	9.2	9.4	---	---	---
16	---	---	---	---	---	---	10.8	9.5	10.0	---	---	---
17	---	---	---	---	---	---	10.4	9.3	9.7	---	---	---
18	---	---	---	---	---	---	11.2	9.2	9.6	---	---	---
19	---	---	---	---	---	---	---	---	---	8.4	7.8	8.1
20	---	---	---	---	---	---	---	---	---	7.9	7.4	7.7
21	---	---	---	---	---	---	---	---	---	8.2	7.4	7.8
22	---	---	---	---	---	---	---	---	---	8.1	7.5	7.8
23	---	---	---	---	---	---	---	---	---	8.1	7.3	7.7
24	---	---	---	---	---	---	---	---	---	8.0	7.0	7.5
25	---	---	---	---	---	---	---	---	---	8.1	7.1	7.6
26	---	---	---	12.6	11.0	11.7	---	---	---	---	---	---
27	---	---	---	11.9	10.8	11.3	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	10.6	10.3	10.6	---	---	---	---	---	---
MONTH	---	---	---	12.6	10.3	11.2	11.2	8.7	9.4	8.4	7.0	7.7

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			**JULY**			**AUGUST**			**SEPTEMBER**	
1	8.8	7.2	8.1	7.1	5.0	6.0	8.6	5.6	7.2	8.5	6.3	7.4
2	8.7	6.7	7.7	7.7	5.1	6.3	8.3	5.6	6.9	9.1	6.5	7.7
3	8.2	7.0	7.6	7.9	5.0	6.6	7.9	5.6	6.6	9.5	6.6	8.0
4	8.8	6.8	7.7	8.0	5.5	6.8	---	---	---	9.3	6.8	8.2
5	9.3	7.4	8.3	7.0	5.5	6.2	---	---	---	9.6	7.0	8.2
6	9.1	7.2	8.1	6.7	5.5	5.9	---	---	---	9.7	7.2	8.4
7	7.4	5.6	6.3	---	---	---	---	---	---	9.9	7.1	8.4
8	7.7	5.5	6.5	---	---	---	---	---	---	10.3	7.2	8.5
9	7.3	5.6	6.4	---	---	---	---	---	---	9.9	7.2	8.4
10	6.9	5.2	6.0	---	---	---	7.0	6.0	6.5	10.1	7.3	8.5
11	6.7	4.8	5.8	---	---	---	7.3	5.6	6.4	10.1	7.2	8.6
12	7.0	4.9	5.9	---	---	---	7.3	5.6	6.3	9.8	7.2	8.4
13	7.1	5.0	5.9	---	---	---	7.5	5.2	6.2	9.7	6.9	8.2
14	7.2	4.9	6.0	---	---	---	7.3	5.0	6.1	9.7	6.4	7.6
15	7.3	5.0	6.1	---	---	---	6.6	4.8	5.7	8.3	5.7	6.8
16	7.5	5.2	6.4	7.0	5.9	6.4	6.3	5.1	5.7	9.2	5.5	6.8
17	8.2	5.7	6.9	---	---	---	6.9	5.4	6.1	7.8	5.2	6.3
18	8.6	6.2	7.4	---	---	---	7.2	4.6	5.7	8.2	5.1	6.5
19	8.8	6.4	7.4	---	---	---	6.5	5.4	5.9	9.1	5.7	7.0
20	9.3	6.5	7.7	---	---	---	7.2	5.5	6.2	8.7	5.8	7.0
21	---	---	---	---	---	---	7.2	5.6	6.3	8.4	6.1	7.2
22	---	---	---	8.1	6.3	7.1	7.2	5.6	6.4	8.6	6.3	7.3
23	---	---	---	8.3	6.2	7.1	7.5	5.6	6.5	8.9	6.4	7.4
24	---	---	---	8.8	6.6	7.6	---	---	---	8.7	6.3	7.4
25	---	---	---	9.1	6.7	7.8	---	---	---	8.8	6.6	7.4
26	---	---	---	9.2	6.4	7.8	8.5	6.5	7.4	8.6	6.7	7.4
27	---	---	---	9.0	6.2	7.5	8.4	6.5	7.4	8.6	6.4	7.5
28	10.0	5.3	7.3	8.5	5.5	6.9	7.7	6.4	7.0	8.8	7.0	7.8
29	8.8	5.0	6.8	9.1	5.8	7.4	8.8	6.3	7.2	8.4	6.9	7.6
30	8.2	4.9	6.5	9.2	6.4	7.7	8.6	6.4	7.3	9.3	7.4	8.3
31	---	---	---	9.2	6.4	7.8	8.2	6.3	7.1	---	---	---
MONTH	10.0	4.8	6.9	9.2	5.0	7.0	8.8	4.6	6.5	10.3	5.1	7.7

SCHUYLKILL RIVER BASIN

01472104 SCHUYLKILL RIVER AT VINCENT DAM AT LINFIELD, PA--Continued

CROSS-SECTION ANALYSES, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Sampling depth, feet (00003)	Dissolved oxygen, mg/L (00300)	Temperature, water, deg C (00010)	Location in X-sect. looking dwnstrm ft from l bank (00009)
SEP 2005							
29...	1354	1028	1028	1.00	7.8	20.0	15
29...	1355	1028	1028	4.00	7.6	20.0	15
29...	1356	1028	1028	1.00	7.7	20.0	45
29...	1357	1028	1028	4.00	7.6	19.9	45
29...	1358	1028	1028	1.00	7.5	20.1	75
29...	1359	1028	1028	4.00	7.5	20.1	75
29...	1407	1028	1028	1.00	7.7	20.2	105
29...	1408	1028	1028	4.00	7.6	20.2	105
29...	1410	1028	1028	1.00	7.8	20.1	135
29...	1412	1028	1028	1.00	7.8	20.2	165
29...	1415	1028	1028	1.00	7.9	20.1	195
29...	1418	1028	1028	1.00	7.8	20.1	225
29...	1421	1028	1028	1.00	7.9	20.1	255
29...	1422	1028	1028	4.00	7.7	20.2	255
29...	1425	1028	1028	1.00	7.8	20.2	294
29...	1426	1028	1028	--	--	--	306

01472157 FRENCH CREEK NEAR PHOENIXVILLE, PA

LOCATION.--Lat 40°09'05", long 75°36'06", Chester County, Hydrologic Unit 02040203, on right bank 70 ft downstream from two-span county bridge on French Creek Road, 4.5 mi northwest of Phoenixville, and 7.3 mi upstream from mouth.

DRAINAGE AREA.--59.1 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 160 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Nov. 7, 1968, nonrecording gage at site 70 ft upstream at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year. Satellite telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s (revised) and maximum (*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Nov. 28	0645	1,670	7.88	Mar. 28	1945	2,000	8.25
Jan. 14	1115	1,780	8.01	Apr. 2	1945	*2,530	*8.79

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	136	95	437	124	e110	120	172	136	47	30	25	19
2	110	85	237	113	e105	113	1040	109	46	31	24	17
3	100	82	176	110	e100	103	1390	105	62	27	22	17
4	87	172	157	118	108	96	424	97	101	25	21	16
5	77	247	147	209	115	96	297	92	62	29	21	15
6	72	119	138	306	123	102	256	90	64	64	20	14
7	68	100	225	189	130	164	231	89	85	40	19	13
8	67	90	221	263	142	266	303	83	51	317	26	13
9	65	83	181	210	173	155	215	78	46	129	45	13
10	64	78	482	159	209	123	190	77	45	49	28	13
11	60	78	337	155	138	121	176	75	44	37	23	12
12	59	158	206	249	115	130	165	71	41	33	22	12
13	58	253	179	172	106	119	158	67	39	31	20	12
14	114	128	160	1030	206	108	153	67	38	33	19	12
15	158	104	143	389	401	99	145	66	37	33	19	16
16	211	97	136	238	181	95	139	66	34	69	20	16
17	120	91	136	205	161	92	136	62	33	157	26	16
18	88	89	129	e150	130	89	132	60	31	250	21	19
19	247	86	129	e115	112	87	128	58	32	60	20	15
20	144	89	112	e120	108	95	122	85	32	41	26	14
21	119	110	e100	e125	123	110	116	87	32	34	22	13
22	117	92	109	e110	138	91	113	70	31	31	19	12
23	97	86	356	e95	153	238	206	64	32	29	17	12
24	90	91	394	e100	133	302	310	63	30	26	17	12
25	84	120	164	e110	121	146	150	63	28	28	17	11
26	80	95	136	e120	113	123	127	66	27	30	17	12
27	77	82	130	e125	112	115	123	60	29	29	17	13
28	75	1110	121	e95	112	708	113	54	37	58	22	13
29	74	322	119	e100	---	701	107	57	32	33	27	13
30	234	190	124	e110	---	240	127	52	31	28	20	13
31	124	---	127	e120	---	192	---	49	---	26	19	---
TOTAL	3276	4622	5948	5834	3978	5339	7464	2318	1279	1837	681	418
MEAN	106	154	192	188	142	172	249	74.8	42.6	59.3	22.0	13.9
MAX	247	1110	482	1030	401	708	1390	136	101	317	45	19
MIN	58	78	100	95	100	87	107	49	27	25	17	11
CFSM	1.79	2.61	3.25	3.18	2.40	2.91	4.21	1.27	0.72	1.00	0.37	0.24
IN.	2.06	2.91	3.74	3.67	2.50	3.36	4.70	1.46	0.81	1.16	0.43	0.26

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 2005, BY WATER YEAR (WY)

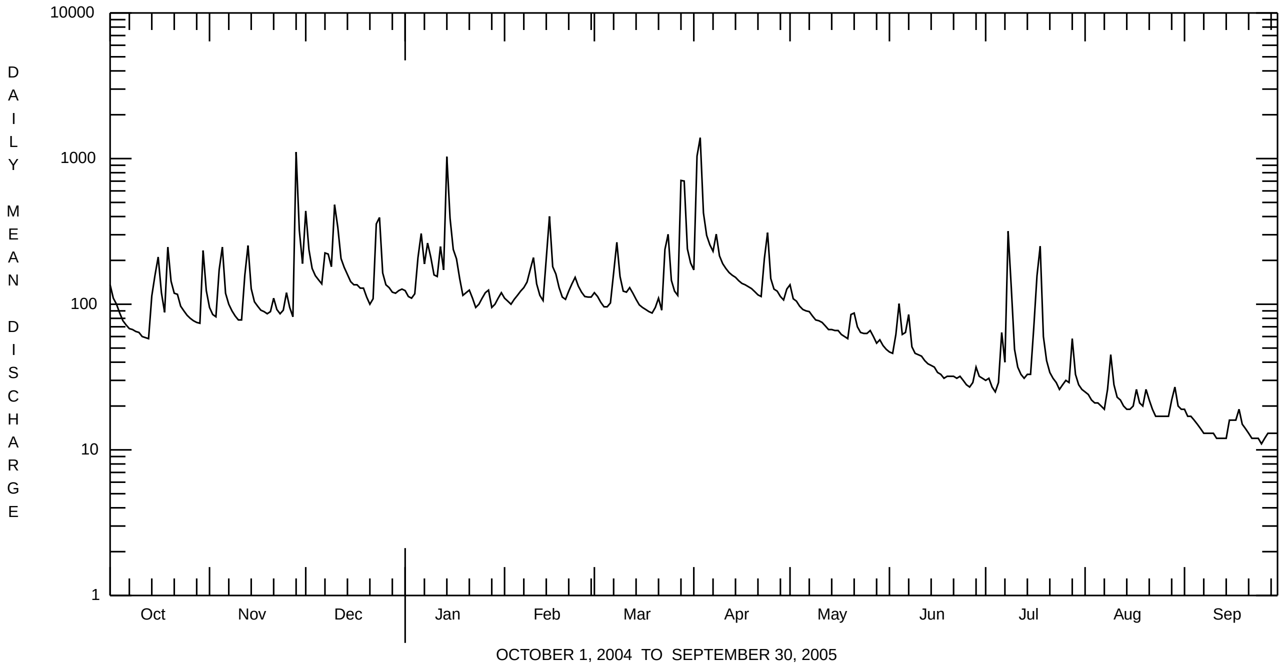
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	52.4	73.9	104	109	123	145	138	102	81.6	62.1	41.6	53.9
MAX	180	166	328	394	266	350	306	250	353	258	124	214
(WY)	1997	1973	1997	1979	1984	1994	1983	1989	1972	1984	2004	1999
MIN	16.7	17.3	19.2	13.7	24.8	40.5	35.6	31.9	22.2	11.1	11.7	13.9
(WY)	2002	2002	2002	1981	2002	1981	1985	1969	1999	1999	2002	2005

e Estimated.

01472157 FRENCH CREEK NEAR PHOENIXVILLE, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1969 - 2005	
ANNUAL TOTAL	49571		42994			
ANNUAL MEAN	135		118		90.4	
HIGHEST ANNUAL MEAN					155	1984
LOWEST ANNUAL MEAN					30.4	2002
HIGHEST DAILY MEAN	1220	Sep 18	1390	Apr 3	4530	Jun 22 1972
LOWEST DAILY MEAN	30	Jul 10,11	11	Sep 25	7.1	Aug 7 1999
ANNUAL SEVEN-DAY MINIMUM	33	Jul 5	12	Sep 21	7.3	Aug 2 1999
MAXIMUM PEAK FLOW			2530	Apr 2	**a**11200	Jun 22 1972
MAXIMUM PEAK STAGE			8.79	Apr 2	13.66	Jun 22 1972
INSTANTANEOUS LOW FLOW			11	Sep 24-26	6.9	Aug 8 1999
ANNUAL RUNOFF (CFSM)	2.29		1.99		1.53	
ANNUAL RUNOFF (INCHES)	31.20		27.06		20.77	
10 PERCENT EXCEEDS	224		223		173	
50 PERCENT EXCEEDS	100		95		57	
90 PERCENT EXCEEDS	53		19		20	

a From rating curve extended above 2,500 ft^3/s, on basis of slope-area measurement of peak flow.



01472157 FRENCH CREEK NEAR PHOENIXVILLE, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1950 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: November 1998 to April 1999, June 1999 to August 1999, June 2000 to September 2001.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conductance, wat unf lab, µS/cm 25 degC (90095)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)
OCT 2004													
07...	0930	1028	80020	68	10.8	6.5	E6.9	154	163	11.4	15.3	4.74	1.66

Date	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)	ANC, wat unf incrm. titr., field, mg/L as CaCO3 (00419)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Boron, water, fltrd, µg/L (01020)	Iron, water, fltrd, µg/L (01046)
OCT 2004													
07...	8.27	39	38	13.2	E.1	17.3	12.1	<.04	1.62	E.004	<.02	9.9	129

01472157 FRENCH CREEK NEAR PHOENIXVILLE, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES

REMARKS.--Samples were collected using a Hess sampler with a mesh size of 500 µm. Each sample covered a total area of 2.4 m^2.

Date	10/07/04
Benthic macroinvertebrate	Count
Platyhelminthes	
Turbellaria (FLATWORMS)	
Tricladida	
Planariidae	1
Nematoda (NEMATODES)	2
Mollusca	
Gastropoda (SNAILS)	
Basommatophora	
Ancylidae	
Ferrissia	6
Mesogastropoda	
Hydrobiidae	
Amnicola	1
Bivalvia (CLAMS)	
Veneroida	
Sphaeriidae	1
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Tubificida	
Tubificidae	6
Arthropoda	
Acariformes	
Hydrachnidia (WATER MITES)	6
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
Acentrella	3
Baetis	5
Ephemerellidae	
Dannella	5
Heptageniidae	
Epeorus	8
Stenonema	23
Isonychiidae	
Isonychia	23
Odonata (DRAGONFLIES AND DAMSELFLIES)	
Gomphidae	
Stylogomphus	2
Plecoptera (STONEFLIES)	
Capniidae	1
Chloroperlidae	
Haploperla	1
Perlidae	
Acroneuria	3
Agnetina	2
Paragnetina	1

01472157 FRENCH CREEK NEAR PHOENIXVILLE, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES--Continued

Date	10/07/04
Benthic macroinvertebrate	Count
Trichoptera (CADDISFLIES)	
Apataniidae	
Apatania	18
Brachycentridae	
Micrasema	24
Glossosomatidae	
Glossosoma	11
Hydropsychidae	
Cheumatopsyche	48
Hydropsyche	67
Hydroptilidae	
Leucotrichia	8
Lepidostomatidae	
Lepidostoma	4
Philopotamidae	
Chimarra	1
Dolophilodes	1
Polycentropodidae	
Polycentropus	1
Psychomyiidae	
Psychomyia	2
Rhyacophilidae	
Rhyacophila	1
Uenoidae	
Neophylax	2
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
Optioservus	10
Promoresia	1
Stenelmis	1
Psephenidae (WATER PENNIES)	
Psephenus	7
Diptera (TRUE FLIES)	
Ceratopogonidae	1
Chironomidae (MIDGES)	22
Simuliidae (BLACK FLIES)	
Simulium	10

Total Organisms	340
Total Taxa	39

SCHUYLKILL RIVER BASIN

01472198 PERKIOMEN CREEK AT EAST GREENVILLE, PA

LOCATION.--Lat 40°23'38", long 75°30'57", Montgomery County, Hydrologic Unit 02040203, on right bank 100 ft upstream from bridge on Church Road, 0.9 mi upstream from Molasses Creek, and 1.0 mi southwest of East Greenville.

DRAINAGE AREA.--38.0 mi^2.

PERIOD OF RECORD.--October 1981 to current year.

REVISED RECORD.--WDR PA-98-1: 1982-97(P).

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 288.50 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, and those greater than 1,500 ft^3/s, which are poor. Several measurements of water temperature were made during the year. Satellite and landline telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s and maximum (*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Oct. 15	2315	1,080	3.84	Mar. 28	2000	2,090	4.73
Nov. 28	1130	3,190	5.53	Apr. 2	2100	*3,880	*5.98
Dec. 1	1200	1,150	3.92	Apr. 8	0415	1,330	4.10
Jan. 14	1330	1,300	4.07				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	114	56	450	74	e60	79	113	93	36	30	18	17
2	97	54	176	67	e63	67	1260	81	35	164	18	14
3	88	54	130	68	e65	62	821	78	40	39	17	13
4	78	94	113	79	e68	61	273	73	55	30	16	13
5	71	98	103	85	69	61	192	70	40	31	16	13
6	66	65	96	209	72	64	164	68	38	38	16	12
7	62	60	134	119	77	97	147	67	46	28	16	12
8	60	57	132	215	83	145	450	64	34	214	19	12
9	59	53	116	131	100	102	167	61	31	73	24	11
10	58	52	335	108	132	83	142	59	34	46	18	12
11	56	52	197	99	91	81	126	59	32	34	16	11
12	55	108	131	120	78	92	117	57	32	30	15	11
13	53	105	118	99	71	84	112	54	28	31	15	11
14	71	69	104	547	164	77	103	54	27	31	17	11
15	187	63	93	172	327	72	95	54	26	30	52	18
16	200	60	88	128	151	67	91	55	25	35	20	14
17	87	57	86	111	124	66	88	51	30	61	19	28
18	70	56	81	e100	98	64	85	49	25	47	16	15
19	145	54	81	e90	e84	62	82	48	25	31	20	13
20	95	56	e75	e80	79	68	77	66	26	27	23	12
21	80	64	e70	e70	86	70	72	57	23	24	18	12
22	77	54	e70	e63	84	61	70	51	22	22	15	11
23	66	52	271	e60	85	141	242	49	21	21	15	11
24	62	64	148	e56	78	151	314	48	21	20	14	11
25	60	91	95	e60	75	98	113	49	21	29	13	11
26	59	62	83	e65	72	85	96	48	20	23	13	12
27	57	56	79	e60	68	79	109	45	22	23	14	13
28	55	1060	e80	e55	69	693	89	44	29	33	30	11
29	56	197	75	e50	---	335	78	47	69	21	22	11
30	83	132	76	e53	---	157	100	41	69	19	17	12
31	63	---	77	e55	---	124	---	38	---	18	16	---
TOTAL	2490	3155	3963	3348	2673	3548	5988	1778	982	1303	578	388
MEAN	80.3	105	128	108	95.5	114	200	57.4	32.7	42.0	18.6	12.9
MAX	200	1060	450	547	327	693	1260	93	69	214	52	28
MIN	53	52	70	50	60	61	70	38	20	18	13	11
CFSM	2.11	2.77	3.36	2.84	2.51	3.01	5.25	1.51	0.86	1.11	0.49	0.34
IN.	2.44	3.09	3.88	3.28	2.62	3.47	5.86	1.74	0.96	1.28	0.57	0.38

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 2005, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	40.3	53.7	73.8	70.4	76.6	98.9	97.6	71.4	51.5	43.1	29.5	40.9
MAX	117	105	246	223	138	273	213	160	176	154	74.5	153
(WY)	1997	2005	1997	1996	1984	1994	1983	1989	2003	1984	2004	2004
MIN	10.6	10.5	14.7	25.4	21.4	34.5	24.9	35.0	18.5	10.2	11.3	12.9
(WY)	2002	2002	1999	2002	2002	1985	1985	1995	1999	1999	1995	2005

e Estimated.

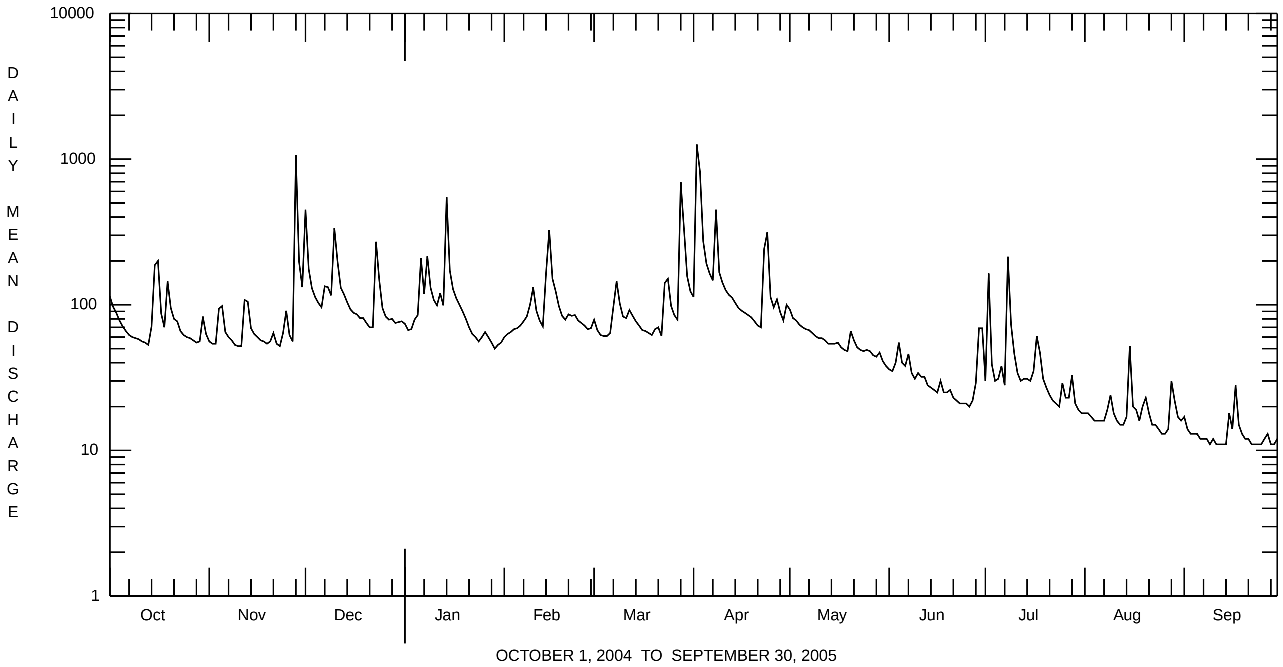
01472198 PERKIOMEN CREEK AT EAST GREENVILLE, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1982 - 2005	
ANNUAL TOTAL	33866		30194			
ANNUAL MEAN	92.5		82.7		62.2	
HIGHEST ANNUAL MEAN					101	1984
LOWEST ANNUAL MEAN					31.3	2002
HIGHEST DAILY MEAN	2020	Sep 18	1260	Apr 2	2800	Jan 19 1996
LOWEST DAILY MEAN	18	Jul 10	11	Sep 9[a]	4.2	Aug 21 1985
ANNUAL SEVEN-DAY MINIMUM	21	Jul 5	11	Sep 8	4.4	Aug 18 1985
MAXIMUM PEAK FLOW			[b]3880	Apr 2	[b]6740	Jun 25 1984
MAXIMUM PEAK STAGE			5.98	Apr 2	7.26	Jun 25 1984
INSTANTANEOUS LOW FLOW			10	Sep 12[c]	3.8	Sep 5 1985
ANNUAL RUNOFF (CFSM)	2.44		2.18		1.64	
ANNUAL RUNOFF (INCHES)	33.15		29.56		22.24	
10 PERCENT EXCEEDS	130		141		115	
50 PERCENT EXCEEDS	64		62		39	
90 PERCENT EXCEEDS	36		16		15	

a Also Sept. 11-14, 22-25, 28, 29.

b From rating curve extended above 1,500 ft^3/s on basis of contracted-opening measurement at gage height 6.53 ft and Flood Insurance Study of Montgomery County.

c Also Sept. 13, 14, 25, 28, 29.



01472199 WEST BRANCH PERKIOMEN CREEK AT HILLEGASS, PA

LOCATION.--Lat 40°22'26", long 75°31'22", Montgomery County, Hydrologic Unit 02040203, on left bank 0.3 mi downstream from bridge on private road off Heffner Road, and 0.5 mi north of Hillegass.

DRAINAGE AREA.--23.0 mi^2.

PERIOD OF RECORD.--October 1981 to current year. Prior to October 1992, published as "*Northwest Branch*".

REVISED RECORDS: WDR PA-01-1: 1982-85, 1987, 1989, 1990, 1993-96 (P).

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 290.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges and those above 560 ft^3/s, which are poor. Several measurements of water temperature were made during the year. Satellite and landline telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 800 ft^3/s and maximum (*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)
Nov. 28	0915	1,380	4.87
Jan. 14	1115	844	4.28
Mar. 28	1930	1,190	4.68
Apr. 2	1845	*1,820	*5.28
Apr. 8	0530	813	4.24

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	61	38	265	50	e36	47	71	61	17	19	9.6	9.1
2	51	35	111	46	e37	43	725	51	17	44	9.5	8.0
3	48	35	86	47	e39	40	593	50	21	18	8.9	7.3
4	44	62	73	53	e40	39	179	46	35	14	8.5	7.0
5	40	68	67	58	e42	38	128	44	22	17	8.3	6.9
6	37	46	63	132	45	40	108	42	20	24	8.2	6.8
7	36	41	91	79	46	66	100	42	29	15	8.2	6.8
8	35	38	94	132	50	104	295	40	18	107	15	6.7
9	34	35	83	86	64	61	107	38	17	43	17	6.5
10	34	34	221	67	90	53	92	36	17	22	11	6.3
11	32	34	137	63	57	50	82	36	16	16	9.6	6.1
12	30	68	92	78	49	56	74	34	16	14	8.7	6.1
13	30	70	81	64	45	53	69	32	15	14	8.2	6.2
14	45	46	70	386	106	50	65	32	14	14	11	6.2
15	114	42	62	119	187	46	61	32	13	16	22	11
16	114	39	59	86	93	44	58	33	13	34	13	8.3
17	56	37	59	72	78	43	56	30	16	50	11	37
18	46	36	56	e58	59	42	54	27	13	35	7.7	10
19	91	35	56	e48	e45	41	52	26	13	19	11	8.1
20	59	36	e49	e48	48	44	50	36	13	16	12	7.6
21	51	43	e42	e49	51	46	48	37	12	13	9.9	7.4
22	49	36	e48	e42	50	40	47	31	12	13	8.5	7.2
23	44	35	186	e36	51	94	136	27	11	12	7.9	7.1
24	42	41	107	e31	48	103	185	26	11	11	7.7	6.6
25	40	60	62	e35	47	61	73	27	11	13	7.1	6.5
26	38	42	e54	e39	45	53	61	28	11	13	7.2	7.3
27	37	37	e48	e34	43	50	66	24	12	12	7.4	8.1
28	35	583	e42	e30	43	455	57	22	14	16	14	7.3
29	36	117	e45	e31	---	227	51	26	50	11	12	6.9
30	61	79	49	e33	---	101	62	21	65	11	9.8	6.9
31	44	---	50	e34	---	80	---	18	---	9.9	9.6	---
TOTAL	1514	1948	2608	2166	1634	2310	3805	1055	564	685.9	319.5	249.3
MEAN	48.8	64.9	84.1	69.9	58.4	74.5	127	34.0	18.8	22.1	10.3	8.31
MAX	114	583	265	386	187	455	725	61	65	107	22	37
MIN	30	34	42	30	36	38	47	18	11	9.9	7.1	6.1
CFSM	2.12	2.82	3.66	3.04	2.54	3.24	5.51	1.48	0.82	0.96	0.45	0.36
IN.	2.45	3.15	4.22	3.50	2.64	3.74	6.15	1.71	0.91	1.11	0.52	0.40

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 2005, BY WATER YEAR (WY)

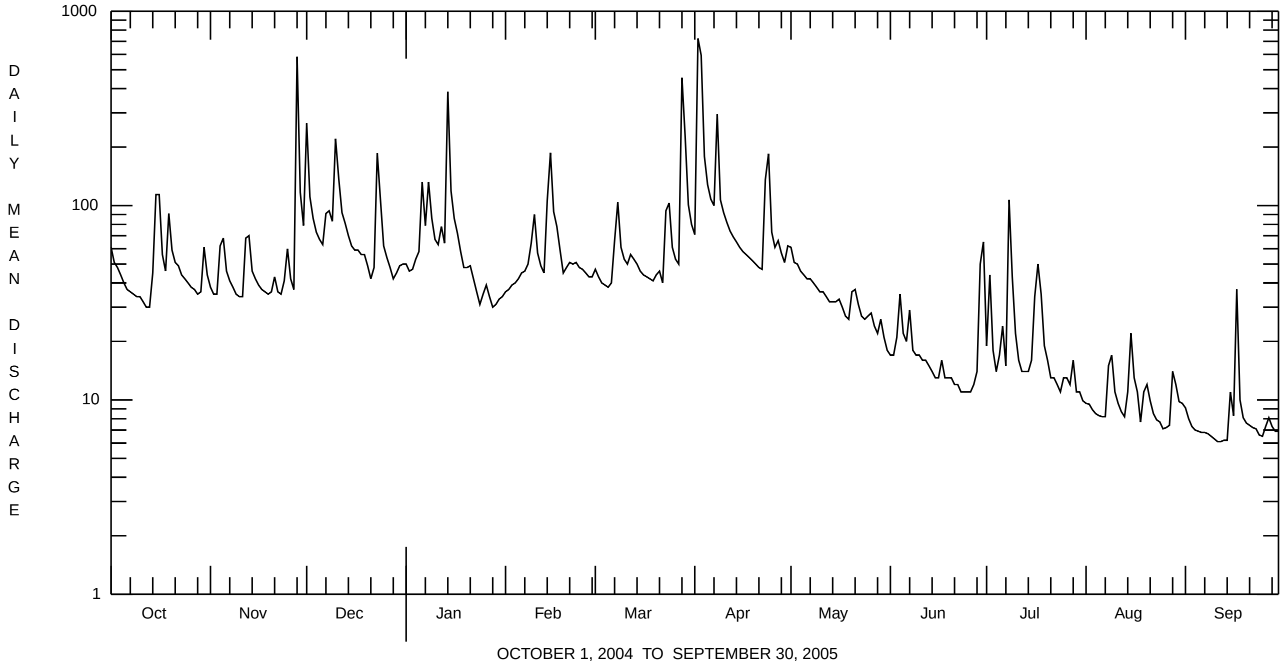
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	24.0	34.3	48.8	44.4	48.2	62.8	61.5	45.7	32.8	25.2	17.1	23.6
MAX	66.9	64.9	165	140	93.8	171	146	114	108	99.0	47.6	92.8
(WY)	1997	2005	1984	1996	1984	1994	1983	1989	2003	1984	2004	2003
MIN	7.45	7.47	7.94	15.3	11.9	23.4	16.4	22.9	11.0	5.67	5.65	5.47
(WY)	2002	2002	1999	2002	2002	1985	1985	1995	1999	1999	2002	1983

e Estimated.

01472199 WEST BRANCH PERKIOMEN CREEK AT HILLEGASS, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1982 - 2005	
ANNUAL TOTAL	21018		18858.7			
ANNUAL MEAN	57.4		51.7		39.0	
HIGHEST ANNUAL MEAN					69.5	1984
LOWEST ANNUAL MEAN					19.1	2002
HIGHEST DAILY MEAN	871	Sep 18	725	Apr 2	1760	Jan 19 1996
LOWEST DAILY MEAN	12	Jul 11	6.1	Sep 11,12	3.0	Aug 7 1999
ANNUAL SEVEN-DAY MINIMUM	14	Jul 5	6.3	Sep 8	3.2	Aug 1 1999
MAXIMUM PEAK FLOW			**a**1820	Apr 2	**a**3270	Jan 19 1996
MAXIMUM PEAK STAGE			5.28	Apr 2	6.34	Jan 19 1996
INSTANTANEOUS LOW FLOW			4.2	Aug 18	**b**2.6	Dec 31 1998
ANNUAL RUNOFF (CFSM)	2.50		2.25		1.69	
ANNUAL RUNOFF (INCHES)	33.99		30.50		23.01	
10 PERCENT EXCEEDS	89		92		74	
50 PERCENT EXCEEDS	40		40		24	
90 PERCENT EXCEEDS	24		8.4		8.0	

a From rating curve extended above 560 ft^3/s on basis of contracted-opening measurement at gage height 5.51 ft.
b Result of freeze-up.



01472620 EAST BRANCH PERKIOMEN CREEK NEAR DUBLIN, PA

LOCATION.--Lat 40°24'14", long 75°14'05", Bucks County, Hydrologic Unit 02040203, on right bank 40 ft downstream from bridge on Bucks Road, 4.5 mi northeast of Perkasie, and 5.0 mi southeast of Quakertown.

DRAINAGE AREA.--4.05 mi^2, not including distributary.

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

REVISED RECORD.--WDR PA-99-1: 1984, 1985, 1989, 1993, 1994, 1996, 1997 (M).

GAGE.--Water-stage recorder, crest-stage gage and concrete control. Datum of gage is 338.14 ft (revised) above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Diversion since August 1989 from Delaware River at Point Pleasant to Bradshaw Reservoir (Geddes Creek Basin). Pumpage from reservoir enters the stream about 0.5 mi upstream of gage. Pumpage into the creek was equivalent to an annual mean discharge of 14.4 ft^3/s. See station 01472618, Distributary from Bradshaw Reservoir, for pumpage data. Peak flows are unregulated. Several measurements of water temperature were made during the year. Satellite and landline telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 350 ft^3/s and maximum (*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Nov. 28	0900	793	5.44	Mar. 28	1630	618	4.79
Jan. 14	0900	436	3.98	Apr. 2	1900	*1,210	*6.85

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	13	79	15	e11	14	16	18	13	13	13	24
2	31	13	23	14	e11	14	286	16	13	14	13	33
3	31	13	18	15	e12	14	72	15	14	13	13	33
4	30	30	17	17	e13	13	25	15	15	13	13	33
5	28	23	16	23	14	14	19	16	13	13	13	33
6	28	16	15	57	14	15	18	31	14	14	13	33
7	28	14	33	23	16	36	18	30	15	16	13	33
8	28	14	26	54	19	32	46	14	14	65	14	33
9	28	14	33	24	26	17	20	14	13	19	13	33
10	27	14	73	19	37	15	18	14	13	15	13	33
11	28	14	31	19	18	16	17	14	13	14	13	33
12	28	27	21	27	15	21	16	14	13	13	13	33
13	28	30	18	20	14	17	15	28	13	13	13	33
14	30	18	17	153	52	15	15	29	13	13	13	33
15	30	16	15	25	56	14	15	13	13	13	7.3	33
16	31	15	15	20	35	14	15	13	13	17	13	33
17	29	15	15	17	22	14	15	13	13	21	23	33
18	28	15	15	16	16	14	15	13	13	16	33	33
19	27	15	15	e15	14	14	14	13	13	14	34	33
20	15	15	14	e14	14	14	14	14	13	14	34	33
21	14	16	13	e13	14	14	14	13	13	14	34	34
22	15	15	13	e12	15	14	14	13	14	13	34	34
23	14	14	36	e11	18	40	23	13	13	13	34	34
24	13	16	23	e10	15	33	22	13	13	13	34	34
25	13	29	16	e11	15	18	16	13	13	14	33	34
26	13	17	15	e12	14	16	15	13	13	13	30	34
27	13	15	14	e12	14	15	18	13	13	13	12	34
28	13	193	14	e10	14	137	16	13	13	13	9.9	34
29	13	24	14	e11	---	35	15	13	14	13	7.8	34
30	15	19	14	e11	---	19	16	13	16	13	12	34
31	14	---	15	e11	---	16	---	13	---	13	12	---
TOTAL	716	702	696	711	548	694	858	490	402	488	580.0	991
MEAN	23.1	23.4	22.5	22.9	19.6	22.4	28.6	15.8	13.4	15.7	18.7	33.0
MAX	33	193	79	153	56	137	286	31	16	65	34	34
MIN	13	13	13	10	11	13	14	13	13	13	7.3	24

e Estimated.

01472620 EAST BRANCH PERKIOMEN CREEK NEAR DUBLIN, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2005, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	51.1	39.0	31.9	25.3	21.3	27.5	27.1	44.6	51.0	54.6	54.4	54.4
MAX	61.8	60.3	57.9	48.1	30.1	43.2	43.4	66.9	69.6	67.0	65.1	72.5
(WY)	2001	1999	1999	2002	2002	1993	2002	2001	2001	2001	2000	1999
MIN	23.1	12.8	14.5	16.6	12.3	17.2	16.4	15.8	13.4	15.7	18.7	33.0
(WY)	2005	1991	1995	2003	1991	1991	1992	2005	2005	2005	2005	2005

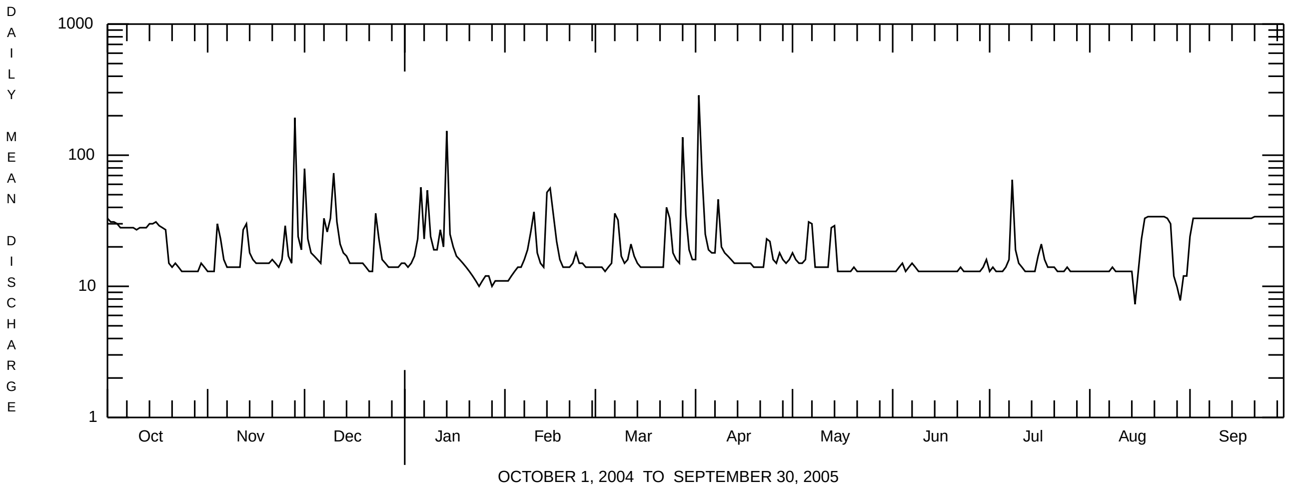
SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1990 - 2005	
ANNUAL TOTAL	10221.5		7876.0			
ANNUAL MEAN	27.9		21.6		40.3	
HIGHEST ANNUAL MEAN					50.3	1999
LOWEST ANNUAL MEAN					21.6	2005
HIGHEST DAILY MEAN	215	Sep 18	286	Apr 2	528	Sep 16 1999
LOWEST DAILY MEAN	3.2	Sep 26	7.3	Aug 15	[a]0.00	Sep 24 2002
ANNUAL SEVEN-DAY MINIMUM	5.4	Sep 21	11	Jan 23	2.5	Apr 17 1990
MAXIMUM PEAK FLOW			1210	Apr 2	[b]1860	Sep 16 1999
MAXIMUM PEAK STAGE			6.85	Apr 2	8.57	Sep 16 1999
10 PERCENT EXCEEDS	37		33		64	
50 PERCENT EXCEEDS	28		15		36	
90 PERCENT EXCEEDS	14		13		13	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 1989, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1.19	10.1	8.67	5.60	11.8	8.00	7.61	9.15	3.18	5.25	2.89	6.55
MAX	2.56	14.7	20.9	9.16	19.1	15.7	17.2	21.0	12.5	20.9	15.6	25.7
(WY)	1986	1986	1984	1986	1984	1984	1984	1984	1989	1984	1989	1989
MIN	.14	1.92	1.96	2.61	4.26	2.21	.91	.41	.090	.13	.025	.027
(WY)	1987	1985	1989	1985	1987	1985	1985	1986	1987	1985	1987	1986

SUMMARY STATISTICS	WATER YEARS 1984 - 1989	
ANNUAL MEAN	6.63	
HIGHEST ANNUAL MEAN	11.7	1984
LOWEST ANNUAL MEAN	3.60	1985
HIGHEST DAILY MEAN	418	Sep 20 1989
LOWEST DAILY MEAN	.00	Jul 20 1985
ANNUAL SEVEN-DAY MINIMUM	.00	Sep 14 1985
MAXIMUM PEAK FLOW	[b]1790	Jul 7 1984
MAXIMUM PEAK STAGE	8.41	Jul 7 1984
ANNUAL RUNOFF (CFSM)	1.50	
ANNUAL RUNOFF (INCHES)	20.42	
10 PERCENT EXCEEDS	13	
50 PERCENT EXCEEDS	1.2	
90 PERCENT EXCEEDS	.06	

[a] Result of no pumpage from the Delaware River diversion.
[b] From rating curve extended above 1,300 ft^3/s.



OCTOBER 1, 2004 TO SEPTEMBER 30, 2005

01472810 EAST BRANCH PERKIOMEN CREEK NEAR SCHWENKSVILLE, PA

LOCATION.--Lat 40°15'31", long 75°25'45", Montgomery County, Hydrologic Unit 02040203, on left bank 600 ft upstream from Bergey's Mill bridge, and 2.0 mi east of Schwenksville.

DRAINAGE AREA.--58.7 mi^2, not including distributary.

PERIOD OF RECORD.--January 1991 to current year.

REVISED RECORD.--WDR PA-96-1: 1993-95(P). WDR PA-99-1: 1996, 1997 (M).

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 150 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for period Oct. 1 to Nov. 28, which is fair and those for estimated daily discharges, which are poor. Diversion since August 1989 from Delaware River at Point Pleasant to Bradshaw Reservoir (Geddes Creek Basin). Pumpage from reservoir enters stream about 19 mi upstream of gage. See station 01472618, Distributary from Bradshaw Reservoir, for pumpage data. Peak flows are unregulated. Several measurements of water temperature were made during the year. Satellite and landline telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,500 ft^3/s and maximum (*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Nov. 28	1400	4,840	8.96	Mar. 28	2130	3,730	7.95
Jan. 14	1230	3,850	8.07	Apr. 3	0100	*6,690	*10.42

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	169	51	881	60	e95	85	114	91	25	35	22	22
2	120	47	308	56	e105	84	2180	68	25	48	21	32
3	97	46	175	53	e115	71	2320	61	28	34	21	35
4	82	101	123	71	e125	65	377	53	65	30	20	38
5	72	302	98	92	134	63	187	48	38	31	20	38
6	64	100	82	475	146	68	134	51	32	39	21	38
7	60	75	221	251	171	189	105	59	113	47	20	36
8	57	63	297	483	203	367	438	50	42	436	126	34
9	55	56	185	292	256	157	173	38	33	161	44	33
10	53	51	942	167	363	112	118	37	30	54	27	35
11	52	50	474	126	178	95	96	35	32	39	25	35
12	51	122	220	263	104	114	78	34	28	33	23	36
13	50	385	151	160	80	106	67	33	27	29	22	36
14	67	142	115	1790	187	84	60	49	26	31	23	38
15	74	99	87	398	870	72	55	41	25	29	123	41
16	114	80	75	194	301	66	49	31	25	29	27	39
17	71	71	72	136	275	62	49	29	24	48	26	43
18	63	66	65	e85	140	58	47	29	24	63	39	38
19	106	60	63	e65	96	53	45	28	25	34	45	39
20	86	58	e60	e60	80	55	41	38	25	30	47	38
21	59	65	e40	e65	79	63	38	46	25	26	43	38
22	56	61	e65	e72	87	58	37	33	24	24	41	38
23	53	57	189	e62	110	181	263	31	26	23	42	39
24	49	56	331	e65	112	395	482	29	25	22	42	38
25	47	186	114	e72	86	153	135	28	24	24	41	38
26	45	100	e80	e80	82	108	88	29	24	26	39	40
27	43	74	e63	e85	82	90	90	29	25	29	33	44
28	42	2240	e48	e90	80	1220	78	27	35	36	25	42
29	41	403	e52	e85	---	809	62	27	31	24	25	44
30	54	198	58	e80	---	228	63	26	41	23	16	44
31	59	---	57	e87	---	145	---	26	---	22	21	---
TOTAL	2111	5465	5791	6120	4742	5476	8069	1234	972	1559	1110	1129
MEAN	68.1	182	187	197	169	177	269	39.8	32.4	50.3	35.8	37.6
MAX	169	2240	942	1790	870	1220	2320	91	113	436	126	44
MIN	41	46	40	53	79	53	37	26	24	22	16	22

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 2005, BY WATER YEAR (WY)

MEAN	119	129	172	149	120	194	137	102	94.6	87.5	88.9	120
MAX	287	201	405	456	183	388	269	230	330	208	159	305
(WY)	1997	1994	1997	1996	2001	1994	2005	1998	2003	2004	1994	2004
MIN	65.1	66.0	52.1	70.5	49.0	113	43.2	39.8	32.4	50.3	35.8	37.6
(WY)	2002	2002	1996	2004	2002	2004	1992	2005	2005	2005	2005	2005

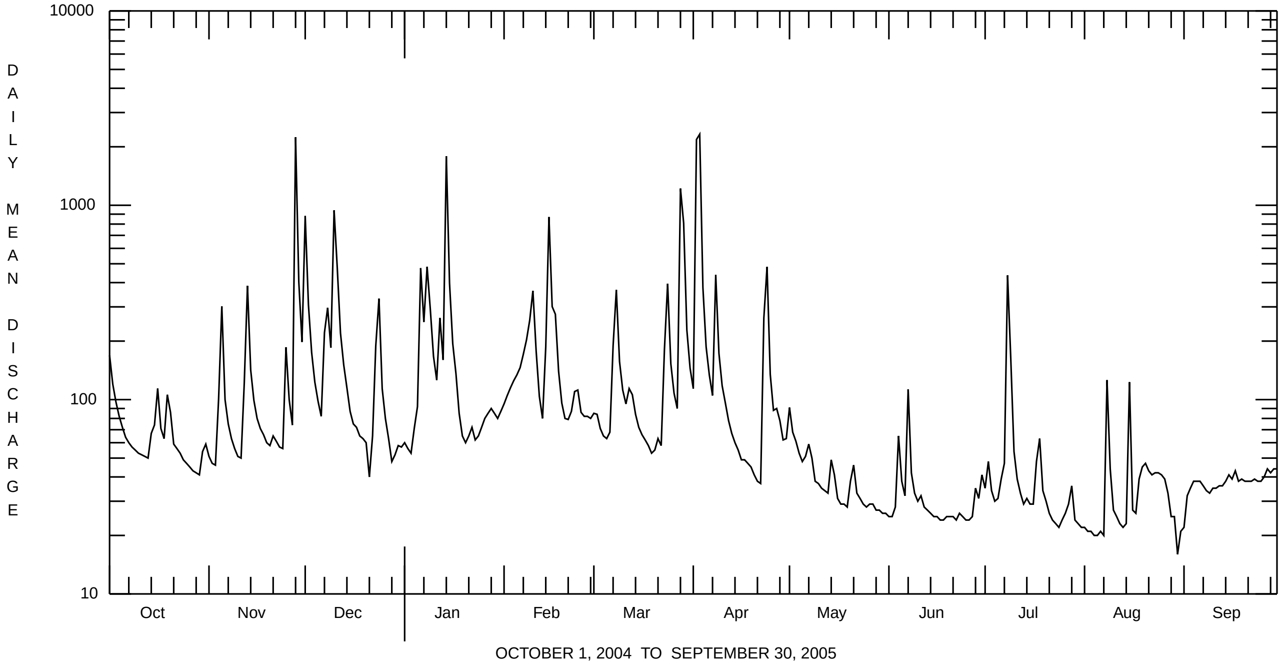
e Estimated.

01472810 EAST BRANCH PERKIOMEN CREEK NEAR SCHWENKSVILLE, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1991 - 2005	
ANNUAL TOTAL	49996		43778			
ANNUAL MEAN	137		120		128	
HIGHEST ANNUAL MEAN					178	2003
LOWEST ANNUAL MEAN					80.6	1992
HIGHEST DAILY MEAN	2970	Sep 18	2320	Apr 3	6020	Jan 19 1996
LOWEST DAILY MEAN	26	Sep 27	16	Aug 30	3.5	Sep 25 2002[a]
ANNUAL SEVEN-DAY MINIMUM	33	Jun 30	21	Aug 1	11	Sep 19 2002
MAXIMUM PEAK FLOW			[b]6690	Apr 3	[b]12300	Sep 16 1999
MAXIMUM PEAK STAGE			10.42	Apr 3	14.03	Sep 16 1999
10 PERCENT EXCEEDS	250		210		207	
50 PERCENT EXCEEDS	63		58		72	
90 PERCENT EXCEEDS	41		25		45	

[a] Result of no pumpage from the Delaware River diversion.

[b] From rating curve extended above 2,840 ft^3/s on basis of contracted-opening measurement of peak flow at gage height 14.03 ft.



01473000 PERKIOMEN CREEK AT GRATERFORD, PA

LOCATION.--Lat 40°13'46", long 75°27'07", Montgomery County, Hydrologic Unit 02040203, on left bank 1,650 ft upstream from highway bridge at Graterford, 0.5 mi upstream from Lodel Creek, and 2.5 mi north of Collegeville.

DRAINAGE AREA.--279 mi^2.

PERIOD OF RECORD.--June 1914 to current year. Monthly discharge only for some periods, published in WSP 1302. Prior to October 1950, published as "*at Graters Ford*."

REVISED RECORDS.--WSP 756: Drainage area. WSP 1171: 1935(M). WSP 1302: 1915-16, 1927-29. WSP 1382: 1932-33, 1935, 1937, 1942, 1947, 1948(M), 1949(P), 1950(M), 1951-52(P), WDR PA-91-1: 1989-90 (adjusted means and monthly runoff).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 112.66 ft above National Geodetic Vertical Datum of 1929. June 1914, to Sept. 6, 1921, nonrecording gage at site 1,650 ft downstream at datum 3.29 ft lower. Sept. 7, 1921, to Sept. 13, 1927, nonrecording gage at present site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Some regulation since Dec. 21, 1956 by Green Lane Reservoir (station 01472200) 10.5 mi upstream. Diversion from the Delaware River at Point Pleasant to Bradshaw Reservoir (Geddes Creek Basin) has been pumped from the reservoir to the East Branch Perkiomen Creek since August 1989. See station 01472618, Distributary from Bradshaw Reservoir, for pumpage data. Several measurements of water temperature were made during the year. Satellite and landline telemetry at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	917	292	3420	368	e200	418	680	592	127	170	83	89
2	640	254	1660	339	e220	399	9300	412	122	271	79	95
3	547	247	926	318	e230	341	11700	384	128	192	77	97
4	482	432	704	399	256	306	2170	336	238	119	74	96
5	452	1320	579	483	273	303	1190	299	191	106	79	96
6	436	530	491	1900	314	319	914	277	149	155	77	95
7	342	393	839	1200	385	660	762	285	287	139	76	94
8	331	333	1320	1800	491	1560	2270	263	183	1200	250	92
9	322	282	807	1370	736	804	1050	227	141	723	176	88
10	315	254	3520	823	1440	533	760	221	139	251	109	87
11	299	247	2270	639	868	468	632	215	152	163	93	88
12	272	510	1090	1080	522	567	536	214	133	134	87	88
13	254	1500	808	757	422	545	483	190	125	119	84	88
14	287	661	637	6780	754	444	438	201	117	167	83	90
15	393	461	489	2070	3610	376	395	203	106	121	230	93
16	1310	396	420	1010	1260	339	355	189	98	185	129	92
17	510	356	408	766	1190	318	339	178	96	346	107	138
18	348	339	379	518	691	305	333	166	94	303	102	105
19	705	333	368	e420	463	284	316	156	92	171	105	91
20	633	321	e300	e340	400	293	300	178	92	133	115	89
21	422	392	e260	e360	426	350	282	261	87	111	110	89
22	370	369	e280	e310	432	310	258	197	89	103	102	87
23	331	340	1000	e180	521	779	640	173	90	94	98	86
24	297	344	1920	e190	515	1850	2650	161	88	87	99	84
25	279	656	691	e210	435	783	813	160	84	88	95	84
26	261	509	470	e220	397	547	529	165	85	95	94	86
27	251	379	e380	e200	407	452	500	157	90	95	92	90
28	239	9730	e320	e180	385	4760	473	147	103	126	91	85
29	232	2630	e325	e160	---	4960	368	152	103	97	127	88
30	447	1280	338	e170	---	1260	383	144	247	89	88	88
31	398	---	347	e190	---	847	---	133	---	84	87	---
TOTAL	13322	26090	27766	25750	18243	26480	41819	7036	3876	6237	3298	2758
MEAN	430	870	896	831	652	854	1394	227	129	201	106	91.9
MAX	1310	9730	3520	6780	3610	4960	11700	592	287	1200	250	138
MIN	232	247	260	160	200	284	258	133	84	84	74	84

e Estimated.

01473000 PERKIOMEN CREEK AT GRATERFORD, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 2005, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	235	386	546	554	600	770	642	422	288	223	166	266
MAX	1059	1182	1869	2071	1241	2100	1759	1298	1544	1286	493	1273
(WY)	1997	1973	1997	1979	1971	1994	1983	1989	2003	1984	1971	2004
MIN	28.1	43.8	63.3	75.6	147	186	128	84.0	52.9	41.7	37.4	24.8
(WY)	1958	1958	1966	1981	2002	1985	1985	1965	1965	1965	1957	1957

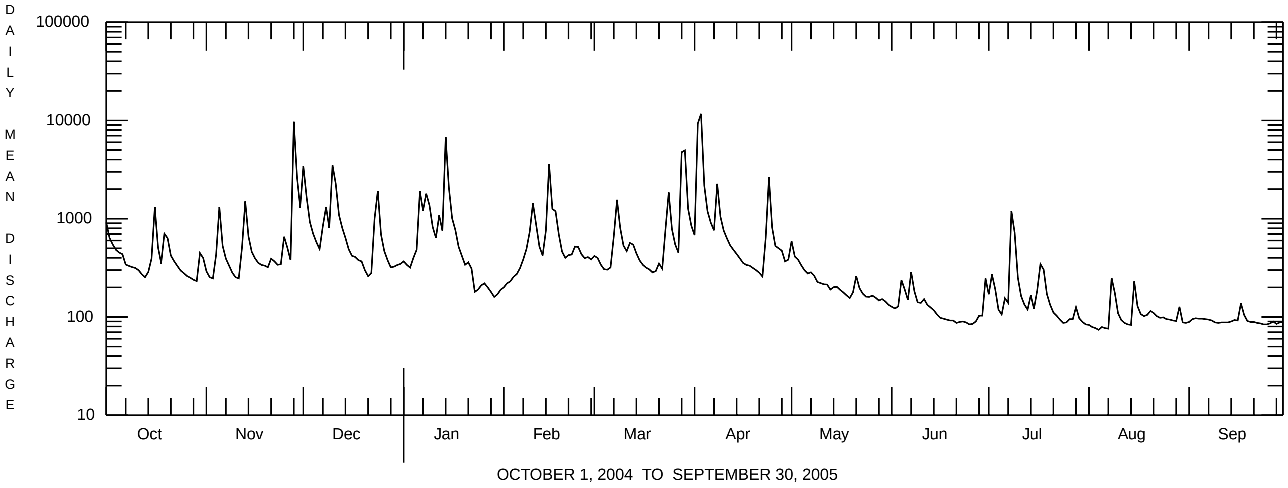
SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1957 - 2005	
ANNUAL TOTAL	243352		202675			
ANNUAL MEAN	665		555		424	
HIGHEST ANNUAL MEAN					767	1984
LOWEST ANNUAL MEAN					165	1965
HIGHEST DAILY MEAN	13800	Sep 18	11700	Apr 3	16600	Dec 5 1993
LOWEST DAILY MEAN	104	Jul 5	74	Aug 4	13	Sep 1 1957
ANNUAL SEVEN-DAY MINIMUM	114	Jul 5	78	Aug 1	19	Aug 31 1957
MAXIMUM PEAK FLOW			[a]24400	Apr 3	[a]35800	Jun 22 1972
MAXIMUM PEAK STAGE			14.17	Apr 3	17.08	Jun 22 1972
10 PERCENT EXCEEDS	1290		1060		853	
50 PERCENT EXCEEDS	346		300		188	
90 PERCENT EXCEEDS	178		89		63	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1915 - 1956, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	192	345	445	504	641	771	513	346	213	274	261	177
MAX	856	1119	1077	1336	1458	2193	1335	1395	976	1190	1378	869
(WY)	1956	1933	1928	1915	1918	1936	1952	1948	1946	1919	1955	1934
MIN	21.2	38.0	69.8	66.5	80.2	247	167	71.7	32.7	32.4	21.0	23.8
(WY)	1942	1932	1923	1925	1934	1915	1946	1941	1921	1954	1930	1932

SUMMARY STATISTICS	WATER YEARS 1915 - 1956	
ANNUAL MEAN	389	
HIGHEST ANNUAL MEAN	689	1956
LOWEST ANNUAL MEAN	188	1931
HIGHEST DAILY MEAN	18600	Jul 9 1935
LOWEST DAILY MEAN	3.8	Jun 25 1921
ANNUAL SEVEN-DAY MINIMUM	5.2	Jun 22 1921
MAXIMUM PEAK FLOW	[a]39900	Jul 9 1935
MAXIMUM PEAK STAGE	18.26	Jul 9 1935
INSTANTANEOUS LOW FLOW	4.7	Oct 4 1941
ANNUAL RUNOFF (CFSM)	1.40	
ANNUAL RUNOFF (INCHES)	18.96	
10 PERCENT EXCEEDS	800	
50 PERCENT EXCEEDS	166	
90 PERCENT EXCEEDS	42	

[a] From rating curve extended above 14,000 ft^3/s on basis of slope-area measurement at 32,000 ft^3/s, gage height 16.23 ft.



01473169 VALLEY CREEK AT PENNSYLVANIA TURNPIKE BRIDGE NEAR VALLEY FORGE, PA

LOCATION.--Lat 40°04'45", long 75°27'40", Chester County, Hydrologic Unit 02040202, on right bank 100 ft upstream from Pennsylvania turnpike bridge, 0.9 mi downstream from Little Valley Creek, 2.2 mi upstream from mouth, and 1.0 mi south of Valley Forge.

DRAINAGE AREA.--20.8 mi^2.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 108.62 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good except those greater than 400 ft^3/s, which are fair. Several measurements of water temperature were made during the year. Satellite telemetry at station. Intermittent pumpage from quarry upstream.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft^3/s and maximum (*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Nov. 28	0815	1,370	8.45	Apr. 2	1900	*2,100	*9.87
Jan. 14	1045	888	7.32	June 6	2245	652	6.76
Mar. 28	1845	956	7.48	July 8	1215	656	6.77

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	89	39	141	41	39	43	54	56	26	24	25	15
2	74	38	65	39	38	40	702	45	26	22	25	15
3	67	37	58	39	38	38	309	43	67	19	25	14
4	61	105	54	40	39	37	130	41	47	18	25	14
5	58	61	52	62	40	37	97	40	30	22	23	14
6	55	44	50	69	41	38	84	39	100	25	23	14
7	53	42	94	47	41	44	76	39	72	20	23	14
8	51	40	59	70	42	58	98	38	32	172	28	14
9	50	38	72	48	45	42	70	36	29	31	24	14
10	49	37	135	45	50	40	65	36	28	24	21	14
11	47	37	77	49	40	39	61	35	27	22	18	13
12	46	96	61	61	38	41	59	34	26	21	17	13
13	46	84	58	46	37	38	58	33	26	20	17	13
14	84	47	54	347	77	36	56	33	25	20	17	15
15	50	44	52	83	79	36	53	32	24	61	22	43
16	53	42	50	66	49	35	51	32	24	26	20	17
17	46	41	50	60	44	35	51	31	23	75	22	28
18	42	40	48	55	41	35	49	30	23	36	17	27
19	82	39	48	53	39	34	48	30	23	23	18	17
20	48	41	46	52	38	38	47	52	23	23	17	16
21	50	43	44	49	44	37	46	35	22	23	17	15
22	45	38	44	49	46	34	45	33	22	22	16	15
23	42	37	133	48	42	119	81	31	21	21	16	15
24	41	43	63	46	41	61	68	30	21	23	15	14
25	40	51	49	45	41	43	48	30	21	26	15	14
26	39	38	46	45	40	40	45	30	20	25	15	15
27	38	37	44	44	39	39	47	29	22	25	15	17
28	38	457	43	42	40	322	44	29	23	27	21	14
29	37	78	43	41	---	110	43	28	21	26	17	15
30	83	61	42	41	---	65	57	28	20	26	16	15
31	41	---	41	40	---	57	---	27	---	25	16	---
TOTAL	1645	1875	1916	1862	1228	1711	2742	1085	914	973	606	493
MEAN	53.1	62.5	61.8	60.1	43.9	55.2	91.4	35.0	30.5	31.4	19.5	16.4
MAX	89	457	141	347	79	322	702	56	100	172	28	43
MIN	37	37	41	39	37	34	43	27	20	18	15	13
CFSM	2.55	3.00	2.97	2.89	2.11	2.65	4.39	1.68	1.46	1.51	0.94	0.79
IN.	2.94	3.35	3.43	3.33	2.20	3.06	4.90	1.94	1.63	1.74	1.08	0.88

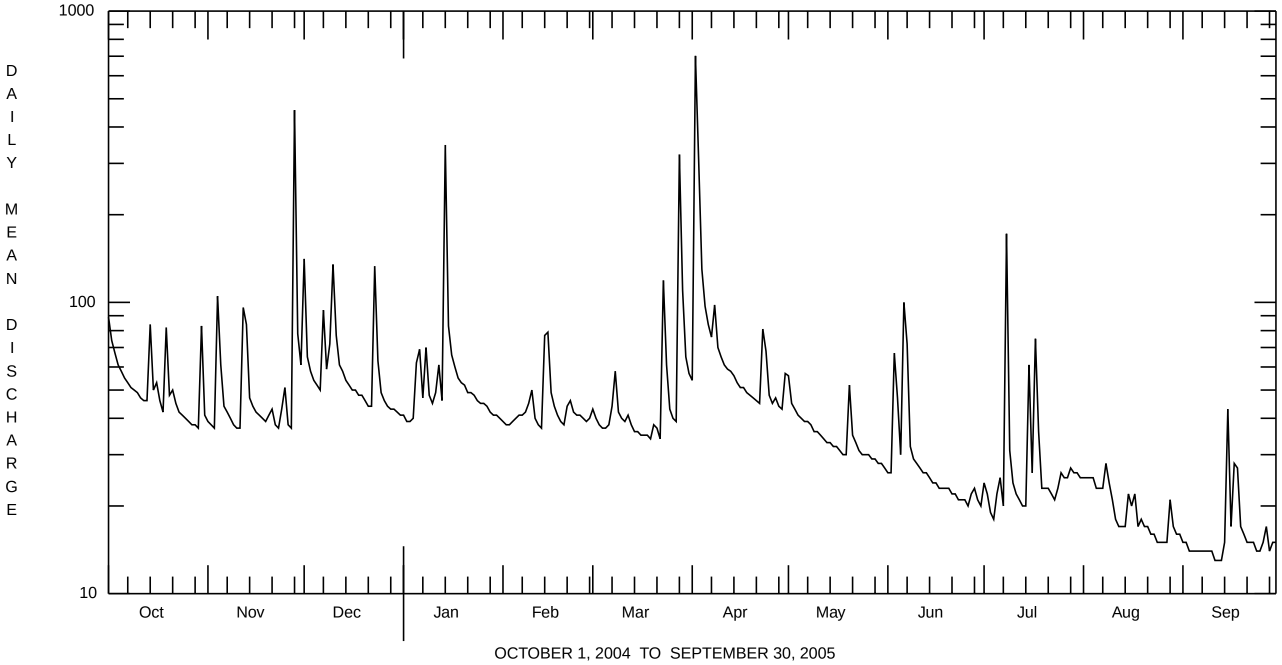
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 2005, BY WATER YEAR (WY)

MEAN	25.5	30.1	35.3	34.7	34.7	44.6	45.3	36.6	30.2	27.7	24.4	31.2
MAX	61.8	62.5	103	95.8	60.3	85.9	98.8	77.5	72.9	53.7	46.6	95.5
(WY)	1997	2005	1997	1996	2004	1994	1983	1984	2003	2004	2004	1999
MIN	9.91	10.1	12.7	16.8	11.9	17.9	15.8	19.5	15.1	11.1	10.5	14.5
(WY)	2002	2002	1999	1985	2002	1985	2002	1995	1995	2002	2002	2002

01473169 VALLEY CREEK AT PENNSYLVANIA TURNPIKE BRIDGE NEAR VALLEY FORGE, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1983 - 2005	
ANNUAL TOTAL	18964		17050			
ANNUAL MEAN	51.8		46.7		33.3	
HIGHEST ANNUAL MEAN					53.0	2004
LOWEST ANNUAL MEAN					15.2	2002
HIGHEST DAILY MEAN	566	Sep 18	702	Apr 2	2020	Sep 16 1999
LOWEST DAILY MEAN	19	Jul 10	13	Sep 11-13	7.4	Jul 13 1999
ANNUAL SEVEN-DAY MINIMUM	20	Jul 5	14	Sep 7	7.7	Aug 13 2002
MAXIMUM PEAK FLOW			2100	Apr 2	**a**6280	Sep 16 1999
MAXIMUM PEAK STAGE			9.87	Apr 2	**b**14.75	Sep 16 1999
INSTANTANEOUS LOW FLOW			13	Sep 10	6.4	Jul 29 1999
ANNUAL RUNOFF (CFSM)	2.49		2.25		1.60	
ANNUAL RUNOFF (INCHES)	33.92		30.49		21.77	
10 PERCENT EXCEEDS	71		70		54	
50 PERCENT EXCEEDS	39		40		24	
90 PERCENT EXCEEDS	26		17		14	

a From rating curve extended above 3,690 ft^3/s on basis of slope-area measurement of peak flow.
b From outside highwater mark.



01473169 VALLEY CREEK AT PENNSYLVANIA TURNPIKE BRIDGE NEAR VALLEY FORGE, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1984, 1999 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conductance, wat unf lab, µS/cm 25 degC (90095)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)
NOV 2004													
03...	1230	1028	80020	37	11.9	8.4	8.2	674	692	12.9	58.2	29.5	3.17

Date	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)	ANC, wat unf incrm. titr., field, mg/L as CaCO3 (00419)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Boron, water, fltrd, µg/L (01020)	Iron, water, fltrd, µg/L (01046)
NOV 2004													
03...	37.6	203	220	73.5	E.1	6.7	25.7	<.04	1.89	.015	<.02	65	6

01473169 VALLEY CREEK AT PENNSYLVANIA TURNPIKE BRIDGE NEAR VALLEY FORGE, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES

REMARKS.--Samples were collected using a Hess sampler with a mesh size of 500 µm. Each sample covered a total area of 2.4 m^2.

Date	11/03/04
Benthic macroinvertebrate	Count
Platyhelminthes	
Turbellaria (FLATWORMS)	
Tricladida	
Planariidae	66
Nematoda (NEMATODES)	32
Nemertea (PROBOSCIS WORMS)	
Enopla	
Hoplonemertea	
Tetrastemmatidae	
Prostoma	26
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Tubificida	
Naididae	16
Arthropoda	
Acariformes	
Hydrachnidia (WATER MITES)	103
Crustacea	
Amphipoda (SCUDS)	
Gammaridae	
Gammarus	2
Isopoda (AQUATIC SOWBUGS)	
Asellidae	
Caecidotea	1
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
Baetis	6
Acentrella	7
Ephemerellidae	
Dannella	2
Isonychiidae	
Isonychia	1
Plecoptera (STONEFLIES)	
Capniidae	1
Trichoptera (CADDISFLIES)	
Glossosomatidae	
Glossosoma	5
Hydropsychidae	
Cheumatopsyche	57
Hydropsyche	153
Philopotamidae	
Chimarra	5

01473169 VALLEY CREEK AT PENNSYLVANIA TURNPIKE BRIDGE NEAR VALLEY FORGE, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES--Continued

Date	11/03/04
Benthic macroinvertebrate	Count
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
Optioservus	366
Oulimnius	93
Stenelmis	88
Psephenidae (WATER PENNIES)	
Psephenus	3
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	512
Empididae (DANCE FLIES)	
Hemerodromia	11
Simuliidae (BLACK FLIES)	
Simulium	13
Tipulidae (CRANE FLIES)	
Antocha	29
Total organisms	1598
Total number of taxa	24

01473500 SCHUYLKILL RIVER AT NORRISTOWN, PA

LOCATION.--Lat 40°06'40", long 75°20’25", Montgomery County, Hydrologic Unit 02040203, on left bank at Haws Avenue bridge leading to Barbadoes Island, 0.2 miles upstream from Stony Creek, 0.6 miles upstream from Norristown Dam.

DRAINAGE AREA.--1,760 mi^2.

PERIOD OF RECORD.--August 2001 to current year. October 1927 to May 1933 at site 0.6 mi downstream, at different datum. Annual maximums, October 1983 to September 1993 from crest-stage gage located 0.7 mi downstream at different datum.

REVISED RECORDS.--WDR PA-04-1: 2002-03(M).

GAGE.--Water-stage recorder. Datum of gage is 51.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except for estimated daily discharges, and those greater than 34,000 ft^3/s, which are poor. Several measurements of temperature were made during the year. Satellite and landline telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 23,000 ft^3/s and maximum (*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date‘	Time	Discharge ft^3/s	Gage Height (ft)
Nov. 28	1500	38,500	13.89	Mar. 29	0115	35,200	13.46
Jan. 14	1545	34,000	13.32	Apr. 3	0130	*54,600	*16.04

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8380	3090	14300	3260	2570	3060	7500	3290	1340	1130	830	561
2	6330	2730	14200	3120	2470	2980	22400	2990	1360	1170	768	532
3	5300	2780	10100	2960	2390	2750	44000	2780	1490	1080	722	500
4	4730	3290	7740	2980	2370	2550	24200	2640	1870	900	717	487
5	4230	5910	6500	3670	2410	2460	15200	2500	1610	841	702	468
6	3600	3870	5300	6140	2500	2490	11500	2410	1760	1620	695	457
7	3150	3240	5320	7040	2660	2910	9620	2410	2630	1340	791	443
8	2920	2970	6630	7490	2890	5010	12600	2360	1810	4410	1030	546
9	2770	2670	5260	9350	3310	4660	8160	2270	1490	5080	1390	523
10	2650	2440	10800	7480	4680	4090	6280	2170	1440	3000	1050	507
11	2510	2330	11900	6750	4170	3770	5560	2090	1410	2040	858	495
12	2380	2920	9300	7560	3160	3650	4790	1980	1290	1390	712	520
13	2240	6220	7440	6320	2810	3450	4390	1880	1250	1250	674	625
14	2730	4120	6430	20400	3000	3170	4100	1790	1190	1880	677	503
15	3130	3290	5520	18000	9880	2980	3810	1760	1140	1780	1080	877
16	4970	3050	4920	11800	7080	2810	3410	1910	1040	2030	872	692
17	3540	2910	4550	8890	6100	2750	3210	1830	999	2720	895	553
18	2820	2740	4050	7070	4800	2680	3090	1670	976	3710	774	592
19	3900	2630	3760	5800	4030	2590	2920	1590	922	3010	734	519
20	4620	2600	3520	5410	3640	2600	2730	1760	930	2500	832	459
21	3900	2830	3120	4820	3630	2770	2540	1980	919	1930	770	414
22	3430	2780	2940	4000	3690	2600	2450	1800	883	1540	682	506
23	3200	2600	4080	e3600	3690	3220	3300	1610	851	1250	628	499
24	2920	2570	10100	e3500	3550	7590	7350	1540	800	1100	673	508
25	2780	e3100	6660	e3800	3280	5880	4420	1560	784	1080	647	534
26	2580	4010	5130	e3500	3090	4870	3350	1590	748	1180	618	571
27	2420	3690	4480	e3100	2980	4340	3160	1540	772	1100	619	569
28	2360	23700	4400	2810	2910	11600	3160	1430	856	1460	778	524
29	2310	18600	4060	2630	---	25200	2900	1420	848	1150	964	636
30	3440	11300	3720	2730	---	15700	2860	1520	1060	946	961	617
31	3870	---	3410	2640	---	9860	---	1390	---	872	682	---
TOTAL	110110	140980	199640	188620	103740	157040	234960	61460	36468	56489	24825	16237
MEAN	3552	4699	6440	6085	3705	5066	7832	1983	1216	1822	801	541
MAX	8380	23700	14300	20400	9880	25200	44000	3290	2630	5080	1390	877
MIN	2240	2330	2940	2630	2370	2460	2450	1390	748	841	618	414
CFSM	2.02	2.67	3.66	3.46	2.11	2.88	4.45	1.13	0.69	1.04	0.46	0.31
IN.	2.33	2.98	4.22	3.99	2.19	3.32	4.97	1.30	0.77	1.19	0.52	0.34

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1928 - 2005, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	2198	2801	3248	2602	3202	4059	4349	2749	2530	2252	1634	1816
MAX	4449	5866	7066	6085	6811	6980	7832	3873	8885	5335	5128	6514
(WY)	1928	1933	2004	2005	1928	2003	2005	1933	2003	2004	2004	2004
MIN	256	353	508	910	1045	1746	1917	1603	1113	534	351	283
(WY)	1931	1931	1931	1931	2002	1931	1931	1930	1930	2002	1930	1932

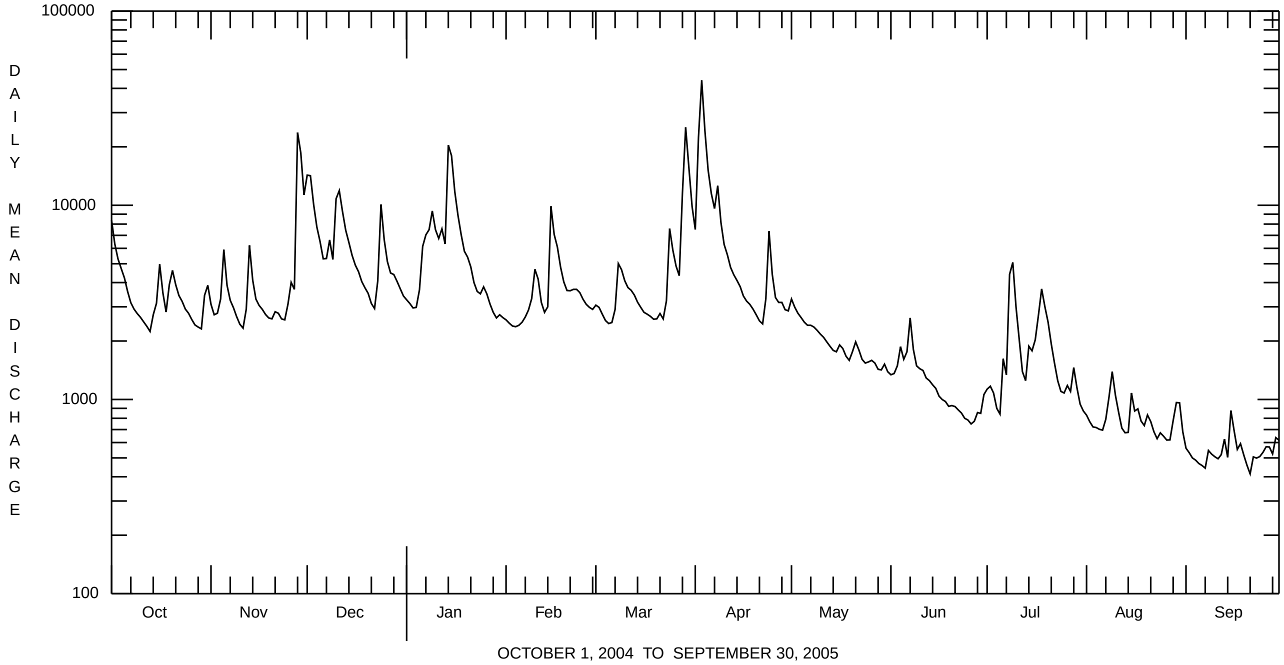
e Estimated.

SCHUYLKILL RIVER BASIN

01473500 SCHUYLKILL RIVER AT NORRISTOWN, PA

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1928 - 2005	
ANNUAL TOTAL	1558632		1330569			
ANNUAL MEAN	4259		3645		2734	
HIGHEST ANNUAL MEAN					4421	2003
LOWEST ANNUAL MEAN					1259	1931
HIGHEST DAILY MEAN	33600	Sep 29	44000	Apr 3	44000	Apr 3 2005
LOWEST DAILY MEAN	804	Jul 11	414	Sep 21	179	Dec 18 1930
ANNUAL SEVEN-DAY MINIMUM	960	Jul 5	489	Sep 3	232	Oct 3 1930
MAXIMUM PEAK FLOW			**a**54600	Apr 3	**a**56100	Jun 21 2003
MAXIMUM PEAK STAGE			16.04	Apr 3	16.25	Jun 21 2003
ANNUAL RUNOFF (CFSM)	2.42		2.07		1.55	
ANNUAL RUNOFF (INCHES)	32.94		28.12		21.10	
10 PERCENT EXCEEDS	7530		7390		5730	
50 PERCENT EXCEEDS	3100		2740		1840	
90 PERCENT EXCEEDS	1790		682		459	

a From rating curve extended above 34,000 ft^3/s on basis of runoff comparisons.



01473900 WISSAHICKON CREEK AT FORT WASHINGTON, PA
(Pennsylvania Water-Quality Network Station)

LOCATION.--Lat 40°07'26", long 75°13'13", Montgomery County, Hydrologic Unit 02040203, on left bank at downstream side of bridge on State Highway 73, 0.5 mi downstream from Sandy Run, and 1 mi south of Fort Washington.

DRAINAGE AREA.--40.8 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1961 to March 1969; June 2000 to current year; Annual maximums, October 1969 to September 1979, at site and datum then in use.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 139.98 ft above National Geodetic Vertical Datum of 1929. From Sept. 1961 to Mar. 1969 gage at present site at datum 140.70 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year. Satellite telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 16, 1999, reached a stage of 18.05 ft, from floodmarks, discharge about 14,300 ft^3/s.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,500 ft^3/s and maximum (*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Nov. 28	1130	3,760	10.71	Mar. 28	1845	2,710	9.18
Jan. 14	1145	3,500	10.36	Apr. 2	2100	*5,730	*12.65

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	96	34	392	51	51	77	85	94	29	36	20	21
2	77	34	117	48	50	73	2060	52	28	73	20	18
3	67	32	90	50	50	65	698	48	57	28	19	17
4	60	240	77	53	53	62	191	43	77	24	18	16
5	55	121	70	116	59	61	138	41	35	28	18	16
6	50	52	65	e180	64	63	120	40	88	51	18	17
7	47	44	203	e120	70	109	109	39	139	38	17	17
8	45	39	120	225	82	172	250	38	39	314	18	17
9	43	37	126	109	108	87	115	37	34	63	19	15
10	42	35	426	86	158	73	100	36	33	33	19	15
11	40	35	172	86	88	70	91	34	34	28	18	15
12	39	147	106	167	71	76	85	33	30	26	18	15
13	39	213	95	91	64	65	81	32	30	24	17	15
14	116	66	83	1270	251	61	76	32	29	23	17	17
15	56	54	74	176	333	57	69	32	27	48	61	41
16	64	48	70	120	132	55	66	32	26	204	30	20
17	48	44	68	104	104	53	63	30	26	407	28	18
18	40	42	64	88	80	51	62	30	25	117	20	17
19	111	40	63	e82	68	50	59	29	25	38	20	17
20	56	42	57	e78	63	57	58	76	25	30	20	16
21	49	59	53	72	74	54	54	43	26	26	19	16
22	45	41	52	e62	90	48	e52	33	26	23	18	16
23	42	38	340	e63	86	188	e76	32	26	26	17	16
24	40	44	131	e58	74	143	e100	30	24	23	17	16
25	39	72	73	e60	73	73	e56	30	23	34	17	17
26	37	44	63	e61	70	64	50	31	23	26	18	18
27	34	39	60	e56	66	61	65	30	40	23	24	22
28	34	1260	55	e53	69	773	50	30	42	29	23	20
29	33	132	54	54	---	236	43	30	28	21	58	18
30	51	90	53	56	---	111	68	29	41	20	36	16
31	36	---	52	53	---	92	---	29	---	19	23	---
TOTAL	1631	3218	3524	3948	2601	3280	5190	1175	1135	1903	705	535
MEAN	52.6	107	114	127	92.9	106	173	37.9	37.8	61.4	22.7	17.8
MAX	116	1260	426	1270	333	773	2060	94	139	407	61	41
MIN	33	32	52	48	50	48	43	29	23	19	17	15
CFSM	1.29	2.63	2.79	3.12	2.28	2.59	4.24	0.93	0.93	1.50	0.56	0.44
IN.	1.49	2.93	3.21	3.60	2.37	2.99	4.73	1.07	1.03	1.74	0.64	0.49

STATISTICS OF MONTHLY MEAN DATA FOR PERIOD OF DAILY RECORD, BY WATER YEAR (WY)

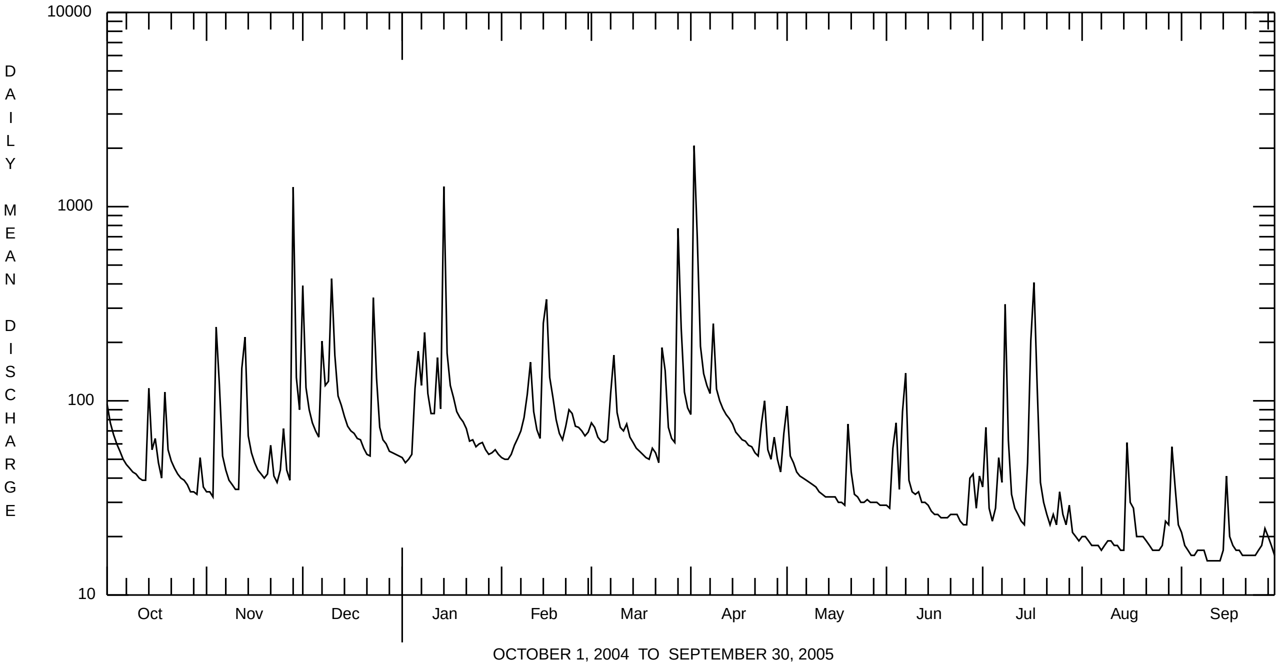
MEAN	32.9	47.6	66.3	64.9	78.5	99.0	77.6	51.1	62.5	38.9	39.6	43.1
MAX	122	146	210	127	119	162	173	77.5	219	136	107	188
(WY)	2004	2004	2004	2005	2004	2003	2005	1968	2001	2004	1967	2004
MIN	7.45	11.7	14.0	17.4	23.8	61.6	30.2	17.2	10.9	9.88	8.55	11.3
(WY)	1964	1966	1966	1966	2002	1965	1963	1963	1963	1962	1964	1968

e Estimated.

01473900 WISSAHICKON CREEK AT FORT WASHINGTON, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		FOR PERIOD OF DAILY RECORD	
ANNUAL TOTAL	35521		28845			
ANNUAL MEAN	97.1		79.0		59.6	
HIGHEST ANNUAL MEAN					114	2004
LOWEST ANNUAL MEAN					31.6	1965
HIGHEST DAILY MEAN	2040	Sep 28	2060	Apr 2	2490	Jun 17 2001
LOWEST DAILY MEAN	19	Jul 10,11	15	Sep 9-13	4.6	Jul 5 1963
ANNUAL SEVEN-DAY MINIMUM	22	Jul 5	16	Sep 7	5.6	Jul 1 1963
MAXIMUM PEAK FLOW			**a**5730	Apr 2	**a**11000	Jun 17 2001
MAXIMUM PEAK STAGE			12.65	Apr 2	**b**16.30	Jun 17 2001
INSTANTANEOUS LOW FLOW			13	Sep 5**c**	2.9	Sep 2 1963
ANNUAL RUNOFF (CFSM)	2.38		1.94		1.46	
ANNUAL RUNOFF (INCHES)	32.39		26.30		19.84	
10 PERCENT EXCEEDS	159		120		108	
50 PERCENT EXCEEDS	52		50		30	
90 PERCENT EXCEEDS	28		18		9.7	

a From rating curve extended above 3,670 ft^3/s on basis of slope-area measurement at gage height 16.30 ft.
b From floodmark.
c Also Sept. 10-14, 22, 24.



01473900 WISSAHICKON CREEK AT FORT WASHINGTON, PA--Continued
(Pennsylvania Water-Quality Network Station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 2002 to current year.

REMARKS.--Other data for the Water-Quality Network can be found on pages 386-432.

COOPERATION.--Samples were collected as part of the Pennsylvania Department of Environmental Protection Water-Quality Network (WQN) with cooperation from the Pennsylvania Department of Environmental Protection.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conductance, wat unf lab, µS/cm 25 degC (90095)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water unfltrd recoverable, mg/L (00916)	Magnesium, water, unfltrd recoverable, mg/L (00927)
NOV 2004													
09...	1210	1028	9813	35	11.7	7.6	7.9	663	660	8.9	180	45	16
JAN 2005													
12...	1200	1028	9813	131	13.2	7.5	7.8	437	436	6.5	120	29	11
MAR													
29...	1110	1028	9813	203	11.2	7.5	7.8	521	508	8.3	130	31	12
MAY													
24...	1210	1028	9813	30	8.1	7.6	7.9	729	714	14.9	180	44	17
JUL													
12...	1220	1028	9813	26	7.3	7.4	7.9	745	773	23.4	180	45	16
SEP													
07...	1330	1028	9813	16	9.0	7.7	7.8	978	1000	21.1	220	56	19

Date	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 105degC wat flt mg/L (00515)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia water, unfltrd mg/L as N (00610)	Nitrate water unfltrd mg/L as N (00620)	Nitrite water, unfltrd mg/L as N (00615)	Total nitrogen, water, unfltrd mg/L (00600)	Orthophosphate, water, unfltrd mg/L as P (70507)	Phosphorus, water, unfltrd mg/L (00665)	Organic carbon, water, unfltrd mg/L (00680)	Aluminum, water, unfltrd recoverable, µg/L (01105)	Copper, water, unfltrd recoverable, µg/L (01042)
NOV 2004													
09...	115	58	450	10	.120	6.2	<.200	7.2	1.15	1.4	4.9	<200	20
JAN 2005													
12...	76	29	200	18	.030	2.5	<.040	3.0	.34	.37	4.3	810	10
MAR													
29...	73	23	280	18	.060	1.9	<.040	2.5	.21	.31	--	1050	<10
MAY													
24...	113	67	480	4	.130	6.6	.090	7.5	1.19	1.4	--	<200	20
JUL													
12...	112	82	530	<2	.090	7.1	<.040	7.8	1.46	1.7	--	<200	10
SEP													
07...	113	120	620	18	.050	11	<.200	11	2.41	2.5	--	<200	20

Date	Iron, water, unfltrd recoverable, µg/L (01045)	Lead, water, unfltrd recoverable, µg/L (01051)	Manganese, water, unfltrd recoverable, µg/L (01055)	Nickel, water, unfltrd recoverable, µg/L (01067)	Zinc, water, unfltrd recoverable, µg/L (01092)
NOV 2004					
09...	100	<1.0	20	<50	28
JAN 2005					
12...	880	1.9	50	<50	19
MAR					
29...	1300	2.6	70	<50	19
MAY					
24...	230	1.2	60	<50	25
JUL					
12...	200	<1.0	40	<50	31
SEP					
07...	150	<1.0	30	<50	41

01473900 WISSAHICKON CREEK AT FORT WASHINGTON, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES

REMARKS.--Samples were collected using a D-Frame net with a mesh size of 500 µm. Samples represent counts per 100 animal (approximate) subsamples.

Date	08/11/04
Benthic macroinvertebrate	Count
Platyhelminthes	
Turbellaria (FLATWORMS)	
Tricladida	
Planariidae	20
Mollusca	
Bivalvia (CLAMS)	
Veneroida	
Sphaeriidae	
Sphaerium	1
Annelida	
Hirudinea (LEECHES)	
Arhynchobdellida	
Erpobdellidae	
Erpobdella	2
Oligochaeta (AQUATIC EARTHWORMS)	
Tubificida	
Tubificidae	6
Arthropoda	
Crustacea	
Amphipoda (SCUDS)	
Crangonyctidae	
Crangonyx	1
Stygonectes	1
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
Baetis	4
Trichoptera (CADDISFLIES)	
Hydropsychidae	
Cheumatopsyche	6
Hydropsyche	30
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
Stenelmis	26
Psephenidae (WATER PENNIES)	
Psephenus	1
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	15
Empididae (DANCE FLIES)	
Hemerodromia	1
Tipulidae (CRANE FLIES)	
Antocha	3
Total Organisms	117
Total Taxa	14

01474000 WISSAHICKON CREEK AT MOUTH, PHILADELPHIA, PA
(Pennsylvania Water-Quality Network Station)

LOCATION.--Lat 40°00'55", long 75°12'26", Philadelphia County, Hydrologic Unit 02040203, on left bank 100 ft upstream from dam at Ridge Avenue, 750 ft upstream from mouth, and 1,000 ft northwest of Gustine Lake in Philadelphia.

DRAINAGE AREA.--64.0 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1897 to September 1903, January 1905 to July 1906, October 1965 to current year. Prior to October 1965, records furnished by Department of Public Works, City of Philadelphia. Records for 1971-74 published in WDR PA-81-1. Prior to October 1965, published as "*near Philadelphia*".

REVISED RECORDS.--WSP 1302: 1905: WDR PA-89-1: 1988.

GAGE.--Water-stage recorder, crest-stage gage and concrete control. Datum of gage is 26.41 ft above National Geodetic Vertical Datum of 1929. Prior to October 1965, water-stage recorder at about same site and datum.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year. Satellite telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,900 ft^3/s and maximum (*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Nov. 28	1545	3,650	5.97	Apr. 3	0045	*6,620	*7.79
Jan. 14	1530	3,660	5.98				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	161	51	572	85	85	120	135	175	52	58	40	42
2	119	52	213	81	84	112	2100	77	51	147	40	38
3	97	52	146	83	83	96	2140	70	82	59	40	37
4	81	257	129	88	86	87	366	66	150	50	38	33
5	70	333	118	179	92	85	261	66	65	48	38	31
6	66	76	106	277	99	86	217	63	100	74	37	30
7	62	67	283	174	107	116	184	67	276	63	34	28
8	59	64	231	309	118	281	386	66	66	505	39	28
9	59	62	155	192	152	144	191	63	58	98	40	27
10	60	61	599	135	241	108	157	59	58	52	38	27
11	58	61	329	128	153	101	141	57	60	46	37	28
12	57	187	179	258	116	113	124	57	57	44	36	26
13	57	421	152	143	104	99	113	56	55	43	34	23
14	208	100	135	1650	261	92	105	57	53	42	33	26
15	80	75	119	331	646	87	100	61	48	51	141	64
16	83	68	116	220	190	83	94	57	49	181	46	46
17	66	65	113	188	178	79	92	56	48	492	54	40
18	60	63	106	160	119	75	84	54	50	321	41	37
19	207	61	105	147	103	78	78	52	51	61	39	32
20	79	62	99	142	93	89	76	130	50	50	41	29
21	63	79	88	129	112	89	72	106	44	47	41	30
22	58	60	84	112	131	78	71	71	46	45	37	28
23	55	53	381	e115	134	243	121	65	44	44	33	25
24	54	55	297	e105	113	284	159	63	40	42	30	25
25	53	81	122	e100	110	115	79	61	45	45	29	25
26	52	59	103	e96	105	94	70	59	48	49	29	26
27	51	55	97	e88	99	90	86	60	66	42	34	35
28	51	1590	89	90	101	859	74	58	81	46	44	27
29	50	252	88	91	---	565	69	62	53	43	56	28
30	67	148	86	94	---	181	102	57	59	41	72	27
31	57	---	83	90	---	142	---	56	---	41	41	---
TOTAL	2400	4670	5523	6080	4015	4871	8047	2127	2005	2970	1332	948
MEAN	77.4	156	178	196	143	157	268	68.6	66.8	95.8	43.0	31.6
MAX	208	1590	599	1650	646	859	2140	175	276	505	141	64
MIN	50	51	83	81	83	75	69	52	40	41	29	23
CFSM	1.21	2.43	2.78	3.06	2.24	2.46	4.19	1.07	1.04	1.50	0.67	0.49
IN.	1.40	2.71	3.21	3.53	2.33	2.83	4.68	1.24	1.17	1.73	0.77	0.55

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 2005, BY WATER YEAR (WY)

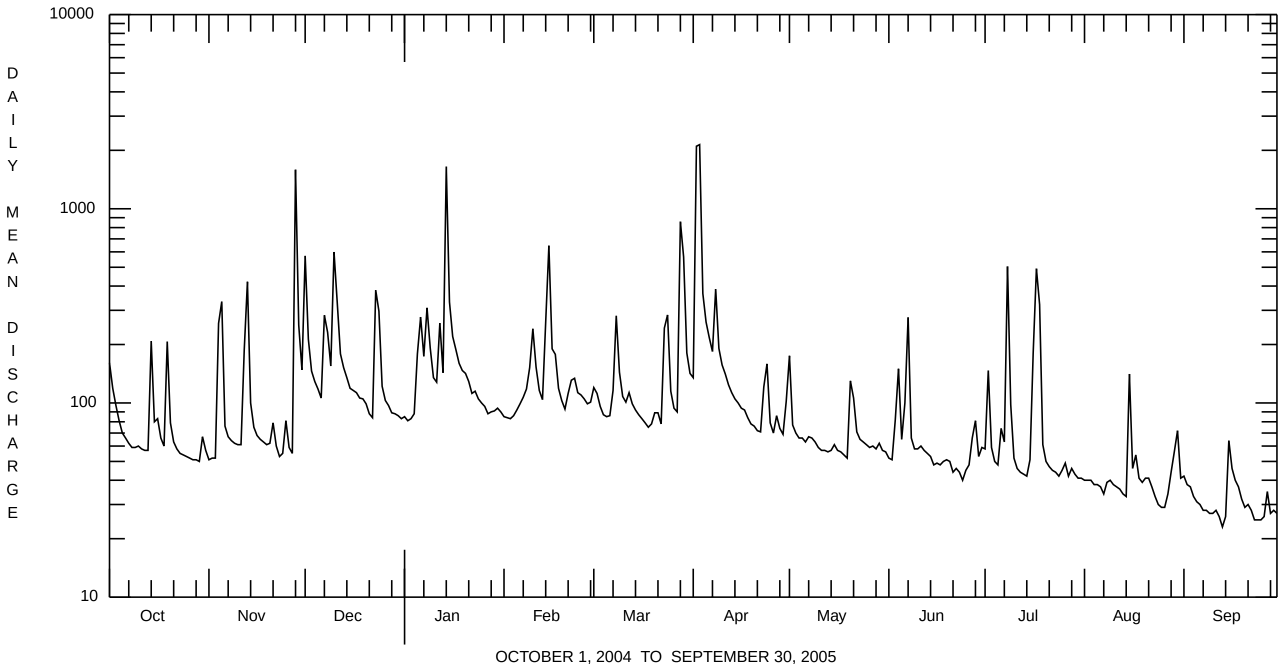
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	70.8	90.0	119	119	124	153	142	113	95.9	83.4	76.6	89.4
MAX	216	265	398	378	266	370	410	229	306	230	174	365
(WY)	1997	1973	1997	1979	1979	1994	1983	1984	2001	1975	2004	1999
MIN	23.1	17.7	22.7	24.3	37.0	40.7	41.3	50.8	32.0	23.7	19.8	23.0
(WY)	1966	1966	1966	1981	1969	1985	1985	1986	1986	1999	1966	1968

e Estimated.

01474000 WISSAHICKON CREEK AT MOUTH, PHILADELPHIA, PA--Continued

SUMMARY STATISTICS	**FOR 2004 CALENDAR YEAR**		**FOR 2005 WATER YEAR**		**WATER YEARS 1966 - 2005**	
ANNUAL TOTAL	56743		44988			
ANNUAL MEAN	155		123		106	
HIGHEST ANNUAL MEAN					176	2004
LOWEST ANNUAL MEAN					50.6	1966
HIGHEST DAILY MEAN	4920	Sep 29	2140	Apr 3	5560	Sep 16 1999
LOWEST DAILY MEAN	41	Jul 6,11	23	Sep 13	8.8	Aug 30 1995
ANNUAL SEVEN-DAY MINIMUM	44	Jul 5	26	Sep 8	12	Aug 27 1966
MAXIMUM PEAK FLOW			**a**6620	Apr 3	**a**19800	Sep 16 1999
MAXIMUM PEAK STAGE			7.79	Apr 3	**b**11.50	Sep 16 1999
INSTANTANEOUS LOW FLOW			21	Sep 13	2.0	Jul 18 1905**c**
ANNUAL RUNOFF (CFSM)	2.42		1.93		1.66	
ANNUAL RUNOFF (INCHES)	32.98		26.15		22.54	
10 PERCENT EXCEEDS	261		215		183	
50 PERCENT EXCEEDS	78		75		60	
90 PERCENT EXCEEDS	51		37		28	

a From rating curve extended above 4,000 ft^3/s on basis of slope-area measurement at peak flow.
b From floodmark. Maximum recorded 10.77 ft.
c Also July 19. Minimum observed is outside computed statistical period.



01474000 WISSAHICKON CREEK AT MOUTH, PHILADELPHIA, PA--Continued
(Pennsylvania Water-Quality Network Station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 2002 to current year.

REMARKS.--Other data for the Water-Quality Network can be found on pages 386-432.

COOPERATION.--Samples were collected as part of the Pennsylvania Department of Environmental Protection Water-Quality Network (WQN) with cooperation from the Pennsylvania Department of Environmental Protection.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conductance, wat unf lab, µS/cm 25 degC (90095)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water unfltrd recover -able, mg/L (00916)	Magnesium, water, unfltrd recover -able, mg/L (00927)
NOV 2004													
08...	1100	1028	9813	65	11.6	7.7	8.0	582	578	10	190	43	20
JAN 2005													
06...	1150	1028	9813	379	12.9	7.9	8.0	632	644	7.1	160	38	16
MAR													
07...	1150	1028	9813	96	16.9	8.7	8.6	850	865	5.9	210	49	22
MAY													
25...	1210	1028	9813	65	10.4	8.1	8.1	666	652	13.7	210	47	23
JUL													
21...	1130	1028	9813	48	8.3	8.0	8.2	565	588	24.4	170	38	17
SEP													
21...	1150	1028	9813	33	9.5	8.0	8.3	783	777	20.4	230	50	26

Date	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 105degC wat flt mg/L (00515)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia water, unfltrd mg/L as N (00610)	Nitrate water unfltrd mg/L as N (00620)	Nitrite water, unfltrd mg/L as N (00615)	Total nitrogen, water, unfltrd mg/L (00600)	Orthophosphate, water, unfltrd mg/L as P (70507)	Phosphorus, water, unfltrd mg/L (00665)	Organic carbon, water, unfltrd mg/L (00680)	Aluminum, water, unfltrd recover -able, µg/L (01105)	Copper, water, unfltrd recover -able, µg/L (01042)
NOV 2004													
08...	123	40	420	6	<.020	4.4	<.200	4.9	.52	.59	4.1	<200	<10
JAN 2005													
06...	87	36	350	16	.050	3.3	<.200	3.8	.37	.42	3.6	500	<10
MAR													
07...	115	42	510	<2	<.020	4.0	<.200	4.7	.38	.42	3.6	<200	<10
MAY													
25...	134	45	440	4	.050	4.9	<.040	5.4	.68	.79	--	<200	<10
JUL													
21...	123	39	400	10	.030	4.2	<.200	4.2	.55	.61	--	<200	<10
SEP													
21...	151	64	540	<2	.030	5.7	<.200	5.8	.85	.95	--	<200	<10

Date	Iron, water, unfltrd recover -able, µg/L (01045)	Lead, water, unfltrd recover -able, µg/L (01051)	Manganese, water, unfltrd recover -able, µg/L (01055)	Nickel, water, unfltrd recover -able, µg/L (01067)	Zinc, water, unfltrd recover -able, µg/L (01092)
NOV 2004					
08...	90	<1.0	10	<50	10
JAN 2005					
06...	670	2.0	40	<50	19
MAR					
07...	100	<1.0	30	<50	<10
MAY					
25...	110	<1.0	10	<50	<10
JUL					
21...	130	<1.0	20	<50	<10
SEP					
21...	140	1.2	30	<50	14

01474000 WISSAHICKON CREEK AT MOUTH, PHILADELPHIA, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES

REMARKS.--Samples were collected using a D-Frame net with a mesh size of 500 µm. Samples represent counts per 100 animal (approximate) subsamples.

Date	09/15/04
Benthic macroinvertebrate	Count
Platyhelminthes	
Turbellaria (FLATWORMS)	
Tricladida	
Planariidae	3
Nematoda (NEMATODES)	2
Nemertea (PROBOSCIS WORMS)	
Enopla	
Hoplonemertea	
Tetrastemmatidae	
Prostoma	4
Annelida	
Hirudinea (LEECHES)	
Arhynchobdellida	
Erpobdellidae	
Erpobdella	1
Oligochaeta (AQUATIC EARTHWORMS)	
Tubificida	
Naididae	1
Arthropoda	
Crustacea	
Amphipoda (SCUDS)	
Gammaridae	
Gammarus	1
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
Baetis	47
Heptageniidae	
Stenonema	1
Trichoptera (CADDISFLIES)	
Hydropsychidae	
Cheumatopsyche	3
Hydropsyche	12
Hydroptilidae	
Leucotrichia	1
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
Stenelmis	2
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	25
Total Organisms	103
Total Taxa	13

01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA

LOCATION.--Lat 39°58'04", long 75°11'20", Philadelphia County, Hydrologic Unit 02040203, on right bank 150 ft upstream from Fairmount Dam, 1,500 ft upstream from bridge on Spring Garden Street in Philadelphia, and 8.7 mi upstream from mouth.

DRAINAGE AREA.--1,893 mi^2.

PERIOD OF RECORD.--October 1931 to current year. Records for January 1898 to December 1912, published in WSP 35, 48, 65, 82, 97, 125, 166, 202, 214, 261, 301, and 381 have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 756: Drainage area. WSP 1302: 1936(M). WSP 1432: 1945. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 5.74 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 25, 1956, water-stage recorder at site on right bank just upstream from Fairmount Dam at same datum. Nov. 26, 1956, to Oct. 6, 1966, water-stage recorder at site on left bank 40 ft upstream from Fairmount Dam at same datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Still Creek Reservoir (station 01469200) since February 1933, Blue Marsh Lake (station 01470870) since April 1979, Green Lane Reservoir (station 01472200) since December 1956 and to some extent by Lake Ontelaunee. Daily mean discharges do not include diversion above station by city of Philadelphia for municipal water supply. Satellite and landline telemetry at station.

COOPERATION.--Records of diversion provided by Philadelphia Water Department.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 4, 1869 reached a stage of 17.0 ft, discharge, about 135,000 ft^3/s. Flood of Mar. 1, 1902 reached a stage of 14.8 ft, discharge, about 98,000 ft^3/s.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 18,000 ft^3/s and maximum (*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)
Nov. 28	1730	39,000	10.40
Dec. 1	1930	20,200	8.64
Jan. 14	1830	34,300	10.01
Mar. 29	1830	34,000	9.98
Apr. 3	0430	*56,800	*11.74

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9330	3070	14500	3480	2660	3330	8220	3630	1220	1110	845	678
2	6850	2500	15400	3380	2550	3290	21200	3210	1240	1270	756	580
3	5530	2550	11100	3180	2480	2990	46300	2840	1380	1050	676	592
4	4930	3130	8540	3140	2380	2680	25800	2670	2060	867	657	560
5	4350	6070	7080	3910	2470	2580	16600	2480	1600	784	588	543
6	3800	3850	5860	6230	2580	2580	12600	2310	1550	1510	601	580
7	3320	3140	5750	7500	2780	2920	10500	2310	3270	1310	666	522
8	3010	2850	7280	7560	3010	5140	13200	2280	1920	4270	892	578
9	2880	2520	5790	10300	3470	5070	9350	2190	1530	6150	1470	592
10	2750	2270	11000	8120	4820	4270	7000	2080	1390	3360	1070	566
11	2590	2110	12800	7170	4640	3920	6200	1990	1410	2220	940	609
12	2430	2660	10300	8060	3520	3840	5420	1890	1250	1410	733	644
13	2290	6420	8180	6900	3020	3630	4950	1780	1270	1210	711	685
14	2890	4280	6950	19600	3240	3370	4640	1750	1150	1560	731	632
15	3250	3320	5990	19300	10400	3130	4310	1750	1070	1940	1460	1090
16	4930	2940	5310	12800	7710	2920	3940	1840	982	2440	982	903
17	3770	2790	4890	9720	6650	2820	3680	1850	866	3100	1020	711
18	2950	2660	4470	7700	5200	2720	3570	1660	901	4470	872	767
19	3730	2450	4100	6240	4320	2630	3360	1570	838	3100	716	673
20	4690	2460	3910	5740	3870	2650	3160	1820	873	2610	816	564
21	3970	2640	3420	5190	3860	2860	2930	2030	841	1920	855	527
22	3420	2660	3140	4370	3990	2690	2770	1820	788	1470	821	563
23	3220	2410	3930	3640	4000	3190	3300	1620	755	1200	682	575
24	2880	2310	10600	4350	3860	7860	7820	1480	694	1070	678	619
25	2750	2880	7340	4120	3560	6220	4920	1480	701	1100	685	664
26	2520	3680	5550	4020	3390	5250	3620	1500	647	1110	615	761
27	2340	3560	4850	3660	3230	4600	3370	1440	770	1050	751	769
28	2210	21900	4610	2980	3160	9650	3340	1370	849	1310	866	648
29	2100	20500	4380	2750	---	26400	3000	1340	766	1160	1090	769
30	2970	12500	4010	2860	---	17100	3020	1400	853	905	1120	748
31	3860	---	3640	2790	---	11100	---	1340	---	838	851	---
TOTAL	112510	139080	214670	200760	110820	163400	252090	60720	35434	58874	26216	19712
MEAN	3629	4636	6925	6476	3958	5271	8403	1959	1181	1899	846	657
MAX	9330	21900	15400	19600	10400	26400	46300	3630	3270	6150	1470	1090
MIN	2100	2110	3140	2750	2380	2580	2770	1340	647	784	588	522
(†)	186	190	197	195	194	181	178	181	194	201	215	208

† Diversion for municipal supply of City of Philadelphia, equivalent in cubic feet per second.

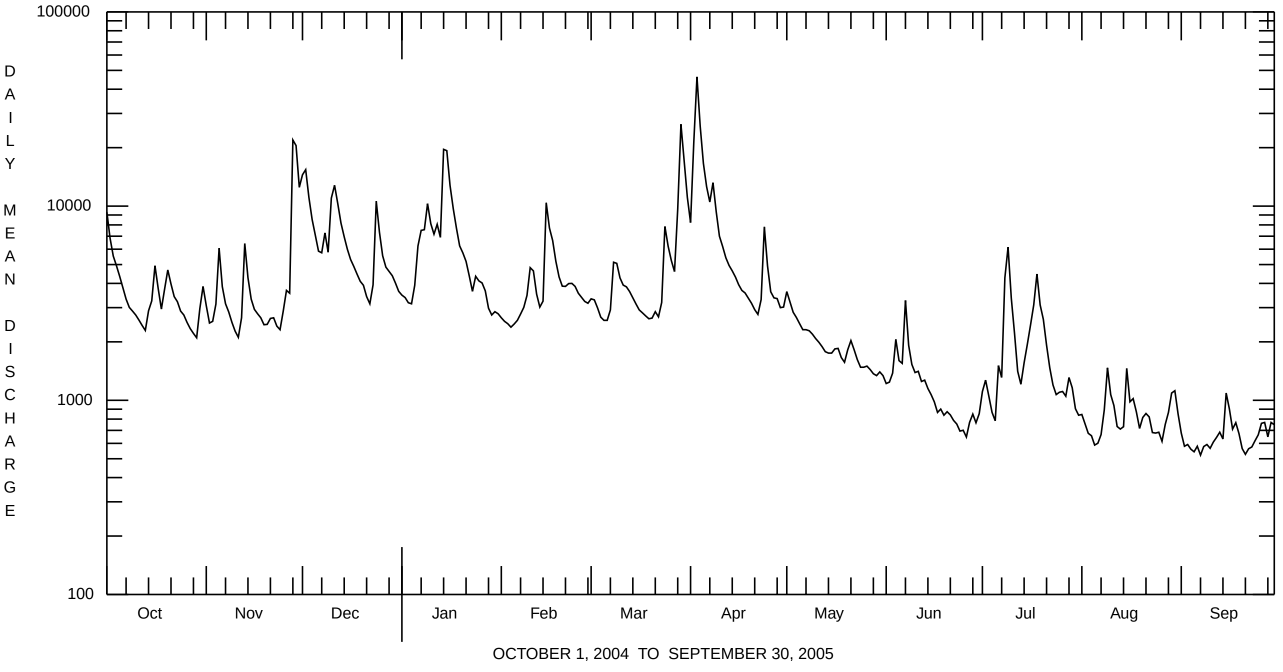
01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 2005, BY WATER YEAR (WY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	1494	2381	3298	3380	3623	4869	4292	3099	2213	1687	1438	1549
MAX	5624	6272	11150	11400	8136	13320	11620	9943	11640	6434	7980	6894
(WY)	1997	1973	1997	1979	1939	1936	1983	1989	1972	1984	1933	2004
MIN	89.4	223	444	340	647	1552	1237	693	261	116	140	117
(WY)	1942	1932	1981	1981	1934	1981	1985	1965	1965	1966	1966	1932

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1932 - 2005	
ANNUAL TOTAL	1647935		1394286			
ANNUAL MEAN	4503		3820		2773	
HIGHEST ANNUAL MEAN					4791	1984
LOWEST ANNUAL MEAN					1014	1965
HIGHEST DAILY MEAN	40100	Sep 29	46300	Apr 3	93400	Jun 23 1972
LOWEST DAILY MEAN	844	Jul 11	522	Sep 7	0.60	Sep 2 1966
ANNUAL SEVEN-DAY MINIMUM	1000	Jul 5	563	Sep 4	24	Sep 28 1941
MAXIMUM PEAK FLOW			56800	Apr 3	[a]103000	Jun 23 1972
MAXIMUM PEAK STAGE			11.74	Apr 3	14.65	Jun 23 1972
INSTANTANEOUS LOW FLOW			307	Sep 22	0.00	Sep 2 1966[b]
10 PERCENT EXCEEDS	8290		7750		5950	
50 PERCENT EXCEEDS	3160		2790		1710	
90 PERCENT EXCEEDS	1830		714		450	

a From rating curve extended above 92,000 ft^3/s.
b No flow over dam at times.



LAKES AND RESERVOIRS IN SCHUYLKILL RIVER BASIN

01469200 STILL CREEK RESERVOIR.--Lat 40°51'25", long 75°59'30", Schuylkill County, Hydrologic Unit 02040106, at dam on Still Creek, 1.0 mi upstream from mouth, and 2.3 mi north of Hometown. DRAINAGE AREA, 7.19 mi^2. PERIOD OF RECORD, January 1933 to current year. GAGE, nonrecording gage. Datum of gage is sea level (levels by Panther Valley Water Co.).

REMARKS.--Reservoir formed by earthfill dam with ungated concrete spillway at elevation 1,182.00 ft. Storage began February 1933. Capacity at elevation 1,182.00 ft is 8,290 acre-ft. Reservoir is used for municipal water supply. Figures given herein represent total contents. Regulation by valves on pipe through dam. COOPERATION.--Records provided by the borough of Tamaqua.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 8,570 acre-ft, Oct. 15, 1955, elevation, 1,182.92 ft, but may have been greater during 1950 or 1951 water years; minimum contents (after first filling), 588 acre-ft, Dec. 8, 1944, elevation, 1,136.70 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 8,420 acre-ft, Nov. 29, elevation, 1,182.5 ft; minimum contents, 5,860 acre-ft, Sept. 30, elevation, 1,173.2 ft.

01470870 BLUE MARSH LAKE.--Lat 40°22'45", long 76°01'59", Berks County, Hydrologic Unit 02040203, at dam on Tulpehocken Creek, 0.8 mi upstream from gaging station on Tulpehocken Creek (station 01470960), 1.0 mi northeast of Blue Marsh, 1.9 mi upstream from Rebers Bridge, and 5.1 mi southeast of Bernville. DRAINAGE AREA, 175 mi^2. PERIOD OF RECORD, April 1979 to current year. GAGE, water-stage recorder (U.S. Army Corps of Engineers datum).

REMARKS.--Lake formed by earthfill dam with ungated concrete spillway at elevation 307.00 ft. Storage began April 23, 1979. Capacity at elevation 307.00 ft is 50,000 acre-ft. Dead storage is 3,000 acre-ft. Lake is used for flood control, water supply, and recreation. Figures herein represent total contents. Satellite telemetry at station. COOPERATION.--Records provided by U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 39,480 acre-ft, Apr. 17, 1983, elevation, 301.65 ft; minimum contents (after first filling), 13,150 acre-ft, Mar. 18, 1994, elevation, 279.88 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 31,800 acre-ft, Apr. 4, elevation, 296.90 ft; minimum contents, 16,700 acre-ft, Mar. 21, elevation, 283.99 ft.

01472200 GREEN LANE RESERVOIR.--Lat 40°20'30", long 75°28'45", Montgomery County, Hydrologic Unit 02040203, at dam on Perkiomen Creek, 0.4 mi west of Green Lane, and 2.1 mi upstream from Unami Creek. DRAINAGE AREA, 70.9 mi^2. PERIOD OF RECORD, December 1956 to current year. GAGE, water-stage recorder. Datum of gage is sea level (levels by Aqua Pennsylvania Water Co.).

REMARKS.--Reservoir formed by concrete, gravity-type dam with ungated spillway at elevation 286.00 ft. Storage began December 21, 1956. Capacity at elevation 286.00 ft is 13,430 acre-ft. Reservoir is used for municipal water supply. Figures given herein represent total contents. Regulation by valves on pipe through dam. COOPERATION.--Records provided by Aqua Pennsylvania Water Co.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 17,030 acre-ft, June 23, 1972, elevation, 290.05 ft; minimum contents (after first filling), 1,270 acre-ft, Aug. 25, 1957, elevation, 251.60 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 14,830 acre-ft, Apr. 3, elevation, 287.58 ft; minimum contents, 11,570 acre-ft, Sept. 30, elevation, 283.75 ft.

01472618 DISTRIBUTARY FROM BRADSHAW RESERVOIR.--Lat 40°24'50", long 75°13'13", Bucks County, Hydrologic Unit 02040203, about 0.5 mi upstream from station 01472620, East Branch Perkiomen Creek near Dublin, Pa. PERIOD OF RECORD, October 1994 to current year.

REMARKS.--Water from the Delaware River near Point Pleasant is diverted to Bradshaw Reservoir located in Geddes Run Basin on Tohickon Creek, a tributary to the Delaware River, for consumptive use by the Philadelphia Electric Company. Figures in the table represent the equivalent monthly mean streamflow, in cubic feet per second, diverted from Bradshaw Reservoir to the East Branch Perkiomen Creek. COOPERATION.--Records provided by Philadelphia Electric Company.

SCHUYLKILL RIVER BASIN

Lakes and Reservoirs in Schuylkill River Basin--Continued

MONTHEND ELEVATION, IN FEET ABOVE SEA LEVEL, AND CONTENTS AT 2400 HRS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in ft^3/s)	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in ft^3/s)
	01469200 Still Creek Reservoir			01470870 Blue Marsh Lake		
Sept. 30	1,182.10	8,320	--	292.12	25,400	--
Oct. 31	1,182.12	8,320	0	285.91	18,500	-112
Nov. 30	1,182.27	8,360	+0.7	287.99	20,700	+37.0
Dec. 31	1,182.17	8,340	-0.3	285.04	17,700	-48.8
CAL YR 2004	--	--	0	--	--	-0.1
Jan. 31	1,182.08	8,310	-0.5	285.28	17,900	+3.3
Feb. 28	1,182.06	8,300	-0.2	285.10	17,700	-3.6
Mar. 31	1,182.17	8,340	+0.6	290.16	23,100	+87.8
Apr. 30	1,182.00	8,290	-0.8	290.15	23,100	0
May 31	1,181.33	8,110	-2.9	290.32	23,300	+3.3
June 30	1,180.50	7,880	-3.9	290.19	23,100	-3.4
July 31	1,178.58	7,350	-8.6	289.95	22,800	-4.9
Aug. 31	1,174.33	6,160	-19.4	289.11	21,900	-14.6
Sept. 30	1,173.25	5,860	-5.0	284.32	17,000	-82.3
WTR YR 2005	--	--	-3.4	--	--	-11.6

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in ft^3/s)
	01472200 Green Lane Reservoir		
Sept. 30	286.32	13,700	--
Oct. 31	286.13	13,600	-1.6
Nov. 30	286.30	13,700	+1.7
Dec. 31	286.12	13,500	-3.3
CAL YR 2004	--	--	-0.1
Jan. 31	286.09	13,500	0
Feb. 28	286.12	13,500	0
Mar. 31	286.28	13,700	+3.3
Apr. 30	286.15	13,600	-1.7
May 31	286.02	13,400	-3.3
June 30	286.12	13,500	+1.7
July 31	285.82	13,300	-3.3
Aug. 31	285.17	12,700	-9.8
Sept. 30	283.75	11,600	-18.5
WTR YR 2005	--	--	-2.9

Date	Monthly Mean Discharge (equivalent in ft^3/s
01472618 Distributary from Bradshaw Reservoir	
Oct 2004	22.0
Nov	11.0
Dec	10.5
Jan 2005	10.7
Feb	10.3
Mar	10.3
Apr	10.1
May	13.2
June	10.6
July	10.8
Aug	17.9
Sept	35.7

01474703 DELAWARE RIVER AT FORT MIFFLIN AT PHILADELPHIA, PA

LOCATION.--Lat 39°52'45", long 75°12'11", Philadelphia County, Hydrologic Unit 02040202, on right bank at outer end of L-shaped pier at Fort Mifflin, 0.4 mi downstream from mouth of Schuylkill River, and at Philadelphia.

DRAINAGE AREA.--10,000 mi^2, approximately.

PERIOD OF RECORD.--Water years 1970-76, 1981 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 1970 to December 1971, February 1981 to current year.
WATER TEMPERATURE: June 1972 to June 1976, February 1981 to current year.

INSTRUMENTATION.--Water-quality monitor July 1970 to June 1976 and since Feb. 1981. Satellite telemetry at station.

REMARKS.--Data collected only during drought conditions and at the request of the Delaware River Basin Commission.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1,340 microsiemens, Aug. 11, 1999; minimum, 90 microsiemens, Apr. 11, 17, 19, 29, 1983, Apr. 29, 1984.
WATER TEMPERATURE: Maximum, 31.0°C, Aug. 4-6, 13, 1975; minimum, 0.5°C, Feb. 5, 1981, Jan. 11, 13, 14, 1999.

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° CELSIUS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	436	397	412
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	469	394	421
7	---	---	---	---	---	---	---	---	---	470	403	428
8	---	---	---	---	---	---	---	---	---	475	408	430
9	---	---	---	---	---	---	---	---	---	462	413	436
10	---	---	---	---	---	---	---	---	---	485	419	445
11	---	---	---	---	---	---	---	---	---	486	427	448
12	---	---	---	---	---	---	---	---	---	503	431	456
13	---	---	---	---	---	---	---	---	---	498	428	458
14	---	---	---	---	---	---	---	---	---	573	446	477
15	---	---	---	---	---	---	---	---	---	540	440	475
16	---	---	---	---	---	---	---	---	---	540	459	487
17	---	---	---	---	---	---	---	---	---	557	462	495
18	---	---	---	---	---	---	---	---	---	570	460	498
19	---	---	---	---	---	---	---	---	---	574	452	495
20	---	---	---	---	---	---	---	---	---	591	462	509
21	---	---	---	---	---	---	---	---	---	592	465	506
22	---	---	---	---	---	---	---	---	---	616	474	524
23	---	---	---	---	---	---	---	---	---	620	479	529
24	---	---	---	---	---	---	---	---	---	829	494	548
25	---	---	---	---	---	---	---	---	---	709	513	557
26	---	---	---	---	---	---	---	---	---	706	531	569
27	---	---	---	---	---	---	---	---	---	658	527	559
28	---	---	---	---	---	---	---	---	---	809	524	575
29	---	---	---	---	---	---	---	---	---	698	533	578
30	---	---	---	---	---	---	---	---	---	673	532	570
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	829	394	496

DELAWARE RIVER BASIN

01474703 DELAWARE RIVER AT FORT MIFFLIN AT PHILADELPHIA, PA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	26.9	26.3	26.6
4	---	---	---	---	---	---	---	---	---	26.7	26.1	26.4
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	26.4	25.7	26.1
7	---	---	---	---	---	---	---	---	---	26.3	25.4	26.0
8	---	---	---	---	---	---	---	---	---	26.2	25.5	25.9
9	---	---	---	---	---	---	---	---	---	26.1	25.4	25.8
10	---	---	---	---	---	---	---	---	---	26.1	24.9	25.8
11	---	---	---	---	---	---	---	---	---	26.0	25.1	25.7
12	---	---	---	---	---	---	---	---	---	26.0	25.2	25.7
13	---	---	---	---	---	---	---	---	---	26.0	25.5	25.7
14	---	---	---	---	---	---	---	---	---	26.0	25.5	25.8
15	---	---	---	---	---	---	---	---	---	26.2	25.7	25.9
16	---	---	---	---	---	---	---	---	---	26.3	25.8	26.0
17	---	---	---	---	---	---	---	---	---	26.4	25.8	26.1
18	---	---	---	---	---	---	---	---	---	26.3	25.8	26.1
19	---	---	---	---	---	---	---	---	---	26.4	25.7	26.1
20	---	---	---	---	---	---	---	---	---	26.1	25.6	26.0
21	---	---	---	---	---	---	---	---	---	26.1	25.5	25.8
22	---	---	---	---	---	---	---	---	---	26.0	25.1	25.7
23	---	---	---	---	---	---	---	---	---	25.9	25.3	25.7
24	---	---	---	---	---	---	---	---	---	25.6	24.6	25.2
25	---	---	---	---	---	---	---	---	---	25.2	24.8	25.0
26	---	---	---	---	---	---	---	---	---	25.1	24.6	24.8
27	---	---	---	---	---	---	---	---	---	24.9	24.2	24.6
28	---	---	---	---	---	---	---	---	---	24.6	23.8	24.2
29	---	---	---	---	---	---	---	---	---	24.0	23.4	23.8
30	---	---	---	---	---	---	---	---	---	23.6	22.6	23.3
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	26.9	22.6	25.5

01475530 COBBS CREEK AT U.S. HIGHWAY NO. 1 AT PHILADELPHIA, PA

LOCATION.--Lat 39°58'29", long 75°16'49", Philadelphia County, Hydrologic Unit 02040202, on left bank 30 ft downstream from bridge on U.S. Highway No. 1 and 50 ft upstream from unnamed tributary at west city limits of Philadelphia.

DRAINAGE AREA.--4.78 mi^2.

PERIOD OF RECORD.--October 1964 to September 1981. Prior to October 1973 published as "near Philadelphia". September 2004 to current year.

GAGE.--Water-stage recorder, concrete control, and crest-stage gage. Datum of gage is 121.76 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except those above 124 ft^3/s, which are poor. Satellite telemetry at station. Several measurements of water temperature were made during the year.

PEAK DISCHARGES FOR 2004 WATER YEAR.--Peak discharges greater than base discharge of 750 ft^3/s (revised) and maximum (*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Sept. 28, 2004	1800	2,070	9.00	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, **WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004**
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	4.1
10	---	---	---	---	---	---	---	---	---	---	---	3.7
11	---	---	---	---	---	---	---	---	---	---	---	3.5
12	---	---	---	---	---	---	---	---	---	---	---	3.5
13	---	---	---	---	---	---	---	---	---	---	---	3.4
14	---	---	---	---	---	---	---	---	---	---	---	3.5
15	---	---	---	---	---	---	---	---	---	---	---	3.5
16	---	---	---	---	---	---	---	---	---	---	---	3.6
17	---	---	---	---	---	---	---	---	---	---	---	3.5
18	---	---	---	---	---	---	---	---	---	---	---	42
19	---	---	---	---	---	---	---	---	---	---	---	4.0
20	---	---	---	---	---	---	---	---	---	---	---	3.5
21	---	---	---	---	---	---	---	---	---	---	---	3.3
22	---	---	---	---	---	---	---	---	---	---	---	3.3
23	---	---	---	---	---	---	---	---	---	---	---	3.2
24	---	---	---	---	---	---	---	---	---	---	---	3.2
25	---	---	---	---	---	---	---	---	---	---	---	3.2
26	---	---	---	---	---	---	---	---	---	---	---	3.2
27	---	---	---	---	---	---	---	---	---	---	---	3.2
28	---	---	---	---	---	---	---	---	---	---	---	204
29	---	---	---	---	---	---	---	---	---	---	---	27
30	---	---	---	---	---	---	---	---	---	---	---	4.6
31	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---
MEAN	---	---	---	---	---	---	---	---	---	---	---	---
MAX	---	---	---	---	---	---	---	---	---	---	---	---
MIN	---	---	---	---	---	---	---	---	---	---	---	---
CFSM	---	---	---	---	---	---	---	---	---	---	---	---
IN.	---	---	---	---	---	---	---	---	---	---	---	---

01475530 COBBS CREEK AT U.S. HIGHWAY NO. 1 AT PHILADELPHIA, PA--Continued

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 750 ft^3/s (revised) and maximum (*****)

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Apr. 2	1715	*1,870	*8.61	July 16	1745	839	6.72
July 15	1745	798	6.62				

DISCHARGE, CUBIC FEET PER SECOND, **WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005**
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.6	4.2	33	4.4	4.4	10	7.6	10	4.6	4.5	3.0	3.5
2	5.1	4.2	6.3	4.3	4.3	8.3	241	6.9	4.5	3.7	2.9	3.2
3	4.7	4.2	5.6	4.6	4.4	7.6	26	6.5	22	3.5	2.7	3.2
4	4.5	41	5.3	4.9	4.8	7.6	11	6.2	8.1	3.5	2.8	3.8
5	4.3	7.2	5.0	15	5.2	7.6	9.6	6.1	5.2	6.1	e2.7	2.9
6	4.1	5.0	4.8	12	5.3	7.8	8.9	6.1	28	5.3	e2.7	3.0
7	4.1	4.5	18	5.5	5.2	9.7	8.5	6.1	7.7	3.5	e2.7	3.1
8	3.9	4.2	7.4	14	5.5	17	20	5.9	5.0	53	e3.0	3.0
9	3.9	4.2	15	5.4	6.0	8.8	8.4	5.8	4.7	4.7	3.5	3.1
10	4.0	4.1	20	4.8	8.0	8.3	7.9	5.8	4.7	4.0	2.9	3.0
11	4.0	4.1	8.2	8.8	5.2	8.3	7.6	5.8	4.6	3.8	2.7	2.9
12	4.0	26	6.1	7.7	4.9	9.0	7.4	5.6	4.4	3.5	2.6	3.5
13	3.9	15	5.6	4.9	4.7	7.7	7.2	5.5	4.2	3.6	2.5	3.2
14	26	5.3	5.3	93	43	7.6	7.1	5.5	4.1	3.6	2.5	3.9
15	5.9	4.9	5.1	7.3	16	7.5	6.9	5.4	4.0	54	37	9.3
16	5.0	4.7	5.1	5.9	13	7.4	6.9	5.3	4.7	48	8.9	3.6
17	4.4	4.5	5.0	5.4	8.7	7.3	7.0	5.3	4.2	23	6.0	7.5
18	4.5	4.4	4.9	5.1	7.9	7.3	6.8	5.1	4.1	5.7	3.7	4.6
19	22	4.4	5.3	5.0	7.6	7.3	6.8	5.1	4.2	4.0	4.7	3.3
20	4.9	5.1	4.7	5.0	7.5	9.1	6.8	17	4.2	3.8	3.8	3.2
21	6.8	5.2	4.6	4.7	11	7.6	6.6	5.9	4.1	3.4	3.5	3.1
22	5.0	4.1	4.6	4.6	11	7.2	6.7	5.6	4.2	3.3	3.3	2.9
23	4.4	4.1	26	5.1	8.5	35	17	5.3	4.0	3.2	3.3	3.0
24	4.4	5.9	5.9	4.7	8.2	11	9.0	5.2	3.9	3.0	3.2	3.1
25	4.2	6.4	4.8	4.6	9.1	7.8	6.7	5.3	3.8	3.3	3.1	3.1
26	4.3	4.1	4.6	4.6	8.3	7.4	6.6	5.6	3.8	3.0	3.2	5.6
27	4.3	4.1	4.5	4.3	7.8	7.4	9.6	5.0	8.8	3.0	8.9	4.2
28	4.3	97	4.4	4.3	8.4	79	6.6	5.9	5.4	3.5	7.0	3.0
29	4.6	6.4	4.5	4.4	---	12	6.4	5.0	4.1	2.9	3.5	3.5
30	18	5.3	4.4	4.5	---	8.4	15	4.8	3.8	2.9	3.4	3.1
31	4.9	---	4.4	4.4	---	7.9	---	4.8	---	3.9	3.5	---
TOTAL	194.0	303.8	248.4	273.2	243.9	361.9	509.6	189.4	183.1	280.2	149.2	111.4
MEAN	6.26	10.1	8.01	8.81	8.71	11.7	17.0	6.11	6.10	9.04	4.81	3.71
MAX	26	97	33	93	43	79	241	17	28	54	37	9.3
MIN	3.9	4.1	4.4	4.3	4.3	7.2	6.4	4.8	3.8	2.9	2.5	2.9
CFSM	1.31	2.12	1.68	1.84	1.82	2.44	3.55	1.28	1.28	1.89	1.01	0.78
IN.	1.51	2.36	1.93	2.13	1.90	2.82	3.97	1.47	1.42	2.18	1.16	0.87

STATISTICS OF MONTHLY MEAN DATA FOR PERIOD OF DAILY RECORD, BY WATER YEAR (WY)

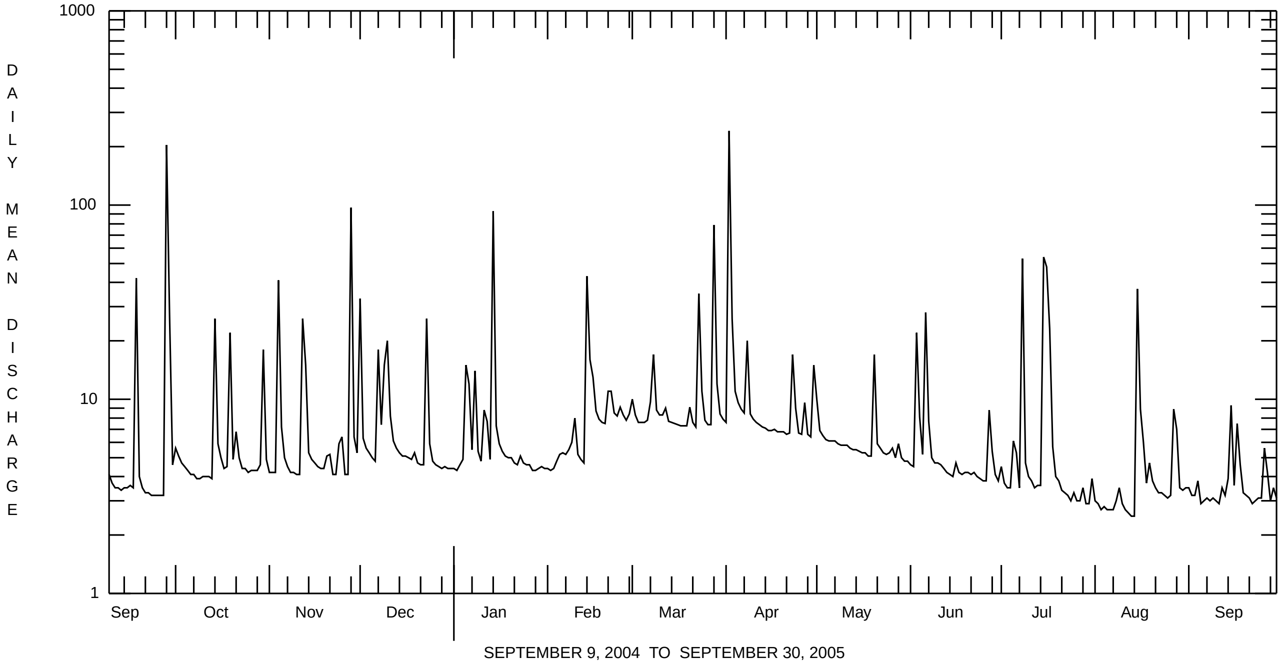
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	6.19	6.76	7.62	7.75	7.83	8.96	8.77	7.90	6.70	6.54	6.69	6.52
MAX	13.8	17.1	14.3	18.8	16.4	15.4	17.0	12.1	13.8	16.5	17.7	20.2
(WY)	1980	1973	1974	1979	1979	1980	2005	1978	1975	1975	1974	1971
MIN	2.43	2.13	2.50	2.01	3.36	3.28	4.77	3.89	2.08	3.29	1.93	2.18
(WY)	1965	1966	1966	1981	1969	1981	1969	1965	1966	1966	1966	1970

e Estimated.

01475530 COBBS CREEK AT U.S. HIGHWAY NO. 1 AT PHILADELPHIA, PA--Continued

SUMMARY STATISTICS	FOR 2005 WATER YEAR		FOR PERIOD OF DAILY RECORD	
ANNUAL TOTAL	3048.1			
ANNUAL MEAN	8.35		7.35	
HIGHEST ANNUAL MEAN			10.7	1973
LOWEST ANNUAL MEAN			4.19	1965
HIGHEST DAILY MEAN	241	Apr 2	310	Aug 23 1974
LOWEST DAILY MEAN	2.5	Aug 13,14	0.90	Sep 10 1966
ANNUAL SEVEN-DAY MINIMUM	2.8	Aug 1	1.1	Sep 7 1966
MAXIMUM PEAK FLOW	**a**1870	Apr 2	**a**3480	Aug 23 1974
MAXIMUM PEAK STAGE	8.61	Apr 2	10.48	Aug 23 1974
INSTANTANEOUS LOW FLOW	2.1	Aug 14	0.30	Oct 13 1965**b**
ANNUAL RUNOFF (CFSM)	1.75		1.54	
ANNUAL RUNOFF (INCHES)	23.72		20.89	
10 PERCENT EXCEEDS	11		12	
50 PERCENT EXCEEDS	5.0		4.4	
90 PERCENT EXCEEDS	3.2		2.2	

a From rating curve extended above 124 ft^3/s.
b Also Nov. 24, 25, 1965.



CRUM CREEK BASIN

01475850 CRUM CREEK NEAR NEWTOWN SQUARE, PA

LOCATION.--Lat 39°58'35", long 75°26'13", Delaware County, Hydrologic Unit 02040202, at Castle Rock bridge on State Highway 3, 0.6 mi upstream from Preston Run, 0.8 mi upstream from Springton Reservoir, and 2.0 mi west of Newtown Square.

DRAINAGE AREA.--15.8 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1981 to current year. Occasional low-flow measurements, water years 1932, 1949, 1970-1977, and annual maximum 1977-1981.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 207.75 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those above 500 ft^3/s, which are fair and those for estimated daily discharges, which are poor. Satellite and landline telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft^3/s and maximum (*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Nov. 28	0845	1,690	8.18	Apr. 2	1915	*2,310	*9.32
Jan. 14	1115	868	6.21				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	22	131	26	e25	33	34	58	17	13	8.6	8.2
2	29	21	45	25	e26	32	726	33	17	15	8.3	6.9
3	26	21	36	25	28	29	229	31	43	11	7.7	6.5
4	24	106	32	27	29	28	76	29	43	11	7.4	6.2
5	22	60	31	54	31	28	61	28	22	12	7.1	6.1
6	21	28	29	71	33	29	55	27	29	16	6.8	6.4
7	21	24	78	39	35	46	51	27	60	12	6.7	6.4
8	20	22	46	59	39	59	87	26	21	105	7.3	6.3
9	19	21	46	38	50	33	51	25	19	22	9.2	6.2
10	18	20	118	31	56	29	45	24	18	14	8.2	6.3
11	17	21	60	31	35	30	42	24	17	12	7.4	6.0
12	18	73	39	50	30	32	40	23	16	11	6.8	5.6
13	18	86	35	33	29	28	39	22	16	11	6.4	5.4
14	50	32	32	307	81	26	37	22	16	11	6.8	5.4
15	28	26	29	59	89	25	35	22	15	15	22	27
16	28	24	29	45	42	25	34	21	15	17	10	8.8
17	20	23	29	40	39	24	34	21	14	35	12	6.7
18	18	21	28	34	32	24	33	21	14	34	8.1	11
19	55	21	e25	e32	29	24	32	20	14	14	8.4	6.2
20	27	21	e22	e29	28	27	32	35	14	12	8.7	5.5
21	30	25	e23	e27	32	27	31	26	14	11	8.4	5.3
22	24	22	25	e25	39	24	31	22	13	11	7.3	4.9
23	21	21	131	e23	39	111	93	21	13	10	7.0	4.9
24	21	25	57	e21	33	59	78	21	12	9.3	7.3	4.4
25	20	41	33	e23	32	33	37	21	12	10	7.2	4.3
26	19	23	28	e25	30	29	33	22	12	9.9	7.1	4.8
27	19	22	27	e22	31	28	39	20	14	9.5	7.4	5.9
28	18	495	25	e21	31	215	32	19	15	9.6	9.4	4.5
29	18	53	26	e22	---	78	30	19	14	8.9	11	4.5
30	56	37	27	e23	---	42	41	18	13	8.7	9.5	4.7
31	25	---	27	e24	---	37	---	18	---	8.5	8.7	---
TOTAL	784	1457	1349	1311	1053	1294	2218	766	572	509.4	264.2	201.3
MEAN	25.3	48.6	43.5	42.3	37.6	41.7	73.9	24.7	19.1	16.4	8.52	6.71
MAX	56	495	131	307	89	215	726	58	60	105	22	27
MIN	17	20	22	21	25	24	30	18	12	8.5	6.4	4.3
CFSM	1.60	3.07	2.75	2.68	2.38	2.64	4.68	1.56	1.21	1.04	0.54	0.42
IN.	1.85	3.43	3.18	3.09	2.48	3.05	5.22	1.80	1.35	1.20	0.62	0.47

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 2005, BY WATER YEAR (WY)

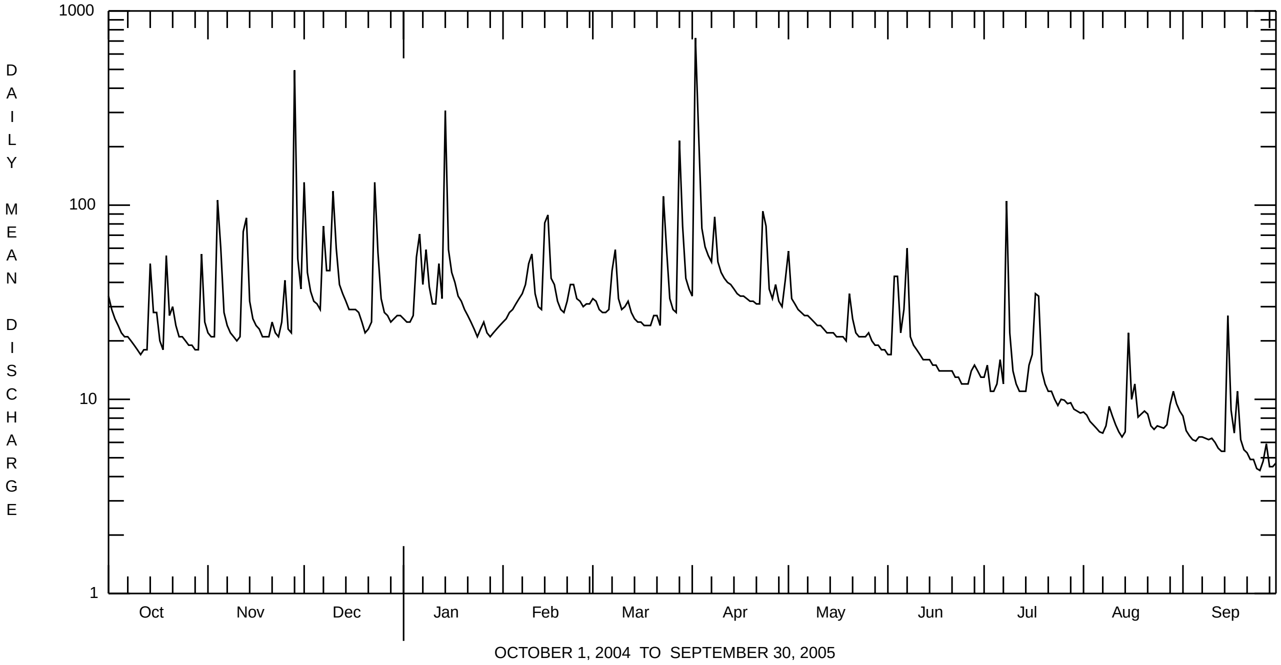
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	15.8	22.0	27.6	27.0	28.9	37.4	34.3	25.3	19.9	16.0	12.9	17.5
MAX	53.4	48.6	92.6	63.0	49.3	95.0	76.8	58.9	55.8	36.2	29.9	74.6
(WY)	1997	2005	1997	1996	2004	1994	1983	1984	2003	1989	2004	1999
MIN	3.87	5.02	4.63	7.45	7.13	11.7	9.45	13.2	5.85	4.02	2.82	4.53
(WY)	2002	2002	1999	1985	2002	1985	1985	1999	1985	1999	2002	1998

e Estimated.

01475850 CRUM CREEK NEAR NEWTOWN SQUARE, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1982 - 2005	
ANNUAL TOTAL	13135.9		11778.9			
ANNUAL MEAN	35.9		32.3		23.7	
HIGHEST ANNUAL MEAN					37.5	2004
LOWEST ANNUAL MEAN					9.24	2002
HIGHEST DAILY MEAN	624	Sep 28	726	Apr 2	1610	Sep 16 1999
LOWEST DAILY MEAN	8.0	Jul 11	4.3	Sep 25	0.64	Aug 8 1991
ANNUAL SEVEN-DAY MINIMUM	9.2	Jul 5	4.7	Sep 24	1.2	Aug 16 2002
MAXIMUM PEAK FLOW			[a]2310	Apr 2	[a]4250	Sep 16 1999
MAXIMUM PEAK STAGE			9.32	Apr 2	[b]11.99	Sep 16 1999
ANNUAL RUNOFF (CFSM)	2.27		2.04		1.50	
ANNUAL RUNOFF (INCHES)	30.93		27.73		20.36	
10 PERCENT EXCEEDS	51		54		40	
50 PERCENT EXCEEDS	24		24		15	
90 PERCENT EXCEEDS	12		7.3		5.8	

[a] From rating curve extended above 1,300 ft^3/s on basis of slope-area measurement at peak flow at gage height 11.99 ft.
[b] From outside floodmark.



01475850 CRUM CREEK NEAR NEWTOWN SQUARE, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975, 1999 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conductance, wat unf lab, µS/cm 25 degC (90095)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)
OCT 2004													
08...	1130	1028	80020	20	11.2	7.3	7.7	229	246	13.4	18.7	8.62	2.19

Date	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)	ANC, wat unf incrm. titr., field, mg/L as CaCO3 (00419)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Boron, water, fltrd, µg/L (01020)	Iron, water, fltrd, µg/L (01046)
OCT 2004													
08...	12.2	48	56	30.1	E.1	16.6	14.1	<.04	2.25	<.008	E.01	12	38

01475850 CRUM CREEK NEAR NEWTOWN SQUARE, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES

REMARKS.--Samples were collected using a Hess sampler with a mesh size of 500 µm. Each sample covered a total area of 2.4 m^2.

Date	10/08/04
Benthic macroinvertebrate	Count
Platyhelminthes	
Turbellaria (FLATWORMS)	
Tricladida	
Planariidae	12
Nemertea (PROBOSCIS WORMS)	
Enopla	
Hoplonemertea	
Tetrastemmatidae	
Prostoma	5
Mollusca	
Gastropoda (SNAILS)	
Basommatophora	
Ancylidae	
Ferrissia	3
Planorbidae	
Gyraulus	1
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Lumbriculida	
Lumbriculidae	4
Arthropoda	
Acariformes	
Hydrachnidia (WATER MITES)	93
Crustacea	
Decapoda	
Cambaridae (CRAYFISH)	1
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
Acentrella	12
Baetis	8
Ephemerellidae	
Serratella	9
Heptageniidae	
Stenonema	54
Isonychiidae	
Isonychia	180
Odonata (DRAGONFLIES AND DAMSELFLIES)	
Coenagrionidae	
Argia	1
Plecoptera (STONEFLIES)	
Perlidae	
Acroneuria	3
Megaloptera	
Corydalidae (FISHFLIES AND DOBSONFLIES)	
Corydalus	2

01475850 CRUM CREEK NEAR NEWTOWN SQUARE, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES--Continued

Date	10/08/04
Benthic macroinvertebrate	Count
Trichoptera (CADDISFLIES)	
Glossosomatidae	
Glossosoma	1
Hydropsychidae	
Cheumatopsyche	62
Hydropsyche	330
Hydroptilidae	
Leucotrichia	8
Philopotamidae	
Chimarra	81
Polycentropodidae	
Polycentropus	1
Rhyacophilidae	
Rhyacophila	6
Lepidoptera	
Pyralididae(MOTHS)	
Petrophila	4
Coleoptera (BEETLES)	
Dryopidae	
Helichus	1
Elmidae (RIFFLE BEETLES)	
Optioservus	15
Oulimnius	15
Stenelmis	26
Psephenidae (WATER PENNIES)	
Psephenus	2
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	69
Empididae (DANCE FLIES)	
Hemerodromia	9
Simuliidae (BLACK FLIES)	
Simulium	171
Tipulidae (CRANE FLIES)	
Antocha	12
Tipula	1

Total organisms	1202
Total number of taxa	33

RIDLEY CREEK BASIN

01476480 RIDLEY CREEK AT MEDIA, PA

LOCATION.--Lat 39°54'58", long 75°24'13", Delaware County, Hydrologic Unit 02040202, on right bank 400 ft downstream from bridge on U.S. Highway 1 (Baltimore Pike) at Media.

DRAINAGE AREA.--30.5 mi^2.

PERIOD OF RECORD.--October 1986 to September 1995, October 1995 to December 1996 (fragmentary), January 1997 to current year.

REVISED RECORDS.--WDR PA-94-1: 1987, 1991, 1992 adjusted monthly and yearly summaries.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 110 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair. Several measurements of water temperature were made during the year. Diversion during entire period of record by Aqua Pennsylvania Water Company (formerly Philadelphia Suburban Water Company). Satellite telemetry at station.

COOPERATION.--Records of diversion provided by Aqua Pennsylvania Water Company.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 650 ft^3/s and maximum (*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Nov. 28	1215	1,820	7.36	Mar. 28	2315	981	5.93
Jan. 14	1200	1,010	5.98	Apr. 2	2145	*2,590	*8.54

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	84	36	202	49	e41	57	66	104	30	22	16	9.5
2	69	34	92	46	e42	53	930	67	30	38	15	7.9
3	65	33	68	46	43	48	643	63	63	23	13	7.9
4	60	125	60	47	45	46	154	59	90	20	13	8.6
5	54	142	57	67	49	46	116	56	44	22	12	7.6
6	51	49	53	104	56	49	104	55	49	36	12	5.7
7	49	42	98	77	59	67	98	54	122	24	13	7.3
8	47	39	94	75	62	96	162	52	44	226	14	6.2
9	46	36	66	76	77	60	101	51	37	62	19	6.4
10	45	35	170	57	89	51	90	49	36	32	16	7.0
11	41	35	122	53	58	51	84	48	34	26	16	6.2
12	40	90	76	72	49	57	79	47	31	23	12	5.7
13	39	151	66	58	46	48	76	44	30	24	11	6.6
14	89	56	60	483	119	45	73	44	28	23	10	5.6
15	61	47	56	128	170	43	69	45	25	24	41	56
16	61	45	54	83	76	42	67	42	25	36	19	19
17	45	41	54	75	68	42	66	41	27	36	25	12
18	40	41	52	62	55	41	63	40	26	81	13	13
19	99	39	52	59	49	40	62	39	24	28	12	9.8
20	69	38	49	e55	48	47	59	68	26	24	12	9.2
21	58	43	44	e50	59	46	55	60	24	21	12	7.8
22	51	38	46	e47	70	41	57	45	22	20	10	7.3
23	43	37	175	e44	65	171	119	43	23	19	8.6	7.3
24	41	39	136	e40	56	126	135	40	21	17	9.6	7.8
25	39	64	64	e42	56	63	69	41	21	20	8.9	7.0
26	37	42	54	e44	52	55	64	41	19	20	9.4	8.3
27	34	37	52	e40	52	51	73	37	21	18	11	9.9
28	32	745	47	e37	53	369	60	37	26	20	12	8.9
29	30	104	48	e38	---	256	57	37	24	17	13	7.8
30	127	69	49	e39	---	85	75	32	22	16	9.4	7.7
31	47	---	49	e40	---	72	---	31	---	16	8.8	---
TOTAL	1693	2372	2365	2233	1764	2364	3926	1512	1044	1034	426.7	297.0
MEAN	54.6	79.1	76.3	72.0	63.0	76.3	131	48.8	34.8	33.4	13.8	9.90
MAX	127	745	202	483	170	369	930	104	122	226	41	56
MIN	30	33	44	37	41	40	55	31	19	16	8.6	5.6
(†)	3.7	4.4	5.6	4.2	4.3	4.1	4.3	4.1	4.2	3.7	3.9	3.4

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2005, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	25.3	37.4	46.6	50.9	52.5	72.8	59.2	46.3	39.9	33.3	25.8	36.6
MAX	75.0	79.1	110	82.7	91.4	164	131	87.8	126	89.6	63.5	147
(WY)	2004	2005	2004	1990	2004	1994	2005	1989	2003	1989	2004	1999
MIN	6.24	10.0	8.14	20.3	12.1	30.6	19.4	23.1	11.7	6.42	5.45	8.42
(WY)	2002	2002	1999	2002	2002	2002	2002	1999	1999	2002	2002	1998

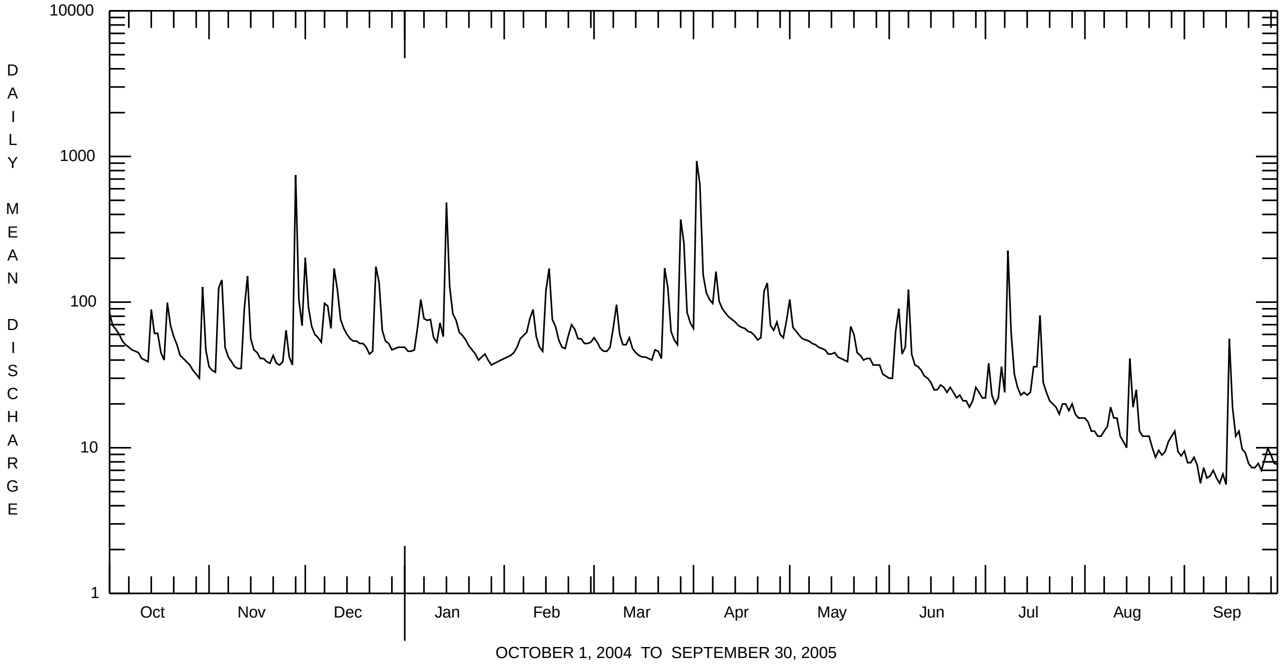
† Diversion for municipal supply, equivalent in cubic feet per second.
e Estimated.

01476480 RIDLEY CREEK AT MEDIA, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1987 - 2005	
ANNUAL TOTAL	26133		21030.7			
ANNUAL MEAN	71.4		57.6		43.8	
HIGHEST ANNUAL MEAN					75.5	2004
LOWEST ANNUAL MEAN					15.2	2002
HIGHEST DAILY MEAN	1510	Sep 29	930	Apr 2	2860	Sep 16 1999
LOWEST DAILY MEAN	17	Jul 11	5.6	Sep 14	0.57	Aug 17 2002
ANNUAL SEVEN-DAY MINIMUM	21	Jul 5	6.2	Sep 8	1.6	Aug 14 2002
MAXIMUM PEAK FLOW			**a**2590	Apr 2	**a**8000	Sep 16 1999
MAXIMUM PEAK STAGE			8.54	Apr 2	**b**15.10	Sep 16 1999
10 PERCENT EXCEEDS	111		95		76	
50 PERCENT EXCEEDS	47		45		29	
90 PERCENT EXCEEDS	30		12		9.8	

a From rating curve extended above 1,600 ft^3/s on basis of slope-area measurement of peak flow at gage height 15.10 ft.

b From floodmark.



OCTOBER 1, 2004 TO SEPTEMBER 30, 2005

CHESTER CREEK BASIN

01477000 CHESTER CREEK NEAR CHESTER, PA

LOCATION.--Lat 39°52'08", long 75°24'31", Delaware County, Hydrologic Unit 02040202, on right bank 30 ft downstream from bridge on Dutton Mill Road, and 3.0 mi northwest of Chester.

DRAINAGE AREA.--61.1 mi^2.

PERIOD OF RECORD.--August 1931 to current year. Monthly discharges only for some periods, published in WSP 1302.

REVISED RECORDS.--WDR PA-72-1: 1971.

GAGE.--Water-stage recorder. Datum of gage is 23.41 ft above Penn Central Railroad datum. Prior to June 27, 1966, water-stage recorder at site 50 ft upstream, and June 28, 1966, to Oct. 4, 1967, nonrecording gage 30 ft upstream and at gage, all at same datum.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Diversion about 2.6 mi upstream into Ridley Creek basin (see station 01476480 Ridley Creek at Media) by Aqua Pennsylvania Water Company (formerly Philadelphia Suburban Water Company). Diversion for the year was equivalent to a mean daily discharge of 3.0 ft^3/s. Several measurements of water temperature were made during the year. Satellite and landline telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,400 ft^3/s and maximum (*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Nov. 28	0815	3,710	10.19	Mar. 28	2000	2,320	8.02
Jan. 14	1145	2,410	8.17	Apr. 2	1915	*5,150	*12.14

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	137	81	494	108	e96	133	151	247	75	63	40	32
2	111	78	203	104	e98	127	1770	139	73	109	38	28
3	101	77	150	104	e100	115	1130	128	139	58	37	27
4	91	233	130	109	e105	109	325	119	183	53	34	26
5	85	299	123	183	116	109	232	115	98	65	34	26
6	81	106	116	239	124	112	207	114	93	91	33	26
7	79	90	208	160	129	144	191	112	215	59	31	25
8	78	85	203	197	134	196	465	108	94	518	49	24
9	76	81	151	155	148	138	211	105	80	153	63	24
10	75	79	413	126	171	119	183	105	80	78	44	24
11	73	81	257	121	125	117	168	104	76	63	40	24
12	71	221	159	163	109	131	158	103	73	57	36	24
13	71	357	139	127	103	115	153	98	69	56	33	24
14	205	122	126	1050	277	109	145	97	67	56	33	24
15	109	104	118	274	432	106	140	96	64	56	73	151
16	117	97	116	170	173	102	135	94	63	69	47	55
17	83	92	116	150	155	102	134	90	69	67	77	36
18	76	90	112	129	130	101	132	90	60	107	43	34
19	301	88	116	e110	115	97	128	86	60	57	41	29
20	119	85	e105	e115	112	114	128	155	60	51	45	28
21	110	93	e95	e105	136	113	124	133	59	47	38	28
22	92	84	106	e100	167	102	122	99	57	45	36	27
23	82	83	385	e85	143	442	224	92	67	44	32	27
24	80	89	298	e75	125	342	294	93	57	41	30	25
25	78	140	138	e80	127	160	145	94	55	46	28	25
26	75	97	119	e85	123	137	129	95	54	44	28	25
27	73	83	114	e90	121	127	148	89	55	43	29	36
28	75	1420	107	e75	121	881	127	83	66	63	36	27
29	75	241	109	e80	---	650	118	86	64	43	43	27
30	172	147	109	e90	---	203	164	79	65	41	35	29
31	97	---	110	e93	---	167	---	78	---	41	35	---
TOTAL	3148	5023	5245	4852	4015	5720	7881	3326	2390	2384	1241	967
MEAN	102	167	169	157	143	185	263	107	79.7	76.9	40.0	32.2
MAX	301	1420	494	1050	432	881	1770	247	215	518	77	151
MIN	71	77	95	75	96	97	118	78	54	41	28	24

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 2005, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	57.5	79.0	93.1	104	116	143	130	101	79.8	69.2	62.6	70.3
MAX	234	233	328	326	326	627	413	224	286	254	217	543
(WY)	1980	1951	1997	1979	1979	1994	1980	1983	2003	1975	1955	1971
MIN	13.7	18.2	24.3	23.4	36.0	53.1	41.9	34.8	28.3	15.6	13.7	10.4
(WY)	1942	1932	1932	1981	2002	1981	1963	1942	1966	2002	1966	1932

e Estimated.

CHESTER CREEK BASIN

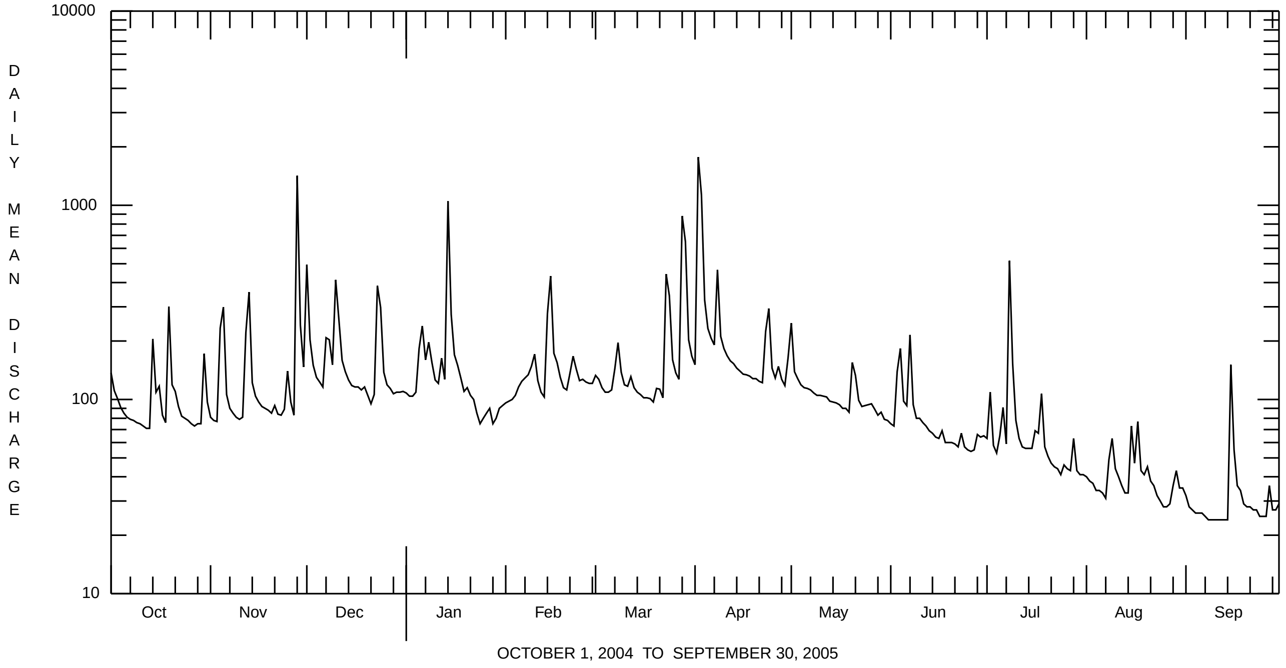
01477000 CHESTER CREEK NEAR CHESTER, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1932 - 2005	
ANNUAL TOTAL	53961		46192			
ANNUAL MEAN	147		127		92.0	
HIGHEST ANNUAL MEAN					168	1979
LOWEST ANNUAL MEAN					38.0	2002
HIGHEST DAILY MEAN	2860	Sep 29	1770	Apr 2	6510	Sep 13 1971
LOWEST DAILY MEAN	45	Sep 14	24	Sep 8-14	5.8	Aug 11 2002
ANNUAL SEVEN-DAY MINIMUM	48	Sep 11	24	Sep 8	6.1	Aug 8 2002
MAXIMUM PEAK FLOW			**a**5150	Apr 2	**a**21000	Sep 13 1971
MAXIMUM PEAK STAGE			12.14	Apr 2	**b**24.59	Sep 13 1971
INSTANTANEOUS LOW FLOW			23	Sep 8**c**	0.30	Aug 7 1934
10 PERCENT EXCEEDS	235		203		157	
50 PERCENT EXCEEDS	100		98		61	
90 PERCENT EXCEEDS	60		34		27	

a From rating curve extended above 2,400 ft^3/s on basis of contracted-opening measurement at 9,400 ft^3/s, at gage height 13.57 ft, and slope-area measurement of peak flow at gage height 24.59.

b From floodmark.

c Also Sept. 9-14, 24-26.



DELAWARE RIVER BASIN

01477050 DELAWARE RIVER AT CHESTER, PA

LOCATION.--Lat 39°50'33", long 75°21'28", Delaware County, Hydrologic Unit 02040202, in the pumping house of Kimberly-Clark Paper Company at Chester.

DRAINAGE AREA.--10,300 mi^2, approximately.

PERIOD OF RECORD.--December 1961 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1963 to current year.
pH: January 1968 to current year.
WATER TEMPERATURE: December 1961 to current year.
DISSOLVED OXYGEN: December 1961 to current year.

INSTRUMENTATION.--Water-quality monitor since December 1961. Probes interfaced with a data collection platform since the 1986 water year.

REMARKS.--Specific conductance records rated good except for period Apr. 11 to Map 19, which is poor, and period May 20-31, which is fair. pH and water temperature records rated good. Dissolved oxygen record rated fair except for periods Oct. 1-8 and Dec. 1-10, which are poor. Data collection discontinued during winter months. Other interruptions in the record were due to malfunctions of the instrumentation. Prior to April 1981 sampling site located at auxiliary tidal-gaging station at the end of Reynolds Aluminum Company pier, 0.5 mi downstream from Chester Creek in Chester (latitude 39°50'12", longitude 75°22'00").

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 5,900 microsiemens, Oct. 7, 1965; minimum, 103 microsiemens, June 2, 1984, Apr. 9, 1987.
pH: Maximum, 8.7, Sept. 13, 14, 1971, Oct. 16, 1979; minimum, 5.5, Dec. 10, 11, 1969.
WATER TEMPERATURE: Maximum, 33.0°C, July 21, 1977, Aug. 3, 1999; minimum, 0.0°C, many days during winters.
DISSOLVED OXYGEN: Maximum, 16.3 mg/L, Mar. 28, 1993; minimum, 0.0 mg/L, on many days.

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° CELSIUS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			**NOVEMBER**			**DECEMBER**			**JANUARY**	
1	181	157	169	295	280	285	276	212	231	---	---	---
2	185	168	175	288	279	283	223	198	212	---	---	---
3	185	171	179	300	277	284	221	184	203	---	---	---
4	196	175	186	299	278	285	199	174	186	---	---	---
5	198	182	190	283	269	274	193	172	180	---	---	---
6	212	187	196	280	268	272	192	176	185	---	---	---
7	204	192	198	277	268	272	194	181	188	---	---	---
8	---	---	---	277	265	271	204	184	193	---	---	---
9	---	---	---	282	266	271	211	187	201	---	---	---
10	---	---	---	285	270	277	227	193	214	---	---	---
11	---	---	---	308	272	279	219	192	206	---	---	---
12	225	207	216	286	274	279	220	204	212	---	---	---
13	227	208	219	283	268	276	226	198	206	---	---	---
14	238	212	225	277	270	273	212	199	205	---	---	---
15	243	215	229	280	273	276	---	---	---	---	---	---
16	247	223	235	289	274	281	---	---	---	---	---	---
17	254	233	244	292	278	285	---	---	---	---	---	---
18	265	237	250	307	282	290	---	---	---	---	---	---
19	260	243	253	294	285	290	---	---	---	---	---	---
20	262	244	255	293	284	287	---	---	---	---	---	---
21	264	251	259	300	286	289	---	---	---	---	---	---
22	271	255	263	300	288	291	---	---	---	---	---	---
23	272	258	267	311	289	297	---	---	---	---	---	---
24	---	---	---	304	293	298	---	---	---	---	---	---
25	---	---	---	305	292	299	---	---	---	---	---	---
26	---	---	---	317	294	300	---	---	---	---	---	---
27	289	266	273	347	294	301	---	---	---	---	---	---
28	289	274	278	347	231	277	---	---	---	---	---	---
29	288	273	281	308	240	279	---	---	---	---	---	---
30	290	275	282	330	220	249	---	---	---	---	---	---
31	297	282	286	---	---	---	---	---	---	---	---	---
MONTH	297	157	234	347	220	282	276	172	202	---	---	---

01477050 DELAWARE RIVER AT CHESTER, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° CELSIUS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			**MARCH**			**APRIL**			**MAY**	
1	---	---	---	---	---	---	236	195	217	272	258	265
2	---	---	---	---	---	---	210	159	186	270	259	264
3	---	---	---	---	---	---	195	142	163	279	257	265
4	---	---	---	---	---	---	169	128	157	269	260	264
5	---	---	---	---	---	---	156	113	132	271	259	264
6	---	---	---	---	---	---	149	114	132	268	259	262
7	---	---	---	---	---	---	166	125	150	268	256	262
8	---	---	---	---	---	---	182	146	164	269	255	262
9	---	---	---	---	---	---	180	154	170	275	257	263
10	---	---	---	---	---	---	185	164	174	269	257	261
11	---	---	---	---	---	---	194	167	179	268	256	261
12	---	---	---	---	---	---	205	172	185	272	255	261
13	---	---	---	---	---	---	199	180	191	281	258	267
14	---	---	---	---	---	---	207	183	195	278	263	271
15	---	---	---	---	---	---	208	192	200	271	265	267
16	---	---	---	---	---	---	216	197	206	276	263	268
17	---	---	---	---	---	---	223	201	213	269	265	267
18	---	---	---	---	---	---	234	206	217	272	266	269
19	---	---	---	---	---	---	223	208	216	273	262	269
20	---	---	---	---	---	---	232	209	219	273	260	267
21	---	---	---	---	---	---	232	213	223	276	262	270
22	---	---	---	---	---	---	271	222	233	276	262	269
23	---	---	---	---	---	---	258	236	246	281	264	271
24	---	---	---	---	---	---	252	240	247	279	264	272
25	---	---	---	---	---	---	275	241	256	280	264	271
26	---	---	---	---	---	---	274	247	261	280	265	270
27	---	---	---	---	---	---	274	253	264	277	265	271
28	---	---	---	---	---	---	267	254	260	282	268	274
29	---	---	---	---	---	---	266	252	260	279	264	272
30	---	---	---	308	250	275	272	257	264	296	276	282
31	---	---	---	258	235	248	---	---	---	299	280	290
MONTH	---	---	---	308	235	262	275	113	206	299	255	268

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			**JULY**			**AUGUST**			**SEPTEMBER**	
1	304	290	298	472	366	407	478	351	391	---	---	---
2	308	296	302	472	360	399	490	348	394	---	---	---
3	322	301	308	447	359	392	490	353	405	---	---	---
4	322	304	311	459	370	403	574	361	431	---	---	---
5	319	307	314	479	359	403	603	366	443	---	---	---
6	328	270	311	467	360	398	574	369	448	---	---	---
7	338	301	317	461	362	404	635	375	478	---	---	---
8	338	311	319	497	339	405	669	385	499	---	---	---
9	---	---	---	415	344	370	624	380	474	1570	669	1030
10	---	---	---	379	353	363	588	380	466	1730	722	1100
11	343	322	335	392	352	366	619	386	478	1790	750	1120
12	348	323	335	375	352	367	606	392	478	1670	732	1080
13	359	328	342	386	354	370	619	395	486	1900	718	1050
14	350	327	340	382	352	366	673	406	496	2210	839	1250
15	368	334	344	382	347	364	734	391	487	2230	835	1260
16	365	340	350	377	344	362	842	393	512	2070	805	1270
17	---	---	---	371	332	353	869	401	527	2160	807	1330
18	---	---	---	363	319	341	838	403	541	1980	846	1310
19	---	---	---	359	325	339	1000	415	594	1910	834	1310
20	---	---	---	362	324	340	1030	430	618	1990	909	1360
21	386	345	366	360	328	344	991	443	643	1950	888	1330
22	384	351	365	368	329	344	941	463	661	2250	937	1410
23	410	356	377	376	334	349	---	---	---	2100	966	1440
24	454	363	391	388	336	358	---	---	---	2580	1030	1550
25	444	352	385	400	336	362	1090	498	741	2340	1060	1540
26	433	352	385	377	334	355	1190	522	759	2370	1090	1530
27	466	361	399	390	335	360	1160	543	771	2000	899	1360
28	---	---	---	402	337	364	1240	534	782	2500	1030	1500
29	---	---	---	424	347	375	---	---	---	2620	1150	1620
30	---	---	---	418	347	375	---	---	---	1980	1010	1440
31	---	---	---	478	344	377	1360	595	857	---	---	---
MONTH	466	270	343	497	319	370	1360	348	550	2620	669	1330

01477050 DELAWARE RIVER AT CHESTER, PA--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
		OCTOBER			**NOVEMBER**			**DECEMBER**			**JANUARY**	
1	7.0	7.0	7.0	7.2	7.2	7.2	7.3	7.2	7.3	---	---	---
2	7.0	7.0	7.0	7.2	7.2	7.2	7.3	7.3	7.3	---	---	---
3	7.0	7.0	7.0	7.3	7.2	7.2	7.3	7.2	7.3	---	---	---
4	7.0	7.0	7.0	7.3	7.2	7.2	7.3	7.2	7.2	---	---	---
5	7.1	7.0	7.1	7.3	7.3	7.3	7.2	7.2	7.2	---	---	---
6	7.1	7.1	7.1	7.3	7.3	7.3	7.2	7.2	7.2	---	---	---
7	7.1	7.0	7.1	7.3	7.3	7.3	7.2	7.2	7.2	---	---	---
8	---	---	---	7.3	7.3	7.3	7.2	7.2	7.2	---	---	---
9	---	---	---	7.3	7.3	7.3	7.2	7.2	7.2	---	---	---
10	---	---	---	7.3	7.3	7.3	7.2	7.2	7.2	---	---	---
11	---	---	---	7.3	7.3	7.3	7.2	7.2	7.2	---	---	---
12	7.2	7.1	7.1	7.3	7.2	7.2	7.3	7.2	7.2	---	---	---
13	7.2	7.1	7.1	7.2	7.2	7.2	7.3	7.3	7.3	---	---	---
14	7.2	7.1	7.1	7.2	7.2	7.2	7.3	7.3	7.3	---	---	---
15	7.1	7.1	7.1	7.2	7.2	7.2	---	---	---	---	---	---
16	7.2	7.1	7.2	7.2	7.2	7.2	---	---	---	---	---	---
17	7.3	7.2	7.2	7.2	7.1	7.2	---	---	---	---	---	---
18	7.3	7.2	7.2	7.2	7.1	7.1	---	---	---	---	---	---
19	7.2	7.2	7.2	7.1	7.1	7.1	---	---	---	---	---	---
20	7.2	7.2	7.2	7.1	7.1	7.1	---	---	---	---	---	---
21	7.2	7.2	7.2	7.1	7.1	7.1	---	---	---	---	---	---
22	7.2	7.2	7.2	7.1	7.1	7.1	---	---	---	---	---	---
23	7.2	7.2	7.2	7.1	7.1	7.1	---	---	---	---	---	---
24	---	---	---	7.1	7.1	7.1	---	---	---	---	---	---
25	---	---	---	7.2	7.1	7.1	---	---	---	---	---	---
26	---	---	---	7.2	7.1	7.2	---	---	---	---	---	---
27	7.2	7.2	7.2	7.2	7.2	7.2	---	---	---	---	---	---
28	7.2	7.2	7.2	7.3	7.2	7.2	---	---	---	---	---	---
29	7.2	7.2	7.2	7.3	7.2	7.3	---	---	---	---	---	---
30	7.2	7.2	7.2	7.3	7.2	7.2	---	---	---	---	---	---
31	7.2	7.2	7.2	---	---	---	---	---	---	---	---	---
MAX	7.3	7.2	7.2	7.3	7.3	7.3	7.3	7.3	7.3	---	---	---
MIN	7.0	7.0	7.0	7.1	7.1	7.1	7.2	7.2	7.2	---	---	---

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
		FEBRUARY			**MARCH**			**APRIL**			**MAY**	
1	---	---	---	---	---	---	7.4	7.3	7.3	7.3	7.2	7.2
2	---	---	---	---	---	---	7.3	7.2	7.3	7.3	7.2	7.3
3	---	---	---	---	---	---	7.3	7.2	7.3	7.3	7.3	7.3
4	---	---	---	---	---	---	7.3	7.3	7.3	7.3	7.2	7.2
5	---	---	---	---	---	---	7.3	7.1	7.2	7.2	7.2	7.2
6	---	---	---	---	---	---	7.2	7.1	7.1	7.2	7.1	7.2
7	---	---	---	---	---	---	7.2	7.1	7.2	7.2	7.1	7.2
8	---	---	---	---	---	---	7.2	7.2	7.2	7.2	7.0	7.1
9	---	---	---	---	---	---	7.3	7.2	7.2	7.1	7.1	7.1
10	---	---	---	---	---	---	7.2	7.2	7.2	7.1	7.0	7.1
11	---	---	---	---	---	---	7.2	7.2	7.2	7.1	7.0	7.1
12	---	---	---	---	---	---	7.2	7.2	7.2	7.1	7.0	7.0
13	---	---	---	---	---	---	7.2	7.2	7.2	7.0	7.0	7.0
14	---	---	---	---	---	---	7.3	7.2	7.2	7.1	7.0	7.0
15	---	---	---	---	---	---	7.3	7.2	7.3	7.0	7.0	7.0
16	---	---	---	---	---	---	7.3	7.3	7.3	7.1	7.0	7.1
17	---	---	---	---	---	---	7.3	7.3	7.3	7.1	7.1	7.1
18	---	---	---	---	---	---	7.3	7.3	7.3	7.1	7.1	7.1
19	---	---	---	---	---	---	7.3	7.2	7.3	7.1	7.1	7.1
20	---	---	---	---	---	---	7.3	7.2	7.2	7.2	7.1	7.1
21	---	---	---	---	---	---	7.3	7.2	7.3	7.2	7.1	7.2
22	---	---	---	---	---	---	7.3	7.2	7.3	7.1	7.1	7.1
23	---	---	---	---	---	---	7.3	7.2	7.3	7.1	7.1	7.1
24	---	---	---	---	---	---	7.3	7.2	7.3	7.1	7.0	7.1
25	---	---	---	---	---	---	7.3	7.3	7.3	7.1	7.1	7.1
26	---	---	---	---	---	---	7.4	7.3	7.3	7.1	7.0	7.1
27	---	---	---	---	---	---	7.4	7.3	7.3	7.1	7.0	7.1
28	---	---	---	---	---	---	7.3	7.3	7.3	7.1	7.0	7.1
29	---	---	---	---	---	---	7.3	7.3	7.3	7.1	7.0	7.1
30	---	---	---	7.5	7.4	7.4	7.3	7.2	7.3	7.1	7.0	7.0
31	---	---	---	7.5	7.4	7.4	---	---	---	7.1	7.0	7.1
MAX	---	---	---	7.5	7.4	7.4	7.4	7.3	7.3	7.3	7.3	7.3
MIN	---	---	---	7.5	7.4	7.4	7.2	7.1	7.1	7.0	7.0	7.0

01477050 DELAWARE RIVER AT CHESTER, PA--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
		JUNE			**JULY**			**AUGUST**			**SEPTEMBER**	
1	7.2	7.1	7.1	7.2	7.1	7.1	7.2	7.0	7.1	---	---	---
2	7.2	7.1	7.1	7.2	7.1	7.1	7.2	7.0	7.1	---	---	---
3	7.2	7.1	7.1	7.2	7.0	7.1	7.1	7.0	7.1	---	---	---
4	7.2	7.1	7.1	7.2	7.1	7.1	7.1	7.0	7.0	---	---	---
5	7.2	7.0	7.1	7.2	7.1	7.2	7.2	7.0	7.1	---	---	---
6	7.2	7.0	7.1	7.2	7.1	7.1	7.2	7.0	7.1	---	---	---
7	7.2	7.1	7.1	7.2	7.1	7.2	7.2	7.0	7.1	---	---	---
8	7.2	7.0	7.1	7.4	7.2	7.2	7.2	7.0	7.1	---	---	---
9	---	---	---	7.2	7.1	7.2	7.1	7.0	7.1	7.3	7.1	7.2
10	---	---	---	7.2	7.1	7.1	7.1	7.0	7.0	7.3	7.1	7.2
11	7.1	7.0	7.1	7.2	7.1	7.1	7.1	7.0	7.0	7.3	7.1	7.2
12	7.1	7.0	7.1	7.2	7.1	7.2	7.1	6.9	7.0	7.3	7.1	7.2
13	7.1	7.0	7.1	7.2	7.1	7.2	7.1	7.0	7.0	7.3	7.1	7.2
14	7.1	7.0	7.1	7.2	7.1	7.2	7.2	7.0	7.0	7.3	7.1	7.2
15	7.2	7.0	7.1	7.2	7.1	7.1	7.2	7.0	7.0	7.3	7.1	7.2
16	7.2	7.1	7.1	7.2	7.1	7.1	7.2	7.0	7.1	7.2	7.0	7.1
17	---	---	---	7.2	7.1	7.1	7.2	7.0	7.0	7.2	7.0	7.1
18	---	---	---	7.1	6.9	7.0	7.1	7.0	7.0	7.3	7.0	7.1
19	---	---	---	7.0	6.9	6.9	7.2	7.0	7.0	7.2	7.0	7.1
20	---	---	---	7.0	6.9	7.0	7.1	7.0	7.0	7.2	7.1	7.1
21	7.2	7.1	7.2	7.0	6.9	7.0	7.1	6.9	7.0	7.2	7.1	7.1
22	7.2	7.1	7.2	7.0	6.9	7.0	7.0	6.8	7.0	7.2	7.1	7.2
23	7.2	7.1	7.2	7.0	6.9	7.0	---	---	---	7.2	7.1	7.2
24	7.2	7.1	7.2	7.1	7.0	7.0	---	---	---	7.3	7.1	7.2
25	7.2	7.1	7.2	7.1	7.0	7.1	7.1	7.0	7.0	7.3	7.2	7.3
26	7.2	7.1	7.2	7.1	7.0	7.0	7.1	7.0	7.0	7.4	7.2	7.3
27	7.2	7.1	7.2	7.1	7.0	7.1	7.2	7.0	7.0	7.5	7.2	7.3
28	---	---	---	7.1	7.0	7.1	7.1	7.0	7.0	7.5	7.2	7.3
29	---	---	---	7.2	7.0	7.1	---	---	---	7.4	7.3	7.3
30	---	---	---	7.1	7.0	7.1	---	---	---	7.4	7.3	7.3
31	---	---	---	7.1	7.0	7.1	---	---	---	---	---	---
MAX	7.2	7.1	7.2	7.4	7.2	7.2	7.2	7.0	7.1	7.5	7.3	7.3
MIN	7.1	7.0	7.1	7.0	6.9	6.9	7.0	6.8	7.0	7.2	7.0	7.1

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			**NOVEMBER**			**DECEMBER**			**JANUARY**	
1	20.1	19.5	19.8	14.3	13.8	14.1	10.5	9.5	10.0	---	---	---
2	19.9	19.4	19.7	14.4	13.8	14.1	9.6	9.1	9.4	---	---	---
3	19.6	19.0	19.3	14.3	13.8	14.1	9.3	8.5	8.9	---	---	---
4	19.5	18.9	19.2	13.9	13.3	13.7	8.6	8.1	8.4	---	---	---
5	19.2	18.4	18.8	13.3	12.6	12.9	8.3	7.9	8.1	---	---	---
6	18.5	18.1	18.3	13.0	12.3	12.6	8.4	7.7	8.0	---	---	---
7	18.6	17.9	18.2	13.1	12.3	12.7	8.3	7.7	8.1	---	---	---
8	---	---	---	12.9	12.4	12.6	8.6	7.9	8.2	---	---	---
9	---	---	---	12.5	11.8	12.1	8.4	7.8	8.1	---	---	---
10	---	---	---	12.0	11.4	11.7	8.5	7.9	8.2	---	---	---
11	---	---	---	11.7	11.1	11.5	8.4	7.9	8.1	---	---	---
12	17.9	16.9	17.4	11.6	10.7	11.3	8.0	7.7	7.8	---	---	---
13	17.5	16.8	17.2	11.2	10.1	10.7	8.0	7.6	7.8	---	---	---
14	17.3	16.6	17.0	10.5	9.8	10.2	7.7	7.1	7.4	---	---	---
15	17.1	16.7	17.0	10.3	9.8	10.1	---	---	---	---	---	---
16	17.0	16.1	16.6	10.4	10.0	10.2	---	---	---	---	---	---
17	16.3	15.5	16.0	10.5	10.1	10.2	---	---	---	---	---	---
18	15.9	15.3	15.6	10.6	10.2	10.4	---	---	---	---	---	---
19	15.7	15.2	15.5	10.8	10.3	10.5	---	---	---	---	---	---
20	15.4	15.0	15.2	10.8	10.3	10.6	---	---	---	---	---	---
21	15.1	14.8	15.0	10.8	10.4	10.6	---	---	---	---	---	---
22	15.1	14.6	14.8	10.8	10.4	10.6	---	---	---	---	---	---
23	14.9	14.4	14.6	10.8	10.4	10.6	---	---	---	---	---	---
24	---	---	---	10.9	10.4	10.7	---	---	---	---	---	---
25	---	---	---	11.4	10.6	11.0	---	---	---	---	---	---
26	---	---	---	10.8	9.9	10.3	---	---	---	---	---	---
27	14.3	13.7	14.1	11.5	9.7	10.2	---	---	---	---	---	---
28	14.3	13.7	14.0	11.5	10.2	10.6	---	---	---	---	---	---
29	14.2	13.7	14.0	10.4	9.8	10	---	---	---	---	---	---
30	14.2	13.8	14.0	10.8	9.7	10.0	---	---	---	---	---	---
31	14.4	13.9	14.2	---	---	---	---	---	---	---	---	---
MONTH	20.1	13.7	16.5	14.4	9.7	11.4	10.5	7.1	8.3	---	---	---

01477050 DELAWARE RIVER AT CHESTER, PA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	8.6	8.0	8.2	15.8	15.3	15.5
2	---	---	---	---	---	---	9.8	7.7	8.5	15.8	15.2	15.5
3	---	---	---	---	---	---	10.1	8.3	9.3	15.6	14.9	15.3
4	---	---	---	---	---	---	9.4	8.1	8.9	15.4	14.8	15.2
5	---	---	---	---	---	---	8.6	7.4	8.0	15.8	14.6	15.2
6	---	---	---	---	---	---	8.9	7.5	8.2	15.4	14.8	15.1
7	---	---	---	---	---	---	10.1	8.1	9.0	15.2	14.3	14.8
8	---	---	---	---	---	---	10.7	9.2	10.0	15.5	14.6	15.0
9	---	---	---	---	---	---	11.4	9.7	10.5	16.4	15.0	15.5
10	---	---	---	---	---	---	12.1	10.5	11.1	16.7	15.5	16.0
11	---	---	---	---	---	---	12.5	11.2	11.8	17.1	16.0	16.4
12	---	---	---	---	---	---	12.6	11.8	12.1	17.1	16.4	16.7
13	---	---	---	---	---	---	13.1	12.0	12.5	16.9	16.4	16.6
14	---	---	---	---	---	---	13.4	12.4	12.9	17.6	16.6	17.0
15	---	---	---	---	---	---	13.3	12.7	12.9	17.8	17.2	17.5
16	---	---	---	---	---	---	13.1	12.6	12.8	18.1	17.4	17.8
17	---	---	---	---	---	---	13.5	12.7	13.0	18.3	17.6	17.9
18	---	---	---	---	---	---	14.3	13.1	13.6	18.6	17.8	18.1
19	---	---	---	---	---	---	14.9	13.6	14.1	19.0	18.0	18.4
20	---	---	---	---	---	---	15.6	14.2	14.8	18.7	17.8	18.2
21	---	---	---	---	---	---	15.8	14.9	15.3	18.1	17.1	17.8
22	---	---	---	---	---	---	15.3	14.9	15.1	18.2	17.6	17.9
23	---	---	---	---	---	---	15.4	14.6	15.0	18.2	17.8	18.0
24	---	---	---	---	---	---	15.2	14.7	15.0	18.2	17.9	18.0
25	---	---	---	---	---	---	14.9	14.3	14.6	18.0	17.5	17.7
26	---	---	---	---	---	---	15.5	14.4	14.8	17.8	17.3	17.5
27	---	---	---	---	---	---	15.6	14.8	15.2	18.5	17.4	17.8
28	---	---	---	---	---	---	15.5	15.0	15.2	18.8	17.7	18.3
29	---	---	---	---	---	---	15.6	14.9	15.2	19.0	18.1	18.6
30	---	---	---	8.7	7.9	8.3	15.7	15.1	15.4	19.4	18.4	18.9
31	---	---	---	8.6	8.0	8.2	---	---	---	19.8	18.8	19.3
MONTH	---	---	---	8.7	7.9	8.2	15.8	7.4	12.4	19.8	14.3	17.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	20.3	19.2	19.7	27.5	26.6	27.0	29.8	28.8	29.2	---	---	---
2	20.5	19.5	20.0	27.4	26.7	27.0	29.9	28.9	29.3	---	---	---
3	20.2	19.6	19.9	27.4	26.5	26.9	30.3	29.1	29.5	---	---	---
4	20.3	19.3	19.8	27.6	26.4	26.9	30.5	29.3	29.8	---	---	---
5	21.3	19.8	20.3	27.9	26.9	27.2	30.4	29.5	29.9	---	---	---
6	22.2	20.4	21.1	28.0	27.0	27.3	30.6	29.6	29.9	---	---	---
7	22.9	21.1	21.8	27.6	27.1	27.3	30.3	29.5	29.8	---	---	---
8	23.6	21.8	22.4	27.2	25.3	26.3	29.9	29.5	29.7	---	---	---
9	---	---	---	26.5	25.4	25.8	29.5	29.1	29.3	26.7	26.2	26.5
10	---	---	---	27.0	25.8	26.2	29.8	29.1	29.3	26.7	26.1	26.4
11	24.8	23.5	24.0	27.3	26.1	26.5	30.0	29.1	29.4	26.6	26.1	26.3
12	25.2	23.9	24.4	27.7	26.4	27.0	30.3	29.3	29.7	26.6	25.9	26.2
13	25.6	24.4	24.9	27.7	26.8	27.1	30.5	29.6	30.0	26.8	26.0	26.4
14	26.1	24.9	25.4	27.8	27.0	27.2	30.7	29.9	30.3	26.8	26.2	26.5
15	26.3	25.4	25.9	27.8	27.2	27.4	30.8	30.0	30.3	27.3	26.2	26.7
16	26.3	25.6	25.9	27.7	27.3	27.5	30.2	29.5	29.8	27.6	26.5	27.0
17	---	---	---	27.8	27.2	27.5	29.9	28.9	29.4	27.5	26.6	27.0
18	---	---	---	28.4	27.0	27.6	29.6	28.7	29.2	27.2	26.4	26.9
19	---	---	---	28.9	27.8	28.1	29.2	28.5	28.9	27.6	26.5	26.9
20	---	---	---	29.2	28.0	28.4	29.0	28.1	28.6	27.2	26.7	26.9
21	25.2	24.0	24.5	29.6	28.2	28.6	29.4	28.4	28.8	27.0	26.4	26.7
22	25.4	24.4	24.7	29.8	28.5	28.9	29.2	28.5	28.7	27.1	26.3	26.6
23	25.5	24.5	24.9	29.7	28.8	29.1	---	---	---	26.9	26.3	26.6
24	25.9	24.6	25.1	29.4	28.6	28.9	---	---	---	26.6	25.8	26.1
25	26.1	24.8	25.4	29.5	28.5	28.8	28.0	27.4	27.7	25.8	25.4	25.5
26	26.5	25.2	25.8	29.7	28.7	29.1	27.8	27.5	27.6	25.8	25.1	25.4
27	26.5	25.6	26.0	30.0	29.1	29.5	27.6	27.3	27.4	25.6	24.8	25.1
28	---	---	---	29.8	29.2	29.5	27.5	27.1	27.3	24.9	24.4	24.7
29	---	---	---	29.8	29.2	29.4	---	---	---	24.6	24.0	24.2
30	---	---	---	29.8	29.2	29.4	---	---	---	24.0	23.2	23.6
31	---	---	---	29.6	29.0	29.3	28.5	27.3	27.9	---	---	---
MONTH	26.5	19.2	23.4	30.0	25.3	27.8	30.8	27.1	29.1	27.6	23.2	26.1

01477050 DELAWARE RIVER AT CHESTER, PA--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	6.8	6.6	6.7	7.2	6.8	7.0	10.0	9.2	9.5	---	---	---
2	6.8	6.6	6.7	7.3	6.8	7.0	9.9	9.6	9.8	---	---	---
3	6.9	6.6	6.8	7.4	6.8	7.1	10.2	9.7	9.9	---	---	---
4	7.0	6.8	6.9	7.5	7.1	7.2	10.2	10.0	10.1	---	---	---
5	7.5	7.0	7.3	7.8	7.4	7.6	10.2	10.0	10.2	---	---	---
6	7.6	7.3	7.5	8.1	7.6	7.8	10.4	10.2	10.3	---	---	---
7	7.7	7.5	7.6	7.9	7.6	7.8	10.4	10.2	10.3	---	---	---
8	---	---	---	7.8	7.6	7.7	10.5	10.3	10.4	---	---	---
9	---	---	---	7.9	7.6	7.7	10.6	10.4	10.4	---	---	---
10	---	---	---	7.9	7.6	7.7	---	---	---	---	---	---
11	---	---	---	8.0	7.6	7.8	---	---	---	---	---	---
12	---	---	---	8.3	7.8	7.9	---	---	---	---	---	---
13	---	---	---	8.6	7.9	8.3	---	---	---	---	---	---
14	---	---	---	8.6	8.2	8.4	---	---	---	---	---	---
15	---	---	---	8.6	8.3	8.4	---	---	---	---	---	---
16	---	---	---	8.6	8.2	8.4	---	---	---	---	---	---
17	---	---	---	8.4	8.2	8.3	---	---	---	---	---	---
18	---	---	---	8.4	8.1	8.2	---	---	---	---	---	---
19	7.2	6.9	7.0	8.2	8.0	8.1	---	---	---	---	---	---
20	7.2	7.1	7.1	8.2	7.9	8.1	---	---	---	---	---	---
21	7.1	7.0	7.1	8.2	7.8	8.0	---	---	---	---	---	---
22	7.1	6.9	7.0	8.2	7.8	8.0	---	---	---	---	---	---
23	7.2	6.9	7.0	8.1	7.8	7.9	---	---	---	---	---	---
24	---	---	---	8.1	7.7	7.9	---	---	---	---	---	---
25	---	---	---	8.6	7.8	8.1	---	---	---	---	---	---
26	---	---	---	8.9	8.3	8.5	---	---	---	---	---	---
27	7.0	6.4	6.7	9.9	8.3	8.6	---	---	---	---	---	---
28	6.9	6.5	6.7	10.3	8.4	9.0	---	---	---	---	---	---
29	6.9	6.5	6.7	9.7	9.0	9.4	---	---	---	---	---	---
30	7.0	6.6	6.8	10.4	9.2	9.4	---	---	---	---	---	---
31	7.1	6.6	6.8	---	---	---	---	---	---	---	---	---
MONTH	7.7	6.4	7.0	10.4	6.8	8.0	10.6	9.2	10.1	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	10.3	10.0	10.2	7.6	7.3	7.4
2	---	---	---	---	---	---	10.4	9.7	10.1	7.7	7.3	7.5
3	---	---	---	---	---	---	10.4	9.6	9.9	7.7	7.3	7.5
4	---	---	---	---	---	---	10.3	9.8	10.1	7.4	7.0	7.2
5	---	---	---	---	---	---	10.4	10.2	10.3	7.4	7.1	7.2
6	---	---	---	---	---	---	10.6	10.3	10.4	7.1	6.9	7.0
7	---	---	---	---	---	---	10.5	10.2	10.3	7.3	7.1	7.2
8	---	---	---	---	---	---	10.3	9.9	10.1	7.6	7.1	7.3
9	---	---	---	---	---	---	10.2	9.8	10.0	7.7	7.2	7.4
10	---	---	---	---	---	---	10.1	9.6	9.9	7.6	7.4	7.6
11	---	---	---	---	---	---	9.8	9.4	9.6	7.6	7.3	7.5
12	---	---	---	---	---	---	9.6	9.2	9.4	7.6	7.2	7.4
13	---	---	---	---	---	---	9.4	9.0	9.2	7.5	7.1	7.3
14	---	---	---	---	---	---	9.1	8.9	9.0	7.4	7.2	7.3
15	---	---	---	---	---	---	9.3	9.0	9.2	7.3	6.8	7.1
16	---	---	---	---	---	---	9.3	9.2	9.2	7.1	6.7	6.9
17	---	---	---	---	---	---	9.2	9.1	9.1	6.9	6.2	6.7
18	---	---	---	---	---	---	9.1	8.8	8.9	6.9	6.4	6.6
19	---	---	---	---	---	---	8.9	8.8	8.8	6.9	6.5	6.7
20	---	---	---	---	---	---	8.9	8.5	8.6	7.1	6.6	6.8
21	---	---	---	---	---	---	8.6	8.4	8.5	7.0	6.7	6.8
22	---	---	---	---	---	---	8.5	8.3	8.4	6.7	6.3	6.5
23	---	---	---	---	---	---	8.4	8.2	8.2	6.4	6.1	6.2
24	---	---	---	---	---	---	8.2	8.1	8.1	6.2	5.7	6.0
25	---	---	---	---	---	---	8.3	8.1	8.2	6.2	5.8	6.0
26	---	---	---	---	---	---	8.2	8.0	8.1	6.1	5.6	5.8
27	---	---	---	---	---	---	8.1	7.7	7.9	5.9	5.5	5.7
28	---	---	---	---	---	---	8.0	7.6	7.8	5.9	5.3	5.7
29	---	---	---	---	---	---	7.9	7.5	7.7	5.8	5.5	5.6
30	---	---	---	10.2	9.7	9.9	7.6	7.4	7.5	5.9	5.4	5.6
31	---	---	---	10.3	10.1	10.2	---	---	---	6.1	5.4	5.7
MONTH	---	---	---	10.3	9.7	10.1	10.6	7.4	9.1	7.7	5.3	6.7

01477050 DELAWARE RIVER AT CHESTER, PA--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			**JULY**			**AUGUST**			**SEPTEMBER**		
1	6.4	5.5	5.9	5.4	4.2	4.6	5.2	4.5	4.7	---	---	---
2	6.5	5.7	6.1	5.0	3.9	4.3	5.2	4.5	4.8	---	---	---
3	6.5	5.8	6.2	4.8	3.6	4.2	5.0	4.2	4.7	---	---	---
4	6.5	5.7	6.1	4.8	4.1	4.4	5.1	4.1	4.6	---	---	---
5	6.3	5.3	5.9	5.0	4.2	4.6	5.1	4.2	4.8	---	---	---
6	6.4	5.3	6.0	5.1	4.2	4.5	5.3	4.4	4.9	---	---	---
7	6.5	5.6	6.0	4.9	4.0	4.5	5.3	4.3	4.8	---	---	---
8	6.5	5.3	5.8	5.5	4.6	5.1	5.2	4.4	4.8	---	---	---
9	---	---	---	5.3	4.2	4.8	5.1	4.4	4.8	6.0	5.1	5.6
10	---	---	---	4.6	4.0	4.3	5.0	4.2	4.6	6.0	5.2	5.6
11	6.0	5.3	5.5	4.6	4.1	4.3	5.1	4.1	4.5	6.0	5.2	5.5
12	5.6	5.1	5.3	4.7	4.2	4.4	5.2	4.1	4.5	6.1	5.2	5.6
13	5.3	4.9	5.1	4.8	4.3	4.6	5.3	4.3	4.7	6.1	5.1	5.5
14	5.3	4.8	5.0	4.7	4.2	4.5	5.5	4.3	4.8	6.1	5.1	5.5
15	5.3	4.7	5.0	4.6	3.9	4.3	5.5	4.6	4.9	5.9	4.7	5.3
16	5.3	4.8	5.0	4.5	3.8	4.1	5.5	4.5	4.9	5.8	4.4	5.2
17	---	---	---	4.5	3.9	4.2	5.5	4.4	4.9	5.6	4.2	5.0
18	---	---	---	4.4	3.7	4.0	5.4	4.1	4.9	5.5	4.4	5.0
19	---	---	---	4.2	3.4	3.7	5.5	4.4	4.9	5.4	4.3	4.9
20	---	---	---	4.0	3.4	3.7	5.5	4.3	4.9	5.4	4.6	5.0
21	5.4	4.3	4.9	4.2	3.5	3.8	5.4	4.2	4.9	5.4	4.7	5.0
22	5.4	4.2	4.8	4.2	3.5	3.9	5.5	4.5	5.0	5.6	4.6	5.1
23	5.3	3.9	4.8	4.4	3.6	4.1	---	---	---	5.6	4.8	5.2
24	5.4	4.2	5.0	4.5	4.0	4.3	---	---	---	6.2	5.0	5.6
25	5.5	4.5	5.0	4.8	4.3	4.6	5.5	4.7	5.2	6.2	5.6	5.9
26	5.4	4.5	5.0	4.7	4.2	4.5	5.5	4.8	5.1	6.5	5.7	6.0
27	5.4	4.5	4.9	4.8	4.2	4.5	5.7	4.8	5.2	6.9	5.7	6.0
28	---	---	---	4.9	4.2	4.5	5.5	4.8	5.2	6.9	5.7	6.2
29	---	---	---	5.0	4.2	4.5	---	---	---	6.7	6.0	6.4
30	---	---	---	4.9	4.3	4.5	---	---	---	6.7	6.0	6.4
31	---	---	---	5.0	4.3	4.6	---	---	---	---	---	---
MONTH	6.5	3.9	5.4	5.5	3.4	4.4	5.7	4.1	4.8	6.9	4.2	5.5

DELAWARE RIVER BASIN

01477050 DELAWARE RIVER AT CHESTER, PA--Continued

CROSS-SECTION ANALYSES, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Sample location, cross section ft from rt bank (72103)	Sampling depth, feet (00003)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)
SEP 2005									
12...	1153	1028	1028	366	1.00	5.8	7.1	917	26.2
12...	1154	1028	1028	366	5.00	5.7	7.1	918	26.2
12...	1155	1028	1028	366	10.0	5.6	7.1	915	26.2
12...	1156	1028	1028	366	15.0	5.5	7.1	907	26.2
12...	1157	1028	1028	366	20.0	5.7	7.2	908	26.2
12...	1158	1028	1028	366	25.0	5.7	7.1	907	26.2
12...	1203	1028	1028	721	1.00	5.5	7.2	923	26.0
12...	1204	1028	1028	721	5.00	5.6	7.2	925	26.0
12...	1205	1028	1028	721	10.0	5.6	7.2	922	26.0
12...	1206	1028	1028	721	15.0	5.6	7.2	918	26.0
12...	1207	1028	1028	721	20.0	5.5	7.1	917	26.0
12...	1208	1028	1028	721	25.0	5.5	7.1	921	26.0
12...	1211	1028	1028	1029	1.00	5.5	7.1	961	25.8
12...	1212	1028	1028	1029	5.00	5.7	7.1	948	25.8
12...	1213	1028	1028	1029	10.0	5.7	7.2	957	25.8
12...	1214	1028	1028	1029	15.0	5.6	7.2	960	25.8
12...	1215	1028	1028	1029	20.0	5.6	7.1	959	25.8
12...	1216	1028	1028	1029	25.0	5.5	7.1	964	25.7
12...	1217	1028	1028	1029	30.0	5.6	7.1	963	25.8
12...	1218	1028	1028	1029	35.0	5.7	7.1	963	25.7
12...	1219	1028	1028	1029	40.0	5.6	7.1	964	25.7
12...	1220	1028	1028	1029	45.0	5.5	7.2	964	25.7
12...	1226	1028	1028	1349	1.00	5.6	7.2	945	25.8
12...	1227	1028	1028	1349	5.00	5.6	7.2	946	25.7
12...	1228	1028	1028	1349	10.0	5.6	7.2	942	25.7
12...	1229	1028	1028	1349	15.0	5.6	7.2	941	25.7
12...	1230	1028	1028	1349	20.0	5.5	7.2	943	25.7
12...	1231	1028	1028	1349	25.0	5.6	7.2	941	25.7
12...	1232	1028	1028	1349	30.0	5.5	7.2	941	25.7
12...	1233	1028	1028	1349	35.0	5.5	7.2	943	25.7
12...	1234	1028	1028	1349	40.0	5.5	7.2	942	25.7
12...	1235	1028	1028	1349	45.0	5.5	7.2	941	25.7
12...	1236	1028	1028	1349	50.0	5.5	7.2	941	25.7
12...	1241	1028	1028	1939	1.00	5.5	7.1	942	25.7
12...	1242	1028	1028	1939	5.00	5.7	7.1	940	25.7
12...	1243	1028	1028	1939	10.0	5.6	7.1	943	25.7
12...	1244	1028	1028	1939	15.0	5.6	7.1	943	25.7
12...	1245	1028	1028	1939	20.0	5.6	7.1	944	25.7
12...	1246	1028	1028	1939	25.0	5.6	7.1	944	25.7
12...	1247	1028	1028	1939	30.0	5.6	7.1	944	25.7
12...	1248	1028	1028	1939	35.0	5.5	7.1	945	25.7
12...	1249	1028	1028	1939	40.0	5.6	7.1	944	25.7
12...	1250	1028	1028	1939	45.0	5.5	7.1	944	25.7
12...	1251	1028	1028	1939	50.0	5.4	7.1	943	25.7
12...	1253	1028	1028	2432	1.00	5.6	7.1	910	25.7
12...	1254	1028	1028	2432	5.00	5.7	7.1	908	25.7
12...	1255	1028	1028	2432	10.0	5.5	7.1	911	25.7
12...	1256	1028	1028	2432	15.0	5.6	7.1	910	25.7
12...	1257	1028	1028	2432	20.0	5.6	7.1	910	25.7
12...	1258	1028	1028	2432	25.0	5.6	7.1	910	25.7
12...	1259	1028	1028	2432	30.0	5.6	7.1	911	25.7
12...	1300	1028	1028	2432	35.0	5.6	7.1	910	25.7
12...	1304	1028	1028	2917	1.00	5.7	7.1	939	25.8
12...	1305	1028	1028	2917	5.00	5.9	7.1	939	25.7
12...	1307	1028	1028	3362	1.00	5.9	7.2	944	26.1
12...	1308	1028	1028	3362	5.00	6.0	7.2	952	25.9
12...	1312	1028	1028	3776	1.00	6.2	7.2	1030	26.3
12...	1313	1028	1028	3776	2.50	6.4	7.2	1020	26.2
12...	1316	1028	1028	4227	1.00	6.5	7.2	1040	26.3
12...	1317	1028	1028	4227	2.50	6.6	7.2	1040	26.2
12...	1318	1028	1028	4227	5.00	6.5	7.2	1040	26.2
12...	1321	1028	1028	4648	1.00	6.2	7.2	1010	26.0
12...	1322	1028	1028	4648	2.50	6.3	7.2	1010	26.0
12...	1323	1028	1028	4648	5.00	6.2	7.2	1010	26.0
12...	1327	1028	1028	5069	1.00	6.1	7.2	982	25.9
12...	1328	1028	1028	5069	2.50	6.3	7.2	981	25.9
12...	1333	1028	1028	5442	1.00	6.0	7.2	936	25.9
12...	1334	1028	1028	5442	2.50	6.1	7.2	935	25.9
12...	1336	1028	1028	5710	1.00	6.0	7.2	931	25.8
12...	1337	1028	1028	5710	5.00	6.2	7.2	933	25.8
12...	1338	1028	1028	5710	10.0	6.2	7.2	936	25.8
12...	1339	1028	1028	5710	15.0	6.2	7.2	939	25.4
12...	1340	1028	1028	5800	--	--	--	--	--

01478245 WHITE CLAY CREEK NEAR STRICKERSVILLE, PA
(Pennsylvania Water-Quality Network Station)

LOCATION.--Lat 39°44'51", long 75°46'15", Chester County, Hydrologic Unit 02040205, on right bank 0.1 mi downstream from West Branch White Clay Creek, in the White Clay Creek State Preserve, and 1.5 mi northeast of Strickersville.

DRAINAGE AREA.--59.2 mi^2.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 120 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year. Satellite telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than a base discharge of 1,800 ft^3/s and maximum (*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Nov. 28	0800	2,910	8.92	Jan. 28	----	2,300	Ice jam
Jan. 14	1115	2,190	8.02	Mar. 28	1815	2,460	8.38
Jan. 25	----	*8,310	**a***13.41				

a Ice jam.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	137	80	364	116	e100	125	126	153	64	49	42	33
2	120	79	175	110	e100	117	724	107	63	48	40	29
3	112	76	142	111	102	110	634	105	92	40	38	29
4	104	208	130	113	109	104	202	98	104	38	37	28
5	97	193	123	161	117	106	166	93	81	55	37	26
6	92	101	118	200	125	113	155	93	94	91	36	26
7	91	88	170	144	131	139	148	92	155	49	37	24
8	89	82	164	163	142	145	265	90	79	402	40	23
9	88	78	154	138	162	110	156	86	73	104	52	21
10	87	76	337	122	173	103	139	85	76	64	66	21
11	81	76	222	118	124	106	130	85	67	55	40	19
12	80	166	149	136	113	111	123	83	63	49	33	17
13	81	240	142	122	108	102	121	81	62	47	30	15
14	116	109	129	884	186	98	118	81	60	46	28	36
15	136	95	121	215	306	94	114	81	56	49	34	55
16	149	90	117	164	154	93	115	76	54	76	36	26
17	100	86	119	145	141	94	115	74	55	187	61	71
18	93	84	116	130	120	93	114	73	51	133	e32	29
19	189	82	120	e125	107	92	112	72	51	64	e32	23
20	117	82	e120	e120	106	106	109	123	51	53	35	22
21	108	84	e110	e115	136	102	106	100	50	46	e31	22
22	100	79	105	e115	158	94	107	81	48	43	e27	22
23	95	77	363	e120	132	395	134	78	46	42	25	23
24	90	84	209	e120	117	223	157	81	44	40	26	23
25	89	116	127	e125	117	137	115	80	43	50	26	25
26	86	86	116	e120	116	122	107	79	42	44	26	27
27	84	79	113	e110	119	116	107	75	45	74	30	32
28	84	1030	116	e110	119	803	103	74	51	77	43	25
29	84	185	114	e105	---	288	99	76	47	45	41	27
30	100	146	116	e105	---	156	127	69	44	42	36	24
31	85	---	118	e105	---	135	---	67	---	41	35	---
TOTAL	3164	4137	4839	4787	3740	4732	5048	2691	1911	2243	1132	823
MEAN	102	138	156	154	134	153	168	86.8	63.7	72.4	36.5	27.4
MAX	189	1030	364	884	306	803	724	153	155	402	66	71
MIN	80	76	105	105	100	92	99	67	42	38	25	15
CFSM	1.72	2.33	2.64	2.61	2.26	2.58	2.84	1.47	1.08	1.22	0.62	0.46
IN.	1.99	2.60	3.04	3.01	2.35	2.97	3.17	1.69	1.20	1.41	0.71	0.52

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2005, BY WATER YEAR (WY)

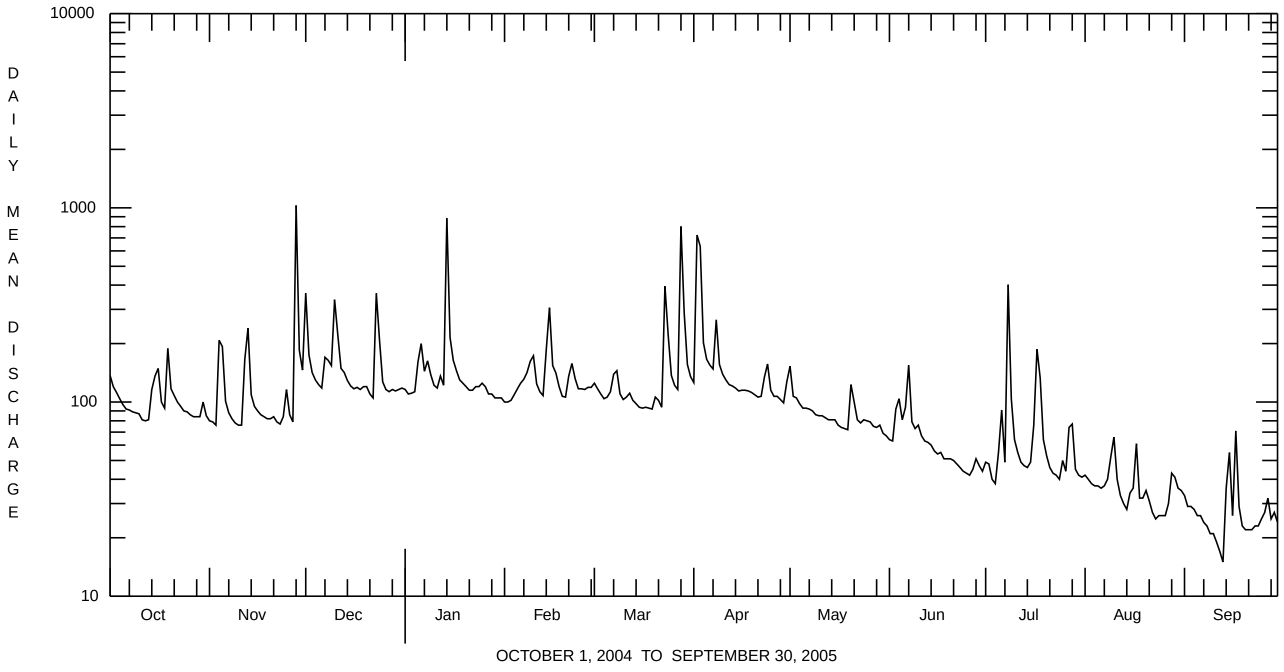
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	70.4	76.1	112	94.2	112	132	104	75.5	77.0	51.4	53.2	98.9
MAX	163	160	246	154	207	203	168	111	169	136	158	250
(WY)	2004	2004	1997	2005	2004	2003	2005	2004	2003	2004	2004	2004
MIN	25.8	27.6	26.6	44.7	32.7	60.3	45.4	43.3	27.7	13.7	10.7	14.0
(WY)	1998	2002	1999	2002	2002	2002	2002	2002	1999	2002	2002	2002

e Estimated.

01478245 WHITE CLAY CREEK NEAR STRICKERSVILLE, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1996 - 2005	
ANNUAL TOTAL	54148		39247			
ANNUAL MEAN	148		108		87.6	
HIGHEST ANNUAL MEAN					161	2004
LOWEST ANNUAL MEAN					31.8	2002
HIGHEST DAILY MEAN	2170	Sep 28	1030	Nov 28	4930	Sep 16 1999
LOWEST DAILY MEAN	63	Jul 11	15	Sep 13	5.4	Aug 15 2002
ANNUAL SEVEN-DAY MINIMUM	71	Jun 30	20	Sep 7	6.1	Aug 10 2002
MAXIMUM PEAK FLOW			**bc**8310	Jan 25	**b**14400	Sep 16 1999
MAXIMUM PEAK STAGE			**d**13.41	Jan 25	**f**16.71	Sep 16 1999
INSTANTANEOUS LOW FLOW			13	Sep 13,14	5.0	Aug 15 2002
ANNUAL RUNOFF (CFSM)	2.50		1.82		1.48	
ANNUAL RUNOFF (INCHES)	34.03		24.66		20.11	
10 PERCENT EXCEEDS	196		159		148	
50 PERCENT EXCEEDS	100		95		59	
90 PERCENT EXCEEDS	78		32		23	

b From rating curve extended above 1,180 ft^3/s on basis of runoff comparison with nearby station.
c Gage height, 8.92 ft.
d Ice jam.
f From floodmark in gage.



01478245 WHITE CLAY CREEK NEAR STRICKERSVILLE, PA--Continued
(Pennsylvania Water-Quality Network Station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 2002 to current year.

REMARKS.--Other data for the Water-Quality Network can be found on pages 386-432.

COOPERATION.--Samples were collected as part of the Pennsylvania Department of Environmental Protection Water-Quality Network (WQN) with cooperation from the Pennsylvania Department of Environmental Protection.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conductance, wat unf lab, µS/cm 25 degC (90095)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water unfltrd recover -able, mg/L (00916)	Magnesium, water, unfltrd recover -able, mg/L (00927)
NOV 2004													
02...	0840	1028	9813	80	11.0	7.3	7.7	311	307	11.2	120	29	12
JAN 2005													
25...	1050	1028	9813	E125	16.2	7.2	7.7	298	305	.0	110	27	11
MAR													
16...	1010	1028	9813	92	16.8	8.4	8.1	332	328	3.8	140	33	13
MAY													
10...	1040	1028	9813	86	12.2	8.2	8.1	320	309	13.9	120	29	12
JUL													
06...	1030	1028	9813	97	9.2	7.7	8.0	304	321	20.9	120	29	11
SEP													
06...	1140	1028	9813	27	10.1	7.8	7.7	352	360	18.1	140	35	14

Date	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 105degC wat flt mg/L (00515)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia water, unfltrd mg/L as N (00610)	Nitrate water unfltrd mg/L as N (00620)	Nitrite water, unfltrd mg/L as N (00615)	Total nitrogen, water, unfltrd mg/L (00600)	Orthophosphate, water, unfltrd mg/L as P (70507)	Phosphorus, water, unfltrd mg/L (00665)	Organic carbon, water, unfltrd mg/L (00680)	Fecal coliform, M-FC 0.45µMF col/ 100 mL (31616)	Aluminum, water, unfltrd recover -able, µg/L (01105)
NOV 2004													
02...	70	26	240	6	<.020	4.5	<.040	4.8	.04	.05	2.4	80	<200
JAN 2005													
25...	59	28	180	6	.140	5.4	<.040	5.8	.03	.05	1.5	120	290
MAR													
16...	71	31	210	<2	<.020	5.1	<.040	5.8	.02	.02	2.0	60	<200
MAY													
10...	72	29	220	<2	.030	4.6	.060	7.5	.03	.04	--	100	<200
JUL													
06...	70	27	250	28	.080	3.9	<.040	4.6	.10	.19	--	120000	1310
SEP													
06...	89	27	280	14	.020	4.9	<.040	4.9	.09	.09	--	290	<200

Date	Copper, water, unfltrd recover -able, µg/L (01042)	Iron, water, unfltrd recover -able, µg/L (01045)	Lead, water, unfltrd recover -able, µg/L (01051)	Manganese, water, unfltrd recover -able, µg/L (01055)	Nickel, water, unfltrd recover -able, µg/L (01067)	Zinc, water, unfltrd recover -able, µg/L (01092)
NOV 2004						
02...	<10	140	<1.0	<10	<50	<10
JAN 2005						
25...	<10	420	<1.0	40	<50	<10
MAR						
16...	<10	90	<1.0	40	<50	<10
MAY						
10...	<10	120	<1.0	30	<50	<10
JUL						
06...	<10	2000	2.1	140	<50	24
SEP						
06...	<10	120	<1.0	20	<50	<10

01478245 WHITE CLAY CREEK NEAR STRICKERSVILLE, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES

REMARKS.--Samples were collected using a D-Frame net with a mesh size of 500 µm. Samples represent counts per 100 animal (approximate) subsamples.

Date	08/10/04
Benthic macroinvertebrate	Count
Platyhelminthes	
Turbellaria (FLATWORMS)	
Tricladida	
Planariidae	1
Nemertea (PROBOSCIS WORMS)	
Enopla	
Hoplonemertea	
Tetrastemmatidae	
Prostoma	1
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Lumbriculida	
Lumbriculidae	2
Arthropoda	
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
Acentrella	4
Baetis	40
Ephemerellidae	
Serratella	1
Heptageniidae	
Stenonema	3
Isonychiidae	
Isonychia	1
Plecoptera (STONEFLIES)	
Capniidae	
Paracapnia	1
Trichoptera (CADDISFLIES)	
Glossosomatidae	
Glossosoma	1
Hydropsychidae	
Hydropsyche	41
Philopotamidae	
Chimarra	2
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
Optioservus	5
Stenelmis	4
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	30
Empididae (DANCE FLIES)	
Chelifera	1
Hemerodromia	2
Simuliidae (BLACK FLIES)	
Simulium	8
Tipulidae (CRANE FLIES)	
Antocha	1
Total Organisms	149
Total Taxa	19

01479820 RED CLAY CREEK NEAR KENNETT SQUARE, PA
(Pennsylvania Water-Quality Network Station)

LOCATION.--Lat 39°49'00", long 75°41'31", Chester County, Hydrologic Unit 02040205, on left bank along SR 82 (Creek Road), and 3.0 mi south of the intersection of SR 82 and U.S. Highway 1 at Kennett Square.

DRAINAGE AREA.--28.3 mi^2.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 196.02 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Some regulation upstream of gage. Several measurements of water temperature were made during the year. Satellite telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than a base discharge of 1,000 ft^3/s and maximum (*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Nov. 28	0745	*2,740	*7.38	Mar. 28	1900	2,180	6.94
Dec. 23	1745	1,000	5.62	Apr. 2	1900	1,440	6.20
Jan. 14	1115	1,540	6.33				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69	51	202	55	53	60	67	87	37	30	18	19
2	63	51	80	53	52	56	541	62	36	31	17	18
3	60	50	68	53	52	53	417	59	57	27	16	16
4	57	163	63	54	53	52	104	57	52	27	15	16
5	54	93	60	82	57	53	87	55	40	36	15	16
6	52	57	58	97	60	55	81	54	44	41	14	17
7	51	53	89	69	63	68	78	54	64	29	15	17
8	51	51	80	84	67	74	150	52	40	234	16	17
9	51	50	81	66	73	56	83	50	37	41	18	17
10	51	49	172	60	79	53	75	50	36	28	20	17
11	49	49	96	59	59	53	72	49	35	24	17	17
12	50	113	70	67	55	55	69	49	34	22	16	18
13	51	125	64	59	53	51	68	47	33	22	15	18
14	77	61	60	558	108	49	66	48	33	22	14	51
15	79	56	57	93	131	48	63	47	31	22	15	55
16	74	53	56	73	68	48	62	46	32	26	18	24
17	55	52	56	66	62	48	62	45	33	40	29	39
18	52	51	55	57	55	47	62	45	30	27	16	23
19	115	51	57	57	52	47	60	45	30	22	21	20
20	64	52	53	58	51	53	60	72	30	20	18	19
21	61	52	51	56	65	50	58	51	30	19	16	19
22	56	50	53	51	74	47	59	45	29	19	14	19
23	53	51	227	64	62	209	120	44	28	18	14	19
24	53	55	93	63	57	93	100	44	27	17	13	19
25	52	74	63	61	57	61	66	44	27	21	13	19
26	51	53	57	57	57	56	61	44	26	19	13	20
27	50	50	55	53	56	53	62	42	28	30	17	22
28	49	933	52	52	57	663	58	41	30	28	26	18
29	49	92	54	52	---	139	57	42	28	18	22	19
30	59	72	56	53	---	76	77	40	27	18	20	19
31	52	---	56	53	---	69	---	38	---	18	21	---
TOTAL	1810	2813	2394	2435	1788	2595	3045	1548	1044	996	532	647
MEAN	58.4	93.8	77.2	78.5	63.9	83.7	102	49.9	34.8	32.1	17.2	21.6
MAX	115	933	227	558	131	663	541	87	64	234	29	55
MIN	49	49	51	51	51	47	57	38	26	17	13	16

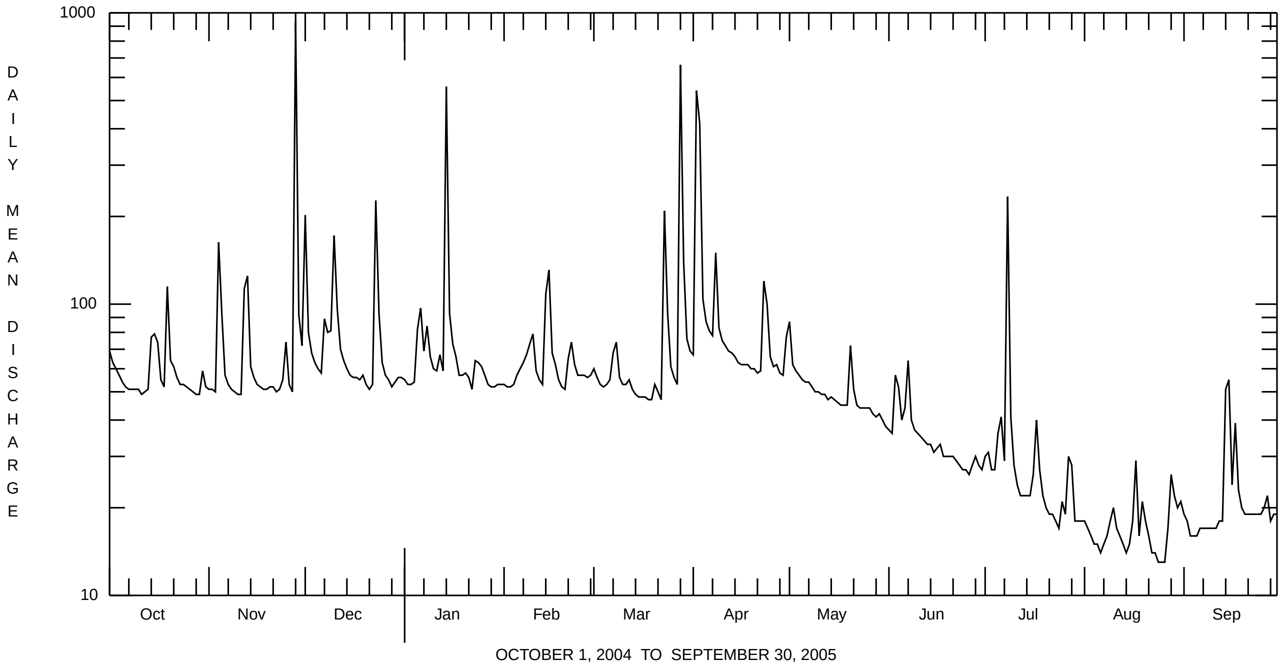
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2005, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	31.7	37.9	47.4	49.1	49.5	63.5	49.9	41.4	38.3	29.9	25.8	44.1
MAX	79.0	93.8	128	96.1	106	116	102	79.2	112	94.5	88.7	212
(WY)	2004	2005	1997	1996	2004	1994	2005	1989	2003	1989	2004	2003
MIN	10.8	10.9	12.9	22.0	16.6	30.5	21.7	21.7	16.0	12.0	5.84	8.83
(WY)	1995	1999	1999	1992	2002	2002	2002	1999	1995	1995	1995	1995

01479820 RED CLAY CREEK NEAR KENNETT SQUARE, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1988 - 2005	
ANNUAL TOTAL	27387		21647			
ANNUAL MEAN	74.8		59.3		42.6	
HIGHEST ANNUAL MEAN					78.2	2004
LOWEST ANNUAL MEAN					18.9	2002
HIGHEST DAILY MEAN	1390	Sep 28	933	Nov 28	4150	Sep 15 2003
LOWEST DAILY MEAN	25	Jul 2	13	Aug 24-26	0.86	Sep 3 1995
ANNUAL SEVEN-DAY MINIMUM	27	Jun 30	14	Aug 21	1.1	Sep 2 1995
MAXIMUM PEAK FLOW			**a**2740	Nov 28	**a**19700	Sep 15 2003
MAXIMUM PEAK STAGE			7.38	Nov 28	**b**15.30	Sep 15 2003
10 PERCENT EXCEEDS	94		80		64	
50 PERCENT EXCEEDS	49		52		29	
90 PERCENT EXCEEDS	35		18		13	

a From rating curve extended above 2,580 ft^3/s from slope-conveyance determination of discharge at gage height 15.30 ft.
b From outside highwater mark.



01479820 RED CLAY CREEK NEAR KENNETT SQUARE, PA--Continued
(Pennsylvania Water-Quality Network Station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 2002 to current year.

REMARKS.--Other data for the Water-Quality Network can be found on pages 386-432.

COOPERATION.--Samples were collected as part of the Pennsylvania Department of Environmental Protection Water-Quality Network (WQN) with cooperation from the Pennsylvania Department of Environmental Protection.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conductance, wat unf lab, µS/cm 25 degC (90095)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water unfltrd recoverable, mg/L (00916)	Magnesium, water, unfltrd recoverable, mg/L (00927)
NOV 2004 02...	0930	1028	9813	50	11.3	7.6	7.7	378	374	11.5	140	33	13
JAN 2005 25...	1240	1028	9813	62	16.4	7.7	7.8	366	373	.1	130	33	13
MAR 16...	1130	1028	9813	48	16.4	8.4	8.1	383	378	5.3	140	34	14
MAY 10...	1230	1028	9813	51	11.6	8.1	8.0	371	363	15.0	140	34	14
JUL 06...	1210	1028	9813	38	8.5	7.8	7.9	344	354	21.6	150	37	13
SEP 06...	1340	1028	9813	18	10.9	8.0	8.2	452	460	19.7	180	43	17

Date	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 105degC wat flt mg/L (00515)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia water, unfltrd mg/L as N (00610)	Nitrate water unfltrd mg/L as N (00620)	Nitrite water, unfltrd mg/L as N (00615)	Total nitrogen, water, unfltrd mg/L (00600)	Orthophosphate, water, unfltrd mg/L as P (70507)	Phosphorus, water, unfltrd mg/L (00665)	Organic carbon, water, unfltrd mg/L (00680)	Fecal coliform, M-FC 0.45µMF col/ 100 mL (31616)	Aluminum, water, unfltrd recoverable, µg/L (01105)
NOV 2004 02...	77	35	290	<2	<.020	5.1	<.040	5.4	.12	.13	2.6	60	<200
JAN 2005 25...	66	36	230	<2	.020	5.6	<.040	6.2	.06	.08	1.6	240	<200
MAR 16...	72	38	280	<2	.020	5.4	.040	5.7	.07	.08	2.1	<20	<200
MAY 10...	74	37	260	<2	.030	4.9	.040	4.5	.09	.10	--	20	<200
JUL 06...	69	34	250	24	.070	3.2	<.040	3.9	.17	.26	--	22000	570
SEP 06...	93	38	330	18	.030	6.2	<.040	6.3	.54	.55	--	440	<200

Date	Copper, water, unfltrd recoverable, µg/L (01042)	Iron, water, unfltrd recoverable, µg/L (01045)	Lead, water, unfltrd recoverable, µg/L (01051)	Manganese, water, unfltrd recoverable, µg/L (01055)	Nickel, water, unfltrd recoverable, µg/L (01067)	Zinc, water, unfltrd recoverable, µg/L (01092)
NOV 2004 02...	<10	70	<1.0	10	<50	<10
JAN 2005 25...	<10	330	<1.0	60	<50	<10
MAR 16...	<10	150	<1.0	50	<50	<10
MAY 10...	<10	200	<1.0	40	<50	<10
JUL 06...	<10	930	1.3	90	<50	22
SEP 06...	<10	70	<1.0	20	<50	12

01479820 RED CLAY CREEK NEAR KENNETT SQUARE, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES

REMARKS.--Samples were collected using a D-Frame net with a mesh size of 500 µm. Samples represent counts per 100 animal (approximate) subsamples.

Date	08/06/04
Benthic macroinvertebrate	Count
Platyhelminthes	
Turbellaria (FLATWORMS)	
Tricladida	
Planariidae	6
Nemertea (PROBOSCIS WORMS)	
Enopla	
Hoplonemertea	
Tetrastemmatidae	
Prostoma	2
Mollusca	
Bivalvia (CLAMS)	
Sphaeriidae	
Sphaerium	10
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Tubificida	
Naididae	2
Arthropoda	
Acariformes	
Hydrachnidia (WATER MITES)	2
Crustacea	
Amphipoda (SCUDS)	
Gammaridae	
Gammarus	2
Isopoda (AQUATIC SOWBUGS)	
Asellidae	
Caecidotea	4
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
Baetis	34
Heptageniidae	
Stenonema	4
Trichoptera (CADDISFLIES)	
Hydropsychidae	
Hydropsyche	44
Hydroptilidae	
Leucotrichia	1
Philopotamidae	
Chimarra	8
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
Optioservus	11
Oulimnius	5
Stenelmis	24

01479820 RED CLAY CREEK NEAR KENNETT SQUARE, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES--Continued

Date	08/06/04
Benthic macroinvertebrate	Count
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	22
Simuliidae (BLACK FLIES)	
Simulium	2
Tipulidae (CRANE FLIES)	
Antocha	6
Total Organisms	189
Total Taxa	18

01480300 WEST BRANCH BRANDYWINE CREEK NEAR HONEY BROOK, PA

LOCATION.--Lat 40°04'22", long 75°51'40", Chester County, Hydrologic Unit 02040205, on right bank 100 ft upstream from bridge on SR 4007 at Birdell, 0.4 mi downstream from Two Log Run, and 3.0 mi southeast of Honey Brook.

DRAINAGE AREA.--18.7 mi^2.

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WDR PA-73-1: 1972(P). WDR PA-99-1: 1972, 1973, 1975, 1976, 1978, 1979, 1982, 1984, 1985, 1987-89, 1996, 1997 (P).

GAGE.--Water-stage recorder and crest-stage gage. Prior to July 1990, water-stage recorder at site 130 ft downstream on right bank at same datum. Datum of gage is 591.20 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair, except those for period Oct. 1 to Nov. 27, those less than 10 ft^3/s, and those for estimated daily discharges, which are poor. Some regulation at low flow by pumpage from the Northwestern Chester County Wastewater Treatment plant. Several measurements of water temperature were made during the year. Satellite and landline telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft^3/s and maximum (*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Nov. 28	0930	1,210	7.36	Mar. 28	1945	930	6.85
Dec. 23	2015	740	6.44	Apr. 2	2100	794	6.56
Jan. 14	1230	*1,280	*7.47				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	19	133	29	e20	31	31	29	14	12	9.6	6.6
2	24	18	45	26	e22	29	257	24	14	12	9.0	6.2
3	28	18	36	28	25	26	305	24	16	9.4	8.4	5.0
4	23	71	31	31	26	26	56	22	19	8.9	7.9	4.9
5	22	67	29	65	28	26	40	21	15	11	7.6	4.7
6	21	25	29	84	31	29	36	21	21	18	6.8	5.2
7	20	23	54	42	35	64	33	20	24	12	7.1	5.1
8	19	21	45	83	42	64	53	19	15	88	9.1	5.0
9	20	20	44	44	60	37	34	19	19	22	10	5.0
10	19	20	128	36	65	30	30	18	19	13	9.0	4.5
11	18	21	67	36	34	31	29	18	14	12	8.5	4.3
12	18	59	39	59	28	30	28	18	13	11	7.3	4.9
13	18	68	35	41	27	27	28	17	13	11	6.5	4.8
14	30	26	32	476	67	26	27	17	14	11	6.3	6.6
15	34	23	30	61	112	24	25	17	13	14	6.5	8.8
16	39	23	29	42	49	24	24	17	12	24	8.1	6.3
17	26	22	30	35	40	24	24	16	12	59	10	19
18	20	21	28	e29	30	24	24	16	11	39	8.0	8.8
19	70	20	29	e26	25	22	24	16	12	17	7.5	6.7
20	29	21	23	e27	26	26	23	23	12	14	7.7	6.2
21	29	27	24	e25	30	29	23	20	12	12	6.7	5.9
22	28	21	26	e20	39	25	24	17	11	11	6.4	5.6
23	24	21	189	e17	39	115	39	18	11	10	5.9	5.4
24	22	23	78	e22	32	74	43	18	11	9.7	5.7	4.6
25	21	30	33	e23	30	35	27	18	10	13	5.5	4.8
26	20	21	27	e25	29	30	24	18	9.6	11	5.6	6.0
27	20	19	24	e21	29	28	25	17	11	12	5.7	7.6
28	19	412	e22	e19	29	264	23	15	12	15	9.5	5.7
29	19	50	27	e17	---	115	22	15	11	10	8.4	5.8
30	28	37	28	e22	---	41	29	14	11	9.5	7.3	5.6
31	21	---	29	e22	---	34	---	15	---	9.1	7.0	---
TOTAL	776	1267	1423	1533	1049	1410	1410	577	411.6	540.6	234.6	185.6
MEAN	25.0	42.2	45.9	49.5	37.5	45.5	47.0	18.6	13.7	17.4	7.57	6.19
MAX	70	412	189	476	112	264	305	29	24	88	10	19
MIN	18	18	22	17	20	22	22	14	9.6	8.9	5.5	4.3
CFSM	1.34	2.26	2.45	2.64	2.00	2.43	2.51	1.00	0.73	0.93	0.40	0.33
IN.	1.54	2.52	2.83	3.05	2.09	2.80	2.80	1.15	0.82	1.08	0.47	0.37

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 2005, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	17.6	25.1	30.3	34.8	37.3	41.6	32.7	25.4	23.7	20.2	12.9	18.1
MAX	68.5	58.6	107	136	85.1	110	83.8	74.6	96.6	106	41.8	63.1
(WY)	1997	1973	1997	1996	1979	1994	1983	1989	1972	1984	2004	1960
MIN	5.74	6.59	7.65	7.03	6.55	14.1	11.0	8.84	6.46	3.79	2.34	3.62
(WY)	1965	2002	1999	1981	2002	2002	2002	1963	1963	1963	2002	1964

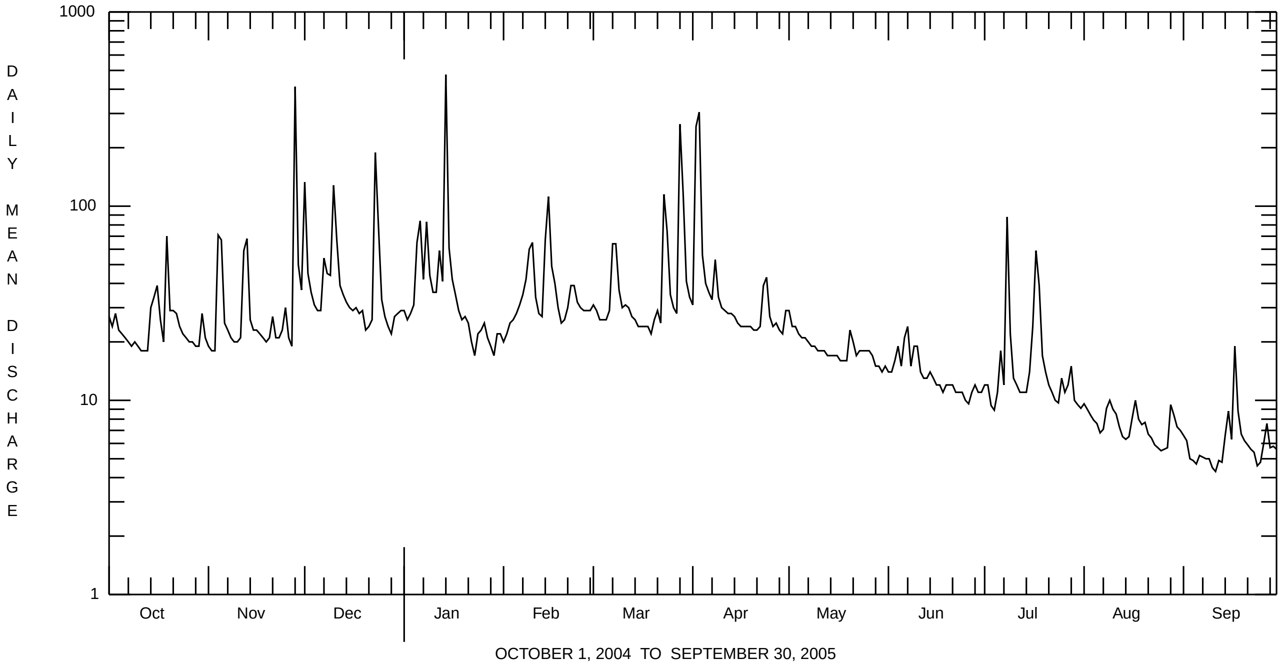
e Estimated.

01480300 WEST BRANCH BRANDYWINE CREEK NEAR HONEY BROOK, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1960 - 2005	
ANNUAL TOTAL	13634.8		10817.4			
ANNUAL MEAN	37.3		29.6		26.5	
HIGHEST ANNUAL MEAN					46.3	1984
LOWEST ANNUAL MEAN					9.24	2002
HIGHEST DAILY MEAN	512	Sep 18	476	Jan 14	1400	Jun 22 1972
LOWEST DAILY MEAN	9.8	Jul 11	4.3	Sep 11	1.0	Aug 21 2002
ANNUAL SEVEN-DAY MINIMUM	12	Jul 5	4.8	Sep 7	1.2	Aug 16 2002
MAXIMUM PEAK FLOW			[a]1280	Jan 14	[a]3800	Jan 19 1996
MAXIMUM PEAK STAGE			7.47	Jan 14	11.62	Jan 19 1996
INSTANTANEOUS LOW FLOW			4.1	Sep 8-14	0.83	Aug 14 2002[b]
ANNUAL RUNOFF (CFSM)	1.99		1.58		1.42	
ANNUAL RUNOFF (INCHES)	27.12		21.52		19.27	
10 PERCENT EXCEEDS	56		47		42	
50 PERCENT EXCEEDS	23		22		15	
90 PERCENT EXCEEDS	16		6.8		6.7	

[a] From rating curve extended above 1,000 ft^3/s on basis of runoff comparison with nearby stations.

[b] Also Aug. 19, 20, 2002.



01480300 WEST BRANCH BRANDYWINE CREEK NEAR HONEY BROOK, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1965 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conductance, wat unf lab, µS/cm 25 degC (90095)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)
OCT 2004													
21...	0900	1028	80020	33	9.9	6.9	7.1	287	268	11.0	27.9	10.7	5.25

Date	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)	ANC, wat unf incrm. titr., field, mg/L as CaCO3 (00419)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Boron, water, fltrd, µg/L (01020)	Iron, water, fltrd, µg/L (01046)
OCT 2004													
21...	10.6	66	81	20.2	E.1	16.9	22.5	E.02	5.15	.025	.06	20	115

01480300 WEST BRANCH BRANDYWINE CREEK NEAR HONEY BROOK, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES

REMARKS.--Samples were collected using a Hess sampler with a mesh size of 500 µm. Each sample covered a total area of 2.4 m^2.

Date	10/21/04
Benthic macroinvertebrate	Count
Platyhelminthes	
Turbellaria (FLATWORMS)	
Tricladida	
Planariidae	7
Nematoda (NEMATODES)	35
Nemertea (PROBOSCIS WORMS)	
Enopla	
Hoplonemertea	
Tetrastemmatidae	
Prostoma	7
Mollusca	
Gastropoda (SNAILS)	
Basommatophora	
Ancylidae	
Ferrissia	2
Bivalvia (CLAMS)	
Veneroida	
Corbiculidae	
Corbicula fluminea	35
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Tubificida	
Tubificidae	4
Arthropoda	
Acariformes	
Hydrachnidia (WATER MITES)	52
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
Acentrella	1
Baetis	10
Ephemerellidae	
Serratella	2
Heptageniidae	
Stenonema	16
Isonychiidae	
Isonychia	3
Plecoptera (STONEFLIES)	
Taeniopterygidae	
Taeniopteryx	8
Megaloptera	
Corydalidae (FISHFLIES AND DOBSONFLIES)	
Corydalus	1

CHRISTINA RIVER BASIN

01480300 WEST BRANCH BRANDYWINE CREEK NEAR HONEY BROOK, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES--Continued

Date	10/21/04
Benthic macroinvertebrate	Count
Trichoptera (CADDISFLIES)	
Glossosomatidae	
Glossosoma	1
Hydropsychidae	
Cheumatopsyche	50
Hydropsyche	411
Hydroptilidae	
Hydroptila	4
Leucotrichia	7
Philopotamidae	
Chimarra	19
Uenoidae	
Neophylax	1
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
Ancyronyx	5
Optioservus	46
Oulimnius	7
Stenelmis	388
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	476
Empididae (DANCE FLIES)	
Hemerodromia	17
Simuliidae (BLACK FLIES)	
Simulium	34
Tipulidae (CRANE FLIES)	
Antocha	85
Hexatoma	1
Tipula	1

Total organisms	1736
Total number of taxa	31

01480400 BIRCH RUN NEAR WAGONTOWN, PA

LOCATION.--Lat 40°01'38", long 75°50'43", Chester County, Hydrologic Unit 02040205, on right bank 15 ft upstream from SR 4005, 0.2 mi upstream of mouth, 0.6 mi downstream from Chambers Lake, and 1.1 mi northwest of Wagontown.

DRAINAGE AREA.--4.55 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1995 to current year.

REVISED RECORDS.--WDR PA-99-1: 1996-98 (M).

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Elevation of gage is 505.81 ft above North American Vertical Datum of 1988.

REMARKS.--Records fair. Flow regulated by Chambers Lake (station 01480399) 0.6 mi upstream. Satellite and landline telemetry at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.4	4.5	25	7.2	6.8	9.3	12	9.3	3.4	1.7	1.8	1.9
2	5.4	3.9	19	6.9	6.5	8.9	46	7.8	3.0	1.7	1.8	1.9
3	4.5	3.7	13	6.8	6.5	7.7	101	7.3	3.4	1.7	1.8	1.9
4	3.9	7.1	11	7.1	6.6	6.8	45	7.0	4.5	1.7	1.8	1.9
5	3.6	13	9.4	11	6.8	6.7	23	6.5	4.3	1.8	1.8	1.9
6	3.2	6.8	8.3	19	7.5	7.0	17	6.2	4.8	1.9	1.8	1.9
7	3.0	4.7	10	15	8.4	9.3	14	6.0	8.8	1.9	1.8	1.8
8	3.0	4.0	12	16	9.6	15	18	5.7	6.2	11	1.9	1.9
9	3.0	3.5	11	15	12	12	14	5.2	4.8	11	1.9	4.5
10	3.0	3.2	25	12	14	9.2	12	5.1	4.6	5.8	1.9	6.1
11	2.3	3.1	25	9.9	11	8.2	10	5.0	4.1	4.0	1.8	5.8
12	2.3	5.5	15	12	8.9	8.0	9.3	4.7	3.6	3.0	1.8	4.4
13	2.2	13	12	11	7.7	7.5	8.7	4.3	3.1	2.4	1.9	5.9
14	4.1	8.1	9.5	65	11	6.9	8.2	4.3	2.9	2.2	1.8	6.1
15	5.0	5.7	8.1	45	26	6.4	7.7	4.4	2.4	2.4	1.8	5.9
16	6.7	4.6	7.6	22	17	6.2	7.3	4.4	2.1	3.8	1.8	5.9
17	5.4	4.2	7.3	15	13	6.1	7.2	4.2	2.0	5.0	1.8	6.1
18	4.1	3.9	7.0	11	10	6.0	7.1	4.1	1.9	5.8	1.8	5.9
19	7.2	3.9	7.0	9.6	8.2	5.8	7.0	4.0	1.9	4.6	1.8	5.8
20	6.6	3.9	6.6	9.5	7.4	6.5	6.9	5.2	1.8	3.5	1.8	5.8
21	5.4	4.3	5.7	8.9	8.4	7.3	6.5	6.3	1.9	2.6	1.8	5.9
22	4.6	4.2	5.9	8.9	9.3	6.6	6.2	5.5	1.9	2.2	1.8	5.9
23	4.2	3.9	18	9.7	10	17	9.3	4.9	1.9	1.9	1.8	6.1
24	3.9	4.1	29	8.8	9.3	28	16	4.7	1.9	1.8	1.8	5.6
25	3.7	5.5	15	8.3	9.0	16	11	4.7	1.9	1.8	1.8	5.3
26	3.8	4.8	11	8.0	8.0	11	8.8	4.7	1.9	1.8	1.8	5.4
27	3.7	4.2	8.7	7.6	7.9	9.4	7.9	4.4	1.8	1.8	1.8	3.1
28	3.6	62	7.4	7.2	8.1	33	7.0	4.3	1.8	1.8	1.9	1.8
29	3.4	36	7.0	7.1	---	51	6.4	4.3	1.8	1.8	1.9	1.8
30	4.9	17	7.3	7.1	---	23	7.7	4.0	1.8	1.8	1.9	2.0
31	5.5	---	7.2	7.0	---	15	---	3.7	---	1.8	1.9	---
TOTAL	133.6	256.3	371.0	414.6	274.9	376.8	468.2	162.2	92.2	98.0	56.6	126.2
MEAN	4.31	8.54	12.0	13.4	9.82	12.2	15.6	5.23	3.07	3.16	1.83	4.21
MAX	8.4	62	29	65	26	51	101	9.3	8.8	11	1.9	6.1
MIN	2.2	3.1	5.7	6.8	6.5	5.8	6.2	3.7	1.8	1.7	1.8	1.8

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2005, BY WATER YEAR (WY)

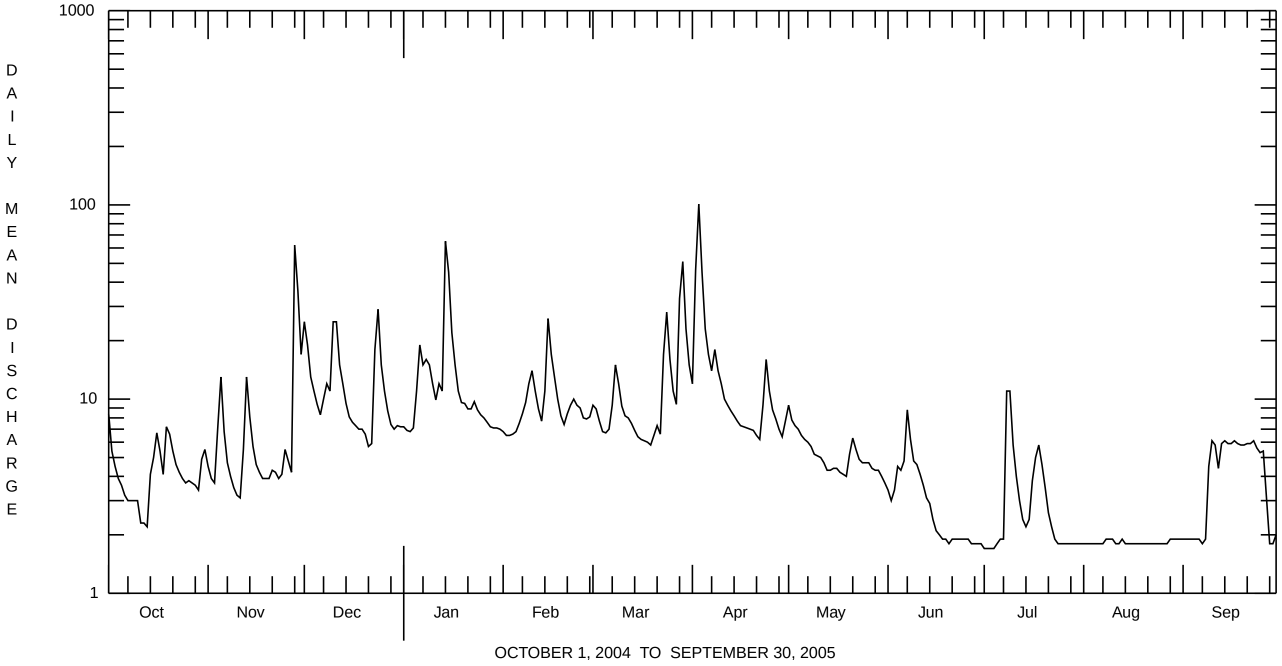
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	5.51	4.72	9.18	7.13	8.56	11.7	9.98	6.16	6.00	2.91	3.04	4.26
MAX	19.2	11.9	30.3	16.2	14.0	17.5	17.1	9.75	25.2	6.23	6.99	11.1
(WY)	1997	2004	1997	1996	2004	2003	1998	2004	2003	1996	2003	2003
MIN	1.15	1.23	1.21	1.57	2.79	1.86	1.40	2.65	1.50	1.33	1.25	1.45
(WY)	1996	1996	1996	1999	1999	2002	2002	1999	1999	1995	1995	1995

e Estimated.

01480400 BIRCH RUN NEAR WAGONTOWN, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1995 - 2005	
ANNUAL TOTAL	3012.9		2830.6			
ANNUAL MEAN	8.23		7.76		6.78	
HIGHEST ANNUAL MEAN					9.76	2004
LOWEST ANNUAL MEAN					2.83	2002
HIGHEST DAILY MEAN	69	Feb 7	101	Apr 3	250	Oct 19 1996
LOWEST DAILY MEAN	1.6	Jul 11	1.7	Jul 1-4	0.10	Feb 15 1995
ANNUAL SEVEN-DAY MINIMUM	2.1	Jul 5	1.7	Jun 28	0.27	Apr 18 1995
MAXIMUM PEAK FLOW			126	Apr 3	[a]401	Jan 19 1996
MAXIMUM PEAK STAGE			3.50	Apr 3	4.99	Jan 19 1996
10 PERCENT EXCEEDS	15		14		14	
50 PERCENT EXCEEDS	6.6		5.9		3.9	
90 PERCENT EXCEEDS	2.7		1.8		1.5	

[a] From rating curve extended above 230 ft^3/s based on a slope-conveyance determination of discharge at gage height 4.99 ft.



OCTOBER 1, 2004 TO SEPTEMBER 30, 2005

01480400 BIRCH RUN NEAR WAGONTOWN, PA--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: June 1996 to current year.

INSTRUMENTATION.--Temperature probe interfaced with a data collection platform.

REMARKS.--Water temperature records rated fair.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 27.0°C, June 26, Aug. 10, 2003; mimimum, 0.0°C, several days during winters.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 25.5°C, July 18; minimum, 0.9°C, Jan. 22.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conductance, wat unf lab, µS/cm 25 degC (90095)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)
OCT 2004													
21...	1400	1028	80020	8.0	9.8	7.2	7.2	128	116	13.5	10.8	4.90	2.73

Date	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)	ANC, wat unf incrm. titr., field, mg/L as CaCO3 (00419)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Aluminum, water, fltrd, µg/L (01106)	Arsenic water, fltrd, µg/L (01000)
OCT 2004													
21...	4.29	39	48	7.17	E.1	7.5	7.0	.21	.41	.011	<.02	3	<2

Date	Boron, water, fltrd, µg/L (01020)	Cadmium water, fltrd, µg/L (01025)	Chromium, water, fltrd, µg/L (01030)	Copper, water, fltrd, µg/L (01040)	Iron, water, fltrd, µg/L (01046)	Lead, water, fltrd, µg/L (01049)	Manganese, water, fltrd, µg/L (01056)	Mercury water, fltrd, µg/L (71890)	Molybdenum, water, fltrd, µg/L (01060)	Nickel, water, fltrd, µg/L (01065)
OCT 2004										
21...	13	<.2	<.8	<1.2	149	<1	121	<.01	<.4	<2.0

01480400 BIRCH RUN NEAR WAGONTOWN, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES

REMARKS.--Samples were collected using a Hess sampler with a mesh size of 500 µm. Each sample covered a total area of 2.4 m^2.

Date	10/21/04
Benthic macroinvertebrate	Count
Platyhelminthes	
Turbellaria (FLATWORMS)	
Tricladida	
Planariidae	5
Nematoda (NEMATODES)	17
Nemertea (PROBOSCIS WORMS)	
Enopla	
Hoplonemertea	
Tetrastemmatidae	
Prostoma	48
Mollusca	
Bivalvia (CLAMS)	
Veneroida	
Sphaeriidae	
Pisidium	8
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Lumbriculida	
Lumbriculidae	12
Tubificida	
Tubificidae	5
Arthropoda	
Crustacea	
Cladocera	360
Cyclopoida	
Cyclopidae	49
Isopoda (AQUATIC SOWBUGS)	
Asellidae	
Caecidotea	2
Podocopa	20
Insecta	
Ephemeroptera (MAYFLIES)	
Caenidae	
Caenis	1
Plecoptera (STONEFLIES)	
Capniidae	1
Megaloptera	
Corydalidae	
Nigronia	7
Trichoptera (CADDISFLIES)	
Hydropsychidae	
Cheumatopsyche	5
Hydropsyche	198
Philopotamidae	
Chimarra	1

01480400 BIRCH RUN NEAR WAGONTOWN, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES--Continued

Date	10/21/04
Benthic macroinvertebrate	Count
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
Optioservus	1
Stenelmis	10
Hydrophilidae	
Helophorus	1
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	83
Empididae (DANCE FLIES)	
Hemerodromia	32
Simuliidae (BLACK FLIES)	
Simulium	143
Tipulidae (CRANE FLIES)	
Antocha	4
Tipula	1

Total Organisms	1014
Total Taxa	24

01480400 BIRCH RUN NEAR WAGONTOWN, PA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	21.7	19.2	20.3	14.2	12.9	13.4	8.9	8.3	8.6	3.8	2.8	3.2
2	20.3	19.0	19.4	14.1	12.8	13.4	8.5	8.0	8.2	3.4	2.9	3.2
3	20.2	18.2	19.1	13.8	12.4	13.3	8.2	7.4	7.9	4.0	3.2	3.6
4	19.5	17.8	18.6	12.9	12.2	12.4	7.8	7.1	7.4	4.4	3.7	3.9
5	18.3	17.0	17.7	12.8	11.6	12.3	7.8	7.0	7.3	4.1	3.8	4.0
6	18.1	16.3	17.1	12.3	11.3	11.8	7.3	6.9	7.1	4.1	3.9	4.0
7	18.5	16.2	17.4	12.9	11.2	11.9	7.4	6.8	6.9	4.0	3.6	3.9
8	18.6	16.7	17.4	11.8	10.5	11.2	7.9	7.1	7.4	4.3	3.9	4.0
9	18.2	16.8	17.5	10.9	9.7	10.3	7.6	7.0	7.2	4.0	3.8	3.8
10	18.1	16.5	17.2	10.5	9.3	9.7	7.4	7.2	7.3	4.4	3.8	4.0
11	17.0	15.6	16.2	10.6	9.1	9.8	7.8	7.2	7.5	4.0	3.7	3.9
12	16.8	15.0	15.8	9.9	9.5	9.7	7.2	6.9	7.0	4.2	3.9	4.1
13	16.4	14.7	15.6	9.8	9.0	9.5	7.0	6.2	6.7	4.9	4.0	4.4
14	16.2	14.9	15.7	9.2	8.6	8.9	6.2	5.3	5.8	5.6	4.7	5.2
15	16.2	15.7	15.9	9.2	8.2	8.7	5.3	4.5	5.0	5.2	4.7	5.0
16	16.1	15.0	15.6	9.3	8.1	8.6	5.2	4.2	4.7	4.8	4.4	4.6
17	15.2	14.3	14.8	9.4	8.2	8.7	4.8	4.0	4.5	4.4	2.5	3.6
18	15.2	13.8	14.5	9.8	8.8	9.2	4.7	3.9	4.2	2.5	1.2	1.8
19	14.5	14.0	14.2	9.9	8.9	9.4	4.5	3.2	4.1	1.9	1.3	1.6
20	14.1	13.8	13.9	9.5	8.7	9.2	3.2	1.2	2.0	2.2	1.7	1.9
21	13.8	13.5	13.7	10.0	9.1	9.5	2.7	1.5	2.1	2.2	1.6	1.8
22	13.8	12.9	13.4	10.1	9.1	9.5	3.2	2.2	2.6	2.0	0.9	1.7
23	13.7	12.5	13.0	9.8	9.1	9.4	4.1	2.8	3.3	2.2	1.6	1.8
24	13.2	12.4	12.8	9.8	9.1	9.3	3.0	2.1	2.7	2.3	1.6	1.9
25	13.6	12.7	13.1	10.5	9.2	10.0	2.4	2.0	2.2	2.6	1.9	2.2
26	13.5	12.7	13.1	9.3	8.6	9.0	2.8	2.2	2.5	2.6	1.9	2.3
27	14.0	12.5	13.1	9.3	8.6	8.8	2.4	1.8	2.2	2.1	1.4	1.7
28	13.5	12.2	12.8	9.5	8.9	9.2	2.4	1.5	1.9	2.4	1.4	1.8
29	13.3	12.2	12.8	9.3	8.9	9.1	3.0	2.1	2.5	2.8	1.7	2.2
30	13.9	12.9	13.4	9.0	8.5	8.8	3.2	2.5	2.8	2.8	2.1	2.4
31	14.5	13.1	13.8	---	---	---	3.5	2.7	3.1	2.9	1.8	2.2
MONTH	21.7	12.2	15.4	14.2	8.1	10.1	8.9	1.2	5.0	5.6	0.9	3.1

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	3.0	1.8	2.2	3.6	2.4	3.0	11.1	6.8	8.5	14.3	12.8	13.4
2	3.1	1.8	2.3	3.7	1.5	2.8	9.1	7.1	7.9	14.2	12.2	12.9
3	3.2	2.1	2.5	2.9	1.1	1.9	9.1	8.3	8.8	13.7	11.7	12.6
4	3.2	2.3	2.7	3.1	1.3	2.2	8.9	7.9	8.4	13.7	12.1	12.6
5	3.6	2.4	2.8	3.7	1.6	2.5	10.5	8.3	9.3	13.8	11.6	12.4
6	3.7	2.5	3.0	4.1	2.2	3.0	14.3	9.3	11.4	12.4	11.7	11.9
7	3.8	2.6	3.1	5.1	2.8	3.7	13.8	11.3	12.6	14.2	11.2	12.6
8	3.8	3.0	3.3	3.9	2.4	3.4	14.5	12.6	13.3	14.9	11.8	13.2
9	3.9	3.2	3.4	3.3	2.1	2.6	13.6	12.1	12.9	15.5	12.1	13.6
10	3.4	3.0	3.2	3.6	1.8	2.6	15.9	12.4	14.2	15.7	12.3	13.7
11	3.6	2.8	3.1	4.2	2.6	3.3	16.4	14.0	15.1	17.7	13.5	15.4
12	3.7	2.9	3.2	4.5	2.5	3.3	15.5	12.9	14.3	16.8	14.8	15.9
13	3.8	2.9	3.3	4.6	2.7	3.7	15.1	13.0	13.8	15.6	13.4	14.5
14	3.7	3.2	3.5	4.9	3.2	3.9	15.1	10.8	13.4	16.9	13.3	15.0
15	3.8	3.3	3.6	5.3	2.9	4.0	13.9	10.5	12.4	16.5	14.9	15.6
16	4.4	3.6	3.8	5.5	3.4	4.4	13.8	11.5	12.5	16.9	14.5	15.6
17	4.0	3.1	3.5	5.7	4.2	4.7	14.9	11.6	13.3	15.9	13.9	14.8
18	3.1	2.4	2.8	6.7	4.1	5.2	16.3	13.0	14.7	16.1	13.5	14.7
19	3.2	1.7	2.5	6.7	4.5	5.3	18.1	14.0	16.0	16.0	13.4	14.6
20	3.7	2.4	3.0	5.5	4.7	5.2	18.4	15.9	17.1	14.9	13.2	13.9
21	3.7	2.6	3.3	6.1	5.2	5.6	17.2	15.3	16.4	16.6	14.3	15.5
22	3.9	3.1	3.4	7.9	4.9	6.3	15.3	12.9	14.1	16.1	14.6	15.4
23	4.0	3.0	3.5	6.5	5.2	5.7	15.1	12.8	14.0	15.7	14.3	14.7
24	3.8	3.1	3.4	6.3	5.2	5.8	14.8	13.2	14.2	14.5	13.9	14.3
25	3.5	2.1	2.9	6.6	6.0	6.2	13.2	11.9	12.6	14.0	13.4	13.7
26	3.9	2.2	2.9	6.5	5.7	6.0	13.8	11.5	12.2	14.9	13.3	13.9
27	3.7	2.2	3.0	6.3	5.7	5.9	14.2	12.1	13.0	16.0	13.0	14.4
28	3.9	3.0	3.5	6.1	5.5	5.8	14.3	12.3	13.1	16.5	13.6	14.8
29	---	---	---	7.5	6.1	6.8	13.5	11.9	12.5	16.6	14.1	15.1
30	---	---	---	10.2	6.7	7.5	13.3	12.1	12.6	16.6	13.9	14.9
31	---	---	---	7.2	6.3	6.7	---	---	---	16.9	13.5	15.1
MONTH	4.4	1.7	3.1	10.2	1.1	4.5	18.4	6.8	12.8	17.7	11.2	14.2

01480400 BIRCH RUN NEAR WAGONTOWN, PA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	17.0	13.7	15.0	14.9	12.5	13.4	16.1	14.2	14.9	18.3	16.2	17.0
2	15.8	13.5	14.4	15.2	12.4	13.5	17.2	14.2	15.2	18.6	15.9	16.9
3	15.7	13.5	14.4	14.6	12.1	13.2	17.1	14.5	15.3	18.1	15.8	16.7
4	17.7	15.7	16.8	15.6	12.3	13.4	17.0	14.5	15.3	18.7	15.8	16.8
5	19.7	16.4	18.1	14.9	12.7	13.4	17.3	14.5	15.5	18.5	15.9	16.8
6	21.6	17.6	18.9	14.3	12.6	13.4	16.7	14.5	15.3	18.5	15.9	16.9
7	23.7	21.3	22.3	13.9	12.5	13.0	16.3	14.5	15.1	18.4	16.0	16.8
8	23.3	21.3	22.3	24.4	12.9	19.4	16.0	14.6	15.1	18.4	15.9	16.9
9	21.6	20.2	20.9	24.2	22.7	23.5	16.3	14.5	15.2	22.3	16.3	19.6
10	22.2	20.3	21.0	23.3	21.3	22.4	16.7	14.7	15.4	22.4	21.0	21.6
11	21.4	19.2	20.3	21.8	19.4	20.7	17.3	14.7	15.7	22.4	20.2	21.4
12	20.3	17.9	19.1	20.5	17.4	19.1	17.4	14.8	15.7	22.6	16.9	20.2
13	19.3	17.4	18.2	18.2	16.3	17.2	17.3	15.1	16.0	22.4	21.2	21.7
14	19.8	16.4	18.0	16.6	15.2	15.9	18.1	15.2	16.1	22.2	21.2	21.7
15	18.2	14.5	16.3	19.6	14.8	16.0	17.5	15.1	15.9	22.2	21.5	21.8
16	15.9	13.2	14.5	21.1	19.6	20.3	16.1	15.1	15.4	22.4	21.5	21.9
17	14.5	12.2	13.1	23.9	20.0	21.9	17.6	15.0	15.9	22.3	21.5	21.9
18	14.9	11.5	12.7	25.5	23.5	24.4	17.4	14.9	15.9	22.5	21.3	21.7
19	13.2	11.7	12.2	24.5	22.3	23.6	16.1	15.3	15.6	22.6	21.2	21.8
20	13.7	11.6	12.5	22.5	19.5	21.5	17.3	15.3	16.0	22.3	21.3	21.8
21	14.4	11.4	12.7	20.6	18.0	19.2	17.9	15.4	16.4	22.5	21.2	21.7
22	14.6	11.8	12.9	19.0	16.1	17.4	17.8	15.3	16.2	22.5	21.0	21.8
23	15.1	11.6	12.9	17.8	14.0	15.9	17.6	15.1	16.0	22.8	21.5	22.0
24	15.4	11.8	13.1	16.3	13.8	14.6	17.5	15.1	16.1	22.3	21.4	21.8
25	15.5	12.1	13.2	16.6	13.8	14.9	17.6	14.9	16.0	22.1	21.4	21.8
26	15.3	12.2	13.3	16.8	13.9	15.0	17.4	15.3	16.1	22.1	21.6	21.8
27	13.8	12.3	13.0	17.2	14.1	15.2	17.2	15.5	16.2	21.8	17.4	19.9
28	15.3	12.4	13.5	16.3	13.8	14.8	17.0	15.8	16.3	19.7	17.1	18.1
29	14.9	12.6	13.3	16.4	13.9	14.7	17.8	15.8	16.6	19.9	17.6	18.7
30	14.9	12.6	13.4	16.6	14.1	14.8	17.5	16.1	16.7	20.1	17.2	18.5
31	---	---	---	16.3	14.0	14.8	18.2	16.4	17.2	---	---	---
MONTH	23.7	11.4	15.7	25.5	12.1	17.1	18.2	14.2	15.8	22.8	15.8	19.9
YEAR	25.5	0.9	11.4									

CHRISTINA RIVER BASIN

01480500 WEST BRANCH BRANDYWINE CREEK AT COATESVILLE, PA

LOCATION.--Lat 39°59'08", long 75°49'40", Chester County, Hydrologic Unit 02040205, on right bank at city limits of Coatesville, 1,200 ft upstream from bridge on old Lincoln Highway, and 0.6 mi downstream from Rock Run.

DRAINAGE AREA.--45.8 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1943 to December 1951, January 1970 to current year.

GAGE.--Water-stage recorder , crest-stage gage, and V-notch sharp-crested weir. Datum of gage is 306.05 ft above National Geodetic Vertical Datum of 1929. Sept. 10, 1943, to Dec. 31, 1951, nonrecording gage at site 1,100 ft downstream at different datum. Satellite and landline telemetry at station.

REMARKS.--No estimated daily discharges. Records fair. Diversion from Rock Run Reservoir (station 01480465) 2.6 mi upstream, capacity, 982 acre-ft, for municipal supply of city of Coatesville.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 9, 1942, reached a stage of 12.3 ft, site and datum then in use, discharge, 8,600 ft^3/s, by slope-area measurement.

COOPERATION.--Records of diversion provided by the Pennsylvania American Water Company.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft^3/s and maximum (*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Nov. 28	0730	1,370	6.15	Mar. 29	0000	1,160	5.92
Dec. 24	0100	856	5.56	Apr. 3	0300	*1,800	*6.57
Jan. 14	1330	1,460	6.24				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57	40	279	63	67	83	86	81	32	30	16	12
2	47	38	130	59	67	79	526	60	32	25	16	11
3	48	39	89	59	66	70	957	57	37	18	15	10
4	42	96	71	63	68	67	215	53	45	17	14	9.4
5	38	188	65	124	72	67	144	51	37	18	14	9.0
6	36	55	61	192	79	71	123	50	39	28	15	9.0
7	36	46	102	111	87	116	111	49	64	21	14	9.0
8	35	42	116	152	100	172	166	47	38	204	17	8.9
9	35	39	93	122	130	97	110	46	34	62	20	9.2
10	36	38	264	84	165	80	95	45	40	31	16	10
11	34	39	192	76	95	78	86	45	33	25	15	9.4
12	34	88	103	128	76	78	80	44	30	22	14	7.9
13	35	172	86	92	70	71	78	42	28	21	14	9.3
14	59	58	75	850	118	67	74	41	28	20	13	23
15	57	47	69	225	288	64	68	41	26	26	13	22
16	84	44	68	142	129	63	65	41	24	47	13	16
17	52	42	68	117	116	62	64	40	24	118	18	36
18	40	40	64	86	85	62	64	39	23	116	15	29
19	123	40	66	83	71	61	64	39	23	40	13	17
20	62	41	54	92	70	67	62	54	22	31	15	15
21	52	48	56	82	81	75	59	55	22	25	14	14
22	49	41	58	68	93	65	59	45	21	23	12	13
23	43	39	254	89	106	217	93	41	20	21	11	13
24	40	42	299	86	88	247	133	42	19	19	10	11
25	38	57	91	86	81	108	75	42	19	22	9.8	11
26	37	46	70	83	77	84	63	42	18	21	10	11
27	38	40	62	74	78	72	60	39	18	20	12	13
28	37	796	57	69	78	411	58	37	21	25	19	10
29	38	167	59	73	---	418	54	37	20	19	17	8.9
30	51	98	62	73	---	133	73	34	18	18	13	10
31	45	---	63	69	---	101	---	33	---	16	13	---
TOTAL	1458	2606	3246	3772	2701	3506	3965	1412	855	1149	440.8	397.0
MEAN	47.0	86.9	105	122	96.5	113	132	45.5	28.5	37.1	14.2	13.2
MAX	123	796	299	850	288	418	957	81	64	204	20	36
MIN	34	38	54	59	66	61	54	33	18	16	9.8	7.9

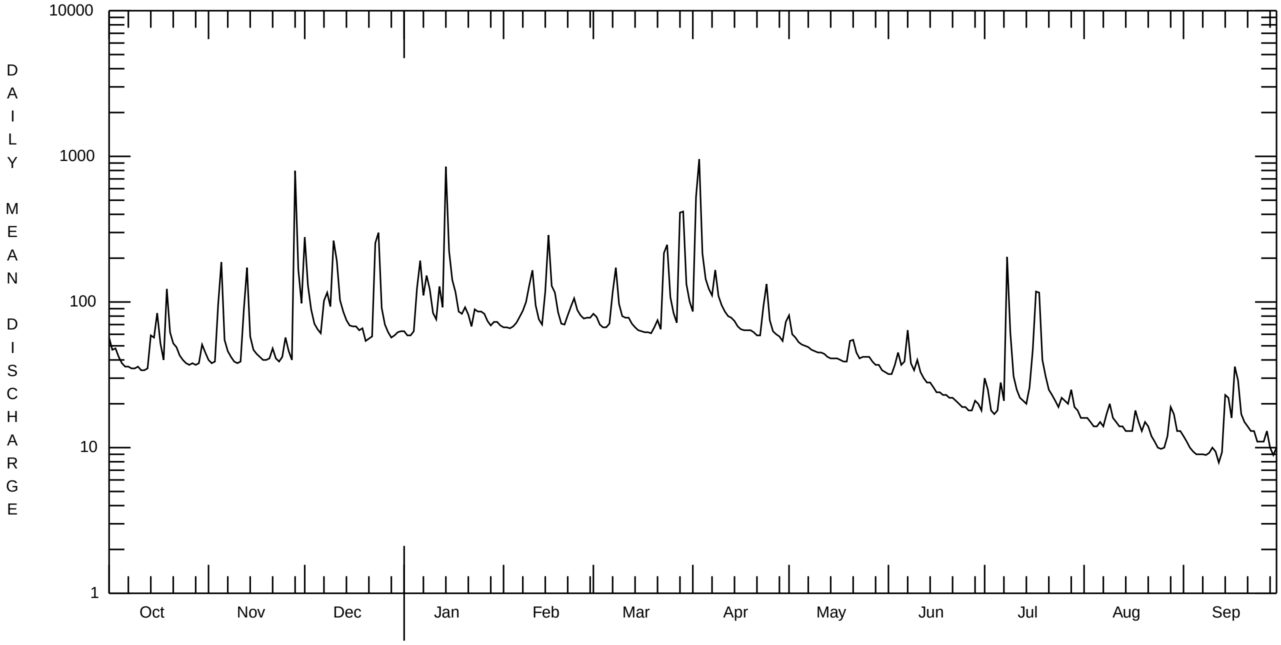
STATISTICS OF MONTHLY MEAN DATA FOR PERIOD OF DAILY RECORD, BY WATER YEAR (WY)

MEAN	38.9	56.0	71.3	77.9	85.7	97.5	86.8	71.1	61.6	47.5	32.1	39.4
MAX	149	114	227	262	179	275	197	159	236	176	82.9	136
(WY)	1997	1973	1997	1979	1971	1994	1983	1989	1972	1984	1971	1979
MIN	11.2	11.1	14.4	15.5	19.6	31.3	25.4	29.6	17.5	9.62	5.43	8.06
(WY)	2002	2002	2002	1981	2002	2002	2002	1999	1999	2002	2002	2002

01480500 WEST BRANCH BRANDYWINE CREEK AT COATESVILLE, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		FOR PERIOD OF DAILY RECORD	
ANNUAL TOTAL	28543		25507.8			
ANNUAL MEAN	78.0		69.9		63.8	
HIGHEST ANNUAL MEAN					98.6	1979
LOWEST ANNUAL MEAN					20.7	2002
HIGHEST DAILY MEAN	796	Nov 28	957	Apr 3	3400	Jun 22 1972
LOWEST DAILY MEAN	22	Jul 11	7.9	Sep 12	3.0	Aug 23 2002
ANNUAL SEVEN-DAY MINIMUM	25	Sep 11	9.1	Sep 6	3.2	Aug 17 2002
MAXIMUM PEAK FLOW			1800	Apr 3	**a**8100	Jun 29 1973
MAXIMUM PEAK STAGE			6.57	Apr 3	10.08	Jun 29 1973
10 PERCENT EXCEEDS	131		122		113	
50 PERCENT EXCEEDS	57		50		42	
90 PERCENT EXCEEDS	30		14		15	

a From rating curve extended above 7,800 ft^3/s on basis of slope-area measurement at gage height 9.92 ft.



OCTOBER 1, 2004 TO SEPTEMBER 30, 2005

01480500 WEST BRANCH BRANDYWINE CREEK AT COATESVILLE, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965, 1970-72, 1995 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: January 1995 to current year.

INSTRUMENTATION.--Temperature probe interfaced with a data collection platform.

REMARKS.--Water temperature records rated good.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 29.0°C, July 6, 1999; minimum, 0.0°C, many days during winters.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 27.4°C, Aug. 14; minimum 0.0°C, several days during winter.

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			**NOVEMBER**			**DECEMBER**			**JANUARY**	
1	17.6	14.9	16.3	13.6	11.4	12.6	8.8	7.6	8.2	7.1	4.8	5.9
2	17.0	16.0	16.5	13.7	11.4	12.5	7.8	6.0	6.9	5.8	4.4	5.1
3	17.0	15.3	16.2	13.0	10.9	12.6	6.6	4.9	5.7	7.5	5.6	6.5
4	16.4	13.4	14.9	10.9	8.8	9.4	5.6	3.7	4.8	8.4	7.3	7.8
5	15.4	13.1	14.4	10.3	8.5	9.4	6.6	4.3	5.4	7.7	5.9	7.0
6	13.9	10.9	12.4	10.1	7.2	8.6	6.2	4.7	5.4	5.9	4.8	5.2
7	14.7	11.0	12.8	11.1	7.5	9.3	7.2	6.1	6.4	5.2	4.2	4.7
8	15.7	12.3	13.9	10.0	7.6	9.0	8.9	7.2	7.9	5.4	4.6	4.9
9	15.8	13.3	14.6	7.6	5.8	6.8	7.6	6.2	7.0	4.9	4.5	4.7
10	16.0	14.3	15.1	6.6	4.2	5.4	8.2	7.5	7.9	5.9	4.5	5.1
11	14.3	12.6	13.4	8.1	5.1	6.5	8.9	7.4	8.3	4.9	4.3	4.7
12	13.0	10.6	11.9	7.4	7.1	7.2	7.5	6.7	7.1	5.8	4.9	5.3
13	12.7	10.1	11.5	7.5	5.8	6.9	7.1	5.5	6.7	8.1	5.8	6.6
14	13.0	11.9	12.5	6.7	4.5	5.6	5.5	3.7	4.7	10.1	6.2	8.5
15	14.0	12.8	13.3	7.0	4.0	5.5	3.7	2.1	2.9	6.2	3.6	4.8
16	13.4	11.9	12.8	7.6	4.9	6.1	3.4	1.2	2.3	4.2	3.1	3.6
17	12.0	10.5	11.2	8.3	5.1	6.7	4.2	2.6	3.2	3.4	0.6	2.3
18	11.4	8.6	10.2	10.0	7.9	8.9	3.7	1.5	2.6	0.6	0.1	0.2
19	11.6	11.2	11.4	10.9	8.9	9.9	4.0	2.3	3.1	0.4	0.1	0.2
20	11.7	11.2	11.4	10.8	10.1	10.4	2.7	0.1	0.5	1.3	0.3	0.7
21	11.7	11.2	11.4	11.4	10.1	10.6	0.6	0.1	0.3	0.9	0.1	0.4
22	12.1	10.9	11.4	10.1	8.6	9.5	2.1	0.5	1.2	0.1	0.0	0.1
23	11.3	9.2	10.3	10.1	9.5	9.8	6.5	1.9	4.1	0.1	0.0	0.1
24	10.4	8.9	9.7	11.7	10.1	10.7	5.1	2.1	3.5	0.1	0.1	0.1
25	11.9	10.2	10.9	12.8	8.8	11.8	2.1	0.6	1.3	0.6	0.1	0.4
26	11.9	10.8	11.4	8.8	6.5	7.4	1.7	0.1	0.9	1.4	0.6	0.9
27	12.6	9.9	11.2	8.1	6.0	7.0	1.6	0.1	0.7	0.7	0.0	0.2
28	12.2	10.5	11.3	10.8	8.1	9.9	0.7	0.0	0.4	0.3	0.1	0.1
29	11.8	10.0	10.8	9.6	7.5	8.3	3.3	0.7	2.0	0.3	0.1	0.2
30	13.5	11.8	12.6	8.3	6.6	7.5	4.5	3.0	3.7	1.1	0.3	0.6
31	15.0	13.1	13.8	---	---	---	6.2	4.3	5.1	1.3	0.0	0.5
MONTH	17.6	8.6	12.6	13.7	4.0	8.7	8.9	0.0	4.2	10.1	0.0	3.1

CHRISTINA RIVER BASIN

01480500 WEST BRANCH BRANDYWINE CREEK AT COATESVILLE, PA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	1.1	0.0	0.4	4.0	0.5	2.2	13.4	8.3	10.6	16.2	12.3	13.8
2	1.1	0.0	0.4	4.3	1.6	2.7	11.3	8.9	9.8	13.1	10.1	11.8
3	2.0	0.2	1.0	3.6	0.3	1.8	10.3	7.0	8.4	13.3	8.8	11.1
4	3.2	1.4	2.1	3.9	0.0	1.8	10.8	6.5	8.3	13.3	10.2	11.6
5	4.0	0.9	2.2	4.9	0.4	2.5	12.3	7.0	9.5	14.7	8.8	11.7
6	4.4	1.0	2.6	5.3	1.1	3.1	15.2	8.7	11.7	12.3	10.3	11.2
7	5.0	1.8	3.3	8.6	3.1	5.5	15.6	11.3	13.5	16.1	9.6	12.5
8	5.9	3.1	4.3	6.5	1.8	5.0	15.5	12.9	14.1	17.4	11.3	14.2
9	6.7	4.2	5.2	3.7	0.1	1.6	15.8	10.4	12.9	19.1	12.4	15.5
10	5.4	3.1	4.6	3.7	0.0	1.7	16.2	9.8	12.9	19.3	13.4	16.2
11	3.9	1.5	2.6	5.4	1.7	3.4	16.4	11.5	13.6	20.2	14.3	17.0
12	3.9	1.5	2.5	6.3	2.9	4.5	14.8	9.7	12.2	18.9	16.1	17.2
13	4.4	1.4	2.9	7.2	2.9	4.9	15.1	9.3	11.9	17.5	12.4	15.0
14	4.6	3.1	3.6	7.1	3.4	5.0	15.8	9.2	12.3	19.7	13.7	16.5
15	5.7	3.8	4.6	7.0	2.5	4.6	14.8	9.7	12.1	19.1	16.5	17.8
16	6.7	3.9	5.1	7.1	2.7	4.8	14.7	8.3	11.3	18.8	15.6	17.0
17	5.5	3.3	4.4	6.3	3.6	4.8	16.0	8.6	12.1	16.7	13.2	15.2
18	3.3	1.0	2.1	8.3	2.9	5.5	17.4	10.5	13.8	17.6	12.1	14.7
19	2.7	0.1	1.2	8.8	3.9	6.3	19.0	11.9	15.3	18.0	12.4	15.1
20	3.3	0.3	1.8	7.2	6.3	6.7	20.4	14.5	17.2	15.9	12.3	13.7
21	3.8	1.1	2.5	7.2	5.9	6.6	18.0	14.7	16.4	16.6	10.8	13.7
22	5.2	3.2	4.0	9.8	4.1	6.8	14.7	11.7	12.5	15.8	13.1	14.4
23	5.4	3.4	4.2	7.7	5.1	6.2	14.5	11.4	12.7	15.2	12.7	14.0
24	3.5	0.9	2.5	6.1	4.1	5.1	13.4	10.4	12.0	14.4	13.2	13.6
25	4.0	0.3	1.9	7.3	5.4	6.2	11.3	8.9	10.1	13.2	12.0	12.4
26	4.5	0.1	2.1	7.7	5.1	6.4	15.4	8.1	11.5	14.7	11.7	13.1
27	4.3	1.0	2.6	7.6	6.4	7.0	15.7	12.2	13.7	18.4	12.0	15.1
28	2.9	0.8	2.1	7.1	6.2	6.4	15.7	11.1	13.3	18.1	14.1	16.1
29	---	---	---	9.2	6.3	7.6	14.3	11.0	12.6	18.8	13.7	16.2
30	---	---	---	10.9	6.4	8.6	13.1	12.1	12.5	18.3	13.9	16.2
31	---	---	---	9.8	7.1	8.6	---	---	---	19.0	13.8	16.4
MONTH	6.7	0.0	2.8	10.9	0.0	5.0	20.4	6.5	12.4	20.2	8.8	14.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	19.7	14.9	17.2	24.3	21.5	22.5	24.2	21.4	22.8	23.3	20.9	22.3
2	19.3	15.5	17.3	24.5	21.2	22.7	25.5	21.3	23.4	22.7	19.5	21.4
3	17.7	15.5	16.1	22.8	19.3	21.2	26.1	22.3	24.3	22.1	19.1	20.6
4	17.7	15.4	16.4	23.6	19.1	21.4	26.3	22.8	24.7	20.5	17.8	19.5
5	21.7	15.6	18.5	22.6	20.8	21.8	26.0	23.0	24.7	20.8	17.7	19.5
6	22.4	18.1	20.1	23.4	20.4	21.9	25.3	23.0	24.3	20.3	17.6	19.3
7	23.3	19.1	21.0	22.4	20.8	21.4	24.0	21.6	23.0	20.1	17.0	18.9
8	24.4	19.5	21.9	21.1	18.4	19.5	23.3	21.6	22.3	19.7	16.5	18.4
9	24.0	19.9	21.9	22.7	18.7	20.5	22.8	21.0	21.8	19.7	17.1	18.6
10	24.2	20.9	22.4	23.8	18.9	21.3	23.2	20.7	22.0	20.0	17.1	18.8
11	24.5	21.3	22.9	24.2	19.5	21.8	25.1	21.1	23.1	19.6	16.7	18.5
12	24.8	21.4	23.1	24.8	20.6	22.6	25.8	22.0	23.9	20.5	17.1	18.9
13	24.6	21.2	22.8	23.4	21.4	22.4	26.7	23.5	25.1	21.0	17.9	19.6
14	25.6	21.8	23.6	23.7	21.8	22.7	27.4	24.1	25.8	21.5	19.0	20.2
15	24.7	22.0	23.4	23.6	21.8	22.5	26.4	24.1	25.0	22.8	20.6	21.6
16	22.8	20.5	21.6	22.7	21.8	22.2	24.2	21.3	22.3	23.7	21.1	22.3
17	20.6	17.9	19.3	23.3	21.6	22.4	23.7	20.1	21.8	23.3	21.0	22.1
18	20.2	16.4	18.4	25.0	22.7	23.7	23.4	20.1	21.9	21.9	19.5	20.7
19	19.0	16.8	17.8	25.2	22.1	23.5	22.7	21.0	21.6	21.8	18.9	20.5
20	19.8	16.2	18.0	25.6	22.1	23.7	23.1	20.4	21.5	21.0	19.2	20.2
21	21.0	16.4	18.7	25.1	21.2	23.1	25.1	21.7	23.4	20.8	18.6	19.9
22	22.1	17.8	20.0	25.4	21.9	23.6	23.8	20.8	22.4	20.3	17.2	19.1
23	22.1	17.7	20.0	25.1	22.1	23.6	22.5	19.3	21.0	21.4	18.8	20.1
24	22.9	18.0	20.5	23.6	19.9	21.9	21.5	18.6	20.3	21.1	19.1	19.9
25	24.1	19.1	21.6	24.2	20.6	22.3	20.8	17.5	19.5	19.5	18.1	18.9
26	24.7	20.1	22.5	26.2	22.0	23.9	20.8	18.3	19.7	20.0	18.6	19.4
27	23.4	21.4	22.1	27.0	23.1	25.0	20.5	19.0	19.9	20.1	18.5	19.4
28	25.1	20.9	22.8	24.9	21.8	23.2	20.7	19.7	20.2	18.5	15.0	16.8
29	24.2	22.0	22.9	23.9	20.2	22.1	22.7	19.8	21.1	17.7	16.3	17.0
30	24.5	21.7	23.0	24.2	21.2	22.7	23.0	21.0	22.0	16.3	13.5	14.8
31	---	---	---	23.6	20.9	22.4	24.3	22.4	23.2	---	---	---
MONTH	25.6	14.9	20.6	27.0	18.4	22.4	27.4	17.5	22.5	23.7	13.5	19.6
YEAR	27.4	0.0	12.4									

CHRISTINA RIVER BASIN

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA

LOCATION.--Lat 39°57'42", long 75°48'06", Chester County, Hydrologic Unit 02040205, on left bank at bridge on SR 15068 at Modena, and 300 ft upstream from Dennis Run.

DRAINAGE AREA.--55.0 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1970 to current year.

REVISED RECORDS.--WDR PA-74-1: 1971-72(P), 1973. WDR PA-75-1: 1974(m).

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 265 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair. Slight regulation from Rock Run Reservoir 5.6 mi upstream, capacity, 982 acre-ft, and by Lukens Steel Company. Diversion from Rock Run Reservoir for municipal supply of city of Coatesville reenters creek upstream from gage. Satellite and landline telemetry at station.

COOPERATION.--Records of diversion provided by the Pennsylvania American Water Company.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s and maximum (*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Nov. 28	1000	1,410	6.08	Apr. 3	0345	*1,680	*6.45
Jan. 14	1200	1,490	6.19	July 17	0615	1,220	5.79
Mar. 29	0045	1,110	5.61				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	107	60	e300	80	79	95	139	125	46	55	32	25
2	87	56	158	79	80	89	625	97	46	43	31	24
3	86	58	115	76	78	79	986	92	62	31	30	24
4	72	120	100	77	80	76	310	86	66	31	28	22
5	66	234	92	e140	86	76	217	80	53	36	29	22
6	61	91	85	e240	91	79	190	80	78	47	29	22
7	59	75	120	e140	98	118	173	78	103	37	29	22
8	58	65	153	e170	108	178	237	72	57	338	46	22
9	55	61	125	e145	134	104	169	71	49	108	37	23
10	57	58	319	e105	173	89	152	67	59	53	31	25
11	52	59	241	99	106	84	140	68	48	42	29	21
12	51	118	129	145	88	87	134	66	45	42	29	20
13	52	186	112	113	81	79	128	61	43	38	29	24
14	113	102	100	910	136	72	126	62	42	36	27	69
15	102	82	90	266	316	68	118	60	41	75	28	35
16	129	77	86	164	140	66	111	61	38	98	32	27
17	88	74	89	138	126	67	112	58	37	e160	35	70
18	65	68	84	106	100	66	109	56	37	e155	30	45
19	169	66	83	102	83	62	106	54	36	e95	28	28
20	103	70	71	111	81	73	103	84	36	58	30	25
21	91	84	72	100	94	81	100	78	34	49	29	25
22	82	69	73	83	105	67	99	62	36	42	26	24
23	72	65	289	102	114	247	141	57	34	41	24	23
24	67	75	335	89	99	274	176	61	33	37	25	22
25	61	97	112	92	95	122	115	59	33	45	24	22
26	60	79	90	99	87	104	103	58	31	40	21	23
27	59	66	80	89	89	99	99	55	33	41	26	24
28	58	849	69	78	90	453	95	55	36	42	47	23
29	57	200	79	82	---	488	90	53	34	36	33	22
30	83	123	78	87	---	182	116	49	32	33	28	21
31	71	---	78	84	---	149	---	48	---	33	26	---
TOTAL	2393	3487	4007	4391	3037	3973	5519	2113	1358	2017	928	824
MEAN	77.2	116	129	142	108	128	184	68.2	45.3	65.1	29.9	27.5
MAX	169	849	335	910	316	488	986	125	103	338	47	70
MIN	51	56	69	76	78	62	90	48	31	31	21	20
CFSM	1.40	2.11	2.35	2.58	1.97	2.33	3.34	1.24	0.82	1.18	0.54	0.50
IN.	1.62	2.36	2.71	2.97	2.05	2.69	3.73	1.43	0.92	1.36	0.63	0.56

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2005, BY WATER YEAR (WY)

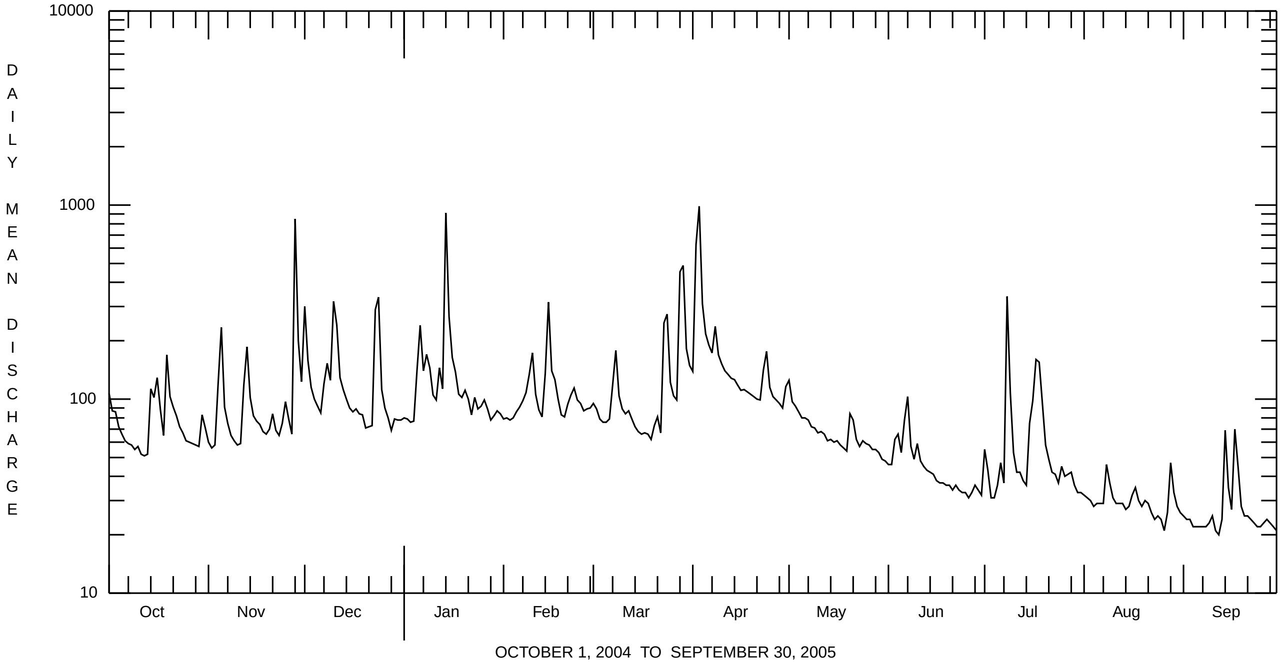
MEAN	57.6	74.2	96.3	102	108	127	118	92.8	85.0	67.5	47.7	58.8
MAX	190	157	306	330	235	308	241	213	302	236	123	186
(WY)	1997	2004	1997	1979	1971	1994	1983	1989	1972	1984	1971	1979
MIN	20.0	17.8	21.5	20.1	30.2	43.0	34.7	41.5	28.4	15.4	11.8	20.6
(WY)	2002	2002	1999	1981	2002	1985	2002	1999	1999	2002	2002	2002

e Estimated.

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1970 - 2005	
ANNUAL TOTAL	39879		34047			
ANNUAL MEAN	109		93.3		86.3	
HIGHEST ANNUAL MEAN					130	1979
LOWEST ANNUAL MEAN					29.7	2002
HIGHEST DAILY MEAN	850	Sep 18	986	Apr 3	4010	Jun 22 1972
LOWEST DAILY MEAN	39	Jul 11	20	Sep 12	7.4	Aug 23 2002
ANNUAL SEVEN-DAY MINIMUM	44	Sep 11	22	Sep 6	8.1	Aug 17 2002
MAXIMUM PEAK FLOW			1680	Apr 3	**a**9600	Jun 29 1973
MAXIMUM PEAK STAGE			6.45	Apr 3	12.47	Jun 29 1973
ANNUAL RUNOFF (CFSM)	1.98		1.70		1.57	
ANNUAL RUNOFF (INCHES)	26.97		23.03		21.31	
10 PERCENT EXCEEDS	161		154		149	
50 PERCENT EXCEEDS	88		75		57	
90 PERCENT EXCEEDS	50		28		25	

a From rating curve extended above 7,800 ft^3/s on basis of slope-area measurement at gage height 11.48 ft.



01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1969 to October 1978, August 1981 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: May 1971 to October 1977, August 1981 to current year.
pH: May 1971 to October 1977, August 1981 to current year.
WATER TEMPERATURES: May 1971 to October 1977, August 1981 to current year.
DISSOLVED OXYGEN: May 1971 to October 1977, August 1981 to current year.

INSTRUMENTATION.--Water-quality monitor May 1971 to October 1977, August 1981 to current year.

REMARKS.--Specific conductance record rated fair except for period Feb. 28 to Apr. 19, which is poor. pH record rated good except for periods June 2-7 and Aug. 11 to Sept. 14, which are fair. Water temperature record rated fair except for periods Oct. 14-21, Mar. 29-31, and Apr. 1, 4, 5, which are poor. Dissolved oxygen record rated fair except for periods Oct. 1 to Mar. 28 and July 16-19, which are poor. Data collection discontinued during winter months since 1981 water year. Other interruptions in the record were due to malfunctions of the equipment.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 858 microsiemens, Jan. 10, 1977; minimum, 72 microsiemens, Nov. 16, 1985.
pH: Maximum, 10.0, Dec. 21, 1971; minimum, 5.9, July 14, 1991.
WATER TEMPERATURE: Maximum, 33.5°C, July 19, 1977; minimum, 0.0°C, many days during winters.
DISSOLVED OXYGEN: Maximum, 19.5 mg/L, Sept. 2, 1990; minimum, 0.6 mg/L, Nov. 1, 3, 1974.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Fecal coliform, M-FC 0.7µ MF col/ 100 mL (31625)
MAR 2005									
08...	1320	1028	1028	172	13.2	7.8	292	6.0	740
28...	1415	1028	1028	292	11.2	7.9	241	7.2	4100
APR									
12...	1210	1028	1028	133	10.5	8.3	256	11.6	720
26...	1140	1028	1028	102	13.4	7.9	275	11.0	8300
MAY									
04...	1050	1028	1028	88	12.9	7.8	302	11.3	2500
17...	1025	1028	1028	59	13.2	8.0	300	14.7	590
24...	0905	1028	1028	59	9.4	7.5	293	14.1	600
JUN									
07...	0830	1028	1028	119	9.0	7.5	241	19.2	6000
20...	0800	1028	1028	36	8.5	7.6	338	17.1	4700
27...	1250	1028	1028	38	9.4	7.7	341	22.4	3100
JUL									
07...	0740	1028	1028	36	7.1	7.5	320	21.6	3300
19...	1000	1028	1028	E95	8.1	7.7	319	22.9	3000
28...	1220	1028	1028	46	11.3	8.5	338	23.9	1300
AUG									
03...	1115	1028	1028	31	9.5	8.0	382	24.0	430
25...	0900	1028	1028	25	7.9	7.7	466	19.0	E1500
31...	0930	1028	1028	26	6.5	7.6	419	23.3	1200
SEP									
08...	0825	1028	1028	22	7.5	7.6	465	18.1	E670
22...	0755	1028	1028	E24	7.1	7.7	443	18.7	470

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conductance, wat unf lab, µS/cm 25 degC (90095)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)
NOV 2004													
03...	0930	1028	80020	59	10.4	8.0	7.8	307	327	13.0	29.2	9.86	4.43

Date	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)	ANC, wat unf incrm. titr., field, mg/L as CaCO3 (00419)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Aluminum, water, fltrd, µg/L (01106)	Arsenic water, fltrd, µg/L (01000)
NOV 2004													
03...	16.1	67	85	30.7	.2	12.0	23.7	<.04	4.40	.019	.05	15	<2

Date	Boron, water, fltrd, µg/L (01020)	Cadmium water, fltrd, µg/L (01025)	Chromium, water, fltrd, µg/L (01030)	Copper, water, fltrd, µg/L (01040)	Iron, water, fltrd, µg/L (01046)	Lead, water, fltrd, µg/L (01049)	Manganese, water, fltrd, µg/L (01056)	Mercury water, fltrd, µg/L (71890)	Molybdenum, water, fltrd, µg/L (01060)	Nickel, water, fltrd, µg/L (01065)
NOV 2004										
03...	42	<.2	3.3	3.9	38	E.6	14.4	<.01	13.4	E1.9

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES

REMARKS.--Samples were collected using a Hess sampler with a mesh size of 500 µm. Each sample covered a total area of 2.4 m^2.

Date	11/03/04
Benthic macroinvertebrate	Count
Platyhelminthes	
Turbellaria (FLATWORMS)	
Tricladida	
Planariidae	31
Nematoda (NEMATODES)	33
Nemertea (PROBOSCIS WORMS)	
Enopla	
Hoplonemertea	
Tetrastemmatidae	
Prostoma	5
Mollusca	
Gastropoda (SNAILS)	
Basommatophora	
Ancylidae	
Ferrissia	4
Bivalvia (CLAMS)	
Veneroida	
Sphaeriidae	1
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Lumbriculida	
Lumbriculidae	7
Arthropoda	
Acariformes	
Hydrachnidia (WATER MITES)	3
Crustacea	
Amphipoda (SCUDS)	
Gammaridae	
Gammarus	2
Insecta	
Ephemeroptera (MAYFLIES)	
Heptageniidae	
Stenonema	3
Trichoptera (CADDISFLIES)	
Hydropsychidae	
Cheumatopsyche	13
Hydropsyche	69
Hydroptilidae	
Leucotrichia	1
Lepidoptera	
Pyralididae(MOTHS)	
Petrophila	1

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES--Continued

Date	11/03/04
Benthic macroinvertebrate	Count
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
Optioservus	14
Oulimnius	6
Stenelmis	27
Psephenidae (WATER PENNIES)	
Psephenus	1
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	178
Empididae (DANCE FLIES)	
Hemerodromia	11
Tipulidae (CRANE FLIES)	
Antocha	1

Total organisms	411
Total number of taxa	20

CHRISTINA RIVER BASIN

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° CELSIUS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	315	285	299	340	311	326	---	---	---	---	---	---
2	327	312	320	341	325	333	---	---	---	---	---	---
3	338	310	324	353	317	337	---	---	---	---	---	---
4	345	325	333	350	219	305	---	---	---	---	---	---
5	343	309	327	256	202	233	---	---	---	---	---	---
6	341	328	334	306	256	274	---	---	---	---	---	---
7	338	320	330	308	283	295	---	---	---	---	---	---
8	338	323	332	334	293	310	---	---	---	---	---	---
9	345	326	336	336	317	330	---	---	---	---	---	---
10	336	315	328	392	316	337	---	---	---	---	---	---
11	350	315	331	339	322	332	---	---	---	---	---	---
12	352	331	341	339	234	294	---	---	---	---	---	---
13	400	333	350	254	216	233	---	---	---	---	---	---
14	349	188	285	284	244	267	---	---	---	---	---	---
15	324	190	294	303	268	287	---	---	---	---	---	---
16	290	231	268	321	296	307	---	---	---	---	---	---
17	307	274	291	320	299	310	---	---	---	---	---	---
18	---	---	---	327	307	318	---	---	---	---	---	---
19	---	---	---	327	311	317	---	---	---	---	---	---
20	---	---	---	318	285	312	---	---	---	---	---	---
21	---	---	---	304	285	294	---	---	---	---	---	---
22	322	307	313	321	290	304	---	---	---	---	---	---
23	379	313	329	329	302	315	---	---	---	---	---	---
24	396	330	350	329	306	317	---	---	---	---	---	---
25	337	313	326	313	284	298	---	---	---	---	---	---
26	337	318	328	316	277	295	---	---	---	---	---	---
27	339	323	331	316	294	304	---	---	---	---	---	---
28	338	322	330	---	---	---	---	---	---	---	---	---
29	338	322	332	---	---	---	---	---	---	---	---	---
30	339	263	311	---	---	---	---	---	---	---	---	---
31	330	300	316	---	---	---	---	---	---	---	---	---
MONTH	400	188	322	392	202	303	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	784	338	449	299	289	294	289	259	270
2	---	---	---	404	336	355	296	152	218	292	273	283
3	---	---	---	361	334	350	191	137	157	297	278	287
4	---	---	---	338	324	331	---	---	---	304	286	296
5	---	---	---	328	313	322	278	258	268	306	280	295
6	---	---	---	327	302	315	294	278	284	309	296	303
7	---	---	---	320	254	298	294	243	279	308	294	301
8	---	---	---	339	244	278	278	237	250	308	295	303
9	---	---	---	331	282	305	272	261	266	313	295	304
10	---	---	---	313	288	301	274	268	271	317	298	307
11	---	---	---	328	293	300	280	268	273	317	285	306
12	---	---	---	339	286	299	281	272	276	322	308	315
13	---	---	---	295	280	289	286	271	276	321	286	310
14	---	---	---	298	281	290	286	270	277	322	304	314
15	---	---	---	302	286	293	286	274	280	321	302	312
16	---	---	---	302	287	294	287	278	282	320	297	307
17	---	---	---	310	287	296	287	273	278	318	298	307
18	---	---	---	303	288	294	286	270	277	322	300	309
19	---	---	---	306	287	297	297	274	283	324	300	314
20	---	---	---	302	289	295	299	286	291	328	261	301
21	---	---	---	293	274	281	309	289	296	308	272	287
22	---	---	---	296	281	287	301	289	295	310	291	302
23	---	---	---	297	213	263	301	208	277	320	292	306
24	---	---	---	266	213	235	255	229	244	323	298	309
25	---	---	---	286	266	277	275	255	266	318	289	308
26	---	---	---	300	280	290	293	268	276	319	296	309
27	---	---	---	303	286	295	296	280	286	325	304	315
28	---	---	---	298	171	242	301	283	290	336	303	317
29	---	---	---	242	164	201	305	292	298	337	306	322
30	---	---	---	279	242	260	303	259	285	333	310	323
31	---	---	---	295	273	283	---	---	---	334	310	323
MONTH	---	---	---	784	164	296	309	137	272	337	259	305

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° CELSIUS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	347	314	331	384	224	338	403	365	387	428	387	408
2	348	314	333	342	262	311	413	364	392	404	366	387
3	345	270	320	373	331	350	424	380	400	413	375	395
4	325	294	310	411	343	372	426	398	412	421	386	407
5	350	323	335	411	311	366	406	370	388	459	382	413
6	356	176	325	371	296	337	402	360	384	460	426	450
7	297	254	274	358	316	335	396	363	382	468	443	459
8	316	281	299	358	141	228	400	240	350	469	439	456
9	347	305	321	290	217	260	364	326	348	455	409	431
10	335	290	318	339	290	314	384	351	369	416	388	405
11	336	312	325	354	327	342	387	354	377	406	363	392
12	343	310	327	377	320	348	399	360	381	433	375	406
13	348	319	336	383	320	355	397	361	382	432	382	408
14	348	315	332	390	357	376	397	369	387	418	135	347
15	358	320	336	394	157	340	400	364	384	381	264	327
16	357	328	346	307	181	274	402	367	385	393	354	378
17	366	331	351	294	114	230	374	354	365	400	160	305
18	363	333	349	290	198	250	393	351	375	360	256	309
19	354	330	345	354	260	317	424	386	404	444	356	388
20	352	330	344	383	341	361	430	375	395	470	403	440
21	353	325	343	407	375	388	445	357	389	434	408	421
22	363	330	347	413	382	398	433	364	390	465	409	440
23	369	336	355	416	384	400	465	406	436	463	385	442
24	366	333	354	415	388	402	434	400	420	414	381	396
25	368	335	355	417	310	372	471	423	455	426	390	409
26	366	335	355	392	344	370	472	416	448	455	385	417
27	373	339	360	385	270	362	466	421	444	442	394	414
28	365	329	345	348	283	337	445	213	365	467	408	427
29	361	324	342	411	347	371	414	355	378	538	400	484
30	370	342	360	417	382	398	429	407	416	493	421	472
31	---	---	---	403	371	391	439	406	421	---	---	---
MONTH	373	176	336	417	114	342	472	213	394	538	135	408

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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

CHRISTINA RIVER BASIN

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
		FEBRUARY			**MARCH**			**APRIL**			**MAY**	
1	---	---	---	8.5	7.6	7.7	8.2	7.5	7.8	8.5	7.3	7.5
2	---	---	---	8.6	7.6	7.8	7.8	7.5	7.6	8.2	7.3	7.5
3	---	---	---	8.5	7.6	7.7	7.5	7.4	7.4	8.6	7.4	7.7
4	---	---	---	8.6	7.6	7.8	---	---	---	8.6	7.4	7.6
5	---	---	---	8.6	7.6	7.7	---	---	---	8.7	7.4	7.7
6	---	---	---	8.7	7.6	7.8	7.8	7.4	7.5	8.5	7.4	7.6
7	---	---	---	8.8	7.6	7.7	8.0	7.4	7.6	8.7	7.4	7.6
8	---	---	---	8.0	7.6	7.7	8.1	7.4	7.6	8.7	7.3	7.6
9	---	---	---	8.4	7.6	7.8	8.3	7.5	7.6	8.7	7.3	7.7
10	---	---	---	8.6	7.6	7.8	8.5	7.5	7.7	8.8	7.4	7.8
11	---	---	---	8.7	7.6	7.8	8.8	7.5	7.8	8.8	7.3	7.6
12	---	---	---	8.8	7.6	7.8	8.8	7.5	7.8	8.7	7.3	7.6
13	---	---	---	8.9	7.6	7.9	9.0	7.5	7.8	8.8	7.3	7.8
14	---	---	---	9.0	7.6	8.0	8.9	7.5	7.9	9.0	7.3	7.8
15	---	---	---	9.0	7.6	7.9	9.1	7.6	8.0	8.8	7.3	7.8
16	---	---	---	9.1	7.5	7.9	9.1	7.5	8.0	8.9	7.3	7.8
17	---	---	---	9.2	7.5	8.0	9.1	7.5	8.0	9.1	7.3	8.0
18	---	---	---	9.1	7.5	8.0	9.2	7.5	8.0	9.1	7.3	8.0
19	---	---	---	9.0	7.5	8.0	9.1	7.4	7.8	9.3	7.3	8.4
20	---	---	---	8.2	7.5	7.6	9.2	7.2	7.8	7.6	7.3	7.5
21	---	---	---	8.8	7.4	7.7	9.1	7.2	7.8	8.7	7.4	7.7
22	---	---	---	8.9	7.5	7.9	8.5	7.2	7.6	8.8	7.4	7.8
23	---	---	---	7.8	7.4	7.5	8.5	7.3	7.5	8.8	7.4	7.7
24	---	---	---	7.7	7.4	7.5	8.0	7.2	7.4	8.0	7.4	7.5
25	---	---	---	8.1	7.6	7.7	8.4	7.2	7.5	8.0	7.4	7.6
26	---	---	---	8.3	7.6	7.8	9.0	7.2	7.6	8.5	7.4	7.7
27	---	---	---	8.2	7.6	7.7	9.1	7.3	7.7	8.7	7.2	7.7
28	---	---	---	8.4	7.4	7.7	9.0	7.2	7.8	8.6	7.3	7.5
29	---	---	---	7.8	7.6	7.6	9.1	7.2	7.8	8.5	7.3	7.6
30	---	---	---	8.0	7.7	7.8	7.5	7.3	7.4	8.6	7.2	7.6
31	---	---	---	8.1	7.7	7.8	---	---	---	8.5	7.3	7.6
MAX	---	---	---	9.2	7.7	8.0	9.2	7.6	8.0	9.3	7.4	8.4
MIN	---	---	---	7.7	7.4	7.5	7.5	7.2	7.4	7.6	7.2	7.5

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
		JUNE			**JULY**			**AUGUST**			**SEPTEMBER**	
1	8.5	7.3	7.6	8.3	7.2	7.4	9.0	7.5	8.3	8.2	7.6	7.9
2	8.7	7.3	7.7	7.8	7.2	7.4	9.0	7.5	8.2	8.4	7.6	7.9
3	7.7	7.4	7.5	8.4	7.3	7.7	8.9	7.5	8.2	8.3	7.6	7.9
4	7.9	7.5	7.6	8.6	7.3	7.8	8.9	7.4	8.2	8.3	7.6	7.9
5	8.2	7.4	7.6	8.2	7.3	7.5	8.9	7.4	8.2	8.4	7.6	7.9
6	8.2	7.4	7.6	8.2	7.3	7.6	8.8	7.5	8.3	8.3	7.6	7.9
7	8.0	7.4	7.6	8.2	7.3	7.6	8.7	7.5	8.1	8.4	7.6	8.0
8	8.1	7.5	7.7	8.2	7.4	7.4	8.1	7.4	7.6	8.4	7.6	8.0
9	8.1	7.5	7.7	7.7	7.4	7.5	8.5	7.4	7.8	8.5	7.6	8.0
10	8.1	7.5	7.7	7.9	7.4	7.6	8.6	7.5	7.9	8.7	7.7	8.2
11	8.1	7.5	7.7	8.3	7.5	7.7	8.9	7.5	8.0	8.7	7.7	8.2
12	8.1	7.5	7.7	8.5	7.4	7.7	8.9	7.6	8.2	8.7	7.7	8.1
13	8.1	7.4	7.6	8.5	7.4	7.8	9.0	7.6	8.3	8.7	7.7	8.1
14	8.2	7.4	7.7	8.5	7.4	7.9	9.0	7.6	8.3	8.5	7.6	7.8
15	8.1	7.5	7.7	8.5	7.4	7.7	8.8	7.6	8.2	8.0	7.6	7.7
16	8.0	7.5	7.7	7.6	7.5	7.5	8.2	7.6	7.8	8.2	7.7	7.9
17	8.1	7.5	7.8	7.9	7.3	7.4	8.7	7.6	8.0	8.5	7.7	8.0
18	8.2	7.6	7.8	8.1	7.3	7.4	8.8	7.6	8.1	8.1	7.8	7.9
19	8.0	7.5	7.7	7.8	7.5	7.6	8.2	7.6	7.8	8.2	7.8	7.9
20	8.3	7.5	7.8	8.1	7.6	7.7	8.5	7.7	7.9	8.3	7.7	8.0
21	8.3	7.5	7.8	8.3	7.6	7.8	8.6	7.6	8.0	8.3	7.7	8.0
22	8.4	7.5	7.8	8.6	7.6	8.0	8.6	7.6	8.0	8.4	7.7	8.0
23	8.5	7.5	7.9	8.8	7.6	8.1	8.7	7.6	8.1	8.5	7.7	8.1
24	8.6	7.5	8.0	8.9	7.6	8.3	8.7	7.7	8.3	8.5	7.8	8.3
25	8.6	7.4	8.0	8.9	7.4	8.0	8.7	7.7	8.1	8.6	7.8	8.2
26	8.7	7.4	8.1	9.0	7.3	8.2	8.8	7.7	8.2	8.4	7.8	8.1
27	8.2	7.3	7.6	9.0	7.3	7.9	8.5	7.7	8.0	8.3	7.6	8.0
28	8.6	7.3	7.7	8.8	7.3	8.0	7.8	7.6	7.7	8.4	7.8	8.1
29	8.4	7.3	7.7	9.1	7.4	8.4	8.3	7.6	7.8	8.3	7.7	7.9
30	8.5	7.3	7.7	9.1	7.5	8.3	8.3	7.5	7.8	8.4	7.8	8.1
31	---	---	---	9.1	7.5	8.4	8.0	7.6	7.8	---	---	---
MAX	8.7	7.6	8.1	9.1	7.6	8.4	9.0	7.7	8.3	8.7	7.8	8.3
MIN	7.7	7.3	7.5	7.6	7.2	7.4	7.8	7.4	7.6	8.0	7.6	7.7

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	18.9	16.4	17.8	14.3	12.5	13.5	---	---	---	---	---	---
2	18.3	17.4	17.9	14.4	12.4	13.5	---	---	---	---	---	---
3	18.7	16.9	17.8	14.1	12.3	13.6	---	---	---	---	---	---
4	17.9	15.6	16.8	12.3	10.4	10.8	---	---	---	---	---	---
5	17.2	15.4	16.3	10.7	9.6	10.2	---	---	---	---	---	---
6	15.7	13.5	14.7	10.5	8.3	9.6	---	---	---	---	---	---
7	16.5	13.5	15.0	11.6	8.8	10.3	---	---	---	---	---	---
8	17.4	14.7	16.0	11.3	9.2	10.1	---	---	---	---	---	---
9	17.5	15.8	16.6	9.2	7.6	8.4	---	---	---	---	---	---
10	17.8	16.2	16.9	7.9	5.9	7.2	---	---	---	---	---	---
11	16.3	14.8	15.5	9.2	6.8	8.1	---	---	---	---	---	---
12	15.3	13.2	14.3	9.1	7.8	8.7	---	---	---	---	---	---
13	14.6	13.2	14.1	8.6	7.4	8.0	---	---	---	---	---	---
14	14.8	13.8	14.4	8.0	6.2	7.2	---	---	---	---	---	---
15	15.9	14.6	15.1	8.4	6.1	7.5	---	---	---	---	---	---
16	15.0	13.6	14.3	9.2	7.1	8.3	---	---	---	---	---	---
17	14.1	12.3	13.2	9.9	7.4	8.7	---	---	---	---	---	---
18	13.4	---	---	11.2	9.7	10.4	---	---	---	---	---	---
19	---	---	---	11.6	10.2	11.0	---	---	---	---	---	---
20	---	---	---	11.9	11.1	11.5	---	---	---	---	---	---
21	---	---	---	12.2	11.2	11.6	---	---	---	---	---	---
22	13.1	11.9	12.4	11.5	10.0	10.8	---	---	---	---	---	---
23	12.5	10.6	11.6	11.3	10.6	11.0	---	---	---	---	---	---
24	11.5	10.2	11.0	12.8	11.2	11.8	---	---	---	---	---	---
25	13.0	11.3	12.1	13.8	10.0	12.7	---	---	---	---	---	---
26	13.0	11.9	12.5	10.0	7.9	8.6	---	---	---	---	---	---
27	13.4	11.2	12.3	9.4	7.3	8.3	---	---	---	---	---	---
28	13.3	11.6	12.5	---	---	---	---	---	---	---	---	---
29	12.7	11.3	12.0	---	---	---	---	---	---	---	---	---
30	14.4	12.7	13.6	---	---	---	---	---	---	---	---	---
31	15.7	13.8	14.6	---	---	---	---	---	---	---	---	---
MONTH	18.9	10.2	14.5	14.4	5.9	10.1	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	5.1	1.9	3.4	13.3	9.9	11.6	16.1	12.9	14.2
2	---	---	---	4.7	2.8	3.9	11.9	9.4	10.3	14.1	11.1	12.4
3	---	---	---	4.5	1.6	3.1	10.4	7.7	8.8	13.3	9.7	11.7
4	---	---	---	4.7	1.4	3.2	10.2	7.1	8.4	13.6	11.0	12.2
5	---	---	---	5.6	2.0	3.9	12.7	7.8	10.3	14.4	10.0	12.3
6	---	---	---	6.0	2.6	4.4	15.0	9.4	12.0	13.1	11.2	11.8
7	---	---	---	8.9	4.2	6.5	15.4	11.7	13.6	15.6	10.3	12.9
8	---	---	---	7.5	2.8	5.8	15.6	13.2	14.2	16.9	12.2	14.6
9	---	---	---	4.0	1.0	2.6	15.5	10.9	13.1	18.5	13.2	15.9
10	---	---	---	4.1	1.2	2.9	15.7	10.4	13.0	18.8	14.2	16.5
11	---	---	---	6.1	2.9	4.5	15.9	11.8	13.7	19.6	14.8	17.1
12	---	---	---	6.8	4.1	5.6	14.4	10.3	12.5	18.7	16.4	17.4
13	---	---	---	7.2	4.1	5.8	14.6	10.0	12.3	17.5	13.3	15.5
14	---	---	---	7.6	4.6	6.1	15.0	10.0	12.5	19.4	14.2	16.7
15	---	---	---	7.3	3.6	5.6	14.2	10.4	12.4	19.0	17.0	18.0
16	---	---	---	7.3	4.1	5.9	14.1	9.3	11.8	19.0	16.0	17.5
17	---	---	---	7.0	4.8	5.9	15.2	9.5	12.5	17.6	14.1	15.8
18	---	---	---	8.4	4.3	6.4	16.7	11.2	14.0	17.3	13.4	15.3
19	---	---	---	9.0	5.2	7.2	18.0	12.5	15.3	18.1	13.5	15.8
20	---	---	---	8.2	7.2	7.6	19.2	14.6	17.0	16.4	12.8	14.3
21	---	---	---	8.0	6.7	7.4	18.1	15.0	16.5	16.8	11.6	14.2
22	---	---	---	9.8	5.3	7.7	15.0	12.2	12.9	16.3	14.0	15.1
23	---	---	---	9.0	5.7	7.1	15.0	11.7	13.0	15.8	13.5	14.8
24	---	---	---	6.8	4.8	5.9	14.2	11.2	12.5	15.0	13.7	14.3
25	---	---	---	8.0	6.2	7.0	11.5	9.6	10.6	13.7	12.7	13.1
26	---	---	---	8.3	6.1	7.4	15.1	9.1	12.0	15.7	12.5	13.8
27	---	---	---	8.3	7.2	7.8	15.9	12.8	14.2	18.7	13.1	15.8
28	---	---	---	8.0	7.0	7.3	15.3	11.9	13.7	19.1	15.0	16.9
29	---	---	---	10.8	7.4	8.9	14.3	11.6	13.1	19.1	14.6	16.8
30	---	---	---	12.1	8.0	10.1	13.7	12.6	13.1	18.7	15.0	16.8
31	---	---	---	11.2	8.7	10.3	---	---	---	19.6	14.7	17.2
MONTH	---	---	---	12.1	1.0	6.0	19.2	7.1	12.7	19.6	9.7	15.1

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			**JULY**			**AUGUST**			**SEPTEMBER**	
1	20.4	15.8	18.0	25.0	22.2	23.4	25.5	22.1	23.5	24.5	21.8	23.2
2	19.9	16.2	17.9	25.2	21.5	23.1	26.6	22.0	24.2	24.2	20.6	22.5
3	18.0	16.2	16.7	24.2	20.3	22.3	27.2	23.0	25.0	23.1	20.2	21.9
4	17.9	15.7	16.8	24.9	20.1	22.4	27.5	23.4	25.4	22.2	19.2	21.0
5	22.0	16.2	18.9	23.5	21.5	22.6	26.9	23.6	25.3	22.5	19.1	20.9
6	22.9	18.6	20.6	24.2	21.3	22.6	26.0	23.5	24.8	22.4	19.0	20.9
7	23.7	19.0	21.2	22.9	21.5	22.1	24.9	22.5	23.7	22.2	18.7	20.6
8	24.5	19.9	22.1	21.5	19.0	20.0	23.8	22.0	22.9	21.9	18.1	20.2
9	23.9	20.5	22.2	23.4	19.0	20.9	23.6	21.5	22.4	21.5	18.7	20.2
10	24.5	21.1	22.6	24.4	19.6	21.9	25.3	21.4	23.1	21.9	18.5	20.3
11	25.1	21.5	23.2	24.9	20.1	22.5	26.1	21.8	23.9	21.5	18.1	20.1
12	25.1	21.5	23.3	25.5	21.1	23.2	26.8	22.8	24.7	22.2	18.4	20.5
13	25.0	21.6	23.2	24.4	22.0	23.1	27.7	24.0	25.8	22.9	19.3	21.2
14	25.7	21.9	23.8	24.3	22.2	23.2	28.1	24.5	26.2	24.2	20.1	21.5
15	25.3	22.3	23.7	25.4	22.4	23.2	26.6	24.4	25.4	23.8	21.3	22.4
16	23.3	20.8	22.2	24.2	22.1	22.7	24.5	22.1	23.0	24.6	21.9	23.1
17	21.6	18.6	20.1	25.3	22.2	23.0	24.8	20.9	22.8	24.3	22.0	23.0
18	21.7	17.4	19.4	25.8	22.8	24.1	24.7	21.1	22.9	22.8	20.1	21.5
19	19.6	17.8	18.6	25.3	22.3	23.7	23.4	21.9	22.4	23.1	20.0	21.5
20	20.8	17.1	18.8	25.9	22.2	23.9	24.0	21.2	22.4	22.4	20.4	21.4
21	22.2	17.3	19.7	25.6	21.6	23.5	26.2	22.4	24.1	22.4	19.7	21.1
22	23.1	18.9	20.8	25.8	22.2	23.9	24.9	21.6	23.4	21.9	18.7	20.4
23	23.4	18.6	21.0	25.8	22.4	23.9	23.5	20.5	22.1	22.5	19.7	21.2
24	24.2	19.3	21.5	24.5	20.6	22.6	23.0	19.9	21.5	21.8	19.8	20.7
25	25.0	20.1	22.4	25.0	21.3	23.0	23.0	19.0	21.1	20.7	19.1	20.0
26	25.7	21.0	23.3	26.9	22.3	24.4	22.6	19.6	21.2	21.2	19.5	20.3
27	23.8	22.1	22.7	27.8	23.5	25.4	22.1	20.2	21.2	21.1	19.5	20.4
28	26.0	21.4	23.4	26.0	22.4	24.0	22.5	20.9	21.6	19.7	16.9	18.6
29	24.6	22.5	23.5	24.8	21.0	22.8	23.7	20.6	22.0	19.4	17.7	18.5
30	25.1	22.2	23.6	25.1	22.0	23.4	24.2	22.1	23.1	17.7	15.4	16.8
31	---	---	---	24.7	21.8	23.2	24.9	23.2	23.9	---	---	---
MONTH	26.0	15.7	21.2	27.8	19.0	23.0	28.1	19.0	23.4	24.6	15.4	20.9

OXYGEN, DISSOLVED (MG/L), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	9.8	9.0	9.4	10.5	8.5	9.3	---	---	---	---	---	---
2	9.7	9.1	9.3	10.7	8.7	9.5	---	---	---	---	---	---
3	9.9	9.1	9.4	11.1	8.6	9.7	---	---	---	---	---	---
4	10.4	9.3	9.8	10.9	9.5	10.3	---	---	---	---	---	---
5	10.6	9.4	10.0	10.6	10.1	10.4	---	---	---	---	---	---
6	11.4	10.0	10.7	11.4	10.2	10.8	---	---	---	---	---	---
7	11.4	10.0	10.6	11.5	9.8	10.6	---	---	---	---	---	---
8	11.4	9.6	10.4	11.7	9.9	10.8	---	---	---	---	---	---
9	11.3	9.4	10.3	12.4	10.8	11.6	---	---	---	---	---	---
10	11.0	9.4	10.1	13.1	11.2	12.2	---	---	---	---	---	---
11	11.8	9.6	10.5	12.8	10.9	11.9	---	---	---	---	---	---
12	11.3	10.0	10.6	11.4	10.9	11.1	---	---	---	---	---	---
13	11.3	10.2	10.7	12.7	11.3	12.2	---	---	---	---	---	---
14	10.5	10.1	10.3	13.4	12.6	12.9	---	---	---	---	---	---
15	10.6	9.7	10.2	13.4	12.4	12.8	---	---	---	---	---	---
16	10.7	9.8	10.3	13.0	12.2	12.6	---	---	---	---	---	---
17	11.0	10.1	10.5	12.9	11.9	12.4	---	---	---	---	---	---
18	---	---	---	12.0	10.0	11.4	---	---	---	---	---	---
19	---	---	---	12.0	9.8	10.6	---	---	---	---	---	---
20	---	---	---	11.4	9.5	10.3	---	---	---	---	---	---
21	---	---	---	11.6	9.5	10.4	---	---	---	---	---	---
22	10.4	9.7	9.9	12.2	9.8	10.6	---	---	---	---	---	---
23	10.7	9.7	10.1	11.8	9.9	10.5	---	---	---	---	---	---
24	10.7	9.7	10.2	10.6	9.3	10	---	---	---	---	---	---
25	10.6	9.5	10	10.2	9.2	9.6	---	---	---	---	---	---
26	10.5	9.4	9.8	12.5	10.2	11.3	---	---	---	---	---	---
27	10.9	9.4	10.0	13.0	10.3	11.6	---	---	---	---	---	---
28	10.8	9.4	9.9	---	---	---	---	---	---	---	---	---
29	10.7	9.4	10	---	---	---	---	---	---	---	---	---
30	10.0	8.8	9.3	---	---	---	---	---	---	---	---	---
31	10.0	8.5	9.0	---	---	---	---	---	---	---	---	---
MONTH	11.8	8.5	10.0	13.4	8.5	11.0	---	---	---	---	---	---

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA--Continued

OXYGEN, DISSOLVED (MG/L), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			**MARCH**			**APRIL**			**MAY**	
1	---	---	---	14.6	12.3	13.5	---	---	---	10.9	7.9	9.7
2	---	---	---	14.4	12.2	13.2	---	---	---	13.3	9.5	11.4
3	---	---	---	14.7	12.3	13.4	---	---	---	13.6	10.7	12.1
4	---	---	---	14.5	11.9	13.3	---	---	---	13.8	10.7	12.1
5	---	---	---	14.2	11.3	12.8	---	---	---	13.9	10.7	12.3
6	---	---	---	13.9	10.7	12.4	---	---	---	13.7	10.7	12.2
7	---	---	---	12.9	9.8	11.4	---	---	---	13.6	9.9	11.9
8	---	---	---	11.7	10.1	10.8	---	---	---	12.9	9.6	11.1
9	---	---	---	13.3	11.5	12.4	---	---	---	12.6	9.1	10.8
10	---	---	---	13.5	11.2	12.4	---	---	---	12.4	9.1	10.7
11	---	---	---	13.1	10.3	11.8	---	---	---	12.5	8.6	10.5
12	---	---	---	12.8	10.3	11.4	---	---	---	12.1	8.6	10.2
13	---	---	---	13.1	10.2	11.6	---	---	---	12.7	9.0	10.9
14	---	---	---	13.4	10.2	11.7	---	---	---	12.7	8.1	10.5
15	---	---	---	13.7	10.6	12.0	---	---	---	12.4	8.1	10.1
16	---	---	---	14.1	10.5	12.0	---	---	---	12.2	8.3	10.2
17	---	---	---	13.9	10.5	12.0	---	---	---	12.8	8.6	10.7
18	---	---	---	14.0	10.0	12.0	---	---	---	13.2	9.1	10.9
19	---	---	---	13.9	9.8	11.7	---	---	---	13.0	8.6	10.7
20	---	---	---	12.2	9.8	10.8	13.0	7.7	10.1	9.9	7.9	8.9
21	---	---	---	13.1	10.1	11.4	13.2	7.8	10.3	10.6	8.1	9.5
22	---	---	---	13.6	9.5	11.6	12.5	8.8	10.6	11.4	8.3	9.7
23	---	---	---	11.2	9.5	10.5	12.2	7.9	10.4	11.8	8.5	9.9
24	---	---	---	11.2	7.2	9.7	10.3	7.9	9.3	10.7	8.8	9.7
25	---	---	---	11.7	10.4	11.0	12.6	9.2	11.0	11.2	9.5	10.4
26	---	---	---	12.9	10.9	11.8	13.8	9.6	11.5	11.7	9.4	10.4
27	---	---	---	13.6	11.3	12.3	13.3	9.6	11.1	11.7	8.6	10.2
28	---	---	---	---	---	---	13.6	9.6	11.4	11.6	8.1	9.6
29	---	---	---	---	---	---	14.1	10.0	11.8	11.1	8.5	9.6
30	---	---	---	---	---	---	11.0	7.6	10	11.4	8.4	9.7
31	---	---	---	---	---	---	---	---	---	11.2	8.5	9.8
MONTH	---	---	---	14.7	7.2	11.9	14.1	7.6	10.7	13.9	7.9	10.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			**JULY**			**AUGUST**			**SEPTEMBER**	
1	11.2	8.5	9.6	9.8	6.1	7.3	10.7	6.6	8.0	8.8	6.1	7.2
2	11.2	8.3	9.7	8.8	6.7	7.5	11.0	6.3	8.1	9.2	6.6	7.6
3	10.3	8.8	9.5	10.2	6.8	8.1	10.8	6.5	8.2	9.2	6.6	7.6
4	10.5	9.1	9.8	10.9	6.8	8.4	10.8	6.8	8.4	9.5	6.9	7.9
5	10.4	8.2	9.4	10.5	6.3	7.5	10.8	6.8	8.5	9.8	6.7	8.1
6	10.0	6.4	8.7	9.4	6.6	7.9	10.6	6.7	8.2	10.0	6.9	8.1
7	9.0	7.2	8.4	9.9	6.7	7.9	10.5	6.9	8.3	10.1	7.1	8.2
8	8.7	7.3	8.0	8.5	6.5	7.7	9.4	6.9	7.6	10.2	7.2	8.3
9	8.9	7.2	7.9	8.1	6.6	7.6	9.2	7.0	7.9	10.4	7.0	8.3
10	8.6	7.1	7.8	9.1	6.8	8.0	9.7	7.0	8.1	10.4	7.4	8.5
11	8.7	7.0	7.7	9.6	6.8	8.2	10.1	6.9	8.0	10.6	7.4	8.6
12	8.8	6.7	7.6	10.4	6.8	8.4	9.5	6.4	7.7	10.4	7.1	8.3
13	8.6	6.6	7.4	10.4	6.8	8.4	9.3	6.0	7.3	10.3	6.8	8.2
14	8.4	6.6	7.4	10.5	7.3	8.7	9.2	5.8	7.2	9.6	6.8	7.7
15	8.4	6.6	7.3	11.0	6.5	8.5	8.8	5.7	7.0	8.4	7.2	7.5
16	8.5	6.7	7.5	8.8	7.4	8.1	7.9	6.1	6.8	8.6	6.9	7.6
17	9.1	7.2	8.1	8.5	5.3	6.9	9.0	6.5	7.5	8.4	6.9	7.5
18	9.2	7.6	8.3	7.2	4.1	5.9	9.3	6.6	7.6	8.4	7.3	7.7
19	9.4	7.5	8.4	9.0	5.8	7.8	8.4	6.5	7.3	9.0	7.1	7.9
20	9.7	7.6	8.5	9.7	8.3	8.9	9.1	6.7	7.7	9.1	7.1	8.0
21	9.6	7.3	8.3	10.4	8.3	9.2	9.0	6.3	7.5	9.4	7.3	8.1
22	9.8	7.4	8.4	11.2	8.3	9.4	9.4	6.5	7.6	9.9	7.3	8.4
23	9.9	7.3	8.4	11.9	8.0	9.6	9.6	6.8	8.0	10.2	7.7	8.6
24	9.9	7.3	8.4	13.1	8.4	10.3	9.9	7.1	8.2	10.3	7.6	8.7
25	9.9	7.0	8.2	12.7	8.2	9.8	10.7	7.3	8.5	10.4	7.4	8.8
26	10.0	6.8	8.1	12.9	6.4	9.8	11.0	7.3	8.6	10.2	7.5	8.5
27	8.9	6.4	7.5	13.2	6.7	9.5	9.3	7.2	8.1	10.0	6.9	8.3
28	9.4	6.5	7.6	12.1	6.7	9.3	7.9	7.0	7.4	10.6	6.8	9.0
29	9.4	6.4	7.6	11.2	7.1	9.3	9.1	6.6	7.7	10.1	7.9	8.7
30	9.9	6.3	7.7	10.6	6.6	8.3	8.6	6.2	7.2	11.0	8.3	9.4
31	---	---	---	10.5	6.7	8.3	8.0	6.0	6.7	---	---	---
MONTH	11.2	6.3	8.2	13.2	4.1	8.4	11.0	5.7	7.8	11.0	6.1	8.2

01480638 BROAD RUN AT NORTHBROOK, PA

LOCATION.--Lat 39°55'49", long 75°41'06", Chester County, Hydrologic Unit 02040205, on right bank 50 ft upstream from Northbrook Road and 2.2 mi south of Marshelton.

DRAINAGE AREA.--6.39 mi^2.

PERIOD OF RECORD.--December 2002 to April 30, 2004, October 2004 to current year.

GAGE.--Water-stage recorder, crest-stage gage. Elevation of gage is 190.78 ft above NAVD of 1988.

REMARKS.--Records fair except those for estimated daily discharges and those above 200 ft^3/s, which are poor. Several measurements of water temperature were made during the year.

REVISIONS.--The maximum discharge for water year 2004 has been revised to 324 ft^3/s, Feb. 6, gage height, 5.67. Revised daily discharges for water year 2004 are given below. These figures supersede those published in the report for 2004.

DISCHARGE, CUBIC FEET PER SECOND, **WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004**
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	33	22	19	e9.5	11	13	---	---	---	---	---
2	19	31	21	20	e9.5	12	15	---	---	---	---	---
3	18	30	20	20	40	11	16	---	---	---	---	---
4	19	28	20	20	26	13	23	---	---	---	---	---
5	17	34	22	23	16	12	14	---	---	---	---	---
6	16	34	22	18	102	20	12	---	---	---	---	---
7	15	28	20	17	71	14	12	---	---	---	---	---
8	15	25	19	e16	26	15	12	---	---	---	---	---
9	14	23	19	e15	22	13	12	---	---	---	---	---
10	14	22	31	e14	22	12	11	---	---	---	---	---
11	14	22	90	15	18	12	11	---	---	---	---	---
12	14	28	47	16	17	12	13	---	---	---	---	---
13	13	22	36	16	16	11	28	---	---	---	---	---
14	14	21	50	14	15	11	20	---	---	---	---	---
15	35	20	44	e13	14	11	15	---	---	---	---	---
16	19	19	33	e12	13	13	14	---	---	---	---	---
17	18	19	62	e12	12	13	13	---	---	---	---	---
18	19	19	42	e11	13	13	13	---	---	---	---	---
19	17	39	38	e11	13	20	13	---	---	---	---	---
20	16	41	33	e12	13	15	13	---	---	---	---	---
21	16	27	30	e12	14	14	13	---	---	---	---	---
22	16	25	29	e12	12	12	13	---	---	---	---	---
23	15	24	27	e11	12	11	19	---	---	---	---	---
24	14	24	43	e11	13	11	22	---	---	---	---	---
25	14	24	27	e11	12	11	14	---	---	---	---	---
26	14	22	24	e11	11	12	25	---	---	---	---	---
27	73	21	22	e10	11	12	21	---	---	---	---	---
28	42	37	22	e10	11	11	16	---	---	---	---	---
29	56	31	21	e10	11	11	14	---	---	---	---	---
30	39	24	21	e10	---	11	e12	---	---	---	---	---
31	36	---	20	e9.5	---	14	---	---	---	---	---	---
TOTAL	682	797	977	431.5	595.0	394	462	---	---	---	---	---
MEAN	22.0	26.6	31.5	13.9	20.5	12.7	15.4	---	---	---	---	---
MAX	73	41	90	23	102	20	28	---	---	---	---	---
MIN	13	19	19	9.5	9.5	11	11	---	---	---	---	---
CFSM	3.44	4.16	4.93	2.18	3.21	1.99	2.41	---	---	---	---	---
IN.	3.97	4.64	5.69	2.51	3.46	2.29	2.69	---	---	---	---	---

e Estimated.

01480638 BROAD RUN AT NORTHBROOK, PA--Continued

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 170 ft^3/s and maximum (*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Nov. 28	0930	*255	*5.35	Apr. 2	2000	172	4.71
Mar. 28	2000	186	4.83	July 8	1200	188	4.85

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e16	8.7	44	13	14	14	24	14	6.5	7.8	3.4	2.3
2	e14	9.3	23	13	13	12	92	11	6.3	5.8	3.2	2.2
3	e14	8.6	21	14	13	12	89	11	7.8	4.8	3.1	2.0
4	e13	28	19	13	13	12	55	11	8.5	4.5	3.0	1.9
5	e12	17	18	18	13	12	42	10	7.0	5.4	2.8	1.8
6	e11	12	18	20	14	12	35	10	22	6.1	2.8	1.8
7	e11	11	25	14	14	14	31	9.9	26	4.9	2.9	1.9
8	11	9.8	19	17	14	15	34	9.5	7.7	55	3.4	1.9
9	11	9.5	21	14	15	12	26	9.1	6.8	8.3	3.8	1.7
10	10	9.8	38	15	16	12	24	8.9	6.4	6.1	4.2	1.7
11	9.7	11	25	14	13	12	23	8.8	6.1	5.5	3.4	1.7
12	10	21	21	16	12	12	22	8.5	5.8	4.9	3.4	1.8
13	9.6	22	20	15	11	12	21	8.2	5.7	4.8	3.3	1.7
14	14	14	18	82	20	11	19	8.2	5.5	4.8	3.1	3.5
15	21	13	17	32	23	11	18	8.0	5.3	5.2	3.1	7.2
16	15	13	17	29	15	11	17	7.9	5.2	5.4	3.3	2.9
17	10	12	16	25	14	11	16	7.7	5.2	10	4.1	3.0
18	9.8	13	17	21	13	11	16	7.6	5.0	6.2	3.0	3.1
19	15	12	17	21	12	11	15	7.4	4.9	5.2	3.0	2.3
20	11	12	14	21	12	12	14	10	4.8	4.7	3.2	2.2
21	11	12	14	19	14	11	14	8.9	4.7	4.4	2.9	2.1
22	10	12	14	20	15	11	14	8.0	4.6	4.1	2.6	2.0
23	10	11	43	19	14	36	17	7.7	4.4	3.9	2.4	1.9
24	10	14	21	18	13	19	19	7.9	4.3	3.6	2.3	1.8
25	9.4	14	16	17	13	15	13	8.0	4.3	4.2	2.3	1.9
26	9.2	11	15	17	13	13	12	7.8	4.5	3.9	2.3	2.1
27	9.2	11	14	15	13	13	12	7.3	4.8	4.1	2.2	2.0
28	9.1	116	13	15	13	70	12	7.2	4.9	4.5	2.8	1.8
29	10	32	15	15	---	36	11	7.2	4.7	3.9	2.6	1.9
30	13	24	14	15	---	28	13	6.9	4.7	3.5	2.6	1.9
31	10	---	14	14	---	25	---	6.6	---	3.5	2.6	---
TOTAL	359.0	523.7	621	611	392	518	770	270.2	204.4	209.0	93.1	68.0
MEAN	11.6	17.5	20.0	19.7	14.0	16.7	25.7	8.72	6.81	6.74	3.00	2.27
MAX	21	116	44	82	23	70	92	14	26	55	4.2	7.2
MIN	9.1	8.6	13	13	11	11	11	6.6	4.3	3.5	2.2	1.7
CFSM	1.81	2.73	3.13	3.08	2.19	2.61	4.02	1.36	1.07	1.06	0.47	0.35
IN.	2.09	3.05	3.62	3.56	2.28	3.02	4.48	1.57	1.19	1.22	0.54	0.40

STATISTICS OF MONTHLY MEAN DATA FOR PERIOD OF DAILY RECORD, BY WATER YEAR (WY)

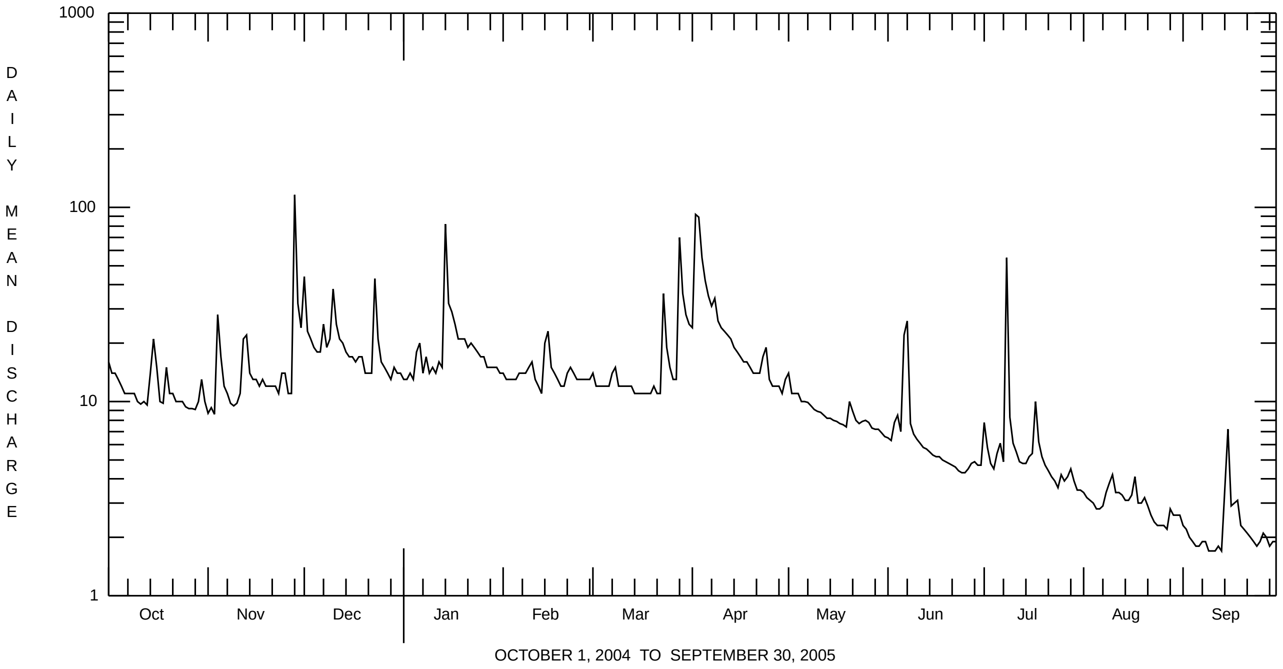
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	16.8	22.0	24.4	15.2	15.7	17.5	18.0	9.17	17.0	8.95	6.28	16.1
MAX	22.0	26.6	31.5	19.7	20.5	23.0	25.7	9.63	27.3	11.2	9.56	29.9
(WY)	2004	2004	2004	2005	2004	2003	2005	2003	2003	2003	2003	2003
MIN	11.6	17.5	13.3	12.0	12.3	12.7	13.0	8.72	6.81	6.74	3.00	2.27
(WY)	2005	2005	2003	2003	2003	2004	2003	2005	2005	2005	2005	2005

e Estimated.

01480638 BROAD RUN AT NORTHBROOK, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		FOR PERIOD OF DAILY RECORD	
ANNUAL TOTAL	3386.2		4639.4			
ANNUAL MEAN	15.9		12.7		15.8	
HIGHEST ANNUAL MEAN					20.4	2004
LOWEST ANNUAL MEAN					12.7	2005
HIGHEST DAILY MEAN	116	Nov 28	116	Nov 28	277	Sep 15 2003
LOWEST DAILY MEAN	8.6	Nov 3	1.7	Sep 9**a**	1.7	Sep 9 2005
ANNUAL SEVEN-DAY MINIMUM	**b**9.6	Oct 22	1.8	Sep 7	1.8	Sep 7 2005
MAXIMUM PEAK FLOW			**c**255	Nov 28	**c**4700	Sep 15 2003
MAXIMUM PEAK STAGE			5.35	Nov 28	8.04	Sep 15 2003
INSTANTANEOUS LOW FLOW			1.5	Sep 11,14	1.5	Sep 11,14 2005
ANNUAL RUNOFF (CFSM)	2.49		1.99		2.47	
ANNUAL RUNOFF (INCHES)	19.71		27.01		33.56	
10 PERCENT EXCEEDS	22		21		28	
50 PERCENT EXCEEDS	13		11		13	
90 PERCENT EXCEEDS	10		2.8		4.8	

a Also Sept. 10, 11, 13.
b Computed using estimated daily discharges.
c From rating curve extended above 181 ft^3/s on basis of slope-area measurement at gage height 8.04 ft.



CHRISTINA RIVER BASIN

01480675 MARSH CREEK NEAR GLENMOORE, PA

LOCATION.--Lat 40°05'52", long 75°44'31", Chester County, Hydrologic Unit 02040205, on left bank 200 ft north of Pennsylvania Turnpike, 1.2 mi downstream from Lyons Run, 1.8 mi upstream from Black Horse Creek, and 3.0 mi northeast of Glenmoore.

DRAINAGE AREA.--8.57 mi^2.

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

REVISED RECORDS.--WDR PA-74-1: 1967(M), 1971-72(P) WDR PA-93-1: 1992.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Elevation of gage is 450 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those less than 2 ft^3/s and those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year. Satellite and landline telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 130 ft^3/s and maximum (*****):

Date	Time	Discharge ft^3/s	Gage Height (ft)	Date	Time	Discharge ft^3/s	Gage Height (ft)
Nov. 28	1745	222	2.60	Mar. 29	0400	201	2.53
Jan. 14	2045	201	2.53	Apr. 3	0615	*310	*2.88

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	13	53	17	e12	14	20	21	5.7	4.5	2.1	1.5
2	13	11	50	15	13	16	106	16	5.5	3.6	1.9	1.3
3	13	10	20	15	13	13	257	14	7.8	2.6	1.8	1.1
4	12	22	17	16	14	13	91	13	14	2.3	1.6	1.0
5	11	55	16	27	16	13	42	12	10	2.5	1.6	0.93
6	9.9	22	16	51	18	14	36	12	9.4	4.5	1.6	0.89
7	9.5	13	24	29	19	22	34	12	13	3.7	1.6	0.85
8	9.5	11	36	30	21	46	60	11	8.4	38	1.9	0.78
9	9.5	10	23	35	27	21	37	10	6.0	35	2.3	0.78
10	9.7	9.8	66	18	38	15	24	9.6	5.3	10	2.2	0.74
11	9.1	10	63	18	20	15	21	9.2	4.9	4.6	1.9	0.73
12	8.8	20	25	30	15	17	20	8.6	4.4	3.3	1.7	0.68
13	8.5	47	19	21	14	15	19	8.1	4.1	2.9	1.6	0.68
14	18	22	17	129	26	14	18	7.9	3.9	2.9	1.5	0.84
15	24	13	15	99	87	12	17	8.1	3.5	3.0	1.5	1.3
16	34	12	15	27	28	12	17	8.4	3.3	3.0	1.6	1.2
17	21	11	15	22	20	12	16	7.9	3.2	11	1.8	1.8
18	13	11	15	16	15	12	16	7.5	3.1	42	1.5	1.7
19	30	11	15	15	12	12	16	7.2	3.1	17	1.5	1.4
20	37	12	11	16	12	13	15	12	3.2	6.1	1.7	1.2
21	18	16	11	15	14	16	15	15	3.1	3.8	1.6	1.1
22	16	13	12	13	19	13	14	11	3.0	2.9	1.3	0.93
23	14	12	48	e12	22	34	30	9.0	2.7	2.5	1.1	0.87
24	12	13	89	e11	17	70	53	8.4	2.5	2.2	1.1	0.80
25	11	18	22	e12	15	21	22	8.9	2.4	2.9	0.99	0.77
26	11	15	15	e13	15	16	16	9.8	2.3	2.7	0.97	0.83
27	11	12	13	e12	15	15	15	8.5	2.5	3.0	1.0	1.1
28	10	152	12	e11	14	70	15	7.7	3.3	4.4	2.2	0.95
29	11	95	13	e11	---	147	13	8.3	3.1	3.7	2.3	0.96
30	21	22	15	e12	---	35	17	7.1	2.9	2.8	2.1	0.95
31	19	---	17	e12	---	21	---	6.2	---	2.3	1.8	---
TOTAL	473.5	713.8	798	780	571	779	1092	315.4	149.6	235.7	51.36	30.66
MEAN	15.3	23.8	25.7	25.2	20.4	25.1	36.4	10.2	4.99	7.60	1.66	1.02
MAX	37	152	89	129	87	147	257	21	14	42	2.3	1.8
MIN	8.5	9.8	11	11	12	12	13	6.2	2.3	2.2	0.97	0.68
CFSM	1.78	2.78	3.00	2.94	2.38	2.93	4.25	1.19	0.58	0.89	0.19	0.12
IN.	2.06	3.10	3.46	3.39	2.48	3.38	4.74	1.37	0.65	1.02	0.22	0.13

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 2005, BY WATER YEAR (WY)

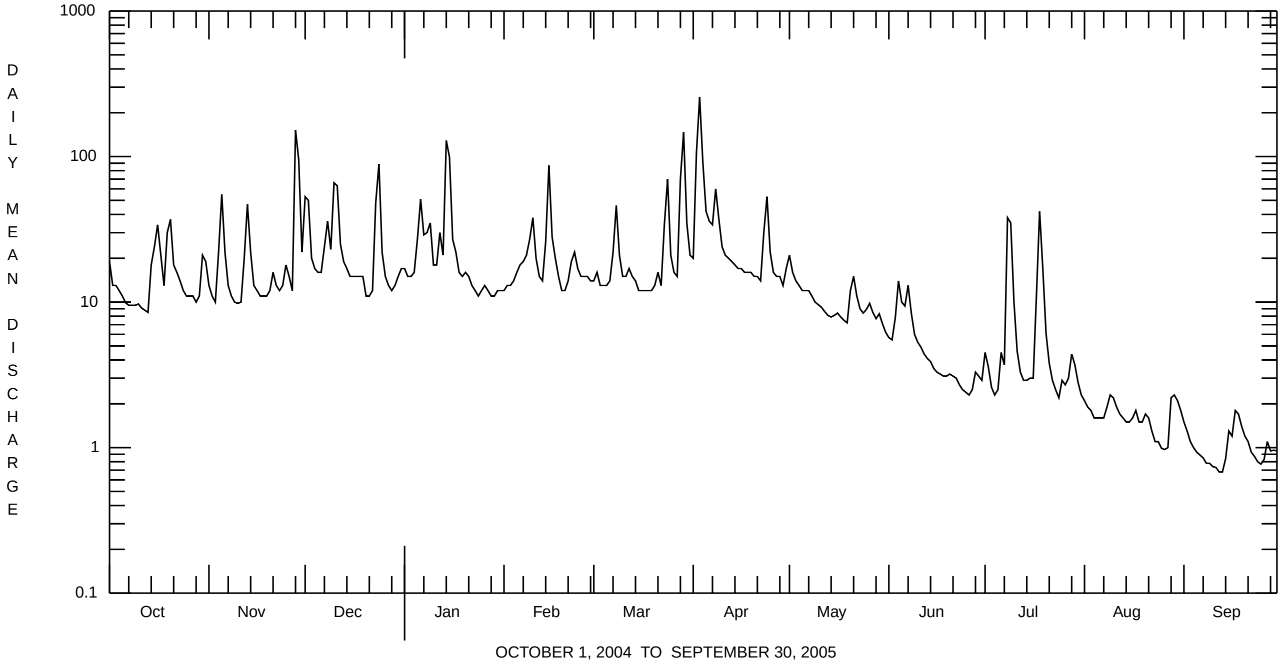
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	7.80	11.4	14.9	14.3	16.7	21.4	19.4	14.7	11.2	8.49	5.81	7.36
MAX	25.3	25.6	49.9	35.9	44.8	58.4	47.4	36.7	46.0	34.0	22.1	29.2
(WY)	1997	2004	1997	1978	1971	1994	1983	1989	2003	1984	1971	2003
MIN	1.71	2.45	2.07	1.19	3.75	6.58	4.84	4.97	2.30	0.83	0.58	0.88
(WY)	2002	2002	1981	1981	2002	1981	1985	1969	1999	2002	2002	1980

e Estimated.

01480675 MARSH CREEK NEAR GLENMOORE, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1966 - 2005	
ANNUAL TOTAL	6550.6		5990.02			
ANNUAL MEAN	17.9		16.4		12.8	
HIGHEST ANNUAL MEAN					23.2	1984
LOWEST ANNUAL MEAN					4.37	2002
HIGHEST DAILY MEAN	170	Feb 7	257	Apr 3	444	Jun 22 1972
LOWEST DAILY MEAN	2.8	Jul 11	0.68	Sep 12,13	0.21	Aug 20 2002
ANNUAL SEVEN-DAY MINIMUM	3.6	Jun 30	0.75	Sep 8	0.24	Aug 16 2002
MAXIMUM PEAK FLOW			310	Apr 3	**a**946	Jun 22 1972
MAXIMUM PEAK STAGE			2.88	Apr 3	4.68	Jun 22 1972
INSTANTANEOUS LOW FLOW			0.68	Sep 12-14	0.21	Aug 6 1999**b**
ANNUAL RUNOFF (CFSM)	2.09		1.91		1.49	
ANNUAL RUNOFF (INCHES)	28.43		26.00		20.30	
10 PERCENT EXCEEDS	36		34		25	
50 PERCENT EXCEEDS	12		12		7.8	
90 PERCENT EXCEEDS	5.2		1.5		2.1	

a From rating curve extended above 903 ft^3/s based on straight-line extension.
b Also Aug. 19-22, 2002.



01480685 MARSH CREEK NEAR DOWNINGTOWN, PA

LOCATION.--Lat 40°03'19", long 75°43'00", Chester County, Hydrologic Unit 02040205, on left bank 1,000 ft downstream from Marsh Creek Dam, 0.2 mi upstream from mouth, and 3.0 mi north of Downingtown.

DRAINAGE AREA.--20.3 mi^2.

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

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Elevation of gage is 280 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Flow completely regulated since November 1973 by Marsh Creek Reservoir (station 01480684). Several measurements of water temperature were made during the year. Satellite telemetry at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	170	25	98	59	59	59	88	46	18	11	8.0	5.2
2	143	25	97	60	59	59	78	44	14	17	7.8	5.2
3	121	23	114	59	59	36	162	42	16	15	9.3	5.1
4	101	25	127	59	59	2.3	173	38	21	13	14	5.0
5	85	37	112	60	59	3.6	156	34	21	12	13	5.0
6	75	39	99	60	59	4.0	175	33	22	13	12	5.0
7	39	38	92	60	59	4.5	152	31	26	12	11	5.0
8	11	36	89	60	59	4.5	122	29	23	33	11	5.0
9	13	34	84	60	59	4.4	152	27	22	46	11	5.0
10	13	32	89	60	59	4.5	138	27	20	42	10	5.2
11	13	30	94	60	59	4.4	123	26	18	36	6.1	5.2
12	13	33	90	133	59	4.4	111	25	17	30	4.5	7.4
13	14	43	85	135	59	4.3	102	24	15	25	6.3	8.9
14	19	44	78	31	59	4.2	92	27	15	22	6.1	9.0
15	26	43	73	13	59	4.2	74	29	13	19	5.8	8.9
16	38	41	69	47	59	4.2	29	28	12	18	6.0	8.9
17	39	39	66	73	59	4.2	30	31	11	26	6.5	8.9
18	37	38	63	69	59	4.5	31	33	13	34	6.4	8.9
19	42	36	62	66	59	5.2	38	16	15	35	6.3	8.9
20	46	35	60	64	59	7.0	46	21	9.1	30	6.2	8.9
21	62	36	59	62	59	9.7	43	27	8.7	25	5.9	9.0
22	80	35	60	61	59	11	41	27	8.3	22	5.7	10
23	72	34	61	60	59	18	46	26	8.1	18	5.5	11
24	65	34	60	60	59	34	64	25	7.8	15	5.5	11
25	39	35	60	59	59	38	63	24	7.6	14	5.4	11
26	16	35	60	59	59	38	58	24	7.4	14	5.2	11
27	16	34	60	59	59	38	53	23	7.5	12	5.2	11
28	17	86	60	59	59	50	48	22	8.4	9.9	5.4	11
29	18	145	60	59	---	82	44	22	8.4	9.5	5.5	11
30	24	138	60	59	---	91	44	21	8.4	9.0	5.5	11
31	26	---	60	59	---	101	---	20	---	8.5	5.5	---
TOTAL	1493	1308	2401	1944	1652	739.1	2576	872	421.7	645.9	227.6	241.6
MEAN	48.2	43.6	77.5	62.7	59.0	23.8	85.9	28.1	14.1	20.8	7.34	8.05
MAX	170	145	127	135	59	101	175	46	26	46	14	11
MIN	11	23	59	13	59	2.3	29	16	7.4	8.5	4.5	5.0
(†)	-19.5	+15.1	-21.1	-1.6	-12.6	+34.2	-11.8	-3.2	-1.7	0.0	-1.6	-6.7

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 2005, BY WATER YEAR (WY)

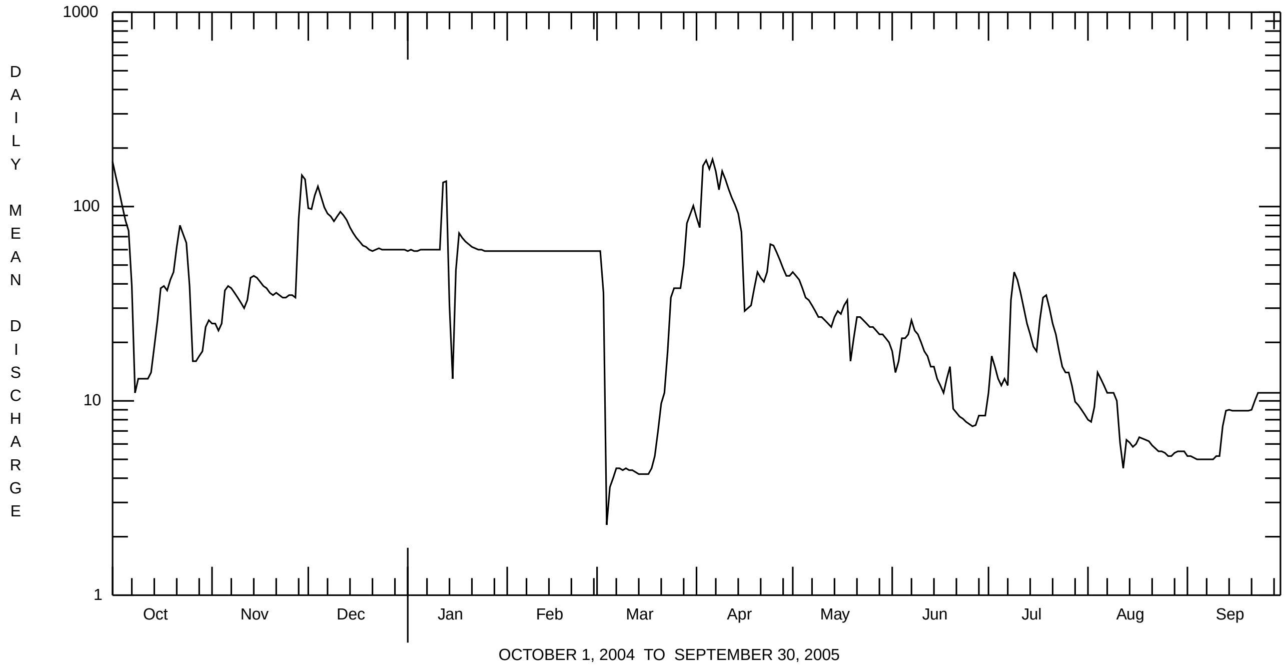
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	20.6	25.0	44.2	42.1	34.7	38.6	43.4	33.3	25.2	21.1	15.2	19.1
MAX	59.5	76.3	148	128	72.4	119	140	83.4	97.9	81.6	36.7	79.4
(WY)	1997	2004	1997	1979	1996	1994	1983	1989	2003	1984	2003	2003
MIN	3.39	3.50	3.01	7.30	0.86	0.83	0.84	0.72	4.06	5.18	6.42	6.47
(WY)	1981	1979	1974	1981	1989	1974	1974	1974	1976	1983	1981	1981

† Change in contents from Marsh Creek Reservoir, equivalent in cubic feet per second.

01480685 MARSH CREEK NEAR DOWNINGTOWN, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1973 - 2005	
ANNUAL TOTAL	15690.7		14521.9			
ANNUAL MEAN	42.9		39.8		30.1	
HIGHEST ANNUAL MEAN					52.9	1984
LOWEST ANNUAL MEAN					10.8	2002
HIGHEST DAILY MEAN	170	Oct 1	175	Apr 6	462	Jun 18 1982
LOWEST DAILY MEAN	6.2	Feb 7	2.3	Mar 4	0.18	Mar 25 2002
ANNUAL SEVEN-DAY MINIMUM	11	Jul 5	4.0	Mar 4	0.28	Mar 20 2002
MAXIMUM PEAK FLOW			249	Jan 12	**a**560	Dec 14 1983
MAXIMUM PEAK STAGE			3.09	Jan 12	3.70	Dec 14 1983
10 PERCENT EXCEEDS	76		85		66	
50 PERCENT EXCEEDS	37		31		16	
90 PERCENT EXCEEDS	15		5.5		6.5	

a From rating curve extended above 300 ft^3/s.



01480700 EAST BRANCH BRANDYWINE CREEK NEAR DOWNINGTOWN, PA

LOCATION.--Lat 40°02'05", long 75°42'32", Chester County, Hydrologic Unit 02040205, on right bank 20 ft downstream from bridge on Dowlin Forge Road, 200 ft east of State Highway 282, 0.4 mi downstream from Shamona Creek, 1.5 mi downstream from Marsh Creek, 2.0 mi upstream from Beaver Creek, and 2.2 mi north of Downingtown.

DRAINAGE AREA.--60.6 mi^2.

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1948-57. October 1965 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 270 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to July 30, 1966, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated since November 1973 by Marsh Creek Reservoir (station 01480684) 1.9 mi upstream. Several measurements of water temperature were made during the year. Satellite and landline telemetry at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	243	73	375	126	118	130	181	140	55	84	25	18
2	201	70	213	121	117	123	744	119	49	61	24	16
3	177	66	201	121	117	98	1070	114	66	38	23	15
4	153	168	205	125	119	57	418	104	79	33	29	15
5	133	187	183	185	123	59	302	97	64	35	27	14
6	119	102	167	235	128	63	300	94	68	48	25	14
7	81	91	217	159	133	110	270	91	101	37	24	14
8	47	84	198	215	144	147	295	86	65	323	33	14
9	48	77	192	165	174	81	266	83	60	114	35	14
10	49	73	394	143	188	68	241	80	60	81	28	13
11	46	72	265	139	137	68	221	79	55	67	22	13
12	47	150	192	257	124	71	205	77	50	57	18	15
13	47	203	173	226	119	63	192	73	46	50	21	17
14	90	112	157	755	207	59	181	75	45	46	20	20
15	117	100	144	250	303	55	161	78	41	44	20	29
16	136	94	137	163	160	54	111	76	38	45	23	20
17	100	88	134	173	147	54	111	76	37	155	30	26
18	81	86	127	146	129	53	111	78	34	157	21	27
19	184	82	126	139	119	52	115	59	33	80	20	21
20	117	83	114	147	117	61	123	90	33	65	20	20
21	128	98	115	136	128	71	117	87	32	54	19	20
22	145	83	117	114	141	62	114	76	31	47	18	20
23	128	80	350	e110	145	243	163	73	31	41	17	21
24	115	84	273	e120	132	207	222	71	29	35	16	21
25	87	107	149	e125	128	122	153	71	29	38	15	20
26	59	88	133	135	124	108	139	72	28	35	15	22
27	59	79	127	123	124	103	132	66	29	32	15	26
28	59	910	121	e110	124	573	122	64	34	36	28	22
29	60	331	124	e115	---	429	115	66	31	29	23	22
30	123	240	125	125	---	212	135	60	30	27	19	22
31	83	---	127	120	---	201	---	58	---	26	19	---
TOTAL	3262	4161	5675	5323	3969	3857	7030	2533	1383	2020	692	571
MEAN	105	139	183	172	142	124	234	81.7	46.1	65.2	22.3	19.0
MAX	243	910	394	755	303	573	1070	140	101	323	35	29
MIN	46	66	114	110	117	52	111	58	28	26	15	13

e Estimated.

01480700 EAST BRANCH BRANDYWINE CREEK NEAR DOWNINGTOWN, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2005, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	62.5	78.9	116	119	113	139	132	104	78.0	65.1	45.1	61.4
MAX	199	187	385	361	242	380	365	246	308	257	93.7	217
(WY)	1997	2004	1997	1979	1979	1994	1983	1989	2003	1984	2003	2003
MIN	23.2	24.9	23.5	17.5	29.5	35.7	28.9	49.2	29.6	19.7	17.8	17.1
(WY)	1981	2002	1981	1981	2002	1985	1985	1976	1985	2002	2002	1980

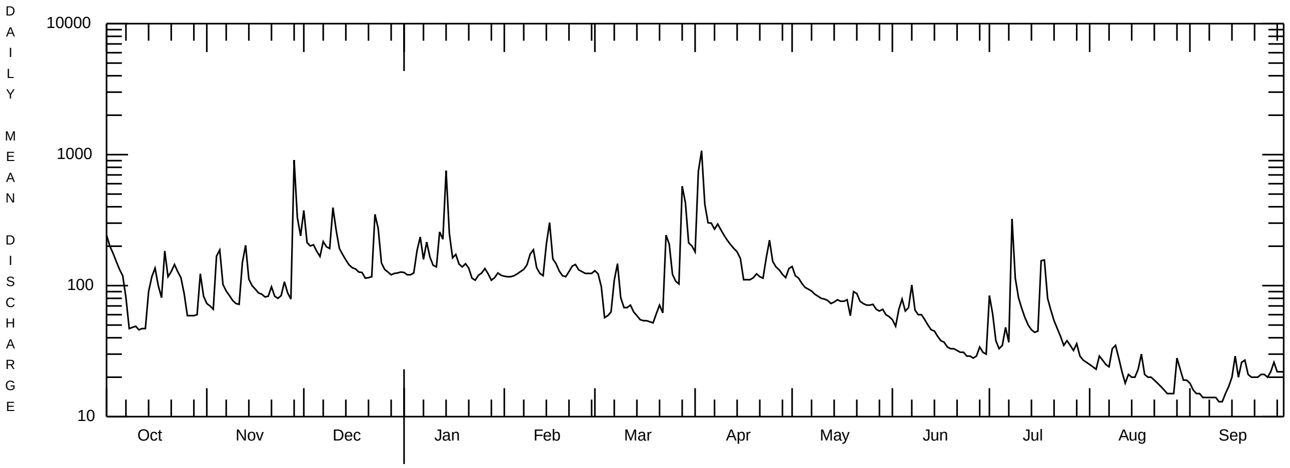
SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1974 - 2005	
ANNUAL TOTAL	43149		40476			
ANNUAL MEAN	118		111		92.8	
HIGHEST ANNUAL MEAN					150	1984
LOWEST ANNUAL MEAN					35.0	2002
HIGHEST DAILY MEAN	910	Nov 28	1070	Apr 3	2020	Jan 26 1978
LOWEST DAILY MEAN	26	Jul 11	13	Sep 10,11	9.1	Sep 13 2002
ANNUAL SEVEN-DAY MINIMUM	31	Jul 5	14	Sep 5	11	Sep 8 2002
MAXIMUM PEAK FLOW			2430	Nov 28	[a]5410	Sep 16 1999
MAXIMUM PEAK STAGE			6.50	Nov 28	9.59	Sep 16 1999
INSTANTANEOUS LOW FLOW			13	Sep 10-12	7.4	Sep 13 2002
10 PERCENT EXCEEDS	199		206		180	
50 PERCENT EXCEEDS	100		86		60	
90 PERCENT EXCEEDS	46		21		25	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1973, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	44.3	76.4	92.0	81.4	139	129	123	98.8	99.8	63.1	56.5	45.2
MAX	120	168	245	168	286	195	238	144	306	128	147	148
(WY)	1972	1973	1973	1973	1971	1972	1973	1973	1972	1972	1971	1971
MIN	24.8	27.6	32.0	33.3	51.6	70.0	64.3	43.2	30.3	18.3	15.3	20.1
(WY)	1970	1966	1966	1969	1969	1969	1969	1969	1966	1966	1966	1970

SUMMARY STATISTICS	WATER YEARS 1966 - 1973	
ANNUAL TOTAL ANNUAL MEAN	87.0	
HIGHEST ANNUAL MEAN	139	1973
LOWEST ANNUAL MEAN	51.6	1969
HIGHEST DAILY MEAN	3220	Jun 22 1972
LOWEST DAILY MEAN	7.2	Sep 12 1966
ANNUAL SEVEN DAY MINIMUM	8.0	Sep 7 1966
MAXIMUM PEAK FLOW	[a]8070	Jun 22 1972
MAXIMUM PEAK STAGE	[b]12.06	Jun 22 1972
INSTANTANEOUS LOW FLOW	7.2	Sep 2,3,11-13,1966
ANNUAL RUNOFF (CFSM)	1.44	
ANNUAL RUNOFF (INCHES)	19.51	
10 PERCENT EXCEEDS	163	
50 PERCENT EXCEEDS	56	
90 PERCENT EXCEEDS	23	

[a] From rating curve extended above 5,000 ft^3/s.
[b] From floodmark.



OCTOBER 1, 2004 TO SEPTEMBER 30, 2005

CHRISTINA RIVER BASIN

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA

LOCATION.--Lat 39°58'07", long 75°40'25", Chester County, Hydrologic Unit 02040205, on left bank at downstream side of Sugars Bridge (U.S. Highway 322), 2,000 ft upstream from Valley Creek, 1.5 mi north of Marshallton, and 3.3 mi southeast of Downingtown.

DRAINAGE AREA.--89.9 mi^2.

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WDR PA-75-1: 1972(P), 1973, 1974.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 195 ft above National Geodetic Vertical Datum of 1929, from topographic map. Feb. 1 to Apr. 10, and June 25 to Nov. 17, 1972, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated since November 1973 by Marsh Creek Reservoir (station 01480684) about 7.5 mi upstream. Satellite and landline telemetry at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	376	115	578	201	185	203	283	221	88	160	50	38
2	317	109	334	194	182	194	1290	178	84	115	47	36
3	285	106	299	194	183	172	1770	170	114	62	45	34
4	249	233	299	199	186	124	678	157	138	54	51	33
5	219	311	276	285	193	124	475	146	105	58	48	32
6	200	155	257	361	201	130	450	142	144	91	45	31
7	162	141	327	257	208	173	417	141	203	64	46	31
8	109	132	311	318	220	248	465	134	108	702	161	32
9	108	124	292	268	257	157	397	131	96	184	84	29
10	106	120	598	230	288	136	363	122	92	119	73	30
11	100	118	418	222	214	134	336	123	87	100	54	31
12	99	231	304	347	193	140	314	120	83	87	43	31
13	98	342	274	322	187	130	295	113	79	79	45	33
14	169	183	249	1330	284	123	275	114	77	75	43	49
15	205	163	230	440	491	117	254	118	71	77	66	67
16	237	153	220	285	248	116	186	116	69	89	48	40
17	157	146	215	289	230	115	185	112	65	392	66	59
18	130	142	206	247	202	114	181	117	62	264	49	72
19	280	138	206	233	188	113	181	98	61	122	44	41
20	187	138	190	247	186	124	190	149	60	100	46	38
21	188	159	184	228	204	136	180	136	57	86	44	37
22	202	139	189	192	218	121	177	116	56	78	41	37
23	182	134	548	e180	228	389	250	111	55	72	38	39
24	169	142	444	e190	205	349	349	110	51	65	36	37
25	144	171	242	e200	199	200	226	109	51	74	35	37
26	106	146	216	213	194	179	201	111	50	65	35	39
27	103	133	209	198	194	171	194	103	52	61	35	46
28	103	1800	194	e185	195	998	181	97	59	67	64	40
29	100	522	199	e190	---	753	168	101	54	56	53	39
30	176	359	201	198	---	337	205	93	54	53	42	39
31	130	---	202	191	---	312	---	89	---	51	40	---
TOTAL	5396	7005	8911	8634	6163	6832	11116	3898	2425	3722	1617	1177
MEAN	174	234	287	279	220	220	371	126	80.8	120	52.2	39.2
MAX	376	1800	598	1330	491	998	1770	221	203	702	161	72
MIN	98	106	184	180	182	113	168	89	50	51	35	29
CFSM	1.94	2.60	3.20	3.10	2.45	2.45	4.12	1.40	0.90	1.34	0.58	0.44
IN.	2.23	2.90	3.69	3.57	2.55	2.83	4.60	1.61	1.00	1.54	0.67	0.49

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2005, BY WATER YEAR (WY)

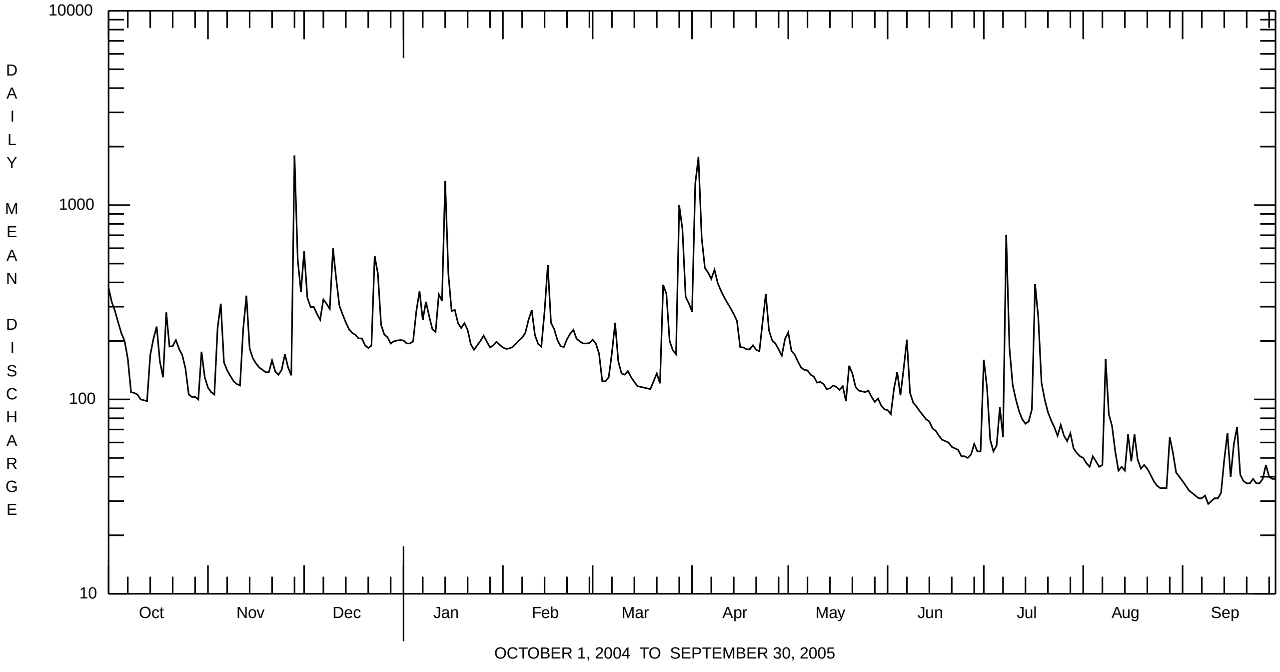
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	99.2	121	179	183	180	219	211	165	127	108	77.7	105
MAX	304	333	577	527	409	525	594	410	477	421	177	396
(WY)	1997	2004	1997	1979	1979	1994	1983	1989	2003	1984	1996	2003
MIN	36.7	41.8	40.8	30.9	49.2	61.6	53.1	75.9	45.5	32.5	28.6	29.5
(WY)	2002	2002	1981	1981	2002	1985	1985	1999	1999	2002	1999	1980

e Estimated.

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA--Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1974 - 2005	
ANNUAL TOTAL	74594		66896			
ANNUAL MEAN	204		183		148	
HIGHEST ANNUAL MEAN					257	1984
LOWEST ANNUAL MEAN					57.0	2002
HIGHEST DAILY MEAN	1900	Sep 29	1800	Nov 28	3080	Sep 16 1999
LOWEST DAILY MEAN	63	Jul 11	29	Sep 9	19	Sep 14 2002
ANNUAL SEVEN-DAY MINIMUM	74	Jul 5	31	Sep 6	22	Sep 9 2002
MAXIMUM PEAK FLOW			**a**4160	Nov 28	**b**8160	Jun 22 1972
MAXIMUM PEAK STAGE			10.63	Nov 28	**c**14.79	Sep 16 1999
ANNUAL RUNOFF (CFSM)	2.27		2.04		1.64	
ANNUAL RUNOFF (INCHES)	30.87		27.68		22.34	
10 PERCENT EXCEEDS	312		320		283	
50 PERCENT EXCEEDS	165		144		97	
90 PERCENT EXCEEDS	94		44		41	

a From rating curve extended above 3,600 ft^3/s on basis of runoff comparison with nearby stations.
b From rating curve extended above 3,600 ft^3/s on basis of slope-area measurement of peak flow at gage height 13.40 ft.
c Discharge, 7,200 ft^3/s on basis of runoff comparison with nearby stations.



01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1965 to September 1966, October 1970 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: February 1972 to current year.
pH: February 1972 to current year.
WATER TEMPERATURES: February 1972 to current year.
DISSOLVED OXYGEN: February 1972 to current year.

INSTRUMENTATION.--Water-quality monitor since February 1972.

REMARKS.--Specific conductance record rated good except for periods Nov. 11-24 and Mar. 17 to Apr. 1, which are fair, and Apr. 7 to May 3, which are poor. pH record rated good except for periods Nov. 9-24 and Apr. 2 to May 3, which are poor. Water temperature record rated good except for period Apr. 2 to May 3, which is poor. Dissolved oxygen record rated fair, except for periods Nov. 9-14, Mar. 1-11, 24-28, Apr. 7 to May 3, 19-23, and June 23 to July 7, which are poor. Data collection discontinued during winter months since 1981 water year. Other interruptions in the record were due to malfunctions of the equipment.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 891 microsiemens, Mar. 5, 2001; minimum, 67 microsiemens, July 1, 1984.
pH: Maximum, 9.9, May 13, June 5, 1973; minimum, 5.4, Oct. 24, 26, 1973.
WATER TEMPERATURE: Maximum, 33.0°C, July 18, 1977; minimum, 0.0°C, many days during winters.
DISSOLVED OXYGEN: Maximum, 19.4 mg/L, Mar. 18, 1989; minimum, 0.8 mg/L, July 23, 1984.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Fecal coliform, M-FC 0.7µ MF col/ 100 mL (31625)
MAR 2005									
08...	1300	1028	1028	235	8.7	7.3	368	6.3	7
28...	1320	1028	1028	279	11.0	7.5	249	7.2	110
APR									
12...	1145	1028	1028	316	10.8	7.6	227	12.5	10
26...	1125	1028	1028	204	11.8	7.6	240	13.4	66
MAY									
04...	1025	1028	1028	161	10.7	7.7	269	11.5	130
17...	1150	1028	1028	108	11.6	8.1	289	15.7	160
24...	0845	1028	1028	106	7.9	7.5	290	14.3	200
JUN									
07...	1000	1028	1028	179	7.8	7.4	251	19.5	4700
20...	0905	1028	1028	60	8.8	7.6	337	17.6	380
27...	1315	1028	1028	52	9.4	7.8	354	22.7	1000
JUL									
07...	0900	1028	1028	63	7.9	7.5	320	22.1	760
19...	1130	1028	1028	123	7.5	7.6	262	24.3	930
28...	1140	1028	1028	70	8.1	7.8	329	23.5	1200
AUG									
03...	1140	1028	1028	44	8.6	7.9	381	24.1	510
25...	1010	1028	1028	35	9.3	7.7	403	18.5	240
31...	1030	1028	1028	40	8.0	7.7	392	23.0	E120
SEP									
08...	0930	1028	1028	35	9.3	7.6	437	17.3	E49
22...	0900	1028	1028	36	8.2	7.6	404	17.6	96

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conductance, wat unf lab, µS/cm 25 degC (90095)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)
OCT 2004													
18...	1300	1028	80020	127	11.7	7.4	8.0	258	241	12.2	24.4	8.16	3.48

Date	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)	ANC, wat unf incrm. titr., field, mg/L as CaCO3 (00419)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Aluminum, water, fltrd, µg/L (01106)	Arsenic water, fltrd, µg/L (01000)
OCT 2004													
18...	15.6	63	66	29.8	E.1	11.7	17.5	E.02	2.77	E.005	.09	4	<2

Date	Boron, water, fltrd, µg/L (01020)	Cadmium water, fltrd, µg/L (01025)	Chromium, water, fltrd, µg/L (01030)	Copper, water, fltrd, µg/L (01040)	Iron, water, fltrd, µg/L (01046)	Lead, water, fltrd, µg/L (01049)	Manganese, water, fltrd, µg/L (01056)	Mercury water, fltrd, µg/L (71890)	Molybdenum, water, fltrd, µg/L (01060)	Nickel, water, fltrd, µg/L (01065)
OCT 2004										
18...	55	<.2	<.8	2.3	54	<1	13.1	<.01	.7	<2.0

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES

REMARKS.--Samples were collected using a Hess sampler with a mesh size of 500 µm. Each sample covered a total area of 2.4 m^2.

Date	10/18/04
Benthic macroinvertebrate	Count
Platyhelminthes	
Turbellaria (FLATWORMS)	
Tricladida	
Planariidae	60
Nematoda (NEMATODES)	39
Nemertea (PROBOSCIS WORMS)	
Enopla	
Hoplonemertea	
Tetrastemmatidae	
Prostoma	6
Mollusca	
Gastropoda (SNAILS)	
Basommatophora	
Ancylidae	
Ferrissia	1
Hydrobiidae	
Amnicola	1
Bivalvia (CLAMS)	
Veneroida	
Corbiculidae	
Corbicula fluminea	33
Sphaeriidae	
Sphaerium	7
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Lumbriculida	
Lumbriculidae	17
Arthropoda	
Acariformes	
Hydrachnidia (WATER MITES)	16
Crustacea	
Amphipoda (SCUDS)	
Gammaridae	
Gammarus	3
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
Acentrella	19
Baetis	2
Ephemerellidae	
Serratella	10
Heptageniidae	
Stenonema	58
Isonychiidae	
Isonychia	1

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES--Continued

Date	10/18/04
Benthic macroinvertebrate	Count
Plecoptera (STONEFLIES)	
Perlidae	
Acroneuria	1
Taeniopterygidae	
Taeniopteryx	25
Trichoptera (CADDISFLIES)	
Apataniidae	
Apatania	1
Brachycentridae	
Micrasema	39
Glossosomatidae	
Glossosoma	9
Hydropsychidae	
Cheumatopsyche	472
Hydropsyche	506
Hydroptilidae	
Hydroptila	1
Leucotrichia	2
Lepidostomatidae	
Lepidostoma	2
Leptoceridae	
Mystacides	1
Philopotamidae	
Chimarra	35
Uenoidae	
Neophylax	1
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
Ancyronyx	1
Dubiraphia	2
Optioservus	343
Oulimnius	42
Promoresia	6
Stenelmis	276
Psephenidae (WATER PENNIES)	
Psephenus	30
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	560
Empididae (DANCE FLIES)	
Hemerodromia	27
Simuliidae	
Simulium	254
Tipulidae (CRANE FLIES)	
Antocha	19
Tipula	1

Total organisms	2929
Total number of taxa	40

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° CELSIUS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			**NOVEMBER**			**DECEMBER**			**JANUARY**	
1	---	---	---	308	298	302	---	---	---	---	---	---
2	---	---	---	311	298	305	---	---	---	---	---	---
3	---	---	---	313	297	305	---	---	---	---	---	---
4	---	---	---	314	196	288	---	---	---	---	---	---
5	261	253	256	---	---	---	---	---	---	---	---	---
6	267	257	262	---	---	---	---	---	---	---	---	---
7	313	267	276	---	---	---	---	---	---	---	---	---
8	324	303	317	---	---	---	---	---	---	---	---	---
9	---	---	---	302	282	296	---	---	---	---	---	---
10	---	---	---	306	293	301	---	---	---	---	---	---
11	---	---	---	309	288	301	---	---	---	---	---	---
12	---	---	---	319	208	280	---	---	---	---	---	---
13	---	---	---	252	204	222	---	---	---	---	---	---
14	326	257	292	274	252	267	---	---	---	---	---	---
15	---	---	---	283	273	279	---	---	---	---	---	---
16	---	---	---	288	280	283	---	---	---	---	---	---
17	---	---	---	290	276	286	---	---	---	---	---	---
18	---	---	---	296	289	292	---	---	---	---	---	---
19	---	---	---	296	285	292	---	---	---	---	---	---
20	---	---	---	297	285	292	---	---	---	---	---	---
21	277	255	271	294	278	284	---	---	---	---	---	---
22	264	255	259	295	285	290	---	---	---	---	---	---
23	271	261	266	296	291	293	---	---	---	---	---	---
24	277	269	273	300	295	298	---	---	---	---	---	---
25	314	274	284	296	265	279	---	---	---	---	---	---
26	323	314	319	286	266	277	---	---	---	---	---	---
27	321	315	319	289	282	286	---	---	---	---	---	---
28	330	316	320	---	---	---	---	---	---	---	---	---
29	332	304	319	---	---	---	---	---	---	---	---	---
30	321	254	279	230	212	218	---	---	---	---	---	---
31	301	271	289	---	---	---	---	---	---	---	---	---
MONTH	332	253	288	319	196	284	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			**MARCH**			**APRIL**			**MAY**	
1	---	---	---	520	329	410	237	227	230	260	244	252
2	---	---	---	520	374	430	237	128	187	265	253	260
3	---	---	---	374	324	346	168	120	144	---	---	---
4	---	---	---	377	340	364	205	168	190	279	269	273
5	---	---	---	345	337	341	212	198	208	280	274	278
6	---	---	---	340	324	333	216	210	213	285	276	280
7	---	---	---	325	294	320	230	215	219	286	275	282
8	---	---	---	368	261	305	241	211	221	289	272	283
9	---	---	---	364	328	347	222	215	218	292	278	285
10	---	---	---	334	318	328	225	221	223	291	281	286
11	---	---	---	324	307	316	230	224	227	291	282	287
12	---	---	---	342	301	326	234	230	232	291	284	288
13	---	---	---	331	316	323	235	231	234	293	285	287
14	---	---	---	322	311	317	239	233	236	294	284	290
15	---	---	---	319	311	316	246	237	239	292	278	286
16	---	---	---	319	308	315	268	243	260	291	281	288
17	---	---	---	319	311	316	265	260	263	291	283	288
18	---	---	---	317	311	315	262	257	260	284	275	279
19	---	---	---	319	304	312	262	252	259	311	280	298
20	---	---	---	323	304	313	258	250	253	312	261	288
21	---	---	---	316	297	306	260	253	258	286	263	273
22	---	---	---	307	297	300	264	258	262	290	275	285
23	---	---	---	307	209	276	263	225	254	293	286	290
24	---	---	---	251	209	231	233	198	216	298	286	290
25	---	---	---	261	251	258	245	229	239	293	286	289
26	---	---	---	266	256	260	252	245	248	302	289	296
27	---	---	---	265	258	262	260	250	254	308	289	300
28	---	---	---	264	124	219	262	254	258	301	288	296
29	---	---	---	211	132	174	267	258	262	298	286	293
30	---	---	---	222	211	218	267	248	258	302	290	296
31	---	---	---	230	222	226	---	---	---	303	296	300
MONTH	---	---	---	520	124	304	268	120	234	312	244	286

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° CELSIUS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			**JULY**			**AUGUST**			**SEPTEMBER**	
1	306	297	303	356	174	314	363	346	356	398	383	391
2	317	303	310	301	210	263	370	350	356	413	394	404
3	317	267	303	325	299	312	381	352	371	419	388	408
4	296	267	283	338	305	327	383	331	354	417	391	403
5	309	284	296	343	312	330	358	335	349	431	401	411
6	310	186	291	320	282	304	365	347	354	431	400	416
7	287	189	248	336	311	326	368	350	359	435	414	422
8	301	287	296	334	127	218	368	146	295	438	408	429
9	309	298	303	255	195	232	332	227	305	427	405	418
10	311	301	306	285	252	268	341	259	315	447	416	426
11	317	301	309	297	280	288	375	341	354	450	422	433
12	322	307	315	307	292	300	406	375	392	430	402	419
13	326	309	319	312	298	305	400	379	389	430	414	421
14	332	318	325	321	307	312	400	364	388	425	297	405
15	335	325	329	333	293	321	372	243	317	350	228	298
16	341	330	334	321	287	304	386	349	371	376	350	360
17	337	326	330	300	146	215	363	320	343	380	222	356
18	341	331	337	258	167	211	380	361	372	356	222	295
19	343	326	337	281	257	269	391	370	379	375	355	363
20	344	335	339	305	280	292	395	368	379	394	372	379
21	343	331	336	310	280	301	397	373	385	406	388	396
22	364	342	353	319	300	309	404	383	394	411	386	398
23	364	337	350	333	314	320	417	396	405	400	377	390
24	358	335	347	340	318	330	417	398	410	398	377	391
25	356	344	351	339	300	316	419	398	407	411	387	396
26	368	340	354	339	312	323	423	408	414	406	385	389
27	366	346	355	346	332	339	425	394	414	408	367	383
28	355	333	342	344	322	329	420	292	366	391	361	380
29	354	339	346	362	334	346	368	304	348	404	353	379
30	354	339	346	365	340	355	396	362	375	382	357	371
31	---	---	---	366	348	356	400	387	392	---	---	---
MONTH	368	186	323	366	127	301	425	146	368	450	222	391

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
		OCTOBER			**NOVEMBER**			**DECEMBER**			**JANUARY**	
1	---	---	---	7.5	7.3	7.3	---	---	---	---	---	---
2	---	---	---	7.5	7.3	7.3	---	---	---	---	---	---
3	---	---	---	7.5	7.3	7.3	---	---	---	---	---	---
4	---	---	---	7.6	7.3	7.3	---	---	---	---	---	---
5	7.5	7.4	7.4	---	---	---	---	---	---	---	---	---
6	7.5	7.4	7.4	---	---	---	---	---	---	---	---	---
7	7.5	7.4	7.4	---	---	---	---	---	---	---	---	---
8	7.5	7.4	7.4	---	---	---	---	---	---	---	---	---
9	---	---	---	7.8	7.4	7.6	---	---	---	---	---	---
10	---	---	---	7.8	7.6	7.6	---	---	---	---	---	---
11	---	---	---	7.7	7.4	7.6	---	---	---	---	---	---
12	---	---	---	7.5	7.4	7.4	---	---	---	---	---	---
13	---	---	---	7.5	7.4	7.5	---	---	---	---	---	---
14	7.5	7.3	7.4	7.6	7.4	7.5	---	---	---	---	---	---
15	---	---	---	7.6	7.4	7.5	---	---	---	---	---	---
16	---	---	---	7.7	7.4	7.5	---	---	---	---	---	---
17	---	---	---	7.7	7.5	7.6	---	---	---	---	---	---
18	---	---	---	7.6	7.4	7.5	---	---	---	---	---	---
19	---	---	---	7.6	7.4	7.4	---	---	---	---	---	---
20	---	---	---	7.6	7.4	7.5	---	---	---	---	---	---
21	7.6	7.4	7.5	7.6	7.4	7.5	---	---	---	---	---	---
22	7.6	7.4	7.4	7.8	7.4	7.5	---	---	---	---	---	---
23	7.6	7.4	7.5	7.8	7.5	7.6	---	---	---	---	---	---
24	7.6	7.4	7.4	8.0	7.6	7.7	---	---	---	---	---	---
25	7.6	7.4	7.4	8.0	7.7	7.8	---	---	---	---	---	---
26	7.5	7.4	7.4	8.3	7.8	8.0	---	---	---	---	---	---
27	7.6	7.4	7.5	8.3	7.8	8.0	---	---	---	---	---	---
28	7.6	7.4	7.4	---	---	---	---	---	---	---	---	---
29	7.5	7.4	7.4	---	---	---	---	---	---	---	---	---
30	7.4	7.3	7.3	7.4	7.2	7.3	---	---	---	---	---	---
31	7.4	7.2	7.3	---	---	---	---	---	---	---	---	---
MAX	7.6	7.4	7.5	8.3	7.8	8.0	---	---	---	---	---	---
MIN	7.4	7.2	7.3	7.4	7.2	7.3	---	---	---	---	---	---

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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

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

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	14.3	12.8	13.6	---	---	---	---	---	---
2	---	---	---	14.4	12.5	13.6	---	---	---	---	---	---
3	---	---	---	14.3	12.3	13.7	---	---	---	---	---	---
4	---	---	---	12.3	10.1	10.9	---	---	---	---	---	---
5	16.7	15.1	16.0	---	---	---	---	---	---	---	---	---
6	15.6	13.5	14.7	---	---	---	---	---	---	---	---	---
7	15.9	13.5	14.8	---	---	---	---	---	---	---	---	---
8	16.3	14.0	15.3	---	---	---	---	---	---	---	---	---
9	---	---	---	9.7	8.1	8.9	---	---	---	---	---	---
10	---	---	---	8.4	6.8	7.8	---	---	---	---	---	---
11	---	---	---	9.7	7.7	8.8	---	---	---	---	---	---
12	---	---	---	9.4	7.9	9.0	---	---	---	---	---	---
13	---	---	---	8.6	7.5	8.0	---	---	---	---	---	---
14	14.1	13.4	13.7	8.2	6.7	7.5	---	---	---	---	---	---
15	---	---	---	8.6	6.4	7.6	---	---	---	---	---	---
16	---	---	---	9.1	7.1	8.2	---	---	---	---	---	---
17	---	---	---	9.7	7.6	8.8	---	---	---	---	---	---
18	---	---	---	11.1	9.5	10.3	---	---	---	---	---	---
19	---	---	---	11.8	10.5	11.2	---	---	---	---	---	---
20	---	---	---	11.8	11.3	11.6	---	---	---	---	---	---
21	13.3	12.8	13.0	12.1	11.3	11.6	---	---	---	---	---	---
22	13.7	12.6	13.1	11.3	10.4	11.0	---	---	---	---	---	---
23	12.9	11.4	12.3	11.4	10.8	11.1	---	---	---	---	---	---
24	12.3	11.2	11.8	12.7	11.4	11.8	---	---	---	---	---	---
25	13.4	12.0	12.6	13.3	10.2	12.5	---	---	---	---	---	---
26	13.4	12.4	13.0	10.2	7.9	8.7	---	---	---	---	---	---
27	13.5	11.8	12.7	9.5	7.5	8.5	---	---	---	---	---	---
28	13.5	12.1	12.8	---	---	---	---	---	---	---	---	---
29	12.9	11.8	12.3	---	---	---	---	---	---	---	---	---
30	14.2	12.9	13.5	9.6	8.5	9.1	---	---	---	---	---	---
31	15.5	13.9	14.6	---	---	---	---	---	---	---	---	---
MONTH	16.7	11.2	13.5	14.4	6.4	10.2	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	5.2	2.3	3.7	13.4	9.9	11.6	15.3	12.8	13.8
2	---	---	---	5.2	3.4	4.3	12.7	9.4	10.3	13.9	11.6	12.6
3	---	---	---	4.8	2.2	3.7	9.7	8.0	8.6	---	---	---
4	---	---	---	5.3	2.0	3.7	11.0	7.9	9.2	13.2	11.4	12.3
5	---	---	---	6.1	2.6	4.3	11.6	8.9	10.2	14.2	10.6	12.6
6	---	---	---	6.2	3.1	4.8	13.3	9.5	11.3	13.3	11.7	12.2
7	---	---	---	8.9	4.8	7.0	13.6	10.9	12.3	15.6	10.7	13.1
8	---	---	---	8.7	2.9	6.3	14.5	12.4	13.3	17.0	12.3	14.7
9	---	---	---	4.5	1.2	2.8	14.0	10.7	12.3	18.2	13.4	15.9
10	---	---	---	5.0	1.7	3.4	14.3	10.3	12.3	18.9	14.4	16.6
11	---	---	---	6.6	3.4	5.1	14.8	11.4	13.0	19.2	15.0	17.1
12	---	---	---	7.4	4.8	6.2	13.7	10.3	12.1	18.8	16.4	17.4
13	---	---	---	7.9	4.8	6.4	13.7	10.1	11.9	17.7	13.6	15.7
14	---	---	---	8.4	5.3	6.6	14.3	10.1	12.2	19.3	14.6	16.9
15	---	---	---	8.0	4.3	6.1	13.9	10.3	12.2	18.8	16.9	17.9
16	---	---	---	7.7	4.5	6.2	13.8	10.1	12.0	19.6	16.1	17.6
17	---	---	---	7.3	5.4	6.2	14.8	10.3	12.7	17.0	14.4	15.8
18	---	---	---	8.8	4.7	6.8	15.9	12.0	14.0	17.3	13.4	15.3
19	---	---	---	9.5	5.8	7.7	17.2	13.1	15.3	17.9	13.5	15.7
20	---	---	---	8.2	7.7	8.0	18.3	14.8	16.6	16.3	13.0	14.5
21	---	---	---	8.1	7.0	7.7	17.8	15.5	16.5	16.5	11.9	14.2
22	---	---	---	10.1	5.6	7.9	15.5	12.7	13.6	16.2	14.3	15.2
23	---	---	---	8.9	5.5	7.4	14.1	12.3	13.0	15.9	13.9	14.9
24	---	---	---	7.1	5.1	6.1	13.8	11.8	12.7	15.1	13.9	14.5
25	---	---	---	8.2	6.6	7.3	12.1	10.6	11.4	13.9	13.0	13.3
26	---	---	---	8.3	6.2	7.4	14.8	10.3	12.4	15.0	12.7	13.8
27	---	---	---	8.3	7.3	7.9	15.1	12.9	13.9	18.2	13.1	15.6
28	---	---	---	7.9	7.0	7.3	15.2	12.5	13.9	19.4	15.0	16.7
29	---	---	---	9.8	7.1	8.3	14.3	12.3	13.3	19.2	14.5	16.7
30	---	---	---	11.9	8.6	10.2	13.9	12.9	13.2	18.3	15.0	16.6
31	---	---	---	10.8	9.1	10.1	---	---	---	19.7	14.7	17.0
MONTH	---	---	---	11.9	1.2	6.4	18.3	7.9	12.6	19.7	10.6	15.2

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			**JULY**			**AUGUST**			**SEPTEMBER**	
1	20.3	15.8	17.9	25.3	22.5	23.4	25.4	22.4	23.7	24.8	20.9	22.5
2	19.7	16.4	17.9	25.0	22.1	23.3	27.1	22.1	24.3	24.5	19.8	22.0
3	17.9	16.3	16.8	24.4	20.5	22.3	27.9	22.9	25.1	23.6	19.4	21.4
4	18.1	16.0	17.0	25.2	20.3	22.5	28.0	23.5	25.4	23.0	18.6	20.6
5	21.8	16.7	19.1	24.3	22.0	22.9	27.1	23.5	25.1	22.7	18.7	20.5
6	23.1	19.0	20.8	24.4	21.7	23.0	26.6	23.3	24.6	22.7	18.2	20.3
7	23.1	19.4	21.2	23.2	21.8	22.4	24.8	22.2	23.3	22.6	17.8	19.9
8	24.5	20.1	22.2	21.8	19.4	20.3	23.4	22.0	22.5	22.5	17.2	19.6
9	24.0	20.8	22.3	23.2	19.4	21.2	22.9	21.6	22.2	21.6	18.1	19.7
10	24.6	21.5	22.7	24.6	20.4	22.5	24.1	21.1	22.5	22.4	17.9	19.8
11	25.1	21.6	23.2	25.2	21.0	23.1	25.7	21.6	23.4	21.7	17.5	19.6
12	25.0	21.9	23.4	26.0	22.0	23.8	26.7	22.2	24.3	22.6	17.6	19.9
13	25.1	21.8	23.2	24.7	22.8	23.7	27.9	23.6	25.4	23.2	18.4	20.5
14	25.9	22.3	23.9	24.8	23.0	23.8	28.0	23.9	25.7	21.6	19.6	20.6
15	25.8	22.5	23.8	24.5	23.1	23.7	26.1	23.8	25.0	23.0	20.8	21.8
16	23.6	21.1	22.4	24.0	22.9	23.4	23.8	21.5	22.5	24.2	21.1	22.3
17	21.9	18.8	20.3	25.0	22.8	23.8	24.4	20.4	22.1	23.5	21.5	22.3
18	21.6	17.6	19.4	26.0	23.4	24.6	24.7	20.5	22.4	22.9	20.1	21.4
19	20.2	18.0	18.9	26.6	23.9	25.1	22.6	21.2	21.8	23.1	19.4	21.0
20	21.2	17.5	19.1	27.1	23.7	25.2	23.5	20.7	21.8	21.8	19.4	20.6
21	22.7	17.4	19.8	26.7	22.8	24.7	26.0	21.8	23.4	22.4	18.8	20.4
22	23.4	18.6	20.8	26.9	23.5	25.1	25.1	20.8	22.7	21.9	17.6	19.7
23	23.8	18.5	20.9	26.9	23.6	24.9	23.7	19.7	21.5	22.1	18.9	20.4
24	24.7	19.3	21.6	25.2	21.4	23.2	23.6	19.2	21.0	20.9	19.2	20.1
25	25.8	20.0	22.5	25.1	22.1	23.5	23.4	18.2	20.5	20.4	18.6	19.4
26	26.1	20.8	23.2	27.6	23.3	25.1	22.5	18.9	20.6	20.8	18.7	19.8
27	23.4	22.1	22.7	28.5	24.2	25.9	22.0	19.6	20.9	21.3	18.3	19.8
28	26.0	21.6	23.4	25.9	22.8	24.3	21.2	20.4	20.8	19.7	16.1	17.8
29	25.1	22.5	23.6	25.3	21.4	23.2	23.5	20.4	21.7	18.9	16.7	17.8
30	25.6	22.4	23.7	25.6	22.3	23.6	23.3	21.3	22.3	17.9	14.4	16.0
31	---	---	---	24.8	22.0	23.4	24.4	22.6	23.3	---	---	---
MONTH	26.1	15.8	21.3	28.5	19.4	23.6	28.0	18.2	23.0	24.8	14.4	20.2

OXYGEN, DISSOLVED (MG/L), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			**NOVEMBER**			**DECEMBER**			**JANUARY**	
1	---	---	---	10.0	8.0	8.9	---	---	---	---	---	---
2	---	---	---	10.1	7.9	9.0	---	---	---	---	---	---
3	---	---	---	10.0	7.8	8.8	---	---	---	---	---	---
4	---	---	---	10.1	8.5	9.4	---	---	---	---	---	---
5	9.1	8.5	8.8	---	---	---	---	---	---	---	---	---
6	9.6	8.9	9.2	---	---	---	---	---	---	---	---	---
7	9.6	8.5	9.2	---	---	---	---	---	---	---	---	---
8	9.4	8.4	8.9	---	---	---	---	---	---	---	---	---
9	---	---	---	11.2	9.6	10.5	---	---	---	---	---	---
10	---	---	---	11.8	10.3	11.0	---	---	---	---	---	---
11	---	---	---	11.4	9.9	10.7	---	---	---	---	---	---
12	---	---	---	10.4	9.8	10.0	---	---	---	---	---	---
13	---	---	---	10.7	10.1	10.5	---	---	---	---	---	---
14	9.4	8.3	9.0	11.5	10.3	10.8	---	---	---	---	---	---
15	---	---	---	11.5	10.3	10.8	---	---	---	---	---	---
16	---	---	---	11.3	9.9	10.6	---	---	---	---	---	---
17	---	---	---	11.3	9.5	10.4	---	---	---	---	---	---
18	---	---	---	10.5	8.7	9.6	---	---	---	---	---	---
19	---	---	---	10.3	8.6	9.2	---	---	---	---	---	---
20	---	---	---	9.9	8.4	9.0	---	---	---	---	---	---
21	10.4	9.6	9.9	10.2	8.3	9.1	---	---	---	---	---	---
22	10.5	9.7	10.0	10.7	8.6	9.3	---	---	---	---	---	---
23	10.7	9.8	10.2	10.4	8.6	9.2	---	---	---	---	---	---
24	11.0	9.9	10.4	9.9	8.3	8.8	---	---	---	---	---	---
25	10.7	9.3	10.0	9.2	8.1	8.6	---	---	---	---	---	---
26	10.5	9.3	9.8	11.0	8.8	9.9	---	---	---	---	---	---
27	10.8	9.3	10	11.2	9.1	10.1	---	---	---	---	---	---
28	10.7	9.2	9.8	---	---	---	---	---	---	---	---	---
29	10.8	9.2	9.9	---	---	---	---	---	---	---	---	---
30	9.2	8.2	8.9	---	---	---	---	---	---	---	---	---
31	9.2	7.9	8.5	---	---	---	---	---	---	---	---	---
MONTH	11.0	7.9	9.5	11.8	7.8	9.7	---	---	---	---	---	---

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA--Continued

OXYGEN, DISSOLVED (MG/L), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			**MARCH**			**APRIL**			**MAY**	
1	---	---	---	12.2	11.2	11.7	10.2	9.1	9.7	11.3	9.1	9.8
2	---	---	---	12.0	11.0	11.5	9.6	9.1	9.4	11.4	9.1	10.1
3	---	---	---	12.1	10.9	11.4	10.0	9.3	9.7	---	---	---
4	---	---	---	12.2	10.8	11.5	10.1	9.4	9.9	11.9	9.2	10.4
5	---	---	---	11.8	10.4	11.1	10.5	9.5	9.9	12.1	9.2	10.5
6	---	---	---	11.5	9.8	10.7	10.3	9.2	9.9	12.2	9.1	10.5
7	---	---	---	10.6	8.8	9.8	10.5	9.2	9.7	12.4	8.8	10.6
8	---	---	---	9.8	8.8	9.3	9.8	9.2	9.4	12.2	8.4	10.1
9	---	---	---	11.1	9.7	10.2	10.5	9.3	9.9	12.3	8.1	9.9
10	---	---	---	11.4	9.7	10.6	10.5	9.3	9.9	12.6	8.1	9.9
11	---	---	---	11.9	10.1	10.8	10.2	9.3	9.7	12.9	7.7	9.9
12	---	---	---	---	---	---	10.9	9.3	10.1	12.6	7.7	9.6
13	---	---	---	---	---	---	10.8	9.5	10.2	13.3	8.4	10.5
14	---	---	---	---	---	---	10.9	9.5	10.3	13.5	7.7	10.4
15	---	---	---	---	---	---	11.2	9.6	10.4	12.6	7.6	9.8
16	---	---	---	---	---	---	11.3	9.6	10.5	12.7	7.9	9.8
17	---	---	---	---	---	---	11.5	9.1	10.4	13.0	8.3	10.4
18	---	---	---	11.7	8.7	10.1	11.2	9.0	10.1	13.3	8.7	10.6
19	---	---	---	11.5	8.6	9.8	11.8	8.3	9.7	12.3	8.1	10
20	---	---	---	10.2	8.5	9.1	11.3	7.9	9.5	9.6	8.0	8.9
21	---	---	---	11.2	8.6	9.6	11.7	7.8	9.5	11.8	8.6	10.2
22	---	---	---	11.7	8.6	10	11.1	8.7	9.8	11.4	8.6	9.8
23	---	---	---	9.5	8.5	9.0	11.3	8.8	10	11.6	8.9	9.9
24	---	---	---	10.3	9.5	9.7	10.7	8.7	9.8	---	---	---
25	---	---	---	10.8	9.5	10.0	11.9	9.8	10.8	---	---	---
26	---	---	---	11.3	9.7	10.4	12.0	9.2	10.7	---	---	---
27	---	---	---	11.5	10.0	10.6	11.4	8.9	10	---	---	---
28	---	---	---	11.0	10.2	10.6	11.7	8.9	10.1	---	---	---
29	---	---	---	10.5	9.7	10.3	11.9	9.1	10.3	---	---	---
30	---	---	---	10.5	9.6	10.0	10.0	9.1	9.5	---	---	---
31	---	---	---	10.5	9.6	10.1	---	---	---	---	---	---
MONTH	---	---	---	12.2	8.5	10.3	12.0	7.8	10.0	13.5	7.6	10.1

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			**JULY**			**AUGUST**			**SEPTEMBER**	
1	---	---	---	9.3	6.2	7.2	11.1	6.6	8.3	9.8	7.0	8.1
2	---	---	---	7.7	6.1	6.8	11.1	6.4	8.2	10.3	7.2	8.4
3	9.2	7.9	8.5	8.4	6.5	7.3	10.7	6.2	7.8	10.4	7.1	8.5
4	9.5	7.9	8.7	8.8	6.8	7.7	10.7	6.1	7.8	11.0	7.7	9.1
5	9.5	7.1	8.4	8.6	6.5	7.3	11.0	6.1	8.0	11.0	7.8	9.0
6	9.5	6.8	7.9	8.4	6.6	7.4	11.1	6.2	8.0	11.4	7.9	9.2
7	8.6	6.6	7.6	8.9	6.7	7.6	11.0	6.5	8.1	11.4	7.9	9.2
8	8.8	7.0	7.7	8.4	7.7	7.9	9.9	6.6	7.4	11.8	8.0	9.4
9	9.1	6.9	7.8	8.2	7.4	7.9	8.6	6.7	7.6	12.4	7.9	9.6
10	8.9	6.9	7.7	8.3	7.3	7.7	8.6	7.1	7.7	12.0	7.9	9.4
11	9.0	6.7	7.6	8.4	7.3	7.8	9.7	6.9	7.9	12.1	7.8	9.4
12	9.0	6.6	7.6	8.7	7.4	8.0	9.4	6.6	7.8	12.0	7.7	9.3
13	9.2	6.8	7.7	9.5	7.8	8.5	9.2	6.5	7.6	12.0	7.5	9.1
14	9.3	6.8	7.8	9.8	7.9	8.6	9.2	6.4	7.5	11.0	7.0	8.6
15	9.5	6.7	7.8	9.7	7.0	8.4	8.3	5.9	7.0	9.2	6.8	7.6
16	9.6	6.9	8.0	9.1	6.9	7.9	8.4	6.7	7.5	9.4	6.7	7.7
17	10.3	7.3	8.7	7.7	6.6	7.2	9.0	7.4	8.1	9.6	6.7	7.7
18	10.6	8.0	9.0	7.4	6.5	6.9	9.4	7.1	8.1	9.1	6.8	7.7
19	10.6	8.0	9.1	7.9	6.5	7.1	9.0	7.1	7.9	9.8	7.2	8.2
20	11.1	8.3	9.4	7.9	6.6	7.2	9.5	7.3	8.3	9.8	7.2	8.2
21	11.0	8.0	9.3	8.3	6.6	7.3	9.1	6.9	7.7	10.0	7.1	8.2
22	11.2	7.8	9.1	8.5	6.6	7.4	9.2	6.9	7.9	10.4	7.4	8.5
23	11.2	7.8	9.0	8.8	6.6	7.5	9.9	7.3	8.4	10.6	7.3	8.5
24	10.9	7.4	8.9	9.6	7.0	8.1	10.1	7.5	8.6	11.3	7.2	8.7
25	10.9	7.2	8.7	9.9	7.0	8.1	10.1	7.6	8.6	11.0	7.6	8.8
26	10.7	6.9	8.4	9.9	6.7	7.9	10.6	7.6	8.8	10.8	7.2	8.5
27	9.2	6.6	7.7	10.2	6.4	7.8	10.0	7.5	8.5	10.1	7.0	8.2
28	9.7	6.5	7.7	10.3	6.0	8.0	8.8	7.4	8.0	11.1	7.8	9.2
29	9.1	6.3	7.4	10.9	7.0	8.6	10.0	7.2	8.4	10.6	8.0	8.9
30	9.6	6.3	7.6	10.7	6.7	8.2	9.8	7.1	8.2	11.9	8.4	9.9
31	---	---	---	11.0	6.7	8.4	9.2	6.9	7.7	---	---	---
MONTH	11.2	6.3	8.2	11.0	6.0	7.7	11.1	5.9	8.0	12.4	6.7	8.7

CHRISTINA RIVER BASIN

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA
(Pennsylvania Water-Quality Network Station)

LOCATION.--Lat 39°52'11", long 75°35'37", Delaware County, Hydrologic Unit 02040205, on left bank 27 ft upstream from Penn Central Railroad bridge at Chadds Ford, 150 ft upstream from Harvey Run, and 1,200 ft downstream from highway bridge on U.S. Highway 1.

DRAINAGE AREA.--287 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1911 to September 1953, October 1962 to current year. Prior to October 1911, monthly discharge only, published in WSP 1302.

REVISED RECORDS.--WSP 756: Drainage area. WSP 1202: 1917-18(M), 1919-20, 1922-31(M), 1932-33, 1934(M), 1936, 1938(P), 1939(M), 1942, 1944-46(M), WDR PA-98-1: 1996-97 (M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 150.45 ft above National Geodetic Vertical Datum of 1929. Prior to May 21, 1927, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since November 1973 by Marsh Creek Reservoir (station 01480684) about 17 mi upstream. Satellite and landline telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 19, 1955, reached a stage of 14.64 ft, gage datum, discharge, about 16,400 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1040	397	1720	501	471	560	848	743	278	278	157	120
2	804	379	1190	472	464	529	2950	548	270	452	151	110
3	711	372	842	462	468	486	6040	524	323	223	142	108
4	633	601	778	473	468	413	2130	494	463	200	136	104
5	570	1290	716	692	493	416	1530	470	329	208	136	100
6	532	541	661	1120	520	424	1370	456	321	300	132	98
7	500	474	872	754	546	491	1270	454	868	229	130	97
8	426	437	971	782	581	815	1500	433	355	1880	226	95
9	416	411	729	837	682	568	1200	414	305	743	292	94
10	412	398	1700	573	883	462	1050	398	301	328	198	95
11	390	391	1510	529	629	446	959	392	287	266	159	95
12	378	615	925	803	515	465	884	385	267	237	139	91
13	375	1340	783	743	489	428	835	364	259	224	134	93
14	595	615	702	3780	640	404	779	360	252	215	126	109
15	520	521	635	2070	1700	385	729	365	240	239	175	316
16	882	491	600	1020	789	380	639	356	237	436	140	142
17	528	471	591	906	694	374	616	343	232	821	197	172
18	447	453	564	702	577	371	611	344	222	968	149	244
19	852	440	559	639	510	365	592	324	215	425	135	144
20	633	435	523	668	498	395	588	429	217	285	136	123
21	546	485	478	623	561	426	563	472	212	244	133	114
22	548	448	498	493	625	386	549	369	202	222	121	108
23	507	429	1160	679	641	1030	737	351	201	204	109	107
24	477	442	1900	614	560	1520	1080	347	194	188	108	104
25	450	552	709	636	545	662	659	350	191	203	105	101
26	394	488	575	582	523	555	588	350	185	199	102	103
27	383	433	544	533	525	516	570	329	190	183	103	117
28	374	5000	482	477	521	2050	538	311	205	213	141	107
29	369	1910	505	506	---	3580	511	323	200	180	172	103
30	537	1050	504	513	---	1160	594	300	196	166	133	101
31	462	---	501	491	---	948	---	290	---	159	126	---
TOTAL	16691	22309	25427	24673	17118	22010	33509	12388	8217	11118	4543	3615
MEAN	538	744	820	796	611	710	1117	400	274	359	147	120
MAX	1040	5000	1900	3780	1700	3580	6040	743	868	1880	292	316
MIN	369	372	478	462	464	365	511	290	185	159	102	91

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2005, BY WATER YEAR (WY) (SINCE REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	292	353	499	541	556	670	631	506	409	332	245	316
MAX	924	1044	1634	1664	1308	1713	1509	1097	1459	1153	562	1237
(WY)	1997	2004	1997	1979	1979	1994	1983	1989	2003	1975	1996	2003
MIN	99.5	105	112	106	144	195	183	249	153	88.8	64.0	80.2
(WY)	2002	2002	1999	1981	2002	1981	2002	1999	1999	2002	2002	2002

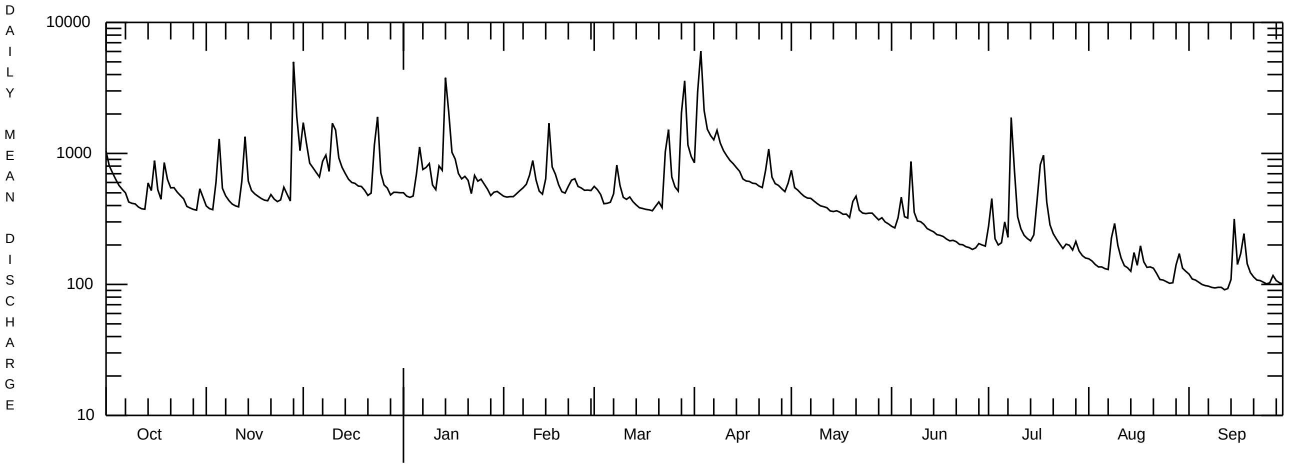
SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1974 - 2005	
ANNUAL TOTAL	241108		201618			
ANNUAL MEAN	659		552		445	
HIGHEST ANNUAL MEAN					754	2004
LOWEST ANNUAL MEAN					152	2002
HIGHEST DAILY MEAN	10100	Sep 29	6040	Apr 3	10600	Jan 26 1978
LOWEST DAILY MEAN	212	Jul 11	91	Sep 12	33	Aug 22 2002
ANNUAL SEVEN-DAY MINIMUM	237	Sep 11	94	Sep 7	36	Aug 17 2002
MAXIMUM PEAK FLOW			8180	Nov 28	**a**26900	Sep 17 1999
MAXIMUM PEAK STAGE			10.36	Nov 28	17.15	Sep 17 1999
INSTANTANEOUS LOW FLOW			90	Sep 12,13	8.4	Sep 13 1980
10 PERCENT EXCEEDS	994		952		834	
50 PERCENT EXCEEDS	502		462		305	
90 PERCENT EXCEEDS	297		133		124	

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911-1953, 1963-1973, BY WATER YEAR (WY) (PRIOR TO REGULATION)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	219	301	348	444	570	605	530	435	364	309	278	230
MAX	666	625	827	1020	1130	1366	1043	946	1144	802	1089	1050
(WY)	1972	1972	1973	1936	1971	1920	1973	1952	1972	1919	1933	1971
MIN	67.7	98.3	114	145	214	247	226	175	149	91.1	82.1	59.4
(WY)	1964	1942	1966	1966	1934	1931	1963	1926	1963	1963	1930	1932

SUMMARY STATISTICS	WATER YEARS 1911-1953 1963-1973	
ANNUAL MEAN	385	
HIGHEST ANNUAL MEAN	625	1928
LOWEST ANNUAL MEAN	218	1932
HIGHEST DAILY MEAN	9590	Aug 24 1933
LOWEST DAILY MEAN	42	Sep 12 1966
ANNUAL SEVEN-DAY MINIMUM	45	Sep 7 1966
MAXIMUM PEAK FLOW	**b**23800	Jun 22 1972
MAXIMUM PEAK STAGE	16.56	Jun 22 1972
INSTANTANEOUS LOW FLOW	4.9	Oct 2 1942
ANNUAL RUNOFF (CFSM)	1.34	
ANNUAL RUNOFF (INCHES)	18.23	
10 PERCENT EXCEEDS	700	
50 PERCENT EXCEEDS	274	
90 PERCENT EXCEEDS	118	

a From rating curve extended above 13,200 ft^3/s on basis of area-velocity study at gage height 16.56 ft.
b From rating curve extended above 9,000 ft^3/s on basis of area-velocity study.



OCTOBER 1, 2004 TO SEPTEMBER 30, 2005

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued
(Pennsylvania Water-Quality Network Station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1965 to current year.
pH: October 1965 to September 1966, December 1971 to current year.
WATER TEMPERATURES: October 1964 to current year.
DISSOLVED OXYGEN: October 1971 to current year.
SUSPENDED-SEDIMENT DISCHARGE: October 1963 to September 1978.

INSTRUMENTATION.--Water-quality monitor since August 1971.

REMARKS.--Specific conductance and water temperature records rated good. pH record rated good except for period Mar. 15-21, which is fair. Dissolved oxygen record rated good except for period Oct. 21 to Nov. 8, which is fair, and periods Nov. 8-30, Apr. 19 to May 4, and Aug. 25 to Sept. 30, which are poor. Data collection discontinued during winter months since 1981 water year. Other interruptions in the record were due to malfunctions of the equipment.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 689 microsiemens, Mar. 6, 2001; minimum, 42 microsiemens, Nov. 26, 1979.
pH: Maximum, 9.8, Apr. 9, 1975; minimum, 6.1, Feb. 22, 1976.
WATER TEMPERATURE: Maximum, 31.0°C, July 4, 2002; minimum, 0.0°C, many days during winters.
DISSOLVED OXYGEN: Maximum, 17.1 mg/L, Dec. 5, 1976; minimum, 3.0 mg/L, June 21, 1984.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency col-lecting sample, code (00027)	Agency ana-lyzing sample, code (00028)	Instan-taneous dis-charge, cfs (00061)	Dis-solved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conduc-tance, wat unf µS/cm 25 degC (00095)	Temper-ature, water, deg C (00010)	Fecal coli-form, M-FC 0.7µ MF col/ 100 mL (31625)
MAR									
08...	1405	1028	1028	780	10.2	--	257	7.2	37
28...	1200	1028	1028	780	11.0	7.5	264	7.7	410
APR									
12...	1330	1028	1028	884	--	7.6	235	12.3	26
26...	1215	1028	1028	589	10.7	7.7	242	11.0	100
MAY									
04...	1130	1028	1028	487	11.5	7.6	250	11.7	110
17...	1120	1028	1028	342	11.8	7.8	255	16.7	100
24...	0945	1028	1028	346	9.9	7.5	270	14.9	100
JUN									
07...	0930	1028	1028	897	7.9	7.3	192	20.3	E7100
20...	0840	1028	1028	289	9.0	7.7	296	18.5	140
27...	1340	1028	1028	188	9.3	8.1	292	24.2	230
JUL									
07...	0830	1028	1028	229	7.2	7.4	274	23.5	240
19...	1030	1028	1028	512	6.9	7.4	244	24.7	2600
28...	1300	1028	1028	208	8.9	8.1	307	26.3	220
AUG									
03...	1000	1028	1028	142	7.2	7.8	316	25.2	E80
25...	0940	1028	1028	105	7.5	7.6	334	20.7	E85
31...	1000	1028	1028	126	6.8	7.5	316	23.8	E22
SEP									
08...	0900	1028	1028	94	7.6	7.7	344	19.6	E19
22...	0830	1028	1028	110	9.9	7.5	338	19.9	46

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued
(Pennsylvania Water-Quality Network Station)

PERIOD OF RECORD.--April 2002 to current year.

REMARKS.--Other data for the Water-Quality Network can be found on pages 386-432.

COOPERATION.--Samples were collected as part of the Pennsylvania Department of Environmental Protection Water-Quality Network (WQN) with cooperation from the Pennsylvania Department of Environmental Protection.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency col- lecting sample, code (00027)	Agency ana- lyzing sample, code (00028)	Instan- taneous dis- charge, cfs (00061)	Dis- solved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conduc- tance, wat unf lab, µS/cm 25 degC (90095)	Specif. conduc- tance, wat unf µS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO3 (00900)	Calcium water unfltrd recover -able, mg/L (00916)	Magnes- ium, water, unfltrd recover -able, mg/L (00927)
NOV 2004													
02...	1010	1028	9813	380	10.5	7.5	7.5	283	280	12.5	95	23	8.9
JAN 2005													
25...	1410	1028	9813	631	15.7	7.5	7.6	263	267	.3	85	21	7.9
MAR													
15...	1040	1028	9813	384	14.6	7.6	7.8	289	289	5.1	94	22	9.4
MAY													
11...	1020	1028	9813	393	10.2	7.7	7.9	269	263	16.1	89	21	8.6
JUL													
07...	1010	1028	9813	226	9.0	7.3	7.8	264	276	23.4	88	21	8.5
SEP													
06...	1440	1028	9813	98	10.4	8.0	7.9	335	343	22.7	110	27	11

Date	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 105degC wat flt mg/L (00515)	Residue total at 105 deg. C, sus- pended, mg/L (00530)	Ammonia water, unfltrd mg/L as N (00610)	Nitrate water unfltrd mg/L as N (00620)	Nitrite water, unfltrd mg/L as N (00615)	Total nitro- gen, water, unfltrd mg/L (00600)	Ortho- phos- phate, water, unfltrd mg/L as P (70507)	Phos- phorus, water, unfltrd mg/L (00665)	Organic carbon, water, unfltrd mg/L (00680)	Fecal coli- form, M-FC 0.45µMF col/ 100 mL (31616)	Alum- inum, water, unfltrd recover -able, µg/L (01105)
NOV 2004													
02...	63	18	210	<2	<.020	3.3	<.040	3.6	.07	.08	2.9	<20	<200
JAN 2005													
25...	48	19	150	2	.110	3.9	<.040	4.0	.07	.09	1.5	280	<200
MAR													
15...	53	20	180	8	.020	4.0	<.040	4.3	.07	.08	1.8	60	<200
MAY													
11...	55	20	170	<2	<.020	3.4	<.040	3.8	.03	.05	--	160	<200
JUL													
07...	57	19	170	<2	.130	3.0	<.040	3.4	.09	.10	--	160	<200
SEP													
06...	69	23	250	20	.040	4.1	<.040	4.2	.13	.16	--	40	<200

Date	Copper, water, unfltrd recover -able, µg/L (01042)	Iron, water, unfltrd recover -able, µg/L (01045)	Lead, water, unfltrd recover -able, µg/L (01051)	Mangan- ese, water, unfltrd recover -able, µg/L (01055)	Nickel, water, unfltrd recover -able, µg/L (01067)	Zinc, water, unfltrd recover -able, µg/L (01092)
NOV 2004						
02...	<10	130	<1.0	20	<50	<10
JAN 2005						
25...	<10	300	<1.0	30	<50	<10
MAR						
15...	<10	200	<1.0	40	<50	<10
MAY						
11...	<10	220	<1.0	40	<50	<10
JUL						
07...	<10	310	<1.0	40	<50	<10
SEP						
06...	<10	220	<1.0	30	<50	<10

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES

REMARKS.--Samples were collected using a D-Frame net with a mesh size of 500 µm. Samples represent counts per 100 animal (approximate) subsamples.

Date	08/11/04
Benthic macroinvertebrate	Count
Platyhelminthes	
Turbellaria (FLATWORMS)	
Tricladida	
Planariidae	6
Nemertea (PROBOSCIS WORMS)	
Enopla	
Hoplonemertea	
Tetrastemmatidae	
Prostoma	3
Mollusca	
Bivalvia (CLAMS)	
Veneroida	
Corbiculidae	
Corbicula fluminea	6
Arthropoda	
Acariformes	
Hydrachnidia (WATER MITES)	1
Crustacea	
Amphipoda (SCUDS)	
Gammaridae	
Gammarus	4
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
Acentrella	3
Baetis	18
Hemiptera	
Veliidae	
Rhagovelia	2
Trichoptera (CADDISFLIES)	
Glossosomatidae	2
Hydropsychidae	
Cheumatopsyche	10
Hydropsyche	14
Philopotamidae	
Chimarra	2
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
Optioservus	27
Oulimnius	3
Stenelmis	126
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	19
Empididae (DANCE FLIES)	
Hemerodromia	4
Simuliidae (BLACK FLIES)	
Simulium	2
Tipulidae (CRANE FLIES)	
Antocha	2
Total Organisms	254
Total Taxa	19

CHRISTINA RIVER BASI

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° CELSIUS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			**NOVEMBER**			**DECEMBER**			**JANUARY**	
1	234	226	230	287	271	280	241	187	222	---	---	---
2	242	233	237	287	283	285	228	187	211	---	---	---
3	248	242	245	296	284	290	---	---	---	---	---	---
4	252	248	250	290	264	284	---	---	---	---	---	---
5	253	250	251	264	226	237	---	---	---	---	---	---
6	250	248	249	261	238	248	---	---	---	---	---	---
7	251	249	250	276	261	269	---	---	---	---	---	---
8	260	246	251	279	276	277	---	---	---	---	---	---
9	261	258	259	284	279	281	---	---	---	---	---	---
10	272	260	269	290	284	288	---	---	---	---	---	---
11	271	266	268	292	289	291	---	---	---	---	---	---
12	284	264	270	290	268	283	---	---	---	---	---	---
13	294	284	291	268	216	227	---	---	---	---	---	---
14	293	281	288	261	232	248	---	---	---	---	---	---
15	286	249	260	272	261	267	---	---	---	---	---	---
16	281	220	237	277	272	274	---	---	---	---	---	---
17	268	240	258	280	277	279	---	---	---	---	---	---
18	273	263	269	281	279	280	---	---	---	---	---	---
19	274	235	262	284	280	282	---	---	---	---	---	---
20	263	232	247	284	279	282	---	---	---	---	---	---
21	273	263	268	283	277	281	---	---	---	---	---	---
22	273	266	269	277	273	275	---	---	---	---	---	---
23	272	270	271	284	277	280	---	---	---	---	---	---
24	277	272	275	286	281	284	---	---	---	---	---	---
25	292	277	281	286	270	281	---	---	---	---	---	---
26	289	278	282	272	269	270	---	---	---	---	---	---
27	293	288	290	281	270	276	---	---	---	---	---	---
28	292	287	290	279	120	177	---	---	---	---	---	---
29	291	287	289	218	141	184	---	---	---	---	---	---
30	304	259	286	237	218	229	---	---	---	---	---	---
31	278	256	264	---	---	---	---	---	---	---	---	---
MONTH	304	220	265	296	120	266	241	187	216	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			**MARCH**			**APRIL**			**MAY**	
1	---	---	---	368	288	329	241	237	240	246	233	239
2	---	---	---	505	363	442	241	145	204	246	235	240
3	---	---	---	415	325	357	168	131	143	253	243	248
4	---	---	---	327	311	322	211	168	192	---	---	---
5	---	---	---	321	302	311	219	211	217	256	253	254
6	---	---	---	303	295	300	224	219	222	257	254	255
7	---	---	---	296	288	292	231	223	227	258	255	257
8	---	---	---	320	274	289	236	219	226	258	253	256
9	---	---	---	341	318	327	229	222	226	259	253	256
10	---	---	---	326	306	315	232	229	231	260	253	256
11	---	---	---	307	296	301	234	231	233	261	253	257
12	---	---	---	304	294	296	236	233	235	259	254	256
13	---	---	---	307	292	301	240	235	238	260	250	256
14	---	---	---	293	285	290	240	237	239	257	242	251
15	---	---	---	289	282	285	241	238	240	261	252	256
16	---	---	---	287	281	284	246	240	243	257	251	254
17	---	---	---	284	282	283	247	244	246	258	251	254
18	---	---	---	286	283	285	247	243	245	271	252	261
19	---	---	---	288	284	285	250	245	247	270	260	266
20	---	---	---	292	284	289	251	247	249	275	267	271
21	---	---	---	298	291	294	249	246	247	270	247	255
22	---	---	---	292	283	289	251	248	249	265	253	260
23	---	---	---	287	260	279	251	233	247	268	264	266
24	---	---	---	260	223	234	243	211	223	279	267	269
25	---	---	---	264	242	257	235	221	229	270	267	269
26	457	314	393	266	264	265	243	234	239	272	268	270
27	372	318	337	269	265	266	247	238	243	276	270	273
28	319	290	302	265	148	236	248	243	245	276	272	274
29	---	---	---	204	141	167	250	245	247	277	273	274
30	---	---	---	232	204	223	251	242	247	273	271	272
31	---	---	---	238	232	236	---	---	---	276	273	275
MONTH	457	290	344	505	141	288	251	131	232	279	233	260

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° CELSIUS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	278	275	277	299	283	295	320	311	317	340	324	335
2	283	275	280	284	210	237	320	311	317	339	331	338
3	285	273	280	271	254	260	319	309	316	338	332	335
4	279	253	266	290	271	280	329	319	323	340	335	337
5	271	253	264	295	280	289	333	320	327	341	336	338
6	277	267	274	301	278	290	326	321	323	340	335	338
7	268	191	215	284	270	276	327	317	322	346	338	340
8	263	232	247	---	---	---	342	316	324	346	338	343
9	275	263	271	---	---	---	328	227	250	352	338	346
10	282	274	280	---	---	---	295	257	272	350	332	342
11	286	281	283	---	---	---	299	286	293	343	330	336
12	290	282	286	285	272	281	308	299	304	350	319	336
13	289	282	286	291	283	288	326	308	317	351	340	347
14	297	287	291	298	288	292	327	322	325	350	327	341
15	301	288	293	298	271	292	339	317	327	345	240	288
16	293	284	290	292	207	243	317	279	289	271	236	249
17	299	284	293	274	166	234	325	291	312	303	271	289
18	297	291	294	217	172	193	314	306	308	309	260	288
19	303	295	299	254	217	241	316	306	311	276	257	266
20	303	295	297	272	244	257	323	316	320	308	276	292
21	300	294	296	289	272	282	330	320	327	328	308	319
22	301	291	296	296	289	293	336	326	332	347	328	339
23	303	294	298	302	296	300	330	322	328	346	339	342
24	301	292	298	305	301	303	339	328	335	346	339	343
25	302	291	299	309	299	304	350	332	339	358	346	352
26	302	293	299	308	300	305	349	342	345	358	346	353
27	304	295	300	305	290	298	350	341	344	348	345	347
28	304	298	301	308	294	303	351	344	348	353	343	349
29	302	293	298	309	293	301	362	326	342	349	341	345
30	300	296	298	310	298	305	327	295	308	349	341	345
31	---	---	---	318	308	312	324	307	316	---	---	---
MONTH	304	191	285	318	166	280	362	227	318	358	236	329

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	7.4	7.3	7.3	7.3	7.2	7.3	7.5	7.4	7.4	---	---	---
2	7.4	7.4	7.4	7.4	7.3	7.3	7.4	7.4	7.4	---	---	---
3	7.4	7.4	7.4	7.4	7.2	7.3	---	---	---	---	---	---
4	7.4	7.4	7.4	7.3	7.1	7.3	---	---	---	---	---	---
5	7.5	7.4	7.4	7.1	6.9	7.0	---	---	---	---	---	---
6	7.5	7.4	7.4	7.2	7.0	7.1	---	---	---	---	---	---
7	7.5	7.4	7.5	7.1	7.1	7.1	---	---	---	---	---	---
8	7.5	7.4	7.4	7.6	7.1	7.5	---	---	---	---	---	---
9	7.6	7.5	7.5	7.6	7.5	7.5	---	---	---	---	---	---
10	7.6	7.5	7.5	7.6	7.5	7.6	---	---	---	---	---	---
11	7.6	7.5	7.5	7.6	7.5	7.6	---	---	---	---	---	---
12	7.6	7.5	7.5	7.6	7.4	7.5	---	---	---	---	---	---
13	7.6	7.5	7.5	7.5	7.3	7.3	---	---	---	---	---	---
14	7.5	7.4	7.4	7.4	7.3	7.4	---	---	---	---	---	---
15	7.4	7.2	7.2	7.4	7.4	7.4	---	---	---	---	---	---
16	7.4	7.2	7.4	7.5	7.4	7.4	---	---	---	---	---	---
17	7.5	7.4	7.4	7.5	7.4	7.4	---	---	---	---	---	---
18	7.5	7.4	7.4	7.5	7.4	7.4	---	---	---	---	---	---
19	7.5	7.3	7.4	7.6	7.4	7.5	---	---	---	---	---	---
20	7.6	7.3	7.4	7.6	7.5	7.5	---	---	---	---	---	---
21	7.6	7.5	7.6	7.6	7.5	7.5	---	---	---	---	---	---
22	7.6	7.6	7.6	7.6	7.5	7.6	---	---	---	---	---	---
23	7.6	7.5	7.6	7.6	7.5	7.6	---	---	---	---	---	---
24	7.6	7.6	7.6	7.6	7.5	7.5	---	---	---	---	---	---
25	7.6	7.6	7.6	7.6	7.5	7.5	---	---	---	---	---	---
26	7.6	7.5	7.6	7.6	7.5	7.6	---	---	---	---	---	---
27	7.6	7.5	7.6	7.7	7.5	7.6	---	---	---	---	---	---
28	7.6	7.5	7.6	7.6	7.1	7.1	---	---	---	---	---	---
29	7.6	7.5	7.5	7.4	7.1	7.2	---	---	---	---	---	---
30	7.5	7.3	7.3	7.5	7.4	7.4	---	---	---	---	---	---
31	7.3	7.2	7.2	---	---	---	---	---	---	---	---	---
MAX	7.6	7.6	7.6	7.7	7.5	7.6	7.5	7.4	7.4	---	---	---
MIN	7.3	7.2	7.2	7.1	6.9	7.0	7.4	7.4	7.4	---	---	---

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
		JUNE			**JULY**			**AUGUST**			**SEPTEMBER**	
1	7.8	7.4	7.5	7.8	7.5	7.5	8.7	7.8	8.3	7.9	7.4	7.5
2	7.9	7.4	7.6	7.5	7.3	7.4	8.7	7.8	8.3	7.9	7.4	7.5
3	7.6	7.5	7.5	7.6	7.3	7.5	8.6	7.7	8.1	7.9	7.5	7.6
4	7.6	7.5	7.5	7.8	7.4	7.6	8.4	7.6	8.0	7.9	7.5	7.6
5	7.7	7.4	7.5	7.8	7.5	7.6	8.4	7.6	7.9	8.0	7.5	7.6
6	7.7	7.4	7.5	7.8	7.4	7.6	8.2	7.5	7.7	8.0	7.6	7.6
7	7.5	7.3	7.4	7.6	7.4	7.5	8.0	7.5	7.6	8.1	7.6	7.6
8	7.5	7.3	7.4	---	---	---	7.8	7.5	7.6	8.1	7.6	7.6
9	7.6	7.4	7.5	---	---	---	7.6	7.3	7.4	8.1	7.6	7.7
10	7.6	7.4	7.5	---	---	---	7.5	7.3	7.4	8.2	7.6	7.7
11	7.7	7.4	7.5	---	---	---	7.6	7.4	7.5	8.2	7.6	7.7
12	7.7	7.4	7.6	7.8	7.5	7.6	7.7	7.4	7.5	8.2	7.6	7.7
13	7.8	7.5	7.6	7.8	7.5	7.6	7.8	7.4	7.5	8.2	7.6	7.7
14	7.9	7.5	7.6	7.8	7.5	7.6	7.8	7.4	7.5	8.0	7.5	7.7
15	7.9	7.5	7.6	7.9	7.5	7.6	7.7	7.5	7.5	7.7	7.3	7.4
16	7.8	7.5	7.6	7.6	7.4	7.4	7.5	7.4	7.4	7.4	7.2	7.3
17	8.0	7.5	7.7	7.5	7.4	7.4	7.8	7.4	7.6	7.5	7.3	7.4
18	8.1	7.6	7.8	7.4	7.3	7.4	7.8	7.5	7.6	7.6	7.4	7.5
19	8.0	7.6	7.7	7.5	7.4	7.5	7.7	7.5	7.6	7.5	7.3	7.4
20	8.2	7.6	7.9	7.6	7.4	7.5	7.8	7.5	7.6	7.6	7.4	7.5
21	8.4	7.7	8.0	7.8	7.5	7.6	7.9	7.5	7.6	7.8	7.5	7.6
22	8.6	7.7	8.1	7.9	7.5	7.7	7.9	7.4	7.6	7.8	7.4	7.6
23	8.7	7.7	8.3	8.0	7.6	7.8	8.0	7.4	7.6	7.8	7.4	7.5
24	8.7	7.7	8.3	8.1	7.6	7.8	7.9	7.5	7.6	8.0	7.4	7.6
25	8.8	7.7	8.3	8.2	7.7	7.9	8.0	7.5	7.6	8.0	7.5	7.6
26	8.7	7.6	8.3	8.3	7.6	7.9	8.0	7.5	7.6	7.9	7.5	7.6
27	8.3	7.6	7.9	8.4	7.6	7.9	7.9	7.5	7.6	7.9	7.4	7.6
28	8.1	7.4	7.7	8.4	7.6	7.9	7.8	7.5	7.6	7.9	7.4	7.6
29	7.8	7.5	7.6	8.6	7.6	8.0	7.7	7.5	7.6	7.8	7.5	7.6
30	7.8	7.4	7.5	8.6	7.7	8.2	7.7	7.4	7.5	7.9	7.5	7.6
31	---	---	---	8.6	7.7	8.3	7.7	7.4	7.5	---	---	---
MAX	8.8	7.7	8.3	8.6	7.7	8.3	8.7	7.8	8.3	8.2	7.6	7.7
MIN	7.5	7.3	7.4	7.4	7.3	7.4	7.5	7.3	7.4	7.4	7.2	7.3

CHRISTINA RIVER BASIN

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			**NOVEMBER**			**DECEMBER**			**JANUARY**	
1	17.6	16.1	16.9	14.0	12.9	13.3	9.4	8.5	8.9	---	---	---
2	17.0	16.4	16.7	13.3	12.3	12.9	8.6	7.2	7.7	---	---	---
3	17.1	16.1	16.7	13.4	12.2	13.1	---	---	---	---	---	---
4	16.6	15.0	15.9	12.2	10.1	10.8	---	---	---	---	---	---
5	16.1	14.6	15.3	10.4	9.6	10.0	---	---	---	---	---	---
6	14.6	12.9	13.7	9.6	8.5	9.2	---	---	---	---	---	---
7	14.2	12.5	13.4	10.1	8.4	9.4	---	---	---	---	---	---
8	15.1	13.3	14.2	10.1	8.6	9.4	---	---	---	---	---	---
9	15.4	14.3	14.9	8.6	7.0	7.8	---	---	---	---	---	---
10	16.1	14.9	15.5	7.0	5.7	6.4	---	---	---	---	---	---
11	15.2	13.6	14.3	7.4	5.9	6.7	---	---	---	---	---	---
12	13.6	12.1	12.9	7.7	7.3	7.6	---	---	---	---	---	---
13	12.6	11.5	12.1	7.6	6.9	7.3	---	---	---	---	---	---
14	13.2	12.3	12.6	6.9	5.8	6.3	---	---	---	---	---	---
15	13.9	13.2	13.5	6.4	5.1	5.9	---	---	---	---	---	---
16	13.8	12.9	13.4	7.0	5.5	6.4	---	---	---	---	---	---
17	12.9	11.6	12.1	7.7	6.2	7.0	---	---	---	---	---	---
18	11.6	10.3	11.0	9.6	7.7	8.5	---	---	---	---	---	---
19	11.9	11.4	11.7	10.3	9.4	9.8	---	---	---	---	---	---
20	11.8	11.6	11.7	10.9	10.3	10.6	---	---	---	---	---	---
21	12.3	11.7	11.9	11.3	10.8	11.0	---	---	---	---	---	---
22	12.6	11.7	12.1	11.0	10.2	10.5	---	---	---	---	---	---
23	12.1	10.9	11.4	10.4	10.1	10.3	---	---	---	---	---	---
24	11.1	10.3	10.6	11.7	10.4	10.8	---	---	---	---	---	---
25	11.9	10.7	11.2	12.9	10.8	12.2	---	---	---	---	---	---
26	12.1	11.6	11.9	10.8	7.6	9.0	---	---	---	---	---	---
27	12.0	11.0	11.6	8.0	6.8	7.4	---	---	---	---	---	---
28	12.3	11.3	11.8	12.3	8.0	10.1	---	---	---	---	---	---
29	11.6	11.0	11.2	10.2	8.4	9.1	---	---	---	---	---	---
30	13.3	11.5	12.3	8.5	7.7	8.1	---	---	---	---	---	---
31	14.5	13.3	13.8	---	---	---	---	---	---	---	---	---
MONTH	17.6	10.3	13.2	14.0	5.1	9.2	9.4	7.2	8.3	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			**MARCH**			**APRIL**			**MAY**	
1	---	---	---	4.0	2.1	3.0	12.3	9.3	10.7	15.1	13.1	14.0
2	---	---	---	4.4	3.2	3.8	12.1	10.4	11.1	14.6	12.5	13.3
3	---	---	---	3.9	2.4	3.2	11.2	8.5	9.8	12.6	10.8	11.9
4	---	---	---	3.9	2.0	3.1	10.6	7.5	8.9	---	---	---
5	---	---	---	4.7	2.6	3.8	11.6	9.0	10.3	13.5	11.0	12.4
6	---	---	---	5.0	3.2	4.2	13.7	10.5	11.9	13.2	11.9	12.4
7	---	---	---	7.9	4.5	6.0	14.5	12.6	13.5	14.3	11.0	12.6
8	---	---	---	8.0	4.4	7.0	14.7	13.4	14.1	16.0	12.9	14.5
9	---	---	---	4.4	2.3	3.0	14.1	11.9	13.2	17.6	14.5	16.1
10	---	---	---	3.7	1.7	2.8	14.2	11.5	13.0	18.1	15.5	16.9
11	---	---	---	5.5	3.0	4.2	14.6	12.6	13.7	18.7	16.2	17.5
12	---	---	---	6.6	4.8	5.8	14.1	11.6	12.8	18.4	17.2	17.9
13	---	---	---	7.1	5.2	6.3	13.2	10.8	12.2	17.5	15.3	16.4
14	---	---	---	7.1	5.5	6.4	13.6	11.1	12.4	18.5	15.5	17.0
15	---	---	---	6.7	4.9	6.0	13.3	11.6	12.6	19.3	18.0	18.6
16	---	---	---	6.6	4.9	5.9	13.4	10.7	12.0	19.1	17.4	18.3
17	---	---	---	6.5	5.4	6.0	14.0	11.0	12.6	18.0	16.3	17.0
18	---	---	---	7.1	4.9	6.1	15.3	12.4	13.9	16.6	14.8	15.8
19	---	---	---	8.2	5.9	7.1	16.8	13.6	15.2	17.3	14.8	16.1
20	---	---	---	8.0	7.5	7.7	18.2	15.5	16.8	16.7	13.5	15.3
21	---	---	---	7.8	7.2	7.6	18.1	16.4	17.2	15.1	12.3	13.8
22	---	---	---	8.7	6.0	7.4	16.4	12.4	13.9	16.1	14.6	15.4
23	---	---	---	8.5	6.4	7.7	13.8	11.8	12.6	15.9	14.7	15.3
24	---	---	---	6.7	5.6	6.2	13.8	12.1	13.0	15.6	14.4	14.9
25	---	---	---	7.7	6.7	7.1	12.1	10.6	11.1	14.4	13.0	13.5
26	3.9	2.1	3.1	8.1	6.7	7.5	13.8	9.9	11.7	14.3	12.7	13.4
27	4.4	2.8	3.7	8.2	7.7	8.0	15.0	13.3	14.1	17.0	13.4	15.2
28	4.3	2.5	3.6	8.1	7.6	7.8	15.0	13.2	14.2	18.4	16.2	17.3
29	---	---	---	9.6	7.4	8.3	14.2	12.8	13.5	18.4	16.2	17.4
30	---	---	---	10.4	8.4	9.4	13.8	13.2	13.4	18.1	16.5	17.4
31	---	---	---	10.2	9.0	9.6	---	---	---	18.9	16.2	17.7
MONTH	4.4	2.1	3.5	10.4	1.7	6.1	18.2	7.5	12.8	19.3	10.8	15.5

CHRISTINA RIVER BASIN

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			**JULY**			**AUGUST**			**SEPTEMBER**		
1	19.9	17.3	18.7	26.2	24.4	25.2	25.7	23.6	24.6	25.5	23.1	24.2
2	19.6	18.0	18.9	25.0	22.8	23.9	26.9	24.0	25.5	25.1	22.4	23.7
3	18.9	16.9	17.8	24.4	22.6	23.7	27.7	24.9	26.4	24.3	22.1	23.2
4	17.7	16.3	17.0	24.8	22.1	23.5	28.0	25.6	27.0	23.4	21.0	22.2
5	20.9	17.1	18.9	25.1	23.3	24.2	28.5	26.2	27.4	23.1	20.7	21.8
6	22.8	20.1	21.4	24.7	23.1	23.9	27.9	26.0	27.0	22.9	20.4	21.5
7	22.6	20.3	21.5	24.3	22.6	23.5	26.7	25.0	25.9	22.7	20.0	21.2
8	24.0	21.2	22.7	---	---	---	26.0	23.5	25.1	22.4	19.6	20.9
9	24.1	22.5	23.4	---	---	---	23.5	22.6	23.0	21.8	20.0	20.7
10	24.5	22.8	23.6	---	---	---	24.3	22.5	23.4	22.2	19.7	20.8
11	25.3	23.2	24.3	---	---	---	26.1	23.3	24.7	22.1	19.6	20.7
12	25.4	23.6	24.5	25.5	23.1	24.4	27.3	24.6	26.0	22.4	19.8	20.9
13	25.3	23.6	24.5	25.0	23.9	24.5	28.3	25.7	27.1	23.0	20.4	21.4
14	26.0	23.9	25.0	24.8	23.9	24.3	29.0	26.5	27.8	22.1	21.3	21.7
15	26.0	24.4	25.2	25.0	23.7	24.2	28.4	26.7	27.4	23.0	21.1	22.1
16	25.0	22.7	23.9	24.3	22.9	23.7	26.8	24.0	25.3	24.3	22.6	23.4
17	22.7	21.0	21.8	24.1	23.2	23.6	24.7	22.7	23.9	24.4	23.2	23.8
18	21.6	19.5	20.7	25.6	23.9	24.7	25.0	22.7	23.9	23.6	22.0	22.8
19	20.6	19.3	19.7	26.2	24.4	25.4	24.5	23.2	23.7	23.4	21.2	22.3
20	20.3	18.5	19.5	26.7	24.6	25.7	24.1	22.5	23.3	22.6	21.3	22.1
21	21.5	18.5	20.1	26.5	24.4	25.6	25.7	23.3	24.5	22.7	20.5	21.6
22	22.8	20.1	21.4	27.0	24.9	26.1	25.9	23.3	24.6	22.2	19.8	21.1
23	23.2	20.4	21.9	26.9	25.2	26.1	25.0	22.6	23.8	22.3	20.5	21.4
24	24.1	21.3	22.7	25.6	23.6	24.8	24.0	21.7	22.8	22.0	20.6	21.3
25	24.9	22.0	23.6	25.7	23.4	24.6	23.5	20.6	22.2	21.3	20.2	20.7
26	25.6	22.9	24.3	27.2	24.6	25.9	23.1	21.1	22.1	21.2	20.1	20.7
27	25.0	23.7	24.1	28.6	26.0	27.2	23.0	21.5	22.3	21.6	20.0	20.7
28	25.6	22.9	24.3	27.4	25.3	26.2	22.8	22.1	22.4	20.4	18.1	19.4
29	25.4	24.1	24.7	25.8	23.8	25.0	23.3	21.5	22.4	19.4	17.7	18.7
30	25.9	24.0	24.9	25.7	24.0	24.9	23.9	22.5	23.3	18.2	16.2	17.1
31	---	---	---	24.9	23.6	24.4	25.0	23.6	24.2	---	---	---
MONTH	26.0	16.3	22.2	28.6	22.1	24.8	29.0	20.6	24.6	25.5	16.2	21.5

OXYGEN, DISSOLVED (MG/L), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			**NOVEMBER**			**DECEMBER**			**JANUARY**		
1	9.0	8.5	8.8	8.9	7.8	8.4	12.1	10.3	11.2	---	---	---
2	8.9	8.2	8.7	9.0	8.3	8.6	11.6	11.0	11.3	---	---	---
3	9.0	8.5	8.8	8.7	8.0	8.4	---	---	---	---	---	---
4	9.3	8.8	9.0	8.9	7.6	8.4	---	---	---	---	---	---
5	9.3	8.1	9.0	8.0	6.9	7.3	---	---	---	---	---	---
6	9.9	9.0	9.6	9.1	6.9	8.2	---	---	---	---	---	---
7	10.0	9.3	9.7	8.5	7.3	8.2	---	---	---	---	---	---
8	9.8	9.3	9.5	9.7	7.6	9.0	---	---	---	---	---	---
9	9.7	9.1	9.3	10.3	9.5	10	---	---	---	---	---	---
10	9.6	8.6	9.1	11.1	9.9	10.6	---	---	---	---	---	---
11	9.8	8.1	9.2	11.3	10.7	11.0	---	---	---	---	---	---
12	10.2	9.3	9.7	11.0	10.1	10.7	---	---	---	---	---	---
13	10.6	9.3	10	10.5	9.3	10.0	---	---	---	---	---	---
14	9.9	8.7	9.4	11.6	9.4	10.5	---	---	---	---	---	---
15	9.1	8.6	8.9	11.9	10.7	11.3	---	---	---	---	---	---
16	9.3	8.4	9.0	12.0	10.6	11.6	---	---	---	---	---	---
17	9.8	8.7	9.4	12.3	11.5	11.9	---	---	---	---	---	---
18	10.1	9.2	9.8	12.1	11.0	11.7	---	---	---	---	---	---
19	10.0	8.9	9.4	12.2	11.0	11.6	---	---	---	---	---	---
20	9.6	8.8	9.2	11.7	10.9	11.3	---	---	---	---	---	---
21	9.1	8.7	8.9	11.8	10.9	11.3	---	---	---	---	---	---
22	9.2	8.9	9.0	12.0	11.0	11.5	---	---	---	---	---	---
23	9.1	8.3	8.9	11.7	11.0	11.4	---	---	---	---	---	---
24	9.6	8.8	9.2	11.3	10.5	11.0	---	---	---	---	---	---
25	9.4	9.0	9.2	10.6	10.0	10.2	---	---	---	---	---	---
26	9.3	8.8	9.1	12.6	10.2	11.4	---	---	---	---	---	---
27	9.6	8.9	9.2	13.2	12.1	12.5	---	---	---	---	---	---
28	9.5	8.9	9.1	---	---	---	---	---	---	---	---	---
29	9.5	9.0	9.2	---	---	---	---	---	---	---	---	---
30	9.0	8.2	8.6	12.3	11.0	11.6	---	---	---	---	---	---
31	8.4	7.8	8.1	---	---	---	---	---	---	---	---	---
MONTH	10.6	7.8	9.2	13.2	6.9	10.3	12.1	10.3	11.2	---	---	---

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued

OXYGEN, DISSOLVED (MG/L), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			**MARCH**			**APRIL**			**MAY**	
1	---	---	---	---	---	---	---	---	---	10.0	8.1	9.3
2	---	---	---	---	---	---	---	---	---	10.7	9.2	9.9
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	13.0	11.1	12.0
6	---	---	---	---	---	---	---	---	---	13.0	10.9	11.9
7	---	---	---	---	---	---	---	---	---	13.5	11.4	12.3
8	---	---	---	---	---	---	---	---	---	13.3	10.7	11.9
9	---	---	---	---	---	---	---	---	---	13.6	10.2	11.8
10	---	---	---	---	---	---	---	---	---	14.0	10.0	11.8
11	---	---	---	---	---	---	---	---	---	14.3	9.7	11.8
12	---	---	---	---	---	---	---	---	---	13.6	9.5	11.4
13	---	---	---	---	---	---	---	---	---	14.6	10.2	12.3
14	---	---	---	---	---	---	---	---	---	14.6	10.3	12.2
15	---	---	---	---	---	---	---	---	---	13.3	9.3	11.3
16	---	---	---	---	---	---	---	---	---	13.6	9.4	11.4
17	---	---	---	---	---	---	---	---	---	13.7	9.5	11.6
18	---	---	---	---	---	---	---	---	---	13.6	10.2	11.8
19	---	---	---	---	---	---	---	---	---	13.6	9.9	11.7
20	---	---	---	---	---	---	10.1	7.7	9.0	11.0	9.4	10.2
21	---	---	---	---	---	---	11.7	7.0	9.1	12.1	10.3	11.0
22	---	---	---	---	---	---	9.8	8.0	9.0	11.8	9.7	10.7
23	---	---	---	---	---	---	12.0	8.1	10.6	11.8	9.5	10.5
24	---	---	---	---	---	---	10.3	8.2	9.3	10.8	9.4	10.1
25	---	---	---	---	---	---	10.9	8.7	10.1	10.9	9.8	10.3
26	---	---	---	---	---	---	11.3	9.1	10.5	11.4	10.2	10.8
27	---	---	---	---	---	---	10.9	9.2	9.9	11.4	9.6	10.5
28	---	---	---	---	---	---	10.6	8.1	9.3	10.9	8.9	9.7
29	---	---	---	---	---	---	9.9	8.3	9.2	10.7	8.7	9.5
30	---	---	---	---	---	---	9.9	8.3	9.1	11.0	8.8	9.7
31	---	---	---	---	---	---	---	---	---	11.3	9.1	10
MONTH	---	---	---	---	---	---	12.0	7.0	9.6	14.6	8.1	11.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			**JULY**			**AUGUST**			**SEPTEMBER**	
1	11.3	8.8	9.9	8.2	6.5	7.2	10.6	6.8	8.5	8.5	6.6	7.4
2	11.0	8.7	9.6	7.6	6.6	7.0	10.5	6.6	8.3	9.0	7.0	7.7
3	9.6	8.5	9.0	8.1	6.5	7.2	10.0	6.2	7.8	9.0	7.1	7.8
4	9.7	8.8	9.2	8.6	6.5	7.6	9.3	5.9	7.4	9.4	7.3	8.1
5	10.0	8.2	9.1	8.3	6.7	7.4	9.2	5.9	7.3	9.6	7.6	8.3
6	9.5	7.7	8.4	8.3	6.8	7.4	8.7	5.8	7.0	9.9	7.8	8.6
7	7.8	7.2	7.5	7.8	6.7	7.2	8.3	5.9	6.8	10.1	8.0	8.6
8	8.2	7.1	7.5	---	---	---	8.0	6.0	6.8	10.3	8.0	8.8
9	8.4	7.0	7.5	---	---	---	6.9	6.3	6.6	10.6	8.1	9.0
10	8.2	7.0	7.5	---	---	---	7.2	6.3	6.7	10.5	8.3	9.1
11	8.3	6.9	7.5	---	---	---	7.5	6.3	6.8	10.8	8.3	9.2
12	8.4	6.8	7.5	8.3	7.0	7.6	7.5	6.1	6.7	10.8	8.3	9.2
13	8.5	6.9	7.6	8.4	6.9	7.5	7.5	5.9	6.6	10.9	8.2	9.1
14	8.7	6.9	7.7	8.3	7.0	7.5	7.5	5.8	6.4	10.1	8.1	8.7
15	8.6	6.7	7.6	8.6	7.0	7.6	7.2	5.8	6.3	8.4	6.7	7.6
16	8.4	6.8	7.6	7.4	7.0	7.2	6.8	5.8	6.3	7.7	6.5	6.9
17	9.3	7.2	8.2	7.4	6.9	7.0	7.8	6.4	7.1	7.8	6.5	7.1
18	9.9	7.8	8.8	7.0	6.6	6.8	8.0	6.7	7.2	8.2	7.0	7.5
19	10.1	8.1	8.9	6.9	6.4	6.7	7.6	6.6	7.0	8.4	7.0	7.6
20	10.6	8.4	9.4	7.3	6.3	6.7	8.1	6.7	7.3	8.6	7.2	7.8
21	10.9	8.4	9.5	7.6	6.3	6.8	8.1	6.7	7.2	9.1	7.2	8.0
22	10.9	7.9	9.3	8.1	6.2	7.2	8.1	6.5	7.1	9.4	7.5	8.2
23	11.4	7.8	9.5	8.3	6.7	7.4	8.5	6.6	7.3	9.7	7.5	8.3
24	11.6	7.7	9.5	8.9	6.8	7.8	8.8	7.0	7.7	10.2	7.6	8.6
25	11.5	7.4	9.4	9.0	7.0	7.9	9.0	7.2	7.9	10.4	7.7	8.7
26	11.1	7.1	9.1	9.0	6.7	7.7	9.3	7.2	8.0	10.1	7.9	8.6
27	9.3	6.9	8.1	9.2	6.3	7.5	8.8	7.3	7.9	9.8	7.6	8.5
28	9.7	6.9	8.1	9.1	6.2	7.5	8.3	7.0	7.5	10.4	7.9	8.9
29	8.5	6.5	7.5	10.2	6.6	8.2	8.6	7.2	7.7	9.9	8.2	8.9
30	8.5	6.5	7.4	10.2	6.7	8.3	8.3	7.0	7.5	10.9	8.7	9.5
31	---	---	---	10.2	6.7	8.4	8.1	6.7	7.2	---	---	---
MONTH	11.6	6.5	8.4	10.2	6.2	7.4	10.6	5.8	7.2	10.9	6.5	8.3

LAKES AND RESERVOIRS IN CHRISTINA RIVER BASIN

01480399 CHAMBERS LAKE NEAR WAGONTOWN.--Lat 40°01'40", long 75°51'03", Chester County, Hydrologic Unit 02040205, at Hibernia Dam on Birch Run, 0.6 mi upstream from gaging station on Birch Run (station 01480400), 0.9 mi upstream from mouth, and 1.4 mi northwest of Wagontown. DRAINAGE AREA, 4.5 mi^2. PERIOD OF RECORD, May 1997 to current year. GAGE, non-recording gage. Manual measurement from top of concrete riser at upstream flank of Hibernia Dam. Datum of gage is sea level (levels by Chester County Water Resources Authority, Chester County Parks and Recreation Department).

REMARKS.--Reservoir formed by earthfill dam with principal spillway at elevation 587.5 ft, capacity 2,000 acre-ft. Dam crest at elevation 596.5 ft. Normal elevation 580 ft, capacity 1,226 acre feet. Reservoir is used for water supply, flood control, and recreation. Figures given herein represent total contents.

COOPERATION.--Records provided by Chester County Water Resources Authority, in cooperation with City of Coatesville Authority and Chester County Parks and Recreation Department.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,440 acre-ft, March 22, 2000, elevation, 582.76 ft; minimum contents, 605 acre-ft, Oct. 10, 2002, elevation, 571.23 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 1,260 acre-ft, Jan. 14, elevation, 580.92 ft; minimum contents, 959 acre-ft, Sept. 30, elevation, 576.98 ft.

01480684 MARSH CREEK LAKE NEAR DOWNINGTOWN.--Lat 40°03'24", long 75°43'06", Chester County, Hydrologic Unit 02040205, on right bank at dam on Marsh Creek, 0.3 mi upstream from mouth, and 3.2 mi north of Downingtown. DRAINAGE AREA, 20.1 mi^2. PERIOD OF RECORD, November 1973 to current year. GAGE, Water-stage recorder. Datum of gage is sea level (levels by Pennsylvania Department of Environmental Protection).

REMARKS.--Reservoir formed by earthfill dam with concrete spillway at elevation 359.5 ft. Storage began November 1973. Total capacity, 22,190 acre-ft, elevation 373 ft. Reservoir is used for water supply, flood control, and recreation. Figures given herein represent contents above lowest gate sill at elevation 289.5 ft.

COOPERATION.--Records provided by Pennsylvania Department of Environmental Protection.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 16,500 acre-ft, Sept. 18, 1999, elevation, 363.71 ft; minimum contents (after first filling), 10,410 acre-ft, Mar. 3, 1976, elevation, 351.75 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 16,380 acre-ft, Apr. 4, elevation, 363.50 ft; minimum contents, 13,260 acre-ft, Mar. 3, elevation, 357.70 ft.

MONTHEND ELEVATION, IN FEET ABOVE SEA LEVEL, AND CONTENTS AT 2400 HRS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in ft^3/s)	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in ft^3/s)
	01480399 Chambers Lake			01480684 Marsh Creek Lake		
Sept. 30	580.27	1,200	---	362.20	15,670	---
Oct. 31	580.20	1,190	-0.2	360.08	14,500	-19.5
Nov. 30	580.75	1,250	1.0	361.78	15,440	+15.1
Dec. 31	580.20	1,190	-1.0	359.35	14,100	-21.1
CAL YR 2004	--	--	0	--	--	-0.7
Jan. 31	580.20	1,190	0	359.11	13,970	-1.6
Feb. 28	580.21	1,200	+0.2	357.84	13,330	-12.6
Mar. 31	580.25	1,200	0	361.75	15,420	+34.2
Apr. 30	580.24	1,200	0	360.45	14,710	-11.8
May 31	580.17	1,190	-0.2	360.03	14,480	-3.3
June 30	580.02	1,180	-0.2	359.90	14,400	-1.7
July 31	580.00	1,180	0	359.90	14,400	0
Aug. 31	579.22	1,120	-1.0	359.68	14,280	-1.6
Sept. 30	576.98	959	-2.7	359.00	13,910	-6.7
WTR YR 2005	--	--	-0.3	--	--	-2.5

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE

LOCATION.--Lat 39°30'03", long 75°34'07", New Castle County, Delaware, Hydrologic Unit 02040205, on dock on streamward side of jetty about 0.4 mi downstream from Reedy Island near Port Penn.

DRAINAGE AREA.--11,200 mi^2, approximately.

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

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1963 to current year.
pH: February 1970 to current year.
WATER TEMPERATURES: February 1970 to current year.
DISSOLVED OXYGEN: February 1970 to current year.

INSTRUMENTATION.--Water-quality monitor since February 1970. Probes interfaced with a data collection platform since the 1986 water year. Probes placed in situ since July 1998.

REMARKS.--Specific conductance records rated good. Water temperature records rated good. Dissolved oxygen records rated poor. pH records rated good. Interruptions in the record were due to malfunctions of the equipment.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 35,600 microsiemens, Nov. 15, 1978; minimum, 100 microsiemens, several days in 1969, 1970, 1974 and 1979.
pH: Maximum, 8.9, Mar. 4, 1980; minimum, 5.4, Dec. 31, 1972.
WATER TEMPERATURE: Maximum, 32.5°C, July 23, 1987; minimum, 0.0°C, many days during winters.
DISSOLVED OXYGEN: Maximum, 17.1 mg/L, Dec. 16, 19, 1976; minimum, 0.3 mg/L, Sept. 16, 17, 1971.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 20,300 microsiemens, Sept. 28; minimum, 147 microsiemens, Apr. 4.
pH: Maximim 8.1, Mar. 6, 7; minimum, 6.7, Nov. 1-10, Apr. 14, 19.
WATER TEMPERATURE: Maximum, 30.7°C, Aug. 13; minimum, 0.0°C, many days during winter.
DISSOLVED OXYGEN: Maximum recorded, 13.7 mg/L, Jan. 8; minimum recorded, 3.4 mg/L, July 28, Aug. 12.

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° CELSIUS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			**NOVEMBER**			**DECEMBER**			**JANUARY**		
1	244	154	208	8430	3630	4960	4580	1280	2450	6060	1780	3140
2	245	179	208	10400	3740	5760	1600	579	1050	6800	1580	2890
3	255	184	225	10200	3870	6120	1760	559	853	7180	1580	3630
4	1430	204	347	11400	4300	7490	5300	528	2180	6280	1740	3170
5	2660	197	672	10900	4700	6710	6240	536	2550	7880	2070	4190
6	5550	403	2050	9990	3210	6960	5750	639	3030	9620	2020	5130
7	6460	995	3420	11600	3130	6940	6790	1200	4310	7950	1640	3790
8	7580	1530	4920	12700	5130	8360	6690	1610	3510	8130	1560	3000
9	10200	2740	6380	12800	4770	9170	5880	1340	2500	6920	1390	2710
10	9390	3020	6190	15500	5660	9860	6850	1290	2950	7350	1200	2600
11	12900	3220	6800	14600	6360	9460	7060	987	2780	4250	1050	1870
12	12900	4900	7910	13400	5800	8480	3180	755	1530	4620	946	1860
13	14300	5390	8430	15300	6650	9840	1470	610	992	4940	879	1770
14	11700	5610	8020	15100	5950	9700	848	396	678	2100	553	1230
15	13900	5590	8920	14800	5820	9290	1440	394	553	979	325	592
16	12200	5030	7900	14600	5730	9310	2750	367	728	393	249	310
17	9400	3470	5540	14600	5730	9190	506	329	407	296	229	257
18	9790	3240	5120	14000	5490	9080	2490	323	549	2880	246	900
19	9500	3500	5390	13500	5990	8490	3460	363	1030	6470	390	2990
20	12200	3930	7240	13900	5710	8770	4070	270	795	5330	970	2500
21	11300	4600	7260	13100	6200	8470	6810	630	3000	6270	890	2630
22	11500	4540	6760	12000	5920	8460	7190	988	2540	8660	1170	4150
23	11200	4840	7440	12100	6270	8340	7860	1340	3830	8590	2620	4610
24	11900	4750	7800	13600	6460	9130	4790	1150	2230	14100	3940	9060
25	11400	4870	7640	13900	6460	9110	6150	815	1930	14100	5330	9330
26	11400	4540	6740	10600	4890	6760	5520	758	2060	12500	5200	8000
27	10800	4480	6250	12500	5010	7230	7370	875	2850	12300	5340	7410
28	10800	4230	6310	13200	4210	8260	9120	2320	5480	13400	5180	8410
29	10700	4240	6300	7170	2700	4050	6950	1400	3600	13000	5480	8550
30	10300	4160	5750	5790	1620	3290	7610	1480	3270	11900	5120	8040
31	9990	3910	5760	---	---	---	7530	1780	3870	14100	5120	9060
MONTH	14300	154	5480	15500	1620	7900	9120	270	2260	14100	229	4120

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° CELSIUS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	13400	5660	9550	13500	5610	9100	1350	635	823	3610	1350	1850
2	12600	5350	8030	9510	3910	5830	1760	586	867	3970	1190	1990
3	13100	5630	8920	7450	3200	4730	886	243	419	4580	1130	1990
4	15300	5850	10100	10800	3510	7330	1130	147	530	4620	1070	1950
5	15500	5910	10500	14400	4230	8450	840	158	421	4420	1120	1930
6	15500	5590	9280	14800	4730	9000	---	---	---	4500	1130	2030
7	15200	5940	9320	15400	5080	8750	---	---	---	7890	1810	3540
8	14500	6200	8830	16000	4560	8200	---	---	---	8130	2200	4270
9	13300	6010	8400	---	---	---	---	---	---	8320	2520	4360
10	13100	5930	8500	---	---	---	---	---	---	9020	2590	4820
11	10200	4740	6670	12300	3170	7150	---	---	---	8130	2760	4270
12	10400	4430	6380	13000	4310	7500	---	---	---	7570	2570	3720
13	10800	3820	5840	11100	4130	6720	---	---	---	6100	2410	4070
14	11600	3930	6730	12400	4040	6610	---	---	---	7520	2400	4130
15	9810	3540	5520	9460	2440	5100	264	202	213	7050	2650	4030
16	6200	2960	4270	10500	3650	6700	1720	208	554	8530	2890	5490
17	7030	2530	4000	11000	4170	7580	2470	256	1120	10500	3270	6620
18	8320	1780	3680	12200	4920	8460	3540	283	1680	11700	4080	7990
19	11400	1920	6120	13000	5770	8850	5960	1020	2980	14300	5110	8930
20	12500	4320	8990	14300	6450	9660	6480	1560	3540	13800	6740	10100
21	14800	5150	9730	14400	6260	10600	8340	1600	3350	15800	6260	10800
22	14800	5390	9660	15000	7020	10600	8340	2150	4110	15800	6660	9910
23	12900	5380	8650	16100	6540	10900	6770	2340	4100	14200	6640	9820
24	11500	5660	7870	15800	7330	11300	7410	2470	4100	15400	7120	10100
25	13800	5290	8810	15300	5840	9710	7330	2140	3650	15000	8270	10900
26	12300	5350	7940	11400	5600	7870	5950	2030	3020	15100	8070	10800
27	8460	4690	6190	11400	5250	7370	4940	1720	2820	14500	8210	10800
28	9250	4420	5930	---	---	---	4930	1660	2620	14100	7240	9590
29	---	---	---	---	---	---	5510	1680	2680	13600	6980	9270
30	---	---	---	---	---	---	4880	1620	2400	13000	7180	9510
31	---	---	---	---	---	---	---	---	---	13500	7090	9300
MONTH	15500	1780	7660	16100	2440	8160	8340	147	2190	15800	1070	6420

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	13500	7600	9680	15100	8610	10800	15000	7720	10200	16500	8630	11300
2	13300	7450	9340	14600	8410	10400	15000	8100	10400	16900	9530	12200
3	11900	7340	9000	15400	8350	10200	15200	8010	10200	17300	9730	12400
4	12800	6960	8890	15400	8290	10400	16500	8240	11100	17300	10400	12900
5	12800	7090	8950	14600	8420	10300	16700	8660	11300	17500	10900	13500
6	13600	6480	8840	13500	7770	9740	15600	8200	10600	18400	11200	13900
7	12900	6680	8620	14300	7880	9930	16500	8520	11400	16200	11200	13600
8	12200	5820	7780	14900	7190	10500	16400	8730	11700	17400	11400	13800
9	12300	5960	7940	13200	7070	9550	15500	9150	11300	17700	11500	13500
10	12100	6010	7960	12600	6870	8380	15300	8800	11400	18300	11500	13900
11	11300	5460	7400	12400	6670	8750	15700	8910	11500	18000	10900	13900
12	10100	5220	6960	13400	6290	9290	16400	8900	11500	17100	10600	13300
13	9710	4930	7100	14100	6990	10300	15600	7920	11200	---	---	---
14	11300	5210	7560	13300	7810	10000	16100	7750	10800	19700	10500	14300
15	12500	5760	8750	14100	7400	9800	16800	7740	10300	18800	10800	13900
16	15600	6900	10400	14500	7350	9800	17900	8480	11500	18900	11500	13900
17	16000	7600	11000	14300	7540	9740	16700	9090	11700	18900	11700	14300
18	17300	7530	11200	13800	6980	9050	16700	9170	11700	18900	11800	14200
19	18200	7700	11400	14300	6570	8770	17800	9760	12100	18400	11600	14200
20	18200	8390	12200	14300	6610	8700	16600	9640	12300	17900	11700	14300
21	17300	8610	11900	14600	6850	9230	16800	10200	12500	17000	11700	13300
22	16900	8500	11300	14600	7090	9500	16800	10100	12700	18000	11700	13800
23	16700	8640	11500	14600	7240	9920	16400	10200	12500	17300	11600	13700
24	17700	8770	11900	14400	7440	10300	16400	10200	12600	20100	11200	14200
25	15900	8940	11200	14300	7720	10100	16500	10400	12800	17800	12300	14700
26	15500	8580	10800	13100	7440	9420	17200	10800	13000	17500	11900	14200
27	15100	8740	11000	13500	7570	9650	17800	11000	13200	17700	10200	12500
28	15400	8660	11500	14500	7330	9370	16800	11100	13000	20300	11200	14100
29	13800	8930	10800	14400	7660	10000	17600	10300	12700	17900	12700	14900
30	14300	8320	10400	14400	7770	9600	18000	10000	12900	17700	11000	13500
31	---	---	---	14900	7730	9820	17300	10100	13100	---	---	---
MONTH	18200	4930	9780	15400	6290	9720	18000	7720	11800	20300	8630	13700
YEAR	20300	147	7520									

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	OCTOBER			**NOVEMBER**			**DECEMBER**			**JANUARY**		
1	6.9	6.8	6.9	7.4	7.3	7.3	7.4	7.1	7.2	7.5	7.4	7.4
2	6.9	6.8	6.9	7.5	7.3	7.4	7.3	7.1	7.2	7.4	7.3	7.4
3	7.0	6.9	6.9	7.5	7.3	7.4	7.3	7.2	7.2	7.4	7.3	7.3
4	7.0	6.9	6.9	7.5	7.4	7.4	7.2	7.1	7.2	7.4	7.3	7.3
5	7.1	6.9	7.0	7.5	7.4	7.5	7.3	7.1	7.2	7.4	7.2	7.3
6	7.1	7.0	7.0	7.6	7.4	7.5	7.3	7.1	7.2	7.5	7.3	7.3
7	7.1	6.9	7.0	7.6	7.5	7.5	7.3	7.2	7.2	7.4	7.3	7.3
8	7.2	6.9	7.0	7.7	7.5	7.6	7.3	7.1	7.2	7.4	7.2	7.3
9	7.3	7.1	7.1	7.7	7.5	7.6	7.2	7.1	7.1	7.4	7.2	7.3
10	7.2	7.0	7.1	7.7	7.6	7.6	7.2	7.1	7.2	7.4	7.2	7.3
11	7.4	7.1	7.2	7.7	7.6	7.6	7.2	7.0	7.1	7.3	7.2	7.2
12	7.4	7.1	7.2	7.7	7.6	7.6	7.3	7.1	7.3	7.3	7.2	7.2
13	7.3	7.1	7.2	7.7	7.6	7.7	7.3	7.2	7.3	7.3	7.2	7.2
14	7.2	7.0	7.1	7.7	7.6	7.7	7.4	7.3	7.3	7.3	7.2	7.2
15	7.2	7.0	7.1	7.7	7.6	7.6	7.4	7.3	7.4	7.3	7.2	7.2
16	7.1	6.9	7.0	7.7	7.5	7.6	7.4	7.3	7.4	7.3	7.2	7.3
17	7.3	6.9	7.3	7.7	7.5	7.6	7.4	7.3	7.3	7.4	7.2	7.3
18	7.3	7.3	7.3	7.6	7.5	7.6	7.4	7.3	7.3	7.4	7.3	7.4
19	7.4	7.3	7.3	7.6	7.5	7.5	7.4	7.2	7.3	7.6	7.3	7.5
20	7.4	7.3	7.4	7.6	7.4	7.5	7.6	7.3	7.4	7.5	7.4	7.4
21	7.4	7.3	7.4	7.5	7.4	7.4	7.6	7.4	7.4	7.5	7.4	7.5
22	7.4	7.4	7.4	7.5	7.4	7.4	7.5	7.4	7.4	7.6	7.4	7.5
23	7.6	7.3	7.4	7.5	7.2	7.4	7.6	7.4	7.5	7.7	7.5	7.6
24	7.6	7.4	7.5	7.4	7.2	7.3	7.5	7.4	7.5	7.8	7.6	7.7
25	7.6	7.4	7.5	7.4	7.3	7.3	7.5	7.4	7.4	7.8	7.6	7.7
26	7.5	7.4	7.4	7.4	7.3	7.4	7.6	7.4	7.5	7.7	7.5	7.6
27	7.5	7.4	7.4	7.4	7.3	7.4	7.6	7.4	7.5	7.7	7.6	7.6
28	7.5	7.4	7.4	7.5	7.4	7.4	7.7	7.5	7.6	7.8	7.5	7.6
29	7.5	7.4	7.4	7.4	7.2	7.3	7.6	7.4	7.5	7.8	7.5	7.6
30	7.4	7.3	7.4	7.4	7.1	7.3	7.5	7.4	7.5	7.7	7.5	7.6
31	7.4	7.3	7.4	---	---	---	7.6	7.4	7.5	7.8	7.5	7.6
MAX	7.6	7.4	7.5	7.7	7.6	7.7	7.7	7.5	7.6	7.8	7.6	7.7
MIN	6.9	6.8	6.9	7.4	7.1	7.3	7.2	7.0	7.1	7.3	7.2	7.2

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

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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

YEAR			
	MAX	MAXIMUM 8.1	MINIMUM 6.9
	MIN	MAXIMUM 7.8	MINIMUM 6.7
	MEDIAN	MAXIMUM 7.9	MINIMUM 6.8

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			**NOVEMBER**			**DECEMBER**			**JANUARY**		
1	19.8	19.2	19.5	14.9	14.3	14.6	10.3	9.2	9.8	4.0	3.1	3.5
2	19.6	19.4	19.5	15.0	14.5	14.8	9.6	8.9	9.2	3.8	3.4	3.5
3	19.6	18.9	19.4	15.6	14.3	14.8	9.3	8.6	8.9	4.1	3.5	3.8
4	19.7	19.2	19.5	14.7	14.0	14.3	9.0	8.5	8.7	4.3	3.7	4.1
5	19.6	18.6	19.2	14.3	13.0	13.8	8.9	8.4	8.6	4.5	4.1	4.3
6	20.0	18.7	19.2	14.0	13.0	13.4	8.6	8.2	8.5	5.0	4.2	4.4
7	19.9	18.8	19.3	13.7	12.8	13.3	8.6	8.3	8.5	4.8	4.2	4.5
8	20.3	19.0	19.6	13.6	12.4	13.1	9.0	8.5	8.7	4.8	4.2	4.5
9	19.9	19.2	19.6	12.9	12.0	12.5	8.7	8.4	8.5	4.6	4.2	4.4
10	20.0	19.3	19.6	12.2	11.5	11.9	8.8	8.4	8.6	4.7	4.1	4.4
11	19.3	18.5	19.0	12.1	11.4	11.7	8.9	8.4	8.7	4.6	4.1	4.3
12	19.1	18.1	18.4	11.9	11.2	11.5	8.7	7.9	8.2	4.7	4.2	4.4
13	18.6	17.8	18.1	11.5	10.6	11.0	8.1	7.6	7.9	5.1	4.4	4.7
14	18.2	17.6	17.8	11.0	9.9	10.4	7.6	6.6	7.2	5.5	4.7	5.2
15	18.0	17.5	17.7	10.6	9.8	10.1	6.9	5.7	6.4	5.1	4.4	4.8
16	17.9	16.8	17.3	10.3	9.8	10.1	6.5	5.8	6.1	5.2	4.4	4.8
17	17.1	16.1	16.5	10.4	9.8	10.2	6.0	5.7	5.8	5.1	3.5	4.6
18	16.6	15.9	16.2	10.4	9.9	10.2	6.0	5.4	5.7	4.2	2.5	3.5
19	16.4	15.7	16.0	10.5	10.2	10.4	6.1	4.9	5.7	3.7	2.4	2.9
20	16.1	15.7	15.8	10.8	10.3	10.6	5.1	3.2	4.4	3.1	2.5	2.7
21	15.9	15.4	15.6	11.0	10.6	10.7	4.4	3.7	4.0	2.9	2.0	2.4
22	15.5	15.0	15.3	11.0	10.7	10.8	4.4	3.7	4.1	2.4	1.0	1.7
23	15.4	14.9	15.1	10.9	10.8	10.9	5.1	4.1	4.5	1.5	0.6	1.1
24	15.0	14.6	14.8	11.2	10.8	11.0	4.6	3.9	4.3	1.0	-0.1	0.5
25	15.0	14.4	14.7	11.5	10.9	11.3	4.3	3.6	3.9	0.9	0.3	0.6
26	14.9	14.5	14.7	10.9	10.3	10.5	4.0	3.4	3.6	0.8	0.1	0.6
27	14.9	14.3	14.5	10.7	10.0	10.4	3.7	2.6	3.1	0.7	-0.1	0.2
28	14.9	14.3	14.5	10.8	10.2	10.6	3.2	2.3	2.8	0.3	-0.2	-0.1
29	14.7	14.3	14.5	10.3	9.7	10	3.1	2.6	2.8	0.3	-0.2	0.0
30	14.8	14.4	14.5	10.3	9.6	9.9	3.1	2.6	2.9	0.3	-0.2	0.0
31	14.9	14.5	14.7	---	---	---	3.4	3.0	3.2	0.2	-0.2	0.0
MONTH	20.3	14.3	17.1	15.6	9.6	11.6	10.3	2.3	6.2	5.5	-0.2	2.9

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	0.3	-0.2	0.1	3.3	2.7	3.0	8.5	7.6	8.1	15.1	14.0	14.4
2	0.6	0.0	0.2	3.3	2.3	2.9	8.7	8.0	8.4	14.9	14.1	14.5
3	0.6	0.1	0.4	3.1	2.2	2.6	9.1	8.0	8.4	15.2	14.2	14.5
4	1.0	0.4	0.6	3.5	2.2	2.6	9.1	7.1	7.9	14.9	14.3	14.6
5	1.4	0.6	0.9	3.4	2.4	2.8	9.4	8.1	8.6	15.2	14.2	14.7
6	1.7	0.9	1.2	3.7	2.6	3.0	9.4	8.5	8.8	14.6	14.0	14.4
7	1.9	1.2	1.5	4.7	3.1	3.6	---	---	---	14.9	13.8	14.2
8	2.2	1.5	1.7	---	---	---	---	---	---	15.1	13.9	14.5
9	2.4	1.8	2.0	---	---	---	---	---	---	15.7	14.3	14.8
10	2.3	2.1	2.2	---	---	---	---	---	---	15.7	14.4	15.2
11	2.2	1.6	1.9	3.5	2.8	3.1	---	---	---	16.5	15.1	15.7
12	2.1	1.7	1.9	3.7	3.1	3.4	---	---	---	16.8	15.5	16.3
13	2.3	1.8	2.0	3.9	3.3	3.6	---	---	---	16.9	15.8	16.3
14	2.6	2.0	2.2	4.1	3.6	3.8	---	---	---	17.6	16.0	16.7
15	3.1	2.4	2.7	4.2	3.1	3.9	11.3	10.5	11.0	17.6	16.6	17.1
16	3.5	2.7	3.0	4.4	3.7	4.1	11.6	10.6	11.1	18.2	16.8	17.3
17	3.5	2.8	3.1	4.6	4.1	4.3	13.1	11.0	11.6	18.4	16.9	17.4
18	3.3	2.3	2.8	5.3	4.1	4.6	14.1	11.5	12.2	18.5	16.9	17.5
19	2.8	2.1	2.4	5.6	4.5	4.9	13.8	11.9	12.6	18.6	17.2	17.7
20	3.0	2.1	2.6	5.4	5.0	5.1	14.4	12.4	13.3	17.7	16.8	17.2
21	3.1	2.4	2.8	5.6	5.1	5.3	14.5	13.1	13.7	18.0	16.6	17.1
22	3.3	2.8	3.0	6.8	5.2	5.7	13.9	13.0	13.5	17.8	16.8	17.3
23	3.5	3.1	3.3	5.9	5.7	5.8	13.8	13.0	13.5	17.8	17.0	17.4
24	3.3	2.9	3.1	6.1	5.7	5.8	13.7	13.2	13.5	17.5	17.1	17.3
25	3.2	2.6	2.9	6.3	5.9	6.0	13.6	13.0	13.3	17.1	16.6	16.8
26	3.3	2.8	3.0	6.5	5.9	6.1	13.9	13.0	13.4	17.0	16.3	16.6
27	3.4	2.6	3.0	6.5	6.2	6.3	14.3	13.4	13.8	17.5	16.4	16.9
28	3.2	2.8	3.0	6.7	6.4	6.5	14.3	13.5	13.9	18.0	16.9	17.4
29	---	---	---	---	---	---	14.3	13.7	14.0	18.4	17.2	17.7
30	---	---	---	---	---	---	14.3	13.8	14.1	19.0	17.7	18.2
31	---	---	---	---	---	---	---	---	---	19.7	18.1	18.7
MONTH	3.5	-0.2	2.1	6.8	2.2	4.4	14.5	7.1	11.8	19.7	13.8	16.3

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	19.7	18.7	19.1	26.7	26.0	26.3	29.7	28.4	28.8	27.3	26.5	26.8
2	19.9	19.0	19.3	27.2	26.3	26.6	30.0	28.5	29.0	27.5	26.5	26.8
3	19.3	19.0	19.2	27.5	26.4	26.8	30.2	28.7	29.2	27.0	26.4	26.6
4	19.8	19.0	19.4	27.6	26.3	26.8	30.2	28.8	29.4	26.8	25.9	26.4
5	21.8	19.3	20.0	27.1	26.4	26.8	30.1	29.1	29.5	26.5	25.8	26.1
6	21.5	19.8	20.7	27.5	26.6	26.9	30.1	29.2	29.5	26.2	25.6	25.9
7	22.3	20.5	21.3	26.9	26.6	26.7	29.7	29.2	29.4	26.0	25.4	25.7
8	23.2	21.1	22.1	26.6	25.5	25.9	29.5	29.1	29.3	26.0	25.4	25.7
9	23.4	21.7	22.7	26.2	25.3	25.7	29.2	28.8	29.0	25.9	25.4	25.7
10	23.9	22.6	23.3	26.5	25.5	26.0	29.2	28.5	28.9	26.0	25.4	25.7
11	24.8	23.2	23.9	26.7	25.7	26.2	29.6	28.6	29.0	26.2	25.3	25.7
12	25.0	23.7	24.4	28.3	26.1	26.7	30.0	29.0	29.3	26.2	25.3	25.6
13	25.6	24.2	24.9	27.1	26.5	26.7	30.7	29.0	29.6	---	---	---
14	26.1	24.8	25.4	27.2	26.6	26.9	30.6	29.4	29.8	26.1	25.5	25.7
15	26.3	25.2	25.7	27.6	26.8	27.1	30.6	29.3	29.8	26.7	25.7	26.0
16	26.2	25.2	25.6	28.1	27.0	27.3	29.5	28.7	29.2	26.8	25.9	26.3
17	25.9	24.9	25.4	28.3	27.2	27.6	29.4	28.6	28.9	26.9	26.2	26.5
18	25.7	24.7	25.1	29.1	27.6	28.1	29.2	28.4	28.7	27.0	26.2	26.5
19	25.0	24.0	24.6	29.2	28.1	28.4	28.6	28.0	28.3	26.9	26.2	26.4
20	24.6	23.8	24.2	29.3	28.1	28.6	28.9	27.7	28.1	26.5	26.1	26.3
21	25.1	23.6	24.1	29.4	28.4	28.7	28.7	28.0	28.3	26.4	25.7	26.1
22	24.8	23.8	24.2	29.7	28.6	29.0	28.4	27.8	28.2	26.2	25.7	26.0
23	25.1	23.8	24.3	29.4	28.8	29.1	28.2	27.5	27.9	26.2	25.7	26.0
24	24.9	23.9	24.5	29.4	28.5	28.9	27.9	27.3	27.6	25.9	25.0	25.4
25	25.3	24.2	24.8	29.2	28.2	28.8	27.5	26.9	27.3	25.6	24.6	25.0
26	25.8	24.6	25.2	29.6	28.7	29.1	27.4	26.6	27.1	25.3	24.6	24.8
27	25.6	25.0	25.3	29.8	29.1	29.4	27.1	26.6	26.9	25.0	24.0	24.5
28	26.5	25.1	25.6	29.7	28.7	29.3	26.9	26.5	26.7	24.3	23.4	23.9
29	26.1	25.6	25.8	29.5	28.9	29.2	27.9	26.5	26.9	24.1	23.2	23.6
30	27.0	25.7	26.2	29.5	28.6	29.1	27.4	26.8	27.0	23.2	22.2	22.8
31	---	---	---	29.2	28.4	28.8	27.4	26.8	27.1	---	---	---
MONTH	27.0	18.7	23.5	29.8	25.3	27.7	30.7	26.5	28.5	27.5	22.2	25.7
YEAR	30.7	-0.2	15.1									

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE--Continued

OXYGEN, DISSOLVED (MG/L), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			**NOVEMBER**			**DECEMBER**			**JANUARY**		
1	6.0	5.7	5.9	---	---	---	9.8	8.6	9.2	11.6	10.8	11.3
2	6.1	5.8	5.9	---	---	---	9.8	8.1	9.4	11.5	11.2	11.3
3	7.0	5.8	6.2	---	---	---	9.9	8.9	9.5	11.5	11.0	11.3
4	6.2	6.0	6.1	---	---	---	9.7	8.6	9.3	11.4	11.0	11.3
5	7.4	6.1	6.6	---	---	---	9.8	8.6	9.4	11.4	11.0	11.2
6	6.7	6.1	6.5	---	---	---	10.0	8.5	9.5	11.5	9.9	11.0
7	6.8	6.1	6.4	---	---	---	9.8	8.8	9.4	11.6	10.4	11.2
8	6.8	6.0	6.5	---	---	---	9.8	8.3	9.6	11.7	11.1	11.5
9	6.9	6.2	6.5	---	---	---	9.7	9.0	9.5	11.9	11.2	11.6
10	7.2	6.3	6.7	---	---	---	9.8	6.6	9.5	12.2	11.5	11.7
11	---	---	---	---	---	---	9.8	7.4	9.1	12.1	11.5	11.8
12	---	---	---	---	---	---	10.0	9.4	9.8	12.2	11.7	11.9
13	---	---	---	---	---	---	10.2	9.7	10	12.3	11.7	12.0
14	---	---	---	---	---	---	10.7	10.0	10.4	12.7	12.0	12.3
15	---	---	---	---	---	---	11.0	10.4	10.7	12.7	12.2	12.5
16	---	---	---	---	---	---	11.0	10.4	10.7	12.9	12.4	12.6
17	---	---	---	---	---	---	10.9	10.7	10.8	13.1	12.4	12.7
18	---	---	---	---	---	---	10.9	10.7	10.8	13.7	12.7	13.2
19	---	---	---	---	---	---	11.4	10.4	10.8	13.5	12.7	13.1
20	---	---	---	---	---	---	12.4	11.1	11.5	13.6	12.8	13.2
21	---	---	---	---	---	---	11.6	11.1	11.4	13.6	13.0	13.2
22	---	---	---	---	---	---	11.6	10.9	11.4	---	---	---
23	---	---	---	---	---	---	11.6	11.4	11.5	---	---	---
24	---	---	---	10.2	8.5	8.9	11.7	11.5	11.6	---	---	---
25	---	---	---	9.5	8.7	9.0	11.7	11.5	11.6	---	---	---
26	---	---	---	9.5	9.1	9.3	11.7	11.4	11.6	---	---	---
27	---	---	---	9.4	9.1	9.2	11.9	11.4	11.7	---	---	---
28	---	---	---	9.6	9.2	9.4	11.7	11.3	11.5	---	---	---
29	---	---	---	9.4	9.1	9.3	11.5	11.0	11.4	---	---	---
30	---	---	---	9.2	8.6	9.1	11.5	11.1	11.3	---	---	---
31	---	---	---	---	---	---	11.4	10.3	11.1	---	---	---
MONTH	7.4	5.7	6.3	10.2	8.5	9.2	12.4	6.6	10.5	13.7	9.9	12.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			**MARCH**			**APRIL**			**MAY**		
1	---	---	---	---	---	---	9.8	9.2	9.7	8.4	7.1	8.0
2	---	---	---	---	---	---	9.7	9.2	9.5	8.3	6.1	7.8
3	---	---	---	---	---	---	9.3	8.8	9.1	8.2	5.6	7.4
4	---	---	---	---	---	---	9.1	8.4	8.8	8.2	5.3	7.7
5	---	---	---	---	---	---	8.6	8.3	8.5	8.1	6.6	7.7
6	---	---	---	---	---	---	---	---	---	8.7	6.9	8.0
7	---	---	---	---	---	---	---	---	---	8.6	7.8	8.3
8	---	---	---	---	---	---	---	---	---	8.5	7.9	8.3
9	---	---	---	---	---	---	---	---	---	8.6	6.8	8.1
10	---	---	---	---	---	---	---	---	---	8.5	7.5	8.2
11	---	---	---	---	---	---	---	---	---	8.5	7.6	8.1
12	---	---	---	---	---	---	---	---	---	7.8	7.3	7.5
13	---	---	---	---	---	---	---	---	---	7.8	7.2	7.6
14	---	---	---	---	---	---	---	---	---	7.8	7.5	7.6
15	---	---	---	---	---	---	8.8	8.3	8.6	7.8	7.0	7.5
16	---	---	---	---	---	---	8.4	7.9	8.2	7.8	7.0	7.6
17	---	---	---	12.7	12.3	12.5	8.2	7.5	7.9	7.8	7.0	7.5
18	---	---	---	12.5	12.0	12.2	8.2	7.4	7.9	7.8	6.3	7.4
19	---	---	---	12.3	12.0	12.1	8.0	7.5	7.8	8.0	6.9	7.6
20	---	---	---	12.1	11.5	11.8	8.0	7.0	7.7	8.0	7.6	7.8
21	---	---	---	11.8	11.3	11.6	7.9	7.0	7.7	---	---	---
22	---	---	---	11.8	11.2	11.5	7.9	7.1	7.7	---	---	---
23	---	---	---	11.4	11.0	11.2	8.1	6.2	7.7	---	---	---
24	---	---	---	11.2	10.8	11.0	8.1	6.5	7.6	---	---	---
25	---	---	---	11.0	10.4	10.8	8.1	6.8	7.7	---	---	---
26	---	---	---	10.8	10.6	10.7	8.5	6.7	8.0	---	---	---
27	---	---	---	10.7	10.3	10.5	8.4	6.6	7.9	---	---	---
28	---	---	---	---	---	---	8.4	6.8	8.0	---	---	---
29	---	---	---	---	---	---	8.4	7.0	8.2	---	---	---
30	---	---	---	---	---	---	8.6	8.0	8.4	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	12.7	10.3	11.4	9.8	6.2	8.2	8.7	5.3	7.8

DELAWARE RIVER BASIN

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE--Continued

OXYGEN, DISSOLVED (MG/L), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			**JULY**			**AUGUST**			**SEPTEMBER**	
1	---	---	---	6.6	5.8	6.2	6.3	5.6	5.9	---	---	---
2	---	---	---	6.6	5.6	6.1	6.4	5.5	5.9	---	---	---
3	---	---	---	6.9	5.6	6.2	6.4	5.1	5.9	---	---	---
4	---	---	---	6.7	4.6	6.2	6.2	5.1	5.8	---	---	---
5	---	---	---	6.6	5.4	6.2	6.2	5.3	5.9	---	---	---
6	9.1	7.6	8.2	6.4	5.6	6.1	6.1	5.2	5.8	---	---	---
7	9.2	7.2	8.2	6.2	5.6	5.9	5.8	5.2	5.5	---	---	---
8	9.3	7.4	8.3	6.4	5.6	6.1	5.9	3.6	5.0	---	---	---
9	8.6	6.7	7.7	6.6	5.7	6.1	5.7	3.9	5.3	---	---	---
10	7.5	6.3	6.8	6.3	5.2	6.0	5.8	4.6	5.4	---	---	---
11	7.1	5.7	6.3	6.3	5.4	5.8	5.6	4.0	4.9	---	---	---
12	7.1	5.0	5.7	6.8	5.7	6.1	6.0	3.4	5.2	---	---	---
13	5.6	4.4	5.1	6.2	5.1	5.6	6.2	4.5	5.5	---	---	---
14	5.2	3.7	4.6	5.9	5.2	5.6	6.0	4.2	5.5	7.1	5.3	6.4
15	4.9	3.7	4.4	5.8	4.8	5.4	5.9	4.3	5.5	6.8	5.8	6.4
16	4.9	4.0	4.4	5.9	5.0	5.4	5.8	4.9	5.5	6.7	5.8	6.3
17	5.2	4.2	4.7	5.8	5.0	5.5	---	---	---	6.5	5.8	6.2
18	5.4	4.4	4.9	5.9	5.1	5.5	---	---	---	6.4	5.7	6.1
19	5.5	4.3	5.0	5.8	5.1	5.4	---	---	---	6.4	5.5	6.0
20	5.7	4.4	5.2	5.7	4.9	5.4	5.9	4.9	5.5	6.5	6.0	6.2
21	7.3	4.6	6.0	---	---	---	---	---	---	6.5	5.8	6.2
22	6.8	5.6	6.2	---	---	---	---	---	---	6.6	5.7	6.2
23	6.1	5.3	5.7	6.2	5.1	5.8	---	---	---	6.6	5.7	6.2
24	6.2	5.4	5.8	6.1	4.9	5.7	---	---	---	6.9	6.1	6.6
25	6.1	5.6	5.9	6.3	3.9	5.5	---	---	---	7.1	6.1	6.7
26	6.2	5.6	5.9	6.3	5.0	5.8	---	---	---	7.2	6.3	6.9
27	6.2	5.6	6.0	5.9	5.2	5.7	---	---	---	7.4	6.8	7.0
28	6.4	5.6	6.0	6.0	3.4	5.4	---	---	---	7.8	6.6	7.1
29	6.4	5.9	6.2	6.7	4.6	5.9	---	---	---	7.5	6.7	7.1
30	6.7	4.6	6.1	6.3	4.4	5.7	---	---	---	7.3	6.5	7.0
31	---	---	---	6.5	5.6	6.1	---	---	---	---	---	---
MONTH	9.3	3.7	6.0	6.9	3.4	5.8	6.4	3.4	5.5	7.8	5.3	6.5

CROSS-SECTION ANALYSES, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Sample location, cross section ft from rt bank (72103)	Sampling depth, feet (00003)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)
SEP 2005									
13...	1447	1028	1028	540	1.00	7.0	7.4	10700	26.7
13...	1448	1028	1028	540	5.00	6.9	7.4	10800	26.7
13...	1449	1028	1028	1194	1.00	7.2	7.4	9300	26.5
13...	1450	1028	1028	1194	5.00	7.0	7.4	10200	26.4
13...	1452	1028	1028	1777	1.00	6.8	7.5	9320	26.2
13...	1453	1028	1028	1777	5.00	6.8	7.4	9480	26.0
13...	1454	1028	1028	1777	10.0	6.6	7.4	9870	25.8
13...	1455	1028	1028	1777	15.0	6.4	7.5	10400	25.4
13...	1509	1028	1028	2086	1.00	6.3	7.5	9310	26.4
13...	1510	1028	1028	2086	5.00	6.1	7.4	9550	25.7
13...	1511	1028	1028	2086	10.0	6.0	7.5	10100	25.4
13...	1512	1028	1028	2086	15.0	6.0	7.4	10800	25.4
13...	1513	1028	1028	2086	20.0	6.3	7.5	11400	25.3
13...	1516	1028	1028	2652	1.00	6.9	7.5	9950	26.3
13...	1517	1028	1028	2652	5.00	7.4	7.5	10300	25.7
13...	1518	1028	1028	2652	10.0	7.1	7.4	10200	25.6
13...	1519	1028	1028	2652	15.0	7.5	7.4	10600	25.4
13...	1520	1028	1028	2652	20.0	7.5	7.5	11200	25.4
13...	1521	1028	1028	2652	25.0	6.8	7.5	11300	25.4
13...	1525	1028	1028	3240	1.00	6.7	7.5	9480	25.9
13...	1526	1028	1028	3240	5.00	7.2	7.5	9610	25.9
13...	1529	1028	1028	3863	1.00	6.9	7.5	9030	26.1
13...	1530	1028	1028	3863	5.00	7.3	7.5	9780	25.6
13...	1531	1028	1028	3863	10.0	7.1	7.5	9890	25.6
13...	1532	1028	1028	3863	15.0	6.9	7.5	9920	25.6
13...	1538	1028	1028	4472	1.00	7.5	7.5	8520	26.4
13...	1539	1028	1028	4472	5.00	7.6	7.5	9600	25.5
13...	1540	1028	1028	4472	10.0	6.9	7.4	9670	25.4
13...	1541	1028	1028	4472	15.0	6.9	7.4	9820	25.5
13...	1542	1028	1028	4472	20.0	6.8	7.4	9930	25.6
13...	1545	1028	1028	5093	1.00	6.9	7.5	9100	26.5
13...	1546	1028	1028	5093	5.00	7.3	7.5	9320	25.8
13...	1547	1028	1028	5093	10.0	7.0	7.5	9600	25.7
13...	1548	1028	1028	5093	15.0	6.8	7.5	9650	25.6

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE--Continued

CROSS-SECTION ANALYSES, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005--Continued

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Sample location, cross section ft from rt bank (72103)	Sampling depth, feet (00003)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)
SEP 2005									
13...	1549	1028	1028	5093	20.0	6.4	7.4	9740	25.5
13...	1550	1028	1028	5093	25.0	6.5	7.4	9770	25.5
13...	1551	1028	1028	5093	30.0	6.7	7.4	9880	25.5
13...	1558	1028	1028	5722	1.00	6.7	7.5	9690	25.9
13...	1559	1028	1028	5722	5.00	7.3	7.5	9700	25.9
13...	1600	1028	1028	5722	10.0	7.2	7.5	9710	25.6
13...	1602	1028	1028	5722	15.0	7.0	7.4	9710	25.6
13...	1603	1028	1028	5722	20.0	7.0	7.4	9710	25.6
13...	1604	1028	1028	5722	25.0	7.0	7.4	9730	25.6
13...	1605	1028	1028	5722	30.0	7.0	7.4	9740	25.6
13...	1606	1028	1028	5722	35.0	6.7	7.4	9790	25.5
13...	1607	1028	1028	5722	40.0	6.8	7.4	9800	25.5
13...	1608	1028	1028	6374	1.00	7.3	7.5	9870	25.7
13...	1609	1028	1028	6374	5.00	7.5	7.5	9870	25.7
13...	1610	1028	1028	6374	10.0	7.0	7.5	9880	25.6
13...	1611	1028	1028	6374	15.0	6.3	7.4	9920	25.6
13...	1612	1028	1028	6374	20.0	6.4	7.4	10000	25.5
13...	1613	1028	1028	6374	25.0	6.9	7.4	10000	25.5
13...	1614	1028	1028	6374	30.0	6.5	7.4	10100	25.5
13...	1615	1028	1028	6374	35.0	6.8	7.4	10000	25.5
13...	1617	1028	1028	6374	40.0	6.5	7.4	10000	25.5
13...	1618	1028	1028	6374	45.0	6.6	7.4	9990	25.5
13...	1619	1028	1028	6374	50.0	6.5	7.4	9920	25.5
13...	1625	1028	1028	7032	1.00	6.3	7.5	10100	26.0
13...	1626	1028	1028	7032	5.00	6.3	7.5	10300	25.7
13...	1627	1028	1028	7032	10.0	7.2	7.5	10400	25.7
13...	1628	1028	1028	7032	15.0	6.5	7.4	10900	25.7
13...	1629	1028	1028	7032	20.0	7.2	7.4	10900	25.7
13...	1630	1028	1028	7032	25.0	6.4	7.4	10900	26.7
13...	1631	1028	1028	7032	30.0	6.8	7.4	10900	25.7
13...	1632	1028	1028	7032	35.0	7.2	7.4	10900	25.7
13...	1633	1028	1028	7032	40.0	6.4	7.4	11000	25.7
13...	1634	1028	1028	7032	45.0	6.9	7.4	10900	25.7
13...	1640	1028	1028	7828	1.00	7.1	7.5	11200	25.9
13...	1641	1028	1028	7828	5.00	7.1	7.5	11500	25.9
13...	1642	1028	1028	7828	10.0	7.5	7.5	11700	25.9
13...	1643	1028	1028	7828	15.0	6.6	7.5	12000	25.9
13...	1644	1028	1028	7828	20.0	6.8	7.4	12200	16.1
13...	1645	1028	1028	7828	25.0	6.5	7.5	12300	26.1
13...	1646	1028	1028	7828	30.0	6.4	7.4	12400	26.1
13...	1647	1028	1028	7828	35.0	6.3	7.5	12400	26.1
13...	1648	1028	1028	7828	40.0	6.1	7.4	12300	26.1
13...	1657	1028	1028	8497	1.00	6.5	7.5	13300	26.3
13...	1658	1028	1028	8497	5.00	6.4	7.5	13300	26.2
13...	1659	1028	1028	8497	10.0	7.1	7.5	13300	26.2
13...	1700	1028	1028	8497	15.0	7.3	7.5	13400	26.3
13...	1701	1028	1028	8497	20.0	7.1	7.5	13500	26.4
13...	1702	1028	1028	8497	25.0	7.1	7.5	13600	26.4
13...	1703	1028	1028	8497	30.0	7.2	7.5	13600	26.4
13...	1704	1028	1028	8497	35.0	6.5	7.5	13600	26.4
13...	1713	1028	1028	9330	1.00	6.0	7.5	14100	26.7
13...	1714	1028	1028	9330	5.00	6.8	7.5	14100	26.7
13...	1715	1028	1028	9330	10.0	6.8	7.5	14100	26.6
13...	1716	1028	1028	9330	15.0	7.1	7.5	14000	26.6
13...	1718	1028	1028	9330	20.0	6.7	7.5	14000	26.6
13...	1719	1028	1028	9330	25.0	7.0	7.5	14000	26.4
13...	1720	1028	1028	9330	30.0	6.7	7.5	14000	26.4
13...	1721	1028	1028	9330	35.0	7.0	7.5	14000	26.4
13...	1722	1028	1028	9330	40.0	6.5	7.5	14000	26.4
13...	1725	1028	1028	10150	1.00	6.9	7.5	14700	26.9
13...	1726	1028	1028	10150	5.00	7.5	7.5	14700	26.9
13...	1727	1028	1028	10150	10.0	7.5	7.5	14700	26.9
13...	1728	1028	1028	10150	15.0	7.0	7.5	14700	26.9
13...	1729	1028	1028	10700	--	--	--	--	--

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

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

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

Crest-stage partial-record stations

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which 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.

Annual maximum discharge at crest-stage partial-record stations during water year 2005

			Water year 2005 maximum			**Period of record maximum**		
Station name and number	Location and drainage area	Period of Record	Date	Gage height (ft)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
			DELAWARE RIVER BASIN					
			LACKAWAXEN RIVER BASIN					
			VANDERMARK CREEK BASIN					
Vandermark Creek at Milford, Pa. (01438300)	Lat 41°19’35”, long 74°47’50”, Pike County, Hydrologic Unit 02040104, at stone bridge on Broad Street in Milford, Pa., and 0.4 mi upstream of mouth.Datum of gage is 490.50 ft above sea level. Drainage area is 5.36 mi^2.	1962-2005	4-02-05	2.95	322	9-16-99	3.36[a]	566
			BRODHEAD CREEK BASIN					
Mill Creek at Mountainhome, Pa. (01440300)	Lat 41°09’50”, long 75°16’00”, Monroe County, Hydrologic Unit 02040104, at concrete bridge on macadam road, 0.5 mi east of Mountainhome, Pa., and 1.5 mi upstream of mouth. Drainage area is 5.84 mi^2.	1961-2005	4-02-05	11.23	875	7-28-69	12.65	1,650
			NESHAMINY CREEK BASIN					
Neshaminy Creek near Penns Park, Pa. (01465200)	Lat 40°15’06”, long 75°00’31”, Bucks County, Hydrologic Unit 02040201, on left bank at bridge over main stem of Neshaminy Creek on Second Street Pike (Rt. 232) at Penns Park, Pa. Drainage area is 157 mi^2	2002-05	4-02-05	17.81	12,700	9-29-04	19.93	15,800

Annual maximum discharge at crest-stage partial-record stations during water year 2005—Continued

			Water year 2005 maximum			**Period of record maximum**		
Station name and number	Location and drainage area	Period of Record	Date	Gage height (ft)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
			SCHUYLKILL RIVER BASIN					
Manatawny Creek near Pottstown,, Pa. (01471980)	Lat 40°16’22”, long 75°40’49”, Berks County, Hydrologic Unit 02040203, on left bank 180 ft upstream from bridge on Manatawny Street, 0.7 mi downstream from Ironstone Creek, 2.4 mi northwest of Pottstown, 3.1 mi upstream from mouth, and 4.7 mi southwest of Boyertown. Drainage area is 85.5 mi^2.	1974-2004≠ 2005	4-03-05	8.30	3,830[b]	9-09-87	11.46	7,550[b]
			CHRISTINA RIVER BASIN BRANDYWINE CREEK BASIN WEST BRANCH BRANDYWINE CREEK BASIN					
Sucker Run near Coatesville, Pa. (01480610)	Lat 39°58’20”, long 75°51’03”, Chester County, Hydrologic Unit 02040205, at concrete bridge on South Park Avenue on SR 372, 1.6 mi upstream of mouth, and 2.0 mi west of Coatesville, Pa. Drainage area is 2.57 mi^2.	1964-2005	11-28-04	5.30	230	7-21-79	8.49	1,500

≠ Operated as a continuous-record gaging station.

[a] Peak gage height for period of record is 3.65 ft, Sept. 25, 1975.

[b] From rating curve extended above 2,780 ft^3/s.

Miscellaneous sites

Discharge measurements made at miscellaneous sites during water year 2005

					Measurements	
Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Date	Discharge (ft^3/s)
		DELAWARE RIVER BASIN--Continued				
		EQUINUNK CREEK BASIN				
01427200 Equinunk Creek	Delaware River	Lat 41°50’15”, long 75°13’55”, Wayne County, Hydrologic Unit 02040101, at highway bridge 700 ft downstream from South Branch Equinunk Creek, and 1.4 mi above mouth and Equinunk, Pa.	56.3	1946-57***** 1978-91***** 1992-2004	5-24-05	28
					6-03-05	17
					6-15-05	10
					6-27-05	7.1
					7-27-05	3.5
					9-14-05	2.2
		LACKAWAXEN RIVER BASIN				
01431600 Wallenpaupack Creek	Lackawaxen River	Lat 41°20’10”, long 75°20’25”, Wayne County, Hydrologic Unit 02040103, at bridge on dirt road 2.6 mi south of intersection of State Routes 84 and 191, 0.2 mi upstream from Rock Port Creek, and at East Sterling, Pa.	69.5	1944-57 1978-81 1989-2004	10-06-04	172
					11-17-04	77
					1-05-05	296
					2-17-05	233
					4-06-05	701
					7-07-05	41
					8-17-05	24
01432110 Lackawaxen River	Delaware River	Lat 41°28’33”, long 75°02’12”, Pike County, Hydrologic Unit 02040103, at mouth, and downstream from bridge on SR 590, at Rowland, Pa. Regulated by lakes and reservoirs upstream.	588	1949[a] 1989-2004	10-06-04	1,370
					11-17-04	410
					2-17-05	1,890
					4-06-05	7,510
					5-18-05	255
					7-07-05	167
					8-17-05	75
		SHOHOLA CREEK BASIN				
01432500 Shohola Creek	Delaware River	Lat 41°27’20”, long 74°55’25”, Pike County, Hydrologic Unit 02040104, 1.7 mi upstream from mouth, and 1.4 mi south of Shohola, Pa. Prior to 1959 at highway bridge 0.4 mi upstream.	83.6	1920-28≠ 1957-80 1981-91***** 1992-2004	6-02-05	53
					6-09-05	50
					6-17-05	32
					6-23-05	25
					8-11-05	21
					9-08-05	12
		BRODHEAD CREEK BASIN POHOPOCO CREEK BASIN				
01450020 Pohopoco Creek	Lehigh River	Lat 40°49’05”, long 75°40’27”, Carbon County, Hydrologic Unit 02040106, 200 ft upstream of Parryville Dam, at Parryville, Pa., and 0.25 mi above mouth.	111	1992-1998≠[b] 1999-2004	10-05-04	149
					11-16-04	136
					3-03-05	142
					4-12-05	364
					5-24-05	149
					7-11-05	41
					8-15-05	38
		NESHAMINY CREEK BASIN				
01465460 Iron Works Creek	Mill Creek	Lat 40°11’54”, long 75°00’40”, Bucks County, Hydrologic Unit 02040201, at lower Holland Road bridge 300 ft east of Bustleton Pike, and 1.3 mi south of Richboro, Pa.	3.69	1981***** 1982-86 1991-2004	10-21-04	1.6
					12-16-04	6.2
					1-26-05	5.6
					3-08-05	13.8
					4-19-05	5.1
					5-17-05	1.9
					7-25-05	3.5
					9-20-05	0.4

Discharge measurements made at miscellaneous sites during water year 2005—Continued

					Measurements	
Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Date	Discharge (ft^3/s)
DELAWARE RIVER BASIN--Continued						
SCHUYLKILL RIVER BASIN						
†01472190 Pickering Creek	Schuylkill River	Lat 40°06’33”, long 75°31’42”, Chester County, Hydrologic Unit 02040203, at bridge on Creek Road at SR 29, 0.3 mi downstream from Conrail bridge, 1.0 mi south of Phoenixville, Pa., and 2.6 mi upstream from Pickering Creek Dam.	31.4	1967-68≠ 1975-2004 1981-84*	11-23-04 12-17-04 3-02-05 5-11-05 6-29-05 8-12-05	45 63 52 46 24 15
01473110 Skippack Creek	Perkiomen Creek	Lat 40°10’17”, long 75°25’52”, Montgomery County, Hydrologic Unit 02040203, at bridge on State Route 363, and 0.4 mi east of Evansburg, Pa.	52.9	1995-2004	11-23-04 3-02-05 5-11-05 6-29-05 8-24-05	43 72 22 14 12
CHRISTINA RIVER BASIN						
01478230 Middle Branch White Clay Creek	White Clay Creek	Lat 39°45’02”, long 75°46’19”, Chester County, Hydrologic Unit 02040205, at bridge on Sharpless Road, 2.0 mi south of Landenberg, Pa., and 6.0 mi south of Avondale, Pa. Formerly published as “White Clay Creek”.	25.5	1989-2004 Discontinued	11-19-04 12-10-04 1-13-05 3-07-05 4-07-05 6-02-05 7-14-05 8-23-05	38 99 51 49 64 26 20 12
01480424 West Branch Brandywine Creek	Brandywine Creek	Lat 40°01’19”, long 75°50’53”, Chester County, Hydrologic Unit 02040205, on downstream side of concrete bridge on Wagontown Road, .75 mi northwest of Wagontown, Pa.	31.9	2002-2004	11-03-04 12-13-04 2-16-05 4-04-05 5-23-05 6-29-05 8-16-05	27 56 70 130 27 14 11
BIG ELK CREEK BASIN						
01494990 Big Elk Creek	Elk River	Lat 39°43’50”, long 75°50’55”, Chester County, Hydrologic Unit 02060002, at bridge on Lewisville Road, 1.5 mi east of Lewisville, Pa., and 9.2 mi north of Elkton, Md.	41.0	1989-2004	10-29-04 2-17-05 4-07-05 6-02-05 7-14-05 8-22-05	52 97 110 41 33 19

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* Operated as a low-flow partial-record station.
≠ Operated as a continuous-record gaging station.
† Operated as a water-quality partial-record station since 1974.
[a] Prior to October 1988 at latitude 41°28’19”, longitude 75°02’25”.
[b] The results of discharge measurements made from 1992 through 1998 water years are available in office files.

HYDROGEOLOGY OF THE POCONO CREEK BASIN, MONROE COUNTY

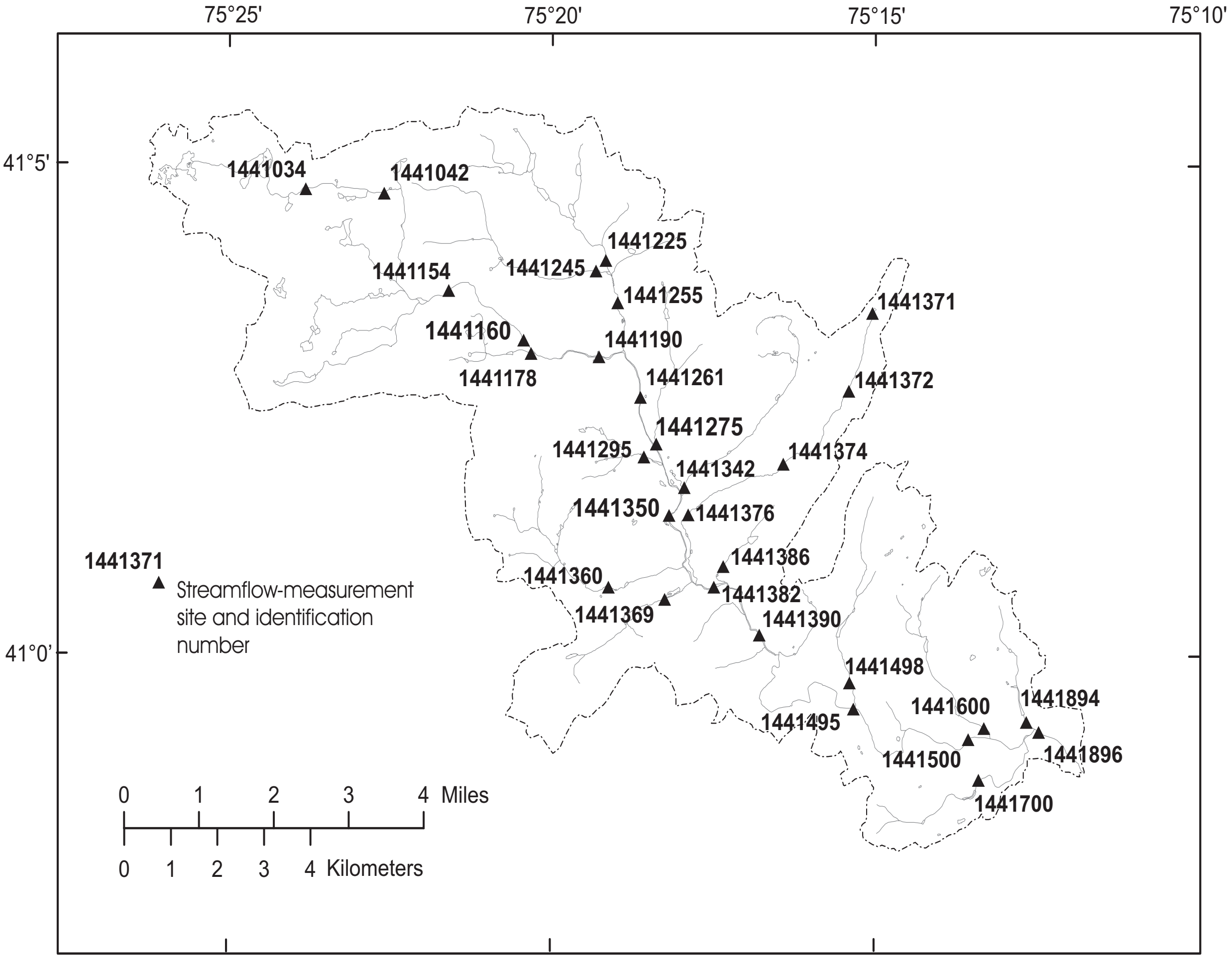

Figure 13.--Location of discharge-measurement sites, Pocono Creek Basin, Monroe County, Pennsylvania.

HYDROGEOLOGY OF THE POCONO CREEK BASIN, MONROE COUNTY

Miscellaneous sites
Discharge measurements made at miscellaneous sites during water year 2005

				Measurements	
Stream	Tributary to	Location	Drainage area (mi^2)	Date	Discharge (ft^3/s)
		DELAWARE RIVER BASIN--Continued			
		POCONO CREEK BASIN			
01441034 Dry Sawmill Run	Pocono Creek	Lat 41°04’45", long 75°23’51", Monroe County, Hydrologic Unit 02040104, 10 feet downstream of bridge on Granite Road at Crescent Lake, PA	2.51	10-13-04	0.35
01441042 Dry Sawmill Run	Pocono Creek	Lat 41°04’43", long 75°22’38", Monroe County, Hydrologic Unit 02040104, 50 feet downstream of bridge on Skyview Road at Crescent Lake, PA	3.28	10-13-04	1.46
01441154 Pocono Creek	Delaware River	Lat 41°03’42", long 75°21’37", Monroe County, Hydrologic Unit 02040104, 300 feet downstream of bridge on Wilke Road near Scotrun, PA	8.65	10-13-04	16.41
01441160 Pocono Creek	Delaware River	Lat 41°03’13", long 75°20’27", Monroe County, Hydrologic Unit 02040104, 30 feet downstream of bridge on Camelback Road near Scotrun, PA	9.24	10-13-04	17.31
01441178 Coolmoor Run	Pocono Creek	Lat 41°03’04", long 75°20’19", Monroe County, Hydrologic Unit 02040104, 50 feet above confluence with Pocono Creek near Scotrun, PA	1.50	10-13-04	3.15
01441190 Pocono Creek	Delaware River	Lat 41°03’03", long 75°19’17", Monroe County, Hydrologic Unit 02040104, 40 feet downstream of bridge on Sullivan Trail Road near Tannersville, PA	11.50	10-13-04	18.38
01441225 Scot Run	Pocono Creek	Lat 41°04’02", long 75°19’11", Monroe County, Hydrologic Unit 02040104, 200 feet downstream of bridge on State Route 611 at Scotrun, PA	3.23	10-13-04	4.15
01441245 Transue Run	Pocono Creek	Lat 41°03’ 5", long 75°19’20", Monroe County, Hydrologic Unit 02040104, 25 feet downstream of private bridge 700 feet above Scotrun Avenue at Scotrun, PA	2.07	10-13-04	2.47
01441255 Scot Run	Pocono Creek	Lat 41°03’35", long 75°19’00", Monroe County, Hydrologic Unit 02040104, 100 feet downstream of bridge on Scotrun Avenue at Scotrun, PA	6.10	10-13-04	7.21
01441261 Pocono Creek	Delaware River	Lat 41°02’37", long 75°18’39", Monroe County, Hydrologic Unit 02040104, 200 feet downstream of bridge on State Route 715 at Tannersville, PA	18.80	10-13-04	27.57
01441275 Highwood Lake Run	Pocono Creek	Lat 41°02’09", long 75°18’24", Monroe County, Hydrologic Unit 02040104, 15 feet downstream of culvert on Alger Road at Tannersville, PA	1.50	10-13-04	1.15

HYDROGEOLOGY OF THE POCONO CREEK BASIN, MONROE COUNTY

Miscellaneous sites
Discharge measurements made at miscellaneous sites during water year 2005

DELAWARE RIVER BASIN--Continued

POCONO CREEK BASIN

Stream	Tributary to	Location	Drainage area (mi^2)	Measurements	
				Date	Discharge (ft^3/s)
01441295 Mill Run	Pocono Creek	Lat 41°02’01", long 75°18’35", Monroe County, Hydrologic Unit 02040104, 30 feet downstream of bridge on Old Mill Drive at Tannersville, PA	1.47	10-13-04	1.31
01441342 Bulgers Run	Pocono Creek	Lat 41°01’42", long 75°17’58", Monroe County, Hydrologic Unit 02040104, 30 feet upstream of bridge on Learn Road at Lower Tannersville, PA	2.25	10-13-04	2.96
01441350 Pocono Creek	Delaware River	Lat 41°01’24", long 75°18’12", Monroe County, Hydrologic Unit 02040104, 120 feet upstream of bridge on Stadden Road near Tannersville, PA	25.20	10-13-04	43.92
01441371 Canberry Creek	Pocono Creek	Lat 41°03’28", long 75°15’03", Monroe County, Hydrologic Unit 02040104, 20 feet below lake at Bircwood Drive near Tannersville, PA	0.20	5-19-05	.51
01441372 Canberry Creek	Pocono Creek	Lat 41°02’42", long 75°15’26", Monroe County, Hydrologic Unit 02040104, 5 feet above bridge on Bog Road near Tannersville, PA	0.83	5-19-05	.93
01441374 Canberry Creek	Pocono Creek	Lat 41°01’57", long 75°16’27", Monroe County, Hydrologic Unit 02040104, 15 feet below bridge on Laurel Lake Road near Tannersville, PA	2.01	5-19-05	2.06
01441376 Canberry Creek	Pocono Creek	Lat 41°01’27", long 75°17’53", Monroe County, Hydrologic Unit 02040104, 20 feet upstream of bridge onState Route 611 at Lower Tannersville, PA	2.54	10-13-04 5-19-05	2.36 2.51
01441360 Reeders Run	Pocono Creek	Lat 41°00’42", long 75°19’08", Monroe County, Hydrologic Unit 02040104, 40 feet downstream of bridge on Reeders Run Road near Reeders, PA	2.88	10-13-04	3.05
01441369 Rocky Run	Pocono Creek	Lat 41°00’34", long 75°18’16", Monroe County, Hydrologic Unit 02040104, 75 feet downstream of bridge on Glenbrook Drive near Bartonsville, PA	2.03	10-13-04	1.86
01441386 Laurel Lake Run	Pocono Creek	Lat 41 00’54", long 75°17’21", Monroe County, Hydrologic Unit 02040104, 20 feet upstream of bridge on Beehler Road at Bartonsville, PA	0.76	10-13-04	.80
01441382 Pocono Creek	Delaware River	Lat 41°00’42", long 75°17’30", Monroe County, Hydrologic Unit 02040104, 300 feet downstream of bridge on State Route 611 near Bartonsville, PA	34.30	10-13-04	43.85

HYDROGEOLOGY OF THE POCONO CREEK BASIN, MONROE COUNTY

Miscellaneous sites
Discharge measurements made at miscellaneous sites during water year 2005

Stream	Tributary to	Location	Drainage area (mi^2)	Measurements Date	Measurements Discharge (ft^3/s)
		DELAWARE RIVER BASIN--Continued			
		POCONO CREEK BASIN			
01441390 Pocono Creek	Delaware River	Lat 41°00’12", long 75°16’48", Monroe County, Hydrologic Unit 02040104, 100 feet upstream of bridge at Rimrock Drive at Bartonsville, PA	36.30	10-13-04	51.49
01441495 Pocono Creek	Delaware River	Lat 40°59’27", long 75°15’20", Monroe County, Hydrologic Unit 02040104, 25 feet downstream of bridge on Schafers School House Road near Stroudsburg, PA	38.90	10-13-04	61.20
01441498 Wigwam Run	Pocono Creek	Lat 40°59’44", long 75°15’25", Monroe County, Hydrologic Unit 02040104, 15 feet downstream of bridge on Schafers School House Road near Stroudsburg, PA	1.66	10-13-04	1.54
01441500 Pocono Creek	Delaware River	Lat 40°59’10", long 75°13’35", Monroe County, Hydrologic Unit 02040104, at bridge on Bridge Street near Stroudsburg, PA	41.00	10-13-04	57.78
01441600 Flagler Run	Pocono Creek	Lat 40°59’15", long 75°13’19", Monroe County, Hydrologic Unit 02040104, 300 feet downstream of bridge on State Route 611 near Stroudsburg, PA	1.87	10-13-04	1.63
01441700 Little Pocono Creek	Pocono Creek	Lat 40°58’44", long 75°13’25", Monroe County, Hydrologic Unit 02040104, downstream of bridge on Tanite Road near Stroudsburg, PA	1.21	10-13-04	1.01
01441894 Big Meadow Run	Pocono Creek	Lat 40°59’20", long 75°12’41", Monroe County, Hydrologic Unit 02040104, 40 feet upstream of bridge on State Route 611 near Stroudsburg, PA	1.62	10-13-04	1.71
01441896 Pocono Creek	Delaware River	Lat 40°59’14", long 75°12’28", Monroe County, Hydrologic Unit 02040104, 500 feet below confluence with Little Pocono Creek and 4,100 ft above mouth at Stroudsburg, PA	47.70	10-13-04	63.70

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

The Pennsylvania Water Quality Network (WQN) is a statewide, fixed station water-quality sampling system currently operated by the Department of Environmental Protection (PaDEP), Bureau of Water Supply and Wastewater Management in cooperation with the United States Geological Survey (USGS). It is designed to assess both the quality of Pennsylvania's surface waters and the effectiveness of the water quality management program by accomplishing three basic objectives:

* Monitor temporal water quality trends in major surface streams throughout the Commonwealth of Pennsylvania

* Monitor temporal water-quality trends in selected reference waters

* Monitor temporal water quality trends in selected Pennsylvania lakes.

Major streams are defined as interstate waters and intrastate streams with drainage areas of roughly 200 mi^2 or greater. These waters are sampled at or near their mouths to measure overall quality before flows enter the next higher order stream or before exiting the Commonwealth. In this way, trends can be established and the effectiveness of water-quality management programs can be assessed by watershed. Samples are collected on fixed time intervals resulting in coverage of a range of flow regimes. All samples were collected by the USGS and analyzed by the PaDEP laboratory in Harrisburg, Pa.

Most of the current WQN standard sites are co-located with USGS gage stations and others are equipped with a wire weight gage. Currently the network consists of 104 standard stream sites, 21 reference stream sites, and 20 lakes distributed across the Commonwealth.

Standard stations are sampled bimonthly (6 times per year) for physical and chemical parameters and stream discharge or a stage reading. Reference stations sampled monthly at 25-30 day intervals for physical and chemical parameters and stream discharge or a stage reading. Benthic macroinvertebrate samples are also collected annually at all WQN stations.

In Febuary 2005 the 21 reference stream sites were discontinued and 21 new reference stream sites were established. Since the new reference stream sites were established in the middle of the water year chemical data is presented for both sets of reference stream sites. Biological data is only presented for the reference stream sites that were active in October 2005. This report presents data from the sites in the Delaware River Basin. Data from the Susquehanna River Basin and Ohio River Basin can be found in Volumes 2 and 3 of the USGS Pennsylvania Water Resources Data Reports.

For additional information, contact Andrew Reif at the USGS Pennsylvania Water Science Center, Exton Office, 770 Pennsylvania Drive, Suite 116, Exton, PA 19341; 610-321-2434, (email: agreif@usgs.gov).

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES PENNSYLVANIA WATER-QUALITY NETWORK

TABLE 1.--List of stream sites sampled as part of the Pennsylvania Water-Quality Network (WQN).

Station number	WQN No.	Location	Latitude	Longitude	Drainage area (mi^2)
[a]01427000	104	West Branch Delaware River at Hancock, NY	41° 57’ 08”	75° 17’ 31”	650
[a]01427510	185	Delaware River at Callicoon, NY	41° 45’ 24”	75° 03’ 28”	1,820
01429301	336	Dyberry Creek at Tanners Falls near Dyberry, PA (Reference station)	41° 39’ 11”	75° 16’ 55”	46.4
01431554	199	Kintz Creek at Roemersville near Promised Land, PA (Reference station)	41° 16’ 49”	75° 14’ 31”	4.1
01431600	141	Wallenpaupack Creek at East Sterling, PA	41° 20’ 10”	75° 20’ 25”	69.5
01432097	197	Blooming Grove Creek at Glen Eyre near Rowland, PA (Reference station)	41° 27’ 39”	75° 05’ 16”	27.6
01432119	147	Lackawaxen River at mouth at Lackawaxen, PA	41° 29’ 12”	74° 59’ 31”	597
[a]01434000	103	Delaware River at Port Jervis, NY	41° 22’ 14”	74° 41’ 52”	3,070
01438760	192	Adams Creek near Dingmans Ferry, PA (Reference station)	41° 14’ 22”	74° 52’ 02”	8.20
[b]01439500	139	Bush Kill at Shoemakers, PA	41° 05’ 17”	75° 02’ 17”	117
01440650	138	Brodhead Creek near East Stroudsburg, PA	41° 02’ 10”	75° 12’ 34”	121
[b]01442500	137	Brodhead Creek at Minisink Hills, PA	40° 59’ 55”	75° 08’ 35”	259
01444800	194	Delaware River near Richmond, PA	40° 49’ 44”	75° 05’ 06”	4,378
01447300	190	Choke Creek near Thornhurst, PA (Reference station)	41° 09’ 40”	75° 36’ 10”	8.06
[b]01447500	126	Lehigh River at Stoddartsville, PA	41° 07’ 49”	75° 37’ 33”	91.7
01447650	198	Tunkhannock Creek above Long Pond near Long Pond, PA (Reference station)	41° 02’ 04”	75° 27’ 35”	11.04
[b]01447720	142	Tobyhanna Creek near Blakeslee, PA	41° 05’ 05”	75° 36’ 21”	118
01449375	191	Wild Creek above Penn Forest Reservoir near Kresgeville, PA (Reference station	40° 56’ 24”	75° 35’ 04”	5.4
01451070	125	Lehigh River at Treichlers, PA	40° 44’ 03”	75° 32’ 28”	928
01452040	130	Jordan Creek at mouth at Allentown, PA	40° 36’ 06”	75° 27’ 43”	82.3
[b]01454700	123	Lehigh River at Glendon, PA	40° 40’ 09”	75° 14’ 12”	1,359
01457790	187	Cooks Creek at Durham Furnace, PA (Reference station)	40° 34’ 56”	75° 12’ 20”	29.4
01458900	186	Tinicum Creek near Ottsville, PA (Reference station)	40° 28’ 14”	75° 08’ 13”	14.7
[b]01463500	101	Delaware River at Trenton, NJ	40° 13’ 18”	74° 46’ 42”	6,780
[b]01465500	121	Neshaminy Creek near Langhorne, PA	40° 10’ 26”	74° 57’ 26”	210
[b]01470500	113	Schuylkill River at Berne, PA	40° 31’ 21”	75° 59’ 55”	355
[b]01471000	117	Tulpehocken Creek near Reading, PA	40° 22’ 08”	75° 58’ 46”	211
[b]01472000	111	Schuylkill River at Pottstown, PA	40° 14’ 30”	75° 39’ 07”	1,147
014721369	195	Rock Run above State Route 23 at Coventryville, PA (Reference station)	40° 10’ 27”	75° 41’ 46”	3.30
01472150	156	French Creek at Coventryville, PA (Reference station)	40° 10’ 16”	75° 41’ 26”	36.9
014721986	196	West Branch Perkiomen Creek near Bally, PA (Reference station)	40° 24’ 18”	75° 36’ 50”	11.91
01473030	116	Perkiomen Creek at Arcola near Collegeville, PA	40° 09’ 11”	75° 27’ 21”	300
01473170	154	Valley Creek at Wilson Road near Valley Forge, PA	40° 04’ 53”	75° 27’ 25”	22.0
[b]01473900	193	Wissahickon Creek at Fort Washington, PA	40° 07’ 26”	75° 13’ 13”	40.8
[b]01474000	115	Wissahickon Creek at mouth at Philadelphia, PA	40° 00’ 55”	75° 12’ 26”	64.0
01474010	110	Schuylkill River at Falls Bridge at Philadelphia, PA	40° 00’ 30”	75° 11’ 52”	1,893
[b]01478245	149	White Clay Creek near Strickersville, PA	39° 44’ 51”	75° 46’ 15”	59.2
[b]01479820	150	Red Clay Creek near Kennett Square, PA	39° 49’ 00”	75° 41’ 31”	28.3
[b]01481000	105	Brandywine Creek at Chadds Ford, PA	39° 52’ 11”	75° 35’ 37”	287
01494990	256	Big Elk Creek near Lewisville, PA	39° 43’ 48”	75° 50’ 54”	41.0

[a] Other data for this station can be obtained by contacting the Director (518-285-5600; email dc_ny@usgs.gov) of the USGS New York Water Science Center, 425 Jordan Road, Troy, NY 12180-8349.

[b] Other data for this station can be found in the continuous station records section of this report.

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

Ninety lakes are part of the WQN. Of these 90 lakes, approximately 15-25 are sampled annually during mid-summer stratification for five years; and then a different set of 15 to 25 lakes is sampled for five years. Using this schedule all 90 lakes are sampled over a 30-year period. Lakes are sampled for physical and chemical parameters and chlorophyll-*a*. Two samples are collected from the deepest point of the lake with the first sample being collected 1-meter below the surface and the second sample collected 1-meter from the bottom. Each sample is analyzed separately. A temperature and DO profile is collected at the site through the water column.

TABLE 2.--List of lakes sampled as part of the Pennsylvania Water-Quality Network.

Station number	WQN No.	Location	Latitude	Longitude
01427252	L114	Duck Harbor Pond near Lookout, PA	41° 45’ 11”	75° 12’ 01”
01446590	L112	Minsi Lake near Roseto, PA	40° 54’ 43”	75° 10’ 15”
01464640	L115	Lake Galena near Chalfont, PA	40° 19’ 01”	75° 12’ 15”
01472124	L102	Hopewell Lake at Hopewell, PA	40° 12’ 16”	75° 46’ 43”
0148064640	L116	Struble Lake near Honey Brook, PA	40° 06’ 28”	75° 51’ 51”

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

REMARKS.--Some values for "*dissolved*" parameters exceeded values for the corresponding "*total*" parameter. These results are within the limits of analytical precision and methods.

01427000 West Branch Delaware River at Hancock, NY

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

MISCELLANEOUS STATION ANALYSES

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conductance, wat unf lab, µS/cm 25 degC (90095)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Calcium water unfltrd recover -able, mg/L (00916)
NOV 2004													
22...	1510	1028	9813	--	14.5	8.4	7.6	88	76	8.6	25	6.7	6.8
JAN 2005													
12...	1140	1028	9813	--	13.9	7.0	7.7	103	84	2.3	23	6.4	6.4
MAR													
21...	1500	1028	9813	--	14.1	8.0	7.0	123	110	4.2	26	7.1	7.4
MAY													
24...	1330	1028	9813	--	12.0	8.0	7.6	92	89	12.1	23	6.5	6.4
JUL													
05...	1800	1028	9813	--	10.4	8.3	--	86	84	19.4	24	6.9	6.8
SEP													
15...	1000	1028	9813	--	9.9	7.1	6.6	81	86	12.9	23	6.0	6.4

Date	Magnesium, water, fltrd, mg/L (00925)	Magnesium, water, unfltrd recover -able, mg/L (00927)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 105degC wat flt mg/L (00515)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia water, unfltrd mg/L as N (00610)	Nitrate water unfltrd mg/L as N (00620)	Nitrite water, unfltrd mg/L as N (00615)	Total nitrogen, water, unfltrd mg/L (00600)	Orthophosphate, water, unfltrd mg/L as P (70507)	Phosphorus, water, unfltrd mg/L (00665)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)
NOV 2004													
22...	1.8	1.8	19	6.2	46	<2	<.020	.33	<.040	.66	.01	.01	1.3
JAN 2005													
12...	1.6	1.7	19	6.3	--	4	<.020	.40	<.040	.46	.01	.01	2.0
MAR													
21...	1.8	1.9	16	6.8	110	6	<.020	.39	<.040	.54	.01	.01	.8
MAY													
24...	1.7	1.7	16	6.7	64	4	<.020	.34	<.040	.50	<.01	<.01	.9
JUL													
05...	1.7	1.7	--	6.0	58	6	.020	.43	<.040	1.4	<.01	.02	.8
SEP													
15...	1.5	1.6	18	5.9	--	2	.020	.38	<.040	.51	.02	.02	<.2

Date	Aluminum, water, fltrd, µg/L (01106)	Aluminum, water, unfltrd recover -able, µg/L (01105)	Copper, water, fltrd, µg/L (01040)	Copper, water, unfltrd recover -able, µg/L (01042)	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recover -able, µg/L (01045)	Lead, water, fltrd, µg/L (01049)	Lead, water, unfltrd recover -able, µg/L (01051)	Manganese, water, fltrd, µg/L (01056)	Manganese, water, unfltrd recover -able, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recover -able, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)
NOV 2004													
22...	<10	40	<4	<4	30	100	<1.0	<1.0	10	40	<4.0	<4.0	<5.0
JAN 2005													
12...	<10	90	<4	<4	<20	200	<1.0	<1.0	9	40	<4.0	<4.0	<5.0
MAR													
21...	<10	130	<4	<4	40	250	<1.0	<1.0	40	60	<4.0	<4.0	<5.0
MAY													
24...	<10	30	<4	<4	20	60	<1.0	<1.0	10	20	<4.0	<4.0	<5.0
JUL													
05...	<10	40	<4	<4	30	110	<1.0	<1.0	10	30	<4.0	<4.0	<5.0
SEP													
15...	20	120	<4	<4	<20	420	<1.0	<1.0	50	130	<4.0	<4.0	<5.0

Date	Zinc, water, unfltrd recover -able, µg/L (01092)
NOV 2004	
22...	<5.0
JAN 2005	
12...	<5.0
MAR	
21...	<5.0
MAY	
24...	<5.0
JUL	
05...	<5.0
SEP	
15...	<5.0

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES PENNSYLVANIA WATER-QUALITY NETWORK

01427510 Delaware River at Callicoon, NY

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

MISCELLANEOUS STATION ANALYSES

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conductance, wat unf lab, µS/cm 25 degC (90095)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Calcium water unfltrd recover -able, mg/L (00916)
NOV 2004 22...	1700	1028	9813	--	14.6	8.1	7.4	75	66	7.5	21	6.2	6.2
JAN 2005 12...	1400	1028	9813	--	14.6	7.0	7.6	71	70	1.6	20	5.5	5.7
MAR 17...	1220	1028	9813	--	14.1	7.9	7.5	90	83	2.9	22	6.7	6.6
MAY 24...	1600	1028	9813	--	10.9	8.1	7.5	84	79	15.5	22	6.5	6.6
JUL 28...	0930	1028	9813	--	8.2	6.8	--	--	76	22.4	22	6.0	6.3
SEP 15...	1240	1028	9813	--	8.5	8.2	6.6	80	84	20.9	22	6.0	6.4

Date	Magnesium, water, fltrd, mg/L (00925)	Magnesium, water, unfltrd recover -able, mg/L (00927)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 105degC wat flt mg/L (00515)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia water, unfltrd mg/L as N (00610)	Nitrate water unfltrd mg/L as N (00620)	Nitrite water, unfltrd mg/L as N (00615)	Total nitrogen, water, unfltrd mg/L (00600)	Orthophosphate, water, unfltrd mg/L as P (70507)	Phosphorus, water, unfltrd mg/L (00665)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)
NOV 2004 22...	1.4	1.4	16	5.9	38	<2	<.020	.25	<.040	.58	<.01	<.01	.8
JAN 2005 12...	1.2	1.3	16	5.9	--	42	<.020	.34	<.040	.32	<.01	.01	1.5
MAR 17...	1.4	1.4	13	6.2	82	<2	<.020	.28	<.040	.40	<.01	<.01	1.0
MAY 24...	1.3	1.4	15	6.5	56	2	<.020	.18	<.040	.36	<.01	.01	.6
JUL 28...	1.4	1.4	--	5.9	52	<2	.030	.21	<.040	.25	<.01	.01	--
SEP 15...	1.4	1.5	19	5.7	--	6	.030	.23	<.040	.29	.01	.01	<.2

Date	Aluminum, water, fltrd, µg/L (01106)	Aluminum, water, unfltrd recover -able, µg/L (01105)	Copper, water, fltrd, µg/L (01040)	Copper, water, unfltrd recover -able, µg/L (01042)	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recover -able, µg/L (01045)	Lead, water, fltrd, µg/L (01049)	Lead, water, unfltrd recover -able, µg/L (01051)	Manganese, water, fltrd, µg/L (01056)	Manganese, water, unfltrd recover -able, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recover -able, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)
NOV 2004 22...	<10	10	<4	<4	<20	30	<1.0	<1.0	3	6	<4.0	<4.0	<5.0
JAN 2005 12...	<10	40	<4	<4	<20	70	<1.0	<1.0	6	10	<4.0	<4.0	<5.0
MAR 17...	<10	30	<4	<4	20	50	<1.0	<1.0	10	10	<4.0	<4.0	<5.0
MAY 24...	<10	10	<4	<4	20	30	<1.0	<1.0	4	8	<4.0	<4.0	<5.0
JUL 28...	20	30	<4	<4	<20	50	<1.0	<1.0	9	20	<4.0	<4.0	<5.0
SEP 15...	20	40	<4	<4	20	80	<1.0	<1.0	8	20	<4.0	<4.0	<5.0

Date	Zinc, water, unfltrd recover -able, µg/L (01092)
NOV 2004 22...	<5.0
JAN 2005 12...	<5.0
MAR 17...	<5.0
MAY 24...	13
JUL 28...	<5.0
SEP 15...	<5.0

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

01434000 Delaware River at Port Jervis, NY

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

MISCELLANEOUS STATION ANALYSES

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conductance, wat unf lab, µS/cm 25 degC (90095)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water unfltrd recoverable, mg/L (00916)	Magnesium, water, unfltrd recoverable, mg/L (00927)
NOV 2004													
15...	1520	1028	9813	--	14.7	7.7	7.5	76	69	4.8	22	6.6	1.3
JAN 2005													
06...	1430	1028	9813	--	13.4	6.5	7.2	69	67	1.5	18	5.4	1.2
MAR													
02...	1210	1028	9813	--	17.4	7.7	7.4	81	79	.9	19	5.7	1.1
MAY													
10...	1700	1028	9813	--	12.1	9.6	9.0	74	77	17.0	17	5.1	1.1
JUL													
27...	1200	1028	9813	--	8.9	7.4	7.8	85	86	26.4	22	6.5	1.3
SEP													
21...	0830	1028	9813	--	8.8	7.6	7.5	92	91	20.2	25	7.2	1.6

Date	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 105degC wat flt mg/L (00515)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia water, unfltrd mg/L as N (00610)	Nitrate water unfltrd mg/L as N (00620)	Nitrite water, unfltrd mg/L as N (00615)	Total nitrogen, water, unfltrd mg/L (00600)	Orthophosphate, water, unfltrd mg/L as P (70507)	Phosphorus, water, unfltrd mg/L (00665)	Organic carbon, water, unfltrd mg/L (00680)	Aluminum, water, unfltrd recoverable, µg/L (01105)	Copper, water, unfltrd recoverable, µg/L (01042)
NOV 2004													
15...	19	6.0	68	<2	<.020	.13	<.040	.26	<.01	.04	2.4	<200	<10
JAN 2005													
06...	12	6.0	54	<2	.030	.26	<.040	.46	.01	.01	2.5	<200	<10
MAR													
02...	16	6.5	56	<2	.030	.22	<.040	.20	<.01	<.01	2.2	<200	<10
MAY													
10...	12	6.0	26	<2	<.020	<.04	<.040	.75	<.01	.01	--	<200	<10
JUL													
27...	15	5.9	64	<2	<.020	.08	<.040	.16	<.01	.02	--	<200	<10
SEP													
21...	20	6.0	80	<2	<.020	.15	<.040	.26	<.01	.01	--	<200	<10

Date	Iron, water, unfltrd recoverable, µg/L (01045)	Lead, water, unfltrd recoverable, µg/L (01051)	Manganese, water, unfltrd recoverable, µg/L (01055)	Nickel, water, unfltrd recoverable, µg/L (01067)	Zinc, water, unfltrd recoverable, µg/L (01092)
NOV 2004					
15...	70	<1.0	<10	<50	<10
JAN 2005					
06...	200	<1.0	20	<50	<10
MAR					
02...	90	1.6	20	<50	<10
MAY					
10...	50	<1.0	20	<50	<10
JUL					
27...	70	<1.0	30	<50	10
SEP					
21...	120	<1.0	20	<50	<10

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

MISCELLANEOUS STATION ANALYSES

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Pressure, osmotic water, unfltrd mosm/kg (82550)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conductance, wat unf lab, µS/cm 25 degC (90095)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)
01429301 Dyberry Creek at Tanners Falls Near Dyberry, PA (LAT 41 39 11N LONG 075 16 55W)													
OCT 2004 07...	1300	1028	9813	60	<1.0	11.7	7.1	7.4	61	60	10.7	24	--
NOV 22...	1300	1028	9813	45	1.0	14.4	7.1	7.5	66	58	6.8	24	--
DEC 13...	1300	1028	9813	225	<1.0	12.8	6.5	7.4	48	42	4.0	17	--
JAN 2005 11...	1330	1028	9813	118	2.0	13.7	6.7	7.5	58	53	1.1	20	--
01431554 Kintz Creek at Roemersville near Promised Land, PA (LAT 41 16 49N LONG 075 14 31W)													
FEB 2005 07...	1530	1028	9813	8.7	<1.0	13.2	6.6	6.9	43	39	2.8	13	--
MAR 03...	1100	1028	9813	11	2.0	14.5	6.8	6.9	46	45	1.2	13	--
APR 18...	1530	1028	9813	13	1.0	11.1	6.5	7.0	41	40	13.5	11	3.4
MAY 09...	1430	1028	9813	12	2.0	11.3	6.7	6.9	42	38	15.7	12	3.5
JUN 28...	1400	1028	9813	4.8	1.0	8.1	6.5	7.0	44	44	22.7	13	4.0
JUL 26...	1200	1028	9813	3.3	1.0	8.8	6.9	7.1	42	44	21.5	14	3.7
AUG 25...	1230	1028	9813	2.4	2.0	10	6.6	--	47	46	18.1	16	4.7
SEP 20...	1330	1028	9813	1.4	2.0	9.4	6.5	--	52	53	18.4	15	4.5
01431600 Wallenpaupack Creek at East Sterling, PA (LAT 41 20 10N LONG 075 20 25W)													
NOV 2004 16...	1540	1028	9813	73	<1.0	13.2	7.2	6.8	70	69	4.6	20	6.1
JAN 2005 06...	1200	1028	9813	301	--	13.3	6.1	7.0	56	55	.7	16	4.9
MAR 03...	0920	1028	9813	78	--	15.5	7.0	7.2	68	66	.0	19	5.6
MAY 09...	1300	1028	9813	106	--	13.9	8.6	7.5	65	60	12.5	18	5.5
JUL 26...	1000	1028	9813	26	--	8.9	7.6	--	--	83	21.3	27	8.8
SEP 20...	1530	1028	9813	16	--	10.3	8.1	6.6	100	99	19.2	31	8.9
01432088 Blooming Grove Creek at Rt 6 near Rowland, PA (LAT 41 25 16N LONG 075 06 13W)													
MAR 2005 17...	0900	1028	9813	59	3.0	14.3	6.8	7.1	84	81	.8	16	--

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

MISCELLANEOUS STATION ANALYSES

Date	Calcium water unfltrd recover -able, mg/L (00916)	Magnesium, water, fltrd, mg/L (00925)	Magnesium, water, unfltrd recover -able, mg/L (00927)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, unfltrd mg/L (00951)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 105degC wat flt mg/L (00515)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia water, unfltrd mg/L as N (00610)	Nitrate water unfltrd mg/L as N (00620)	Nitrite water, unfltrd mg/L as N (00615)	Orthophosphate, water, unfltrd mg/L as P (70507)
01429301 Dyberry Creek at Tanners Falls Near Dyberry, PA (LAT 41 39 11N LONG 075 16 55W)													
OCT 2004 07...	8.2	--	.78	22	3.5	.4	6.8	54	<2	<.020	.13	<.040	<.01
NOV 22...	8.5	--	.78	20	3.2	<.2	5.8	70	2	<.020	.08	<.040	<.01
DEC 13...	5.8	--	.60	14	2.0	<.2	5.5	32	10	<.020	.15	<.040	<.01
JAN 2005 11...	6.8	--	.67	17	3.3	<.2	6.0	--	<2	<.020	.22	<.040	<.01
01431554 Kintz Creek at Roemersville near Promised Land, PA (LAT 41 16 49N LONG 075 14 31W)													
FEB 2005 07...	3.9	--	.82	6	4.0	<.2	6.5	8	2	.030	.12	<.040	<.01
MAR 03...	4.0	--	.73	9	4.5	<.2	6.2	--	12	.050	.14	<.040	<.01
APR 18...	3.5	.65	.67	6	3.9	<.2	6.3	74	6	.020	.05	<.040	<.01
MAY 09...	3.7	.66	.69	5	4.0	<.2	6.3	100	<2	<.020	<.04	<.040	<.01
JUN 28...	4.0	.76	.79	8	4.5	<.2	5.3	80	14	.100	.06	<.040	.01
JUL 26...	4.1	.81	.89	7	3.9	<.2	5.3	66	<2	<.020	.06	<.040	.01
AUG 25...	4.7	.95	.94	--	4.7	<.2	5.5	160	<2	.020	.08	<.040	<.01
SEP 20...	4.5	.97	.97	--	5.5	<.2	5.9	92	<2	.020	.07	<.040	<.01
01431600 Wallenpaupack Creek at East Sterling, PA (LAT 41 20 10N LONG 075 20 25W)													
NOV 2004 16...	6.5	.91	.96	13	4.9	<.2	6.1	58	2	<.020	.24	<.040	<.01
JAN 2005 06...	5.0	.73	.75	10	--	--	6.2	40	14	.020	.27	<.040	<.01
MAR 03...	6.0	.83	.89	13	--	--	6.9	96	8	<.020	.34	<.040	<.01
MAY 09...	5.7	.80	.82	10	--	--	6.6	160	6	.020	.11	<.040	<.01
JUL 26...	8.4	1.3	1.3	--	--	--	6.6	66	<2	.040	.20	<.040	<.01
SEP 20...	10.3	1.3	1.4	23	--	--	7.3	82	<2	<.020	.13	<.040	<.01
01432088 Blooming Grove Creek at Rt 6 near Rowland, PA (LAT 41 25 16N LONG 075 06 13W)													
MAR 2005 17...	4.3	--	1.2	6	16	<.2	6.8	90	<2	.040	.05	<.040	<.01

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

MISCELLANEOUS STATION ANALYSES

Date	Phos-phorus, water, unfltrd mg/L (00665)	Total nitro-gen, water, unfltrd mg/L (00600)	Organic carbon, water, unfltrd mg/L (00680)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Fecal coli-form, M-FC 0.45µMF col/ 100 mL (31616)	Alum-inum, water, fltrd, µg/L (01106)	Alum-inum, water, unfltrd recover -able, µg/L (01105)	Arsenic water, fltrd, µg/L (01000)	Barium, water, unfltrd recover -able, µg/L (01007)	Cadmium water, fltrd, µg/L (01025)	Copper, water, fltrd, µg/L (01040)	Copper, water, unfltrd recover -able, µg/L (01042)	Cyanide amen-able to chlor-ination wat unf mg/L (00722)
01429301 Dyberry Creek at Tanners Falls Near Dyberry, PA (LAT 41 39 11N LONG 075 16 55W)													
OCT 2004													
07...	.01	.56	--	.3	<20	<10	30	<4.0	20	<.20	<4	<4	--
NOV													
22...	.01	.40	--	.4	<10	<10	30	<4.0	20	<.20	<4	<4	--
DEC													
13...	<.01	.36	--	<.2	200	20	80	<4.0	20	<.20	<4	<4	--
JAN 2005													
11...	<.01	.26	--	1.1	40	10	60	<4.0	20	<.20	<4	<4	--
01431554 Kintz Creek at Roemersville near Promised Land, PA (LAT 41 16 49N LONG 075 14 31W)													
FEB 2005													
07...	<.01	.26	--	.8	<20	20	60	<4.0	20	<.20	<4	<4	--
MAR													
03...	.01	.22	--	.8	<10	20	40	<4.0	20	<.20	<4	<4	--
APR													
18...	.02	.15	1.8	6.5	<10	20	70	<4.0	20	<.20	<4	<4	--
MAY													
09...	.02	--	1.8	.9	<20	20	40	<4.0	20	<.20	<4	<4	--
JUN													
28...	.03	.26	2.7	.9	120	20	80	<4.0	20	<.20	<4	<4	--
JUL													
26...	.01	.12	2.6	.4	80	30	70	<4.0	20	<.20	<4	<4	--
AUG													
25...	.02	.22	2.2	<.2	--	20	30	<4.0	20	<.20	<4	<4	--
SEP													
20...	.02	--	2.1	.4	40	20	30	<4.0	20	<.20	<4	<4	--
01431600 Wallenpaupack Creek at East Sterling, PA (LAT 41 20 10N LONG 075 20 25W)													
NOV 2004													
16...	<.01	.43	2.1	1.7	20	20	30	<4.0	20	<.20	<4	<4	<1.00
JAN 2005													
06...	<.01	.45	--	.6	--	40	60	--	--	--	<4	<4	--
MAR													
03...	<.01	.65	--	.7	--	20	40	--	--	--	<4	<4	--
MAY													
09...	.01	1.8	--	.6	--	20	40	--	--	--	<4	<4	--
JUL													
26...	.01	.19	--	.3	--	20	30	--	--	--	<4	<4	--
SEP													
20...	.01	.19	--	.4	--	20	30	--	--	--	<4	<4	--
01432088 Blooming Grove Creek at Rt 6 near Rowland, PA (LAT 41 25 16N LONG 075 06 13W)													
MAR 2005													
17...	.01	.10	--	.6	10	30	60	<4.0	20	<.20	<4	<4	--

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES PENNSYLVANIA WATER-QUALITY NETWORK

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

MISCELLANEOUS STATION ANALYSES

Date	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recover -able, µg/L (01045)	Lead, water, fltrd, µg/L (01049)	Lead, water, unfltrd recover -able, µg/L (01051)	Mangan- ese, water, fltrd, µg/L (01056)	Mangan- ese, water, unfltrd recover -able, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recover -able, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recover -able, µg/L (01092)	Phen- olic com- pounds, water, unfltrd µg/L (32730)
01429301 Dyberry Creek at Tanners Falls Near Dyberry, PA (LAT 41 39 11N LONG 075 16 55W)											
OCT 2004											
07...	40	100	<1.0	<1.0	20	30	<4.0	<4.0	<5.0	<5.0	<5
NOV											
22...	40	80	<1.0	<1.0	20	20	<4.0	<4.0	<5.0	<5.0	<5
DEC											
13...	40	150	<1.0	<1.0	10	20	<4.0	<4.0	<5.0	<5.0	<5
JAN 2005											
11...	40	100	<1.0	<1.0	20	20	<4.0	<4.0	<5.0	<5.0	<5
01431554 Kintz Creek at Roemersville near Promised Land, PA (LAT 41 16 49N LONG 075 14 31W)											
FEB 2005											
07...	70	180	<1.0	<1.0	50	60	<4.0	<4.0	6.9	6.2	<5
MAR											
03...	60	110	<1.0	<1.0	30	30	<4.0	<4.0	5.9	<5.0	<5
APR											
18...	40	140	<1.0	<1.0	20	40	<4.0	<4.0	5.5	<5.0	<5
MAY											
09...	40	80	<1.0	<1.0	10	20	<4.0	<4.0	<5.0	<5.0	<5
JUN											
28...	30	200	<1.0	<1.0	20	60	<4.0	<4.0	<5.0	<5.0	<5
JUL											
26...	160	270	<1.0	<1.0	10	30	<4.0	<4.0	6.1	170	<5
AUG											
25...	60	160	<1.0	<1.0	10	20	<4.0	<4.0	<5.0	<5.0	<5
SEP											
20...	--	--	<1.0	<1.0	20	20	<4.0	<4.0	<5.0	<5.0	<5
01431600 Wallenpaupack Creek at East Sterling, PA (LAT 41 20 10N LONG 075 20 25W)											
NOV 2004											
16...	50	90	<1.0	<1.0	20	30	<4.0	<4.0	<5.0	<5.0	<5
JAN 2005											
06...	60	110	<1.0	<1.0	20	20	<4.0	<4.0	5.9	<5.0	--
MAR											
03...	50	80	<1.0	<1.0	30	30	<4.0	<4.0	<5.0	<5.0	--
MAY											
09...	40	60	<1.0	<1.0	20	20	<4.0	<4.0	<5.0	<5.0	--
JUL											
26...	50	90	<1.0	<1.0	20	30	<4.0	<4.0	<5.0	8.8	--
SEP											
20...	20	60	<1.0	<1.0	30	30	<4.0	<4.0	<5.0	<5.0	--
01432088 Blooming Grove Creek at Rt 6 near Rowland, PA (LAT 41 25 16N LONG 075 06 13W)											
MAR 2005											
17...	70	140	<1.0	<1.0	30	30	<4.0	<4.0	<5.0	5.7	<5

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

MISCELLANEOUS STATION ANALYSES

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Pressure, osmotic water, unfltrd mosm/kg (82550)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conductance, wat unf lab, µS/cm 25 degC (90095)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)
01432097 Blooming Grove Creek at Glen Eyre near Rowland, PA (LAT 41 27 39N LONG 075 05 16W)													
APR 2005													
19...	1130	1028	9813	51	2.0	11.5	6.7	--	62	58	10.2	12	--
MAY													
11...	1400	1028	9813	33	1.0	9.7	7.0	7.1	63	64	16.0	12	--
JUN 2005													
28...	1100	1028	9813	9.7	<1.0	8.8	6.3	7.4	66	65	21.0	14	--
JUL													
27...	1440	1028	9813	12	<1.0	8.6	6.7	7.1	76	77	24.1	15	--
AUG													
29...	1140	1028	9813	5.5	2.0	9.6	6.9	7.2	78	78	18.7	17	--
SEP													
21...	1300	1028	9813	2.2	4.0	10.2	7.0	--	78	76	16.8	16	--
01432119 Lackawaxen River at Mouth at Lackawaxen, PA (LAT 41 29 12N LONG 074 59 31W)													
NOV 2004													
23...	1000	1028	9813	440	--	11.4	7.6	7.6	78	67	6.9	22	--
JAN 2005													
13...	1600	1028	9813	2200	--	14.5	6.7	6.8	74	73	2.8	20	--
MAR													
02...	1430	1028	9813	1370	--	16.3	7.6	7.4	77	75	2.0	19	--
MAY													
11...	1000	1028	9813	370	--	10.4	8.6	7.9	82	84	16.7	23	--
JUL													
27...	1710	1028	9813	840	--	8.2	6.8	--	--	76	22.4	22	6.0
SEP													
15...	1540	1028	9813	110	--	8.2	8.5	6.7	81	88	24.1	21	--
01438760 Adams Creek near Dingmans Ferry, PA (LAT 41 14 22N LONG 074 52 02W)													
OCT 2004													
07...	0900	1028	9813	13	<1.0	11.8	6.7	6.9	65	64	9.8	14	--
NOV													
15...	1300	1028	9813	5.1	1.0	14.2	6.5	7.1	74	69	3.7	16	--
DEC													
14...	0900	1028	9813	28	1.0	13.8	6.9	7.3	65	58	3.2	14	--
JAN 2005													
05...	1200	1028	9813	26	1.0	12.3	6.6	6.9	67	65	3.4	17	--
01440650 Brodhead Creek nr Analomink, PA (LAT 41 02 10N LONG 075 12 34W)													
NOV 2004													
03...	1520	1028	9813	125	--	11.1	8.2	6.9	92	88	10.8	22	6.3
JAN 2005													
13...	1330	1028	9813	540	--	13.3	6.4	6.7	102	98	4.0	20	5.5
MAR													
10...	1320	1028	9813	180	--	15.6	7.3	7.3	114	112	.3	24	6.6
MAY													
19...	1330	1028	9813	130	--	10.9	7.6	7.4	100	97	14.3	21	5.8
JUL													
07...	1500	1028	9813	47	--	9.5	8.2	7.4	108	111	20.7	27	7.5
SEP													
12...	1400	1028	9813	24	--	11.3	9.5	9.0	128	133	21.9	28	7.8

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

MISCELLANEOUS STATION ANALYSES

Date	Calcium water unfltrd recover -able, mg/L (00916)	Magnes- ium, water, fltrd, mg/L (00925)	Magnes- ium, water, unfltrd recover -able, mg/L (00927)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, unfltrd mg/L (00951)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 105degC wat flt mg/L (00515)	Residue total at 105 deg. C, sus- pended, mg/L (00530)	Ammonia water, unfltrd mg/L as N (00610)	Nitrate water unfltrd mg/L as N (00620)	Nitrite water, unfltrd mg/L as N (00615)	Ortho- phos- phate, water, unfltrd mg/L as P (70507)
01432097 Blooming Grove Creek at Glen Eyre near Rowland, PA (LAT 41 27 39N LONG 075 05 16W)													
APR 2005 19...	3.1	--	.97	--	11	<.2	6.8	60	<2	<.020	<.04	<.040	.01
MAY 11...	3.3	--	.96	5	10	.2	6.7	44	<2	<.020	<.04	<.040	<.01
JUN 2005 28...	3.8	--	1.2	9	10	<.2	6.2	96	<2	<.020	.08	<.040	.01
JUL 27...	4.2	--	1.2	8	13	<.2	5.6	50	<2	<.020	.04	<.040	.01
AUG 29...	4.5	--	1.4	8	13	<.2	6.5	24	<2	<.020	.05	<.040	.01
SEP 21...	4.2	--	1.3	--	12	<.2	6.9	72	<2	<.020	<.04	<.040	<.01
01432119 Lackawaxen River at Mouth at Lackawaxen, PA (LAT 41 29 12N LONG 074 59 31W)													
NOV 2004 23...	6.9	--	1.1	19	--	--	12	86	<2	<.020	.06	<.040	.01
JAN 2005 13...	6.5	--	.97	15	--	--	6.7	48	<2	.030	.15	<.040	<.01
MAR 02...	6.2	--	.93	14	--	--	6.9	62	<2	.040	.20	<.040	<.01
MAY 11...	7.3	--	1.1	18	--	--	6.8	50	<2	<.020	<.04	<.040	<.01
JUL 27...	6.3	1.4	1.4	--	--	--	5.9	52	<2	.030	.21	<.040	<.01
SEP 15...	6.6	--	.97	19	--	--	5.4	84	16	.020	.06	<.040	.02
01438760 Adams Creek near Dingmans Ferry, PA (LAT 41 14 22N LONG 074 52 02W)													
OCT 2004 07...	3.6	--	1.3	9	8.9	<.2	7.1	42	4	<.020	<.04	<.040	<.01
NOV 15...	4.0	--	1.5	12	11	<.2	7.1	60	<2	<.020	<.04	<.040	<.01
DEC 14...	3.3	--	1.3	9	8.8	<.2	7.7	--	<2	<.020	.04	<.040	<.01
JAN 2005 05...	4.1	--	1.6	8	10	<.2	7.8	36	2	<.020	.06	<.040	<.01
01440650 Brodhead Creek nr Analomink, PA (LAT 41 02 10N LONG 075 12 34W)													
NOV 2004 03...	6.1	1.6	1.6	14	--	--	6.7	56	<2	<.020	.08	<.040	<.01
JAN 2005 13...	5.7	1.4	1.4	11	--	--	7.7	--	<2	.020	.24	<.040	<.01
MAR 10...	6.7	1.7	1.7	12	--	--	7.4	--	<2	<.020	.26	<.040	<.01
MAY 19...	6.1	1.4	1.5	13	--	--	7.5	96	4	<.020	.08	<.040	<.01
JUL 07...	7.7	1.8	1.8	16	--	--	7.1	94	<2	.050	.17	<.040	.01
SEP 12...	8.0	1.8	1.9	16	--	--	7.2	--	8	.040	.10	.040	<.01

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

MISCELLANEOUS STATION ANALYSES

Date	Phos-phorus, water, unfltrd mg/L (00665)	Total nitro-gen, water, unfltrd mg/L (00600)	Organic carbon, water, unfltrd mg/L (00680)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Fecal coli-form, M-FC 0.45µMF col/ 100 mL (31616)	Alum-inum, water, fltrd, µg/L (01106)	Alum-inum, water, unfltrd recover -able, µg/L (01105)	Arsenic water, fltrd, µg/L (01000)	Barium, water, unfltrd recover -able, µg/L (01007)	Cadmium water, fltrd, µg/L (01025)	Copper, water, fltrd, µg/L (01040)	Copper, water, unfltrd recover -able, µg/L (01042)	Cyanide amen-able to chlor-ination wat unf mg/L (00722)
01432097 Blooming Grove Creek at Glen Eyre near Rowland, PA (LAT 41 27 39N LONG 075 05 16W)													
APR 2005 19...	.02	<.06	--	--	<20	20	40	<4.0	20	<.20	<4	<4	--
MAY 11...	.01	.67	--	.2	<20	20	40	<4.0	20	<.20	<4	<4	--
JUN 2005 28...	.02	.17	--	.9	70	<10	20	<4.0	20	<.20	<4	<4	--
JUL 27...	.02	.09	--	.4	<20	30	40	<4.0	20	<.20	<4	<4	--
AUG 29...	.02	.08	--	1.4	<10	20	30	<4.0	20	<.20	<4	<4	--
SEP 21...	.01	<.06	--	.7	<20	17	20	<4.0	20	<.20	<4	<4	--
01432119 Lackawaxen River at Mouth at Lackawaxen, PA (LAT 41 29 12N LONG 074 59 31W)													
NOV 2004 23...	.01	.52	3.5	--	--	--	<200	--	--	--	--	<10	--
JAN 2005 13...	.02	.31	3.3	--	--	--	<200	--	--	--	--	<10	--
MAR 02...	<.01	.24	3.2	--	--	--	<200	--	--	--	--	<10	--
MAY 11...	.01	.72	--	--	--	--	<200	--	--	--	--	<10	--
JUL 27...	.01	.25	--	.7	--	20	30	--	--	--	<4	<4	--
SEP 15...	.03	.18	--	--	--	--	<200	--	--	--	--	<10	--
01438760 Adams Creek near Dingmans Ferry, PA (LAT 41 14 22N LONG 074 52 02W)													
OCT 2004 07...	.01	.11	--	<.2	<10	10	30	<4.0	6	<.20	<4	<4	--
NOV 15...	<.01	.28	--	.6	10	<10	10	<4.0	6	<.20	<4	<4	--
DEC 14...	<.01	.22	--	.7	20	20	40	<4.0	6	<.20	<4	<4	--
JAN 2005 05...	<.01	.19	--	.5	<20	20	80	<4.0	7	<.20	<4	<4	--
01440650 Brodhead Creek nr Analomink, PA (LAT 41 02 10N LONG 075 12 34W)													
NOV 2004 03...	.01	.13	--	1.2	--	<10	20	--	--	--	<4	<4	--
JAN 2005 13...	.01	.22	--	1.2	--	10	30	--	--	--	<4	<4	--
MAR 10...	<.01	.24	--	1.3	--	<10	20	--	--	--	<4	<4	--
MAY 19...	<.01	.13	--	.5	--	<10	20	--	--	--	<4	<4	--
JUL 07...	.02	.29	--	1.0	--	<10	<10	--	--	--	<4	<4	--
SEP 12...	<.01	.16	--	.6	--	20	20	--	--	--	<4	<4	--

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

MISCELLANEOUS STATION ANALYSES

Date	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recover -able, µg/L (01045)	Lead, water, fltrd, µg/L (01049)	Lead, water, unfltrd recover -able, µg/L (01051)	Mangan- ese, water, fltrd, µg/L (01056)	Mangan- ese, water, unfltrd recover -able, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recover -able, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recover -able, µg/L (01092)	Phen- olic com- pounds, water, unfltrd µg/L (32730)
01432097 Blooming Grove Creek at Glen Eyre near Rowland, PA (LAT 41 27 39N LONG 075 05 16W)											
APR 2005											
19...	40	60	<1.0	<1.0	<2	7	<4.0	<4.0	<5.0	<5.0	<5
MAY											
11...	30	50	<1.0	<1.0	3	6	<4.0	<4.0	<5.0	<5.0	<5
JUN 2005											
28...	<20	70	<1.0	<1.0	7	20	<4.0	<4.0	<5.0	<5.0	<5
JUL											
27...	30	70	<1.0	<1.0	5	10	<4.0	<4.0	<5.0	<5.0	<5
AUG											
29...	<20	20	<1.0	<1.0	5	10	<4.0	<4.0	<5.0	<5.0	<5
SEP											
21...	<20	<20	<1.0	<1.0	8	10	<4.0	<4.0	<5.0	<5.0	<5
01432119 Lackawaxen River at Mouth at Lackawaxen, PA (LAT 41 29 12N LONG 074 59 31W)											
NOV 2004											
23...	--	80	--	<1.0	--	20	--	<50	--	<10	--
JAN 2005											
13...	--	130	--	<1.0	--	30	--	<50	--	<10	--
MAR											
02...	--	120	--	<1.0	--	30	--	<50	--	<10	--
MAY											
11...	--	70	--	<1.0	--	30	--	<50	--	<10	--
JUL											
27...	<20	50	<1.0	<1.0	9	20	<4.0	<4.0	<5.0	<5.0	--
SEP											
15...	--	560	--	<1.0	--	30	--	<50	--	<10	--
01438760 Adams Creek near Dingmans Ferry, PA (LAT 41 14 22N LONG 074 52 02W)											
OCT 2004											
07...	30	70	<1.0	<1.0	<2	2	<4.0	<4.0	<5.0	<5.0	<5
NOV											
15...	<20	20	<1.0	<1.0	<2	<2	<4.0	<4.0	<5.0	<5.0	<5
DEC											
14...	20	40	<1.0	<1.0	<2	3	<4.0	<4.0	<5.0	<5.0	<5
JAN 2005											
05...	40	100	<1.0	<1.0	<2	4	<4.0	<4.0	5.9	7.1	<5
01440650 Brodhead Creek nr Analomink, PA (LAT 41 02 10N LONG 075 12 34W)											
NOV 2004											
03...	<20	30	<1.0	<1.0	3	6	<4.0	<4.0	7.3	8.5	--
JAN 2005											
13...	20	50	<1.0	<1.0	10	10	<4.0	<4.0	<5.0	5.5	--
MAR											
10...	<20	40	<1.0	<1.0	20	20	<4.0	<4.0	<5.0	<5.0	--
MAY											
19...	<20	20	<1.0	<1.0	4	7	<4.0	<4.0	<5.0	<5.0	--
JUL											
07...	<20	20	<1.0	<1.0	3	6	<4.0	<4.0	<5.0	<5.0	--
SEP											
12...	<20	<20	<1.0	<1.0	<2	5	<4.0	<4.0	<5.0	<5.0	--

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

MISCELLANEOUS STATION ANALYSES

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Pressure, osmotic water, unfltrd mosm/kg (82550)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conductance, wat unf lab, µS/cm 25 degC (90095)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)
01444800 Delaware River near Richmond, PA (LAT 40 49 44N LONG 075 05 06W)													
NOV 2004 03...	1120	1028	9813	--	--	11.4	6.9	7.2	116	110	12.8	35	--
JAN 2005 05...	1430	1028	9813	--	--	11.8	6.8	7.3	91	86	4.5	28	--
MAR 31...	0830	1028	9813	--	--	13.1	7.0	6.8	74	72	3.8	18	--
MAY 26...	0900	1028	9813	--	--	9.8	7.7	7.7	146	137	15.0	46	--
JUL 20...	0830	1028	9813	--	--	11.0	7.5	7.2	125	133	29.3	35	--
SEP 22...	0930	1028	9813	--	--	8.1	7.8	7.5	124	126	24.0	34	--
01447300 Choke Creek near Thornhurst, PA (LAT 41 09 40N LONG 075 36 10W)													
OCT 2004 06...	1320	1028	9813	13	1.0	11.1	4.7	5.3	20	18	9.5	4	.89
NOV 17...	1000	1028	9813	7.1	<1.0	13.1	5.3	5.6	22	20	3.0	5	1.1
DEC 14...	1540	1028	9813	27	<1.0	13.4	4.3	5.6	24	24	2.6	5	.87
JAN 2005 04...	1300	1028	9813	43	<1.0	12.2	4.0	5.1	26	26	3.7	5	1.0
01447650 Tunkhannock Creek ab Long Pond near Long Pond, PA (LAT 41 02 04N LONG 075 27 35W)													
FEB 2005 07...	1200	1028	9813	25	1.0	12.3	5.4	6.3	46	41	3.0	7	--
MAR 16...	1430	1028	9813	17	3.0	13.0	5.7	6.1	50	47	3.8	8	1.9
APR 18...	1200	1028	9813	37	1.0	11.1	5.2	6.0	--	39	10.8	6	1.6
MAY 10...	1330	1028	9813	22	1.0	10.1	5.6	6.0	41	41	15.2	7	1.6
JUN 22...	1600	1028	9813	8.9	<1.0	14.7	5.8	6.2	39	41	19.1	8	2.0
JUL 25...	1420	1028	9813	5.2	2.0	9.6	5.0	6.3	33	32	21.3	8	1.9
AUG 25...	1000	1028	9813	2.7	2.0	10.9	5.2	6.4	33	33	13.3	8	1.8
SEP 20...	1030	1028	9813	2.1	3.0	8.4	4.7	6.1	32	33	14.3	7	1.7
01449375 Wild Cr ab Penn Forest Reservoir nr Kresgeville PA (LAT 40 56 24N LONG 075 35 04W)													
OCT 2004 06...	1050	1028	9813	12	1.0	11.6	6.0	6.7	62	54	8.5	8	1.8
NOV 04...	1030	1028	9813	6.4	<1.0	12.8	6.7	6.4	61	59	7.1	8	1.9
DEC 14...	1300	1028	9813	24	2.0	12.8	6.2	--	--	56	5.1	7	1.7
JAN 2005 04...	1100	1028	9813	17	2.0	12.6	5.8	6.6	53	50	6.5	7	1.9

TUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

MISCELLANEOUS STATION ANALYSES

Date	Calcium water unfltrd recover -able, mg/L (00916)	Magnes- ium, water, fltrd, mg/L (00925)	Magnes- ium, water, unfltrd recover -able, mg/L (00927)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, unfltrd mg/L (00951)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 105degC wat flt mg/L (00515)	Residue total at 105 deg. C, sus- pended, mg/L (00530)	Ammonia water, unfltrd mg/L as N (00610)	Nitrate water unfltrd mg/L as N (00620)	Nitrite water, unfltrd mg/L as N (00615)	Ortho- phos- phate, water, unfltrd mg/L as P (70507)
01444800 Delaware River near Richmond, PA (LAT 40 49 44N LONG 075 05 06W)													
NOV 2004 03...	9.8	--	2.5	28	--	--	8.2	84	6	<.020	.12	<.040	<.01
JAN 2005 05...	8.1	--	1.9	18	--	--	7.4	54	12	<.020	.29	<.040	.01
MAR 31...	5.2	--	1.3	9	--	--	6.0	58	28	.040	.35	<.040	.03
MAY 26...	14	--	2.9	35	--	--	11	110	<2	<.020	.34	<.040	<.01
JUL 20...	10	--	2.2	28	--	--	9.1	92	<2	.030	.07	<.040	.02
SEP 22...	10	--	2.3	27	--	--	8.6	94	8	<.020	.09	<.040	.03
01447300 Choke Creek near Thornhurst, PA (LAT 41 09 40N LONG 075 36 10W)													
OCT 2004 06...	.9	.52	.51	3	1.3	<.2	3.5	--	2	<.020	<.04	<.040	<.01
NOV 17...	1.1	.62	.63	2	1.9	<.2	3.8	32	28	<.020	<.04	<.040	<.01
DEC 14...	1.0	.50	.55	3	1.6	<.2	4.7	--	4	.030	<.04	<.040	<.01
JAN 2005 04...	1.0	.58	.57	3	2.2	<.2	4.7	18	<2	<.020	<.04	<.040	<.01
01447650 Tunkhannock Creek ab Long Pond near Long Pond, PA (LAT 41 02 04N LONG 075 27 35W)													
FEB 2005 07...	1.9	--	.63	3	11	<.2	1.4	24	8	.030	.21	<.040	<.01
MAR 16...	2.0	.64	.68	2	11	<.2	1.3	50	<2	<.020	.21	<.040	<.01
APR 18...	1.5	.54	.55	--	8.4	<.2	1.2	78	2	.020	.12	<.040	<.01
MAY 10...	1.7	.61	.66	3	8.8	<.2	<1.0	44	<2	<.020	.13	<.040	<.01
JUN 22...	2.0	.73	.71	3	7.6	<.2	<1.0	84	<2	.040	.15	<.040	.01
JUL 25...	1.9	.68	.69	4	5.8	<.2	1.2	110	<2	<.020	.12	<.040	.01
AUG 25...	1.9	.68	.73	4	5.3	<.2	1.6	380	<2	<.020	.13	<.040	<.01
SEP 20...	1.9	.64	.68	5	4.2	<.2	1.3	170	<2	.020	.16	<.040	.01
01449375 Wild Cr ab Penn Forest Reservoir nr Kresgeville PA (LAT 40 56 24N LONG 075 35 04W)													
OCT 2004 06...	1.9	.72	.74	6	15	<.2	1.6	48	4	<.020	<.04	<.040	<.01
NOV 04...	1.8	.78	.75	6	14	<.2	1.4	--	<2	<.020	<.04	<.040	<.01
DEC 14...	1.7	.69	.68	--	14	<.2	2.2	46	10	<.020	<.04	<.040	<.01
JAN 2005 04...	1.8	.75	.71	6	12	<.2	2.3	38	<2	<.020	.05	<.040	<.01

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

MISCELLANEOUS STATION ANALYSES

01444800 Delaware River near Richmond, PA (LAT 40 49 44N LONG 075 05 06W)

Date	Phos- phorus, water, unfltrd mg/L (00665)	Total nitro- gen, water, unfltrd mg/L (00600)	Organic carbon, water, unfltrd mg/L (00680)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Fecal coli- form, M-FC 0.45µMF col/ 100 mL (31616)	Alum- inum, water, fltrd, µg/L (01106)	Alum- inum, water, unfltrd recover -able, µg/L (01105)	Arsenic water, fltrd, µg/L (01000)	Barium, water, unfltrd recover -able, µg/L (01007)	Cadmium water, fltrd, µg/L (01025)	Copper, water, fltrd, µg/L (01040)	Copper, water, unfltrd recover -able, µg/L (01042)	Cyanide amen- able to chlor- ination wat unf mg/L (00722)
NOV 2004 03...	.01	.31	2.8	--	--	--	<200	--	--	--	--	<10	--
JAN 2005 05...	.02	.55	2.4	--	--	--	<200	--	--	--	--	<10	--
MAR 31...	.04	.63	--	--	--	--	700	--	--	--	--	<10	--
MAY 26...	.01	.55	--	--	--	--	<200	--	--	--	--	<10	--
JUL 20...	.04	.50	--	--	--	--	200	--	--	--	--	<10	--
SEP 22...	.04	.26	--	--	--	--	<200	--	--	--	--	<10	--

01447300 Choke Creek near Thornhurst, PA (LAT 41 09 40N LONG 075 36 10W)

Date	(00665)	(00600)	(00680)	(00310)	(31616)	(01106)	(01105)	(01000)	(01007)	(01025)	(01040)	(01042)	(00722)
OCT 2004 06...	<.01	.10	--	<.2	<10	110	100	<4.0	20	<.20	<4	<4	--
NOV 17...	<.01	.13	--	.8	<10	70	80	<4.0	10	<.20	<4	<4	--
DEC 14...	<.01	.16	--	.8	<10	100	100	<4.0	20	<.20	<4	<4	--
JAN 2005 04...	.01	.17	--	.7	<20	150	200	<4.0	20	<.20	<4	<4	--

01447650 Tunkhannock Creek ab Long Pond near Long Pond, PA (LAT 41 02 04N LONG 075 27 35W)

Date	(00665)	(00600)	(00680)	(00310)	(31616)	(01106)	(01105)	(01000)	(01007)	(01025)	(01040)	(01042)	(00722)
FEB 2005 07...	<.01	.47	--	.8	<20	60	80	<4.0	10	<.20	<4	<4	--
MAR 16...	<.01	.36	--	.4	<20	60	80	<4.0	10	<.20	<4	<4	--
APR 18...	.01	.26	4.4	--	20	90	100	<4.0	10	<.20	<4	<4	--
MAY 10...	.02	.54	4.6	.6	20	80	100	<4.0	10	<.20	<4	<4	--
JUN 22...	.01	.38	5.4	.7	40	70	100	<4.0	10	<.20	<4	<4	--
JUL 25...	.01	.35	7.4	1.0	400	110	100	<4.0	10	<.20	<4	<4	--
AUG 25...	.01	.37	4.8	.3	--	60	90	<4.0	10	<.20	<4	<4	--
SEP 20...	.01	.40	2.8	.4	20	30	50	<4.0	9	<.20	<4	<4	--

01449375 Wild Cr ab Penn Forest Reservoir nr Kresgeville PA (LAT 40 56 24N LONG 075 35 04W)

Date	(00665)	(00600)	(00680)	(00310)	(31616)	(01106)	(01105)	(01000)	(01007)	(01025)	(01040)	(01042)	(00722)
OCT 2004 06...	<.01	.13	--	<.2	20	20	40	<4.0	10	<.20	<4	<4	--
NOV 04...	<.01	.08	--	.6	10	20	30	<4.0	10	<.20	<4	<4	--
DEC 14...	<.01	.11	--	.7	<20	30	40	<4.0	10	<.20	<4	<4	--
JAN 2005 04...	<.01	.72	--	.2	40	40	70	<4.0	10	<.20	<4	<4	--

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
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WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

MISCELLANEOUS STATION ANALYSES

01444800 Delaware River near Richmond, PA (LAT 40 49 44N LONG 075 05 06W)

Date	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recover -able, µg/L (01045)	Lead, water, fltrd, µg/L (01049)	Lead, water, unfltrd recover -able, µg/L (01051)	Mangan- ese, water, fltrd, µg/L (01056)	Mangan- ese, water, unfltrd recover -able, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recover -able, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recover -able, µg/L (01092)	Phen- olic com- pounds, water, unfltrd µg/L (32730)
NOV 2004 03...	--	50	--	<1.0	--	10	--	<50	--	<10	--
JAN 2005 05...	--	330	--	<1.0	--	40	--	<50	--	<10	--
MAR 31...	--	980	--	1.3	--	90	--	<50	--	<10	--
MAY 26...	--	60	--	4.0	--	20	--	<50	--	<10	--
JUL 20...	--	360	--	<1.0	--	100	--	<50	--	10	--
SEP 22...	--	40	--	<1.0	--	30	--	<50	--	<10	--

01447300 Choke Creek near Thornhurst, PA (LAT 41 09 40N LONG 075 36 10W)

Date	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recover -able, µg/L (01045)	Lead, water, fltrd, µg/L (01049)	Lead, water, unfltrd recover -able, µg/L (01051)	Mangan- ese, water, fltrd, µg/L (01056)	Mangan- ese, water, unfltrd recover -able, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recover -able, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recover -able, µg/L (01092)	Phen- olic com- pounds, water, unfltrd µg/L (32730)
OCT 2004 06...	80	100	<1.0	<1.0	70	70	<4.0	<4.0	9.8	11	<5
NOV 17...	70	70	<1.0	<1.0	30	30	<4.0	<4.0	--	--	50
DEC 14...	40	60	<1.0	<1.0	60	70	<4.0	<4.0	13	15	<5
JAN 2005 04...	90	120	<1.0	<1.0	80	90	<4.0	<4.0	17	16	<5

01447650 Tunkhannock Creek ab Long Pond near Long Pond, PA (LAT 41 02 04N LONG 075 27 35W)

Date	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recover -able, µg/L (01045)	Lead, water, fltrd, µg/L (01049)	Lead, water, unfltrd recover -able, µg/L (01051)	Mangan- ese, water, fltrd, µg/L (01056)	Mangan- ese, water, unfltrd recover -able, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recover -able, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recover -able, µg/L (01092)	Phen- olic com- pounds, water, unfltrd µg/L (32730)
FEB 2005 07...	100	120	<1.0	<1.0	30	30	<4.0	<4.0	15	14	<5
MAR 16...	70	100	<1.0	<1.0	20	20	<4.0	<4.0	13	13	<5
APR 18...	140	160	<1.0	<1.0	20	30	<4.0	<4.0	16	15	<5
MAY 10...	160	160	<1.0	<1.0	20	20	<4.0	<4.0	13	13	<5
JUN 22...	360	370	<1.0	<1.0	10	20	<4.0	<4.0	9.3	11	<5
JUL 25...	450	570	<1.0	1.0	20	20	<4.0	<4.0	9.8	11	<5
AUG 25...	150	260	<1.0	<1.0	9	10	<4.0	<4.0	7.7	8.4	<5
SEP 20...	90	210	<1.0	<1.0	7	8	<4.0	<4.0	5.4	6.1	<5

01449375 Wild Cr ab Penn Forest Reservoir nr Kresgeville PA (LAT 40 56 24N LONG 075 35 04W)

Date	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recover -able, µg/L (01045)	Lead, water, fltrd, µg/L (01049)	Lead, water, unfltrd recover -able, µg/L (01051)	Mangan- ese, water, fltrd, µg/L (01056)	Mangan- ese, water, unfltrd recover -able, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recover -able, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recover -able, µg/L (01092)	Phen- olic com- pounds, water, unfltrd µg/L (32730)
OCT 2004 06...	30	50	<1.0	<1.0	4	7	<4.0	<4.0	14	15	<5
NOV 04...	20	50	<1.0	<1.0	3	5	<4.0	<4.0	15	14	<5
DEC 14...	<20	30	<1.0	<1.0	7	9	<4.0	<4.0	19	18	<5
JAN 2005 04...	30	40	<1.0	<1.0	7	10	<4.0	<4.0	20	21	<5

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
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WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

MISCELLANEOUS STATION ANALYSES

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Pressure, osmotic water, unfltrd mosm/kg (82550)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conductance, wat unf lab, µS/cm 25 degC (90095)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)
01451070 Lehigh River at Treichlers, PA (LAT 40 44 03N LONG 075 32 28W)													
NOV 2004 04...	1300	1028	9813	--	--	13.3	7.2	6.8	107	102	8.6	32	--
JAN 2005 05...	1700	1028	9813	--	--	11.8	7.1	7.0	84	80	5.0	24	--
MAR 31...	1010	1028	9813	--	--	13.0	7.2	6.6	90	90	4.6	19	--
MAY 26...	1200	1028	9813	--	--	11.3	7.8	7.5	128	124	12.8	39	--
JUL 20...	1120	1028	9813	--	--	11.5	7.5	7.0	169	154	25.3	50	--
SEP 28...	0940	1028	9813	--	--	9.9	7.3	7.4	132	137	16.8	39	--
01452040 Jordan Creek at mouth at Allentown, PA (LAT 40 36 06N LONG 075 27 43W)													
NOV 2004 04...	0850	1028	9813	65	--	11.1	7.4	8.0	429	422	10.2	140	--
JAN 2005 04...	0900	1028	9813	126	--	12.2	7.5	7.9	373	375	7.3	120	--
MAR 31...	1220	1028	9813	468	--	11.8	7.4	7.1	228	224	8.2	83	--
MAY 26...	1300	1028	9813	37	--	9.7	7.9	8.1	589	558	14.1	200	--
JUL 20...	1230	1028	9813	22	--	11.6	7.9	8.2	550	578	23.9	200	--
SEP 28...	1100	1028	9813	8.0	--	11.2	7.7	8.0	741	737	15.8	260	--
01457790 Cooks Creek at Durham Furnace, PA (LAT 40 34 56N LONG 075 12 20W)													
OCT 2004 14...	1000	1028	9813	36	5.0	10.7	7.6	8.0	282	274	11.5	130	--
NOV 04...	1100	1028	9813	28	5.0	12.7	8.1	8.3	285	279	8.6	130	--
DEC 15...	0930	1028	9813	57	4.0	13.8	7.8	8.1	239	203	3.2	100	--
JAN 2005 04...	1200	1028	9813	46	4.0	13.2	8.2	8.2	254	253	8.2	120	--
01458900 Tinicum Creek near Ottsville, PA (LAT 40 28 14N LONG 075 08 13W)													
OCT 2004 14...	1230	1028	9813	4.3	<1.0	12.2	7.9	7.8	311	300	11.8	130	--
NOV 04...	1230	1028	9813	4.8	4.0	13.8	8.3	8.2	262	255	8.0	110	--
DEC 15...	1200	1028	9813	16	4.0	15.3	7.5	7.9	152	129	1.8	63	--
JAN 2005 04...	1350	1028	9813	22	4.0	14.0	8.2	8.0	218	216	6.5	88	--

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MISCELLANEOUS STATION ANALYSES

01451070 Lehigh River at Treichlers, PA (LAT 40 44 03N LONG 075 32 28W)

Date	Calcium water unfltrd recover -able, mg/L (00916)	Magnesium, water, fltrd, mg/L (00925)	Magnesium, water, unfltrd recover -able, mg/L (00927)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, unfltrd mg/L (00951)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 105degC wat flt mg/L (00515)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia water, unfltrd mg/L as N (00610)	Nitrate water unfltrd mg/L as N (00620)	Nitrite water, unfltrd mg/L as N (00615)	Orthophosphate, water, unfltrd mg/L as P (70507)
NOV 2004 04...	8.0	--	2.8	14	--	--	15	70	<2	<.020	.48	<.040	<.01
JAN 2005 05...	6.1	--	2.0	11	--	--	11	46	<2	.030	.47	<.040	<.01
MAR 31...	5.0	--	1.6	11	--	--	8.9	62	4	.060	.55	<.040	.01
MAY 26...	9.9	--	3.5	15	--	--	21	100	<2	.040	.42	<.040	<.01
JUL 20...	14	--	3.8	25	--	--	24	140	<2	.120	.49	.040	.05
SEP 28...	9.5	--	3.7	20	--	--	18	210	6	.020	.49	<.040	.02

01452040 Jordan Creek at mouth at Allentown, PA (LAT 40 36 06N LONG 075 27 43W)

Date	Calcium water unfltrd recover -able, mg/L (00916)	Magnesium, water, fltrd, mg/L (00925)	Magnesium, water, unfltrd recover -able, mg/L (00927)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, unfltrd mg/L (00951)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 105degC wat flt mg/L (00515)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia water, unfltrd mg/L as N (00610)	Nitrate water unfltrd mg/L as N (00620)	Nitrite water, unfltrd mg/L as N (00615)	Orthophosphate, water, unfltrd mg/L as P (70507)
NOV 2004 04...	37	--	13	100	--	--	56	280	<2	<.020	3.7	<.040	.03
JAN 2005 04...	33	--	10	80	--	--	50	210	<2	.020	4.6	<.040	.03
MAR 31...	22	--	6.5	38	--	--	22	160	18	.040	4.9	<.040	.03
MAY 26...	51	--	18	150	--	--	89	400	<2	.080	3.1	<.040	.04
JUL 20...	50	--	18	150	--	--	75	400	4	.030	2.0	<.040	.03
SEP 28...	61	--	27	210	--	--	99	460	<2	.030	2.6	<.040	.02

01457790 Cooks Creek at Durham Furnace, PA (LAT 40 34 56N LONG 075 12 20W)

Date	Calcium water unfltrd recover -able, mg/L (00916)	Magnesium, water, fltrd, mg/L (00925)	Magnesium, water, unfltrd recover -able, mg/L (00927)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, unfltrd mg/L (00951)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 105degC wat flt mg/L (00515)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia water, unfltrd mg/L as N (00610)	Nitrate water unfltrd mg/L as N (00620)	Nitrite water, unfltrd mg/L as N (00615)	Orthophosphate, water, unfltrd mg/L as P (70507)
OCT 2004 14...	29	--	13	110	9.2	<.2	15	170	<2	<.020	2.0	<.040	.01
NOV 04...	28	--	14	110	11	<.2	15	180	<2	<.020	1.8	<.040	<.01
DEC 15...	23	--	11	83	9.6	<.2	16	160	<2	<.020	2.3	<.040	.02
JAN 2005 04...	27	--	12	90	11	<.2	17	160	2	<.020	2.1	<.040	.01

01458900 Tinicum Creek near Ottsville, PA (LAT 40 28 14N LONG 075 08 13W)

Date	Calcium water unfltrd recover -able, mg/L (00916)	Magnesium, water, fltrd, mg/L (00925)	Magnesium, water, unfltrd recover -able, mg/L (00927)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, unfltrd mg/L (00951)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 105degC wat flt mg/L (00515)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia water, unfltrd mg/L as N (00610)	Nitrate water unfltrd mg/L as N (00620)	Nitrite water, unfltrd mg/L as N (00615)	Orthophosphate, water, unfltrd mg/L as P (70507)
OCT 2004 14...	31	--	12	76	9.5	<.2	60	230	<2	<.020	.32	<.040	.02
NOV 04...	25	--	11	79	12	<.2	32	160	<2	<.020	.04	<.040	<.01
DEC 15...	14	--	7.0	44	6.5	<.2	19	120	<2	<.020	.29	<.040	.01
JAN 2005 04...	20	--	9.5	50	19	<.2	25	140	4	<.020	.32	<.040	<.01

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PENNSYLVANIA WATER-QUALITY NETWORK

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

MISCELLANEOUS STATION ANALYSES

Date	Phos-phorus, water, unfltrd mg/L (00665)	Total nitro-gen, water, unfltrd mg/L (00600)	Organic carbon, water, unfltrd mg/L (00680)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Fecal coli-form, M-FC 0.45µMF col/ 100 mL (31616)	Alum-inum, water, fltrd, µg/L (01106)	Alum-inum, water, unfltrd recover -able, µg/L (01105)	Arsenic water, fltrd, µg/L (01000)	Barium, water, unfltrd recover -able, µg/L (01007)	Cadmium water, fltrd, µg/L (01025)	Copper, water, fltrd, µg/L (01040)	Copper, water, unfltrd recover -able, µg/L (01042)	Cyanide amen-able to chlor-ination wat unf mg/L (00722)
01451070 Lehigh River at Treichlers, PA (LAT 40 44 03N LONG 075 32 28W)													
NOV 2004													
04...	.01	.61	2.3	--	--	--	<200	--	--	--	--	<10	--
JAN 2005													
05...	<.01	.70	2.3	--	--	--	200	--	--	--	--	<10	--
MAR													
31...	.02	.71	--	--	--	--	300	--	--	--	--	<10	--
MAY													
26...	.01	.60	--	--	--	--	<200	--	--	--	--	<10	--
JUL													
20...	.16	.82	--	--	--	--	<200	--	--	--	--	<10	--
SEP													
28...	.05	.93	--	--	--	--	<200	--	--	--	--	<10	--
01452040 Jordan Creek at mouth at Allentown, PA (LAT 40 36 06N LONG 075 27 43W)													
NOV 2004													
04...	.03	4.1	2.0	--	--	--	<200	--	--	--	--	<10	--
JAN 2005													
04...	.03	4.6	1.2	--	--	--	<200	--	--	--	--	<10	--
MAR													
31...	.04	4.9	--	--	--	--	600	--	--	--	--	<10	--
MAY													
26...	.05	3.4	--	--	--	--	<200	--	--	--	--	<10	--
JUL													
20...	.07	2.1	--	--	--	--	900	--	--	--	--	<10	--
SEP													
28...	.04	2.9	--	--	--	--	<200	--	--	--	--	<10	--
01457790 Cooks Creek at Durham Furnace, PA (LAT 40 34 56N LONG 075 12 20W)													
OCT 2004													
14...	.01	2.2	--	.2	200	<10	10	<4.0	30	<.20	<4	<4	--
NOV													
04...	.01	2.1	--	1.0	40	<10	<10	<4.0	30	<.20	<4	<4	--
DEC													
15...	.01	2.4	--	1.6	40	<10	30	<4.0	30	<.20	<4	<4	--
JAN 2005													
04...	.02	2.2	--	.4	40	<10	40	<4.0	30	<.20	<4	<4	--
01458900 Tinicum Creek near Ottsville, PA (LAT 40 28 14N LONG 075 08 13W)													
OCT 2004													
14...	.02	.55	--	1.4	230	<10	60	<4.0	30	<.20	<4	<4	--
NOV													
04...	.01	.24	--	1.3	60	<10	10	<4.0	20	<.20	<4	<4	--
DEC													
15...	.01	.48	--	.6	40	<10	100	<4.0	10	<.20	<4	<4	--
JAN 2005													
04...	.03	.68	--	.5	400	14	300	<4.0	20	<.20	<4	<4	--

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES PENNSYLVANIA WATER-QUALITY NETWORK

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

MISCELLANEOUS STATION ANALYSES

Date	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recover -able, µg/L (01045)	Lead, water, fltrd, µg/L (01049)	Lead, water, unfltrd recover -able, µg/L (01051)	Manganese, water, fltrd, µg/L (01056)	Manganese, water, unfltrd recover -able, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recover -able, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recover -able, µg/L (01092)	Phenolic compounds, water, unfltrd µg/L (32730)
01451070 Lehigh River at Treichlers, PA (LAT 40 44 03N LONG 075 32 28W)											
NOV 2004 04...	--	140	--	<1.0	--	50	--	<50	--	77	--
JAN 2005 05...	--	180	--	<1.0	--	50	--	<50	--	56	--
MAR 31...	--	370	--	1.1	--	90	--	<50	--	55	--
MAY 26...	--	80	--	<1.0	--	50	--	<50	--	77	--
JUL 20...	--	170	--	<1.0	--	70	--	<50	--	49	--
SEP 28...	--	60	--	<1.0	--	50	--	<50	--	55	--
01452040 Jordan Creek at mouth at Allentown, PA (LAT 40 36 06N LONG 075 27 43W)											
NOV 2004 04...	--	<20	--	<1.0	--	<10	--	<50	--	<10	--
JAN 2005 04...	--	100	--	<1.0	--	<10	--	<50	--	33	--
MAR 31...	--	810	--	1.2	--	30	--	<50	--	<10	--
MAY 26...	--	50	--	<1.0	--	20	--	<50	--	<10	--
JUL 20...	--	1540	--	18	--	70	--	<50	--	71	--
SEP 28...	--	60	--	<1.0	--	30	--	<50	--	<10	--
01457790 Cooks Creek at Durham Furnace, PA (LAT 40 34 56N LONG 075 12 20W)											
OCT 2004 14...	<20	20	<1.0	<1.0	2	3	<4.0	<4.0	<5.0	<5.0	<5
NOV 04...	<20	<20	<1.0	<1.0	<2	2	<4.0	<4.0	<5.0	<5.0	<5
DEC 15...	<20	60	<1.0	<1.0	3	4	<4.0	<4.0	<5.0	<5.0	<5
JAN 2005 04...	<20	60	<1.0	<1.0	<2	3	<4.0	<4.0	<5.0	<5.0	<5
01458900 Tinicum Creek near Ottsville, PA (LAT 40 28 14N LONG 075 08 13W)											
OCT 2004 14...	<20	50	<1.0	<1.0	4	5	<4.0	<4.0	<5.0	<5.0	<5
NOV 04...	<20	<20	<1.0	<1.0	3	3	<4.0	<4.0	<5.0	<5.0	<5
DEC 15...	70	220	<1.0	<1.0	<2	3	<4.0	<4.0	<5.0	<5.0	<5
JAN 2005 04...	120	470	<1.0	<1.0	<2	4	<4.0	<4.0	<5.0	<5.0	<5

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MISCELLANEOUS STATION ANALYSES

014721369 Rock Run above SR23 at Coventryville, PA (LAT 40 10 27N LONG 075 41 46W)

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Pressure, osmotic water, unfltrd mosm/kg (82550)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conductance, wat unf lab, µS/cm 25 degC (90095)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)
FEB 2005													
09...	1100	1028	9813	7.4	2.0	13.9	7.1	7.5	115	115	4.8	36	--
MAR 2005													
22...	1130	1028	9813	4.1	3.0	13.2	7.5	7.5	119	117	7.1	38	--
APR													
12...	1140	1028	9813	7.5	3.0	12.0	7.5	--	--	107	10.8	32	--
MAY													
18...	1200	1028	9813	2.6	2.0	11.2	7.5	7.8	111	108	13.3	37	--
JUN													
20...	1040	1028	9813	1.8	2.0	10.2	7.6	7.7	118	116	16.6	40	--
JUL													
13...	1010	1028	9813	1.0	<1.0	9.9	7.5	7.6	118	124	20.5	40	--
AUG													
16...	1040	1028	9813	.79	3.0	8.5	7.6	7.0	130	134	21.8	48	--
SEP													
26...	1350	1028	9813	.48	4.0	9.8	7.5	7.7	140	145	19.6	55	--

01472150 French Creek at Coventryville, PA (LAT 40 10 16N LONG 075 41 26W)

Date	Time	(00027)	(00028)	(00061)	(82550)	(00300)	(00400)	(00403)	(90095)	(00095)	(00010)	(00900)	(00915)
OCT 2004													
18...	1300	1028	9813	46	1.0	12.2	7.6	7.3	149	141	9.7	53	--
NOV													
01...	1100	1028	9813	58	3.0	10.9	7.6	7.4	148	148	12.0	55	--
DEC													
08...	1530	1028	9813	109	2.0	11.9	6.6	7.4	121	110	8.4	43	--
JAN 2005													
26...	1420	1028	9813	86	3.0	15.5	7.5	7.5	136	136	.3	45	--

014721986 West Branch Perkiomen Creek near Bally, PA (LAT 40 24 18N LONG 075 36 50W)

Date	Time	(00027)	(00028)	(00061)	(82550)	(00300)	(00400)	(00403)	(90095)	(00095)	(00010)	(00900)	(00915)
FEB 2005													
02...	0940	1028	9813	20	3.0	15.9	7.5	7.9	162	165	.7	64	--
MAR													
22...	0930	1028	9813	19	3.0	13.5	7.3	7.7	161	160	4.1	59	--
APR													
12...	1020	1028	9813	55	3.0	12.3	7.3	7.7	143	141	8.4	51	--
MAY													
18...	1020	1028	9813	20	4.0	11.5	7.7	8.0	168	164	12.3	64	--
JUN													
20...	0910	1028	9813	9.7	1.0	10.6	7.7	8.0	189	186	14.6	75	--
JUL													
13...	0820	1028	9813	9.8	5.0	13.1	7.7	7.9	188	195	18.9	78	--
AUG													
16...	0850	1028	9813	7.2	4.0	9.1	7.7	7.3	184	192	19.5	80	--
SEP													
26...	1050	1028	9813	5.1	5.0	10.3	7.7	7.9	203	206	16.2	96	--

01473030 Perkiomen Creek at Arcola near Collegeville, PA (LAT 40 09 11N LONG 075 27 21W)

Date	Time	(00027)	(00028)	(00061)	(82550)	(00300)	(00400)	(00403)	(90095)	(00095)	(00010)	(00900)	(00915)
NOV 2004													
08...	0840	1028	9813	373	--	10.8	7.3	7.6	275	273	9.2	94	--
JAN 2005													
06...	0820	1028	9813	2310	--	13.1	7.6	7.8	339	322	4.7	97	--
MAR													
07...	1000	1028	9813	471	--	16.0	8.2	8.1	491	486	3.1	130	--
MAY													
25...	1000	1028	9813	172	--	9.3	8.0	8.0	351	345	14.9	110	--
JUL 2005													
21...	0930	1028	9813	120	--	6.9	7.9	7.9	324	340	26.5	100	--
SEP													
21...	0920	1028	9813	97	--	8.5	7.8	7.6	369	367	21.6	120	--

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Date	Calcium water unfltrd recover -able, mg/L (00916)	Magnesium, water, fltrd, mg/L (00925)	Magnesium, water, unfltrd recover -able, mg/L (00927)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, unfltrd mg/L (00951)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 105degC wat flt mg/L (00515)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia water, unfltrd mg/L as N (00610)	Nitrate water unfltrd mg/L as N (00620)	Nitrite water, unfltrd mg/L as N (00615)	Orthophosphate, water, unfltrd mg/L as P (70507)
014721369 Rock Run above SR23 at Coventryville, PA (LAT 40 10 27N LONG 075 41 46W)													
FEB 2005 09...	7.9	--	3.9	24	11	<.2	10	90	<2	.030	1.2	<.040	<.01
MAR 2005 22...	8.3	--	4.1	25	11	<.2	11	100	<2	<.020	1.5	<.040	<.01
APR 12...	7.0	--	3.5	24	9.1	<.2	11	82	4	.060	1.4	<.040	<.01
MAY 18...	8.1	--	4.1	28	7.6	<.2	9.5	110	<2	<.020	1.3	<.040	.01
JUN 20...	9.1	--	4.2	31	7.5	<.2	9.1	120	6	.030	1.2	<.040	.03
JUL 13...	9.2	--	4.1	31	8.2	<.2	10	110	10	.030	1.0	<.040	.03
AUG 16...	11	--	5.0	40	7.8	<.2	11	--	<2	.020	.80	<.040	.03
SEP 26...	13	--	5.2	43	7.6	<.2	13	96	<2	.030	.45	<.040	.01
01472150 French Creek at Coventryville, PA (LAT 40 10 16N LONG 075 41 26W)													
OCT 2004 18...	13	--	4.9	38	11	<.2	10	110	8	<.020	1.4	<.040	.01
NOV 01...	14	--	4.9	39	11	<.2	9.8	110	<2	<.020	1.1	<.040	.01
DEC 08...	11	--	4.0	29	8.3	<.2	10	--	<2	.030	1.2	<.040	.03
JAN 2005 26...	11	--	3.9	29	11	<.2	11	70	24	.100	1.8	<.040	.01
014721986 West Branch Perkiomen Creek near Bally, PA (LAT 40 24 18N LONG 075 36 50W)													
FEB 2005 02...	15	--	6.7	46	10	<.2	12	140	6	<.020	2.0	<.040	<.01
MAR 22...	14	--	5.9	42	13	<.2	12	110	<2	<.020	1.7	<.040	<.01
APR 12...	12	--	5.2	37	11	<.2	13	120	150	.090	1.4	<.040	<.01
MAY 18...	15	--	6.5	51	10	<.2	12	150	8	<.020	1.4	<.040	<.01
JUN 20...	16	--	8.3	63	9.7	<.2	11	170	2	.050	1.5	<.040	.02
JUL 13...	17	--	8.5	65	10	<.2	11	150	4	.030	1.4	<.040	.02
AUG 16...	18	--	8.8	66	9.2	<.2	11	2300	<2	.030	1.1	<.040	.03
SEP 26...	21	--	11	78	8.5	<.2	11	100	<2	.040	1.2	<.040	.01
01473030 Perkiomen Creek at Arcola near Collegeville, PA (LAT 40 09 11N LONG 075 27 21W)													
NOV 2004 08...	24	--	8.2	69	--	--	20	210	6	<.020	1.4	<.040	.04
JAN 2005 06...	25	--	8.5	56	--	--	24	200	24	.060	1.8	<.040	.09
MAR 07...	33	--	11	60	--	--	26	270	<2	<.020	1.8	<.040	.02
MAY 25...	28	--	9.0	71	--	--	30	240	6	.030	1.6	<.040	.03
JUL 2005 21...	25	--	9.1	78	--	--	28	230	16	.030	.97	<.040	.06
SEP 21...	29	--	10	75	--	--	33	270	2	.040	1.9	<.040	.10

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MISCELLANEOUS STATION ANALYSES

Date	Phos-phorus, water, unfltrd mg/L (00665)	Total nitro-gen, water, unfltrd mg/L (00600)	Organic carbon, water, unfltrd mg/L (00680)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Fecal coli-form, M-FC 0.45µMF col/ 100 mL (31616)	Alum-inum, water, fltrd, µg/L (01106)	Alum-inum, water, unfltrd recover -able, µg/L (01105)	Arsenic water, fltrd, µg/L (01000)	Barium, water, unfltrd recover -able, µg/L (01007)	Cadmium water, fltrd, µg/L (01025)	Copper, water, fltrd, µg/L (01040)	Copper, water, unfltrd recover -able, µg/L (01042)	Cyanide amen-able to chlor-ination wat unf mg/L (00722)
014721369 Rock Run above SR23 at Coventryville, PA (LAT 40 10 27N LONG 075 41 46W)													
FEB 2005													
09...	<.01	1.3	--	.9	310	<10	100	<4.0	20	<.20	<4	<4	--
MAR 2005													
22...	.02	1.6	--	.6	20	10	70	<4.0	30	<.20	<4	<4	--
APR													
12...	.02	1.5	--	--	120	10	150	--	30	<.20	<4	<4	--
MAY													
18...	.02	1.2	--	.2	20	<10	60	<4.0	20	<.20	<4	<4	--
JUN													
20...	.03	1.3	--	.6	170	<10	90	<4.0	20	<.20	<4	<4	--
JUL													
13...	.04	1.0	--	.3	360	30	120	<4.0	30	<.20	<4	<4	--
AUG													
16...	.04	.87	--	1.2	620	20	50	<4.0	30	<.20	<4	<4	--
SEP													
26...	.03	.58	--	.6	120	20	60	<4.0	30	<.20	<4	<4	--
01472150 French Creek at Coventryville, PA (LAT 40 10 16N LONG 075 41 26W)													
OCT 2004													
18...	.02	1.8	--	.4	140	<10	40	<4.0	30	<.20	<4	<4	--
NOV													
01...	.02	1.4	--	1.0	60	<10	40	<4.0	30	<.20	<4	<4	--
DEC													
08...	.03	1.4	--	.7	1100	10	210	<4.0	30	<.20	<4	<4	--
JAN 2005													
26...	.05	2.3	--	1.0	40	<10	630	<4.0	30	<.20	<4	<4	--
014721986 West Branch Perkiomen Creek near Bally, PA (LAT 40 24 18N LONG 075 36 50W)													
FEB 2005													
02...	.01	1.9	--	1.1	20	10	40	<4.0	20	<.20	<4	<4	--
MAR													
22...	.01	1.8	--	1.2	60	<10	70	<4.0	20	<.20	<4	<4	--
APR													
12...	.02	1.4	--	1.0	30	10	90	<4.0	20	<.20	<4	<4	--
MAY													
18...	.01	1.5	--	.6	40	<10	60	<4.0	20	<.20	<4	<4	--
JUN													
20...	.03	1.7	--	.8	220	<10	70	<4.0	20	<.20	<4	<4	--
JUL													
13...	.03	1.4	--	<.2	240	<10	70	<4.0	30	<.20	<4	<4	--
AUG													
16...	.03	1.4	--	.3	440	20	60	<4.0	30	<.20	<4	<4	--
SEP													
26...	.02	1.4	--	.4	20	20	40	<4.0	30	<.20	<4	<4	--
01473030 Perkiomen Creek at Arcola near Collegeville, PA (LAT 40 09 11N LONG 075 27 21W)													
NOV 2004													
08...	.05	1.8	4.7	--	--	--	<200	--	--	--	--	<10	--
JAN 2005													
06...	.10	2.3	3.7	--	--	--	1020	--	--	--	--	60	--
MAR													
07...	.03	3.0	3.1	--	--	--	<200	--	--	--	--	<10	--
MAY													
25...	.04	2.0	--	--	--	--	<200	--	--	--	--	<10	--
JUL 2005													
21...	.10	1.4	--	--	--	--	<200	--	--	--	--	<10	--
SEP													
21...	.12	2.1	--	--	--	--	200	--	--	--	--	<10	--

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MISCELLANEOUS STATION ANALYSES

Date	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recover -able, µg/L (01045)	Lead, water, fltrd, µg/L (01049)	Lead, water, unfltrd recover -able, µg/L (01051)	Mangan- ese, water, fltrd, µg/L (01056)	Mangan- ese, water, unfltrd recover -able, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recover -able, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recover -able, µg/L (01092)	Phen- olic com- pounds, water, unfltrd µg/L (32730)
014721369 Rock Run above SR23 at Coventryville, PA (LAT 40 10 27N LONG 075 41 46W)											
FEB 2005 09...	50	170	<1.0	<1.0	10	20	<4.0	<4.0	<5.0	<5.0	<5
MAR 2005 22...	40	110	<1.0	<1.0	5	7	<4.0	<4.0	<5.0	<5.0	<5
APR 12...	30	210	<1.0	1.8	7	20	<4.0	<4.0	<5.0	<5.0	<5
MAY 18...	30	130	<1.0	<1.0	6	10	<4.0	<4.0	<5.0	<5.0	<5
JUN 20...	40	170	<1.0	<1.0	6	10	<4.0	<4.0	<5.0	<5.0	<5
JUL 13...	50	200	<1.0	<1.0	8	20	<4.0	<4.0	<5.0	<5.0	<5
AUG 16...	30	140	<1.0	<1.0	10	10	<4.0	<4.0	<5.0	<5.0	<5
SEP 26...	<20	110	<1.0	<1.0	4	10	<4.0	<4.0	<5.0	<5.0	<5
01472150 French Creek at Coventryville, PA (LAT 40 10 16N LONG 075 41 26W)											
OCT 2004 18...	130	360	<1.0	<1.0	10	20	<4.0	<4.0	<5.0	<5.0	<5
NOV 01...	120	350	<1.0	<1.0	10	20	<4.0	<4.0	<5.0	<5.0	<5
DEC 08...	180	550	<1.0	<1.0	20	30	<4.0	<4.0	<5.0	<5.0	<5
JAN 2005 26...	60	1330	<1.0	1.5	20	60	<4.0	<4.0	<5.0	7.1	<5
014721986 West Branch Perkiomen Creek near Bally, PA (LAT 40 24 18N LONG 075 36 50W)											
FEB 2005 02...	30	100	<1.0	<1.0	8	8	<4.0	<4.0	<5.0	<5.0	<5
MAR 22...	40	150	<1.0	<1.0	6	9	<4.0	<4.0	<5.0	<5.0	<5
APR 12...	40	190	<1.0	<1.0	8	10	<4.0	<4.0	<5.0	<5.0	<5
MAY 18...	70	220	<1.0	<1.0	9	20	<4.0	<4.0	<5.0	<5.0	<5
JUN 20...	30	170	<1.0	<1.0	3	10	<4.0	<4.0	<5.0	<5.0	<5
JUL 13...	30	190	<1.0	<1.0	3	10	<4.0	<4.0	<5.0	<5.0	<5
AUG 16...	40	220	<1.0	<1.0	4	10	<4.0	<4.0	<5.0	<5.0	<5
SEP 26...	<20	90	<1.0	<1.0	3	7	<4.0	<4.0	<5.0	<5.0	<5
01473030 Perkiomen Creek at Arcola near Collegeville, PA (LAT 40 09 11N LONG 075 27 21W)											
NOV 2004 08...	--	150	--	<1.0	--	<10	--	<50	--	<10	--
JAN 2005 06...	--	970	--	1.5	--	40	--	<50	--	<10	--
MAR 07...	--	110	--	<1.0	--	20	--	<50	--	<10	--
MAY 25...	--	100	--	<1.0	--	10	--	<50	--	<10	--
JUL 2005 21...	--	200	--	<1.0	--	40	--	<50	--	<10	--
SEP 21...	--	250	--	<1.0	--	30	--	<50	--	<10	--

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

MISCELLANEOUS STATION ANALYSES

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Pressure, osmotic water, unfltrd mosm/kg (82550)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conductance, wat unf lab, µS/cm 25 degC (90095)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)
01473170 Valley Creek at Wilson Road near Valley Forge, PA (LAT 40 04 53N LONG 075 27 25W)													
NOV 2004 09...	1320	1028	9813	40	--	13.9	8.4	8.4	657	649	9.1	260	--
JAN 2005 31...	1220	1028	9813	41	--	16.2	8.3	8.3	693	703	4.3	240	--
MAR 15...	0930	1028	9813	38	--	14.6	8.1	8.3	740	747	5.0	260	--
MAY 11...	1230	1028	9813	37	--	12.9	8.4	8.4	664	648	15.2	240	--
JUL 07...	1230	1028	9813	21	--	8.7	8.0	8.3	637	654	17.9	250	--
SEP 08...	1000	1028	9813	15	--	11.7	8.1	8.3	655	674	15.0	260	--
01474010 Schuylkill R at Falls Bridge, Philadelphia, PA (LAT 40 00 30N LONG 075 11 52W)													
NOV 2004 08...	1150	1028	9813	2970	--	11.9	7.8	7.9	353	349	10.4	140	--
JAN 2005 06...	1050	1028	9813	4050	--	13.3	7.8	7.9	365	358	6.8	130	--
MAR 07...	1250	1028	9813	3020	--	15.2	8.5	8.3	490	483	5.5	150	--
MAY 25...	1310	1028	9813	1600	--	9.7	7.8	8.0	444	429	16.6	160	--
JUL 21...	1210	1028	9813	2100	--	8.7	7.8	8.1	390	409	29.0	140	--
SEP 21...	1300	1028	9813	675	--	8.4	7.9	8.0	579	576	24.6	200	--
01494990 Big Elk Creek near Lewisville, PA (LAT 39 43 48N LONG 075 50 54W)													
NOV 2004 02...	0810	1028	9813	--	--	11.0	6.6	7.0	182	180	11.1	58	--
JAN 2005 31...	0950	1028	9813	--	--	16.0	6.9	7.3	176	182	.2	56	--
MAR 16...	0850	1028	9813	--	--	15.4	7.1	7.4	188	186	3.2	58	--
MAY 10...	0940	1028	9813	--	--	11.5	7.5	7.6	177	173	13.8	57	--
JUL 06...	0930	1028	9813	--	--	9.9	7.3	7.4	174	180	21.3	59	--
SEP 06...	1020	1028	9813	--	--	11.1	7.4	6.8	192	197	18.9	65	--

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

MISCELLANEOUS STATION ANALYSES

01473170 Valley Creek at Wilson Road near Valley Forge, PA (LAT 40 04 53N LONG 075 27 25W)

Date	Calcium water unfltrd recover -able, mg/L (00916)	Magnes- ium, water, fltrd, mg/L (00925)	Magnes- ium, water, unfltrd recover -able, mg/L (00927)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, unfltrd mg/L (00951)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 105degC wat flt mg/L (00515)	Residue total at 105 deg. C, sus- pended, mg/L (00530)	Ammonia water, unfltrd mg/L as N (00610)	Nitrate water unfltrd mg/L as N (00620)	Nitrite water, unfltrd mg/L as N (00615)	Ortho- phos- phate, water, unfltrd mg/L as P (70507)
NOV 2004 09...	55	--	29	210	--	<.2	23	430	4	.040	1.9	<.200	<.01
JAN 2005 31...	52	--	27	200	--	<.2	26	370	12	.040	2.3	<.200	.01
MAR 15...	54	--	29	210	--	<.2	26	420	4	<.020	2.2	<.040	<.01
MAY 11...	51	--	27	200	--	<.2	26	410	<2	<.020	2.0	<.040	<.01
JUL 07...	54	--	29	200	--	<.2	23	380	6	.030	1.9	<.040	.02
SEP 08...	52	--	31	210	--	<.2	24	380	18	.030	1.9	<.040	<.01

01474010 Schuylkill R at Falls Bridge, Philadelphia, PA (LAT 40 00 30N LONG 075 11 52W)

Date	Calcium water unfltrd recover -able, mg/L (00916)	Magnes- ium, water, fltrd, mg/L (00925)	Magnes- ium, water, unfltrd recover -able, mg/L (00927)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, unfltrd mg/L (00951)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 105degC wat flt mg/L (00515)	Residue total at 105 deg. C, sus- pended, mg/L (00530)	Ammonia water, unfltrd mg/L as N (00610)	Nitrate water unfltrd mg/L as N (00620)	Nitrite water, unfltrd mg/L as N (00615)	Ortho- phos- phate, water, unfltrd mg/L as P (70507)
NOV 2004 08...	33	--	13	82	--	<.2	37	290	4	.090	2.8	<.040	.14
JAN 2005 06...	32	--	12	69	--	<.2	42	210	32	.180	3.1	.070	.14
MAR 07...	37	--	14	81	--	<.2	48	280	<2	.110	3.3	.060	.12
MAY 25...	37	--	16	87	--	<.2	62	290	4	.150	3.1	<.040	.28
JUL 21...	34	--	13	89	--	<.2	47	310	6	.100	3.2	.070	.23
SEP 21...	48	--	21	110	--	<.2	72	410	6	.120	4.3	.080	.51

01494990 Big Elk Creek near Lewisville, PA (LAT 39 43 48N LONG 075 50 54W)

Date	Calcium water unfltrd recover -able, mg/L (00916)	Magnes- ium, water, fltrd, mg/L (00925)	Magnes- ium, water, unfltrd recover -able, mg/L (00927)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, unfltrd mg/L (00951)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 105degC wat flt mg/L (00515)	Residue total at 105 deg. C, sus- pended, mg/L (00530)	Ammonia water, unfltrd mg/L as N (00610)	Nitrate water unfltrd mg/L as N (00620)	Nitrite water, unfltrd mg/L as N (00615)	Ortho- phos- phate, water, unfltrd mg/L as P (70507)
NOV 2004 02...	13	--	6.4	29	--	--	11	120	10	<.020	4.5	<.040	<.01
JAN 2005 31...	12	--	6.1	21	--	--	12	120	24	<.020	5.4	<.040	.02
MAR 16...	13	--	6.1	25	--	--	12	150	2	<.020	5.3	<.040	<.01
MAY 10...	13	--	6.3	27	--	--	11	130	<2	<.020	4.6	<.040	<.01
JUL 06...	13	--	6.4	28	--	--	10	120	36	.040	4.3	<.040	.03
SEP 06...	14	--	7.1	32	--	--	9.9	170	10	.030	5.0	<.040	.02

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

MISCELLANEOUS STATION ANALYSES

01473170 Valley Creek at Wilson Road near Valley Forge, PA (LAT 40 04 53N LONG 075 27 25W)

Date	Phos- phorus, water, unfltrd mg/L (00665)	Total nitro- gen, water, unfltrd mg/L (00600)	Organic carbon, water, unfltrd mg/L (00680)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Fecal coli- form, M-FC 0.45µMF col/ 100 mL (31616)	Alum- inum, water, fltrd, µg/L (01106)	Alum- inum, water, unfltrd recover -able, µg/L (01105)	Arsenic water, fltrd, µg/L (01000)	Barium, water, unfltrd recover -able, µg/L (01007)	Cadmium water, fltrd, µg/L (01025)	Copper, water, fltrd, µg/L (01040)	Copper, water, unfltrd recover -able, µg/L (01042)	Cyanide amen- able to chlor- ination wat unf mg/L (00722)
NOV 2004 09...	.02	2.1	1.3	--	--	--	<200	--	--	--	--	<10	<1.00
JAN 2005 31...	<.01	2.2	1.1	--	--	--	<200	--	--	--	--	<10	<1.00
MAR 15...	<.01	2.6	1.3	--	--	--	<200	--	--	--	--	<10	<1.00
MAY 11...	.01	2.3	--	--	--	--	<200	--	--	--	--	<10	<1.00
JUL 07...	.02	2.0	--	--	--	--	<200	--	--	--	--	<10	<1.00
SEP 08...	.02	1.8	--	--	--	--	<200	--	--	--	--	<10	<1.00

01474010 Schuylkill R at Falls Bridge, Philadelphia, PA (LAT 40 00 30N LONG 075 11 52W)

Date	Phos- phorus, water, unfltrd mg/L (00665)	Total nitro- gen, water, unfltrd mg/L (00600)	Organic carbon, water, unfltrd mg/L (00680)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Fecal coli- form, M-FC 0.45µMF col/ 100 mL (31616)	Alum- inum, water, fltrd, µg/L (01106)	Alum- inum, water, unfltrd recover -able, µg/L (01105)	Arsenic water, fltrd, µg/L (01000)	Barium, water, unfltrd recover -able, µg/L (01007)	Cadmium water, fltrd, µg/L (01025)	Copper, water, fltrd, µg/L (01040)	Copper, water, unfltrd recover -able, µg/L (01042)	Cyanide amen- able to chlor- ination wat unf mg/L (00722)
NOV 2004 08...	.17	3.3	3.5	--	--	--	<200	--	--	--	--	<10	<1.00
JAN 2005 06...	.20	3.6	2.0	--	--	--	500	--	--	--	--	<10	<1.00
MAR 07...	.14	4.0	2.5	--	--	--	<200	--	--	--	--	<10	<1.00
MAY 25...	.29	3.7	--	--	--	--	<200	--	--	--	--	<10	<1.00
JUL 21...	.22	3.5	--	--	--	--	<200	--	--	--	--	<10	<1.00
SEP 21...	.51	4.5	--	--	--	--	<200	--	--	--	--	<10	1.83

01494990 Big Elk Creek near Lewisville, PA (LAT 39 43 48N LONG 075 50 54W)

Date	Phos- phorus, water, unfltrd mg/L (00665)	Total nitro- gen, water, unfltrd mg/L (00600)	Organic carbon, water, unfltrd mg/L (00680)	BOD, water, unfltrd 5 day, 20 degC mg/L (00310)	Fecal coli- form, M-FC 0.45µMF col/ 100 mL (31616)	Alum- inum, water, fltrd, µg/L (01106)	Alum- inum, water, unfltrd recover -able, µg/L (01105)	Arsenic water, fltrd, µg/L (01000)	Barium, water, unfltrd recover -able, µg/L (01007)	Cadmium water, fltrd, µg/L (01025)	Copper, water, fltrd, µg/L (01040)	Copper, water, unfltrd recover -able, µg/L (01042)	Cyanide amen- able to chlor- ination wat unf mg/L (00722)
NOV 2004 02...	.02	4.7	2.1	--	--	--	<200	--	--	--	--	<10	--
JAN 2005 31...	.02	5.4	.8	--	--	--	<200	--	--	--	--	10	--
MAR 16...	<.01	5.5	1.3	--	--	--	<200	--	--	--	--	<10	--
MAY 10...	<.01	4.2	--	--	--	--	<200	--	--	--	--	<10	--
JUL 06...	.07	4.8	--	--	--	--	1100	--	--	--	--	<10	--
SEP 06...	.03	4.9	--	--	--	--	<200	--	--	--	--	<10	--

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES PENNSYLVANIA WATER-QUALITY NETWORK

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

MISCELLANEOUS STATION ANALYSES

Date	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recover -able, µg/L (01045)	Lead, water, fltrd, µg/L (01049)	Lead, water, unfltrd recover -able, µg/L (01051)	Mangan- ese, water, fltrd, µg/L (01056)	Mangan- ese, water, unfltrd recover -able, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recover -able, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recover -able, µg/L (01092)	Phen- olic com- pounds, water, unfltrd µg/L (32730)
01473170 Valley Creek at Wilson Road near Valley Forge, PA (LAT 40 04 53N LONG 075 27 25W)											
NOV 2004 09...	--	40	--	<1.0	--	10	--	<50	--	<10	<5
JAN 2005 31...	--	80	--	<1.0	--	10	--	<50	--	<10	<5
MAR 15...	--	60	--	<1.0	--	20	--	<50	--	<10	<5
MAY 11...	--	80	--	<1.0	--	10	--	<50	--	30	<5
JUL 07...	--	100	--	<1.0	--	<10	--	<50	--	11	<5
SEP 08...	--	50	--	<1.0	--	<10	--	<50	--	<10	<5
01474010 Schuylkill R at Falls Bridge, Philadelphia, PA (LAT 40 00 30N LONG 075 11 52W)											
NOV 2004 08...	--	120	--	<1.0	--	20	--	<50	--	<10	<5
JAN 2005 06...	--	840	--	2.7	--	140	--	<50	--	20	<5
MAR 07...	--	140	--	<1.0	--	80	--	<50	--	<10	<5
MAY 25...	--	140	--	<1.0	--	60	--	<50	--	<10	<5
JUL 21...	--	130	--	<1.0	--	60	--	<50	--	<10	<5
SEP 21...	--	110	--	<1.0	--	60	--	<50	--	<10	<5
01494990 Big Elk Creek near Lewisville, PA (LAT 39 43 48N LONG 075 50 54W)											
NOV 2004 02...	--	80	--	<1.0	--	20	--	<50	--	<10	--
JAN 2005 31...	--	260	--	<1.0	--	40	--	<50	--	12	--
MAR 16...	--	90	--	<1.0	--	40	--	<50	--	<10	--
MAY 10...	--	100	--	<1.0	--	40	--	<50	--	<10	--
JUL 06...	--	1690	--	1.4	--	120	--	<50	--	<10	--
SEP 06...	--	100	--	<1.0	--	20	--	<50	--	<10	--

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES PENNSYLVANIA WATER-QUALITY NETWORK

01480399 Chambers Lake near Wagontown, PA

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

MISCELLANEOUS LAKE ANALYSES

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Drainage area, mi2 (81024)	Sampling depth, meters (00098)	Transparency Secchi disc, meters (00078)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)
AUG 2005													
23...	1000	1028	80020	4.5	1.0	.80	8.2	9.0	133	26.9	53	12.7	5.15
23...	1030	1028	80020	4.5	11.0	.80	1.3	6.7	334	10.1	52	12.0	5.40

Date	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Aluminum, water, fltrd, µg/L (01106)	Boron, water, fltrd, µg/L (01020)	Copper, water, fltrd, µg/L (01040)
AUG 2005													
23...	1.70	5.12	8.2	E.1	4.4	6.2	.05	<.06	<.008	<.02	--	26	--
23...	2.61	4.87	7.6	E.1	8.7	.2	2.87	<.06	.008	<.02	14	30	<.4

Date	Iron, water, fltrd, µg/L (01046)	Lead, water, fltrd, µg/L (01049)	Manganese, water, fltrd, µg/L (01056)	Mercury water, fltrd, µg/L (71890)	Zinc, water, fltrd, µg/L (01090)
AUG 2005					
23...	37	--	--	--	--
23...	12300	<.08	2920	<.01	<18

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

MISCELLANEOUS LAKE ANALYSES

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Sampling depth, meters (00098)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water unfltrd recoverable, mg/L (00916)	Magnesium, water, unfltrd recoverable, mg/L (00927)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)
01427252 Duck Harbor Pond near Lookout, PA (LAT 41 45 11N LONG 075 12 01W)													
AUG 2005													
02...	1000	1028	9813	1.0	9.5	8.3	--	42	26.9	15	5.1	.58	25
02...	1010	1028	9813	21.0	.6	5.7	6.7	113	6.5	15	5.1	.58	25
01446590 Minsi Lake near Roseto, PA (LAT 40 54 43N LONG 075 10 15W)													
AUG 2005													
01...	0930	1028	9813	1.0	8.5	9.0	--	83	27.5	32	9.7	2.0	26
01...	0935	1028	9813	4.5	1.9	7.2	--	81	23.9	32	9.7	2.0	29
01464640 Lake Galena near Chalfont, PA (LAT 40 19 01N LONG 075 12 15W)													
AUG 2005													
16...	1125	1028	9813	1.0	11.6	10.2	--	207	28.4	80	19	8.1	60
16...	1110	1028	9813	11.0	.1	9.2	7.0	209	13.7	--	16	--	73
01472124 Hopewell Lake at Hopewell, PA (LAT 40 12 16N LONG 075 46 43W)													
AUG 2005													
18...	0955	1028	9813	1.0	8.0	9.3	--	57	27.1	21	5.3	1.9	17
18...	0945	1028	9813	4.0	.1	9.2	6.6	125	20.5	24	6.3	2.0	28
0148064640 Struble Lake near Honey Brook, PA (LAT 40 06 28N LONG 075 51 51W)													
SEP 2005													
12...	1250	1028	9813	1.0	12.2	10.4	9.7	157	23.5	63	16	6.0	53
12...	1150	1028	9813	4.0	3.0	9.6	8.4	154	22.6	62	14	6.4	52

Date	Sulfate water, fltrd, mg/L (00945)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia water, unfltrd mg/L as N (00610)	Total nitrogen, water, unfltrd mg/L (00600)	Phosphorus, water, unfltrd mg/L (00665)	Chlorophyll a phytoplankton, uncorr, µg/L (32230)	Aluminum, water, fltrd, µg/L (01106)	Aluminum, water, unfltrd recoverable, µg/L (01105)	Copper, water, fltrd, µg/L (01040)	Copper, water, unfltrd recoverable, µg/L (01042)	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recoverable, µg/L (01045)	Lead, water, fltrd, µg/L (01049)
01427252 Duck Harbor Pond near Lookout, PA (LAT 41 45 11N LONG 075 12 01W)													
AUG 2005													
02...	2.7	<2.0	.600	.80	.13	.012	30	40	<4	<4	3650	4020	<1.0
02...	2.7	<2.0	.600	.80	.13	--	30	40	<4	<4	3650	4020	<1.0
01446590 Minsi Lake near Roseto, PA (LAT 40 54 43N LONG 075 10 15W)													
AUG 2005													
01...	5.6	2.0	<.020	.93	<.01	.009	30	30	<4	<4	170	320	<1.0
01...	4.8	6.0	<.020	.30	.03	--	20	20	<4	<4	240	530	<1.0
01464640 Lake Galena near Chalfont, PA (LAT 40 19 01N LONG 075 12 15W)													
AUG 2005													
16...	18	12	<.020	.89	.05	.060	30	100	<4	<4	<20	170	1.0
16...	6.5	70	1.62	2.2	.25	--	20	70	<4	<4	1900	2200	--
01472124 Hopewell Lake at Hopewell, PA (LAT 40 12 16N LONG 075 46 43W)													
AUG 2005													
18...	5.4	18	.030	--	.03	.020	--	--	<4	<4	30	310	<1.0
18...	3.5	26	.090	.91	.06	--	7	90	<4	<4	1300	2000	<1.0
0148064640 Struble Lake near Honey Brook, PA (LAT 40 06 28N LONG 075 51 51W)													
SEP 2005													
12...	11	36	.040	1.1	.07	.059	10	260	<4	<4	50	820	<1.0
12...	11	22	.040	1.1	.18	--	30	500	<4	<4	140	1430	<1.0

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

MISCELLANEOUS LAKE ANALYSES

Date	Lead, water, unfltrd recover -able, µg/L (01051)	Mangan- ese, water, fltrd, µg/L (01056)	Mangan- ese, water, unfltrd recover -able, µg/L (01055)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recover -able, µg/L (01092)
01427252 Duck Harbor Pond near Lookout, PA (LAT 41 45 11N LONG 075 12 01W)					
AUG 2005					
02...	<1.0	2460	2550	<5.0	<5.0
02...	<1.0	2460	2550	<5.0	<5.0
01446590 Minsi Lake near Roseto, PA (LAT 40 54 43N LONG 075 10 15W)					
AUG 2005					
01...	<1.0	6	20	--	--
01...	<1.0	2	40	7.7	8.8
01464640 Lake Galena near Chalfont, PA (LAT 40 19 01N LONG 075 12 15W)					
AUG 2005					
16...	2.7	<2	40	<5.0	<5.0
16...	--	1800	1900	<5.0	<5.0
01472124 Hopewell Lake at Hopewell, PA (LAT 40 12 16N LONG 075 46 43W)					
AUG 2005					
18...	<1.0	4	90	<5.0	<5.0
18...	<1.0	2000	2300	<5.0	5.7
0148064640 Struble Lake near Honey Brook, PA (LAT 40 06 28N LONG 075 51 51W)					
SEP 2005					
12...	<1.0	9	150	<5.0	<5.0
12...	1.1	330	430	<5.0	<5.0

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

REMARKS.--Samples were collected using a D-Frame net with a mesh size of 500 µm. A dash (--) indicates there were no observations of the organism in the sample. Samples represent counts per 100 animal (approximate) subsamples.

BIOLOGICAL DATA, **WATER YEARS OCTOBER 2003 TO SEPTEMBER 2005**
BENTHIC MACROINVERTEBRATES

Station number	01427000	01431600	01432119	01440650	01444800	01451070
Date	08/30/04	08/25/04	10/28/04	09/06/04	09/06/04	10/13/04
Benthic macroinvertebrate	Count	Count	Count	Count	Count	Count
Platyhelminthes						
Turbellaria (FLATWORMS)						
Tricladida						
Planariidae	2	--	--	--	3	--
Nematoda (NEMATODES)	--	--	3	--	--	--
Nemertea (PROBOSCIS WORMS)						
Enopla						
Hoplonemertea						
Tetrastemmatidae						
Prostoma	2	3	1	1	--	--
Mollusca						
Gastropoda (SNAILS)						
Basommatophora						
Ancylidae						
Ferrissia	2	1	--	--	--	--
Hydrobiidae						
Amnicola	--	--	--	--	1	--
Bivalvia (CLAMS)						
Veneroida						
Corbiculidae						
Corbicula fluminea	--	--	--	--	1	--
Sphaeriidae						
Pisidium	--	--	--	--	--	1
Sphaerium	10	9	--	--	1	--
Annelida						
Oligochaeta (AQUATIC EARTHWORMS)						
Lumbricina	--	1	1	--	--	--
Lumbriculida						
Lumbriculidae	10	17	14	5	--	12
Tubificida						
Naididae	--	--	--	--	3	--
Tubificidae	--	--	9	--	--	--
Polychaeta						
Sabellida						
Sabellidae						
Manayunkia speciosa	--	--	8	--	--	--
Arthropoda						
Acariformes						
Hydrachnidia (WATER MITES)	4	--	1	--	--	1
Crustacea						
Amphipoda (SCUDS)						
Crangonyctidae						
Crangonyx	--	--	--	--	--	--
Gammaridae						
Gammarus	--	--	--	--	2	--

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

BIOLOGICAL DATA, **WATER YEARS OCTOBER 2003 TO SEPTEMBER 2005**
BENTHIC MACROINVERTEBRATES

01452040	01473030	01473170	01474010	01494990	Station number
10/13/04	08/27/05	08/04/04	9/15/04	08/10/04	Date
Count	Count	Count	Count	Count	Benthic macroinvertebrate
					Platyhelminthes
					Turbellaria (FLATWORMS)
					Tricladida
33	9	3	2	--	Planariidae
--	--	--	--	4	Nematoda (NEMATODES)
					Nemertea (PROBOSCIS WORMS)
					Enopla
					Hoplonemertea
					Tetrastemmatidae
4	1	--	3	5	*Prostoma*
					Mollusca
					Gastropoda (SNAILS)
					Basommatophora
					Ancylidae
--	--	--	--	--	*Ferrissia*
					Hydrobiidae
--	--	--	--	--	*Amnicola*
					Bivalvia (CLAMS)
					Veneroida
					Corbiculidae
--	--	--	--	--	*Corbicula fluminea*
					Sphaeriidae
--	--	--	--	--	*Pisidium*
--	--	--	--	--	*Sphaerium*
					Annelida
					Oligochaeta (AQUATIC EARTHWORMS)
--	--	--	--	--	Lumbricina
					Lumbriculida
--	--	5	--	--	Lumbriculidae
					Tubificida
--	3	--	--	1	Naididae
--	--	--	--	--	Tubificidae
					Polychaeta
					Sabellida
					Sabellidae
--	--	--	--	--	*Manayunkia speciosa*
					Arthropoda
					Acariformes
12	1	6	--	2	Hydrachnidia (WATER MITES)
					Crustacea
					Amphipoda (SCUDS)
					Crangonyctidae
1	--	--	--	--	*Crangonyx*
					Gammaridae
--	--	5	2	--	*Gammarus*

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

BIOLOGICAL DATA, **WATER YEARS OCTOBER 2003 TO SEPTEMBER 2005**
BENTHIC MACROINVERTEBRATES

Station number	01427000	01431600	01432119	01440650	01444800	01451070
Date	08/30/04	08/25/04	10/28/04	09/06/04	09/06/04	10/13/04
Benthic macroinvertebrate	Count	Count	Count	Count	Count	Count
Arthropoda						
Isopoda (AQUATIC SOWBUGS)						
Asellidae						
Caecidotea	--	--	--	--	--	--
Insecta						
Ephemeroptera (MAYFLIES)						
Baetidae						
Acentrella	7	24	1	106	49	--
Baetis	18	9	--	5	4	1
Heterocloeon	--	--	--	--	6	--
Caenidae						
Caenis	--	--	--	--	--	--
Ephemerellidae						
Attenella	--	13	--	--	--	--
Dannella	--	5	--	--	--	--
Ephemerella	4	--	2	--	--	--
Eurylophella	--	--	--	--	--	1
Serratella	30	--	14	3	1	--
Heptageniidae	--	--	1	--	--	2
Epeorus	6	--	2	--	--	1
Leucrocuta	2	--	--	--	--	--
Stenacron	--	--	--	--	--	--
Stenonema	17	4	5	5	9	--
Isonychiidae						
Isonychia	--	4	--	1	7	1
Leptophlebiidae						
Paraleptophlebia	5	5	--	2	--	2
Tricorythidae						
Tricorythodes	--	--	--	--	2	--
Odonata (DRAGONFLIES AND DAMSELFLIES)						
Gomphidae	--	1	--	--	--	--
Plecoptera (STONEFLIES)						
Chloroperlidae						
Haploperla	--	2	--	--	--	--
Capniidae	--	--	--	--	--	--
Perlidae						
Acroneuria	--	6	2	--	--	1
Agnetina	--	1	--	--	1	--
Paragnetina	--	--	--	--	--	3
Perlodidae						
Isoperla	--	--	1	--	--	--
Taeniopterygidae						
Taenionema	--	--	--	--	--	2
Taeniopteryx	--	--	1	--	--	7
Megaloptera						
Sialidae (ALDERFLIES)						
Sialis	1	1	--	--	--	--
Trichoptera (CADDISFLIES)						
Apataniidae						
Apatania	8	1	--	--	--	--

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES PENNSYLVANIA WATER-QUALITY NETWORK

BIOLOGICAL DATA, **WATER YEARS OCTOBER 2003 TO SEPTEMBER 2005**
BENTHIC MACROINVERTEBRATES

01452040	01473030	01473170	01474010	01494990	Station number
10/13/04	08/27/05	08/04/04	09/15/04	08/10/04	Date
Count	Count	Count	Count	Count	Benthic macroinvertebrate
					Arthropoda
					Isopoda (AQUATIC SOWBUGS)
					Asellidae
1	--	--	--	--	*Caecidotea*
					Insecta
					Ephemeroptera (MAYFLIES)
--	--	1	--	--	Baetidae
--	4	--	33	6	*Acentrella*
--	44	--	15	22	*Baetis*
--	1	--	--	--	*Heterocloeon*
					Caenidae
--	5	--	--	--	*Caenis*
					Ephemerellidae
--	--	--	--	--	*Attenella*
--	--	--	--	--	*Dannella*
--	--	--	--	--	*Ephemerella*
1	--	--	--	--	*Eurylophella*
--	--	--	--	--	*Serratella*
					Heptageniidae
					Epeorus
--	--	--	--	--	*Leucrocuta*
2	--	--	--	--	*Stenacron*
2	8	--	6	2	*Stenonema*
					Isonychiidae
--	--	--	--	1	*Isonychia*
					Leptophlebiidae
--	--	--	--	--	*Paraleptophlebia*
					Tricorythidae
--	--	--	7	--	*Tricorythodes*
					Odonata (DRAGONFLIES AND DAMSELFLIES)
--	--	--	--	--	Gomphidae
					Plecoptera (STONEFLIES)
					Chloroperlidae
--	--	--	--	--	*Haploperla*
--	--	--	--	1	Capniidae
					Perlidae
--	--	--	--	--	*Acroneuria*
--	--	--	--	--	*Agnetina*
--	--	--	--	--	*Paragnetina*
					Perlodidae
--	--	--	--	--	*Isoperla*
					Taeniopterygidae
--	--	--	--	--	*Taenionema*
--	--	--	--	--	*Taeniopteryx*
					Megaloptera
					Sialidae (ALDERFLIES)
--	--	--	--	--	*Sialis*
					Trichoptera (CADDISFLIES)
					Apataniidae
--	--	--	--	--	*Apatania*

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

BIOLOGICAL DATA, **WATER YEARS OCTOBER 2003 TO SEPTEMBER 2005**
BENTHIC MACROINVERTEBRATES

Station number	01427000	01431600	01432119	01440650	01444800	01451070
Date	08/30/04	08/25/04	10/28/04	09/06/04	09/06/04	10/13/04
Benthic macroinvertebrate	Count	Count	Count	Count	Count	Count
Trichoptera (CADDISFLIES)						
Brachycentridae						
Brachycentrus	2	--	3	--	--	--
Glossosomatidae						
Glossosoma	4	1	--	1	--	1
Protoptila	7	--	4	2	2	4
Hydropsychidae						
Cheumatopsyche	5	5	1	1	3	19
Hydropsyche	8	6	7	5	2	36
Macrostemum	--	--	1	--	2	--
Potamyia	2	1	--	1	--	--
Hydroptilidae						
Leucotrichia	--	--	--	--	1	2
Lepidostomatidae						
Lepidostoma	1	--	--	--	--	--
Leptoceridae						
Oecetis	1	--	--	--	--	--
Philopotamidae						
Chimarra	--	10	2	1	13	2
Polycentropodidae						
Polycentropus	--	--	--	--	--	--
Rhyacophilidae						
Rhyacophila	--	4	--	--	--	1
Lepidoptera (MOTHS AND BUTTERFLIES)						
Pyralidae						
Petrophila	--	--	--	--	--	--
Coleoptera (BEETLES)						
Elmidae (RIFFLE BEETLES)						
Optioservus	9	11	4	--	2	6
Oulimnius	--	--	1	--	--	2
Stenelmis	--	2	11	6	29	2
Psephenidae (WATER PENNIES)						
Psephenus	--	9	2	1	--	2
Diptera (TRUE FLIES)						
Athericidae						
Atherix	--	2	--	--	--	--
Probezzia	--	--	--	1	--	--
Chironomidae (MIDGES)	39	19	11	34	14	6
Empididae (DANCE FLIES)						
Chelifera	--	--	--	--	--	--
Hemerodromia	--	--	--	--	--	--
Simuliidae (BLACK FLIES)						
Simulium	9	--	--	7	2	--
Tipulidae (CRANE FLIES)						
Antocha	--	--	--	--	--	--
Dicranota	--	1	--	--	--	--
Total Organisms	215	178	113	188	160	118
Total Taxa	27	30	27	19	24	25

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

BIOLOGICAL DATA, **WATER YEARS OCTOBER 2003 TO SEPTEMBER 2005**
BENTHIC MACROINVERTEBRATES

01452040	01473030	01473170	01474010	01494990	Station number
10/13/04	08/27/05	08/04/04	09/15/04	08/10/04	Date
Count	Count	Count	Count	Count	Benthic macroinvertebrate
					Trichoptera (CADDISFLIES)
					Brachycentridae
--	--	--	--	--	*Brachycentrus*
					Glossosomatidae
--	--	1	--	--	*Glossosoma*
--	--	--	--	--	*Protoptila*
					Hydropsychidae
14	2	6	2	--	*Cheumatopsyche*
17	1	9	4	27	*Hydropsyche*
--	--	--	--	--	*Macrostemum*
--	--	--	--	--	*Potamyia*
					Hydroptilidae
14	4	--	--	1	*Leucotrichia*
					Lepidostomatidae
--	--	--	--	--	*Lepidostoma*
					Leptoceridae
--	--	--	--	--	*Oecetis*
					Philopotamidae
--	13	2	--	--	*Chimarra*
					Polycentropodidae
--	--	1	--	--	*Polycentropus*
					Rhyacophilidae
--	--	--	--	--	*Rhyacophila*
					Lepidoptera (MOTHS AND BUTTERFLIES)
					Pyralidae
--	1	--	--	--	*Petrophila*
					Coleoptera (BEETLES)
					Elmidae (RIFFLE BEETLES)
3	2	23	2	--	*Optioservus*
--	--	13	--	--	*Oulimnius*
6	29	19	39	--	*Stenelmis*
					Psephenidae (WATER PENNIES)
1	4	1	--	--	*Psephenus*
					Diptera (TRUE FLIES)
					Athericidae
--	--	--	--	--	*Atherix*
--	--	--	--	--	*Probezzia*
17	98	23	20	33	Chironomidae (MIDGES)
					Empididae (DANCE FLIES)
--	--	1	--	--	*Chelifera*
1	--	2	--	7	*Hemerodromia*
					Simuliidae (BLACK FLIES)
1	--	6	--	3	*Simulium*
					Tipulidae (CRANE FLIES)
2	--	1	--	1	*Antocha*
--	--	--	--	--	*Dicranota*
132	230	128	135	116	Total Organisms
18	18	19	12	15	Total Taxa

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

REMARKS.--Samples were collected using a D-Frame net with a mesh size of 500 µm. A dash (--) indicates there were no observations of the organism in the sample. Samples represent counts per 200 animal (approximate) subsamples.

BIOLOGICAL DATA, **WATER YEARS OCTOBER 2003 TO SEPTEMBER 2005**
BENTHIC MACROINVERTEBRATES AT REFERENCE SITES

Station number	01429301	01438760	01447300	01449375	01457790	01458900	01472150
Date	12/29/03	11/24/03	11/24/03	11/24/03	11/05/03	12/09/03	11/13/03
Benthic macroinvertebrate	Count	Count	Count	Count	Count	Count	Count
Platyhelminthes							
Turbellaria (FLATWORMS)							
Tricladida							
Planariidae	--	--	--	--	8	--	--
Nematoda (NEMATODES)	--	--	--	--	--	--	2
Mollusca							
Gastropoda (SNAILS)							
Basommatophora							
Planorbidae							
Planorbella	--	--	--	--	--	1	--
Bivalvia (CLAMS)							
Sphaeriidae	--	--	--	2	--	--	--
Sphaerium	--	--	--	--	--	--	2
Annelida							
Oligochaeta (AQUATIC EARTHWORMS)							
Lumbriculida							
Lumbriculidae	1	2	4	--	47	--	--
Tubificida							
Enchytraeidae	--	--	--	1	--	--	--
Naididae	--	--	4	5	1	--	--
Tubificidae	--	--	2	--	--	--	--
Arthropoda							
Acariformes							
Hydrachnidia (WATER MITES)	--	--	1	2	--	--	4
Crustacea							
Amphipoda (SCUDS)							
Gammaridae							
Gammarus	--	--	--	--	19	--	--
Insecta							
Ephemeroptera (MAYFLIES)							
Baetidae							
Acentrella	--	--	--	--	1	--	1
Baetis	--	22	--	2	1	9	1
Caenidae							
Caenis	--	--	--	--	--	2	--
Ephemerellidae							
Drunella	65	--	--	--	--	--	--
Ephemerella	10	17	--	14	56	6	7
Eurylophella	--	--	8	--	--	2	--
Serratella	4	8	--	3	2	3	4
Ephemeridae							
Ephemera	1	--	--	--	--	--	--
Heptageniidae	--	4	--	--	--	--	--
Epeorus	5	72	2	5	4	--	--
Stenacron	1	--	--	--	--	--	--
Stenonema	2	--	3	5	1	7	5
Isonychiidae							
Isonychia	--	2	--	--	--	1	7
Leptophlebiidae							
Paraleptophlebia	23	19	3	6	--	--	--

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

BIOLOGICAL DATA, **WATER YEARS OCTOBER 2003 TO SEPTEMBER 2005**
BENTHIC MACROINVERTEBRATES AT REFERENCE SITES

Station number	01429301	01438760	01447300	01449375	01457790	01458900	01472150
Date	12/29/03	11/24/03	11/24/03	11/24/03	11/05/03	12/09/03	11/13/03
Benthic macroinvertebrate	Count	Count	Count	Count	Count	Count	Count
Ephemeroptera (MAYFLIES)							
Siphlonuridae							
Ameletus	--	--	--	--	--	1	--
Odonata (DRAGONFLIES AND DAMSELFLIES)							
Coenagrionidae							
Argia	--	--	--	--	--	--	1
Gomphidae							
Lanthus	--	1	--	1	--	1	--
Plecoptera (STONEFLIES)							
Capniidae	--	--	--	--	2	--	--
Allocapnia	26	--	--	--	--	32	10
Paracapnia	--	1	38	1	--	--	--
Chloroperlidae	--	--	--	1	--	--	--
Sweltsa	--	5	--	1	--	--	--
Leuctridae							
Leuctra	1	1	42	3	--	--	--
Nemouridae	7	--	--	--	--		
Amphinemura	--	--	4	1	--	--	--
Peltoperlidae							
Tallaperla	--	--	--	8	--	--	--
Perlidae							
Acroneuria	1	3	2	--	--	--	3
Agnetina	--	--	--	--	3	--	--
Paragnetina	--	1	--	--	--	--	--
Perlodidae							
Isoperla	--	1	--	9	--	--	--
Malirekus	--	--	--	1	--	--	--
Taeniopterygidae	--	--	--	--	1	--	--
Taenionema	14	7	--	2	--	8	13
Taeniopteryx	1	--	3	1	--	--	41
Trichoptera (CADDISFLIES)	--	--	--	3	--	--	--
Apataniidae							
Apatania	--	1	--	--	1	--	--
Micrasema	--	--	--	--	--	--	1
Glossosomatidae							
Agapetus	--	--	--	1	--	--	--
Glossosoma	--	--	--	--	5	--	--
Hydropsychidae							
Cheumatopsyche	5	1	--	--	27	55	27
Diplectrona	--	4	42	3	--	--	--
Hydropsyche	3	2	7	2	9	24	50
Hydroptilidae							
Leucotrichia	--	--	--	--	--	--	2
Lepidostomatidae							
Lepidostoma	2	4	2	4	1	2	--
Limnephilidae							
Hydatophylax	--	1	--	--	--	--	--
Odontoceridae							
Psilotreta	--	--	--	1	--	--	--
Philopotamidae							
Chimarra	1	--	--	--	11	8	5
Dolophilodes	--	8	3	17	--	--	--
Polycentropodidae	--	--	1	--	--	--	--
Neureclipsis	--	--	--	--	1	--	--

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

BIOLOGICAL DATA, **WATER YEARS OCTOBER 2003 TO SEPTEMBER 2005**
BENTHIC MACROINVERTEBRATES AT REFERENCE SITES

Station number	01429301	01438760	01447300	01449375	01457790	01458900	01472150
Date	12/29/03	11/24/03	11/24/03	11/24/03	11/05/03	12/09/03	11/13/03
Benthic macroinvertebrate	Count	Count	Count	Count	Count	Count	Count
Trichoptera (CADDISFLIES)							
Psychomyiidae							
Lype	--	1	--	--	--	--	--
Rhyacophilidae							
Rhyacophila	--	3	11	12	--	--	--
Uenoidae							
Neophylax	2	1	--	--	--	--	--
Lepidoptera (MOTHS AND BUTTERFLIES)							
Pyralidae	--	--	--	--	1	--	--
Coleoptera (BEETLES)							
Elmidae (RIFFLE BEETLES)							
Optioservus	3	--	--	2	42	--	10
Oulimnius	1	--	5	3	2	--	1
Promoresia	--	--	--	22	--	--	1
Stenelmis	--	--	--	--	--	2	1
Psephenidae (WATER PENNIES)							
Psephenus	2	1	--	--	3	5	1
Diptera (TRUE FLIES)							
Chironomidae (MIDGES)	11	32	42	55	16	23	19
Empididae (DANCE FLIES)							
Chelifera	--	--	--	1	--	--	--
Hemerodromia	1	--	--	1	2	4	3
Simuliidae (BLACK FLIES)							
Prosimulium	19	13	5	17	--	29	--
Simulium	--	--	--	2	1	1	2
Tipulidae (CRANE FLIES)							
Antocha	5	1	--	--	--	--	2
Hexatoma	--	2	--	--	--	1	--
Tipula	--	--	--	1	--	1	--
Total Organisms	217	241	234	221	268	228	226
Total Taxa	27	31	22	38	27	24	28

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

01427510 DELAWARE RIVER AT CALLICOON, NY

BIOLOGICAL DATA, **WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004**
BENTHIC MACROINVERTEBRATES

REMARKS.--Samples were collected using a D-Frame net with a mesh size of 500 µm. Samples represent counts per 100 animal (approximate) subsamples.

Date	08/30/04
Benthic macroinvertebrate	Count
Mollusca	
Gastropoda (SNAILS)	
Basommatophora	
Hydrobiidae	
Amnicola	1
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Lumbriculida	
Lumbriculidae	22
Arthropoda	
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
Acentrella	25
Baetis	2
Caenidae	
Caenis	1
Ephemerellidae	
Serratella	5
Heptageniidae	3
Leucrocuta	1
Isonychiidae	
Isonychia	1
Leptophlebiidae	1
Plecoptera (STONEFLIES)	
Perlidae	
Acroneuria	2
Trichoptera (CADDISFLIES)	
Apataniidae	
Apatania	3
Glossosomatidae	
Protoptila	2
Helicopsychidae	
Helicopsyche	3
Hydropsychidae	
Cheumatopsyche	1
Hydropsyche	3
Limnephilidae	
Hydatophylax	1
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
Optioservus	4
Stenelmis	10
Psephenidae (WATER PENNIES)	
Psephenus	1

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

01427510 DELAWARE RIVER AT CALLICOON, NY--Continued

BIOLOGICAL DATA, **WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004**
BENTHIC MACROINVERTEBRATES

Date	08/30/04
Benthic macroinvertebrate	Count
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	40
Empididae (DANCE FLIES)	
Hemerodromia	1
Simuliidae (BLACK FLIES)	
Simulium	2
Tipulidae (CRANE FLIES)	
Antocha	1
Total Organisms	136
Total Taxa	24

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

01434000 DELAWARE RIVER AT PORT JERVIS, NY

BIOLOGICAL DATA, **WATER YEARS OCTOBER 2003 TO SEPTEMBER 2004**
BENTHIC MACROINVERTEBRATES

REMARKS.--Samples were collected using a D-Frame net with a mesh size of 500 µm. Samples represent counts per 100 animal (approximate) subsamples.

Date	08/31/04
Benthic macroinvertebrate	Count
Nemertea (PROBOSCIS WORMS)	
Enopla	
Hoplonemertea	
Tetrastemmatidae	
Prostoma	4
Mollusca	
Gastropoda (SNAILS)	
Basommatophora	
Ancylidae	
Ferrissia	1
Hydrobiidae	
Amnicola	8
Physidae	
Physa	1
Bivalvia (CLAMS)	
Veneroida	
Sphaeriidae	
Sphaerium	4
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Lumbriculida	
Lumbriculidae	6
Tubificida	
Tubificidae	1
Arthropoda	
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
Acentrella	5
Baetis	6
Ephemerellidae	
Attenella	1
Serratella	3
Heptageniidae	9
Leucrocuta	7
Stenonema	5
Isonychiidae	
Isonychia	7
Tricorythidae	
Tricorythodes	1
Odonata	
Coenagrionidae (DAMSELFLIES)	
Argia	1
Plecoptera (STONEFLIES)	
Perlidae	
Acroneuria	2
Paragnetina	2

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
PENNSYLVANIA WATER-QUALITY NETWORK

01434000 DELAWARE RIVER AT PORT JERVIS, NY--Continued

BIOLOGICAL DATA, WATER YEARS OCTOBER 2003 TO SEPTEMBER 2004
BENTHIC MACROINVERTEBRATES

Date	08/31/04
Benthic macroinvertebrate	Count
Trichoptera (CADDISFLIES)	
Glossosomatidae	
Protoptila	1
Helicopsychidae	
Helicopsyche	2
Hydropsychidae	
Cheumatopsyche	6
Hydropsche	3
Potamyia	9
Philopotamidae	
Chimarra	8
Polycentropodidae	
Neureclipsis	1
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
Stenelmis	8
Psephenidae (WATER PENNIES)	
Psephenus	3
Diptera (TRUE FLIES)	
Chironomidae (MIDGES)	14
Total Organisms	129
Total Taxa	29

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
STREAM CONDITIONS OF CHESTER COUNTY BIOLOGICAL MONITORING NETWORK

Water-quality and benthic macroinvertebrate samples were collected from selected streams in Chester County in the fall of 2004 as part of the Stream Conditions of Chester County Biological Monitoring Network. The biological monitoring program was initiated in 1969 with the goals of evaluating stream quality and long-term changes in stream quality of selected streams in Chester County. Benthic macroinvertebrates are macroscopic animals that inhabit the bottoms of aquatic habitats. Freshwater forms include aquatic insects, clams, crustaceans, snails, and worms. Samples are collected annually from similar habitats of the selected streams. By sampling in similar habitats with similar physical conditions it can be assumed that water quality is the determining factor controlling community structure. Benthic macroinvertebrate sampling was conducted following a single habitat approach. A cobble riffle habitat was used because macroinvertebrate diversity and abundance is usually highest there. Samples were collected using a Hess sampler with a mesh size of 500 mm. Three samples were collected from areas of various velocities from within the riffle. Samples were composited and the entire sample was sorted and identified. Identification were made to the lowest practical level (family or genus) by a U.S. Geological Survey biologist.

TABLE 3.--Stream conditions of Chester County biological monitoring network station list.

STATION NUMBER	STATION NAME	LATITUDE	LONGITUDE	DRAINAGE AREA (mi^2)
01472080	Pigeon Creek near Slonaker, PA	40°12’03”	75°37’10”	12.0
[a]01472157	French Creek near Phoenixville, PA	40°09’05"	75°36’06"	59.1
01472170	Pickering Creek near Eagle, PA	40°04’43"	75°39’14"	3.06
014721854	Pickering Creek at Merlin, PA	40°06’25"	75°35’34"	21.2
01472190	Pickering Creek near Phoenixville, PA	40°06’33”	75°31’42”	31.4
[a]01473169	Valley Creek at PA Turnpike Bridge near Valley Forge, PA	40°04’45"	75°27’40"	20.8
[a]01475850	Crum Creek near Newtown Square, PA	39°58’35"	75°26’13"	15.8
01476450	Ridley Creek at PA Route 3 near Willistown, PA	39°58’01”	75°28’58”	13.9
01476835	East Branch Chester Creek at Westtown, PA	39°56’26”	75°32’30”	10.4
01478120	East Branch White Clay Creek at Avondale, PA	39°49’42”	75°46’52”	11.3
01478230	Middle Branch White Clay Creek near Avondale, PA	39°45’02”	75°46’19”	25.5
01479700	West Branch Red Clay Creek near Kennett Square, PA	39°48’39”	75°42’18”	16.9
01479800	East Branch Red Clay Creek near Five Points, PA	39°49’10”	75°41’29”	10.2
[a]01480300	West Branch Brandywine Creek near Honey Brook, PA	40°04’22"	75°55’40"	18.7
01480376	South Branch Birch Run near Martins Corner, PA	40°01’49"	75°52’29"	0.64
01480389	North Branch Birch Run near Martins Corner, PA	40°01’51"	75°52’29"	1.79
01480390	Birch Run near Martins Corner, PA	40°01’50"	75°52’20"	2.49
01480396	Unnamed Tributary above Reservoir to Birch Run at Martins Corner, PA	40°02’11"	75°51’23"	0.51
[a]01480400	Birch Run near Wagontown, PA	40°01’38"	75°50’43"	4.55
01480420	West Branch Brandywine Creek near Wagontown, PA	40°01’30"	75°50’40"	30.6
01480434	West Branch Brandywine Creek at Rock Run, PA	39°59’36"	75°49’41"	37.3
[a]01480617	West Branch Brandywine Creek at Modena, PA	39°57’42"	75°48’06"	55.0
01480629	Buck Run at Doe Run, PA	39°55’46”	75°49’24”	22.6
01480653	East Branch Brandywine Creek at Glenmoore, PA	40°05’48”	75°46’44”	16.5
[a]01480870	East Branch Brandywine Creek below Downingtown, PA	39°58’07"	75°40’25"	89.9
01494953	Big Elk Creek at Maple Grove, PA	39°45’44”	75°55’16”	26.6

[a] Other data for this station can be found in the continuous station records section of this report.

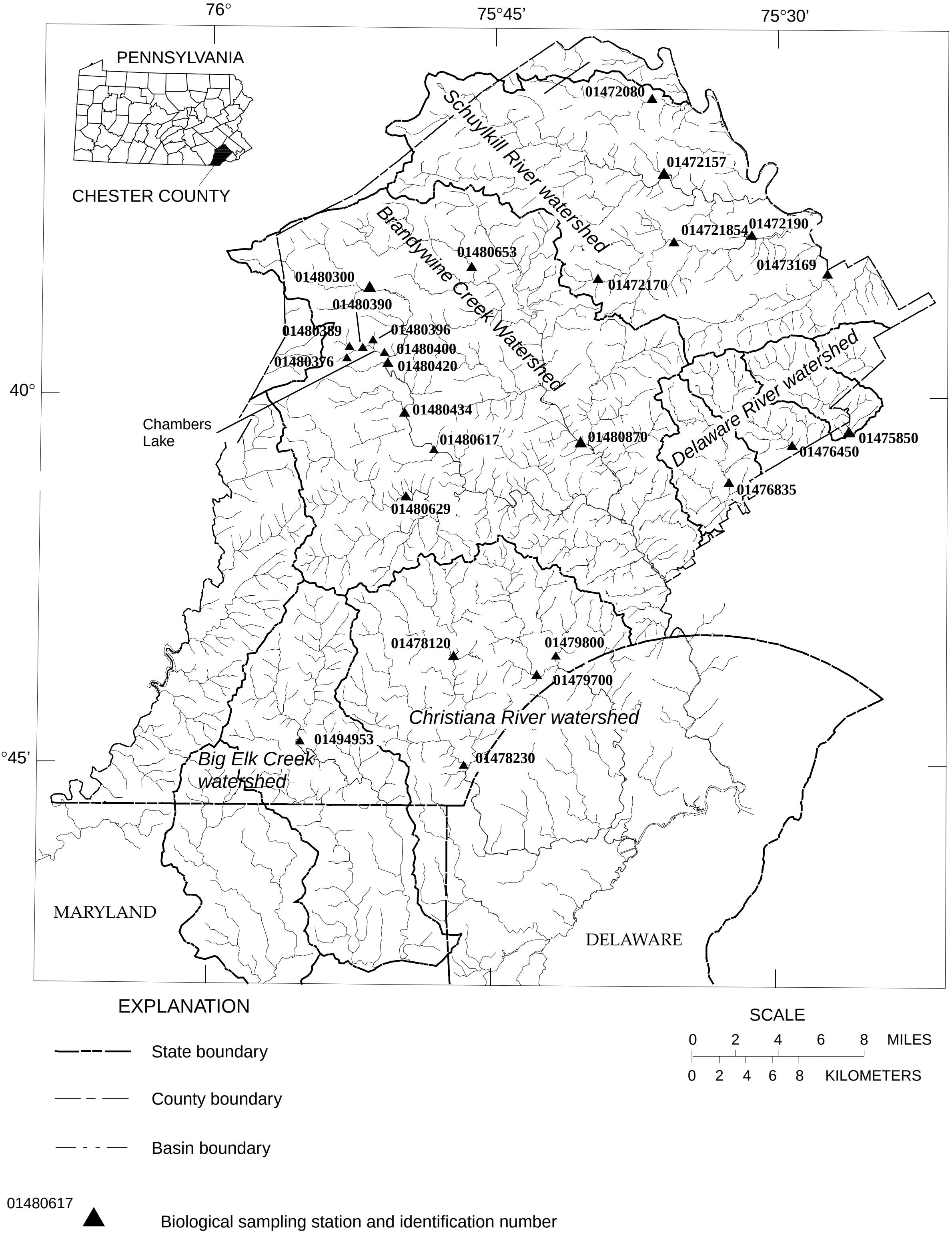

Figure 14.--Biological sampling locations and major drainage basin divides in Chester County, PA.

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
STREAM CONDITIONS OF CHESTER COUNTY BIOLOGICAL MONITORING NETWORK--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
MISCELLANEOUS STATION ANALYSES

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conductance, wat unf lab, µS/cm 25 degC (90095)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)
01472080 Pigeon Creek near Slonaker, PA (LAT 40 12 03N LONG 075 37 10W)													
OCT 2004 07...	1130	1028	80020	17	10.7	7.0	7.3	140	150	12.1	12.3	4.24	1.58
01472170 Pickering Creek near Eagle, PA (LAT 40 04 43N LONG 075 39 14W)													
OCT 2004 18...	1200	1028	80020	4.4	12.0	7.4	7.9	211	216	9.3	21.5	6.84	2.27
014721854 Pickering Creek at Merlin, PA (LAT 40 06 25N LONG 075 35 34W)													
OCT 2004 18...	0900	1028	80020	30	11.9	7.5	7.8	203	208	8.7	21.3	6.44	2.20
01472190 Pickering Creek near Phoenixville, PA (LAT 40 06 33N LONG 075 31 42W)													
DEC 2004 17...	1200	1028	80020	63	15.7	7.6	6.8	218	232	3.6	20.4	6.91	1.86
01476450 Ridley Creek at Rt 3 near Willistown, PA (LAT 39 58 01N LONG 075 28 58W)													
OCT 2004 08...	0930	1028	80020	25	10.7	7.2	7.4	256	276	13.0	19.8	10.9	2.19
01476835 East Branch Chester Creek at Westtown, PA (LAT 39 56 26N LONG 075 32 30W)													
NOV 2004 15...	1030	1028	80020	16	12.5	7.3	7.5	333	335	6.2	27.3	12.9	3.23
01478120 East Branch White Clay Creek at Avondale, PA (LAT 39 49 42N LONG 075 46 52W)													
NOV 2004 22...	1000	1028	80020	16	11.5	7.8	7.3	329	348	9.5	35.2	15.1	4.00
01478230 Middle Branch White Clay Creek near Avondale, PA (LAT 39 45 02N LONG 075 46 19W)													
NOV 2004 16...	1200	1028	80020	63	13.2	7.6	7.6	202	204	6.2	17.4	7.35	3.61
01479700 West Branch Red Clay Creek near Kennett Square, PA (LAT 39 48 39N LONG 075 42 18W)													
NOV 2004 23...	1200	1028	80020	27	12.7	8.0	7.3	372	383	10.5	36.3	14.7	5.53
01479800 East Branch Red Clay Creek near Five Points, PA (LAT 39 49 10N LONG 075 41 29W)													
NOV 2004 23...	0900	1028	80020	14	10.8	7.6	E6.7	349	365	10.0	35.5	13.9	4.01
01480376 South Branch Birch Run near Martins Corner, PA (LAT 40 01 49N LONG 075 52 29W)													
OCT 2004 22...	1000	1028	80020	.84	9.9	6.8	7.2	276	257	11.1	26.1	13.0	3.79
01480389 North Branch Birch Run near Martins Corner, PA (LAT 40 01 51N LONG 075 52 29W)													
OCT 2004 22...	0900	1028	80020	2.0	10.7	6.8	7.4	94	83	10.2	6.14	3.44	1.75
01480390 Birch Run near Martins Corner, PA (LAT 40 01 50N LONG 075 52 20W)													
OCT 2004 22...	0800	1028	80020	2.8	10.6	6.9	7.2	147	135	10.5	11.7	5.99	2.19

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
STREAM CONDITIONS OF CHESTER COUNTY BIOLOGICAL MONITORING NETWORK--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
MISCELLANEOUS STATION ANALYSES

Date	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)	ANC, wat unf incrm. titr., field, mg/L as CaCO3 (00419)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Alum- inum, water, fltrd, µg/L (01106)	Arsenic water, fltrd, µg/L (01000)
01472080 Pigeon Creek near Slonaker, PA (LAT 40 12 03N LONG 075 37 10W)													
OCT 2004													
07...	7.88	27	28	11.7	<.1	15.6	13.8	<.04	2.65	<.008	.02	--	--
01472170 Pickering Creek near Eagle, PA (LAT 40 04 43N LONG 075 39 14W)													
OCT 2004													
18...	9.69	46	46	26.8	E.1	17.4	14.5	<.04	2.19	<.008	<.02	--	--
014721854 Pickering Creek at Merlin, PA (LAT 40 06 25N LONG 075 35 34W)													
OCT 2004													
18...	10.3	50	55	23.7	E.1	17.2	14.2	<.04	1.82	<.008	<.02	--	--
01472190 Pickering Creek near Phoenixville, PA (LAT 40 06 33N LONG 075 31 42W)													
DEC 2004													
17...	11.3	47	50	25.1	E.1	17.4	17.8	<.04	2.20	<.008	<.02	--	--
01476450 Ridley Creek at Rt 3 near Willistown, PA (LAT 39 58 01N LONG 075 28 58W)													
OCT 2004													
08...	15.9	48	47	36.8	<.1	14.4	16.2	<.04	3.38	E.005	.07	--	--
01476835 East Branch Chester Creek at Westtown, PA (LAT 39 56 26N LONG 075 32 30W)													
NOV 2004													
15...	18.9	60	62	52.6	E.1	13.8	19.2	<.04	2.81	.010	.08	--	--
01478120 East Branch White Clay Creek at Avondale, PA (LAT 39 49 42N LONG 075 46 52W)													
NOV 2004													
22...	8.91	98	103	21.3	E.1	13.7	28.5	E.04	5.08	.015	<.02	--	--
01478230 Middle Branch White Clay Creek near Avondale, PA (LAT 39 45 02N LONG 075 46 19W)													
NOV 2004													
16...	9.55	39	44	18.4	<.1	14.0	18.2	<.04	4.47	<.008	E.02	--	--
01479700 West Branch Red Clay Creek near Kennett Square, PA (LAT 39 48 39N LONG 075 42 18W)													
NOV 2004													
23...	14.8	77	79	34.4	E.1	13.6	38.0	<.04	6.54	.022	.15	3	<2
01479800 East Branch Red Clay Creek near Five Points, PA (LAT 39 49 10N LONG 075 41 29W)													
NOV 2004													
23...	13.3	78	79	37.7	E.1	15.7	31.5	<.04	3.69	.008	<.02	E1	<2
01480376 South Branch Birch Run near Martins Corner, PA (LAT 40 01 49N LONG 075 52 29W)													
OCT 2004													
22...	6.71	64	77	14.2	E.1	17.2	25.2	<.04	5.92	.019	.04	--	--
01480389 North Branch Birch Run near Martins Corner, PA (LAT 40 01 51N LONG 075 52 29W)													
OCT 2004													
22...	4.54	21	19	7.16	<.1	13.7	5.9	<.04	1.29	<.008	.03	--	--
01480390 Birch Run near Martins Corner, PA (LAT 40 01 50N LONG 075 52 20W)													
OCT 2004													
22...	5.13	33	51	9.04	<.1	14.8	11.2	<.04	2.72	E.007	<.02	20	<2

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
STREAM CONDITIONS OF CHESTER COUNTY BIOLOGICAL MONITORING NETWORK--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
MISCELLANEOUS STATION ANALYSES

Date	Boron, water, fltrd, µg/L (01020)	Cadmium water, fltrd, µg/L (01025)	Chromium, water, fltrd, µg/L (01030)	Copper, water, fltrd, µg/L (01040)	Iron, water, fltrd, µg/L (01046)	Lead, water, fltrd, µg/L (01049)	Manganese, water, fltrd, µg/L (01056)	Mercury water, fltrd, µg/L (71890)	Molybdenum, water, fltrd, µg/L (01060)	Nickel, water, fltrd, µg/L (01065)
01472080 Pigeon Creek near Slonaker, PA (LAT 40 12 03N LONG 075 37 10W)										
OCT 2004										
07...	12	--	--	--	60	--	--	--	--	--
01472170 Pickering Creek near Eagle, PA (LAT 40 04 43N LONG 075 39 14W)										
OCT 2004										
18...	7.2	--	--	--	132	--	--	--	--	--
014721854 Pickering Creek at Merlin, PA (LAT 40 06 25N LONG 075 35 34W)										
OCT 2004										
18...	8.8	--	--	--	115	--	--	--	--	--
01472190 Pickering Creek near Phoenixville, PA (LAT 40 06 33N LONG 075 31 42W)										
DEC 2004										
17...	E6.2	--	--	--	66	--	--	--	--	--
01476450 Ridley Creek at Rt 3 near Willistown, PA (LAT 39 58 01N LONG 075 28 58W)										
OCT 2004										
08...	23	--	--	--	55	--	--	--	--	--
01476835 East Branch Chester Creek at Westtown, PA (LAT 39 56 26N LONG 075 32 30W)										
NOV 2004										
15...	17	--	--	--	131	--	--	--	--	--
01478120 East Branch White Clay Creek at Avondale, PA (LAT 39 49 42N LONG 075 46 52W)										
NOV 2004										
22...	7.1	--	--	--	44	--	--	--	--	--
01478230 Middle Branch White Clay Creek near Avondale, PA (LAT 39 45 02N LONG 075 46 19W)										
NOV 2004										
16...	9.4	--	--	--	31	--	--	--	--	--
01479700 West Branch Red Clay Creek near Kennett Square, PA (LAT 39 48 39N LONG 075 42 18W)										
NOV 2004										
23...	26	<.2	<.8	2.0	27	<1	17.3	<.01	E.3	<2.0
01479800 East Branch Red Clay Creek near Five Points, PA (LAT 39 49 10N LONG 075 41 29W)										
NOV 2004										
23...	12	<.2	<.8	1.6	21	<1	13.8	<.01	E.4	E1.7
01480376 South Branch Birch Run near Martins Corner, PA (LAT 40 01 49N LONG 075 52 29W)										
OCT 2004										
22...	11	--	--	--	77	--	--	--	--	--
01480389 North Branch Birch Run near Martins Corner, PA (LAT 40 01 51N LONG 075 52 29W)										
OCT 2004										
22...	8.0	--	--	--	124	--	--	--	--	--
01480390 Birch Run near Martins Corner, PA (LAT 40 01 50N LONG 075 52 20W)										
OCT 2004										
22...	9.9	<.2	E.4	E.6	102	<1	18.9	<.01	<.4	<2.0

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
STREAM CONDITIONS OF CHESTER COUNTY BIOLOGICAL MONITORING NETWORK--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
MISCELLANEOUS STATION ANALYSES

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conductance, wat unf lab, µS/cm 25 degC (90095)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)
01480396 Unn Trib ab Res to Birch Run at Martins Corner, PA (LAT 40 02 11N LONG 075 51 23W)													
OCT 2004													
21...	1130	1028	80020	.41	10.8	7.2	7.3	160	147	10.6	14.7	6.83	1.41
01480420 West Branch Brandywine Creek near Wagontown, PA (LAT 40 01 30N LONG 075 50 40W)													
NOV 2004													
02...	1000	1028	80020	34	14.5	7.7	8.0	234	231	12.2	23.4	8.45	3.56
01480434 West Branch Brandywine Creek at Rock Run, PA (LAT 39 59 36N LONG 075 49 41W)													
NOV 2004													
02...	1300	1028	80020	34	15.6	8.0	7.8	241	240	13.3	23.6	8.56	3.54
01480629 Buck Run at Doe Run, PA (LAT 39 55 46N LONG 075 49 24W)													
DEC 2004													
17...	0900	1028	80020	44	14.5	7.0	6.6	209	224	3.8	19.1	7.85	1.90
01480653 East Branch Brandywine Creek at Glenmoore, PA (LAT 40 05 48N LONG 075 46 44W)													
OCT 2004													
12...	1400	1028	80020	15	11.8	7.6	7.6	196	211	11.6	20.7	6.47	2.25
01494953 Big Elk Creek at Maple Grove, PA (LAT 39 45 44N LONG 075 55 16W)													
DEC 2004													
16...	0900	1028	80020	41	14.0	7.7	6.9	184	194	1.6	13.4	6.96	2.45

Date	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)	ANC, wat unf incrm. titr., field, mg/L as CaCO3 (00419)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Boron, water, fltrd, µg/L (01020)	Iron, water, fltrd, µg/L (01046)
01480396 Unn Trib ab Res to Birch Run at Martins Corner, PA (LAT 40 02 11N LONG 075 51 23W)													
OCT 2004													
21...	5.30	48	50	8.36	<.1	18.9	13.8	<.04	.80	<.008	.05	9.3	94
01480420 West Branch Brandywine Creek near Wagontown, PA (LAT 40 01 30N LONG 075 50 40W)													
NOV 2004													
02...	8.67	56	53	17.3	E.1	14.5	16.3	<.04	4.04	.010	.02	11	99
01480434 West Branch Brandywine Creek at Rock Run, PA (LAT 39 59 36N LONG 075 49 41W)													
NOV 2004													
02...	9.84	54	62	21.7	E.1	14.1	17.2	<.04	3.57	E.006	.02	13	60
01480629 Buck Run at Doe Run, PA (LAT 39 55 46N LONG 075 49 24W)													
DEC 2004													
17...	8.65	39	41	18.5	<.1	9.1	16.3	<.04	5.94	<.008	<.02	8.5	42
01480653 East Branch Brandywine Creek at Glenmoore, PA (LAT 40 05 48N LONG 075 46 44W)													
OCT 2004													
12...	8.44	46	40	15.6	E.1	18.0	15.9	<.04	3.85	E.005	E.01	8.8	58
01494953 Big Elk Creek at Maple Grove, PA (LAT 39 45 44N LONG 075 55 16W)													
DEC 2004													
16...	9.69	27	34	19.7	<.1	11.5	10.7	<.04	5.82	E.004	<.02	E6.7	31

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
STREAM CONDITIONS OF CHESTER COUNTY BIOLOGICAL MONITORING NETWORK--Continued

BIOLOGICAL DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
BENTHIC MACROINVERTEBRATES

REMARKS.--Samples were collected using a Hess sampler with a mesh size of 500 µm. Each sample covered a total area of 2.4 m^2. A dash (--) indicates there were no observations of the organism in the sample.

Station number	01472080	01472170	014721854	01472190	01476450	01476835
Date	10/07/04	10/18/04	10/18/04	12/17/04	10/08/04	11/15/04
Benthic macroinvertebrate	Count	Count	Count	Count	Count	Count
Platyhelminthes						
Turbellaria (FLATWORMS)						
Tricladida						
Planariidae	4	2	7	2	20	32
Nematoda (NEMATODES)	--	--	8	1	31	43
Nemertea (PROBOSCIS WORMS)						
Enopla						
Hoplonemertea						
Tetrastemmatidae						
Prostoma	15	3	2	--	6	10
Mollusca						
Gastropoda (SNAILS)						
Basommatophora						
Ancylidae						
Ferrissia	--	--	7	1	--	52
Physidae						
Physa	--	--	--	--	--	--
Planorbidae						
Gyraulus	--	--	--	--	--	2
Bivalvia (CLAMS)						
Veneroida						
Corbiculidae						
Corbicula fluminea	--	--	--	--	3	84
Sphaeriidae	--	--	--	--	--	38
Pisidium	--	--	--	--	--	--
Sphaerium	9	--	1	2	3	--
Annelida						
Oligochaeta (AQUATIC EARTHWORMS)						
Lumbriculida						
Lumbriculidae	--	7	5	7	2	3
Tubificida						
Naididae	3	--	2	3	1	35
Tubificidae	3	--	--	--	3	70
Arthropoda						
Acariformes						
Hydrachnidia (WATER MITES)	12	53	41	3	21	134
Crustacea						
Copepoda	2	--	--	--	--	--
Amphipoda (SCUDS)						
Crangonyctidae						
Crangonyx	--	--	--	--	2	16
Stygonectes	--	--	--	3	1	--
Gammaridae						
Gammarus	--	--	--	--	--	--

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
STREAM CONDITIONS OF CHESTER COUNTY BIOLOGICAL MONITORING NETWORK--Continued

BIOLOGICAL DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
BENTHIC MACROINVERTEBRATES--Continued

01478120	01478230	01479700	01479800	01480376	01480389	Station number
11/22/04	11/16/04	11/23/04	11/23/04	10/22/04	10/22/04	Date
Count	Count	Count	Count	Count	Count	Benthic macroinvertebrate
						Platyhelminthes
						Turbellaria (FLATWORMS)
						Tricladida
120	2	3	9	7	1	Planariidae
1	73	1	5	4	5	Nematoda (NEMATODES)
						Nemertea (PROBOSCIS WORMS)
						Enopla
						Hoplonemertea
						Tetrastemmatidae
2	--	10	3	16	24	*Prostoma*
						Mollusca
						Gastropoda (SNAILS)
						Basommatophora
						Ancylidae
--	2	--	1	--	1	*Ferrissia*
						Physidae
--	--	--	--	1	--	*Physa*
						Planorbidae
--	--	--	--	--	--	*Gyraulus*
						Bivalvia (CLAMS)
						Veneroida
						Corbiculidae
--	--	--	--	--	--	*Corbicula fluminea*
--	--	--	--	--	--	Sphaeriidae
--	--	--	1	12	2	*Pisidium*
3	--	--	5	258	4	*Sphaerium*
						Annelida
						Oligochaeta (AQUATIC EARTHWORMS)
						Lumbriculida
--	7	2	--	13	10	Lumbriculidae
						Tubificida
--	1	3	4	8	4	Naididae
3	--	--	--	4	6	Tubificidae
						Arthropoda
						Acariformes
--	9	2	8	7	13	Hydrachnidia (WATER MITES)
						Crustacea
3	--	3	2	--	--	Copepoda
						Amphipoda (SCUDS)
						Crangonyctidae
2	--	--	--	--	--	*Crangonyx*
--	8	2	7	1	--	*Stygonectes*
						Gammaridae
--	--	--	15	--	--	*Gammarus*

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
STREAM CONDITIONS OF CHESTER COUNTY BIOLOGICAL MONITORING NETWORK--Continued

BIOLOGICAL DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
BENTHIC MACROINVERTEBRATES--Continued

Station number	01472080	01472170	014721854	01472190	01476450	01476835
Date	10/07/04	10/18/04	10/18/04	12/17/04	10/08/04	11/15/04
Benthic macroinvertebrate	Count	Count	Count	Count	Count	Count
Arthropoda						
Isopoda (AQUATIC SOWBUGS)						
Asellidae						
Caecidotea	--	--	--	--	--	--
Decapoda						
Cambaridae (CRAYFISH)	--	--	1	--	--	--
Podocopa (SEED SHRIMP)	--	--	--	--	--	--
Insecta						
Ephemeroptera (MAYFLIES)						
Baetidae						
Acentrella	13	11	5	--	5	--
Baetis	11	2	1	--	44	--
Plauditus	--	2	--	--	--	1
Caenidae						
Caenis	--	--	--	--	--	1
Ephemerellidae						
Dannella	69	--	--	--	--	--
Ephemerella	--	--	--	--	--	--
Eurylophella	--	2	3	3	1	--
Serratella	7	14	5	13	10	--
Heptageniidae						
Epeorus	--	--	--	--	--	--
Stenonema	54	95	64	12	18	135
Isonychiidae						
Isonychia	5	3	150	5	16	--
Leptohyphidae						
Tricorythodes	--	--	--	--	--	--
Leptophlebiidae						
Paraleptophelbia	6	--	--	--	--	--
Odonata (DRAGONFLIES AND DAMSELFLIES)						
Aeshnidae						
Boyeria	--	--	1	--	--	1
Coenagrionidae						
Argia	--	--	--	--	1	18
Gomphidae	--	1	5	--	--	--
Lanthus	--	--	--	--	--	--
Stylogomphus	--	--	--	--	--	3
Plecoptera (STONEFLIES)						
Capniidae	--	3	--	--	4	--
Allocapnia	--	--	--	115	--	--
Chloroperlidae	--	--	--	--	1	1
Alloperla	19	--	--	--	--	--
Sweltsa	--	--	--	--	--	--
Perlidae						
Acroneuria	8	1	6	--	1	--
Agnetina	1	--	--	--	1	--
Paragnetina	--	--	1	--	--	--
Perlodidae						
Isoperla	--	--	--	--	--	--

BIOLOGICAL DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
BENTHIC MACROINVERTEBRATES--Continued

01478120	01478230	01479700	01479800	01480376	01480389	Station number
11/22/04	11/16/04	11/23/04	11/23/04	10/22/04	10/22/04	Date
Count	Count	Count	Count	Count	Count	Benthic macroinvertebrate
						Arthropoda
						Isopoda (AQUATIC SOWBUGS)
						Asellidae
2	--	7	1	6	--	*Caecidotea*
						Decapoda
--	--	--	--	--	--	Cambaridae (CRAYFISH)
--	--	--	--	4	--	Podocopa (SEED SHRIMP)
						Insecta
						Ephemeroptera (MAYFLIES)
						Baetidae
5	6	2	2	--	3	*Acentrella*
1	1	1	--	5	17	*Baetis*
--	--	--	--	--	--	*Plauditus*
						Caenidae
--	--	--	--	--	--	*Caenis*
						Ephemerellidae
--	--	--	--	--	--	*Dannella*
--	--	4	--	--	--	*Ephemerella*
--	--	--	--	4	--	*Eurylophella*
18	2	--	3	25	212	*Serratella*
						Heptageniidae
--	--	--	--	1	30	*Epeorus*
5	8	--	23	245	64	*Stenonema*
						Isonychiidae
1	9	--	2	--	9	*Isonychia*
						Leptohyphidae
1	1	--	--	--	--	*Tricorythodes*
						Leptophlebiidae
--	--	--	--	44	33	*Paraleptophelbia*
						Odonata (DRAGONFLIES AND DAMSELFLIES)
						Aeshnidae
--	--	--	--	--	--	*Boyeria*
						Coenagrionidae
--	--	--	--	--	--	*Argia*
--	--	--	--	--	--	Gomphidae
--	--	--	--	--	20	*Lanthus*
--	--	--	--	--	--	*Stylogomphus*
						Plecoptera (STONEFLIES)
--	--	--	--	6	97	Capniidae
7	76	3	1	--	--	*Allocapnia*
--	--	--	--	--	--	Chloroperlidae
--	--	--	--	--	--	*Alloperla*
--	1	--	--	--	--	*Sweltsa*
						Perlidae
--	--	--	--	1	18	*Acroneuria*
--	--	--	--	--	--	*Agnetina*
--	--	--	--	--	--	*Paragnetina*
						Perlodidae
--	61	--	--	2	1	*Isoperla*

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
STREAM CONDITIONS OF CHESTER COUNTY BIOLOGICAL MONITORING NETWORK--Continued

BIOLOGICAL DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
BENTHIC MACROINVERTEBRATES--Continued

Station number	01472080	01472170	014721854	01472190	01476450	01476835
Date	10/07/04	10/18/04	10/18/04	12/17/04	10/08/04	11/15/04
Benthic macroinvertebrate	Count	Count	Count	Count	Count	Count
Plecoptera (STONEFLIES)						
Taeniopterygidae						
Strophopteryx	--	--	--	161	--	1
Taenionema	--	--	--	23	--	--
Taeniopteryx	1	92	932	76	--	9
Megaloptera						
Corydalidae (FISHFLIES AND DOBSONFLIES)						
Corydalus	--	--	--	--	--	--
Nigronia	--	4	--	--	--	--
Sialidae (ALDERFLIES)						
Sialis	5	1	--	--	--	--
Trichoptera (CADDISFLIES)						
Apataniidae						
Apatania	6	--	10	2	--	--
Brachycentridae						
Micrasema	4	2	43	8	29	--
Glossosomatidae						
Glossosoma	3	5	7	6	--	--
Goeridae						
Goera	--	--	1	--	--	--
Hydropsychidae						
Ceratopsyche	--	--	--	--	--	--
Cheumatopsyche	139	147	61	4	75	245
Diplectrona	--	--	--	--	--	--
Hydropsyche	358	137	368	7	334	965
Macrostemum	--	--	1	--	--	--
Potamyia	--	--	--	--	--	5
Hydroptilidae						
Hydroptila	1	2	--	--	--	60
Leucotrichia	1	9	35	3	3	--
Leptoceridae						
Oecetis	--	--	--	--	--	15
Limnephilidae						
Hydatophylax	--	--	--	--	--	--
Philopotamidae						
Chimarra	78	5	25	6	35	11
Dolophilodes	3	5	--	--	--	--
Polycentropodidae						
Nyctiophylax	--	--	1	--	--	--
Polycentropus	--	2	--	--	--	1
Psychomyiidae						
Psychomyia	--	23	--	1	--	--
Rhyacophilidae						
Rhyacophila	7	1	--	--	1	--
Uenoidae						
Neophylax	--	7	--	4	--	--
Lepidoptera						
Pyralididae(MOTHS)						
Petrophila	--	--	--	--	--	--

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
STREAM CONDITIONS OF CHESTER COUNTY BIOLOGICAL MONITORING NETWORK--Continued

BIOLOGICAL DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
BENTHIC MACROINVERTEBRATES--Continued

01478120	01478230	01479700	01479800	01480376	01480389	Station number
11/22/04	11/16/04	11/23/04	11/23/04	10/22/04	10/22/04	Date
Count	Count	Count	Count	Count	Count	Benthic macroinvertebrate
						Plecoptera (STONEFLIES)
						Taeniopterygidae
--	57	--	--	--	--	*Strophopteryx*
--	--	1	--	--	--	*Taenionema*
7	20	--	1	1	59	*Taeniopteryx*
						Megaloptera
						Corydalidae (FISHFLIES AND DOBSONFLIES)
--	1	--	--	--	--	*Corydalus*
--	--	--	1	14	2	*Nigronia*
						Sialidae (ALDERFLIES)
--	--	--	--	--	--	*Sialis*
						Trichoptera (CADDISFLIES)
						Apataniidae
--	--	--	--	1	5	*Apatania*
						Brachycentridae
--	--	--	--	--	17	*Micrasema*
						Glossosomatidae
--	20	--	--	--	12	*Glossosoma*
						Goeridae
1	--	--	--	--	--	*Goera*
						Hydropsychidae
--	--	20	365	--	--	*Ceratopsyche*
--	51	21	24	700	187	*Cheumatopsyche*
--	--	4	--	--	--	*Diplectrona*
52	177	93	45	246	252	*Hydropsyche*
--	--	--	--	--	--	*Macrostemum*
2	--	--	--	--	--	*Potamyia*
						Hydroptilidae
--	--	--	2	--	1	*Hydroptila*
4	--	--	2	--	--	*Leucotrichia*
						Leptoceridae
--	--	--	--	--	--	*Oecetis*
						Limnephilidae
--	1	--	--	--	1	*Hydatophylax*
						Philopotamidae
18	18	--	202	141	18	*Chimarra*
--	2	3	--	--	108	*Dolophilodes*
						Polycentropodidae
--	--	--	--	--	--	*Nyctiophylax*
--	4	--	--	4	1	*Polycentropus*
						Psychomyiidae
--	--	--	--	3	--	*Psychomyia*
						Rhyacophilidae
--	--	--	--	4	22	*Rhyacophila*
						Uenoidae
--	--	--	--	1	--	Neophylax
						Lepidoptera
						Pyralididae(MOTHS)
--	--	--	1	--	--	*Petrophila*

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
STREAM CONDITIONS OF CHESTER COUNTY BIOLOGICAL MONITORING NETWORK--Continued

BIOLOGICAL DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
BENTHIC MACROINVERTEBRATES--Continued

Station number	01472080	01472170	014721854	01472190	01476450	01476835
Date	10/07/04	10/18/04	10/18/04	12/17/04	10/08/04	11/15/04
Benthic macroinvertebrate	Count	Count	Count	Count	Count	Count
Coleoptera (BEETLES)						
Dryopidae						
Helichus	--	--	1	--	--	--
Elmidae (RIFFLE BEETLES)						
Ancyronyx	--	--	--	--	--	14
Dubiraphia	4	1	13	1	5	27
Macronychus	--	--	--	--	--	3
Microcylloepus	--	--	--	--	--	12
Optioservus	109	111	87	2	154	100
Oulimnius	49	56	71	1	89	47
Promoresia	7	--	14	--	3	--
Stenelmis	84	1	18	--	239	697
Hydrophilidae						
Berosus	--	--	--	--	--	1
Psephenidae (WATER PENNIES)						
Ectopria	1	--	--	--	--	--
Psephenus	7	5	4	--	21	114
Ptilodactylidae						
Anchytarsus	--	1	--	--	--	--
Diptera (TRUE FLIES)						
Athericidae						
Atherix	--	--	--	--	--	--
Ceratopogonidae	--	--	--	--	--	18
Chironomidae (MIDGES)	60	397	277	149	95	1930
Empididae (DANCE FLIES)						
Chelifera	2	--	--	--	--	34
Hemerodromia	2	9	4	1	1	22
Simuliidae (BLACK FLIES)						
Prosimulium	--	--	--	17	--	10
Simulium	18	13	18	--	208	326
Tabanidae	--	--	--	--	--	--
Tipulidae (CRANE FLIES)						
Antocha	12	102	35	4	3	103
Dicranota	2	1	--	2	2	16
Hexatoma	--	--	--	--	--	2
Tipula	--	--	3	--	1	1
Total organisms	1204	1338	2344	648	1493	5468
Total number of taxa	42	40	42	33	40	47

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
STREAM CONDITIONS OF CHESTER COUNTY BIOLOGICAL MONITORING NETWORK--Continued

BIOLOGICAL DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
BENTHIC MACROINVERTEBRATES--Continued

01478120	01478230	01479700	01479800	01480376	01480389	Station number
11/22/04	11/16/04	11/23/04	11/23/04	10/22/04	10/22/04	Date
Count	Count	Count	Count	Count	Count	Benthic macroinvertebrate
						Coleoptera (BEETLES)
						Dryopidae
--	--	--	--	--	1	*Helichus*
						Elmidae (RIFFLE BEETLES)
--	--	1	1	--	--	*Ancyronyx*
--	--	--	2	25	--	*Dubiraphia*
--	--	--	--	--	--	*Macronychus*
--	--	--	--	--	--	*Microcylloepus*
133	21	14	141	38	31	*Optioservus*
2	7	--	33	56	184	*Oulimnius*
--	--	--	--	--	35	*Promoresia*
19	2	2	148	255	5	*Stenelmis*
						Hydrophilidae
--	--	--	--	--	--	*Berosus*
						Psephenidae (WATER PENNIES)
--	--	--	1	3	12	*Ectopria*
4	2	1	26	65	16	*Psephenus*
						Ptilodactylidae
--	--	--	--	6	--	*Anchytarsus*
						Diptera (TRUE FLIES)
						Athericidae
--	--	--	2	--	--	*Atherix*
--	--	1	--	--	--	Ceratopogonidae
617	120	440	509	219	224	Chironomidae (MIDGES)
						Empididae (DANCE FLIES)
6	--	2	--	--	--	*Chelifera*
25	5	11	11	2	3	*Hemerodromia*
						Simuliidae (BLACK FLIES)
--	--	--	--	--	--	*Prosimulium*
41	5	38	16	13	16	*Simulium*
--	--	--	--	2	--	Tabanidae
						Tipulidae (CRANE FLIES)
24	9	17	31	23	20	*Antocha*
--	--	--	--	3	3	*Dicranota*
--	--	--	--	--	10	*Hexatoma*
--	1	5	1	1	1	*Tipula*
1129	790	717	1657	2500	1820	Total organisms
30	35	30	39	46	48	Total number of taxa

BIOLOGICAL DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
BENTHIC MACROINVERTEBRATES--Continued

Station number	014800390	01480396	01480420	01480434	01480629	01480653	01494953
Date	10/22/04	10/21/04	11/02/04	11/02/04	12/17/04	10/12/04	12/17/04
Benthic macroinvertebrate	Count	Count	Count	Count	Count	Count	Count
Platyhelminthes							
Turbellaria (FLATWORMS)							
Tricladida							
Planariidae	5	12	--	7	35	4	2
Nematoda (NEMATODES)	3	--	19	21	4	38	5
Nemertea (PROBOSCIS WORMS)							
Enopla							
Hoplonemertea							
Tetrastemmatidae							
Prostoma	7	2	4	9	5	12	5
Mollusca							
Gastropoda (SNAILS)							
Basommatophora							
Ancylidae							
Ferrissia	--	--	--	5	2	18	--
Physidae							
Physa	1	--	--	--	--	--	--
Planorbidae							
Gyraulus	--	--	--	--	1	--	--
Bivalvia (CLAMS)							
Veneroida							
Sphaeriidae							
Pisidium	--	1	--	--	--	--	--
Sphaerium	3	44	10	7	8	1	--
Annelida							
Oligochaeta (AQUATIC EARTHWORMS)							
Lumbriculida							
Lumbriculidae	2	2	1	--	--	4	--
Tubificida							
Naididae	3	--	--	4	--	--	3
Tubificidae	--	8	--	--	--	2	--
Arthropoda							
Acariformes							
Hydrachnidia (WATER MITES)	88	31	33	18	15	30	3
Crustacea							
Copepoda	1	1	--	--	1	--	--
Amphipoda (SCUDS)							
Crangonyctidae							
Stygonectes	--	--	--	--	2	--	--
Isopoda (AQUATIC SOWBUGS)							
Asellidae							
Caecidotea	--	--	--	--	2	--	--
Decapoda							
Cambaridae (CRAYFISH)	--	--	--	--	--	1	--
Podocopa (SEED SHRIMP)	--	--	--	1	--	--	--

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
STREAM CONDITIONS OF CHESTER COUNTY BIOLOGICAL MONITORING NETWORK--Continued

BIOLOGICAL DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
BENTHIC MACROINVERTEBRATES--Continued

Station number	014800390	01480396	01480420	01480434	01480629	01480653	01494953
Date	10/22/04	10/21/04	11/02/04	11/02/04	12/17/04	10/12/04	12/17/04
Benthic macroinvertebrate	Count	Count	Count	Count	Count	Count	Count
Insecta							
Ephemeroptera (MAYFLIES)							
Baetidae							
Acentrella	--	--	--	4	--	22	2
Baetis	3	75	--	--	--	5	--
Cloeon	--	--	--	1	--	--	--
Ephemerellidae							
Ephemerella	--	--	--	1	--	--	--
Eurylophella	1	20	--	1	--	--	--
Serratella	51	--	17	15	372	25	--
Heptageniidae							
Epeorus	9	1	--	2	21	--	--
Stenonema	76	111	33	64	134	208	--
Isonychiidae							
Isonychia	3	--	16	21	134	153	--
Leptohyphidae							
Tricorythodes	--	--	--	--	1	--	--
Leptophlebiidae							
Paraleptophlebia	4	94	--	--	--	1	--
Odonata (DRAGONFLIES AND DAMSELFLIES)							
Aeshnidae							
Boyeria	--	3	--	--	--	--	--
Calopterygidae							
Calopteryx	--	2	--	--	--	--	--
Coenagrionidae							
Argia	--	--	1	--	--	--	--
Gomphidae	--	--	--	--	1	--	--
Lanthus	6	1	--	--	--	--	--
Plecoptera (STONEFLIES)							
Capniidae	5	--	73	--	--	2	--
Allocapnia	--	--	--	213	50	--	--
Chloroperlidae							
Sweltsa	--	--	--	--	--	2	--
Leuctridae							
Paraleuctra	--	100	--	--	--	--	--
Nemouridae	--	--	--	44	--	--	--
Nemoura	--	2	--	--	--	--	--
Perlidae							
Acroneuria	12	2	1	7	--	6	--
Agnetina	--	1	--	--	--	--	--
Paragnetina	--	--	--	2	--	--	--
Perlodidae							
Isoperla	--	5	--	--	--	--	--
Taeniopterygidae							
Strophopteryx	--	--	--	--	123	--	--
Taeniopteryx	33	2	10	29	67	77	--

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
STREAM CONDITIONS OF CHESTER COUNTY BIOLOGICAL MONITORING NETWORK--Continued

BIOLOGICAL DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
BENTHIC MACROINVERTEBRATES--Continued

Station number	014800390	01480396	01480420	01480434	01480629	01480653	01494953
Date	10/22/04	10/21/04	11/02/04	11/02/04	12/17/04	10/12/04	12/17/04
Benthic macroinvertebrate	Count	Count	Count	Count	Count	Count	Count
Megaloptera							
Corydalidae (FISHFLIES AND DOBSONFLIES)							
Corydalus	--	--	5	4	--	4	--
Nigronia	12	13	--	--	--	9	1
Sialidae (ALDERFLIES)							
Sialis	2	7	--	--	--	4	--
Trichoptera (CADDISFLIES)							
Apataniidae							
Apatania	5	1	--	1	--	--	--
Brachycentridae							
Micrasema	43	--	--	--	--	24	--
Glossosomatidae							
Glossosoma	39	--	1	--	16	5	--
Goeridae							
Goera	--	--	--	--	--	1	--
Hydropsychidae							
Cheumatopsyche	461	3	268	78	63	194	6
Diplectrona	--	109	--	--	--	5	--
Hydropsyche	931	22	248	125	252	272	104
Hydroptilidae							
Hydroptila	--	--	--	--	1	--	--
Leucotrichia	--	5	15	1	29	14	3
Lepidostomatidae							
Lepidostoma	--	--	--	--	3	--	--
Leptoceridae							
Mystacides	--	--	--	--	1	--	--
Oecetis	--	--	--	1	--	1	--
Triaenodes	--	2	--	--	--	1	--
Limnephilidae							
Hydatophylax	--	1	--	--	--	--	--
Odontoceridae							
Psilotreta	--	7	--	--	--	--	--
Philopotamidae							
Chimarra	37	1	25	10	287	29	--
Dolophilodes	3	34	--	1	--	--	--
Wormaldia	--	--	--	--	--	1	--
Polycentropodidae							
Neureclipsis	--	--	--	--	--	2	--
Polycentropus	1	1	--	--	1	1	--
Psychomyiidae							
Lype	--	1	--	--	--	--	--
Psychomyia	4	--	--	--	2	3	--
Rhyacophilidae							
Rhyacophila	9	42	1	1	1	7	--
Uenoidae							
Neophylax	2	--	--	--	--	4	--
Lepidoptera							
Pyralididae(MOTHS)							
Petrophila	1	--	--	--	--	--	--

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
STREAM CONDITIONS OF CHESTER COUNTY BIOLOGICAL MONITORING NETWORK--Continued

BIOLOGICAL DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
BENTHIC MACROINVERTEBRATES--Continued

Station number	014800390	01480396	01480420	01480434	01480629	01480653	01494953
Date	10/22/04	10/21/04	11/02/04	11/02/04	12/17/04	10/12/04	12/17/04
Benthic macroinvertebrate	Count	Count	Count	Count	Count	Count	Count
Coleoptera (BEETLES)							
Dryopidae							
Helichus	7	--	--	--	--	--	--
Elmidae (RIFFLE BEETLES)							
Ancyronyx	--	--	--	--	1	--	--
Dubiraphia	--	2	--	--	4	1	--
Optioservus	32	4	140	48	91	76	4
Oulimnius	167	20	32	19	24	32	2
Promoresia	153	--	--	--	--	--	--
Stenelmis	71	7	226	44	52	64	2
Psephenidae (WATER PENNIES)							
Ectopria	7	21	--	--	--	--	--
Psephenus	10	1	27	11	28	14	--
Ptilodactylidae							
Anchytarsus	--	12	--	--	--	--	--
Diptera (TRUE FLIES)							
Ceratopogonidae	--	4	--	--	--	--	--
Chironomidae (MIDGES)	254	292	417	225	722	127	445
Dixidae							
Dixa	--	3	--	--	--	--	--
Empididae (DANCE FLIES)							
Chelifera	--	--	--	1	5	--	44
Hemerodromia	7	--	5	3	6	5	2
Psychodidae							
Telmatoscopus	--	--	--	--	1	--	--
Simuliidae (BLACK FLIES)							
Prosimilium	--	--	--	--	86	--	--
Simulium	16	--	7	3	11	182	5
Tabanidae	--	2	--	--	--	--	--
Tipulidae (CRANE FLIES)	--	--	--	--	--	--	1
Antocha	105	1	38	10	13	38	5
Hexatoma	--	23	--	--	--	--	--
Tipula	2	5	--	--	--	--	--
Total organisms	2697	1166	1673	1062	2678	1731	644
Total number of taxa	46	51	27	39	43	47	19

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
ACID MINE DRAINAGE PROJECTS IN THE UPPER SCHUYLKILL RIVER BASIN

Miscellaneous water-quality data were collected for several projects in cooperation with the Schuylkill Conservation District and the Schuylkill Headwaters Association, Inc. These projects involve assessing the characteristics and remediation of abandoned mine drainage in the Upper Schuylkill River Basin. For additional information, contact Charles Cravotta at the USGS Pennsylvania Water Science Center, 215 Limekiln Road, New Cumberland, PA 17070; 717-730-6900, (email: cravotta@usgs.gov).

TABLE 4.--Acid mine drainage project station list.

Station number	Location	Latitude	Longitude	Drainage area (mi^2)
404512076025501	Bell Water Level Tunnel	40° 45’ 10”	76° 02’ 53"	n.a.
0146742498	Bell Water Level Tunnel, 225 M DS, nr Middleport, PA	40° 45’ 14”	76° 02’ 57"	0.02
404513076025811	Bell Wetland, Cell A Outflow Pipe	40° 45’ 13”	76° 02’ 58"	n.a.
404511076025811	Bell Wetland, Cell B Outflow Pipe	40° 45’ 11”	76° 02’ 58	n.a.
404513076025812	Bell Wetland, Cell A Spillway	40° 45’ 13”	76° 02’ 58	n.a.
404511076025812	Bell Wetland, Cell B Spillway	40° 45’ 11”	76° 02’ 58	n.a.
404511076025813	Bell Wetland, Cell B, Flush Pipe	40° 45’ 11”	76° 02’ 58	n.a.
0146742494	Schuylkill River ab Bell Tunnel at Mary D, PA	40° 45’ 16”	76° 02’ 54"	3.29
0146742500	Schuylkill River bl Bell Tunnel at Mary D, PA	40° 45’ 12”	76° 03’ 01"	3.35
404511076030101	Bell Colliery Wetland Bypass Trench	40° 45’ 11”	76° 03’ 01"	n.a.
403958076191401	Otto Air Shaft	40° 39’ 58”	76° 19’ 14"	n.a.
0146784348	Otto Air Shaft near Llewellyn, PA	40° 40’ 03"	76° 19’ 11"	0.08
0146784350	Otto Air Shaft, 400 M DS, nr Llewellyn, PA	40° 40’ 07”	76° 19’ 07"	0.09
0146784338	Muddy Branch ab Otto Mine Discharge nr Branchdale, PA	40° 40’ 08”	76° 19’ 07"	1.66
0146784354	Muddy Branch bl Otto Mine Discharge ab Steins, PA	40° 40’ 03”	76° 18’ 24"	2.25
0146784358	Muddy Branch bl Otto Mine Discharge bl Steins, PA	40° 39’ 53”	76° 18’ 10"	3.03
404001076191301	Otto Mine Airshaft Wetland Cell 1 Outflow	40° 40’ 01”	76° 19’ 13"	n.a.
404006076191001	Otto Mine Airshaft Wetland Cell 2 Outflow	40° 40’ 06”	76° 19’ 10"	n.a.
404005076190901	Otto Mine Airshaft Wetland Cell 3 Outflow	40° 40’ 04”	76° 19’ 09"	n.a.
404008076190601	Otto Mine Airshaft Limestone Drain Outflow	40° 40’ 07”	76° 19’ 06"	n.a.
404320076103201	Pine Forest Mine	40° 43’ 20”	76° 10’ 32"	n.a.
0146748710	L Wolf Creek ab Pine Forest AMD at St. Clair, PA	40° 43’ 08”	76° 10’ 38"	0.85
404705076003201	Reevesdale S Dip Tunnel	40° 47’ 05”	76° 00’ 32"	n.a.
01467688	WB Schuylkill River ab Pine Knot Disch at Duncott	40° 42’ 14”	76° 14’ 58"	17.1
01467689	Pine Knot Disch 500 m bl Tunnel at Duncott, PA	40° 42’ 14”	76° 14’ 59"	n.a.
01467691	Oak Hill Disch 200 m bl Borehole at Duncott	40° 42’ 07”	76° 15’ 05"	n.a.
01467692	WB Schuylkill R bl Oak Hill Borehole at Duncott	40° 42’ 04”	76° 15’ 06"	17.5
01467752	WB Schuylkill River ab West Cr near Pottsville, PA	40° 40’ 07”	76° 14’ 11"	24.1
01467861	West Cr West Branch Schuylkill near Pottsville, PA	40° 40’ 07”	76° 14’ 16"	18.6
01467492	Mill Cr ab Schuylkill River at Port Carbon, PA	40° 41’ 37”	76° 09’ 53"	25.5
01467471	Schuylkill River ab Mill Creek at Port Carbon, PA	40° 41’ 37”	76° 09’ 53"	27.2
01469700	Little Schuylkill River at South Tamaqua, PA	40° 46’ 23”	75° 57’ 25"	65.7

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES ACID MINE DRAINAGE PROJECTS IN THE UPPER SCHUYLKILL RIVER BASIN

404512076025501 -- Bell Water Level Tunnel

REMARKS.--Some values for "dissolved" parameters exceeded values for the corresponding "total" parameter. These results are within the limits of analytical precision and methods.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Oxidation reduction potential, mV (00090)	Turbidity, water, unfltrd field, NTU (61028)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)
OCT 13...	1100	1028	89203	1.8	628	7.0	7.8	69	3.6	4.0
NOV 16...	1200	1028	89203	1.3	587	5.5	7.1	62	3.8	3.9
DEC 16...	1145	1028	89203	4.7	457	5.8	6.3	56	2.7	3.5
JAN 25...	1415	1028	89203	3.7	495	--	6.3	56	4.1	4.0
FEB 23...	1200	1028	89203	1.9	617	5.0	8.7	76	3.8	3.8
MAR 15...	1230	1028	89203	1.5	316	--	7.7	67	3.7	3.7

Date	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Calcium water unfltrd recoverable, mg/L (00916)	Magnesium, water, fltrd, mg/L (00925)	Magnesium, water, unfltrd recoverable, mg/L (00927)	Potassium, water, fltrd, mg/L (00935)	Potassium, water, unfltrd recoverable, mg/L (00937)	Sodium, water, fltrd, mg/L (00930)	Sodium, water, unfltrd recoverable, mg/L (00929)
OCT 13...	304	9.6	16.8	17.3	14.4	14.6	1.00	1.0	2.60	2.3
NOV 16...	319	9.7	19.1	19.0	15.3	15.6	1.00	1.0	2.50	2.6
DEC 16...	288	9.5	16.9	18.0	14.1	15.0	1.00	1.0	2.60	2.2
JAN 25...	282	9.4	17.5	19.9	14.6	16.1	4.70	1.1	2.80	2.9
FEB 23...	285	9.6	16.4	17.3	13.8	14.6	1.00	1.1	2.60	2.7
MAR 15...	276	9.6	17.3	18.8	13.4	15.4	1.10	1.3	2.80	2.9

Date	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Sulfate water, fltrd, mg/L (00945)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Aluminum, water, fltrd, µg/L (01106)	Aluminum, water, unfltrd recoverable, µg/L (01105)	Bromine water unfltrd mg/L (71871)
OCT 13...	.0	2.8	--	117	--	--	--	1900	1900	--
NOV 16...	.0	2.8	.01	126	.02	<.030	<.020	1500	1500	.02
DEC 16...	.0	2.6	--	116	--	--	--	1300	1400	--
JAN 25...	.0	2.4	--	117	--	--	--	1500	1700	--
FEB 23...	.0	3.7	--	113	--	--	--	1300	1400	--
MAR 15...	.0	2.8	<.01	106	<.01	<.030	<.020	1200	1400	.22

Date	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recoverable, µg/L (01045)	Manganese, water, fltrd, µg/L (01056)	Manganese, water, unfltrd recoverable, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recoverable, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recoverable, µg/L (01092)
OCT 13...	1260	1940	1460	1470	70.0	70.0	230	240
NOV 16...	1900	2520	1610	1630	70.0	70.0	220	220
DEC 16...	1480	2160	1470	1600	60.0	65.0	205	220
JAN 25...	1310	2670	1600	2190	65.0	70.0	235	485
FEB 23...	1780	2390	1550	1620	60.0	65.0	230	220
MAR 15...	2870	3080	1740	1560	55.0	65.0	450	225

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
ACID MINE DRAINAGE PROJECTS IN THE UPPER SCHUYLKILL RIVER BASIN

0146742498 -- Bell Water Level Tunnel, 225 M DS, nr Middleport

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Oxidation reduction potential, mV (00090)	Turbidity, water, unfltrd field, NTU (61028)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)
OCT										
13...	0945	1028	89203	2.7	453	6.1	11.0	95	4.7	4.9
NOV										
16...	1030	1028	89203	2.4	422	4.8	11.0	94	4.9	4.9
DEC										
16...	1015	1028	89203	4.8	600	6.6	10.7	92	3.5	4.3
JAN										
25...	1230	1028	89203	4.1	383	--	10.1	87	4.5	4.5
25...	1500	1028	89203	--	--	--	--	--	--	--
FEB										
23...	1115	1028	89203	3.1	510	4.5	11.2	97	4.5	4.5
MAR										
15...	1430	1028	89203	2.1	310	--	11.6	102	4.9	5.0

Date	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Calcium water unfltrd recover -able, mg/L (00916)	Magnesium, water, fltrd, mg/L (00925)	Magnesium, water, unfltrd recover -able, mg/L (00927)	Potassium, water, fltrd, mg/L (00935)	Potassium, water, unfltrd recover -able, mg/L (00937)	Sodium, water, fltrd, mg/L (00930)	Sodium, water, unfltrd recover -able, mg/L (00929)
OCT										
13...	265	9.1	20.7	21.2	15.1	15.3	1.10	1.1	2.30	2.4
NOV										
16...	282	8.6	22.9	23.2	16.0	16.0	1.10	1.1	2.60	2.7
DEC										
16...	270	8.4	18.0	20.0	14.0	15.6	1.00	1.1	2.50	2.5
JAN										
25...	265	9.0	18.7	20.6	14.8	16.0	2.20	1.2	2.60	2.9
25...	--	--	--	20.6	--	14.4	--	1.1	--	2.6
FEB										
23...	262	9.0	18.9	20.6	14.2	15.7	1.00	1.3	2.40	3.1
MAR										
15...	245	9.6	20.0	22.3	13.7	15.6	1.10	1.2	2.50	2.7

Date	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Sulfate water, fltrd, mg/L (00945)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Aluminum, water, fltrd, µg/L (01106)	Aluminum, water, unfltrd recover -able, µg/L (01105)	Bromine water unfltrd mg/L (71871)
OCT										
13...	2	2.7	--	115	--	--	--	1300	1500	--
NOV										
16...	1	4.8	.01	124	.04	<.030	<.020	1000	1200	.02
DEC										
16...	.0	2.7	--	117	--	--	--	1200	1300	--
JAN										
25...	.0	2.4	--	117	--	--	--	1300	1500	--
25...	--	--	--	--	--	--	--	--	7100	--
FEB										
23...	.0	3.9	--	112	--	--	--	1100	1300	--
MAR										
15...	1	2.7	<.01	106	<.01	<.030	<.020	700	1000	.22

Date	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recover -able, µg/L (01045)	Manganese, water, fltrd, µg/L (01056)	Manganese, water, unfltrd recover -able, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recover -able, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recover -able, µg/L (01092)
OCT								
13...	470	1070	1390	1380	70.0	70.0	225	230
NOV								
16...	650	1310	1480	1460	65.0	65.0	200	200
DEC								
16...	1060	1710	1430	1550	60.0	65.0	195	210
JAN								
25...	960	1840	1560	1920	65.0	65.0	220	385
25...	--	14300	--	1460	--	60.0	--	210
FEB								
23...	990	1730	1410	1540	60.0	65.0	195	220
MAR								
15...	950	1100	1280	1310	50.0	60.0	245	200

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES ACID MINE DRAINAGE PROJECTS IN THE UPPER SCHUYLKILL RIVER BASIN

404513076025811 -- Bell Wetland Cell A Outflow Pipe

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Oxidation reduction potential, mV (00090)	Turbidity, water, unfltrd field, NTU (61028)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)
OCT 13...	1045	1028	89203	.67	479	3.3	9.4	81	5.3	5.9
NOV 16...	1115	1028	89203	.67	448	7.7	9.9	85	5.7	5.8
DEC 16...	1030	1028	89203	.17	466	3.0	8.6	74	5.2	5.7
JAN 25...	1315	1028	89203	.27	372	--	8.8	75	6.2	6.2
FEB 23...	1145	1028	89203	.33	384	1.2	10.0	85	5.9	6.1
MAR 15...	1415	1028	89203	.54	344	--	10.6	91	5.1	5.3

Date	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Calcium water unfltrd recover -able, mg/L (00916)	Magnesium, water, fltrd, mg/L (00925)	Magnesium, water, unfltrd recover -able, mg/L (00927)	Potassium, water, fltrd, mg/L (00935)	Potassium, water, unfltrd recover -able, mg/L (00937)	Sodium, water, fltrd, mg/L (00930)	Sodium, water, unfltrd recover -able, mg/L (00929)
OCT 13...	280	9.1	26.0	26.3	15.5	15.6	1.10	1.1	2.50	2.3
NOV 16...	253	8.6	27.0	27.7	16.2	16.7	1.00	1.1	2.60	2.5
DEC 16...	283	8.7	28.4	30.6	15.6	16.7	1.00	1.1	2.30	2.6
JAN 25...	297	8.3	30.9	28.5	16.7	15.5	1.10	1.0	2.60	2.6
FEB 23...	271	8.8	26.3	28.1	14.9	16.2	1.10	1.2	2.40	2.8
MAR 15...	248	8.7	21.1	23.5	14.1	15.8	1.10	1.2	2.50	2.5

Date	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Sulfate water, fltrd, mg/L (00945)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Aluminum, water, fltrd, µg/L (01106)	Aluminum, water, unfltrd recover -able, µg/L (01105)	Bromine water unfltrd mg/L (71871)
OCT 13...	8	2.6	--	117	--	--	--	600	1000	--
NOV 16...	6	3.5	.01	124	.02	<.030	<.020	500	900	.02
DEC 16...	16	2.8	--	116	--	--	--	300	600	--
JAN 25...	22	2.5	--	117	--	--	--	200	500	--
FEB 23...	16	4.1	--	114	--	--	--	200	600	--
MAR 15...	4	2.9	<.01	106	.42	<.030	<.020	600	900	.20

Date	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recover -able, µg/L (01045)	Manganese, water, fltrd, µg/L (01056)	Manganese, water, unfltrd recover -able, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recover -able, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recover -able, µg/L (01092)
OCT 13...	250	580	1220	1220	65.0	65.0	215	210
NOV 16...	410	760	1280	1300	60.0	65.0	185	190
DEC 16...	220	480	1080	1180	50.0	55.0	215	170
JAN 25...	100	320	1060	1000	50.0	45.0	155	150
FEB 23...	260	500	1040	1110	45.0	50.0	155	160
MAR 15...	860	1100	1160	1250	50.0	55.0	195	190

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
ACID MINE DRAINAGE PROJECTS IN THE UPPER SCHUYLKILL RIVER BASIN

404511076025811 -- Bell Wetland Cell B Outflow Pipe

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Oxidation reduction potential, mV (00090)	Turbidity, water, unfltrd field, NTU (61028)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)
OCT										
13...	1000	1028	--	--	--	--	--	--	--	--
13...	1015	1028	89203	.18	461	2.2	8.9	78	5.3	5.7
NOV										
16...	1130	1028	89203	.18	452	1.8	9.6	82	5.5	5.5
DEC										
16...	1100	1028	89203	.13	483	2.9	8.8	76	4.9	5.7
JAN										
25...	1300	1028	89203	.17	390	--	7.9	68	6.0	5.9
FEB										
23...	1155	1028	89203	.09	447	.3	8.3	71	6.1	6.2
MAR										
15...	1400	1028	89203	.45	351	--	10.1	89	4.7	4.8

Date	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Calcium water unfltrd recover -able, mg/L (00916)	Magnesium, water, fltrd, mg/L (00925)	Magnesium, water, unfltrd recover -able, mg/L (00927)	Potassium, water, fltrd, mg/L (00935)	Potassium, water, unfltrd recover -able, mg/L (00937)	Sodium, water, fltrd, mg/L (00930)	Sodium, water, unfltrd recover -able, mg/L (00929)
OCT										
13...	--	--	18.0	18.0	14.9	14.8	1.10	1.0	2.40	2.5
13...	270	9.2	23.9	24.1	15.6	15.7	1.20	1.2	2.30	2.3
NOV										
16...	254	8.5	24.7	25.7	16.3	16.8	1.20	1.2	2.60	2.5
DEC										
16...	285	8.6	27.1	28.2	15.7	16.2	1.30	1.3	2.30	2.6
JAN										
25...	287	8.4	27.8	24.9	16.6	14.8	1.40	1.2	2.60	2.1
FEB										
23...	288	8.6	28.0	29.3	16.2	17.2	1.40	1.5	2.50	2.5
MAR										
15...	246	9.5	19.2	19.0	13.8	13.4	1.10	1.1	2.40	2.0

Date	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Sulfate water, fltrd, mg/L (00945)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Aluminum, water, fltrd, µg/L (01106)	Aluminum, water, unfltrd recover -able, µg/L (01105)	Bromine water unfltrd mg/L (71871)
OCT										
13...	--	2.6	--	116	--	--	--	1900	1900	--
13...	7	2.8	--	115	--	--	--	800	1000	--
NOV										
16...	5	3.0	.01	126	.04	<.030	<.020	800	1000	.02
DEC										
16...	16	2.5	--	115	--	--	--	300	400	--
JAN										
25...	16	2.5	--	116	--	--	--	300	400	--
FEB										
23...	21	3.7	--	114	--	--	--	200	400	--
MAR										
15...	2	2.7	<.01	106	.40	<.030	<.020	900	1000	.21

Date	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recover -able, µg/L (01045)	Manganese, water, fltrd, µg/L (01056)	Manganese, water, unfltrd recover -able, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recover -able, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recover -able, µg/L (01092)
OCT								
13...	1180	1630	1470	1460	70.0	75.0	240	240
13...	140	260	1270	1260	65.0	65.0	210	210
NOV								
16...	270	400	1350	1370	65.0	65.0	185	195
DEC								
16...	60.0	120	1070	1090	50.0	50.0	160	155
JAN								
25...	70.0	100	1130	1030	50.0	45.0	160	145
FEB								
23...	30.0	40.0	890	930	40.0	45.0	135	140
MAR								
15...	750	990	1220	1130	55.0	50.0	185	180

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES ACID MINE DRAINAGE PROJECTS IN THE UPPER SCHUYLKILL RIVER BASIN

404513076025812 -- Bell Wetland Cell A Spillway

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Oxidation reduction potential, mV (00090)	Turbidity, water, unfltrd field, NTU (61028)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)
OCT 13...	1030	1028	89203	.24	621	6.7	9.7	83	3.6	4.0
NOV 16...	1100	1028	89203	.00	615	4.7	9.4	82	3.8	3.9
DEC 16...	1045	1028	89203	2.2	630	5.4	8.7	76	2.8	4.0
JAN 25...	1330	1028	89203	1.6	511	--	8.3	72	4.1	4.1
FEB 23...	1135	1028	89203	.60	619	4.5	9.5	85	3.8	4.0
MAR 15...	1330	1028	89203	.20	380	--	10.1	92	4.0	4.0

Date	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Calcium water unfltrd recover -able, mg/L (00916)	Magnesium, water, fltrd, mg/L (00925)	Magnesium, water, unfltrd recover -able, mg/L (00927)	Potassium, water, fltrd, mg/L (00935)	Potassium, water, unfltrd recover -able, mg/L (00937)	Sodium, water, fltrd, mg/L (00930)	Sodium, water, unfltrd recover -able, mg/L (00929)
OCT 13...	303	9.7	17.6	17.7	14.7	14.8	1.10	1.0	2.30	2.3
NOV 16...	318	9.3	18.8	19.0	15.2	15.5	1.00	1.0	2.50	2.5
DEC 16...	284	9.1	16.9	18.2	14.0	15.1	1.00	1.1	2.10	2.4
JAN 25...	274	9.4	18.2	16.0	15.2	13.4	1.10	1.0	2.50	2.4
FEB 23...	285	10.1	16.6	17.6	13.8	14.8	1.00	1.1	2.40	2.6
MAR 15...	134	11.1	17.7	17.0	14.1	13.4	1.10	1.0	2.40	2.4

Date	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Sulfate water, fltrd, mg/L (00945)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Aluminum, water, fltrd, µg/L (01106)	Aluminum, water, unfltrd recover -able, µg/L (01105)	Bromine water unfltrd mg/L (71871)
OCT 13...	.0	2.8	--	117	--	--	--	1900	1900	--
NOV 16...	.0	2.8	.01	126	.02	<.030	<.020	1500	1500	.02
DEC 16...	.0	3.2	--	116	--	--	--	1300	1400	--
JAN 25...	.0	2.4	--	118	--	--	--	1500	1400	--
FEB 23...	.0	3.8	--	112	--	--	--	1300	1400	--
MAR 15...	.0	3.5	<.01	107	.40	<.030	<.020	1100	1600	.22

Date	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recover -able, µg/L (01045)	Manganese, water, fltrd, µg/L (01056)	Manganese, water, unfltrd recover -able, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recover -able, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recover -able, µg/L (01092)
OCT 13...	1160	1720	1450	1470	70.0	75.0	235	240
NOV 16...	1720	2260	1600	1610	70.0	70.0	215	215
DEC 16...	1340	1990	1470	1590	60.0	65.0	210	210
JAN 25...	1240	1430	1650	1500	70.0	60.0	225	195
FEB 23...	1620	2280	1510	1590	60.0	65.0	210	225
MAR 15...	1600	15200	1380	1250	60.0	55.0	210	210

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES ACID MINE DRAINAGE PROJECTS IN THE UPPER SCHUYLKILL RIVER BASIN

404511076025812 -- Bell Wetland Cell B Spillway

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Oxidation reduction potential, mV (00090)	Turbidity, water, unfltrd field, NTU (61028)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)
OCT 13...	1000	1028	89203	.73	631	7.0	9.6	84	3.7	4.1
NOV 16...	1045	1028	89203	.49	562	4.4	9.6	83	3.8	3.9
DEC 16...	1115	1028	89203	2.2	630	5.6	8.6	74	2.7	4.0
JAN 25...	1245	1028	89203	1.7	484	--	8.9	79	4.1	4.1
FEB 23...	1125	1028	89203	.84	609	4.4	10.4	91	3.9	4.0
MAR 15...	1345	1028	89203	.29	369	--	10.7	98	4.0	4.0

Date	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Calcium water unfltrd recoverable, mg/L (00916)	Magnesium, water, fltrd, mg/L (00925)	Magnesium, water, unfltrd recoverable, mg/L (00927)	Potassium, water, fltrd, mg/L (00935)	Potassium, water, unfltrd recoverable, mg/L (00937)	Sodium, water, fltrd, mg/L (00930)	Sodium, water, unfltrd recoverable, mg/L (00929)
OCT 13...	301	9.4	--	--	--	--	--	--	--	--
NOV 16...	315	9.0	18.9	19.3	15.2	15.5	1.10	1.1	2.60	2.8
DEC 16...	283	8.8	17.3	18.4	14.2	15.2	1.00	1.1	2.20	2.5
JAN 25...	279	9.3	18.1	16.8	15.4	14.0	1.10	1.0	2.60	2.4
FEB 23...	282	9.4	17.3	17.4	14.0	14.3	1.00	1.0	2.50	2.4
MAR 15...	266	11.4	16.8	14.2	13.4	10.9	1.10	.9	2.40	2.0

Date	ANC, wat unf fixed end pt, lab, mg/L as $CaCO_3$ (00417)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Sulfate water, fltrd, mg/L (00945)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Aluminum, water, fltrd, µg/L (01106)	Aluminum, water, unfltrd recoverable, µg/L (01105)	Bromine water unfltrd mg/L (71871)
OCT 13...	.0	--	--	--	--	--	--	--	--	--
NOV 16...	.0	2.8	<.01	125	.04	<.030	<.020	1500	1500	.01
DEC 16...	.0	4.1	--	117	--	--	--	1300	1400	--
JAN 25...	.0	2.4	--	118	--	--	--	1500	1400	--
FEB 23...	.0	3.9	--	113	--	--	--	1400	1400	--
MAR 15...	.0	2.8	<.01	107	.40	<.030	<.020	1100	1000	.21

Date	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recoverable, µg/L (01045)	Manganese, water, fltrd, µg/L (01056)	Manganese, water, unfltrd recoverable, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recoverable, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recoverable, µg/L (01092)
OCT 13...	--	--	--	--	--	--	--	--
NOV 16...	1680	2220	1630	1610	70.0	70.0	210	215
DEC 16...	1380	1990	1480	1590	60.0	65.0	235	210
JAN 25...	1200	1500	1660	1540	70.0	60.0	230	205
FEB 23...	1530	2090	1540	1580	65.0	65.0	215	220
MAR 15...	1700	2620	1330	1050	55.0	50.0	200	165

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES ACID MINE DRAINAGE PROJECTS IN THE UPPER SCHUYLKILL RIVER BASIN

404511076025813 -- Bell Wetland Cell B Flush Pipe

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Oxidation reduction potential, mV (00090)	Turbidity, water, unfltrd field, NTU (61028)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)
JAN										
25...	1400	1028	89203	--	352	--	8.5	72	6.0	--
25...	1500	1028	89203	--	--	--	--	--	--	--

Date	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Calcium water unfltrd recoverable, mg/L (00916)	Magnesium, water, fltrd, mg/L (00925)	Magnesium, water, unfltrd recoverable, mg/L (00927)	Potassium, water, fltrd, mg/L (00935)	Potassium, water, unfltrd recoverable, mg/L (00937)	Sodium, water, fltrd, mg/L (00930)	Sodium, water, unfltrd recoverable, mg/L (00929)
JAN										
25...	289	8.1	--	25.5	--	14.4	--	1.5	--	2.5
25...	--	--	--	42.4	--	16.4	--	1.4	--	2.4

Date	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Sulfate water, fltrd, mg/L (00945)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Aluminum, water, fltrd, µg/L (01106)	Aluminum, water, unfltrd recover -able, µg/L (01105)	Bromine water unfltrd mg/L (71871)
JAN										
25...	--	--	--	--	--	--	--	--	353000	--
25...	--	--	--	--	--	--	--	--	70800	--

Date	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recover -able, µg/L (01045)	Manganese, water, fltrd, µg/L (01056)	Manganese, water, unfltrd recover -able, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recover -able, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recover -able, µg/L (01092)
JAN								
25...	--	460000	--	2200	--	65.0	--	500
25...	--	141000	--	1900	--	65.0	--	400

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES ACID MINE DRAINAGE PROJECTS IN THE UPPER SCHUYLKILL RIVER BASIN

0146742494 -- Schuylkill R ab Bell Tunnel at Mary D, PA

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Oxidation reduction potential, mV (00090)	Turbidity, water, unfltrd field, NTU (61028)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)
OCT										
13...	1130	1028	89203	2.3	394	2.7	11.5	101	5.8	6.4
NOV										
16...	1215	1028	89203	2.1	413	1.1	11.7	96	6.1	6.2
DEC										
16...	1215	1028	89203	4.8	335	10	13.4	102	5.0	5.9
JAN										
25...	1500	1028	89203	2.6	363	--	13.0	97	6.1	6.1
FEB										
23...	1300	1028	89203	3.1	382	2.7	12.5	99	6.2	6.3
MAR										
15...	1200	1028	89203	2.4	285	--	13.1	103	5.9	6.3

Date	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Calcium water unfltrd recoverable, mg/L (00916)	Magnesium, water, fltrd, mg/L (00925)	Magnesium, water, unfltrd recoverable, mg/L (00927)	Potassium, water, fltrd, mg/L (00935)	Potassium, water, unfltrd recoverable, mg/L (00937)	Sodium, water, fltrd, mg/L (00930)	Sodium, water, unfltrd recoverable, mg/L (00929)
OCT										
13...	226	10.3	16.8	17.2	10.6	10.8	1.70	1.7	5.50	5.4
NOV										
16...	219	6.9	16.3	16.8	10.2	10.3	1.60	1.6	6.00	6.2
DEC										
16...	191	4.1	13.6	15.2	9.00	9.8	1.40	1.5	5.80	5.1
JAN										
25...	209	3.3	15.9	16.5	10.4	10.8	1.80	1.6	6.10	5.9
FEB										
23...	222	5.5	15.1	15.5	8.80	9.4	1.40	1.5	8.70	9.1
MAR										
15...	223	5.0	15.0	16.3	9.00	10.1	1.50	1.6	7.50	7.8

Date	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Sulfate water, fltrd, mg/L (00945)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Aluminum, water, fltrd, µg/L (01106)	Aluminum, water, unfltrd recoverable, µg/L (01105)	Bromine water unfltrd mg/L (71871)
OCT										
13...	9	7.9	--	75.7	--	--	--	<100	900	--
NOV										
16...	8	9.5	.03	73.7	.42	.030	<.020	<100	700	.01
DEC										
16...	7	6.8	--	65.8	--	--	--	<100	700	--
JAN										
25...	7	8.4	--	74.9	--	--	--	<100	900	--
FEB										
23...	8	17.4	--	64.9	--	--	--	200	600	--
MAR										
15...	10	15.4	<.01	64.0	.68	<.030	<.020	<100	700	.20

Date	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recoverable, µg/L (01045)	Manganese, water, fltrd, µg/L (01056)	Manganese, water, unfltrd recoverable, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recoverable, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recoverable, µg/L (01092)
OCT								
13...	300	430	960	970	25.0	25.0	50.0	55.0
NOV								
16...	380	440	960	960	25.0	25.0	50.0	45.0
DEC								
16...	350	970	720	960	20.0	25.0	55.0	145
JAN								
25...	380	840	980	1170	25.0	25.0	60.0	140
FEB								
23...	820	460	1150	970	20.0	20.0	190	55.0
MAR								
15...	330	530	900	930	20.0	20.0	55.0	55.0

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
ACID MINE DRAINAGE PROJECTS IN THE UPPER SCHUYLKILL RIVER BASIN

0146742500 -- Schuylkill River bl Bell Tunnel at Mary D, PA

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Oxidation reduction potential, mV (00090)	Turbidity, water, unfltrd field, NTU (61028)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)
OCT										
13...	0930	1028	89203	4.1	415	5.1	11.4	100	5.4	5.4
NOV										
16...	1015	1028	89203	3.4	396	2.9	11.9	99	5.8	5.7
DEC										
16...	1000	1028	89203	9.5	506	4.8	12.5	99	4.5	5.0
JAN										
25...	1200	1028	89203	6.3	315	--	11.9	94	5.5	5.1
FEB										
23...	1100	1028	89203	4.9	422	3.3	12.6	100	6.0	5.7
MAR										
15...	1445	1028	89203	3.8	308	--	12.3	102	5.5	6.0

Date	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Calcium water unfltrd recover -able, mg/L (00916)	Magnesium, water, fltrd, mg/L (00925)	Magnesium, water, unfltrd recover -able, mg/L (00927)	Potassium, water, fltrd, mg/L (00935)	Potassium, water, unfltrd recover -able, mg/L (00937)	Sodium, water, fltrd, mg/L (00930)	Sodium, water, unfltrd recover -able, mg/L (00929)
OCT										
13...	247	9.3	18.9	19.0	12.8	12.8	1.30	1.3	3.70	3.6
NOV										
16...	242	6.8	18.6	19.8	12.2	12.7	1.30	1.3	4.60	4.5
DEC										
16...	228	5.5	15.7	16.7	11.3	12.1	1.20	1.2	3.40	3.8
JAN										
25...	226	5.3	16.7	16.4	12.1	11.7	1.50	1.3	3.70	3.5
FEB										
23...	230	5.5	17.1	17.9	11.6	12.1	1.30	1.4	6.10	6.5
MAR										
15...	229	7.5	16.6	18.4	10.5	12.0	1.30	1.5	5.70	6.1

Date	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Sulfate water, fltrd, mg/L (00945)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Aluminum, water, fltrd, µg/L (01106)	Aluminum, water, unfltrd recover -able, µg/L (01105)	Bromine water unfltrd mg/L (71871)
OCT										
13...	3	5.8	--	96.9	--	--	--	600	1000	--
NOV										
16...	4	7.0	.02	95.3	.22	<.030	<.020	300	900	.01
DEC										
16...	2	10.2	--	88.9	--	--	--	600	900	--
JAN										
25...	2	5.3	--	92.5	--	--	--	600	1000	--
FEB										
23...	4	11.7	--	83.8	--	--	--	300	900	--
MAR										
15...	5	10.4	<.01	78.9	.59	<.030	<.020	<100	900	.20

Date	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recover -able, µg/L (01045)	Manganese, water, fltrd, µg/L (01056)	Manganese, water, unfltrd recover -able, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recover -able, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recover -able, µg/L (01092)
OCT								
13...	470	970	1140	1130	45.0	45.0	160	130
NOV								
16...	640	1080	1130	1150	40.0	40.0	110	110
DEC								
16...	650	1050	1050	1090	40.0	40.0	145	125
JAN								
25...	660	1050	1210	1290	40.0	40.0	180	175
FEB								
23...	690	1040	1140	1200	35.0	35.0	115	115
MAR								
15...	580	1420	960	1050	30.0	35.0	90.0	100

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES ACID MINE DRAINAGE PROJECTS IN THE UPPER SCHUYLKILL RIVER BASIN

404511076030101 -- Bell Colliery Wetland Bypass Trench

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Oxidation reduction potential, mV (00090)	Turbidity, water, unfltrd field, NTU (61028)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)
JAN 25...	1245	1028	89203	.13	333	--	10.4	88	5.3	5.0
FEB 23...	1110	1028	89203	.00	--	--	--	--	--	--

Date	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Calcium water unfltrd recoverable, mg/L (00916)	Magnesium, water, fltrd, mg/L (00925)	Magnesium, water, unfltrd recoverable, mg/L (00927)	Potassium, water, fltrd, mg/L (00935)	Potassium, water, unfltrd recoverable, mg/L (00937)	Sodium, water, fltrd, mg/L (00930)	Sodium, water, unfltrd recoverable, mg/L (00929)
JAN 25...	258	8.0	21.6	20.3	15.3	14.0	1.10	1.0	2.30	2.2
FEB 23...	--	--	--	--	--	--	--	--	--	--

Date	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Sulfate water, fltrd, mg/L (00945)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Aluminum, water, fltrd, µg/L (01106)	Aluminum, water, unfltrd recoverable, µg/L (01105)	Bromine water unfltrd mg/L (71871)
JAN 25...	2	2.1	--	115	--	--	--	900	900	--
FEB 23...	--	--	--	--	--	--	--	--	--	--

Date	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recoverable, µg/L (01045)	Manganese, water, fltrd, µg/L (01056)	Manganese, water, unfltrd recoverable, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recoverable, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recoverable, µg/L (01092)
JAN 25...	410	570	1520	1430	60.0	55.0	195	180
FEB 23...	--	--	--	--	--	--	--	--

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES ACID MINE DRAINAGE PROJECTS IN THE UPPER SCHUYLKILL RIVER BASIN

403958076191401 -- Otto Air Shaft

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Oxidation reduction potential, mV (00090)	Turbidity, water, unfltrd field, NTU (61028)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)
DEC 16...	1530	1028	89203	9.6	386	25	.7	7	5.6	5.6

Date	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Calcium water unfltrd recoverable, mg/L (00916)	Magnesium, water, fltrd, mg/L (00925)	Magnesium, water, unfltrd recoverable, mg/L (00927)	Potassium, water, fltrd, mg/L (00935)	Potassium, water, unfltrd recoverable, mg/L (00937)	Sodium, water, fltrd, mg/L (00930)	Sodium, water, unfltrd recoverable, mg/L (00929)
DEC 16...	500	12.0	35.0	38.1	33.4	37.3	1.20	1.3	7.10	7.6

Date	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Sulfate water, fltrd, mg/L (00945)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Aluminum, water, fltrd, µg/L (01106)	Aluminum, water, unfltrd recoverable, µg/L (01105)	Bromine water unfltrd mg/L (71871)
DEC 16...	35	2.1	--	214	--	--	--	300	2300	--

Date	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recoverable, µg/L (01045)	Manganese, water, fltrd, µg/L (01056)	Manganese, water, unfltrd recoverable, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recoverable, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recoverable, µg/L (01092)
DEC 16...	4730	6910	1880	2050	80.0	90.0	185	215

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
ACID MINE DRAINAGE PROJECTS IN THE UPPER SCHUYLKILL RIVER BASIN

0146784348 -- Otto Air Shaft near Llewellyn, PA

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Oxidation reduction potential, mV (00090)	Turbidity, water, unfltrd field, NTU (61028)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)
JUL										
14...	1445	1028	89203	2.7	273	--	6.5	61	6.7	6.3
AUG										
10...	1400	1028	89203	2.5	333	--	6.6	62	6.0	6.2
SEP										
12...	1400	1028	89203	2.0	219	--	7.7	72	6.0	6.2

Date	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Calcium water unfltrd recoverable, mg/L (00916)	Magnesium, water, fltrd, mg/L (00925)	Magnesium, water, unfltrd recoverable, mg/L (00927)	Potassium, water, fltrd, mg/L (00935)	Potassium, water, unfltrd recoverable, mg/L (00937)	Sodium, water, fltrd, mg/L (00930)	Sodium, water, unfltrd recoverable, mg/L (00929)
JUL										
14...	525	12.3	35.6	35.4	31.1	30.7	1.20	1.2	6.60	6.4
AUG										
10...	532	12.3	39.0	33.6	34.4	29.5	1.30	1.1	7.30	6.4
SEP										
12...	539	12.3	40.5	38.7	37.4	36.2	1.30	1.3	7.30	6.8

Date	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Sulfate water, fltrd, mg/L (00945)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Aluminum, water, fltrd, µg/L (01106)	Aluminum, water, unfltrd recoverable, µg/L (01105)	Bromine water unfltrd mg/L (71871)
JUL										
14...	46	2.5	--	214	--	--	--	<100	1100	--
AUG										
10...	46	2.4	--	222	--	--	--	200	1000	--
SEP										
12...	43	2.2	--	227	--	--	--	200	1200	--

Date	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recoverable, µg/L (01045)	Manganese, water, fltrd, µg/L (01056)	Manganese, water, unfltrd recoverable, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recoverable, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recoverable, µg/L (01092)
JUL								
14...	9390	9460	1840	1850	80.0	75.0	130	120
AUG								
10...	10900	9600	2050	1820	85.0	75.0	130	120
SEP								
12...	12700	12800	2470	2390	90.0	90.0	115	120

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
ACID MINE DRAINAGE PROJECTS IN THE UPPER SCHUYLKILL RIVER BASIN

0146784350 -- Otto Air Shaft, 400 M DS, nr Llewellyn, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Oxidation reduction potential, mV (00090)	Turbidity, water, unfltrd field, NTU (61028)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)
DEC 16...	1500	1028	89203	9.6	277	23	9.7	90	5.9	6.0
FEB 23...	1530	1028	89203	2.1	297	13	9.6	88	6.6	6.3
APR 28...	1520	1028	89203	2.1	291	--	9.2	85	6.3	6.5
JUN 16...	1500	1028	89203	.72	178	--	9.4	97	6.8	6.6
JUL 14...	1615	1028	89203	2.7	261	--	8.3	86	6.7	6.6
AUG 10...	1245	1028	89203	2.5	310	--	9.1	94	6.3	6.5
SEP 12...	1230	1028	89203	2.0	182	--	9.8	96	6.7	6.6

Date	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Calcium water unfltrd recover -able, mg/L (00916)	Magnesium, water, fltrd, mg/L (00925)	Magnesium, water, unfltrd recover -able, mg/L (00927)	Potassium, water, fltrd, mg/L (00935)	Potassium, water, unfltrd recover -able, mg/L (00937)	Sodium, water, fltrd, mg/L (00930)	Sodium, water, unfltrd recover -able, mg/L (00929)
DEC 16...	499	11.8	35.7	38.3	34.6	36.9	1.30	1.3	7.50	7.6
FEB 23...	490	11.6	34.5	34.6	33.0	32.7	1.20	1.2	6.70	6.5
APR 28...	496	11.9	35.4	32.9	33.7	31.6	1.40	1.2	7.00	6.6
JUN 16...	523	16.7	45.1	44.9	37.2	36.5	1.80	1.6	18.1	6.3
JUL 14...	519	16.9	36.5	36.7	30.5	31.1	1.50	1.6	6.70	6.9
AUG 10...	528	16.9	39.8	36.7	34.3	31.6	1.50	1.4	7.30	6.9
SEP 12...	556	14.5	53.0	50.1	37.3	36.2	1.40	1.4	7.10	6.9

Date	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Sulfate water, fltrd, mg/L (00945)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Aluminum, water, fltrd, µg/L (01106)	Aluminum, water, unfltrd recover -able, µg/L (01105)	Bromine water unfltrd mg/L (71871)
DEC 16...	37	2.0	--	210	--	--	--	200	2500	--
FEB 23...	39	3.5	--	207	--	--	--	<100	1500	--
APR 28...	39	2.4	<.01	230	<.01	<.030	<.020	200	1800	.22
JUN 16...	46	2.9	<.02	198	.81	<.060	<.040	<100	1000	.37
JUL 14...	44	2.5	--	211	--	--	--	<100	900	--
AUG 10...	40	2.5	--	221	--	--	--	<100	900	--
SEP 12...	53	2.2	--	227	--	--	--	<100	200	--

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES ACID MINE DRAINAGE PROJECTS IN THE UPPER SCHUYLKILL RIVER BASIN

0146784350 -- Otto Air Shaft, 400 M DS, nr Llewellyn, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recover -able, µg/L (01045)	Mangan- ese, water, fltrd, µg/L (01056)	Mangan- ese, water, unfltrd recover -able, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recover -able, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recover -able, µg/L (01092)
DEC								
16...	4740	7780	1920	2040	80.0	85.0	190	215
FEB								
23...	7900	8930	1950	1940	75.0	75.0	160	165
APR								
28...	6110	8890	1820	1640	80.0	75.0	190	200
JUN								
16...	8650	9140	2230	2060	85.0	85.0	150	150
JUL								
14...	7140	8040	1740	1840	70.0	75.0	130	145
AUG								
10...	8320	8670	1990	1910	80.0	75.0	140	110
SEP								
12...	2210	3300	1630	1690	70.0	70.0	70.0	75.0

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES ACID MINE DRAINAGE PROJECTS IN THE UPPER SCHUYLKILL RIVER BASIN

0146784338 -- Muddy Branch ab Otto Mine Discharge nr Branchdale, PA

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Oxidation reduction potential, mV (00090)	Turbidity, water, unfltrd field, NTU (61028)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)
DEC 16...	1515	1028	89203	4.1	284	11	11.3	97	5.8	5.8
FEB 23...	1600	1028	89203	6.5	300	23	11.4	95	6.8	6.7
APR 28...	1540	1028	89203	1.1	276	--	9.7	90	6.8	6.6
JUN 16...	1530	1028	89203	.57	256	--	7.6	79	6.6	6.6
AUG 10...	1230	1028	89203	.48	362	--	7.6	80	6.5	6.7
SEP 12...	1200	1028	89203	.32	282	--	5.5	57	6.5	6.3

Date	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Calcium water unfltrd recover -able, mg/L (00916)	Magnesium, water, fltrd, mg/L (00925)	Magnesium, water, unfltrd recover -able, mg/L (00927)	Potassium, water, fltrd, mg/L (00935)	Potassium, water, unfltrd recover -able, mg/L (00937)	Sodium, water, fltrd, mg/L (00930)	Sodium, water, unfltrd recover -able, mg/L (00929)
DEC 16...	435	8.6	42.7	46.1	20.0	21.2	2.00	2.1	6.00	6.2
FEB 23...	478	7.3	39.4	44.1	16.7	18.5	2.00	2.2	20.2	22.1
APR 28...	469	12.6	47.6	48.3	20.6	21.3	2.30	2.2	6.80	6.8
JUN 16...	460	17.1	51.5	49.3	22.5	21.5	2.30	2.2	10.0	7.2
AUG 10...	433	18.0	46.3	39.8	20.2	16.7	2.30	2.0	7.10	6.1
SEP 12...	451	16.1	43.6	42.8	21.5	21.4	2.30	2.4	8.80	8.9

Date	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Sulfate water, fltrd, mg/L (00945)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Aluminum, water, fltrd, µg/L (01106)	Aluminum, water, unfltrd recover -able, µg/L (01105)	Bromine water unfltrd mg/L (71871)
DEC 16...	14	7.0	--	185	--	--	--	<100	900	--
FEB 23...	21	38.0	--	154	--	--	--	<100	800	--
APR 28...	16	8.4	<.01	203	.48	<.030	<.020	<100	600	.26
JUN 16...	18	7.7	<.01	185	.86	<.030	<.020	400	400	.25
AUG 10...	20	7.4	--	183	--	--	--	<100	<100	--
SEP 12...	23	8.8	--	177	--	--	--	<100	200	--

Date	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recover -able, µg/L (01045)	Manganese, water, fltrd, µg/L (01056)	Manganese, water, unfltrd recover -able, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recover -able, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recover -able, µg/L (01092)
DEC 16...	1930	2600	1700	1760	65.0	70.0	120	125
FEB 23...	1130	1600	1440	1560	45.0	50.0	85.0	100
APR 28...	850	1140	1680	1620	60.0	60.0	120	125
JUN 16...	510	490	2090	1960	65.0	60.0	115	105
AUG 10...	560	550	1700	1470	55.0	45.0	80.0	65.0
SEP 12...	230	380	1550	1560	40.0	45.0	55.0	90.0

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES ACID MINE DRAINAGE PROJECTS IN THE UPPER SCHUYLKILL RIVER BASIN

0146784354 -- Muddy Branch bl Otto Mine Discharge ab Steins, PA

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Oxidation reduction potential, mV (00090)	Turbidity, water, unfltrd field, NTU (61028)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)
DEC 16...	1415	1028	89203	14	260	20	11.1	99	6.2	6.2
FEB 23...	1500	1028	89203	8.6	256	36	11.4	100	6.9	6.7
APR 28...	1450	1028	89203	8.0	261	--	10.7	101	6.8	6.8
JUN 16...	1330	1028	89203	4.0	157	--	9.0	94	7.0	6.8
AUG 10...	1215	1028	89203	4.1	283	--	9.4	95	6.7	6.8
SEP 12...	1045	1028	89203	2.7	174	--	10.2	98	6.8	6.7

Date	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Calcium water unfltrd recoverable, mg/L (00916)	Magnesium, water, fltrd, mg/L (00925)	Magnesium, water, unfltrd recoverable, mg/L (00927)	Potassium, water, fltrd, mg/L (00935)	Potassium, water, unfltrd recoverable, mg/L (00937)	Sodium, water, fltrd, mg/L (00930)	Sodium, water, unfltrd recoverable, mg/L (00929)
DEC 16...	463	10.3	35.5	37.9	29.1	32.0	1.40	1.5	6.80	7.2
FEB 23...	462	9.8	32.5	35.3	26.0	28.2	1.30	1.4	9.30	9.7
APR 28...	494	12.5	36.4	40.2	30.3	33.7	1.50	1.6	6.60	7.2
JUN 16...	489	16.7	40.9	42.0	31.2	32.5	1.50	1.6	7.30	6.1
AUG 10...	494	16.0	40.2	34.5	30.9	26.1	1.60	1.4	7.30	6.3
SEP 12...	513	13.5	44.9	44.3	32.8	32.8	1.40	1.5	7.00	6.9

Date	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Sulfate water, fltrd, mg/L (00945)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Aluminum, water, fltrd, µg/L (01106)	Aluminum, water, unfltrd recoverable, µg/L (01105)	Bromine water unfltrd mg/L (71871)
DEC 16...	28	3.2	--	194	--	--	--	<100	1700	--
FEB 23...	30	12.1	--	183	--	--	--	<100	1200	--
APR 28...	32	3.6	<.01	217	.42	<.030	<.020	<100	1200	.21
JUN 16...	32	3.7	<.02	183	<.02	<.060	<.040	<100	700	.36
AUG 10...	34	3.8	--	209	--	--	--	<100	400	--
SEP 12...	38	3.1	--	211	--	--	--	<100	200	--

Date	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recoverable, µg/L (01045)	Manganese, water, fltrd, µg/L (01056)	Manganese, water, unfltrd recoverable, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recoverable, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recoverable, µg/L (01092)
DEC 16...	2950	4900	1760	1860	70.0	75.0	145	175
FEB 23...	3980	6030	1620	1730	60.0	65.0	115	135
APR 28...	3470	4820	1680	1780	70.0	75.0	160	185
JUN 16...	4470	5960	1850	1880	70.0	70.0	115	125
AUG 10...	4170	4510	1750	1520	65.0	60.0	90.0	85.0
SEP 12...	1760	2730	1580	1610	60.0	55.0	65.0	65.0

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES ACID MINE DRAINAGE PROJECTS IN THE UPPER SCHUYLKILL RIVER BASIN

0146784358 -- Muddy Branch bl Otto Mine Discharge bl Steins, PA

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Oxidation reduction potential, mV (00090)	Turbidity, water, unfltrd field, NTU (61028)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)
DEC 16...	1345	1028	89203	16	259	84	11.4	99	6.2	6.3
FEB 23...	1430	1028	89203	9.7	270	110	11.4	99	6.8	6.7
APR 28...	1505	1028	89203	11	254	--	10.6	100	6.9	6.9
JUN 16...	1115	1028	89203	5.2	170	--	9.6	98	7.0	6.8
AUG 10...	1015	1028	89203	4.3	295	--	9.1	91	6.8	6.8

Date	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Calcium water unfltrd recover -able, mg/L (00916)	Magnesium, water, fltrd, mg/L (00925)	Magnesium, water, unfltrd recover -able, mg/L (00927)	Potassium, water, fltrd, mg/L (00935)	Potassium, water, unfltrd recover -able, mg/L (00937)	Sodium, water, fltrd, mg/L (00930)	Sodium, water, unfltrd recover -able, mg/L (00929)
DEC 16...	413	9.4	33.2	34.6	26.5	27.8	1.30	1.4	6.00	6.3
FEB 23...	415	9.0	27.9	33.1	21.7	25.7	1.10	1.3	8.10	9.5
APR 28...	456	12.7	35.5	36.9	28.6	30.1	1.40	1.4	6.30	6.6
JUN 16...	329	16.5	39.7	41.4	29.5	31.2	1.40	1.5	6.80	5.9
AUG 10...	476	15.4	39.1	36.0	29.3	26.8	1.50	1.5	6.80	6.3

Date	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Sulfate water, fltrd, mg/L (00945)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Aluminum, water, fltrd, µg/L (01106)	Aluminum, water, unfltrd recover -able, µg/L (01105)	Bromine water unfltrd mg/L (71871)
DEC 16...	25	3.5	--	173	--	--	--	<100	1500	--
FEB 23...	28	11.6	--	161	--	--	--	<100	1000	--
APR 28...	32	3.7	<.01	194	.43	<.030	<.020	<100	1000	.21
JUN 16...	34	3.8	<.02	172	.81	<.060	<.040	200	600	.36
AUG 10...	36	3.9	--	195	--	--	--	<100	400	--

Date	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recover -able, µg/L (01045)	Manganese, water, fltrd, µg/L (01056)	Manganese, water, unfltrd recover -able, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recover -able, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recover -able, µg/L (01092)
DEC 16...	2390	4320	1530	1630	60.0	65.0	125	150
FEB 23...	2850	4740	1280	1520	45.0	55.0	95.0	115
APR 28...	2750	3810	1530	1510	60.0	65.0	135	160
JUN 16...	3610	5220	1790	1880	65.0	65.0	105	115
AUG 10...	3080	4000	1590	1520	60.0	55.0	80.0	80.0

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES ACID MINE DRAINAGE PROJECTS IN THE UPPER SCHUYLKILL RIVER BASIN

404001076191301 -- Otto Mine Airshaft Wetland Cell 1 Outflow

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Oxidation reduction potential, mV (00090)	Turbidity, water, unfltrd field, NTU (61028)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)
JUL 14...	1515	1028	89203	2.7	279	--	7.4	72	7.4	6.4
AUG 10...	1345	1028	89203	2.5	342	--	8.4	82	6.1	6.3
SEP 12...	1330	1028	89203	2.0	209	--	9.8	94	6.3	6.3

Date	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Calcium water unfltrd recoverable, mg/L (00916)	Magnesium, water, fltrd, mg/L (00925)	Magnesium, water, unfltrd recoverable, mg/L (00927)	Potassium, water, fltrd, mg/L (00935)	Potassium, water, unfltrd recoverable, mg/L (00937)	Sodium, water, fltrd, mg/L (00930)	Sodium, water, unfltrd recoverable, mg/L (00929)
JUL 14...	521	14.5	34.4	35.6	30.2	31.1	1.10	1.3	6.20	6.6
AUG 10...	529	14.2	39.2	33.4	34.3	29.0	1.40	1.2	7.40	6.3
SEP 12...	535	16.1	39.2	38.8	35.9	36.3	1.20	1.3	6.50	6.8

Date	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Sulfate water, fltrd, mg/L (00945)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Aluminum, water, fltrd, µg/L (01106)	Aluminum, water, unfltrd recoverable, µg/L (01105)	Bromine water unfltrd mg/L (71871)
JUL 14...	43	2.4	--	213	--	--	--	<100	--	--
AUG 10...	43	2.5	--	222	--	--	--	<100	900	--
SEP 12...	41	2.2	--	228	--	--	--	<100	800	--

Date	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recoverable, µg/L (01045)	Manganese, water, fltrd, µg/L (01056)	Manganese, water, unfltrd recoverable, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recoverable, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recoverable, µg/L (01092)
JUL 14...	8390	9080	1730	1850	75.0	75.0	115	130
AUG 10...	10200	9130	2040	1810	85.0	70.0	155	110
SEP 12...	10300	11400	2370	2390	90.0	85.0	110	115

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
ACID MINE DRAINAGE PROJECTS IN THE UPPER SCHUYLKILL RIVER BASIN

404006076191001 -- Otto Mine Airshaft Wetland Cell 2 Outflow

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Oxidation reduction potential, mV (00090)	Turbidity, water, unfltrd field, NTU (61028)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)
JUL 14...	1530	1028	89203	2.7	278	--	7.8	78	7.3	6.4
AUG 10...	1330	1028	89203	2.5	359	--	9.3	96	6.2	6.3
SEP 12...	1315	1028	89203	2.0	217	--	10.0	104	6.4	6.2

Date	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Calcium water unfltrd recover -able, mg/L (00916)	Magnesium, water, fltrd, mg/L (00925)	Magnesium, water, unfltrd recover -able, mg/L (00927)	Potassium, water, fltrd, mg/L (00935)	Potassium, water, unfltrd recover -able, mg/L (00937)	Sodium, water, fltrd, mg/L (00930)	Sodium, water, unfltrd recover -able, mg/L (00929)
JUL 14...	522	15.5	35.7	35.7	30.9	30.8	1.40	1.4	6.50	6.7
AUG 10...	529	17.0	38.8	33.4	34.3	28.9	1.40	1.2	7.30	6.4
SEP 12...	534	16.9	38.2	38.5	35.2	36.1	1.20	1.3	6.60	6.3

Date	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Sulfate water, fltrd, mg/L (00945)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Aluminum, water, fltrd, µg/L (01106)	Aluminum, water, unfltrd recover -able, µg/L (01105)	Bromine water unfltrd mg/L (71871)
JUL 14...	42	2.4	--	214	--	--	--	<100	900	--
AUG 10...	42	2.9	--	223	--	--	--	<100	900	--
SEP 12...	38	2.2	--	229	--	--	--	<100	800	--

Date	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recover -able, µg/L (01045)	Manganese, water, fltrd, µg/L (01056)	Manganese, water, unfltrd recover -able, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recover -able, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recover -able, µg/L (01092)
JUL 14...	7940	8490	1780	1810	75.0	75.0	125	130
AUG 10...	9160	8500	2020	1760	80.0	70.0	140	105
SEP 12...	8730	10000	2240	2340	85.0	85.0	100	110

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
ACID MINE DRAINAGE PROJECTS IN THE UPPER SCHUYLKILL RIVER BASIN

404005076190901 -- Otto Mine Airshaft Wetlands Cell 3 Outflow

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Oxidation reduction potential, mV (00090)	Turbidity, water, unfltrd field, NTU (61028)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)
JUL										
14...	1545	1028	89203	2.7	268	--	9.0	93	6.7	6.5
AUG										
10...	1315	1028	89203	2.5	372	--	9.1	95	6.1	6.3
SEP										
12...	1300	1028	89203	1.1	197	--	11.2	120	6.4	6.3

Date	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Calcium water unfltrd recover -able, mg/L (00916)	Magnesium, water, fltrd, mg/L (00925)	Magnesium, water, unfltrd recover -able, mg/L (00927)	Potassium, water, fltrd, mg/L (00935)	Potassium, water, unfltrd recover -able, mg/L (00937)	Sodium, water, fltrd, mg/L (00930)	Sodium, water, unfltrd recover -able, mg/L (00929)
JUL										
14...	521	16.7	37.1	37.5	31.7	31.5	1.50	1.6	6.80	6.9
AUG										
10...	528	16.7	38.5	36.8	33.6	31.8	1.50	1.4	7.20	7.1
SEP										
12...	528	18.4	38.1	39.1	35.4	36.5	1.30	1.4	6.60	6.9

Date	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Sulfate water, fltrd, mg/L (00945)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Aluminum, water, fltrd, µg/L (01106)	Aluminum, water, unfltrd recover -able, µg/L (01105)	Bromine water unfltrd mg/L (71871)
JUL										
14...	43	2.9	--	211	--	--	--	<100	1000	--
AUG										
10...	41	2.5	--	221	--	--	--	<100	900	--
SEP										
12...	37	2.2	--	227	--	--	--	<100	800	--

Date	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recover -able, µg/L (01045)	Manganese, water, fltrd, µg/L (01056)	Manganese, water, unfltrd recover -able, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recover -able, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recover -able, µg/L (01092)
JUL								
14...	7240	8650	1820	1840	75.0	75.0	115	120
AUG								
10...	8240	9210	1960	1930	80.0	80.0	155	120
SEP								
12...	7990	9560	2220	2310	80.0	85.0	100	120

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
ACID MINE DRAINAGE PROJECTS IN THE UPPER SCHUYLKILL RIVER BASIN

404008076190601 -- Otto Mine Airshaft Limestone Drain Outflow

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Oxidation reduction potential, mV (00090)	Turbidity, water, unfltrd field, NTU (61028)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)
JUL 14...	1600	1028	89203	.00	253	--	5.8	57	7.2	7.0
AUG 10...	1300	1028	89203	.04	446	--	4.6	46	6.4	6.5
SEP 12...	1245	1028	89203	.89	212	--	9.7	94	6.7	6.6

Date	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Calcium water unfltrd recover -able, mg/L (00916)	Magnesium, water, fltrd, mg/L (00925)	Magnesium, water, unfltrd recover -able, mg/L (00927)	Potassium, water, fltrd, mg/L (00935)	Potassium, water, unfltrd recover -able, mg/L (00937)	Sodium, water, fltrd, mg/L (00930)	Sodium, water, unfltrd recover -able, mg/L (00929)
JUL 14...	603	15.5	71.6	65.2	25.9	24.6	2.10	2.3	6.50	6.3
AUG 10...	529	15.5	61.8	57.6	24.1	22.4	2.40	2.4	6.90	6.6
SEP 12...	567	13.8	53.3	55.0	35.1	35.8	1.40	1.4	6.20	6.9

Date	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Sulfate water, fltrd, mg/L (00945)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Aluminum, water, fltrd, µg/L (01106)	Aluminum, water, unfltrd recover -able, µg/L (01105)	Bromine water unfltrd mg/L (71871)
JUL 14...	104	3.3	--	184	--	--	--	<100	<100	--
AUG 10...	85	4.2	--	181	--	--	--	<100	<100	--
SEP 12...	58	2.3	--	229	--	--	--	<100	<100	--

Date	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recover -able, µg/L (01045)	Manganese, water, fltrd, µg/L (01056)	Manganese, water, unfltrd recover -able, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recover -able, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recover -able, µg/L (01092)
JUL 14...	70.0	110	130	200	25.0	25.0	65.0	40.0
AUG 10...	210	190	390	390	25.0	25.0	40.0	45.0
SEP 12...	1020	1200	1420	1470	65.0	65.0	60.0	60.0

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES ACID MINE DRAINAGE PROJECTS IN THE UPPER SCHUYLKILL RIVER BASIN

404320076103201 -- Pine Forest Mine

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Oxidation reduction potential, mV (00090)	Turbidity, water, unfltrd field, NTU (61028)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)
MAR 14...	1430	1028	89203	3.2	312	--	.7	6	5.5	5.7
SEP 29...	1215	1028	89203	2.1	286	--	.2	2	5.6	6.0

Date	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Calcium water unfltrd recoverable, mg/L (00916)	Magnesium, water, fltrd, mg/L (00925)	Magnesium, water, unfltrd recoverable, mg/L (00927)	Potassium, water, fltrd, mg/L (00935)	Potassium, water, unfltrd recoverable, mg/L (00937)	Sodium, water, fltrd, mg/L (00930)	Sodium, water, unfltrd recoverable, mg/L (00929)
MAR 14...	791	11.4	58.7	51.8	61.3	53.6	1.50	1.3	4.00	3.3
SEP 29...	636	11.6	57.7	59.0	58.1	59.2	1.50	1.5	5.00	4.7

Date	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Sulfate water, fltrd, mg/L (00945)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Aluminum, water, fltrd, µg/L (01106)	Aluminum, water, unfltrd recoverable, µg/L (01105)	Bromine water unfltrd mg/L (71871)
MAR 14...	33	3.2	<.02	414	<.02	<.060	<.040	500	500	.39
SEP 29...	39	4.5	--	347	--	--	--	300	400	--

Date	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recoverable, µg/L (01045)	Manganese, water, fltrd, µg/L (01056)	Manganese, water, unfltrd recoverable, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recoverable, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recoverable, µg/L (01092)
MAR 14...	12600	10900	4210	3520	80.0	70.0	130	115
SEP 29...	16300	16600	4380	4430	85.0	90.0	140	130

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES ACID MINE DRAINAGE PROJECTS IN THE UPPER SCHUYLKILL RIVER BASIN

0146748710 -- L Wolf Creek ab Pine Forest AMD at St. Clair, PA

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Oxidation reduction potential, mV (00090)	Turbidity, water, unfltrd field, NTU (61028)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)
MAR										
14...	1445	1028	89203	3.1	302	--	9.0	83	5.8	6.0
SEP										
29...	1230	1028	89203	.00	312	--	4.9	48	5.7	5.9

Date	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Calcium water unfltrd recoverable, mg/L (00916)	Magnesium, water, fltrd, mg/L (00925)	Magnesium, water, unfltrd recoverable, mg/L (00927)	Potassium, water, fltrd, mg/L (00935)	Potassium, water, unfltrd recoverable, mg/L (00937)	Sodium, water, fltrd, mg/L (00930)	Sodium, water, unfltrd recoverable, mg/L (00929)
MAR										
14...	673	11.6	55.2	49.8	49.7	43.4	1.90	1.5	4.60	3.8
SEP										
29...	361	15.1	42.8	40.3	25.3	23.4	1.50	1.4	3.10	3.1

Date	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Sulfate water, fltrd, mg/L (00945)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Aluminum, water, fltrd, µg/L (01106)	Aluminum, water, unfltrd recoverable, µg/L (01105)	Bromine water unfltrd mg/L (71871)
MAR										
14...	14	3.5	<.01	372	<.01	<.030	<.020	200	1000	.23
SEP										
29...	12	3.8	--	185	--	--	--	<100	200	--

Date	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recoverable, µg/L (01045)	Manganese, water, fltrd, µg/L (01056)	Manganese, water, unfltrd recoverable, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recoverable, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recoverable, µg/L (01092)
MAR								
14...	7920	7560	5590	4600	95.0	80.0	160	145
SEP								
29...	180	290	950	900	30.0	30.0	80.0	65.0

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES ACID MINE DRAINAGE PROJECTS IN THE UPPER SCHUYLKILL RIVER BASIN

404705076003201 -- Reevesdale S Dip Tunnel

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Oxidation reduction potential, mV (00090)	Turbidity, water, unfltrd field, NTU (61028)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)
MAR 15...	1530	1028	89203	.67	325	--	.7	7	4.1	4.5
SEP 29...	1400	1028	89203	.04	310	--	.1	.0	5.8	5.8

Date	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Calcium water unfltrd recoverable, mg/L (00916)	Magnesium, water, fltrd, mg/L (00925)	Magnesium, water, unfltrd recoverable, mg/L (00927)	Potassium, water, fltrd, mg/L (00935)	Potassium, water, unfltrd recoverable, mg/L (00937)	Sodium, water, fltrd, mg/L (00930)	Sodium, water, unfltrd recoverable, mg/L (00929)
MAR 15...	164	10.5	10.1	11.8	8.90	10.4	.90	1.0	.90	.8
SEP 29...	165	10.6	12.5	12.7	8.20	8.6	.60	.6	1.30	1.5

Date	ANC, wat unf fixed end pt, lab, mg/L as $CaCO_3$ (00417)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Sulfate water, fltrd, mg/L (00945)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Aluminum, water, fltrd, µg/L (01106)	Aluminum, water, unfltrd recoverable, µg/L (01105)	Bromine water unfltrd mg/L (71871)
MAR 15...	.0	1.2	<.01	64.0	<.01	<.030	<.020	1000	1200	.21
SEP 29...	26	2.6	--	59.8	--	--	--	200	400	--

Date	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recoverable, µg/L (01045)	Manganese, water, fltrd, µg/L (01056)	Manganese, water, unfltrd recoverable, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recoverable, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recoverable, µg/L (01092)
MAR 15...	2030	3470	870	950	45.0	50.0	140	165
SEP 29...	12200	13600	820	900	30.0	30.0	95.0	55.0

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
ACID MINE DRAINAGE PROJECTS IN THE UPPER SCHUYLKILL RIVER BASIN

01467688 -- WB Schuylkill River ab Pine Knot Disch at Duncott

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Oxidation reduction potential, mV (00090)	Turbidity, water, unfltrd field, NTU (61028)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)
JUL										
26...	1045	1028	89203	6.5	404	--	8.2	90	5.4	5.2
SEP										
29...	0845	1028	89203	.12	339	--	7.0	71	4.8	5.1

Date	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Calcium water unfltrd recoverable, mg/L (00916)	Magnesium, water, fltrd, mg/L (00925)	Magnesium, water, unfltrd recoverable, mg/L (00927)	Potassium, water, fltrd, mg/L (00935)	Potassium, water, unfltrd recoverable, mg/L (00937)	Sodium, water, fltrd, mg/L (00930)	Sodium, water, unfltrd recoverable, mg/L (00929)
JUL										
26...	100	20.3	8.00	7.0	5.20	4.5	.70	.5	6.00	5.3
SEP										
29...	790	16.4	90.3	88.3	68.6	64.8	1.70	1.5	7.00	6.3

Date	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Sulfate water, fltrd, mg/L (00945)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Aluminum, water, fltrd, µg/L (01106)	Aluminum, water, unfltrd recoverable, µg/L (01105)	Bromine water unfltrd mg/L (71871)
JUL										
26...	2	11.8	--	35.7	--	--	--	<100	400	--
SEP										
29...	3	5.1	--	496	--	--	--	2100	3400	--

Date	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recoverable, µg/L (01045)	Manganese, water, fltrd, µg/L (01056)	Manganese, water, unfltrd recoverable, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recoverable, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recoverable, µg/L (01092)
JUL								
26...	130	300	210	190	10.0	10.0	45.0	25.0
SEP								
29...	500	660	3170	3010	140	130	380	270

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES ACID MINE DRAINAGE PROJECTS IN THE UPPER SCHUYLKILL RIVER BASIN

01467689 -- Pine Knot Disch 500 m bl Tunnel at Duncott, PA

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Oxidation reduction potential, mV (00090)	Turbidity, water, unfltrd field, NTU (61028)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)
JUL 26...	1100	1028	89203	22	337	--	11.1	101	5.6	6.5
SEP 29...	0915	1028	89203	9.3	303	--	10.4	95	6.6	6.8

Date	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Calcium water unfltrd recoverable, mg/L (00916)	Magnesium, water, fltrd, mg/L (00925)	Magnesium, water, unfltrd recoverable, mg/L (00927)	Potassium, water, fltrd, mg/L (00935)	Potassium, water, unfltrd recoverable, mg/L (00937)	Sodium, water, fltrd, mg/L (00930)	Sodium, water, unfltrd recoverable, mg/L (00929)
JUL 26...	511	11.1	43.0	37.1	45.9	38.8	1.30	1.2	7.50	6.3
SEP 29...	458	11.1	47.9	42.3	48.4	41.0	1.40	1.1	8.30	6.9

Date	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Sulfate water, fltrd, mg/L (00945)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Aluminum, water, fltrd, µg/L (01106)	Aluminum, water, unfltrd recoverable, µg/L (01105)	Bromine water unfltrd mg/L (71871)
JUL 26...	32	11.0	--	268	--	--	--	<100	800	--
SEP 29...	42	10.4	--	251	--	--	--	<100	600	--

Date	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recoverable, µg/L (01045)	Manganese, water, fltrd, µg/L (01056)	Manganese, water, unfltrd recoverable, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recoverable, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recoverable, µg/L (01092)
JUL 26...	5770	5590	2560	2250	70.0	60.0	175	150
SEP 29...	6800	6960	2750	2320	65.0	55.0	125	120

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES ACID MINE DRAINAGE PROJECTS IN THE UPPER SCHUYLKILL RIVER BASIN

01467691 -- Oak Hill Disch 200 m bl Borehole at Duncott

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Oxidation reduction potential, mV (00090)	Turbidity, water, unfltrd field, NTU (61028)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)
JUL										
26...	1245	1028	89203	5.7	212	--	2.6	26	6.2	6.5
SEP										
29...	1030	1028	89203	4.3	248	--	3.8	38	6.3	6.7

Date	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Calcium water unfltrd recoverable, mg/L (00916)	Magnesium, water, fltrd, mg/L (00925)	Magnesium, water, unfltrd recoverable, mg/L (00927)	Potassium, water, fltrd, mg/L (00935)	Potassium, water, unfltrd recoverable, mg/L (00937)	Sodium, water, fltrd, mg/L (00930)	Sodium, water, unfltrd recoverable, mg/L (00929)
JUL										
26...	882	16.4	103	89.6	58.3	50.6	2.40	2.1	33.7	30.0
SEP										
29...	929	15.0	104	109	55.2	60.4	1.70	2.1	24.2	32.4

Date	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Sulfate water, fltrd, mg/L (00945)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Aluminum, water, fltrd, µg/L (01106)	Aluminum, water, unfltrd recoverable, µg/L (01105)	Bromine water unfltrd mg/L (71871)
JUL										
26...	155	6.0	--	446	--	--	--	<100	300	--
SEP										
29...	156	5.2	--	438	--	--	--	<100	200	--

Date	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recoverable, µg/L (01045)	Manganese, water, fltrd, µg/L (01056)	Manganese, water, unfltrd recoverable, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recoverable, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recoverable, µg/L (01092)
JUL								
26...	18100	16000	4010	3600	55.0	45.0	55.0	60.0
SEP								
29...	17200	19800	3150	3990	40.0	50.0	35.0	35.0

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES ACID MINE DRAINAGE PROJECTS IN THE UPPER SCHUYLKILL RIVER BASIN

01467692 -- WB Schuylkill R bl Oak Hill Borehole at Duncott

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Oxidation reduction potential, mV (00090)	Turbidity, water, unfltrd field, NTU (61028)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)
JUL										
26...	1315	1028	89203	34	273	--	9.0	88	6.3	6.6
SEP										
29...	1045	1028	89203	14	266	--	8.8	82	6.4	6.8

Date	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Calcium water unfltrd recover -able, mg/L (00916)	Magnesium, water, fltrd, mg/L (00925)	Magnesium, water, unfltrd recover -able, mg/L (00927)	Potassium, water, fltrd, mg/L (00935)	Potassium, water, unfltrd recover -able, mg/L (00937)	Sodium, water, fltrd, mg/L (00930)	Sodium, water, unfltrd recover -able, mg/L (00929)
JUL										
26...	521	14.6	48.4	42.5	41.4	35.1	1.40	1.2	12.2	10.7
SEP										
29...	643	12.2	66.1	61.7	52.0	48.1	1.60	1.4	15.2	13.6

Date	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Sulfate water, fltrd, mg/L (00945)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Aluminum, water, fltrd, µg/L (01106)	Aluminum, water, unfltrd recover -able, µg/L (01105)	Bromine water unfltrd mg/L (71871)
JUL										
26...	48	10.3	--	258	--	--	--	<100	600	--
SEP										
29...	72	9.5	--	307	--	--	--	<100	600	--

Date	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recover -able, µg/L (01045)	Manganese, water, fltrd, µg/L (01056)	Manganese, water, unfltrd recover -able, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recover -able, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recover -able, µg/L (01092)
JUL								
26...	7030	6720	2440	2130	55.0	50.0	120	105
SEP								
29...	10000	12000	3190	2820	55.0	55.0	100	95.0

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
ACID MINE DRAINAGE PROJECTS IN THE UPPER SCHUYLKILL RIVER BASIN

01467752 -- WB Schuylkill River ab West Cr near Pottsville, PA

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Oxidation reduction potential, mV (00090)	Turbidity, water, unfltrd field, NTU (61028)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)
AUG										
23...	1030	1028	89203	22	228	--	9.3	89	7.1	6.8

Date	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Calcium water unfltrd recoverable, mg/L (00916)	Magnesium, water, fltrd, mg/L (00925)	Magnesium, water, unfltrd recoverable, mg/L (00927)	Potassium, water, fltrd, mg/L (00935)	Potassium, water, unfltrd recoverable, mg/L (00937)	Sodium, water, fltrd, mg/L (00930)	Sodium, water, unfltrd recoverable, mg/L (00929)
AUG										
23...	588	13.6	58.4	57.2	48.1	47.2	2.50	2.4	18.4	17.9

Date	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Sulfate water, fltrd, mg/L (00945)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Aluminum, water, fltrd, µg/L (01106)	Aluminum, water, unfltrd recoverable, µg/L (01105)	Bromine water unfltrd mg/L (71871)
AUG										
23...	52	16.4	--	275	--	--	--	<100	300	--

Date	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recoverable, µg/L (01045)	Manganese, water, fltrd, µg/L (01056)	Manganese, water, unfltrd recoverable, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recoverable, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recoverable, µg/L (01092)
AUG								
23...	1840	3640	3000	3000	55.0	55.0	70.0	75.0

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES ACID MINE DRAINAGE PROJECTS IN THE UPPER SCHUYLKILL RIVER BASIN

01467861 -- West Cr West Branch Schuylkill near Pottsville, PA

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Oxidation reduction potential, mV (00090)	Turbidity, water, unfltrd field, NTU (61028)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)
AUG										
23...	1145	1028	89203	--	336	--	8.3	83	7.9	7.4

Date	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Calcium water unfltrd recover -able, mg/L (00916)	Magnesium, water, fltrd, mg/L (00925)	Magnesium, water, unfltrd recover -able, mg/L (00927)	Potassium, water, fltrd, mg/L (00935)	Potassium, water, unfltrd recover -able, mg/L (00937)	Sodium, water, fltrd, mg/L (00930)	Sodium, water, unfltrd recover -able, mg/L (00929)
AUG										
23...	462	15.5	44.0	43.0	30.0	29.1	2.30	2.1	14.5	13.7

Date	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Sulfate water, fltrd, mg/L (00945)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Aluminum, water, fltrd, µg/L (01106)	Aluminum, water, unfltrd recover -able, µg/L (01105)	Bromine water unfltrd mg/L (71871)
AUG										
23...	64	7.3	--	168	--	--	--	<100	<100	--

Date	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recover -able, µg/L (01045)	Manganese, water, fltrd, µg/L (01056)	Manganese, water, unfltrd recover -able, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recover -able, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recover -able, µg/L (01092)
AUG								
23...	30.0	240	180	190	15.0	15.0	<5.00	<5.00

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES
ACID MINE DRAINAGE PROJECTS IN THE UPPER SCHUYLKILL RIVER BASIN

01467492 -- Mill Cr ab Schuylkill River at Port Carbon, PA

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Oxidation reduction potential, mV (00090)	Turbidity, water, unfltrd field, NTU (61028)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)
AUG										
23...	1245	1028	89203	12	271	--	8.9	90	6.9	6.4

Date	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Calcium water unfltrd recoverable, mg/L (00916)	Magnesium, water, fltrd, mg/L (00925)	Magnesium, water, unfltrd recoverable, mg/L (00927)	Potassium, water, fltrd, mg/L (00935)	Potassium, water, unfltrd recoverable, mg/L (00937)	Sodium, water, fltrd, mg/L (00930)	Sodium, water, unfltrd recoverable, mg/L (00929)
AUG										
23...	373	17.3	31.1	30.3	24.3	23.8	2.40	2.5	19.1	18.6

Date	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Sulfate water, fltrd, mg/L (00945)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Aluminum, water, fltrd, µg/L (01106)	Aluminum, water, unfltrd recoverable, µg/L (01105)	Bromine water unfltrd mg/L (71871)
AUG										
23...	10	25.5	--	155	--	--	--	<100	700	--

Date	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recoverable, µg/L (01045)	Manganese, water, fltrd, µg/L (01056)	Manganese, water, unfltrd recoverable, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recoverable, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recoverable, µg/L (01092)
AUG								
23...	690	2010	2000	2000	40.0	40.0	70.0	75.0

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES ACID MINE DRAINAGE PROJECTS IN THE UPPER SCHUYLKILL RIVER BASIN

01467471 -- Schuylkill River ab Mill Creek at Port Carbon, PA

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Oxidation reduction potential, mV (00090)	Turbidity, water, unfltrd field, NTU (61028)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)
AUG										
23...	1345	1028	89203	10	362	--	9.2	94	6.8	6.6

Date	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Calcium water unfltrd recoverable, mg/L (00916)	Magnesium, water, fltrd, mg/L (00925)	Magnesium, water, unfltrd recoverable, mg/L (00927)	Potassium, water, fltrd, mg/L (00935)	Potassium, water, unfltrd recoverable, mg/L (00937)	Sodium, water, fltrd, mg/L (00930)	Sodium, water, unfltrd recoverable, mg/L (00929)
AUG										
23...	411	16.4	42.0	41.2	23.9	23.6	1.60	1.5	7.50	7.1

Date	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Calcium water unfltrd recoverable, mg/L (00916)	Magnesium, water, fltrd, mg/L (00925)	Magnesium, water, unfltrd recoverable, mg/L (00927)	Potassium, water, fltrd, mg/L (00935)	Potassium, water, unfltrd recoverable, mg/L (00937)	Sodium, water, fltrd, mg/L (00930)	Sodium, water, unfltrd recoverable, mg/L (00929)
AUG										
23...	411	16.4	42.0	41.2	23.9	23.6	1.60	1.5	7.50	7.1

Date	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Sulfate water, fltrd, mg/L (00945)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Aluminum, water, fltrd, µg/L (01106)	Aluminum, water, unfltrd recoverable, µg/L (01105)	Bromine water unfltrd mg/L (71871)
AUG										
23...	20	6.3	--	179	--	--	--	<100	400	--

Date	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recoverable, µg/L (01045)	Manganese, water, fltrd, µg/L (01056)	Manganese, water, unfltrd recoverable, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recoverable, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recoverable, µg/L (01092)
AUG								
23...	920	2350	1000	1000	40.0	40.0	45.0	50.0

ANALYSIS OF SAMPLES COLLECTED AT SPECIAL-STUDY SITES ACID MINE DRAINAGE PROJECTS IN THE UPPER SCHUYLKILL RIVER BASIN

01469700 -- Little Schuylkill River at South Tamaqua, PA

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Oxidation reduction potential, mV (00090)	Turbidity, water, unfltrd field, NTU (61028)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)
AUG 23...	1445	1028	89203	--	314	--	9.0	99	7.3	7.2

Date	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Calcium water unfltrd recoverable, mg/L (00916)	Magnesium, water, fltrd, mg/L (00925)	Magnesium, water, unfltrd recoverable, mg/L (00927)	Potassium, water, fltrd, mg/L (00935)	Potassium, water, unfltrd recoverable, mg/L (00937)	Sodium, water, fltrd, mg/L (00930)	Sodium, water, unfltrd recoverable, mg/L (00929)
AUG 23...	543	19.9	51.4	49.8	31.1	29.8	2.30	2.2	19.6	18.3

Date	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (00417)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Sulfate water, fltrd, mg/L (00945)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Aluminum, water, fltrd, µg/L (01106)	Aluminum, water, unfltrd recoverable, µg/L (01105)	Bromine water unfltrd mg/L (71871)
AUG 23...	30	14.6	--	223	--	--	--	<100	500	--

Date	Iron, water, fltrd, µg/L (01046)	Iron, water, unfltrd recoverable, µg/L (01045)	Manganese, water, fltrd, µg/L (01056)	Manganese, water, unfltrd recoverable, µg/L (01055)	Nickel, water, fltrd, µg/L (01065)	Nickel, water, unfltrd recoverable, µg/L (01067)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recoverable, µg/L (01092)
AUG 23...	90.0	1230	2000	2000	40.0	40.0	70.0	95.0

SPECIAL NOTES, REMARK CODES, AND SELECTED CONSTITUENT DEFINITIONS

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NOTES--Traditionally, dissolved trace-element concentrations have been reported at the microgram per liter(µG/L) level. Recent evidence, mostly from large rivers, indicates that actual dissolved-phase concentrations for a number of trace elements are within the range of 10's to 100's of nanograms per liter (ng/L). Data above the µG/L level should be viewed with caution. Such data may actually represent elevated environmental concentrations from natural or human causes; however, these data could reflect contamination introduced during sampling, processing, or analysis. To confidently produce dissolved trace-element data with insignificant contamination, the U.S. Geological Survey began using new trace-element protocols at some stations in water year 1994. Full implementation of the protocols took place during the 1995 water year.

--Sample handling procedures at all **National Trends Network** stations were changed substantially on January 11, 1994, in order to reduce contamination from the sample shipping container. The data for samples before and after that date are different and not directly comparable. A tabular summary of the differences based on a special intercomparison study, is available from the NADP/NTN Coordination Office, Colorado State University, Fort Collins, CO 80523 (Telephone: 303-491-5643).

--In March 1989 a bias was discovered in the turbidimetric method for sulfate analysis for those samples analyzed by the U.S. Geological Survey National Water-Quality Laboratory indicating that values below 75 mg/L have a median positive bias of 2 mg/L above the true value for the period between 1982 and 1989.

--**Methylene blue active substance (MBAS)** determinations made from January 1, 1970, through August 29, 1993, at the National Water Quality Laboratory in Denver (Analyzing Agency Code 80020) are positively biased. These data can be corrected on the basis of the following equation, if concentrations of dissolved nitrate plus nitrite, as nitrogen, and dissolved chloride, determined concurrently with the MBAS data are applied:

$$\mathrm{MBASCOR} = M - 0.0088N - 0.00019C$$

where:

MBASCOR = corrected MBAS concentration, in mg/L;
M = reported MBAS concentration, in mg/L;
N = dissolved nitrate plus nitrite, as nitrogen, in mg/L; and
C = dissolved chloride concentration, in mg/L.

The detection limit of the new method is 0.02 mg/L, whereas the detection limit for the old method was 0.01 mg/L. A detection limit of 0.02 mg/L should be used with corrected MBAS data from January 1, 1970, through August 29, 1993.

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Remark Codes.--The following remark codes may appear with the data tables in this report:

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

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EXPLANATION OF CODES USED TO DEFINE SAMPLE COLLECTION PROCEDURES (partial listing)

(71999) SAMPLE PURPOSE CODES:

10--Routine
15--NAWQA
20--NASQAN
30--Benchmark

(82398) SAMPLE METHOD CODES:

10--Equal width increment
20--Equal discharge increment
30--Single vertical
40--Multiple verticals
50--Point sample
70--Grab sample
120--Velocity integrated
8010--Other

(84164) SAMPLER TYPE: (partial list)

110--Sewage sampler

3011--US D-77

3035--DH-76 Trace metal sampler with teflon gasket and nozzle

3039--D-77 Trace metal

3040--D-77 Trace metal modified teflon bag sampler

3045--DH-81 with Teflon cap and nozzle

8010--Other (other than a defined sampler type)

SPECIAL NOTES, REMARK CODES AND SELECTED CONSTITUENT DEFINITIONS--Continued

Explanation of selected abbreviations used in constituent definitions in water-quality tables:

AC-FT	acre-feet
BOT MAT	bottom material (Unconsolidated material of which a streambed, lake, pond, reservoir, or estuary bottom is composed.)
COLS/100 ML	colonies per 100 milliliters
DIS	dissolved
FET	fixed end-point titration
FLD	field (Measurement determined at field site.)
F/S	feet per second
G/M	gallons per minute
G/SQM; MG/M2	grams or milligrams per square meter
IT	incremental titration
KF AGAR	nutrient medium for growth of fecal streptococcal bacteria
μG/L	micrograms per liter
μS/CM	microsiemens per centimeter
MG/L	milligrams per liter
MG/M2	milligrams per square meter
MM OF HG	millimeters of mercury
NONCARB	noncarbonate
NTU	nephelometric turbidity unit
PCI/L	picocuries per liter
REC	recoverable
TOT	total
T/DAY	tons per day
WH IT	whole water, incremental titration (Alkalinity, bicarbonate, and carbonate as determined by incremental titration of unfiltered water at the field site.)
2 SIGMA	Counting statistic that represents error in the reported radon, uranium, or tritium value caused by variations in sample counting, background radiation, volume of sample, and decay since sample was collected.
0.7μ GF	0.7 micron glass-fiber filter (Water filtered through a glass-fiber membrane filter with openings that are 0.7 microns in size.)

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(00027) AGENCY COLLECTING SAMPLE CODES: (partial listing)

1028 --U.S. Geological Survey

(00028) AGENCY ANALYZING SAMPLE CODES: (partial listing)

1028 --U.S. Geological Survey
80020 --U.S. Geological Survey, National Water-Quality Laboratory, Denver, Colorado
9813 --Pennsylvania Department of Environmental Protection
83613 --USGS Water Science Center, Water-Quality Laboratory, Troy, New York

MEDIUM CODES: (partial listing)

9-- Surface water.
R-- Quality-control sample. Surface water.
Q-- Quality-control sample. Artificial.

GROUND-WATER-LEVEL STATION RECORDS

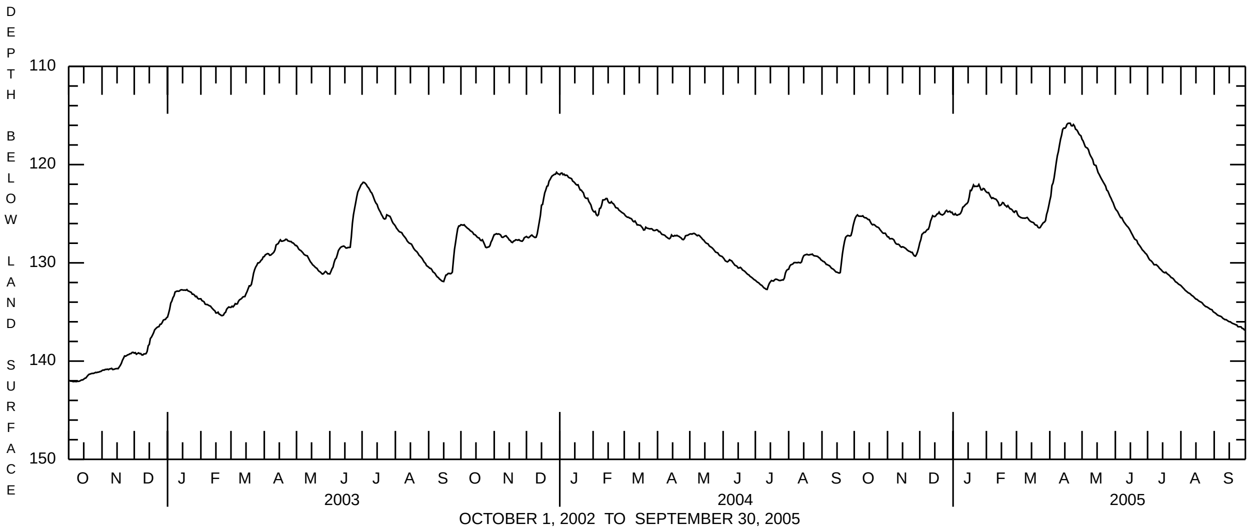
BERKS COUNTY

402615075530501. Local number, BE 623.

LOCATION.--Lat 40°26'15", long 75°53'05", Hydrologic Unit 02040203, at Wesner Road, Blandon.
Owner: Maiden Creek Township Water Authority.
AQUIFER.--Dolomite of Leithsville Formation of Early and Middle Cambrian age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 8 in., depth 385 ft, casing information not available.
INSTRUMENTATION.--Data collection platform with 30-minute recording interval. Satellite telemetry at station.
DATUM.--Elevation of land-surface datum is 430 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of plywood shelf, 1.71 ft above land-surface datum. Prior to Apr. 30, 1981, top of casing, 1.30 ft above land-surface datum.
REMARKS.--In addition to the daily maximum water level table shown below, daily minimum and mean water levels, since October 1994, are also available from the USGS Pennsylvania Water Science Center Office.
PERIOD OF RECORD.--January 1975 to current year.
EXTREMES FOR PERIOD OF RECORD.--Prior to October 2000, the extremes were based on extremes of the daily maximum depth below land-surface datum. Since that date, the extremes are based on the instantaneous depth below land-surface datum.
Highest water level, 109.44 ft below land-surface datum, Apr. 19, 1994; lowest, 142.23 ft below land-surface datum, Mar. 16, 2002.
EXTREMES FOR CURRENT YEAR.--Highest water level, 115.64 ft below land-surface datum, Apr. 20; lowest, 136.84 ft below land-surface datum, Sept. 30.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	125.78	127.35	127.96	125.06	122.79	124.74	123.66	117.43	124.48	129.31	132.31	135.04
2	125.43	127.36	127.64	125.11	122.86	125.07	123.19	117.59	124.64	129.53	132.43	135.11
3	125.24	127.55	127.11	124.99	122.85	125.24	122.13	117.88	124.76	129.70	132.55	135.20
4	125.12	127.55	127.00	125.13	123.07	125.31	121.88	118.17	124.99	129.77	132.66	135.31
5	125.24	127.53	126.89	125.15	123.29	125.39	121.36	118.27	125.21	129.87	132.79	135.36
6	125.25	127.58	126.89	125.08	123.44	125.42	120.61	118.32	125.40	130.02	132.88	135.41
7	125.25	127.68	126.74	125.06	123.37	125.45	119.82	118.50	125.40	130.19	132.97	135.44
8	125.26	127.92	126.61	124.95	123.45	125.44	119.11	118.88	125.64	130.20	133.06	135.51
9	125.21	128.06	126.58	124.73	123.49	125.46	118.67	119.12	125.84	130.18	133.10	135.64
10	125.35	128.11	126.27	124.34	123.53	125.42	118.03	119.30	125.99	130.28	133.19	135.71
11	125.41	128.10	125.76	124.27	123.67	125.38	117.42	119.52	126.14	130.39	133.31	135.78
12	125.41	128.18	125.49	124.14	123.84	125.52	117.00	119.97	126.27	130.54	133.37	135.78
13	125.50	128.34	125.20	124.03	124.17	125.68	116.42	120.06	126.38	130.64	133.47	135.85
14	125.59	128.41	125.28	123.96	124.15	125.77	116.28	120.09	126.55	130.75	133.59	135.93
15	125.60	128.36	125.29	123.79	124.06	125.84	116.30	120.47	126.75	130.88	133.69	135.99
16	125.82	128.40	125.20	123.31	123.86	125.87	116.19	120.82	126.97	130.96	133.72	136.00
17	126.02	128.47	125.03	122.63	123.90	125.92	115.90	121.00	127.17	131.01	133.82	136.09
18	126.13	128.54	125.00	122.64	124.11	126.09	115.80	121.23	127.39	130.95	133.90	136.16
19	126.09	128.66	124.83	122.38	124.19	126.16	115.79	121.44	127.58	131.08	133.96	136.20
20	126.14	128.75	125.04	122.07	124.30	126.17	115.79	121.63	127.65	131.17	134.01	136.24
21	126.25	128.82	125.08	122.23	124.17	126.37	116.04	121.83	127.73	131.25	134.10	136.30
22	126.34	128.85	125.13	122.20	124.35	126.44	116.06	122.01	128.03	131.37	134.25	136.32
23	126.37	128.93	125.07	122.22	124.50	126.41	115.92	122.21	128.16	131.50	134.35	136.49
24	126.45	128.93	124.97	122.20	124.52	126.23	116.08	122.59	128.31	131.54	134.45	136.51
25	126.62	129.15	124.75	122.02	124.61	126.06	116.40	122.69	128.47	131.63	134.47	136.50
26	126.75	129.29	124.66	122.28	124.78	125.91	116.46	122.95	128.66	131.77	134.54	136.52
27	126.89	129.32	124.81	122.57	124.86	125.86	116.62	123.22	128.77	131.93	134.61	136.67
28	126.99	129.14	124.79	122.58	124.72	125.71	116.86	123.43	128.89	131.98	134.70	136.69
29	126.98	128.85	124.74	122.43	---	125.08	116.99	123.69	129.03	132.08	134.74	136.82
30	126.99	128.44	124.87	122.47	---	124.72	117.07	123.90	129.12	132.18	134.78	136.84
31	127.19	---	124.85	122.66	---	124.22	---	124.22	---	132.24	134.97	---
MEAN	125.96	128.35	125.66	123.51	123.89	125.62	117.86	120.72	126.88	130.87	133.70	135.98
MAX	127.19	129.32	127.96	125.15	124.86	126.44	123.66	124.22	129.12	132.24	134.97	136.84
MIN	125.12	127.35	124.66	122.02	122.79	124.22	115.79	117.43	124.48	129.31	132.31	135.04



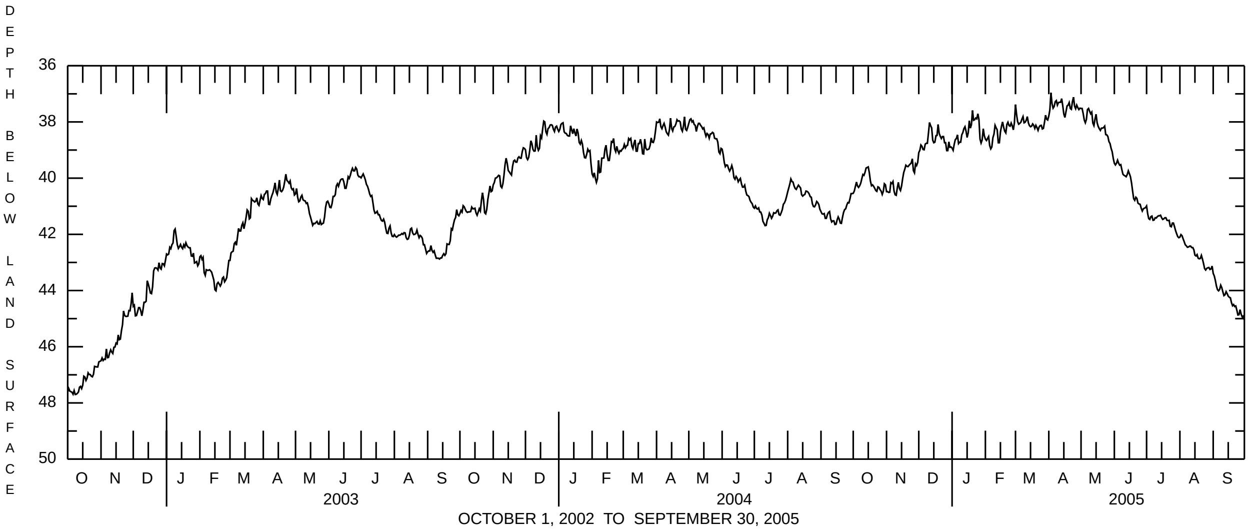
BUCKS COUNTY

402643075150501. Local number, BK 929.

LOCATION.--Lat 40°26'43", long 75°15'05", Hydrologic Unit 02040105, at Nockamixon State Park.
Owner: U.S. Geological Survey.
AQUIFER.--Shale of Brunswick Formation of Late Triassic age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in., depth 116 ft, cased to 27 ft, open hole.
INSTRUMENTATION.--Data collection platform with 60-minute recording interval. Satellite telemetry at station.
DATUM.--Elevation of land-surface datum is 490 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of plywood shelf, 3.0 ft above land-surface datum. Prior to Mar. 17, 1980, top of casing, 1.05 ft above land-surface datum. Prior to June 1970, land surface datum was approximately 16 feet lower.
REMARKS.--In addition to the daily maximum water level table shown below, daily minimum and mean water levels, since October 1994, are also available from the USGS Pennsylvania Water Science Center Office.
PERIOD OF RECORD.--November 1967 to current year.
EXTREMES FOR PERIOD OF RECORD.--Prior to October 2000, the extremes were based on extremes of the daily maximum depth below land-surface datum. Since that date, the extremes are based on the instantaneous depth below land-surface datum.
Highest water level, 36.91 ft below land-surface datum, Apr. 3, 2005; lowest, 59.75 ft below land-surface datum, Nov. 26, 1968.
EXTREMES FOR CURRENT YEAR.--Highest water level, 36.91 ft below land-surface datum, Apr. 3; lowest, 45.06 ft below land-surface datum, Sept. 30.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40.54	40.48	39.09	38.93	38.61	37.38	37.79	37.52	39.47	40.99	42.10	43.39
2	40.46	40.48	39.01	39.01	38.66	37.73	37.57	37.52	39.53	41.26	42.01	43.48
3	40.30	40.51	38.82	38.79	38.59	37.99	36.96	37.70	39.47	41.44	42.05	43.64
4	40.14	40.50	38.87	38.63	38.52	38.08	37.35	37.93	39.36	41.47	42.16	43.84
5	40.28	40.16	38.98	38.59	38.84	38.05	37.51	38.03	39.47	41.37	42.26	43.97
6	40.33	40.19	38.99	38.46	38.96	38.01	37.45	37.91	39.54	41.35	42.37	44.01
7	40.27	40.12	38.79	38.77	38.89	37.90	37.28	37.56	39.52	41.50	42.41	43.96
8	40.18	40.46	38.76	38.72	38.56	37.81	37.24	37.52	39.70	41.49	42.46	43.81
9	40.02	40.59	38.76	38.72	38.43	38.03	37.40	37.62	39.86	41.41	42.45	43.90
10	39.87	40.61	38.40	38.46	38.12	38.01	37.31	37.71	39.90	41.42	42.42	44.05
11	39.90	40.35	38.02	38.38	38.21	37.94	37.30	37.65	39.92	41.37	42.42	44.18
12	39.79	40.15	38.13	38.24	38.28	37.81	37.30	38.04	39.95	41.34	42.47	44.15
13	39.64	40.37	38.21	38.17	38.74	38.03	37.17	38.13	39.87	41.34	42.47	44.04
14	39.62	40.44	38.65	38.33	38.74	38.13	37.43	37.90	39.74	41.32	42.55	44.11
15	39.60	40.28	38.74	38.55	38.36	38.17	37.72	37.73	39.84	41.41	42.74	44.20
16	39.81	40.02	38.72	38.39	38.15	38.15	37.84	38.03	39.95	41.47	42.77	44.24
17	40.10	39.80	38.49	37.96	38.00	38.07	37.64	38.16	40.17	41.45	42.72	44.26
18	40.27	39.68	38.48	38.22	38.19	38.12	37.43	38.24	40.46	41.41	42.85	44.43
19	40.24	39.54	38.09	38.10	38.33	38.23	37.40	38.30	40.73	41.41	42.87	44.54
20	40.29	39.58	38.41	37.59	38.39	38.12	37.31	38.22	40.79	41.50	42.86	44.50
21	40.36	39.59	38.51	37.94	38.09	38.20	37.52	38.22	40.68	41.51	42.75	44.57
22	40.44	39.54	38.59	37.92	38.01	38.30	37.55	38.20	40.72	41.50	42.88	44.55
23	40.47	39.50	38.52	37.86	38.13	38.18	37.28	38.15	40.89	41.71	43.04	44.70
24	40.31	39.46	38.52	37.89	38.15	38.13	37.12	38.45	40.92	41.73	43.22	44.87
25	40.33	39.31	38.74	37.71	38.04	38.12	37.44	38.46	40.93	41.60	43.27	44.86
26	40.41	39.73	38.74	37.91	38.14	38.25	37.53	38.52	41.07	41.60	43.21	44.68
27	40.46	39.81	39.02	38.61	38.28	38.23	37.40	38.70	41.17	41.73	43.19	44.84
28	40.58	39.49	39.02	38.75	38.03	38.01	37.49	38.77	41.09	41.87	43.18	44.94
29	40.47	39.55	38.71	38.64	---	37.76	37.56	38.94	41.07	41.98	43.25	44.91
30	40.20	39.44	38.90	38.24	---	37.90	37.51	39.06	41.05	42.08	43.23	45.06
31	40.24	---	38.89	38.49	---	37.93	---	39.30	---	42.12	43.13	---
MEAN	40.19	39.99	38.66	38.35	38.37	38.02	37.43	38.14	40.23	41.52	42.70	44.29
MAX	40.58	40.61	39.09	39.01	38.96	38.30	37.84	39.30	41.17	42.12	43.27	45.06
MIN	39.60	39.31	38.02	37.59	38.00	37.38	36.96	37.52	39.36	40.99	42.01	43.39



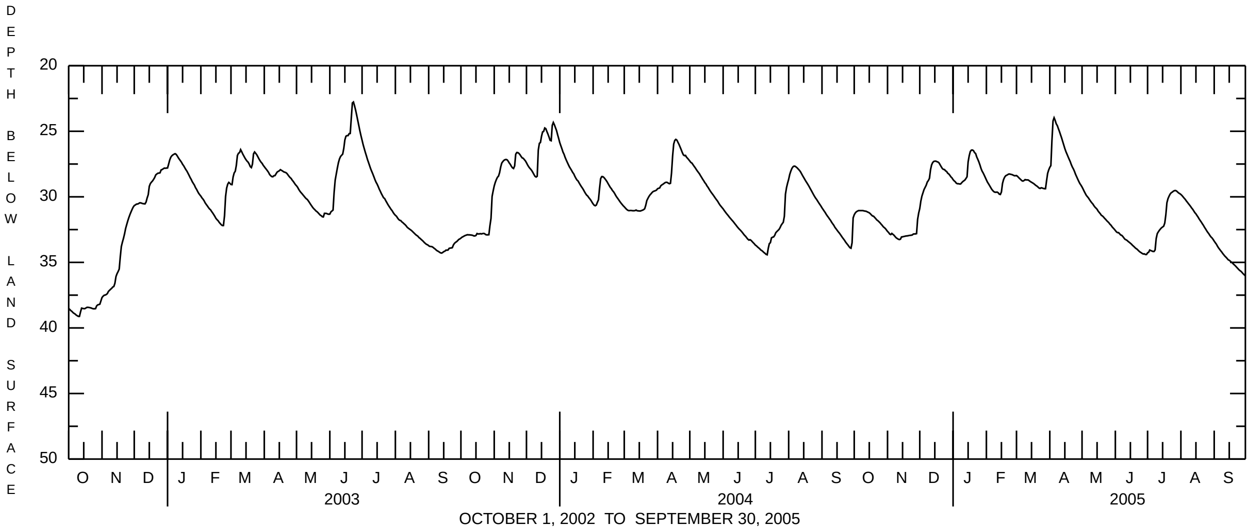
BUCKS COUNTY

401157075032001. Local number, BK 1020

LOCATION.--Lat 40°11'55", long 75°03'07", Hydrologic Unit 02040201, at Naval Air Development Center in Warminster Township. Owner: United States Navy.
AQUIFER.--Sandstone and shale of Stockton Formation of Late Triassic age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in., depth 400 ft, cased to 57 ft, open hole.
INSTRUMENTATION.--Data collection platform with 30-minute recording interval. Satellite telemetry at station.
DATUM.--Elevation of land-surface datum is 370 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of metal shelf, 1.93 ft above land-surface datum.
REMARKS.--Operated by Bucks County Planning Commission September 1975 to March 1988. In addition to the daily maximum water level table shown below, daily minimum and mean water levels, since October 1994, are also available from the USGS Pennsylvania Water Science Center Office.
PERIOD OF RECORD.--September 1975 to current year.
EXTREMES FOR PERIOD OF RECORD.--Prior to October 2000, the extremes were based on extremes of the daily maximum depth below land-surface datum. Since that date, the extremes are based on the instantaneous depth below land-surface datum.
Highest water level, 22.64 ft below land-surface datum, June 23, 2003; lowest, 42.60 ft below land-surface datum, Jan. 22, 23, 2002.
EXTREMES FOR CURRENT YEAR.--Highest water level, 23.91 ft below land-surface datum, Apr. 5; lowest, 36.03 ft below land-surface datum, Sept. 30.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31.37	32.64	30.89	28.69	28.71	28.38	27.75	29.25	32.57	34.27	29.82	33.38
2	31.23	32.72	30.33	28.78	28.88	28.44	27.62	29.41	32.67	34.23	29.90	33.50
3	31.14	32.84	29.95	28.85	29.01	28.53	25.71	29.58	32.73	34.06	30.00	33.61
4	31.09	32.88	29.69	28.96	29.15	28.61	24.21	29.74	32.73	34.10	30.10	33.76
5	31.05	32.79	29.44	29.00	29.29	28.69	23.97	29.89	32.82	34.13	30.19	33.89
6	31.05	32.86	29.28	29.00	29.43	28.77	24.17	29.99	32.91	34.17	30.31	34.00
7	31.05	32.93	29.11	29.02	29.53	28.80	24.43	30.09	32.94	34.17	30.41	34.11
8	31.05	33.03	28.87	29.02	29.61	28.76	24.57	30.22	33.03	34.05	30.52	34.21
9	31.05	33.12	28.76	28.93	29.65	28.69	24.80	30.34	33.14	33.19	30.62	34.33
10	31.07	33.18	28.59	28.84	29.65	28.71	25.02	30.45	33.24	32.81	30.73	34.43
11	31.09	33.23	27.94	28.78	29.64	28.71	25.27	30.54	33.28	32.67	30.85	34.53
12	31.10	33.26	27.57	28.72	29.69	28.72	25.51	30.67	33.33	32.55	30.95	34.61
13	31.14	33.23	27.39	28.60	29.80	28.78	25.78	30.78	33.41	32.45	31.08	34.70
14	31.18	33.06	27.30	28.47	29.82	28.84	26.05	30.86	33.47	32.36	31.21	34.80
15	31.22	33.05	27.28	27.34	29.63	28.89	26.32	30.95	33.54	32.30	31.30	34.84
16	31.29	33.03	27.28	26.87	28.98	28.94	26.55	31.09	33.61	32.24	31.43	34.91
17	31.38	33.01	27.32	26.55	28.68	28.99	26.74	31.19	33.70	31.99	31.55	34.99
18	31.46	32.99	27.35	26.44	28.50	29.06	26.94	31.29	33.77	31.36	31.69	35.05
19	31.48	32.98	27.42	26.43	28.39	29.13	27.13	31.41	33.85	30.45	31.81	35.14
20	31.57	32.97	27.57	26.48	28.35	29.18	27.31	31.46	33.93	30.14	31.93	35.21
21	31.66	32.95	27.71	26.63	28.30	29.25	27.54	31.54	33.98	29.95	32.06	35.29
22	31.76	32.94	27.84	26.70	28.26	29.33	27.73	31.64	34.06	29.79	32.18	35.38
23	31.82	32.93	27.91	26.96	28.27	29.36	27.88	31.72	34.14	29.69	32.33	35.47
24	31.90	32.91	27.92	27.14	28.29	29.31	28.07	31.82	34.21	29.64	32.45	35.56
25	31.98	32.84	28.02	27.34	28.31	29.33	28.29	31.90	34.26	29.57	32.59	35.63
26	32.08	32.83	28.07	27.57	28.35	29.36	28.47	31.98	34.32	29.53	32.71	35.69
27	32.17	32.83	28.20	27.84	28.39	29.38	28.65	32.09	34.36	29.52	32.82	35.78
28	32.28	32.81	28.26	28.04	28.39	29.38	28.83	32.17	34.35	29.56	32.95	35.87
29	32.35	31.72	28.36	28.18	---	28.77	28.99	32.29	34.40	29.64	33.06	35.95
30	32.42	31.23	28.48	28.35	---	28.21	29.11	32.38	34.40	29.71	33.14	36.03
31	32.53	---	28.56	28.53	---	27.95	---	32.47	---	29.76	33.25	---
MEAN	31.52	32.86	28.34	27.97	28.96	28.88	26.65	31.01	33.57	31.74	31.48	34.82
MAX	32.53	33.26	30.89	29.02	29.82	29.38	29.11	32.47	34.40	34.27	33.25	36.03
MIN	31.05	31.23	27.28	26.43	28.26	27.95	23.97	29.25	32.57	29.52	29.82	33.38



CARBON COUNTY

410123075425401. Local number, CB 104.

LOCATION.--Lat 41°01'23", long 75°42'54", Hydrologic Unit 02040106, at Hickory Run State Park.
Owner: U.S. Geological Survey.

AQUIFER.--Shale of Lower Member of Mauch Chunk Formation of Late Mississippian age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in., depth 125 ft, cased to 20 ft, open hole.

INSTRUMENTATION.--Data collection platform with 30-minute recording interval. Satellite telemetry at station.

DATUM.--Elevation of land-surface datum is l,305 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of plywood shelf, 3.12 ft above land-surface datum. Prior to May 28, 1980, top of casing 3.00 ft above land-surface datum.

REMARKS.--In addition to the daily maximum water level table shown below, daily minimum and mean water levels, since October 1994, are also available from the USGS Pennsylvania Water Science Center Office.

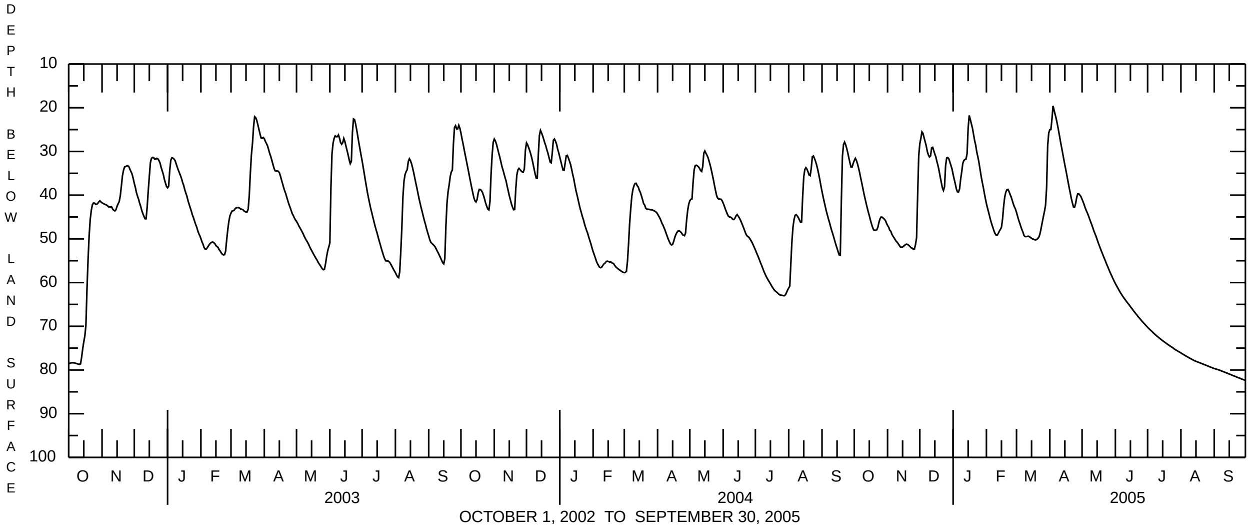
PERIOD OF RECORD.--September 1969 to current year.

EXTREMES FOR PERIOD OF RECORD.--Prior to October 2000, the extremes were based on extremes of the daily maximum depth below land-surface datum. Since that date, the extremes are based on the instantaneous depth below land-surface datum.
Highest water level, 18.44 ft below land-surface datum, Apr. 17, 1983; lowest, 90.58 ft below land-surface datum, Jan. 31, 1981.

EXTREMES FOR CURRENT YEAR.--Highest water level, 19.05 ft below land-surface datum, Apr. 4; lowest, 82.40 ft below land-surface datum, Sept. 30.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32.08	46.93	28.25	35.27	41.94	43.97	25.01	40.96	60.24	70.24	76.10	79.66
2	31.57	47.30	27.02	36.35	42.97	44.85	24.98	41.55	60.69	70.49	76.26	79.74
3	32.05	48.00	25.53	37.41	43.90	45.69	22.59	42.23	61.12	70.73	76.41	79.81
4	32.82	48.25	25.90	38.57	44.89	46.41	19.59	42.97	61.58	70.96	76.54	79.89
5	33.78	48.94	26.89	39.23	45.83	47.18	20.59	43.58	62.01	71.18	76.71	79.97
6	34.84	49.37	27.79	39.28	46.66	47.89	21.59	44.12	62.42	71.43	76.84	80.05
7	36.06	49.74	28.74	38.58	47.39	48.48	22.57	44.74	62.82	71.66	76.99	80.14
8	37.23	50.15	30.02	36.39	48.16	49.25	23.77	45.45	63.20	71.88	77.13	80.24
9	38.41	50.53	30.82	34.71	48.76	49.48	25.05	46.11	63.54	72.10	77.26	80.34
10	39.64	50.78	31.25	32.74	49.15	49.49	26.43	46.76	63.86	72.31	77.39	80.44
11	40.74	51.14	31.02	32.06	49.16	49.45	27.87	47.44	64.22	72.51	77.54	80.53
12	41.80	51.50	29.18	31.85	48.78	49.39	29.13	48.21	64.53	72.72	77.67	80.63
13	42.81	51.87	29.06	31.75	48.22	49.51	30.47	48.81	64.86	72.91	77.80	80.72
14	43.79	51.92	29.84	30.48	47.84	49.68	31.79	49.43	65.17	73.11	77.92	80.83
15	44.69	51.86	30.61	24.65	47.35	49.87	33.12	50.14	65.51	73.31	78.02	80.93
16	45.66	51.68	31.31	21.76	45.50	50.01	34.35	50.86	65.83	73.48	78.11	81.02
17	46.54	51.45	32.38	22.67	42.63	50.11	35.64	51.52	66.15	73.66	78.22	81.13
18	47.32	51.25	33.31	23.69	40.51	50.21	36.99	52.18	66.49	73.83	78.30	81.23
19	47.94	51.22	34.48	24.66	39.33	50.23	38.28	52.81	66.80	74.02	78.39	81.32
20	48.05	51.34	35.82	26.09	38.76	50.11	39.49	53.42	67.12	74.19	78.49	81.42
21	48.02	51.54	37.10	27.48	38.68	49.86	40.78	54.05	67.40	74.35	78.59	81.51
22	47.92	51.77	38.32	28.55	39.13	49.50	41.76	54.64	67.74	74.52	78.70	81.62
23	47.33	52.05	38.93	30.12	39.83	48.68	42.69	55.23	68.02	74.69	78.79	81.73
24	46.23	52.12	38.09	31.20	40.40	47.47	42.77	55.88	68.31	74.84	78.89	81.81
25	45.41	52.40	33.28	32.46	41.18	46.17	41.93	56.43	68.61	75.02	78.98	81.90
26	45.01	52.34	31.51	33.99	42.00	44.91	40.55	57.02	68.90	75.22	79.08	82.01
27	45.05	51.29	31.39	35.55	42.67	43.75	39.72	57.62	69.16	75.38	79.18	82.11
28	45.26	49.75	31.67	36.90	43.18	42.33	39.72	58.15	69.44	75.51	79.30	82.19
29	45.50	40.07	32.45	38.10	---	38.32	40.00	58.70	69.70	75.66	79.39	82.31
30	45.80	31.07	33.22	39.49	---	28.68	40.36	59.22	69.97	75.82	79.47	82.40
31	46.40	---	34.03	40.77	---	25.77	---	59.75	---	75.95	79.59	---
MEAN	42.12	49.65	31.59	32.67	44.10	46.35	32.65	50.64	65.51	73.34	78.00	80.99
MAX	48.05	52.40	38.93	40.77	49.16	50.23	42.77	59.75	69.97	75.95	79.59	82.40
MIN	31.57	31.07	25.53	21.76	38.68	25.77	19.59	40.96	60.24	70.24	76.10	79.66



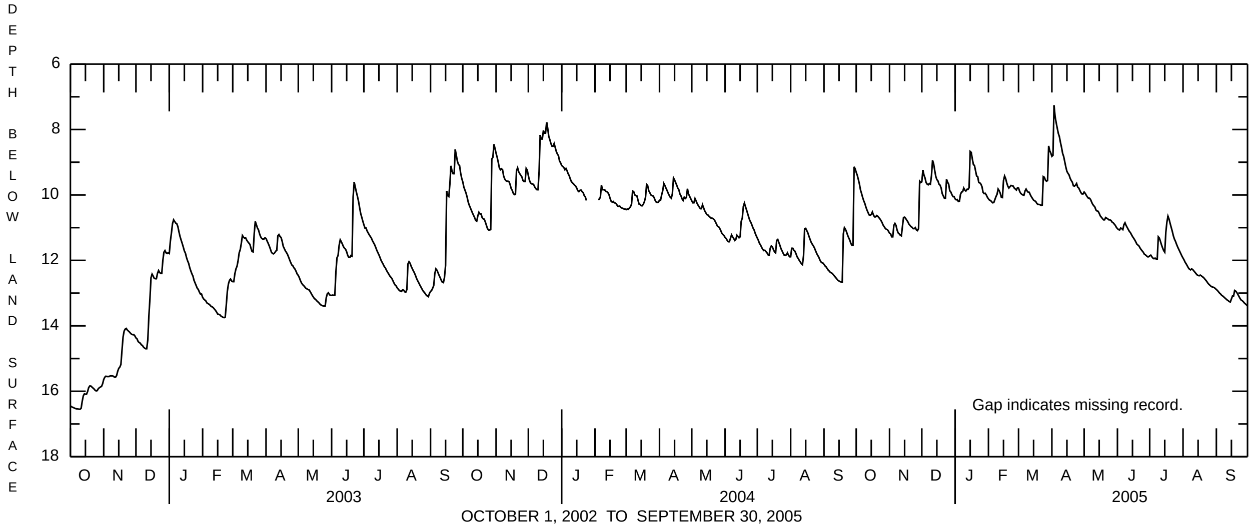
CHESTER COUNTY

395450075485401. Local number, CH 10.

LOCATION.--Lat 39°54'50", long 75°48'54", Hydrologic Unit 02040205, near intersection of SR 82 and 841, at Doe Run.
Owner: Privately owned.
AQUIFER.--Cockeysville Marble of Paleozoic age.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 6 in., depth 34 ft, casing information not available.
INSTRUMENTATION.--Data collection platform with 60-minute recording interval. Satellite telemetry at station.
DATUM.--Elevation of land-surface datum is 300 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of plywood shelf, 5.23 ft above land-surface datum. Prior to June 24, 1981, top of casing 1.00 ft above land-surface datum.
REMARKS.--In addition to the daily maximum water level table shown below, daily minimum and mean water levels, since October 1994, are also available from the USGS Pennsylvania Water Science Center Office.
PERIOD OF RECORD.--August 1951 to April 1965, instantaneous water levels obtained several times per month. February 1966 to current year.
EXTREMES FOR PERIOD OF RECORD.--Prior to October 2000, the extremes were based on extremes of the daily maximum depth below land-surface datum. Since that date, the extremes are based on the instantaneous depth below land-surface datum.
Highest water level, 7.05 ft below land-surface datum, Apr. 3, 2005; lowest, 16.55 ft below land-surface datum, Oct. 9, 10, 2002.
EXTREMES FOR CURRENT YEAR.--Highest water level, 7.05 ft below land-surface datum, Apr. 3; lowest, 13.39 ft below land-surface datum, Sept. 30.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.31	11.17	9.60	10.12	10.12	9.79	8.82	9.91	11.03	11.86	11.93	12.89
2	9.40	11.19	9.24	10.15	10.16	9.89	8.79	9.95	11.06	11.84	11.99	12.92
3	9.53	11.28	9.39	10.14	10.17	9.95	7.26	10.01	11.07	11.89	12.06	12.96
4	9.67	11.28	9.48	10.20	10.21	9.98	7.60	10.06	11.01	11.93	12.11	13.00
5	9.85	10.93	9.62	10.19	10.24	10.00	7.79	10.10	11.03	11.95	12.17	13.03
6	9.96	10.87	9.67	9.98	10.23	10.01	7.96	10.10	11.06	11.93	12.23	13.07
7	10.08	10.93	9.69	9.91	10.14	9.88	8.12	10.14	10.91	11.96	12.27	13.09
8	10.18	11.07	9.65	9.90	10.05	9.82	8.22	10.22	10.85	11.96	12.29	13.12
9	10.26	11.16	9.67	9.79	9.98	9.88	8.40	10.29	10.93	11.28	12.26	13.15
10	10.37	11.19	9.41	9.85	9.82	9.92	8.55	10.33	10.99	11.32	12.28	13.18
11	10.46	11.23	8.94	9.88	9.87	9.92	8.73	10.37	11.05	11.42	12.32	13.21
12	10.54	11.25	9.05	9.83	9.95	10.00	8.83	10.46	11.11	11.53	12.36	13.23
13	10.61	10.96	9.25	9.83	10.07	10.06	8.99	10.49	11.15	11.62	12.40	13.26
14	10.62	10.69	9.43	9.78	10.08	10.11	9.15	10.50	11.21	11.70	12.44	13.27
15	10.60	10.68	9.53	8.67	9.56	10.16	9.28	10.56	11.27	11.75	12.46	13.18
16	10.52	10.72	9.57	8.70	9.42	10.18	9.34	10.64	11.32	11.14	12.47	13.09
17	10.61	10.77	9.67	8.90	9.50	10.20	9.39	10.68	11.37	10.83	12.45	13.09
18	10.67	10.82	9.70	9.07	9.63	10.26	9.49	10.72	11.43	10.65	12.47	12.92
19	10.67	10.89	9.79	9.10	9.73	10.29	9.56	10.76	11.50	10.74	12.50	12.94
20	10.63	10.93	9.96	9.26	9.79	10.29	9.61	10.76	11.53	10.87	12.52	12.98
21	10.65	10.97	10.03	9.42	9.75	10.30	9.72	10.69	11.56	10.99	12.56	13.04
22	10.69	10.99	10.10	9.44	9.71	10.32	9.73	10.71	11.62	11.11	12.60	13.10
23	10.73	11.03	10.10	9.62	9.72	10.31	9.70	10.73	11.67	11.25	12.64	13.16
24	10.78	11.03	9.52	9.63	9.73	9.44	9.65	10.76	11.71	11.35	12.69	13.21
25	10.84	11.00	9.61	9.67	9.79	9.46	9.76	10.76	11.75	11.42	12.73	13.23
26	10.92	11.07	9.67	9.75	9.82	9.55	9.79	10.78	11.81	11.51	12.76	13.26
27	10.97	11.09	9.87	9.92	9.85	9.58	9.86	10.83	11.83	11.59	12.79	13.30
28	11.02	11.03	9.91	9.96	9.78	9.56	9.93	10.85	11.86	11.66	12.81	13.33
29	11.05	9.58	9.99	9.95	---	8.50	9.97	10.89	11.89	11.73	12.82	13.36
30	11.06	9.62	10.05	10.00	---	8.65	9.97	10.93	11.89	11.80	12.83	13.39
31	11.11	---	10.05	10.07	---	8.72	---	10.99	---	11.87	12.86	---
MEAN	10.46	10.91	9.65	9.70	9.89	9.84	9.07	10.52	11.35	11.50	12.45	13.13
MAX	11.11	11.28	10.10	10.20	10.24	10.32	9.97	10.99	11.89	11.96	12.86	13.39
MIN	9.31	9.58	8.94	8.67	9.42	8.50	7.26	9.91	10.85	10.65	11.93	12.89



CHESTER COUNTY

400650075514001. Local number, CH 2.

LOCATION.--Lat 40°06'55", long 75°51'20", Hydrologic Unit 02040205, at Morgantown Road, near Strubel Lake, Honeybrook Township. Owner: Privately owned.
AQUIFER.--Felsic and intermediate gneiss, granulite facies.
WELL CHARACTERISTICS.--Dug unused observation well, diameter 36 in., depth 15 ft.
INSTRUMENTATION.--Monthly measurement with electric tape by U.S. Geological Survey personnel.
DATUM.--Elevation of land-surface datum is 640 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of hole in concrete porch, 0.5 ft above land-surface datum.
PERIOD OF RECORD.--September 1951 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.50 ft below land-surface datum, Mar. 11, 1952; lowest, 14.47 ft below land-surface datum, Sept. 18, 2002.
EXTREMES FOR CURRENT YEAR.--Highest water level, 5.35 ft below land-surface datum, Apr. 19; lowest, 11.82 ft below land-surface datum, Sept. 20.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
INSTANTANEOUS VALUES

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	8.50	DEC 21	8.00	FEB 22	7.44	APR 19	5.35	JUN 20	9.37	AUG 22	10.90
NOV 19	8.75	JAN 20	6.84	MAR 21	8.27	MAY 19	8.39	JUL 20	9.63	SEP 20	11.82

395717075392301. Local number, CH 12.

LOCATION.--Lat 39°57'17", long 75°39'23", Hydrologic Unit 02040205, at Deborah's Rock Farm at State Highway 162, at Copesville. Owner: Privately owned.
AQUIFER.--Felsic and intermediate gneiss, amphibolite facies.
WELL CHARACTERISTICS.--Dug unused observation well, diameter 29 in., depth 38.5 ft.
INSTRUMENTATION.--Monthly measurement with electric tape by U.S. Geological Survey personnel.
DATUM.--Elevation of land-surface datum is 248 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of wooden cover, 2.0 ft above land surface datum.
REMARKS.--Well is dry at 38.50 ft. In past, well was at least 39.2 ft deep, but has since filled with silt to 38.5 ft. Measuring point changed Dec. 26, 1990.
PERIOD OF RECORD.--July 1951 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 28.98 ft below land-surface datum, Apr. 20, 1993; lowest, 39.13 ft below land-surface datum, Oct. 18, 1951.
EXTREMES FOR CURRENT YEAR.--Highest water level, 30.92 ft below land-surface datum, Apr. 19; lowest, 37.26 ft below land-surface datum, Sept. 20.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
INSTANTANEOUS VALUES

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21	33.37	DEC 21	31.88	FEB 23	32.45	APR 19	30.92	JUN 20	34.56	AUG 22	36.55
NOV 19	33.84	JAN 20	31.54	MAR 21	33.15	MAY 19	32.40	JUL 20	35.65	SEP 20	37.26

394846075444901. Local number, CH 38.

LOCATION.--Lat 39°48'46", long 75°44'49", Hydrologic Unit 02040205, at New Garden Road and State Highway 41 at New Garden. Owner: Privately owned.
AQUIFER.--Wissahickon Formation.
WELL CHARACTERISTICS.--Dug observation well, diameter 46 in., depth 18.5 ft.
INSTRUMENTATION.--Monthly measurement with electric tape by U.S. Geological Survey personnel.
DATUM.--Elevation of land-surface datum is 440 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of concrete cover, 0.5 ft above land surface datum.
PERIOD OF RECORD.--September 1974 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.98 ft below land-surface datum, Dec. 18, 2003; lowest, 16.52 ft below land-surface datum, Sept. 18, 2002.
EXTREMES FOR CURRENT YEAR.--Highest water level, 4.36 ft below land-surface datum, Jan. 19; lowest, 11.65 ft below land-surface datum, Sept. 20.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
INSTANTANEOUS VALUES

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	5.66	DEC 21	5.53	FEB 22	5.73	APR 19	5.10	JUN 20	8.47	AUG 22	10.41
NOV 19	6.76	JAN 19	4.36	MAR 21	6.87	MAY 19	7.21	JUL 20	9.11	SEP 20	11.65

400400075314401. Local number, CH 89.

LOCATION.--Lat 40°04'00", long 75°31'44", Hydrologic Unit 02040203, at quarry on Yellow Springs Road, near Devault.
Owner: U.S. Geological Survey/Trammell Crow
AQUIFER.--Elbrook limestone.
WELL CHARACTERISTICS.--Drilled unused observation well, diameter 6 in., depth 265 ft, cased to 112 ft.
INSTRUMENTATION.--Monthly measurement with electric tape by U.S. Geological Survey personnel.
DATUM.--Elevation of land-surface datum is 365 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 3.62 ft above land-surface datum.
PERIOD OF RECORD.--May 1988 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 122.66 ft below land-surface datum, Feb. 18, 2004; lowest, 183.77 ft below land-surface datum, Feb. 21, 1989.
EXTREMES FOR CURRENT YEAR.--Highest water level, 126.08 ft below land-surface datum, Apr. 20; lowest, 134.89 ft below land-surface datum, Sept. 20.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
INSTANTANEOUS VALUES

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	128.15	DEC 21	128.22	FEB 22	128.82	APR 20	126.08	JUN 20	130.80	AUG 22	133.57
NOV 19	129.83	JAN 19	127.30	MAR 21	129.62	MAY 19	128.74	JUL 20	131.73	SEP 20	134.89

400453075255601. Local number, CH 210.

LOCATION.--Lat 40°04'53", long 75°25'56", Hydrologic Unit 02040203, at Red Coat Lane, near Valley Forge Park.
Owner: Privately owned.
AQUIFER.--Elbrook limestone.
WELL CHARACTERISTICS.--Drilled unused observation well, diameter 12 in., depth 600 ft, cased to 26 ft.
INSTRUMENTATION.--Monthly measurement with electric tape by U.S. Geological Survey personnel.
DATUM.--Elevation of land-surface datum is 150 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.4 ft above land-surface datum.
PERIOD OF RECORD.--June 1978 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 14.00 ft below land-surface datum, Feb. 26, 1979; lowest, 28.20 ft below land-surface datum, Sept. 19, 2002.
EXTREMES FOR CURRENT YEAR.--Highest water level, 17.47 ft below land-surface datum, Jan 19; lowest, 25.69 ft below land-surface datum, Sept. 20.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
INSTANTANEOUS VALUES

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	19.37	DEC 21	18.39	FEB 22	19.24	APR 20	18.47	JUN 20	21.50	AUG 22	24.22
NOV 19	19.78	JAN 19	17.47	MAR 21	19.58	MAY 19	20.04	JUL 20	22.43	SEP 20	25.69

394457075581601. Local number, CH 254.

LOCATION.--Lat 39°44'57", long 75°58'16", Hydrologic Unit 02060002, at Mt. Pleasant Road, near Oxford.
Owner: Privately owned.
AQUIFER.--Wissahickon Formation.
WELL CHARACTERISTICS.--Drilled unused domestic well, diameter 6 in., depth 250 ft, cased to 102 ft.
INSTRUMENTATION.--Monthly measurement with electric tape by U.S. Geological Survey personnel.
DATUM.--Elevation of land-surface datum is 517 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.35 ft above land-surface datum.
PERIOD OF RECORD.--January 1987 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 15.32 ft below land-surface datum, Apr. 19, 2005; lowest, 31.16 ft below land-surface datum, Oct. 21, 2002.
EXTREMES FOR CURRENT YEAR.--Highest water level, 15.32 ft below land-surface datum, Apr. 19; lowest, 19.23 ft below land-surface datum, Sept. 20.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
INSTANTANEOUS VALUES

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	17.91	DEC 21	17.78	FEB 22	16.80	APR 19	15.32	JUN 20	16.30	AUG 22	18.11
NOV 19	18.19	JAN 19	17.14	MAR 21	16.56	MAY 19	15.46	JUL 20	17.05	SEP 20	19.23

CHESTER COUNTY

395701075561601. Local number, CH 1201.

LOCATION.--Lat 39°57'01", long 75°56'46", Hydrologic Unit 02050306, at State Highway 372, near Atglen. Owner: A Duie Pyle Inc.
AQUIFER.--Conestoga limestone.
WELL CHARACTERISTICS.--Drilled withdrawal commercial well, diameter 6 in., depth 83 ft, cased to 33 ft.
INSTRUMENTATION.--Monthly measurement with electric tape by U.S. Geological Survey personnel.
DATUM.--Elevation of land-surface datum is 502 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.5 ft above land-surface datum.
PERIOD OF RECORD.--October 1973 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.80 ft below land-surface datum, Dec. 19, 1996; lowest, 8.49 ft below land-surface datum, Sept. 18, 1985.
EXTREMES FOR CURRENT YEAR.--Highest water level, 4.10 ft below land-surface datum, Jan. 20; lowest, 6.04 ft below land-surface datum, Sept. 20.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
INSTANTANEOUS VALUES

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	4.77	DEC 21	4.46	FEB 22	4.25	APR 19	4.29	JUN 20	5.46	AUG 22	5.77
NOV 19	4.84	JAN 20	4.10	MAR 21	4.67	MAY 19	4.94	JUL 20	5.15	SEP 20	6.04

400412075404301. Local number, CH 1229.

LOCATION.--Lat 40°04'12", long 75°40'43", Hydrologic Unit 02040205, State Highway 100 and Pennsylvania Turnpike, near Eagle. Owner: Privately owned.
AQUIFER.--Graphitic felsic gneiss, amphibolite facies.
WELL CHARACTERISTICS.--Drilled unused observation well, diameter 6 in., depth 165 ft, cased to 31 ft.
INSTRUMENTATION.--Monthly measurement with electric tape by U.S. Geological Survey personnel.
DATUM.--Elevation of land-surface datum is 540 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.5 ft above land-surface datum.
PERIOD OF RECORD.--April 1974 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 29.15 ft below land-surface datum, April 21, 1952; lowest, 44.09 ft below land-surface datum, Aug. 20, 1985.
EXTREMES FOR CURRENT YEAR.--Highest water level, 31.62 ft below land-surface datum, Jan. 20; lowest, 39.50 ft below land-surface datum, Sept. 20.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
INSTANTANEOUS VALUES

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21	35.11	DEC 21	32.80	FEB 23	33.61	APR 19	31.90	JUN 20	36.07	AUG 22	38.45
NOV 19	34.64	JAN 20	31.62	MAR 21	34.06	MAY 20	34.35	JUL 20	37.17	SEP 20	39.50

400645075411501. Local number, CH 1247.

LOCATION.--Lat 40°06'45", long 75°41'15", Hydrologic Unit 020402053, at State Highway 401 and 100, at Ludwigs Corner. Owner: Privately owned.
AQUIFER.--Felsic and intermediate gneiss, granulite facies.
WELL CHARACTERISTICS.--Dug unused observation well, diameter 4 ft., depth 75 ft.
INSTRUMENTATION.--Monthly measurement with electric tape by U.S. Geological Survey personnel.
DATUM.--Elevation of land-surface datum is 610 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.0 ft above land-surface datum.
REMARKS.--Well is dry at 34.70 ft.
PERIOD OF RECORD.--December 1973 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 25.61 ft below land-surface datum, April 21, 1983; lowest, 36.14 ft below land-surface datum, Jan. 22, 1996.
EXTREMES FOR CURRENT YEAR.--Highest water level, 26.76 ft below land-surface datum, Apr. 19; lowest, 30.67 ft below land-surface datum, Sept. 20.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
INSTANTANEOUS VALUES

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21	28.27	DEC 21	27.16	FEB 23	27.82	APR 19	26.76	JUN 20	28.50	AUG 22	29.78
NOV 19	28.41	JAN 20	27.03	MAR 21	27.8	MAY 19	27.81	JUL 20	29.02	SEP 20	30.67

CHESTER COUNTY

395540075332601. Local number, CH 1387.

LOCATION.--Lat 39°55'40", long 75°33'26", Hydrologic Unit 02040202, at State Highway 926 and Northgate Road, near Westtown.
Owner: Privately owned.
AQUIFER.--Felsic and intermediate gneiss, amphibolite facies.
WELL CHARACTERISTICS.--Drilled unused observation well, diameter 5 in., depth 159 ft, cased to 41 ft.
INSTRUMENTATION.--Monthly measurement with electric tape by U.S. Geological Survey personnel.
DATUM.--Elevation of land-surface datum is 329 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.0 ft above land-surface datum.
PERIOD OF RECORD.--September 1974 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 28.28 ft below land-surface datum, Dec. 19, 1996; lowest, 39.45 ft below land-surface datum, Oct. 21, 1977.
EXTREMES FOR CURRENT YEAR.--Highest water level, 28.63 ft below land-surface datum, Apr. 20; lowest, 35.74 ft below land-surface datum, Sept. 20.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
INSTANTANEOUS VALUES

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	30.37	DEC 21	29.61	FEB 22	29.85	APR 20	28.63	JUN 20	32.37	AUG 22	34.68
NOV 19	31.05	JAN 19	29.58	MAR 21	30.54	MAY 19	30.66	JUL 20	33.21	SEP 20	35.74

400956075391501. Local number, CH 1571.

LOCATION.--Lat 40°09'56", long 75°39'15", Hydrologic Unit 02040203, at Pughtown Road and Bertolet School Road, near Pughtown, East Vincent Township.
Owner: Privately owned.
AQUIFER.--Stockton Formation.
WELL CHARACTERISTICS.--Dug unused observation well, diameter unknown, depth 16 ft.
INSTRUMENTATION.--Monthly measurement with electric tape by U.S. Geological Survey personnel.
DATUM.--Elevation of land-surface datum is 282 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.2 ft above land-surface datum.
PERIOD OF RECORD.--June 1974 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.55 ft below land-surface datum, Dec. 19, 2003, June 20, 2003; lowest, 11.74 ft below land-surface datum, Dec. 23, 1998.
EXTREMES FOR CURRENT YEAR.--Highest water level, 4.76 ft below land-surface datum, Jan. 20; lowest, 10.42 ft below land-surface datum, Sept. 20.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
INSTANTANEOUS VALUES

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21	4.91	DEC 21	5.26	FEB 23	4.98	APR 19	5.21	JUN 20	7.76	AUG 22	9.45
NOV 19	5.17	JAN 20	4.76	MAR 21	5.32	MAY 19	6.42	JUL 20	7.34	SEP 20	10.42

394757075432101. Local number, CH 1921.

LOCATION.--Lat 39°47'57", long 75°43'21", Hydrologic Unit 02040205, at Ewart Road, at Kaolin.
Owner: Privately owned.
AQUIFER.--Wissahickon Formation.
WELL CHARACTERISTICS.--Drilled unused observation well, diameter 6 in., depth 65 ft, cased to 24 ft.
INSTRUMENTATION.--Monthly measurement with electric tape by U.S. Geological Survey personnel.
DATUM.--Elevation of land-surface datum is 405 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.3 ft above land-surface datum.
PERIOD OF RECORD.--September 1974 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 33.65 ft below land-surface datum, Apr. 19, 2005; lowest, 60.96 ft below land-surface datum, Jan. 21, 1986.
EXTREMES FOR CURRENT YEAR.--Highest water level, 33.65 ft below land-surface datum, Apr. 19; lowest, 39.84 ft below land-surface datum, Sept. 20.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
INSTANTANEOUS VALUES

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	35.38	DEC 21	35.23	FEB 22	34.89	APR 19	33.65	JUN 20	35.42	AUG 22	38.45
NOV 19	35.89	JAN 19	34.62	MAR 21	35.36	MAY 19	33.97	JUL 20	36.85	SEP 20	39.84

CHESTER COUNTY

400242075484301. Local number, CH 2273.

LOCATION.--Lat 40°02'42", long 75°48'43", Hydrologic Unit 02040205, at Culbertson Run Road and State Highway 82, West Brandywine Township. Owner: U. S. Geological Survey.
AQUIFER.--Felsic gneiss, amphibolite facies.
WELL CHARACTERISTICS.--Drilled unused artesian observation well, diameter 6 in., depth 298 ft, cased to 45 ft.
INSTRUMENTATION.--Monthly measurement with electric tape by U.S. Geological Survey personnel.
DATUM.--Elevation of land-surface datum is 590 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of recorder platform, 4.55 ft above land-surface datum.
PERIOD OF RECORD.-October 1983 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.49 ft above land-surface datum, Dec. 19, 1996; lowest, 4.91 ft below land-surface datum, Sept. 18, 2002.
EXTREMES FOR CURRENT YEAR.--Highest water level, 1.08 ft above land-surface datum, Apr. 19; lowest, 1.91 ft below land-surface datum, Sept. 20.

DEPTH ABOVE (-) OR BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
INSTANTANEOUS VALUES

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	-.99	DEC 21	-1.03	FEB 22	-1.05	APR 19	-1.08	JUN 20	-.90	AUG 22	1.43
NOV 19	-1.03	JAN 20	-1.05	MAR 21	-1.05	MAY 19	-1.03	JUL 20	-.46	SEP 20	1.91

400325075332501. Local number, CH 2313.

LOCATION.--Lat 40°03'25", long 75°33'25", Hydrologic Unit 02040203, at Moores Road and Sidley Road, East Whiteland Township. Owner: Philadelphia Suburban Water Co.
AQUIFER.--Elbrook limestone.
WELL CHARACTERISTICS.--Drilled unused artesian observation well, diameter 8 to 20 in., depth 507 ft, cased to 22 ft with 20 in. diameter casing.
INSTRUMENTATION.--Monthly measurement with electric tape by U.S. Geological Survey personnel.
DATUM.--Elevation of land-surface datum is 330 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of inner casing, 2.4 ft above land-surface datum.
PERIOD OF RECORD.--April 1978 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.50 ft above land-surface datum, April 21, 1983; lowest, 21.65 ft below land-surface datum, Sept. 18, 2002.
EXTREMES FOR CURRENT YEAR.--Highest water level, 2.13 ft below land-surface datum, Apr. 20; lowest, 11.57 ft below land-surface datum, Sept. 20.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
INSTANTANEOUS VALUES

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	6.00	DEC 21	4.32	FEB 22	3.94	APR 20	2.13	JUN 20	6.30	AUG 22	10.01
NOV 19	6.39	JAN 19	3.29	MAR 21	4.33	MAY 19	3.93	JUL 20	8.09	SEP 20	11.57

400847075414701. Local number, CH 2328.

LOCATION.--Lat 40°08'47", long 75°41'47", Hydrologic Unit 02040203, at Prizer Road, near Coventryville. Owner: U.S. Geological Survey.
AQUIFER.--Graphitic felsic gneiss, granulite facies.
WELL CHARACTERISTICS.--Drilled unused artesian observation well, diameter 6 in., depth 323 ft, cased to 98 ft.
INSTRUMENTATION.--Monthly measurement with electric tape by U.S. Geological Survey personnel.
DATUM.--Elevation of land-surface datum is 452 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 3.5 ft above land-surface datum.
PERIOD OF RECORD.--May 1975 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, .30 ft above land-surface datum, Dec. 18, 1996; lowest, 7.38 ft below land-surface datum, Sept. 19, 2002.
EXTREMES FOR CURRENT YEAR.--Highest water level, .15 ft below land-surface datum, Oct. 21; lowest, 4.30 ft below land-surface datum, Sept. 20.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
INSTANTANEOUS VALUES

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21	.15	DEC 21	.32	FEB 23	.82	APR 19	.35	JUN 20	2.26	AUG 22	3.44
NOV 19	.71	JAN 20	.21	MAR 21	1.20	MAY 19	1.30	JUL 20	2.38	SEP 20	4.30

400133075450001. Local number, CH 2456.

LOCATION.--Lat 40°01'33", long 75°45'00", Hydrologic Unit 02040205, at State Highway 322, at Guthriesville.
Owner: East Brandywine Baptist Church.
AQUIFER.--Felsic gneiss, amphibolite facies.
WELL CHARACTERISTICS.--Drilled unused observation well, diameter 6 in., depth 225 ft, cased to 33 ft.
INSTRUMENTATION.--Monthly measurement with electric tape by U.S. Geological Survey personnel.
DATUM.--Elevation of land-surface datum is 560 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.9 ft above land-surface datum.
PERIOD OF RECORD.--February 1982 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 18.00 ft below land-surface datum, Jan. 22, 1996; lowest, 22.00 ft below land-surface datum, Jan. 21, 1986.
EXTREMES FOR CURRENT YEAR.--Highest water level, 18.40 ft below land-surface datum, Jan. 20; lowest, 19.85 ft below land-surface datum, Sept. 20.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
INSTANTANEOUS VALUES

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	18.99	DEC 21	18.77	FEB 22	18.96	APR 19	18.77	JUN 20	19.45	AUG 22	19.56
NOV 19	18.98	JAN 20	18.40	MAR 21	19.11	MAY 19	19.24	JUL 20	18.97	SEP 20	19.85

400039075335201. Local number, CH 2457.

LOCATION.--Lat 40°00'39", long 75°33'52", Hydrologic Unit 02040202, at Upton Circle and Green Hill Road, at Hersheys Mill.
Owner: Philadelphia Suburban Water Co.
AQUIFER.--Wissahickon Formation.
WELL CHARACTERISTICS.--Drilled unused observation well, diameter 6 in., depth 285 ft.
INSTRUMENTATION.--Monthly measurement with electric tape by U.S. Geological Survey personnel.
DATUM.--Elevation of land-surface datum is 470 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.5 ft above land-surface datum.
PERIOD OF RECORD.--February 1982 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 10.35 ft below land-surface datum, Dec. 18, 1996; lowest, 26.08 ft below land-surface datum, Oct. 20, 1986.
EXTREMES FOR CURRENT YEAR.--Highest water level, 13.37 ft below land-surface datum, Apr. 20; lowest, 22.79 ft below land-surface datum, Sept. 20.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
INSTANTANEOUS VALUES

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	16.23	DEC 21	15.13	FEB 22	16.68	APR 20	13.37	JUN 20	19.82	AUG 22	21.96
NOV 19	17.67	JAN 19	14.65	MAR 21	17.58	MAY 19	17.48	JUL 20	20.75	SEP 20	22.79

400456075320301. Local number, CH 2561.

LOCATION.--Lat 40°04'27", long 75°32'03", Hydrologic Unit 02040203, at Yellow Springs Road and State Highway 29, at Devault.
Owner: Privately owned.
AQUIFER.--Elbrook limestone.
WELL CHARACTERISTICS.--Drilled unused observation well, diameter 6 in., depth 240 ft, cased to 229 ft.
INSTRUMENTATION.--Monthly measurement with electric tape by U.S. Geological Survey personnel.
DATUM.--Elevation of land-surface datum is 338 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.90 ft above land-surface datum.
PERIOD OF RECORD.--January 1984 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 89.59 ft below land-surface datum, Dec. 18, 2003; lowest, 178.32 ft below land-surface datum, Sept. 21, 1992.
EXTREMES FOR CURRENT YEAR.--Highest water level, 92.28 ft below land-surface datum, Apr. 20; lowest, 98.74 ft below land-surface datum, Sept. 20.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
INSTANTANEOUS VALUES

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	94.61	DEC 21	94.94	FEB 22	94.54	APR 20	92.28	JUN 20	95.75	AUG 22	96.60
NOV 19	96.10	JAN 19	93.75	MAR 21	95.23	MAY 19	94.30	JUL 20	96.35	SEP 20	98.74

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395225075422001. Local number, CH 2584.

LOCATION.--Lat 39°52'25", long 75°42'20", Hydrologic Unit 02040205, at Walnut Road near intersection of Rt. 926 near Willowdale. Owner: Privately owned.
AQUIFER.--Cockeysville marble.
WELL CHARACTERISTICS.--Drilled unused observation well, diameter 6 in.
INSTRUMENTATION.--Monthly measurement with electric tape by U.S. Geological Survey personnel.
DATUM.--Elevation of land-surface datum is 365 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.90 ft above land-surface datum.
PERIOD OF RECORD.--April 2002 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 15.16 ft below land-surface datum, Dec. 18, 2003; lowest, 24.66 ft below land-surface datum, Sept. 18, 2002.
EXTREMES FOR CURRENT YEAR.--Highest water level, 16.57 ft below land-surface datum, Jan. 19; lowest, 23.09 ft below land-surface datum, Sept. 20.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
INSTANTANEOUS VALUES

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	18.36	DEC 21	17.39	FEB 22	17.96	APR 19	17.56	JUN 20	20.71	AUG 22	22.38
NOV 19	18.22	JAN 19	16.57	MAR 21	18.53	MAY 19	19.52	JUL 20	21.32	SEP 20	23.09

394624075444001. Local number, CH 2663.

LOCATION.--Lat 39°46'24", long 75°44'40", Hydrologic Unit 02040205, at Broad Run Road and Newark Road, New Garden Township. Owner: Privately owned.
AQUIFER.--Cockeysville marble.
WELL CHARACTERISTICS.--Drilled unused observation well, diameter 6 in., depth 150 ft.
INSTRUMENTATION.--Monthly measurement with electric tape by U.S. Geological Survey personnel.
DATUM.--Elevation of land-surface datum is 220 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.20 ft above land-surface datum. Prior to May 21, 2001 measuring point was 1.30 ft above land-surface datum.
PERIOD OF RECORD.--January 1984 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.65 ft below land-surface datum, Sept. 23, 2003; lowest, 11.67 ft below land-surface datum, July 18, 1985.
EXTREMES FOR CURRENT YEAR.--Highest water level, 9.25 ft below land-surface datum, Jan. 19; lowest, 10.91 ft below land-surface datum, Sept. 20.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
INSTANTANEOUS VALUES

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	9.31	DEC 21	9.54	FEB 22	9.68	APR 20	9.56	JUN 20	10.45	AUG 22	10.80
NOV 19	9.66	JAN 19	9.25	MAR 21	9.96	MAY 19	10.13	JUL 20	10.55	SEP 20	10.91

400358075311301. Local number, CH 3289.

LOCATION.--Lat 40°03'58", long 75°31'13", Hydrologic Unit 02040203, at Church Road, near Cedar Hollow. Owner: Trammell Crow.
AQUIFER.--Elbrook limestone.
WELL CHARACTERISTICS.--Drilled unused observation well, diameter 8 in., depth 202 ft, cased to 40 ft.
INSTRUMENTATION.--Monthly measurement with electric tape by U.S. Geological Survey personnel.
DATUM.--Elevation of land-surface datum is 240 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.5 ft above land-surface datum.
PERIOD OF RECORD.--May 1988 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 10.44 ft below land-surface datum, Dec. 18, 1996; lowest, 33.18 ft below land-surface datum, Sept. 19, 2002.
EXTREMES FOR CURRENT YEAR.--Highest water level, 13.19 ft below land-surface datum, Jan. 19; lowest, 27.12 ft below land-surface datum, Sept. 20.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
INSTANTANEOUS VALUES

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	19.63	DEC 21	16.70	FEB 22	21.00	APR 20	16.81	JUN 20	22.00	AUG 22	24.76
NOV 19	19.19	JAN 19	13.19	MAR 21	19.56	MAY 19	20.43	JUL 20	22.22	SEP 20	27.12

395141075525401. Local number, CH 5422.

LOCATION.--Lat 39°51'41", long 75°52'54", Hydrologic Unit 02060002, on Rt. 796 near intersection of Colton Drive at Daleville. Owner: Privately owned.
AQUIFER.--Wissahickon schist.
WELL CHARACTERISTICS.--Drilled unused irrigation well, diameter 6 in., depth 49.4 ft.
INSTRUMENTATION.--Monthly measurement with electric tape by U.S. Geological Survey personnel.
DATUM.--Elevation of land-surface datum is 619 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 3.4 ft above land-surface datum.
PERIOD OF RECORD.--July 2000 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 13.20 ft below land-surface datum, Dec. 18, 2003; lowest, 26.38 ft below land-surface datum, Sept. 18, 2002.
EXTREMES FOR CURRENT YEAR.--Highest water level, 14.57 ft below land-surface datum, Jan. 20; lowest, 21.41 ft below land-surface datum, Sept. 20.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
INSTANTANEOUS VALUES

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	16.73	DEC 21	15.42	FEB 22	15.89	APR 19	14.85	JUN 20	18.56	AUG 22	20.41
NOV 19	16.62	JAN 20	14.57	MAR 21	16.48	MAY 19	17.08	JUL 20	19.48	SEP 20	21.41

401405075400301. Local number, CH 6513.

LOCATION.--Lat 40°14'05", long 75°40'03", Hydrologic Unit 02040203, at Laurelwood Road near Rt. 724 at Pottstown Landing. Owner: Privately owned.
AQUIFER.--Brunswick Formation.
WELL CHARACTERISTICS.--Drilled unused observation well, diameter 6 in.
INSTRUMENTATION.--Monthly measurement with electric tape by U.S. Geological Survey personnel.
DATUM.--Elevation of land-surface datum is 210 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.40 ft above land-surface datum.
PERIOD OF RECORD.--January 2002 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 11.38 ft below land-surface datum, Jan. 18, 2002; lowest, 19.39 ft below land-surface datum, Feb. 15, 2002.
EXTREMES FOR CURRENT YEAR.--Highest water level, 13.45 ft below land-surface datum, Oct. 21; lowest, 18.64 ft below land-surface datum, Sept. 20.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
INSTANTANEOUS VALUES

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21	13.45	DEC 21	13.48	FEB 23	14.11	APR 19	13.62	JUN 20	16.77	AUG 22	17.51
NOV 19	14.01	JAN 20	13.55	MAR 21	14.59	MAY 19	15.41	JUL 20	16.62	SEP 20	18.64

395201075363001. Local number, CH 6516.

LOCATION.--Lat 39°52'01", long 75°36'30", Hydrologic Unit 02040205, at Hillendale Road near Virginia Place near Chaddsford Junction. Owner: Privately owned.
AQUIFER.--Felsic Gneiss, Hornblende-bearing.
WELL CHARACTERISTICS.--Drilled unused observation well, diameter 6 in., depth 100 ft.
INSTRUMENTATION.--Monthly measurement with electric tape by U.S. Geological Survey personnel.
DATUM.--Elevation of land-surface datum is 295 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.20 ft above land-surface datum.
PERIOD OF RECORD.--November 2001 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, .25 ft above land-surface datum, Dec. 18, 2003; lowest, 7.75 ft below land-surface datum, Sept. 18, 2002.
EXTREMES FOR CURRENT YEAR.--Highest water level, .16 ft above land-surface datum, July 20; lowest, .98 ft below land-surface datum, Sept. 20.

DEPTH ABOVE (-) OR BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
INSTANTANEOUS VALUES

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	-.06	DEC 21	-.11	FEB 22	-.09	APR 19	-.13	JUN 20	-.15	AUG 22	-.02
NOV 19	-.07	JAN 19	-.15	MAR 21	.70	MAY 19	-.13	JUL 20	-.16	SEP 20	.98

CHESTER COUNTY

400247075532401. Local number, CH 6517.

LOCATION.--Lat 40°02'47", long 75°53'24", Hydrologic Unit 02040205, at Telegraph Road near Sandy Hill Road west of Martins Corner. Owner: Privately owned.
AQUIFER.--Chickies Quartzite.
WELL CHARACTERISTICS.--Drilled unused irrigation well, diameter 6 in.
INSTRUMENTATION.--Monthly measurement with electric tape by U.S. Geological Survey personnel.
DATUM.--Elevation of land-surface datum is 940 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.20 ft above land-surface datum.
PERIOD OF RECORD.--November 2001 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 53.99 ft below land-surface datum, May 19, 2005; lowest, 75.83 ft below land-surface datum, Oct. 21, 2002.
EXTREMES FOR CURRENT YEAR.--Highest water level, 53.99 ft below land-surface datum, May 19; lowest, 59.35 ft below land-surface datum, Sept. 20.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
INSTANTANEOUS VALUES

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	57.45	DEC 21	57.45	FEB 22	55.86	APR 19	54.21	JUN 20	54.75	AUG 22	57.45
NOV 19	58.02	JAN 20	56.18	MAR 21	55.50	MAY 19	53.99	JUL 20	55.82	SEP 20	59.35

394903075581901. Local number, CH 6518.

LOCATION.--Lat 39°49'03", long 75°58'19", Hydrologic Unit 02050306, at Wyncote Golf Club on Rt. 10 near Hayesville. Owner: Wyncote Golf Club.
AQUIFER.--Peters Creek Schist.
WELL CHARACTERISTICS.--Drilled unused observation well, diameter 4 in., depth 37 ft.
INSTRUMENTATION.--Monthly measurement with electric tape by U.S. Geological Survey personnel.
DATUM.--Elevation of land-surface datum is 545 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.0 ft above land-surface datum.
PERIOD OF RECORD.--November 2001 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 17.30 ft below land-surface datum, Dec. 18, 2003; lowest, 27.25 ft below land-surface datum, Sept. 18, 2002.
EXTREMES FOR CURRENT YEAR.--Highest water level, 17.95 ft below land-surface datum, Apr. 19; lowest, 23.94 ft below land-surface datum, Sept. 20.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
INSTANTANEOUS VALUES

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	20.31	DEC 21	19.42	FEB 22	19.71	APR 19	17.95	JUN 20	21.95	AUG 22	23.16
NOV 19	20.68	JAN 19	19.00	MAR 21	20.33	MAY 19	20.28	JUL 20	22.29	SEP 20	23.94

395634075442601. Local number, CH 6519.

LOCATION.--Lat 39°56'34", long 75°44'26", Hydrologic Unit 02040205, at Youngs Road near Stargazer Road east of Laurel. Owner: Privately owned.
AQUIFER.--Peters Creek Schist.
WELL CHARACTERISTICS.--Drilled unused observation well, diameter 5 in., depth 400 ft.
INSTRUMENTATION.--Monthly measurement with electric tape by U.S. Geological Survey personnel.
DATUM.--Elevation of land-surface datum is 475 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.95 ft above land-surface datum.
REMARKS.--As of July 21, 2004 measuring point changed due to extension of well casing.
PERIOD OF RECORD.--January 2002 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 41.55 ft below land-surface datum, Sept. 23, 2003; lowest, 72.90 ft below land-surface datum, July 20, 2005.
EXTREMES FOR CURRENT YEAR.--Highest water level, 71.41 ft below land-surface datum, Jan. 20; lowest, 72.90 ft below land-surface datum, July 20.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
INSTANTANEOUS VALUES

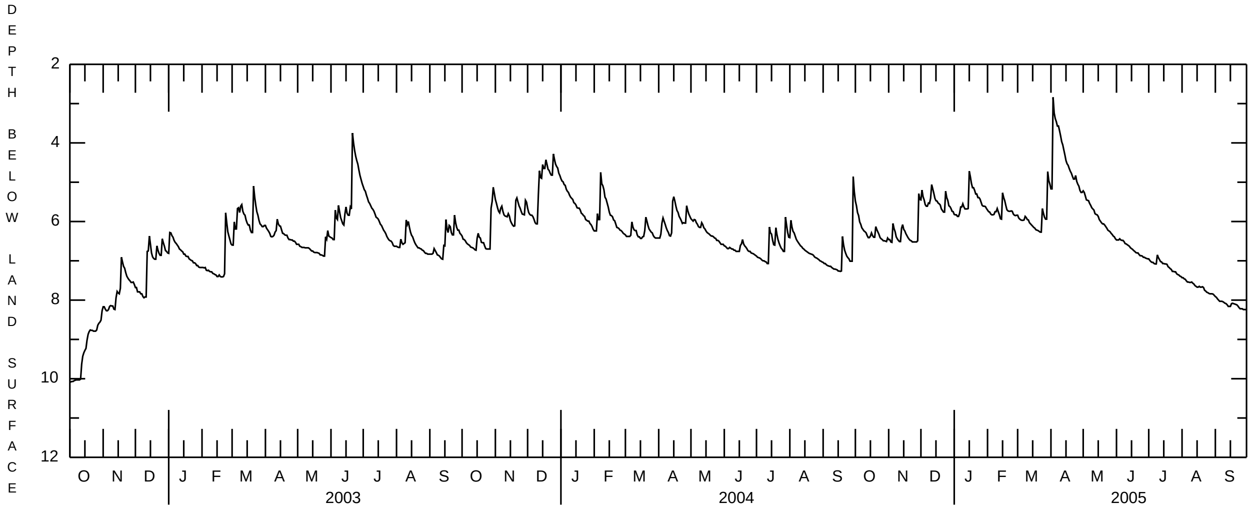
DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21	71.90	DEC 21	71.63	FEB 23	71.98	APR 19	71.66	JUN 20	72.70	AUG 22	72.72
NOV 19	72.07	JAN 20	71.41	MAR 21	72.55	MAY 19	72.37	JUL 20	72.90	SEP 20	72.76

395512075293701, Local number, DE 723.

LOCATION.--Lat 39°55'12", long 75°29'37", Hydrologic Unit 02040203, at Glen Mills School, in Thornbury Township.
Owner: Glen Mills School.
AQUIFER.--Felsic Hornblende bearing Gneiss of Precambian Age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in., depth 300 ft, casing information not available.
INSTRUMENTATION.--Data collection platform with 60-minute recording interval. Satellite telemetry at station.
DATUM.--Elevation of land-surface datum is 280 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of plywood shelf, 2.66 ft above land-surface datum. Prior to May 11, 1984, top of plywood shelf 1.20 ft above land-surface datum.
REMARKS.--In addition to the daily maximum water level table shown below, daily minimum and mean water levels, since October 1994, are also available from the USGS Pennsylvania Water Science Center Office.
PERIOD OF RECORD.--April 1983 to current year.
EXTREMES FOR PERIOD OF RECORD.--Prior to October 2000, the extremes were based on extremes of the daily maximum depth below land-surface datum. Since that date, the extremes are based on the instantaneous depth below land-surface datum.
Highest water level, 1.50 ft below land-surface datum, Dec. 15, 1996; lowest, 10.25 ft below land-surface datum, Sept. 26, 2002.
EXTREMES FOR CURRENT YEAR.--Highest water level, 2.31 ft below land-surface datum, Apr. 3; lowest, 8.25 ft below land-surface datum, Sept. 30.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.48	6.46	5.45	5.82	5.71	5.84	5.17	5.22	6.47	6.95	7.43	7.91
2	5.60	6.46	5.20	5.83	5.75	5.91	5.17	5.26	6.47	6.99	7.43	7.93
3	5.77	6.52	5.37	5.83	5.76	5.94	2.84	5.35	6.47	7.02	7.46	7.97
4	5.85	6.53	5.45	5.87	5.81	5.96	3.24	5.45	6.44	7.04	7.47	8.00
5	6.01	6.05	5.57	5.87	5.83	5.97	3.38	5.46	6.47	7.04	7.51	8.03
6	6.07	6.18	5.61	5.79	5.83	5.97	3.46	5.47	6.48	7.07	7.54	8.03
7	6.16	6.26	5.61	5.63	5.82	5.96	3.57	5.54	6.48	7.08	7.54	8.03
8	6.20	6.39	5.53	5.63	5.75	5.87	3.57	5.59	6.51	7.08	7.55	8.04
9	6.24	6.44	5.54	5.55	5.75	5.90	3.69	5.65	6.56	6.85	7.55	8.06
10	6.26	6.48	5.41	5.63	5.67	5.95	3.82	5.68	6.57	6.92	7.54	8.08
11	6.29	6.51	5.06	5.68	5.75	5.96	3.97	5.71	6.59	6.97	7.57	8.09
12	6.36	6.51	5.17	5.68	5.83	6.03	4.05	5.80	6.61	7.02	7.59	8.12
13	6.41	6.17	5.28	5.68	5.93	6.06	4.18	5.82	6.63	7.03	7.63	8.16
14	6.41	6.08	5.41	5.67	5.94	6.09	4.31	5.83	6.67	7.07	7.65	8.16
15	6.37	6.20	5.47	4.72	5.27	6.12	4.45	5.87	6.69	7.07	7.67	8.16
16	6.29	6.24	5.48	4.86	5.39	6.15	4.53	5.95	6.71	7.08	7.67	8.09
17	6.36	6.31	5.53	5.03	5.47	6.17	4.57	5.99	6.74	7.08	7.65	8.08
18	6.40	6.36	5.55	5.14	5.59	6.21	4.65	6.03	6.76	7.09	7.67	8.09
19	6.40	6.41	5.58	5.14	5.70	6.22	4.72	6.06	6.79	7.15	7.67	8.10
20	6.13	6.45	5.68	5.21	5.73	6.23	4.77	6.06	6.80	7.17	7.66	8.11
21	6.21	6.48	5.72	5.30	5.74	6.25	4.85	6.09	6.80	7.20	7.68	8.12
22	6.27	6.49	5.76	5.30	5.74	6.27	4.92	6.13	6.84	7.22	7.75	8.15
23	6.33	6.52	5.76	5.39	5.73	6.27	4.92	6.17	6.87	7.27	7.77	8.19
24	6.41	6.52	5.23	5.39	5.74	5.67	4.83	6.22	6.87	7.27	7.80	8.22
25	6.44	6.52	5.39	5.43	5.81	5.79	4.98	6.24	6.88	7.28	7.81	8.22
26	6.46	6.52	5.46	5.51	5.84	5.89	5.05	6.26	6.91	7.28	7.83	8.22
27	6.49	6.52	5.60	5.59	5.85	5.94	5.10	6.30	6.91	7.33	7.84	8.24
28	6.49	6.49	5.62	5.61	5.84	5.94	5.21	6.33	6.93	7.35	7.84	8.24
29	6.50	5.29	5.67	5.61	---	4.73	5.26	6.37	6.94	7.36	7.84	8.24
30	6.51	5.44	5.74	5.62	---	4.96	5.26	6.39	6.95	7.39	7.85	8.25
31	6.42	---	5.75	5.67	---	5.05	---	6.44	---	7.40	7.88	---
MEAN	6.24	6.33	5.50	5.51	5.73	5.91	4.42	5.89	6.69	7.13	7.66	8.11
MAX	6.51	6.53	5.76	5.87	5.94	6.27	5.26	6.44	6.95	7.40	7.88	8.25
MIN	5.48	5.29	5.06	4.72	5.27	4.73	2.84	5.22	6.44	6.85	7.43	7.91



OCTOBER 1, 2002 TO SEPTEMBER 30, 2005

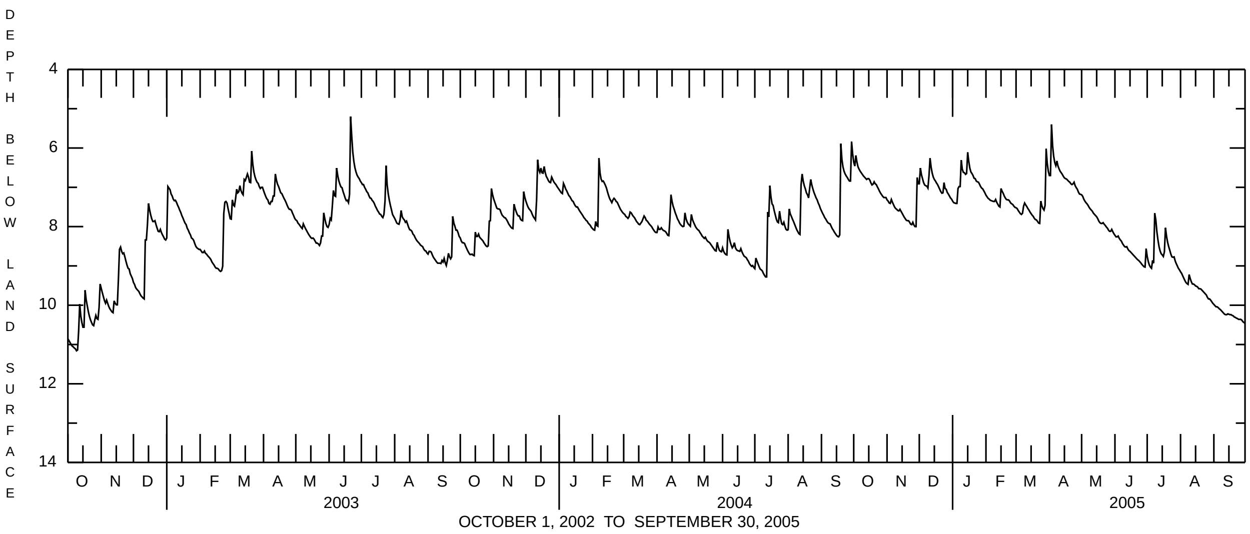
LEBANON COUNTY

402207076180801. Local number, LB 372.

LOCATION.--Lat 40°22'07", long 76°18'08", Hydrologic Unit 02040203, at Myerstown.
Owner: Kohl Brothers, Inc.
AQUIFER.--Dolomite of Ontelaunee Formation of Middle Ordovician age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in., depth 80 ft, casing information not available, open hole.
INSTRUMENTATION.--Data collection platform with 30-minute recording interval. Satellite telemetry at station.
DATUM.--Elevation of land-surface datum is 444 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of plywood shelf, 2.70 ft above land-surface datum. Prior to Apr. 22, 1981, measuring point was 3.50 ft above land-surface datum.
REMARKS.--In addition to the daily maximum water level table shown below, daily minimum and mean water levels, since October 1994, are also available from the USGS Pennsylvania Water Science Center Office.
PERIOD OF RECORD.--July 1973 to current year.
EXTREMES FOR PERIOD OF RECORD.--Prior to October 2000, the extremes were based on extremes of the daily maximum depth below land-surface datum. Since that date, the extremes are based on the instantaneous depth below land-surface datum.
Highest water level, 2.00 ft below land-surface datum, Sept. 18, 2004; lowest, 11.55 ft below land-surface datum, Jan. 8, 2002.
EXTREMES FOR CURRENT YEAR.--Highest water level, 4.76 ft below land-surface datum, Apr. 3; lowest, 10.46 ft below land-surface datum, Sept. 30.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.36	7.32	6.91	7.35	7.20	7.52	6.70	7.19	8.22	8.76	9.15	9.98
2	6.46	7.35	6.51	7.39	7.24	7.54	6.70	7.23	8.26	8.89	9.19	10.01
3	6.19	7.40	6.68	7.40	7.28	7.59	5.40	7.30	8.26	8.98	9.25	10.04
4	6.36	7.41	6.78	7.41	7.30	7.63	5.94	7.35	8.24	9.03	9.31	10.04
5	6.48	7.31	6.88	7.41	7.33	7.67	6.21	7.39	8.30	9.06	9.37	10.06
6	6.54	7.38	6.94	7.03	7.34	7.69	6.37	7.42	8.34	8.86	9.42	10.09
7	6.59	7.44	6.96	6.98	7.35	7.66	6.45	7.46	8.37	8.93	9.45	10.11
8	6.63	7.50	6.97	6.98	7.36	7.48	6.33	7.51	8.43	7.66	9.47	10.14
9	6.67	7.54	7.02	6.31	7.36	7.40	6.46	7.55	8.47	7.83	9.22	10.17
10	6.71	7.56	6.71	6.54	7.31	7.45	6.53	7.58	8.51	8.13	9.32	10.20
11	6.74	7.59	6.26	6.62	7.38	7.49	6.59	7.61	8.52	8.34	9.40	10.23
12	6.77	7.60	6.49	6.63	7.43	7.54	6.63	7.66	8.51	8.51	9.46	10.24
13	6.80	7.56	6.64	6.67	7.48	7.58	6.67	7.69	8.57	8.62	9.46	10.24
14	6.78	7.61	6.74	6.65	7.50	7.63	6.72	7.72	8.61	8.69	9.48	10.22
15	6.78	7.66	6.80	6.11	7.03	7.67	6.76	7.75	8.63	8.72	9.51	10.23
16	6.82	7.71	6.84	6.34	7.10	7.71	6.78	7.80	8.66	8.76	9.52	10.24
17	6.89	7.76	6.89	6.51	7.15	7.74	6.79	7.86	8.69	8.64	9.54	10.24
18	6.94	7.80	6.93	6.61	7.22	7.79	6.82	7.90	8.72	8.03	9.58	10.26
19	6.92	7.84	6.99	6.65	7.27	7.82	6.85	7.92	8.75	8.25	9.58	10.27
20	6.86	7.85	7.05	6.70	7.31	7.83	6.87	7.92	8.78	8.40	9.59	10.30
21	6.91	7.85	7.11	6.77	7.32	7.87	6.91	7.90	8.81	8.51	9.62	10.31
22	6.93	7.89	7.15	6.78	7.32	7.91	6.93	7.94	8.84	8.60	9.65	10.33
23	6.99	7.94	7.14	6.84	7.35	7.92	6.91	7.97	8.86	8.70	9.68	10.34
24	7.04	7.95	6.88	6.86	7.40	7.35	6.87	8.01	8.89	8.77	9.71	10.36
25	7.10	7.89	7.03	6.87	7.42	7.47	6.96	8.04	8.92	8.78	9.74	10.36
26	7.15	7.96	7.05	6.92	7.44	7.54	7.01	8.09	8.96	8.77	9.80	10.36
27	7.19	8.00	7.13	6.98	7.48	7.58	7.05	8.12	8.99	8.87	9.84	10.38
28	7.23	8.00	7.17	7.02	7.51	7.46	7.12	8.12	9.02	8.94	9.84	10.42
29	7.26	6.75	7.22	7.04	---	6.02	7.17	8.07	9.03	9.00	9.87	10.44
30	7.26	6.91	7.27	7.09	---	6.39	7.18	8.13	8.56	9.06	9.91	10.46
31	7.26	---	7.30	7.14	---	6.59	---	8.18	---	9.10	9.95	---
MEAN	6.83	7.61	6.92	6.86	7.33	7.50	6.69	7.75	8.62	8.65	9.54	10.24
MAX	7.26	8.00	7.30	7.41	7.51	7.92	7.18	8.18	9.03	9.10	9.95	10.46
MIN	6.19	6.75	6.26	6.11	7.03	6.02	5.40	7.19	8.22	7.66	9.15	9.98

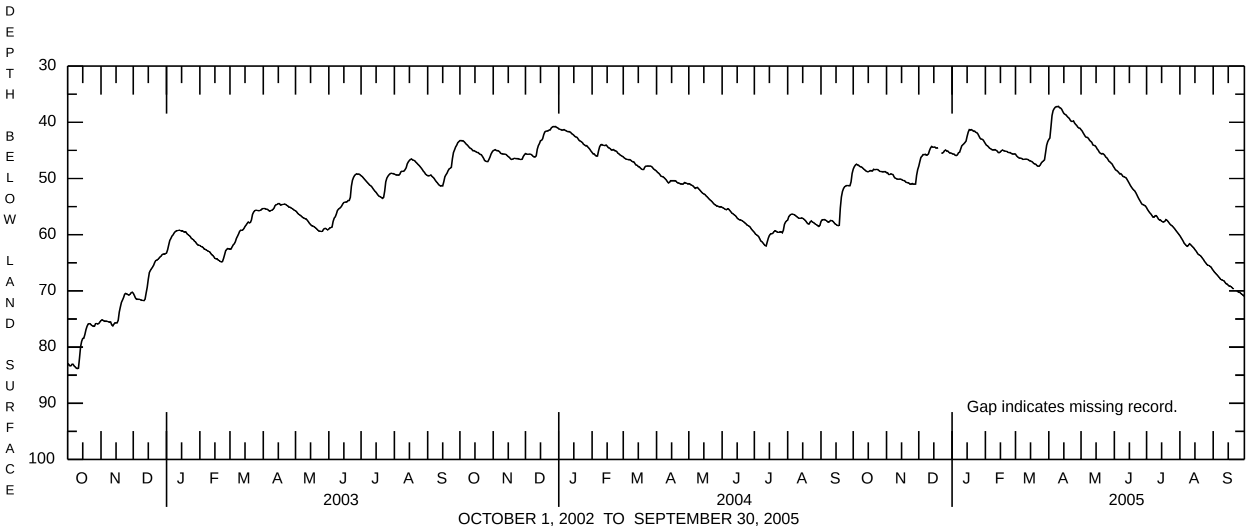


403429075392401. Local number, LE 644.

LOCATION.--Lat 40°34'29", long 75°39'24", Hydrologic Unit 02040106, at Haafsville.
Owner: Privately owned.
AQUIFER.--Beekmantown Group of Middle Ordovician age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 10 in., depth 184 ft, cased to 63 ft, open hole.
INSTRUMENTATION.--Data collection platform with 30-minute recording interval. Satellite telemetry at station.
DATUM.--Elevation of land-surface datum is 470 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of plywood shelf, 2.65 ft above land-surface datum. Prior to Mar. 18, 1981, top of casing, 1.45 ft above land-surface datum.
REMARKS.--In addition to the daily maximum water level table shown below, daily minimum and mean water levels, since October 1994, and water-quality records for 1973-75 are also available from the USGS Pennsylvania Water Science Center Office.
PERIOD OF RECORD.--January 1971 to current year.
EXTREMES FOR PERIOD OF RECORD.--Prior to October 2000, the extremes were based on extremes of the daily maximum depth below land-surface datum. Since that date, the extremes are based on the instantaneous depth below land-surface datum.
Highest water level, 33.72 ft below land-surface datum, Apr. 3, 1994; lowest, 93.42 ft below land-surface datum, Feb. 6, 1971.
EXTREMES FOR CURRENT YEAR.--Highest water level, 37.04 ft below land-surface datum, Apr. 9, 10; lowest, 71.00 ft below land-surface datum, Sept. 30.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48.34	48.98	47.81	45.58	43.80	45.67	43.06	41.32	48.11	55.21	60.18	66.36
2	47.91	48.99	47.00	45.66	44.08	45.97	42.80	41.54	48.44	55.56	60.50	66.62
3	47.62	49.29	46.25	45.68	44.20	46.16	40.87	41.89	48.56	55.84	60.81	66.83
4	47.46	49.29	46.04	45.89	44.40	46.30	38.80	42.21	48.71	56.11	61.14	67.04
5	47.59	49.19	45.74	45.92	44.63	46.41	37.93	42.53	48.92	56.32	61.52	67.24
6	47.64	49.24	45.76	45.78	44.72	46.38	37.58	42.69	49.17	56.59	61.74	67.49
7	47.86	49.31	45.69	45.42	44.87	46.47	37.33	42.68	49.14	56.89	61.96	67.71
8	47.92	49.70	45.87	45.33	44.93	46.61	37.23	42.91	49.34	56.89	62.08	67.96
9	47.99	49.94	45.81	44.77	44.92	46.59	37.22	43.21	49.64	56.62	61.87	68.04
10	48.17	50.02	45.62	44.20	44.88	46.57	37.16	43.40	49.69	56.61	61.61	68.13
11	48.36	50.12	45.01	44.00	44.99	46.56	37.40	43.56	49.79	56.87	61.78	68.21
12	48.51	50.14	44.56	43.82	45.12	46.59	37.47	44.01	49.91	57.21	61.99	68.49
13	48.68	50.12	44.30	43.60	45.39	46.68	37.68	44.11	50.23	57.38	62.19	68.73
14	48.78	50.12	44.44	43.34	45.40	46.83	38.08	44.16	50.57	57.40	62.39	68.80
15	48.79	50.17	44.44	42.50	45.26	46.89	38.42	44.39	50.91	57.61	62.66	69.00
16	48.71	50.33	44.41	41.76	45.04	46.97	38.58	44.74	51.27	57.71	62.90	69.17
17	48.59	50.36	44.58	41.31	44.94	47.11	38.68	44.97	51.56	57.73	63.20	69.17
18	48.64	50.44	44.59	41.41	45.05	47.33	38.93	45.32	51.84	57.61	63.48	69.32
19	48.64	50.65	44.55	41.32	45.13	47.42	39.14	45.52	52.05	57.31	63.61	69.51
20	48.36	50.73	---	41.43	45.16	47.48	39.29	45.62	52.23	57.44	63.72	69.68
21	48.43	50.76	---	41.61	45.19	47.71	39.63	45.56	52.54	57.66	63.94	---
22	48.41	50.84	45.50	41.57	45.34	47.83	39.84	45.67	52.92	57.92	64.19	---
23	48.38	51.03	45.49	41.79	45.40	47.82	39.84	45.86	53.32	58.18	64.46	70.05
24	48.44	51.01	45.34	41.84	45.39	47.61	39.77	46.18	53.69	58.33	64.77	70.16
25	48.61	50.89	45.04	42.07	45.52	47.25	40.14	46.33	54.01	58.47	65.01	70.23
26	48.75	51.02	44.94	42.44	45.63	47.03	40.38	46.60	54.35	58.69	65.27	70.32
27	48.75	51.02	45.13	42.82	45.66	46.88	40.57	46.93	54.63	58.92	65.45	70.51
28	48.81	51.00	45.12	43.00	45.64	46.68	40.87	47.07	54.66	59.18	65.48	70.65
29	48.81	49.43	45.33	43.02	---	45.40	41.02	47.27	54.80	59.43	65.63	70.83
30	48.79	48.41	45.48	43.17	---	44.10	41.06	47.45	54.91	59.68	65.78	71.00
31	48.79	---	45.48	43.49	---	43.45	---	47.83	---	59.93	66.09	---
MEAN	48.37	50.08	45.36	43.40	45.02	46.60	39.23	44.63	51.33	57.53	63.14	68.83
MAX	48.81	51.03	47.81	45.92	45.66	47.83	43.06	47.83	54.91	59.93	66.09	71.00
MIN	47.46	48.41	44.30	41.31	43.80	43.45	37.16	41.32	48.11	55.21	60.18	66.36



Gap indicates missing record.

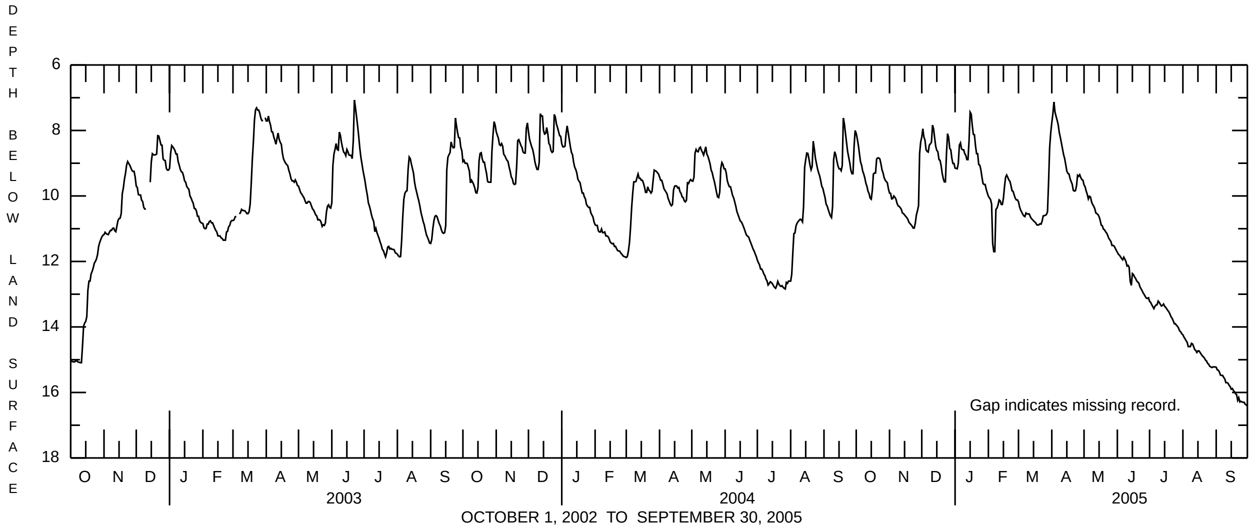
MONROE COUNTY

411223075234901. Local number, MO 190.

LOCATION.--Lat 41°12'23", long 75°23'49", Hydrologic Unit 02040106, at Tobyhanna State Park.
Owner: U.S. Geological Survey.
AQUIFER.--Sandstone of Catskill Formation of Late Devonian age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in., depth 98 ft, cased to 59 ft, open hole.
INSTRUMENTATION.--Data collection platform with 30-minute recording interval. Satellite telemetry at station.
DATUM.--Elevation of land-surface datum is 1,990 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of plywood shelf, 3.0 ft above land-surface datum. Prior to Mar. 28, 1980, top of plywood shelf, 2.6 ft above land-surface datum.
REMARKS.--In addition to the daily maximum water level table shown below, daily minimum and mean water levels, since October 1994, are also available from the USGS Pennsylvania Water Science Center Office.
PERIOD OF RECORD.--October 1967 to current year.
EXTREMES FOR PERIOD OF RECORD.--Prior to October 2000, the extremes were based on extremes of the daily maximum depth below land-surface datum. Since that date, the extremes are based on the instantaneous depth below land-surface datum.
Highest water level, 6.62 ft below land-surface datum, Apr. 13,14, 1994; lowest, 16.87 ft below land-surface datum, Oct. 24, 25, 1980.
EXTREMES FOR CURRENT YEAR.--Highest water level, 6.71 ft below land-surface datum, Apr. 3; lowest, 16.42 ft below land-surface datum, Sept. 30.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.09	9.91	8.20	9.15	10.01	10.18	7.76	9.66	11.72	13.22	14.24	15.23
2	8.26	9.92	7.95	9.16	10.06	10.33	7.50	9.72	11.78	13.25	14.31	15.31
3	8.45	10.09	8.20	9.17	10.11	10.43	7.13	9.85	11.81	13.32	14.36	15.32
4	8.71	10.08	8.30	9.00	10.25	10.49	7.44	9.95	11.86	13.38	14.42	15.38
5	8.96	10.00	8.59	8.45	11.45	10.56	7.57	10.09	11.91	13.44	14.47	15.47
6	9.06	10.04	8.64	8.38	11.70	10.61	7.69	10.01	11.95	13.37	14.60	15.48
7	9.24	10.10	8.66	8.56	11.70	10.63	7.83	10.03	11.87	13.33	14.60	15.48
8	9.33	10.23	8.45	8.59	10.41	10.52	8.07	10.18	11.93	13.32	14.60	15.54
9	9.45	10.30	8.41	8.59	10.37	10.55	8.22	10.26	12.00	13.21	14.50	15.59
10	9.61	10.32	8.36	8.71	10.27	10.55	8.39	10.31	12.14	13.25	14.52	15.70
11	9.71	10.36	7.84	8.76	10.12	10.55	8.57	10.39	12.12	13.31	14.60	15.70
12	9.86	10.41	7.95	8.89	10.15	10.63	8.74	10.52	12.18	13.36	14.69	15.72
13	9.93	10.52	8.23	8.89	10.26	10.69	8.86	10.54	12.61	13.34	14.72	15.78
14	10.07	10.54	8.49	8.31	10.26	10.72	9.05	10.57	12.73	13.30	14.78	15.82
15	10.10	10.58	8.61	7.44	10.07	10.76	9.24	10.63	12.37	13.37	14.73	15.90
16	9.83	10.62	8.65	7.50	9.71	10.79	9.31	10.74	12.40	13.40	14.73	15.88
17	9.33	10.66	8.89	7.85	9.43	10.82	9.33	10.89	12.47	13.45	14.78	15.94
18	9.30	10.71	8.91	8.12	9.36	10.88	9.47	10.91	12.52	13.50	14.83	15.98
19	9.30	10.80	9.07	8.13	9.43	10.89	9.56	11.01	12.59	13.54	14.88	16.04
20	8.87	10.84	9.31	8.47	9.51	10.88	9.64	11.03	12.63	13.61	14.91	16.07
21	8.84	10.88	9.47	8.71	9.55	10.85	9.83	11.09	12.66	13.69	14.95	16.24
22	8.84	10.92	9.57	8.71	9.68	10.86	9.85	11.13	12.77	13.74	15.01	16.16
23	8.87	10.98	9.57	9.04	9.84	10.77	9.84	11.20	12.83	13.81	15.04	16.29
24	9.02	10.98	8.70	9.06	9.86	10.61	9.69	11.29	12.89	13.90	15.11	16.27
25	9.20	10.83	8.10	9.20	9.97	10.60	9.37	11.34	12.96	13.90	15.14	16.29
26	9.30	10.58	8.21	9.42	10.07	10.59	9.40	11.39	13.01	13.95	15.20	16.30
27	9.44	10.45	8.55	9.62	10.12	10.57	9.35	11.51	13.07	13.98	15.22	16.30
28	9.52	10.30	8.59	9.65	10.12	10.48	9.44	11.51	13.12	14.04	15.24	16.36
29	9.56	8.70	8.85	9.65	---	9.58	9.50	11.53	13.13	14.12	15.22	16.38
30	9.60	8.35	9.01	9.80	---	8.53	9.52	11.59	13.11	14.15	15.22	16.42
31	9.79	---	9.01	9.91	---	8.08	---	11.66	---	14.21	15.22	---
MEAN	9.27	10.33	8.62	8.80	10.14	10.45	8.84	10.73	12.44	13.57	14.80	15.88
MAX	10.10	10.98	9.57	9.91	11.70	10.89	9.85	11.66	13.13	14.21	15.24	16.42
MIN	8.09	8.35	7.84	7.44	9.36	8.08	7.13	9.66	11.72	13.21	14.24	15.23



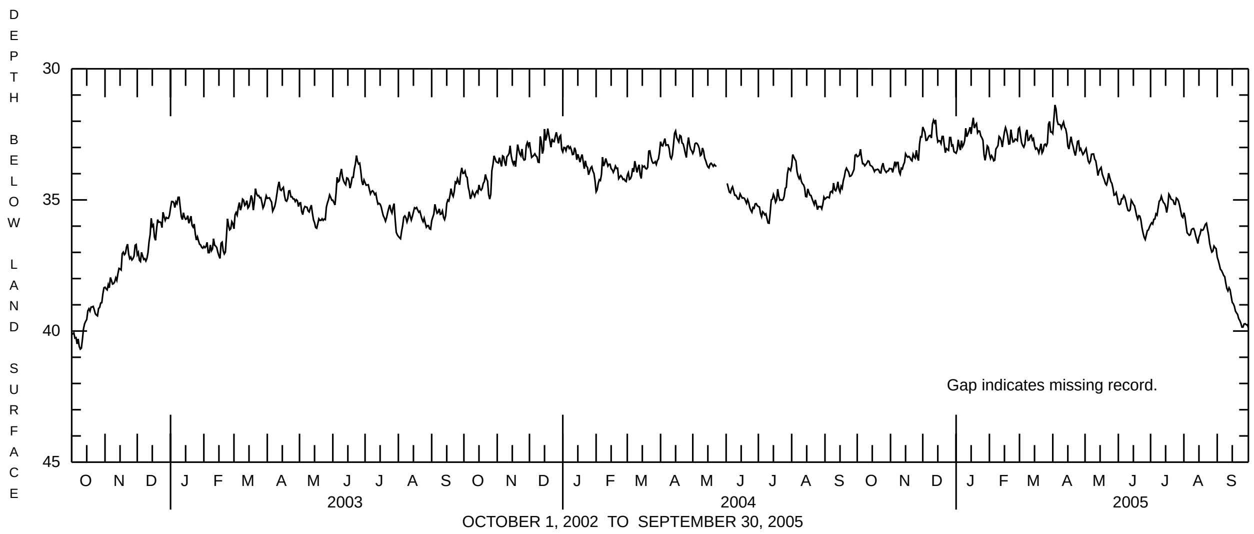
MONTGOMERY COUNTY

401415075175101. Local number, MG 68.
(North Penn Area 7 Project)

LOCATION.--Lat 40°14'15", long 75°17'49", Horizontal datum NAD27, Hydrologic Unit 02040203, on Towamencin Street southwest from Whites Road, Upper Gwynedd Township.
Owner: North Penn Water Authority.
AQUIFER.--Shale of Brunswick Group of Triassic Age.
WELL CHARACTERISTICS.--Drilled unused production well, diameter 14 in., depth 500 ft, cased to 9 ft, open hole.
INSTRUMENTATION.--Electronic data logger with 15-minute recording interval.
DATUM.--Elevation of land-surface datum is 321.7 ft above North American Vertical Datum of 1988, from survey. Measuring point: Top of plywood shelf, about 0.5 ft above land-surface datum.
REMARKS.--In addition to the daily mean water-level table shown below, daily maximum and minimum water levels are also available from the USGS Pennsylvania Water Science Center Office.
PERIOD OF RECORD.--August 1996 to January 2000; December 2000 to current year.
EXTREMES FOR PERIOD OF RECORD.--The extremes shown are extremes of the instantaneous depth below land surface for the period of record indicated above.
Highest water level, 31.30 ft below land-surface datum, Apr. 3, 2005; lowest, 54.76 ft below land-surface datum, Dec. 27, 1998.
EXTREMES FOR CURRENT YEAR.--Highest water level, 31.30 ft below land-surface datum, Apr. 3; lowest, 39.91 ft below land-surface datum, Sept. 30.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33.35	33.81	32.22	33.22	33.26	32.24	32.47	33.12	35.15	35.94	35.49	37.18
2	33.33	33.81	32.32	33.10	33.42	32.56	31.92	33.04	35.18	35.87	35.65	37.31
3	33.29	33.95	32.43	32.71	33.31	32.82	31.38	33.29	35.15	35.92	35.96	37.47
4	33.07	33.77	32.73	32.94	33.38	32.93	31.53	33.52	34.96	35.74	36.25	37.65
5	33.39	33.54	32.72	33.10	33.51	32.99	31.97	33.60	34.96	35.73	36.30	37.69
6	33.62	33.70	32.62	32.74	33.48	32.87	32.12	33.52	34.83	35.53	36.35	37.78
7	33.62	33.57	32.55	32.97	33.06	32.46	32.12	33.26	34.90	35.58	36.32	37.88
8	33.70	33.57	32.54	32.89	33.00	32.33	32.14	33.25	35.06	35.32	36.14	37.93
9	33.65	33.92	32.64	32.74	32.93	32.73	32.27	33.25	35.26	35.05	36.10	38.18
10	33.59	34.02	32.11	32.27	32.58	32.71	32.13	33.45	35.40	35.01	36.09	38.38
11	33.51	33.79	31.96	32.59	32.63	32.56	32.03	33.51	35.42	34.86	36.19	38.47
12	33.53	33.82	32.06	32.49	32.74	32.53	32.23	33.77	35.37	35.00	36.37	38.35
13	33.68	33.66	31.95	32.37	32.98	32.72	32.29	34.07	35.01	35.10	36.52	38.43
14	33.70	33.57	32.52	32.23	32.68	32.66	32.50	33.90	35.08	35.14	36.66	38.68
15	33.73	33.24	32.79	32.48	32.41	32.93	32.95	33.82	35.17	35.25	36.41	38.91
16	33.81	33.32	32.74	32.12	32.24	33.06	33.06	33.76	35.22	35.48	36.31	38.96
17	33.92	33.37	32.75	31.87	32.37	33.02	32.80	34.01	35.40	35.23	36.13	39.06
18	33.85	33.34	32.85	32.26	32.57	33.08	32.59	34.13	35.60	34.78	36.16	39.24
19	33.85	33.38	32.58	32.15	32.87	33.21	32.83	34.24	35.73	34.85	36.14	39.31
20	33.83	33.47	32.58	32.09	32.86	33.05	32.98	34.38	35.60	34.97	36.04	39.37
21	33.86	33.51	32.90	32.44	32.32	32.86	33.17	34.43	35.62	34.99	35.93	39.53
22	33.96	33.26	33.20	32.37	32.60	33.21	33.31	34.27	35.77	35.02	35.89	39.60
23	33.97	33.36	33.04	32.38	32.79	33.13	33.06	33.98	36.06	35.16	36.13	39.70
24	33.72	33.41	33.08	32.56	32.77	32.90	32.77	34.15	36.26	35.17	36.35	39.85
25	33.60	33.11	33.11	32.63	32.68	32.87	32.75	34.30	36.42	34.93	36.67	39.85
26	33.81	33.37	32.62	32.73	32.70	32.94	33.10	34.37	36.51	34.97	36.85	39.73
27	33.89	33.50	32.62	33.28	32.74	32.83	33.04	34.56	36.34	35.05	36.99	39.72
28	33.95	32.87	32.94	33.49	32.29	32.11	33.16	34.82	36.17	35.21	36.95	39.76
29	33.90	32.59	32.91	33.24	---	32.01	33.27	34.80	36.14	35.42	36.76	39.76
30	33.89	32.60	33.16	32.94	---	32.41	33.21	34.72	36.03	35.62	36.82	39.88
31	33.80	---	33.19	32.99	---	32.41	---	34.91	---	35.67	36.86	---
MEAN	33.69	33.47	32.66	32.66	32.83	32.75	32.57	33.94	35.53	35.28	36.32	38.79
MAX	33.97	34.02	33.20	33.49	33.51	33.21	33.31	34.91	36.51	35.94	36.99	39.88
MIN	33.07	32.59	31.95	31.87	32.24	32.01	31.38	33.04	34.83	34.78	35.49	37.18



MONTGOMERY COUNTY

401338075162801. Local number, MG 72.
(North Penn Area 7 Project)

LOCATION.--Lat 40°13’38”, long 75°16’27”, Horizontal datum NAD27, Hydrologic Unit 02040203, on Hancock Street near Wissahickon Creek, Upper Gwynedd Township.

Owner: North Penn Water Authority.

AQUIFER.--Shale of Brunswick Group of Triassic Age.

WELL CHARACTERISTICS.--Drilled unused production well, diameter 10 in., depth 298 ft, cased to 41.5 ft, open hole.

INSTRUMENTATION.--Electronic data logger with 15-minute recording interval.

DATUM.--Elevation of land-surface datum is 355.1 ft above North American Vertical Datum of 1988, from survey. Measuring point: Top of concrete pad, 0.85 ft above well-house floor and 1.47 ft above land-surface datum.

REMARKS.--In addition to the daily mean water-level table shown below, daily maximum and minimum water levels are also available from the USGS Pennsylvania Water Science Center Office. Water levels may be affected by nearby pumping.

PERIOD OF RECORD.--December 2000 to current year.

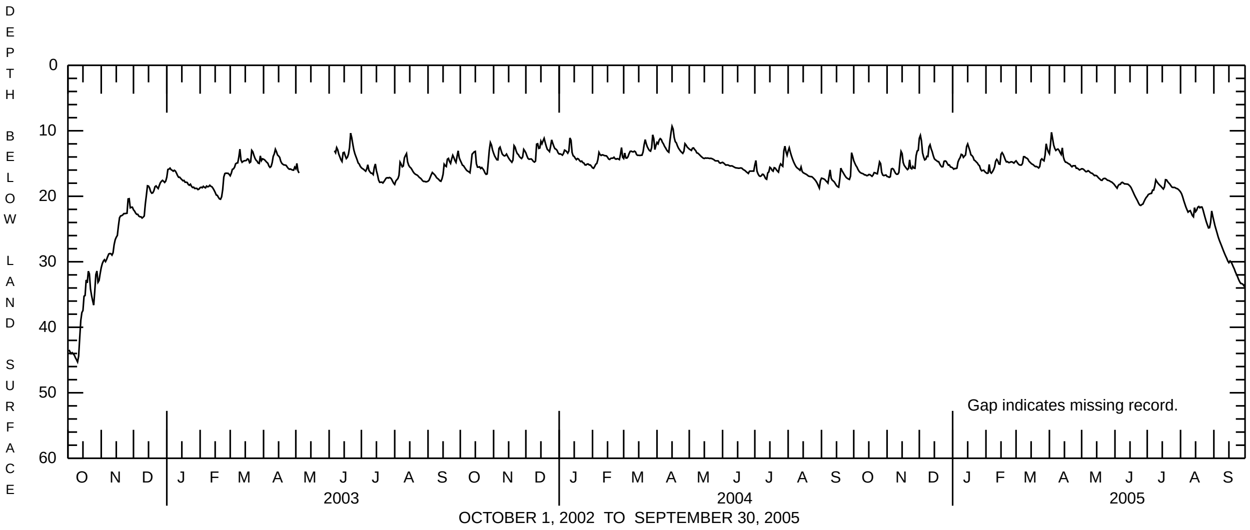
EXTREMES FOR PERIOD OF RECORD.--The extremes shown are extremes of the instantaneous depth below land surface for the period of record indicated above.

Highest water level, 8.68 ft below land-surface datum, Apr. 15, 2004; lowest, 58.03 ft below land-surface datum, Dec. 4, 2001.

EXTREMES FOR CURRENT YEAR.--Highest water level, 9.97 ft below land-surface datum, Apr. 3; lowest, 33.75 ft below land-surface datum, Sept. 29.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.56	16.97	11.14	15.66	16.39	14.59	13.50	15.80	18.35	20.01	19.34	23.76
2	14.95	17.01	10.70	15.86	16.50	14.82	12.09	15.82	18.57	19.74	19.63	24.47
3	15.30	17.11	11.55	15.76	16.45	15.05	10.24	15.92	18.77	19.65	20.11	25.05
4	15.55	17.02	13.36	15.77	15.14	15.20	11.21	16.10	18.37	19.59	20.67	25.61
5	15.92	15.84	14.00	15.70	16.29	15.24	12.20	16.25	18.19	19.55	21.16	26.19
6	16.19	15.76	14.44	14.76	16.47	15.23	12.69	16.22	18.18	19.06	21.65	26.67
7	16.36	15.88	14.35	14.36	16.26	14.99	13.00	16.09	17.92	19.05	22.05	27.10
8	16.47	16.22	13.90	14.09	15.96	13.96	12.85	16.20	17.87	18.45	22.42	27.50
9	16.52	16.51	13.93	13.60	15.53	13.96	12.79	16.37	18.00	17.50	22.27	27.93
10	16.59	16.64	12.46	13.67	14.65	14.12	12.99	16.47	18.12	17.77	22.19	28.36
11	16.73	16.62	12.13	14.06	14.37	14.18	13.34	16.51	18.11	18.01	22.55	28.76
12	16.74	16.36	12.76	13.86	14.58	14.33	13.62	16.69	18.14	18.20	22.94	29.13
13	16.85	14.53	13.19	13.69	15.06	14.65	12.61	16.85	18.15	18.36	23.13	29.49
14	16.83	13.15	13.81	12.40	15.10	14.81	13.99	16.81	18.29	18.52	21.74	29.90
15	16.68	13.48	14.27	12.01	13.59	14.98	14.53	16.87	18.45	18.71	22.35	30.14
16	16.69	14.84	14.44	12.52	13.34	15.10	14.79	17.05	18.68	18.89	22.13	29.88
17	16.82	15.29	14.54	13.03	13.60	15.18	14.82	17.24	19.03	18.59	21.68	30.02
18	16.95	15.52	14.70	13.67	14.00	15.35	14.94	17.38	19.39	17.47	21.56	30.35
19	16.75	15.74	14.71	13.79	14.44	15.47	15.05	17.54	19.76	17.50	21.76	30.75
20	16.39	15.93	15.06	14.02	14.75	15.45	15.12	17.57	20.09	17.76	21.63	31.10
21	16.42	15.75	15.35	14.48	14.71	15.54	15.34	17.33	20.40	17.96	21.65	31.55
22	16.53	14.44	15.51	14.58	14.85	15.68	15.50	17.27	20.70	18.13	22.12	31.91
23	16.57	15.70	15.47	14.76	14.85	15.47	15.34	17.28	21.06	18.37	22.75	32.27
24	15.67	15.81	14.67	14.92	14.75	14.47	15.35	17.40	21.34	18.60	23.35	32.70
25	14.74	15.44	14.60	15.19	14.74	14.28	15.34	17.55	21.40	18.66	23.91	33.04
26	15.01	15.70	14.68	15.34	14.82	14.47	15.72	17.58	21.26	18.64	24.38	33.31
27	16.34	15.73	14.98	15.87	14.93	14.59	15.71	17.65	21.19	18.69	24.83	33.34
28	16.76	13.82	15.25	16.12	14.73	13.73	15.84	17.77	20.82	18.80	24.79	33.44
29	16.85	13.10	15.22	16.05	---	11.99	15.98	17.83	20.48	18.84	23.97	33.67
30	16.79	12.98	15.52	16.02	---	12.74	15.90	17.98	20.19	18.96	22.24	33.46
31	16.75	---	15.57	16.25	---	13.20	---	18.13	---	19.13	23.06	---
MEAN	16.27	15.50	14.07	14.58	15.03	14.61	14.08	16.95	19.31	18.62	22.26	29.70
MAX	16.95	17.11	15.57	16.25	16.50	15.68	15.98	18.13	21.40	20.01	24.83	33.67
MIN	14.56	12.98	10.70	12.01	13.34	11.99	10.24	15.80	17.87	17.47	19.34	23.76

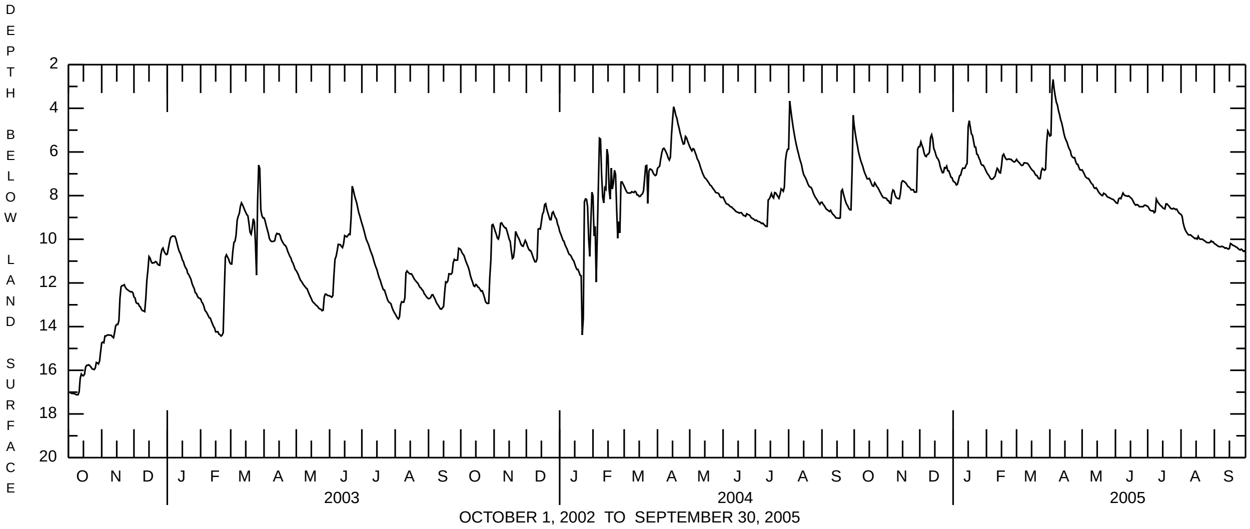


400808075210401. Local number, MG 225.

LOCATION.--Lat 40°08'10", long 75°21'04", Hydrologic Unit 02040203, at Willow and Locust Streets, Norristown. Owner: Norristown State Hospital.
AQUIFER.--Sandstone of Stockton Formation of Late Triassic age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 12 in., depth 486 ft (previously reported as 300 ft), cased to 78 ft, open hole.
INSTRUMENTATION.--Electronic data logger with 60-minute recording interval.
DATUM.--Elevation of land-surface datum is 165 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of plywood shelf, 2.35 ft above land-surface datum. Prior to Mar. 17, 1981, top of casing 0.8 ft above land-surface datum.
REMARKS.--In addition to the daily maximum water level table shown below, daily minimum and mean water levels, since October 1994, are also available from the USGS Pennsylvania Water Science Center Office. Water level may be affected by pumping of nearby well.
PERIOD OF RECORD.--September 1956 to current year.
EXTREMES FOR PERIOD OF RECORD.--Prior to October 2000, the extremes were based on extremes of the daily maximum depth below land-surface datum. Since that date, the extremes are based on the instantaneous depth below land-surface datum.
Highest water level, 2.10 ft below land-surface datum, Apr. 3, 2005; lowest, 60.25 ft below land-surface datum, Nov. 5, 6, 1963.
EXTREMES FOR CURRENT YEAR.--Highest water level, 2.10 ft below land-surface datum, Apr. 3; lowest, 10.58 ft below land-surface datum, Sept. 30.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.81	8.22	5.76	7.33	6.91	6.34	5.27	6.82	8.29	8.49	8.86	10.20
2	5.15	8.23	5.54	7.37	7.00	6.42	5.24	6.91	8.34	8.56	8.94	10.22
3	5.46	8.34	5.69	7.41	7.06	6.47	3.15	7.01	8.35	8.66	9.25	10.26
4	5.72	8.36	5.82	7.51	7.15	6.52	2.68	7.12	8.15	8.69	9.44	10.30
5	6.00	7.92	6.05	7.48	7.23	6.59	3.13	7.18	8.11	8.70	9.58	10.33
6	6.20	7.74	6.18	7.29	7.25	6.62	3.45	7.21	8.14	8.69	9.67	10.34
7	6.39	7.78	6.21	7.09	7.23	6.60	3.72	7.22	8.01	8.78	9.74	10.34
8	6.53	7.97	6.11	7.06	7.17	6.50	3.85	7.30	7.88	8.74	9.80	10.32
9	6.67	8.08	6.10	6.86	7.11	6.50	4.11	7.39	7.96	8.16	9.80	10.34
10	6.85	8.12	6.00	6.74	6.91	6.51	4.29	7.46	8.00	8.26	9.80	10.37
11	6.99	8.14	5.34	6.75	6.75	6.52	4.52	7.50	8.01	8.34	9.85	10.41
12	7.10	8.14	5.21	6.74	6.81	6.57	4.67	7.63	8.03	8.40	9.89	10.39
13	7.23	7.88	5.41	6.61	6.94	6.65	4.89	7.67	8.01	8.46	9.93	10.42
14	7.23	7.40	5.84	6.53	6.96	6.73	5.14	7.64	8.04	8.49	9.97	10.45
15	7.21	7.32	5.96	4.84	6.63	6.80	5.33	7.71	8.09	8.56	9.95	10.42
16	7.32	7.34	6.14	4.57	6.17	6.85	5.46	7.81	8.13	8.59	9.99	10.19
17	7.45	7.38	6.27	4.87	6.10	6.89	5.56	7.88	8.21	8.61	9.86	10.22
18	7.55	7.42	6.32	5.17	6.22	6.99	5.73	7.93	8.31	8.38	9.97	10.27
19	7.57	7.50	6.44	5.24	6.31	7.07	5.86	7.98	8.40	8.38	10.00	10.29
20	7.41	7.58	6.67	5.50	6.35	7.08	5.94	8.00	8.44	8.44	9.99	10.31
21	7.49	7.61	6.82	5.77	6.33	7.18	6.16	7.89	8.41	8.49	10.00	10.35
22	7.58	7.66	6.95	5.78	6.32	7.23	6.23	7.92	8.43	8.56	10.04	10.37
23	7.64	7.74	6.94	6.10	6.34	7.22	6.27	7.95	8.50	8.60	10.07	10.42
24	7.73	7.73	6.72	6.13	6.34	6.88	6.26	8.03	8.51	8.61	10.11	10.46
25	7.83	7.73	6.74	6.28	6.40	6.75	6.44	8.07	8.50	8.58	10.15	10.49
26	7.93	7.84	6.65	6.38	6.44	6.80	6.56	8.09	8.51	8.60	10.15	10.45
27	8.02	7.84	6.86	6.55	6.46	6.84	6.57	8.11	8.50	8.64	10.16	10.49
28	8.09	7.83	6.87	6.61	6.42	6.79	6.71	8.14	8.44	8.62	10.14	10.55
29	8.10	5.87	7.01	6.61	---	5.60	6.82	8.16	8.44	8.71	10.07	10.53
30	8.11	5.76	7.16	6.69	---	5.04	6.83	8.18	8.47	8.79	10.12	10.58
31	8.13	---	7.18	6.80	---	5.14	---	8.23	---	8.83	10.12	---
MEAN	7.08	7.68	6.29	6.41	6.69	6.60	5.23	7.68	8.25	8.56	9.85	10.37
MAX	8.13	8.36	7.18	7.51	7.25	7.23	6.83	8.23	8.51	8.83	10.16	10.58
MIN	4.81	5.76	5.21	4.57	6.10	5.04	2.68	6.82	7.88	8.16	8.86	10.19



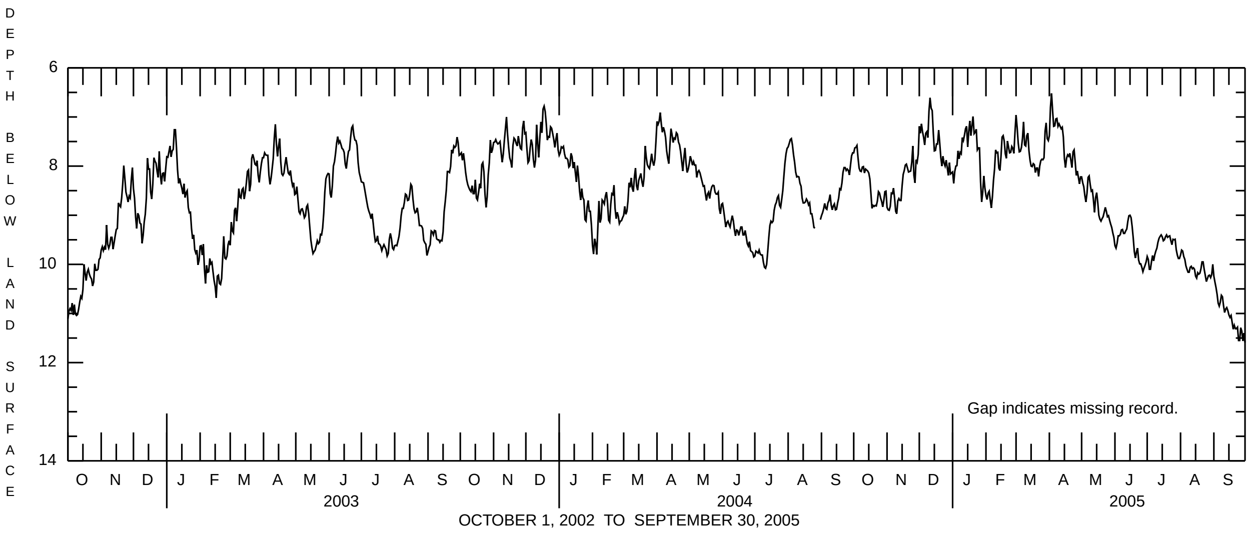
MONTGOMERY COUNTY

401733075171401. Local number, MG 917.

LOCATION.--Lat 40°17'33", long 75°17'13", Hydrologic Unit 02040201, at North Penn Water Authority at Lansdale.
Owner: North Penn Water Authority.
AQUIFER.--Shale of Brunswick Formation of Late Triassic Age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 8 in, depth 500 ft, cased to 40 ft, open hole.
INSTRUMENTATION.--Data collection platform with 60-minute recording interval. Satellite telemetry at station.
DATUM.--Elevation of land-surface datum is 350 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of plywood shelf, 3.39 ft above land-surface datum.
REMARKS.--In addition to the daily mean water level table shown below, daily maximum and minimum water levels, are also available from the USGS Pennsylvania Water Science Center Office.
PERIOD OF RECORD.--August 1997 to current year.
EXTREMES FOR PERIOD OF RECORD.--The extremes shown are extremes of the instantaneous depth below land surface for the period of record indicated above.
Highest water level, 6.31 ft below land-surface datum, Apr. 3, 2005; lowest, 12.66 ft below land-surface datum, Aug. 16, 1999.
EXTREMES FOR CURRENT YEAR.--Highest water level, 6.31 ft below land-surface datum, Apr. 3; lowest, 11.69 ft below land-surface datum, Sept. 30.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.73	8.84	7.19	8.12	8.60	6.96	7.38	8.22	9.62	9.84	9.81	10.24
2	7.63	8.89	7.33	8.35	8.68	7.21	6.80	8.34	9.67	9.90	9.71	10.36
3	7.62	8.90	7.14	8.11	8.55	7.53	6.52	8.42	9.57	10.10	9.73	10.47
4	7.58	8.82	7.30	8.00	8.51	7.71	6.87	8.60	9.42	10.10	9.84	10.61
5	7.83	8.55	7.41	7.99	8.69	7.70	7.19	8.73	9.42	9.94	9.90	10.79
6	8.04	8.56	7.57	7.69	8.85	7.62	7.18	8.55	9.39	9.82	10.03	10.85
7	8.10	8.45	7.33	7.85	8.62	7.43	7.04	8.23	9.30	9.93	10.10	10.77
8	8.11	8.65	7.30	7.72	8.29	7.10	7.03	8.20	9.29	9.81	10.16	10.63
9	8.02	8.92	7.42	7.75	8.06	7.57	7.19	8.38	9.37	9.73	10.16	10.66
10	8.01	8.97	6.88	7.42	7.67	7.59	7.14	8.51	9.37	9.67	10.06	10.84
11	8.14	8.71	6.61	7.48	7.73	7.38	7.19	8.49	9.32	9.55	10.04	10.98
12	8.06	8.66	6.82	7.37	7.72	7.33	7.24	8.69	9.28	9.47	10.09	10.91
13	8.08	8.70	6.87	7.24	8.04	7.69	7.21	8.94	9.12	9.43	10.07	10.88
14	8.10	8.70	7.32	7.19	8.09	7.88	7.41	8.64	9.01	9.40	10.10	10.94
15	8.14	8.40	7.69	7.61	7.80	8.00	7.85	8.54	9.00	9.44	10.24	11.03
16	8.26	8.17	7.68	7.30	7.41	8.01	8.03	8.74	9.05	9.52	10.28	11.08
17	8.56	8.09	7.55	7.08	7.38	7.95	7.84	9.00	9.23	9.50	10.17	11.04
18	8.86	7.98	7.55	7.38	7.49	7.97	7.77	9.08	9.46	9.44	10.20	11.18
19	8.80	7.96	7.27	7.17	7.75	8.13	7.80	9.12	9.74	9.40	10.18	11.32
20	8.82	8.04	7.53	6.99	7.84	8.04	7.74	9.07	9.87	9.45	10.09	11.24
21	8.80	8.12	7.82	7.34	7.49	8.04	7.88	9.03	9.75	9.43	9.95	11.31
22	8.81	8.11	8.00	7.31	7.61	8.21	8.03	8.94	9.67	9.42	9.95	11.31
23	8.71	8.10	7.80	7.25	7.73	8.00	7.71	8.84	9.91	9.52	10.10	11.28
24	8.52	7.92	7.94	7.67	7.72	7.89	7.67	8.92	9.99	9.60	10.22	11.55
25	8.55	7.59	8.00	7.63	7.60	7.86	7.91	9.03	9.99	9.49	10.35	11.55
26	8.65	8.19	7.88	7.63	7.64	7.87	8.19	9.01	10.06	9.50	10.29	11.29
27	8.72	8.34	8.03	8.32	7.74	7.83	8.10	9.10	10.15	9.49	10.23	11.36
28	8.83	7.87	8.19	8.73	7.31	7.29	8.23	9.18	10.08	9.70	10.22	11.56
29	8.70	7.92	7.93	8.53	---	7.12	8.36	9.25	10.02	9.81	10.27	11.40
30	8.52	7.76	8.16	8.20	---	7.44	8.22	9.36	9.95	9.88	10.21	11.59
31	8.51	---	8.14	8.44	---	7.48	---	9.45	---	9.88	10.0	---
MEAN	8.32	8.36	7.54	7.71	7.95	7.67	7.56	8.79	9.57	9.65	10.09	11.03
MAX	8.86	8.97	8.19	8.73	8.85	8.21	8.36	9.45	10.15	10.10	10.35	11.59
MIN	7.58	7.59	6.61	6.99	7.31	6.96	6.52	8.20	9.00	9.40	9.71	10.24



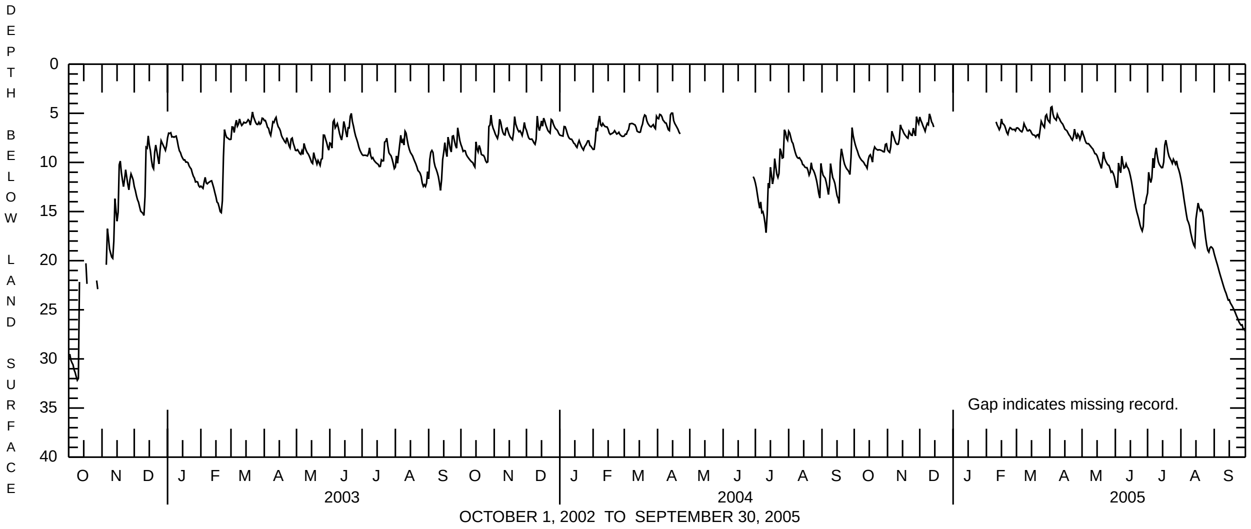
MONTGOMERY COUNTY

401314075171401. Local number, MG 1145.
(North Penn Area 7 Project)

LOCATION.--Lat 40°13'12", long 75°17'12", Holizontal datum NAD27, Hydrologic Unit 02040203, on Church Road southwest from Wissahickon Avenue, Upper Gwynedd Township.
Owner: Teleflex Corporation.
AQUIFER.--Shale of Brunswick Group of Triassic Age.
WELL CHARACTERISTICS.--Drilled monitor well, diameter 6 in., depth 83 ft, cased to 19 ft, open hole.
INSTRUMENTATION.--Electronic data logger with 15-minute recording interval.
DATUM.--Elevation of land-surface datum is 330.62 ft above North American Vertical Datum of 1988, from survey. Measuring point: Top of plywood shelf on top of well casing, 1.35 ft above land-surface datum.
REMARKS.--Record missing from Dec. 15 to Feb. 9. In addition to the daily mean water-level table shown below, daily maximum and minimum water levels are also available from the USGS Pennsylvania Water Science Center Office.
PERIOD OF RECORD.--August 13, 2002 to current year.
EXTREMES FOR PERIOD OF RECORD.--The extremes shown are extremes of the instantaneous depth below land surface for the period of record indicated above.
Highest water level, 3.11 ft below land-surface datum, Apr. 2, 2005; lowest, 34.13 ft below land-surface datum, Sept. 26, 2002.
EXTREMES FOR CURRENT YEAR.--Highest water level, 3.11 ft below land-surface datum, Apr. 2; lowest, 27.36 ft below land-surface datum, Sept. 30.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.77	8.71	5.38	---	---	6.50	5.94	6.77	11.96	13.12	11.67	19.31
2	8.20	8.88	5.73	---	---	6.48	4.41	7.13	12.52	11.01	12.31	19.70
3	8.56	8.98	5.98	---	---	6.56	4.33	7.43	12.51	11.68	13.03	20.07
4	8.85	8.41	6.29	---	---	6.71	5.10	7.80	10.06	12.05	13.81	20.44
5	9.22	6.83	6.54	---	---	6.82	5.46	8.03	10.71	11.54	14.52	20.84
6	9.47	7.14	6.83	---	---	6.89	5.58	8.10	11.05	9.58	15.23	21.24
7	9.65	7.46	6.35	---	---	6.65	5.70	8.09	9.36	10.55	15.85	21.62
8	9.80	7.81	6.03	---	---	6.05	5.12	8.23	10.07	9.18	16.10	21.98
9	9.89	8.07	6.16	---	---	6.32	5.40	8.36	10.58	8.52	16.46	22.35
10	10.03	8.17	5.06	---	5.87	6.51	5.56	8.51	10.51	9.32	17.09	22.71
11	10.25	8.14	5.39	---	6.19	6.77	5.81	8.62	10.14	9.93	17.58	23.04
12	10.36	7.61	5.87	---	6.41	6.79	5.97	8.86	10.46	10.22	18.05	23.31
13	10.59	6.18	6.06	---	6.67	6.68	6.10	9.11	10.61	10.39	18.41	23.66
14	9.75	6.53	6.40	---	6.42	6.77	6.34	9.14	10.93	10.54	18.60	24.01
15	9.35	6.69	---	---	5.58	7.00	6.61	9.32	11.39	10.52	15.75	23.98
16	9.22	6.98	---	---	6.04	7.18	6.70	9.64	11.94	9.96	14.96	24.30
17	9.54	7.17	---	---	6.11	7.21	6.79	9.98	12.60	8.23	14.14	24.48
18	9.97	7.30	---	---	6.27	7.25	7.01	10.27	13.27	7.74	14.58	24.67
19	8.83	7.46	---	---	6.59	7.42	7.21	10.61	13.95	8.35	14.94	24.90
20	8.43	7.54	---	---	6.96	7.22	7.35	9.88	14.57	8.98	14.79	25.13
21	8.60	6.84	---	---	7.15	7.17	7.58	8.94	15.06	9.40	14.95	25.41
22	8.68	7.04	---	---	6.69	7.43	7.73	9.58	15.44	9.62	15.69	25.68
23	8.75	7.23	---	---	6.46	6.64	7.37	9.85	15.87	9.84	16.75	25.93
24	8.71	7.25	---	---	6.53	5.82	6.62	10.07	16.37	10.10	17.67	26.22
25	8.73	6.51	---	---	6.66	6.07	7.15	10.25	16.72	9.68	18.43	26.42
26	8.77	6.98	---	---	6.65	6.29	7.61	10.30	16.98	9.91	18.95	26.57
27	8.82	7.29	---	---	6.63	6.44	7.11	10.61	16.51	10.18	19.13	26.53
28	8.91	5.35	---	---	6.78	5.29	7.28	11.00	14.30	9.85	18.71	26.99
29	8.92	5.76	---	---	---	5.14	7.67	10.90	14.19	10.43	18.59	26.94
30	8.17	6.05	---	---	---	5.64	7.33	11.11	13.57	10.75	18.67	27.23
31	8.11	---	---	---	---	5.81	---	11.44	---	11.15	18.84	---
MEAN	9.13	7.28	6.00	---	6.46	6.57	6.40	9.29	12.81	10.07	16.27	23.86
MAX	10.59	8.98	6.83	---	7.15	7.43	7.73	11.44	16.98	13.12	19.13	27.23
MIN	7.77	5.35	5.06	---	5.58	5.14	4.33	6.77	9.36	7.74	11.67	19.31



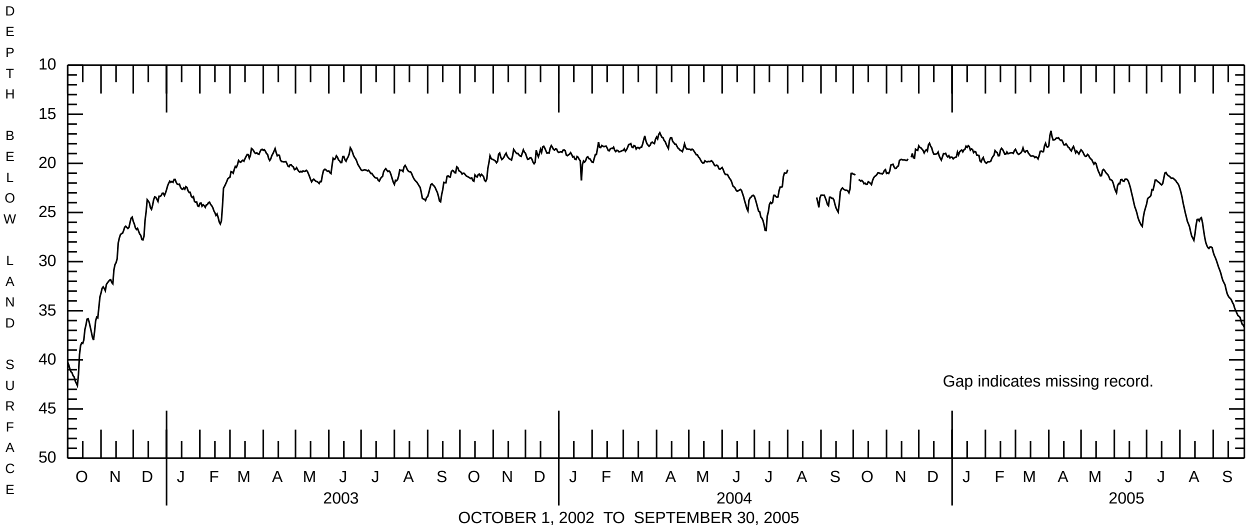
MONTGOMERY COUNTY

401318075171101. Local number, MG 1146.
(North Penn Area 7 Project)

LOCATION.--Lat 40°13’19”, long 75°17’11”, Horizontal datum NAD27, Hydrologic Unit 02040203, on Church Road southwest from Wissahickon Avenue, Upper Gwynedd Township.
Owner: Teleflex Corporation.
AQUIFER.--Shale of Brunswick Group of Triassic Age.
WELL CHARACTERISTICS.--Drilled monitor well, diameter 6 in., depth 84 ft, cased to 19.5 ft, open hole.
INSTRUMENTATION.--Electronic data logger with 15-minute recording interval.
DATUM.--Elevation of land-surface datum is 343.8 ft above North American Vertical Datum of 198, from survey. Measuring point: Top of plywood shelf on top of well casing, about 1.74 ft above land-surface datum.
REMARKS.--In addition to the daily mean water-level table shown below, daily maximum and minimum water levels are also available from the USGS Pennsylvania Water Science Center Office.
PERIOD OF RECORD.--December 2000 to current year.
EXTREMES FOR PERIOD OF RECORD.--The extremes shown are extremes of the instantaneous depth below land surface for the period of record indicated above. Highest water level, 16.37 ft below land-surface datum, Apr. 3, 2005; lowest, 44.95 ft below land-surface datum, Dec. 7, 2001.
EXTREMES FOR CURRENT YEAR.--Highest water level, 16.37 ft below land-surface datum, Apr. 3; lowest, 36.79 ft below land-surface datum, Sept. 30.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.10	21.02	18.22	19.38	19.92	18.57	18.22	18.62	22.45	24.15	22.58	29.04
2	21.11	20.97	18.38	19.54	19.99	18.82	17.19	18.74	22.78	23.58	22.97	29.37
3	21.19	21.03	18.42	19.43	19.86	19.01	16.69	18.91	23.00	23.48	23.44	29.60
4	---	20.78	18.55	19.39	19.84	19.09	17.27	19.15	22.27	23.41	24.03	29.89
5	---	20.17	18.68	19.35	19.84	19.01	17.62	19.29	22.05	23.28	24.53	30.23
6	21.65	20.13	18.94	18.85	19.78	18.93	17.61	19.27	22.09	22.68	25.03	30.57
7	21.71	20.09	18.73	19.14	19.48	18.77	17.56	19.09	21.67	22.71	25.46	30.85
8	21.81	20.36	18.61	18.83	19.30	18.43	17.42	19.18	21.64	22.26	25.92	31.16
9	21.74	20.52	18.75	18.71	19.17	18.77	17.44	19.41	21.80	21.70	26.17	31.58
10	21.85	20.50	18.11	18.64	18.70	18.86	17.39	19.54	21.83	21.70	26.47	31.93
11	22.07	20.33	17.95	18.83	18.83	18.72	17.56	19.63	21.61	21.82	26.98	32.15
12	22.01	20.26	18.25	18.63	18.91	18.71	17.66	19.87	21.60	21.90	27.41	32.37
13	22.14	19.72	18.41	18.56	19.23	18.96	17.63	20.08	21.64	21.98	27.61	32.85
14	22.12	19.62	18.81	18.25	19.21	19.09	17.83	19.92	21.82	22.11	27.83	33.27
15	21.87	19.60	19.06	18.37	18.65	19.24	18.11	20.03	22.13	22.19	27.19	33.50
16	21.94	19.65	19.07	18.20	18.47	19.26	18.13	20.44	22.51	22.06	26.32	33.67
17	22.03	19.65	19.05	18.29	18.59	19.24	18.01	20.77	22.99	21.52	25.72	33.75
18	22.16	19.65	19.02	18.65	18.81	19.27	18.16	21.00	23.44	20.99	25.69	33.92
19	21.75	19.70	18.85	18.53	19.06	19.41	18.35	21.27	23.95	20.93	25.86	34.18
20	21.47	19.70	19.25	18.59	19.06	19.33	18.42	21.25	24.42	21.12	25.60	34.37
21	21.33	19.55	19.48	18.90	18.84	19.40	18.62	20.71	24.71	21.24	25.53	34.76
22	21.26	---	19.67	18.79	19.02	19.55	18.74	20.62	25.06	21.30	26.02	34.99
23	21.14	---	19.35	18.83	18.99	19.21	18.44	20.74	25.53	21.40	26.77	35.25
24	20.96	19.38	19.01	19.16	18.94	18.78	18.28	20.93	25.83	21.52	27.47	35.49
25	20.97	18.99	19.03	19.18	18.93	18.75	18.59	21.05	26.07	21.50	28.03	35.57
26	21.04	19.43	18.98	19.20	18.92	18.82	18.93	21.16	26.28	21.53	28.35	35.68
27	21.03	19.47	19.23	19.75	18.98	18.81	18.75	21.38	26.41	21.66	28.57	36.07
28	21.08	18.56	19.35	19.86	18.69	18.22	18.89	21.65	25.47	21.73	28.66	36.38
29	20.97	18.64	19.22	19.57	---	17.96	19.05	21.68	24.90	21.92	28.51	36.47
30	20.72	18.68	19.45	19.40	---	18.30	18.81	21.76	24.52	22.04	28.51	36.71
31	20.64	---	19.36	19.73	---	18.35	---	22.04	---	22.24	28.58	---
MEAN	21.48	19.86	18.88	18.98	19.14	18.89	18.05	20.30	23.42	22.05	26.38	33.19
MAX	22.16	21.03	19.67	19.86	19.99	19.55	19.05	22.04	26.41	24.15	28.66	36.71
MIN	20.64	18.56	17.95	18.20	18.47	17.96	16.69	18.62	21.60	20.93	22.58	29.04



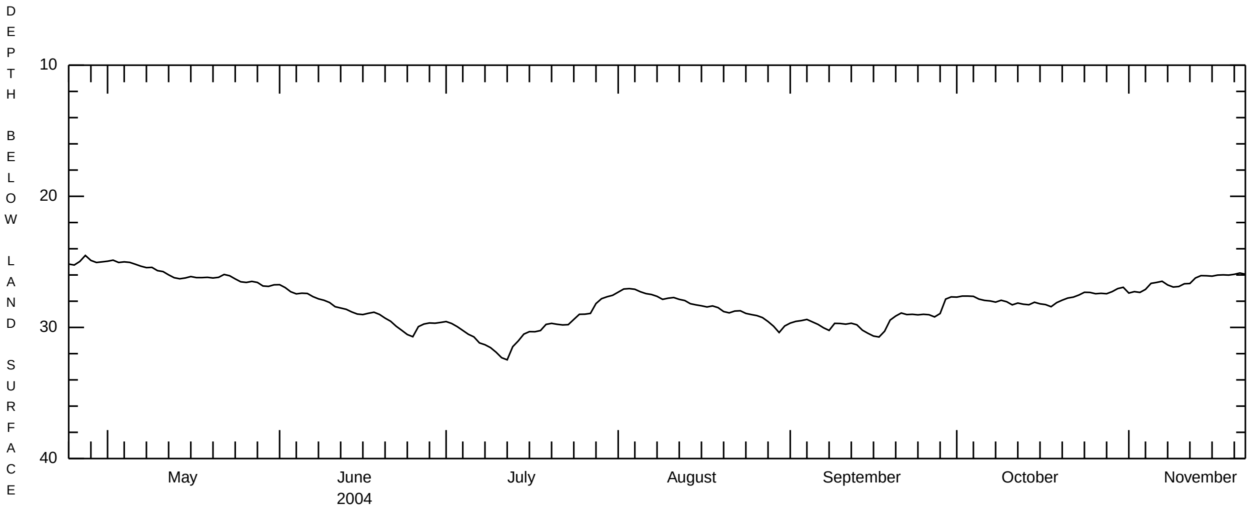
MONTGOMERY COUNTY

401322075171201. Local number, MG 1147.
(North Penn Area 7 Project)

LOCATION.--Lat 40°13’22”, long 75°17’12”, Horizontal datum NAD27, Hydrologic Unit 02040203, on Church Road, southwest from Wissahickon Avenue, Upper Gwynedd Township.
Owner: Teleflex Corporation.
AQUIFER.--Shale of Brunswick Group of Triassic Age.
WELL CHARACTERISTICS.--Drilled monitor well, diameter 6 in., depth 83.5 ft, cased to 18 ft, open hole.
INSTRUMENTATION.--Electronic data logger with 15-minute recording interval.
DATUM.--Elevation of land-surface datum is 351.2 ft above North American Vertical Datum of 1988, from survey. Measuring point: Top 8 in. outer steel well casing, 1.75 ft above land-surface datum.
REMARKS.--In addition to the daily mean water-level table shown below, daily maximum and minimum water levels are also available from the USGS Pennsylvania Water Science Center Office.
PERIOD OF RECORD.--April 2004 to November 2004. (Discontinued)
EXTREMES FOR PERIOD OF RECORD.--The extremes shown are extremes of the instantaneous depth below land surface for the period of record indicated above. Highest water level, 24.37 ft below land-surface datum, Apr. 27, 2004; lowest, 32.81 ft below land-surface datum, July 12, 2004.
EXTREMES FOR CURRENT YEAR.--Highest water level, 25.70 ft below land-surface datum, Nov. 21; lowest, 28.50 ft below land-surface datum, Oct. 11.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27.69	27.38	---	---	---	---	---	---	---	---	---	---
2	27.61	27.27	---	---	---	---	---	---	---	---	---	---
3	27.61	27.33	---	---	---	---	---	---	---	---	---	---
4	27.63	27.10	---	---	---	---	---	---	---	---	---	---
5	27.84	26.64	---	---	---	---	---	---	---	---	---	---
6	27.94	26.57	---	---	---	---	---	---	---	---	---	---
7	27.98	26.48	---	---	---	---	---	---	---	---	---	---
8	28.07	26.76	---	---	---	---	---	---	---	---	---	---
9	27.93	26.92	---	---	---	---	---	---	---	---	---	---
10	28.04	26.88	---	---	---	---	---	---	---	---	---	---
11	28.28	26.67	---	---	---	---	---	---	---	---	---	---
12	28.14	26.65	---	---	---	---	---	---	---	---	---	---
13	28.23	26.23	---	---	---	---	---	---	---	---	---	---
14	28.27	26.05	---	---	---	---	---	---	---	---	---	---
15	28.08	26.06	---	---	---	---	---	---	---	---	---	---
16	28.20	26.09	---	---	---	---	---	---	---	---	---	---
17	28.26	26.01	---	---	---	---	---	---	---	---	---	---
18	28.42	25.99	---	---	---	---	---	---	---	---	---	---
19	28.11	26.01	---	---	---	---	---	---	---	---	---	---
20	27.92	25.95	---	---	---	---	---	---	---	---	---	---
21	27.76	25.85	---	---	---	---	---	---	---	---	---	---
22	27.69	25.94	---	---	---	---	---	---	---	---	---	---
23	27.53	---	---	---	---	---	---	---	---	---	---	---
24	27.32	---	---	---	---	---	---	---	---	---	---	---
25	27.33	---	---	---	---	---	---	---	---	---	---	---
26	27.43	---	---	---	---	---	---	---	---	---	---	---
27	27.40	---	---	---	---	---	---	---	---	---	---	---
28	27.43	---	---	---	---	---	---	---	---	---	---	---
29	27.27	---	---	---	---	---	---	---	---	---	---	---
30	27.04	---	---	---	---	---	---	---	---	---	---	---
31	26.94	---	---	---	---	---	---	---	---	---	---	---
MEAN	27.79	26.49	---	---	---	---	---	---	---	---	---	---
MAX	28.42	27.38	---	---	---	---	---	---	---	---	---	---
MIN	26.94	25.85	---	---	---	---	---	---	---	---	---	---



APRIL 24, 2004 TO NOVEMBER 22, 2004

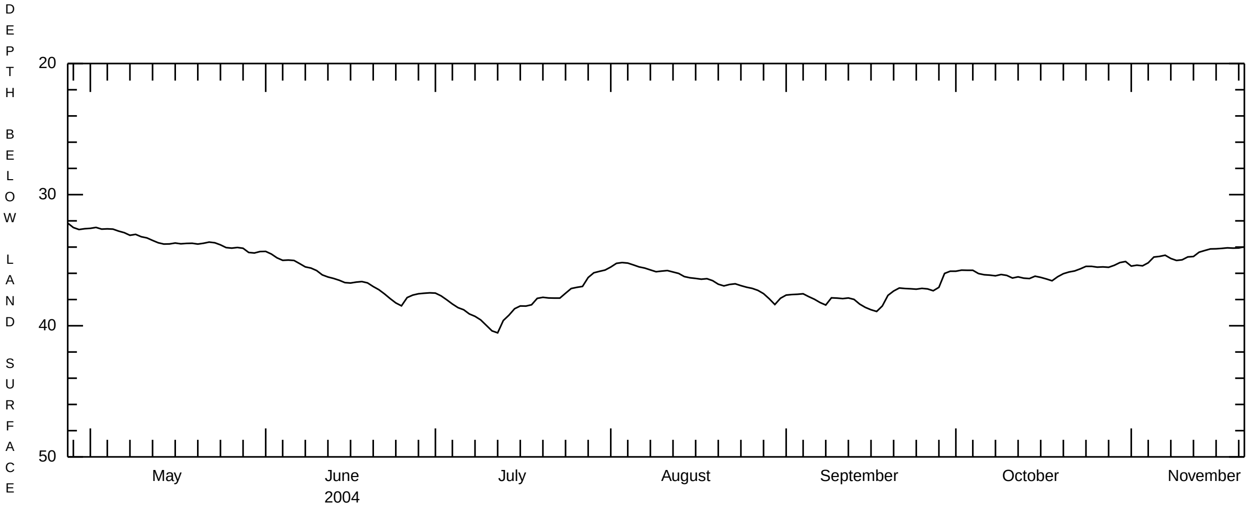
MONTGOMERY COUNTY

401324075171601. Local number, MG 1148.
(North Penn Area 7 Project)

LOCATION.--Lat 40°13’24”, long 75°17’16”, Horizontal datum NAD27, Hydrologic Unit 02040203, on Church Road, southwest from Wissahickon Avenue, Upper Gwynedd Township.
Owner: Teleflex Corporation.
AQUIFER.--Shale of Brunswick Group of Triassic Age.
WELL CHARACTERISTICS.--Drilled monitor well, diameter 6 in., depth 84 ft, cased to 19 ft, open hole.
INSTRUMENTATION.--Electronic data logger with 15-minute recording interval.
DATUM.--Elevation of land-surface datum is 360.7 ft above North American Vertical Datum of 1988, from survey. Measuring point: Top of 8 in. outer steel well casing, about 1.6 ft above land-surface datum.
REMARKS.--In addition to the daily mean water-level table shown below, daily maximum and minimum water levels are also available from the USGS Pennsylvania Water Science Center Office.
PERIOD OF RECORD.--April 2004 to November 2004. (Discontinued)
EXTREMES FOR PERIOD OF RECORD.--The extremes shown are extremes of the instantaneous depth below land surface for the period of record indicated above. Highest water level, 32.10 ft below land-surface datum, Apr. 27, 2004; lowest, 40.79 ft below land-surface datum, July 12, 2004.
EXTREMES FOR CURRENT YEAR.--Highest water level, 33.90 ft below land-surface datum, Nov. 22; lowest, 36.63 ft below land-surface datum, Oct. 18.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35.84	35.45	---	---	---	---	---	---	---	---	---	---
2	35.76	35.38	---	---	---	---	---	---	---	---	---	---
3	35.77	35.43	---	---	---	---	---	---	---	---	---	---
4	35.77	35.20	---	---	---	---	---	---	---	---	---	---
5	36.02	34.76	---	---	---	---	---	---	---	---	---	---
6	36.11	34.71	---	---	---	---	---	---	---	---	---	---
7	36.14	34.62	---	---	---	---	---	---	---	---	---	---
8	36.19	34.87	---	---	---	---	---	---	---	---	---	---
9	36.09	35.02	---	---	---	---	---	---	---	---	---	---
10	36.16	34.97	---	---	---	---	---	---	---	---	---	---
11	36.36	34.75	---	---	---	---	---	---	---	---	---	---
12	36.27	34.72	---	---	---	---	---	---	---	---	---	---
13	36.37	34.39	---	---	---	---	---	---	---	---	---	---
14	36.40	34.26	---	---	---	---	---	---	---	---	---	---
15	36.22	34.14	---	---	---	---	---	---	---	---	---	---
16	36.31	34.13	---	---	---	---	---	---	---	---	---	---
17	36.43	34.10	---	---	---	---	---	---	---	---	---	---
18	36.57	34.06	---	---	---	---	---	---	---	---	---	---
19	36.26	34.08	---	---	---	---	---	---	---	---	---	---
20	36.03	34.07	---	---	---	---	---	---	---	---	---	---
21	35.90	33.98	---	---	---	---	---	---	---	---	---	---
22	35.82	---	---	---	---	---	---	---	---	---	---	---
23	35.66	---	---	---	---	---	---	---	---	---	---	---
24	35.47	---	---	---	---	---	---	---	---	---	---	---
25	35.47	---	---	---	---	---	---	---	---	---	---	---
26	35.53	---	---	---	---	---	---	---	---	---	---	---
27	35.51	---	---	---	---	---	---	---	---	---	---	---
28	35.54	---	---	---	---	---	---	---	---	---	---	---
29	35.39	---	---	---	---	---	---	---	---	---	---	---
30	35.18	---	---	---	---	---	---	---	---	---	---	---
31	35.10	---	---	---	---	---	---	---	---	---	---	---
MEAN	35.92	34.62	---	---	---	---	---	---	---	---	---	---
MAX	36.57	35.45	---	---	---	---	---	---	---	---	---	---
MIN	35.10	33.98	---	---	---	---	---	---	---	---	---	---



APRIL 27, 2004 TO NOVEMBER 21, 2004

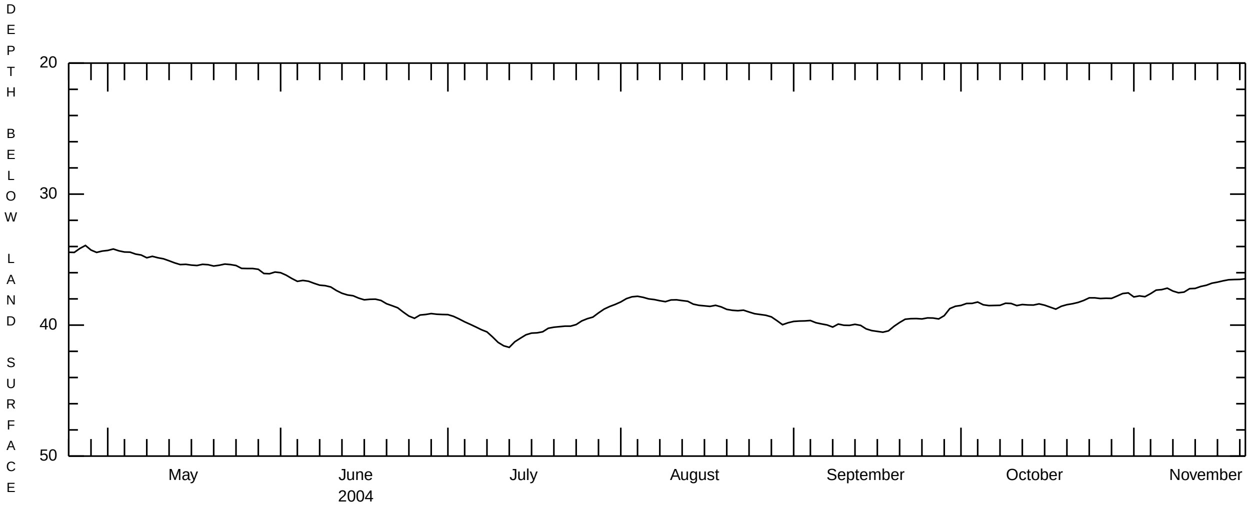
MONTGOMERY COUNTY

401321075171701. Local number, MG 1149.
(North Penn Area 7 Project)

LOCATION.--Lat 40°13’21”, long 75°17’17”, Horizontal datum NAD27, Hydrologic Unit 02040203, on Church Road, southwest from Wissahickon Avenue, Upper Gwynedd Township.
Owner: Teleflex Corporation.
AQUIFER.--Shale of Brunswick Group of Triassic Age.
WELL CHARACTERISTICS.--Drilled monitor well, diameter 6 in., depth 84 ft, cased to 18.5 ft, open hole.
INSTRUMENTATION.--Electronic data logger with 15-minute recording interval.
DATUM.--Elevation of land-surface datum is 358.0 ft above North American Vertical Datum of 1988, from survey. Measuring point: Top of 8 in. outer steel well casing, 1.55 ft above land-surface datum.
REMARKS.--In addition to the daily mean water-level table shown below, daily maximum and minimum water levels are also available from the USGS Pennsylvania Water Science Center Office.
PERIOD OF RECORD.--April 2004 to November 2004. (Discontinued)
EXTREMES FOR PERIOD OF RECORD.--The extremes shown are extremes of the instantaneous depth below land surface for the period of record indicated above. Highest water level, 33.82 ft below land-surface datum, Apr. 27, 2004; lowest, 41.83 ft below land-surface datum, July 12, 2004.
EXTREMES FOR CURRENT YEAR.--Highest water level, 36.37 ft below land-surface datum, Nov. 22; lowest, 38.84 ft below land-surface datum, Oct. 18.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38.50	37.85	---	---	---	---	---	---	---	---	---	---
2	38.35	37.77	---	---	---	---	---	---	---	---	---	---
3	38.34	37.83	---	---	---	---	---	---	---	---	---	---
4	38.24	37.60	---	---	---	---	---	---	---	---	---	---
5	38.45	37.33	---	---	---	---	---	---	---	---	---	---
6	38.51	37.29	---	---	---	---	---	---	---	---	---	---
7	38.50	37.18	---	---	---	---	---	---	---	---	---	---
8	38.49	37.40	---	---	---	---	---	---	---	---	---	---
9	38.33	37.53	---	---	---	---	---	---	---	---	---	---
10	38.35	37.48	---	---	---	---	---	---	---	---	---	---
11	38.51	37.22	---	---	---	---	---	---	---	---	---	---
12	38.43	37.20	---	---	---	---	---	---	---	---	---	---
13	38.46	37.05	---	---	---	---	---	---	---	---	---	---
14	38.47	36.96	---	---	---	---	---	---	---	---	---	---
15	38.38	36.80	---	---	---	---	---	---	---	---	---	---
16	38.48	36.72	---	---	---	---	---	---	---	---	---	---
17	38.63	36.62	---	---	---	---	---	---	---	---	---	---
18	38.78	36.54	---	---	---	---	---	---	---	---	---	---
19	38.56	36.52	---	---	---	---	---	---	---	---	---	---
20	38.44	36.51	---	---	---	---	---	---	---	---	---	---
21	38.37	36.46	---	---	---	---	---	---	---	---	---	---
22	38.27	---	---	---	---	---	---	---	---	---	---	---
23	38.12	---	---	---	---	---	---	---	---	---	---	---
24	37.92	---	---	---	---	---	---	---	---	---	---	---
25	37.92	---	---	---	---	---	---	---	---	---	---	---
26	37.97	---	---	---	---	---	---	---	---	---	---	---
27	37.95	---	---	---	---	---	---	---	---	---	---	---
28	37.96	---	---	---	---	---	---	---	---	---	---	---
29	37.78	---	---	---	---	---	---	---	---	---	---	---
30	37.59	---	---	---	---	---	---	---	---	---	---	---
31	37.54	---	---	---	---	---	---	---	---	---	---	---
MEAN	38.28	37.14	---	---	---	---	---	---	---	---	---	---
MAX	38.78	37.85	---	---	---	---	---	---	---	---	---	---
MIN	37.54	36.46	---	---	---	---	---	---	---	---	---	---



APRIL 24, 2004 TO NOVEMBER 21, 2004

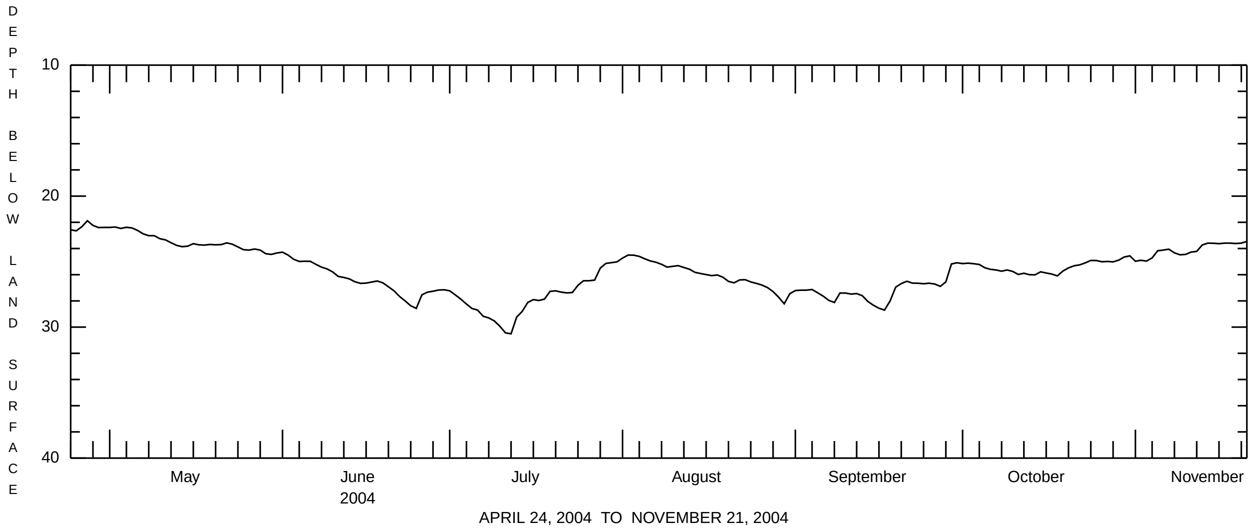
MONTGOMERY COUNTY

401323075171201. Local number, MG 1842.
(North Penn Area 7 Project)

LOCATION.--Lat 40°13’23”, long 75°17’12”, Horizontal datum NAD27, Hydrologic Unit 02040203, on Church Road, southwest from Wissahickon Avenue, Upper Gwynedd Township.
Owner: Teleflex Corporation.
AQUIFER.--Shale of Brunswick Group of Triassic Age.
WELL CHARACTERISTICS.--Drilled monitor well, diameter 6 in., depth 86 ft, cased to 18 ft, open hole.
INSTRUMENTATION.--Electronic data logger with 15-minute recording interval.
DATUM.--Elevation of land-surface datum is 348.0 ft above North American Vertical Datum of 1988, from survey. Measuring point: Top of 8 in. outer steel well casing, 2.3 ft above land-surface datum.
REMARKS.--In addition to the daily mean water-level table shown below, daily maximum and minimum water levels are also available from the USGS Pennsylvania Water Science Center Office.
PERIOD OF RECORD.--April 2004 to November 2004. (Discontinued)
EXTREMES FOR PERIOD OF RECORD.--The extremes shown are extremes of the instantaneous depth below land surface for the period of record indicated above. Highest water level, 21.76 ft below land-surface datum, Apr. 27, 2004; lowest, 30.96 ft below land-surface datum, July 12, 2004.
EXTREMES FOR CURRENT YEAR.--Highest water level, 23.38 ft below land-surface datum, Nov. 21; lowest, 26.18 ft below land-surface datum, Oct. 11.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.15	24.97	---	---	---	---	---	---	---	---	---	---
2	25.12	24.90	---	---	---	---	---	---	---	---	---	---
3	25.16	24.96	---	---	---	---	---	---	---	---	---	---
4	25.22	24.72	---	---	---	---	---	---	---	---	---	---
5	25.47	24.17	---	---	---	---	---	---	---	---	---	---
6	25.59	24.12	---	---	---	---	---	---	---	---	---	---
7	25.64	24.05	---	---	---	---	---	---	---	---	---	---
8	25.73	24.33	---	---	---	---	---	---	---	---	---	---
9	25.64	24.48	---	---	---	---	---	---	---	---	---	---
10	25.75	24.45	---	---	---	---	---	---	---	---	---	---
11	25.98	24.27	---	---	---	---	---	---	---	---	---	---
12	25.89	24.22	---	---	---	---	---	---	---	---	---	---
13	26.00	23.73	---	---	---	---	---	---	---	---	---	---
14	26.01	23.59	---	---	---	---	---	---	---	---	---	---
15	25.78	23.60	---	---	---	---	---	---	---	---	---	---
16	25.87	23.63	---	---	---	---	---	---	---	---	---	---
17	25.95	23.59	---	---	---	---	---	---	---	---	---	---
18	26.09	23.59	---	---	---	---	---	---	---	---	---	---
19	25.72	23.62	---	---	---	---	---	---	---	---	---	---
20	25.48	23.59	---	---	---	---	---	---	---	---	---	---
21	25.32	23.46	---	---	---	---	---	---	---	---	---	---
22	25.25	---	---	---	---	---	---	---	---	---	---	---
23	25.10	---	---	---	---	---	---	---	---	---	---	---
24	24.91	---	---	---	---	---	---	---	---	---	---	---
25	24.92	---	---	---	---	---	---	---	---	---	---	---
26	25.01	---	---	---	---	---	---	---	---	---	---	---
27	24.99	---	---	---	---	---	---	---	---	---	---	---
28	25.02	---	---	---	---	---	---	---	---	---	---	---
29	24.89	---	---	---	---	---	---	---	---	---	---	---
30	24.65	---	---	---	---	---	---	---	---	---	---	---
31	24.56	---	---	---	---	---	---	---	---	---	---	---
MEAN	25.41	24.10	---	---	---	---	---	---	---	---	---	---
MAX	26.09	24.97	---	---	---	---	---	---	---	---	---	---
MIN	24.56	23.46	---	---	---	---	---	---	---	---	---	---



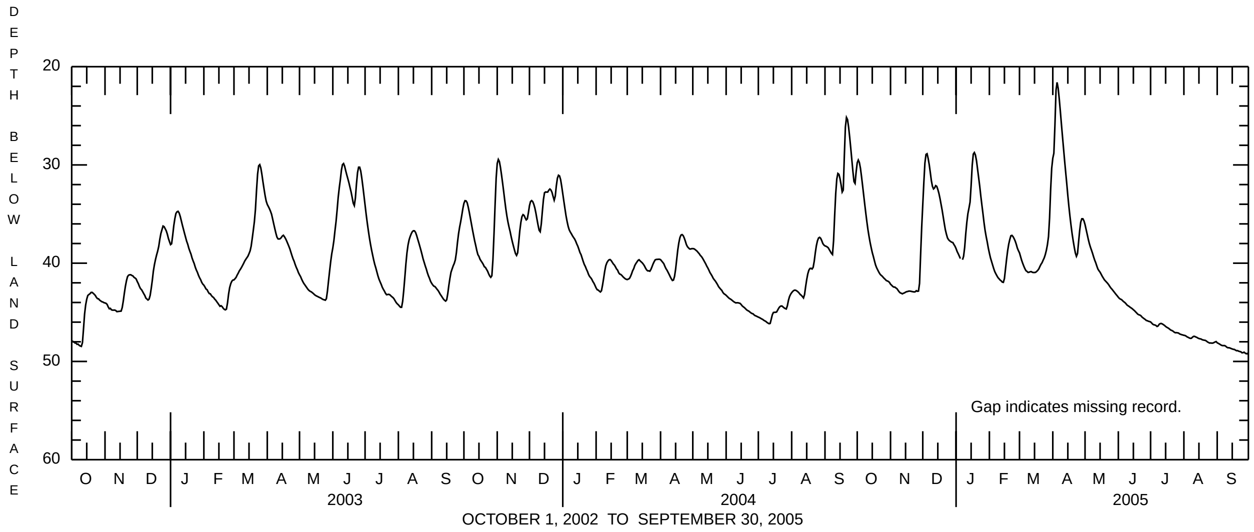
NORTHAMPTON COUNTY

404745075184001. Local number, NP 820.

LOCATION.--Lat 40°47'45", long 75°18'40", Hydrologic Unit 02040105, at 0.75 mi east of Bushkill Center on SR 1010, at Jacobsburg State Park. Owner: Jacobsburg State Park.
AQUIFER.--Martinsburg Shale.
WELL CHARACTERISTICS.--Drilled observation well, diameter 6 in, depth 218 ft, cased to 50 ft.
INSTRUMENTATION.--Data collection platform with 60-minute recording interval. Satellite telemetry at station.
DATUM.--Elevation of land-surface datum is 578 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of metal shelf, 3.25 ft above land-surface datum.
REMARKS.--In addition to the daily mean water level table shown below, daily maximum and minimum water levels, are also available from the USGS Pennsylvania Water Science Center Office.
PERIOD OF RECORD.--May 3, 2001 to current year.
EXTREMES FOR PERIOD OF RECORD.--The extremes shown are extremes of the instantaneous depth below land surface for the period of record indicated above.
Highest water level, 21.52 ft below land-surface datum, Apr. 5, 2005; lowest, 49.79 ft below land-surface datum, Dec. 8, 2001.
EXTREMES FOR CURRENT YEAR.--Highest water level, 21.52 ft below land-surface datum, Apr. 5; lowest, 49.35 ft below land-surface datum, Sept. 30.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29.78	42.14	34.04	38.52	38.98	38.95	29.32	36.07	43.47	45.98	47.34	48.10
2	29.50	42.24	31.79	38.82	39.45	39.33	28.81	36.56	43.59	46.09	47.36	48.16
3	29.75	42.36	29.81	39.04	39.82	39.70	25.95	37.05	43.66	46.21	47.42	48.22
4	30.34	42.43	28.93	39.28	40.18	40.01	22.39	37.56	43.71	46.27	47.50	48.29
5	31.18	42.43	28.86	39.53	40.54	40.30	21.60	38.00	43.82	46.29	47.55	48.36
6	32.10	42.52	29.33	---	40.86	40.55	22.19	38.36	43.92	46.34	47.61	48.39
7	33.07	42.60	29.97	39.65	41.08	40.76	23.25	38.67	44.00	46.44	47.65	48.39
8	34.01	42.76	30.76	39.29	41.28	40.84	24.51	39.00	44.11	46.39	47.64	48.39
9	34.92	42.91	31.60	38.40	41.47	40.94	25.81	39.36	44.25	46.22	47.53	48.46
10	35.79	43.02	32.18	37.00	41.59	40.92	27.07	39.69	44.33	46.15	47.45	48.56
11	36.61	43.06	32.44	35.85	41.72	40.87	28.33	39.97	44.40	46.14	47.45	48.61
12	37.28	43.12	32.34	34.96	41.80	40.86	29.57	40.30	44.49	46.19	47.51	48.61
13	37.89	43.06	32.11	34.39	41.93	40.93	30.74	40.60	44.56	46.26	47.55	48.64
14	38.43	43.02	32.18	33.79	41.95	40.95	31.91	40.77	44.64	46.34	47.62	48.69
15	38.92	42.95	32.49	32.10	41.57	40.95	33.13	40.92	44.74	46.44	47.67	48.73
16	39.31	42.90	32.88	30.04	40.57	40.93	34.24	41.12	44.83	46.52	47.70	48.77
17	39.74	42.88	33.40	28.90	39.59	40.84	35.24	41.33	44.95	46.58	47.72	48.78
18	40.16	42.84	33.99	28.74	38.73	40.73	36.18	41.51	45.06	46.65	47.79	48.85
19	40.45	42.84	34.58	28.99	38.05	40.58	37.02	41.69	45.18	46.74	47.82	48.91
20	40.67	42.86	35.27	29.57	37.58	40.34	37.73	41.81	45.25	46.82	47.84	48.90
21	40.89	42.89	35.95	30.43	37.21	40.12	38.39	41.93	45.28	46.86	47.86	48.96
22	41.08	42.91	36.59	31.28	37.17	39.95	38.96	42.05	45.35	46.93	47.93	48.99
23	41.21	42.93	37.04	32.17	37.30	39.70	39.30	42.19	45.48	47.02	48.02	49.02
24	41.30	42.91	37.43	33.16	37.50	39.47	39.02	42.36	45.57	47.08	48.08	49.12
25	41.42	42.80	37.61	34.06	37.74	39.13	37.84	42.52	45.65	47.07	48.13	49.11
26	41.54	42.86	37.72	34.93	38.07	38.70	36.71	42.64	45.73	47.09	48.12	49.06
27	41.64	42.84	37.80	35.87	38.46	38.13	35.83	42.78	45.83	47.11	48.14	49.15
28	41.76	42.06	37.87	36.67	38.72	37.30	35.48	42.92	45.86	47.20	48.13	49.22
29	41.81	39.15	37.90	37.29	---	35.40	35.48	43.06	45.91	47.24	48.08	49.19
30	41.86	36.32	38.10	37.85	---	32.53	35.69	43.20	45.94	47.28	48.02	49.30
31	41.96	---	38.28	38.47	---	30.34	---	43.33	---	47.31	47.98	---
MEAN	37.62	42.42	33.91	34.97	39.68	39.39	31.92	40.62	44.79	46.62	47.75	48.73
MAX	41.96	43.12	38.28	39.65	41.95	40.95	39.30	43.33	45.94	47.31	48.14	49.30
MIN	29.50	36.32	28.86	28.74	37.17	30.34	21.60	36.07	43.47	45.98	47.34	48.10

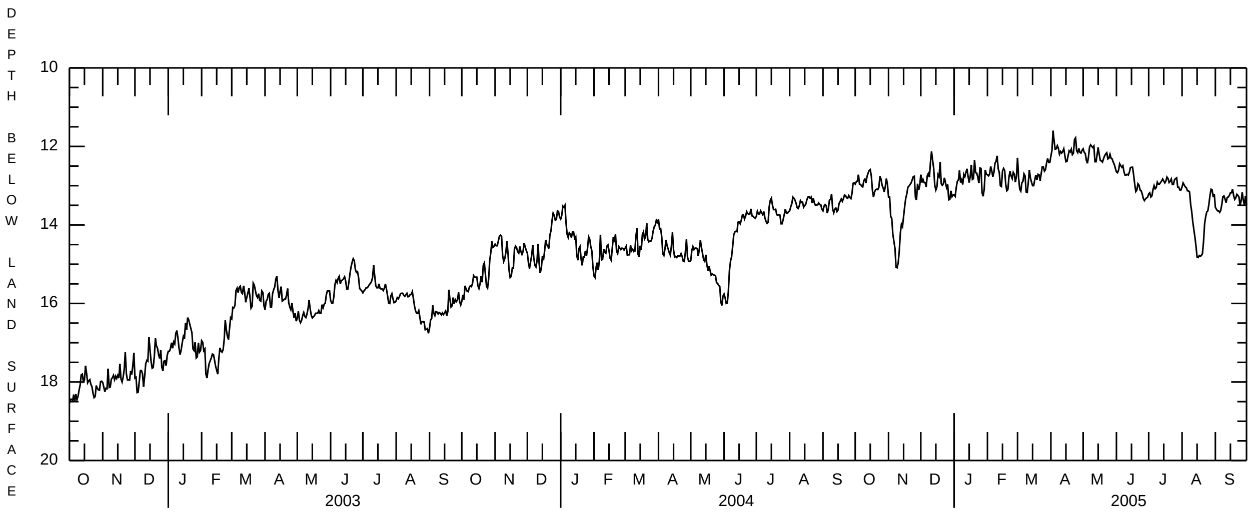


395342075102101. Local number, PH 12.

LOCATION.--Lat 39°53'42", long 75°10'21", Hydrologic Unit 02040202, at Barracks and East Fourth Streets, Philadelphia.
Owner: U.S. Naval Base.
AQUIFER.--Middle Sand Unit of Potomac-Raritan-Magothy aquifer system of Late Cretaceous age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 8 in., depth 101 ft, cased to 93 ft, screened from 93-101 ft.
INSTRUMENTATION.--Data collection platform with 30-minute recording interval. Satellite telemetry at station.
DATUM.--Elevation of land-surface datum is 8.6 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.3 ft above land-surface datum. Prior to May 27, 1998, top of casing, 1.8 ft above land-surface datum.
REMARKS.--In addition to the daily maximum water level table shown below, daily minimum and mean water levels, since October 1994, are also available from the USGS Pennsylvania Water Science Center Office. Mean daily fluctuation caused by tidal loading, 0.20 ft.
PERIOD OF RECORD.--January 1952 to current year.
EXTREMES FOR PERIOD OF RECORD.--Prior to October 2000, the extremes were based on extremes of the daily maximum depth below land-surface datum. Since that date, the extremes are based on the instantaneous depth below land-surface datum.
Highest water level, 10.65 ft below land-surface datum, Dec. 17, 18, 1996; lowest, 39.60 ft below land-surface datum, July 20, 1955.
EXTREMES FOR CURRENT YEAR.--Highest water level, 11.15 ft below land-surface datum, Apr. 2, 3; lowest, 15.09 ft below land-surface datum, Nov. 9.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.96	13.29	12.72	13.23	12.72	12.29	12.25	12.06	12.65	13.21	13.03	13.55
2	12.90	13.29	12.92	13.27	12.75	12.80	12.10	12.15	12.67	13.18	12.93	13.60
3	12.88	13.78	12.84	13.04	12.71	13.09	11.60	12.18	12.60	13.29	12.98	13.64
4	12.72	13.84	12.92	12.89	12.51	13.14	11.86	12.35	12.44	13.26	13.03	13.64
5	12.96	14.24	12.92	12.85	12.62	12.93	12.07	12.43	12.49	13.10	13.05	13.68
6	12.97	14.42	13.03	12.61	12.77	12.89	12.06	12.26	12.53	13.00	13.13	13.63
7	13.01	14.60	12.75	12.92	12.66	12.70	11.98	12.01	12.49	13.08	13.13	13.48
8	13.03	15.08	12.69	12.85	12.43	12.75	12.05	11.96	12.65	13.05	13.16	13.28
9	12.87	15.09	12.78	12.97	12.38	13.16	12.20	12.00	12.73	12.91	13.47	13.26
10	12.83	14.96	12.40	12.71	12.24	13.17	12.13	12.03	12.73	12.96	13.66	13.34
11	12.93	14.66	12.13	12.77	12.57	12.92	12.17	11.99	12.71	12.96	13.92	13.43
12	12.76	14.20	12.36	12.66	12.66	12.60	12.13	12.39	12.73	12.92	14.12	13.30
13	12.68	13.98	12.56	12.57	13.00	12.81	12.06	12.39	12.66	12.88	14.31	13.29
14	12.61	14.04	12.99	12.77	13.02	12.91	12.23	12.21	12.54	12.83	14.54	13.25
15	12.59	13.78	13.11	12.92	12.63	13.00	12.39	12.03	12.53	12.88	14.82	13.18
16	12.76	13.53	13.03	12.76	12.56	13.00	12.38	12.21	12.53	12.93	14.83	13.18
17	13.12	13.32	12.72	12.47	12.61	12.85	12.24	12.36	12.73	12.88	14.78	13.09
18	13.29	13.21	12.77	12.84	12.96	12.73	12.11	12.37	12.96	12.78	14.80	13.25
19	13.16	13.04	12.40	12.82	13.13	12.85	12.14	12.40	13.15	12.82	14.78	13.35
20	13.10	13.01	12.95	12.35	13.10	12.71	12.07	12.31	13.11	12.92	14.73	13.31
21	13.09	12.97	12.99	12.67	12.78	12.72	12.21	12.24	12.95	12.89	14.43	13.22
22	13.10	12.93	12.95	12.68	12.63	12.87	12.17	12.19	12.99	12.83	13.97	13.25
23	13.04	12.85	12.80	12.78	12.75	12.69	11.82	12.16	13.11	12.97	13.79	13.29
24	12.76	12.77	12.93	12.93	12.82	12.52	11.78	12.32	13.13	12.97	13.67	13.51
25	12.83	12.76	13.05	12.55	12.66	12.52	12.11	12.30	13.21	12.85	13.64	13.38
26	12.99	13.30	12.97	12.56	12.71	12.63	12.16	12.20	13.33	12.82	13.47	13.17
27	13.06	13.36	13.36	13.18	12.91	12.59	12.05	12.30	13.38	12.80	13.25	13.37
28	13.16	12.95	13.35	13.27	12.75	12.42	12.15	12.32	13.34	13.04	13.09	13.49
29	13.02	13.11	13.13	13.08	---	12.31	12.17	12.40	13.31	13.04	13.11	13.26
30	12.82	13.00	13.28	12.60	---	12.41	12.10	12.46	13.29	13.11	13.29	13.50
31	12.97	---	13.24	12.71	---	12.41	---	12.56	---	13.11	13.21	---
MEAN	12.93	13.65	12.87	12.82	12.72	12.75	12.10	12.24	12.86	12.98	13.75	13.37
MAX	13.29	15.09	13.36	13.27	13.13	13.17	12.39	12.56	13.38	13.29	14.83	13.68
MIN	12.59	12.76	12.13	12.35	12.24	12.29	11.60	11.96	12.44	12.78	12.93	13.09



OCTOBER 1, 2002 TO SEPTEMBER 30, 2005

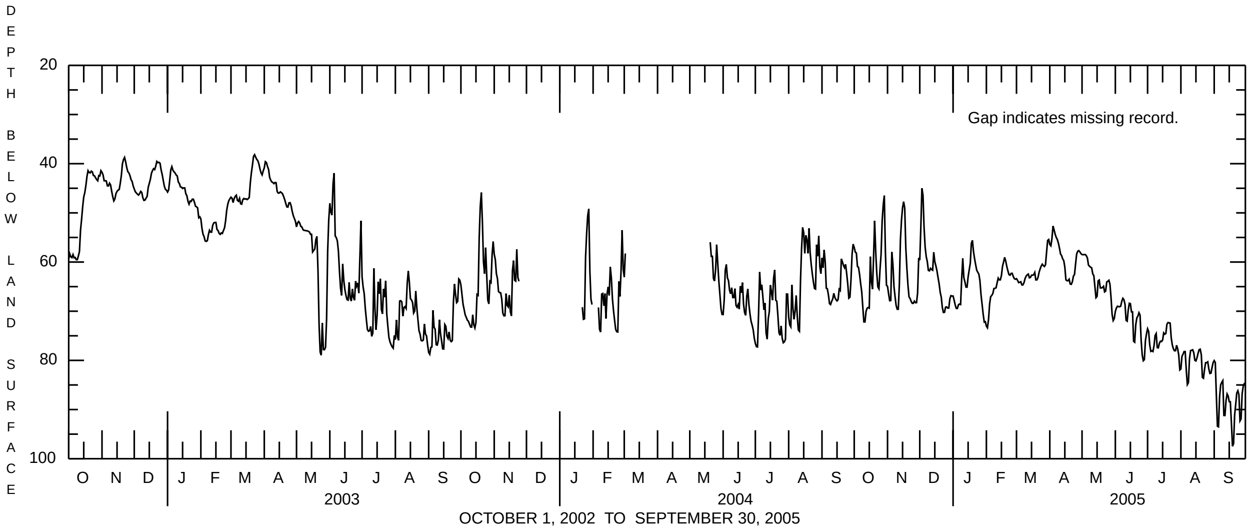
PIKE COUNTY

410940074583401. Local number, PI 200.

LOCATION.--Lat 41°09'40", long 74°58'34", Hydrologic Unit 02040104, at Pocono Mountain Lake Estates.
Owner: Pocono Mountain Lake Estates.
AQUIFER.--Sandstone and siltstone of Towamensing Member of Catskill Formation of Late Devonian age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 8 in., depth 799 ft, cased to 86 ft, open hole.
INSTRUMENTATION.--Electronic data logger with 30-minute recording interval.
DATUM.--Elevation of land-surface datum is 1,180 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of plywood shelf, 3.27 ft above land-surface datum. Prior to October 1983, published as 1.4 ft above land-surface datum.
REMARKS.--In addition to the daily maximum water level table shown below, daily minimum and mean water levels, since October 1994, are also available from the USGS Pennsylvania Water Science Center Office.
PERIOD OF RECORD.--July 1981 to current year.
EXTREMES FOR PERIOD OF RECORD.--Prior to October 2000, the extremes were based on extremes of the daily maximum depth below land-surface datum. Since that date, the extremes are based on the instantaneous depth below land-surface datum.
Highest water level, 24.30 ft below land-surface datum, June 1, 1984; lowest recorded, 98.67 ft below land-surface datum, Sept. 10, 26-29, Oct. 1 1998.
EXTREMES FOR CURRENT YEAR.--Highest water level, 40.20 ft below land-surface datum, Dec. 4; lowest, 97.45 ft below land-surface datum, Sept. 18.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57.04	64.95	59.62	66.92	73.03	63.39	56.43	58.48	70.03	73.57	81.75	80.05
2	57.99	66.46	52.92	67.76	73.37	63.72	56.70	58.51	69.35	74.13	79.17	80.45
3	58.15	67.86	44.99	68.77	71.65	64.18	55.24	58.48	68.99	76.82	78.74	87.15
4	60.90	67.83	46.41	69.43	68.52	64.13	52.68	58.47	69.06	78.17	78.19	93.39
5	61.09	57.96	52.98	69.43	67.03	64.01	53.47	58.72	69.10	78.05	78.21	93.51
6	62.53	60.40	56.94	68.67	66.78	64.65	54.35	59.17	68.97	78.19	81.97	87.45
7	64.43	65.02	58.91	68.54	66.41	64.65	54.97	60.61	67.97	76.99	84.92	84.99
8	66.08	67.00	59.90	68.64	65.39	64.18	55.42	60.87	67.38	74.95	84.53	84.49
9	69.20	68.82	61.70	63.47	65.35	63.35	56.14	61.05	67.67	74.55	79.70	84.12
10	72.17	69.60	61.79	59.24	65.24	62.86	57.16	61.19	68.60	77.41	78.01	91.19
11	72.17	69.60	61.28	63.17	64.21	62.59	58.37	62.43	71.85	77.45	77.94	91.21
12	70.04	64.60	61.51	64.02	63.27	62.45	58.70	62.78	72.02	76.51	77.85	88.16
13	69.40	55.42	61.66	65.10	63.63	63.20	59.35	65.05	69.76	76.10	78.47	86.82
14	69.24	51.45	58.00	65.10	63.62	63.13	59.73	67.25	68.39	76.17	80.00	87.25
15	69.37	48.94	59.93	63.02	62.75	62.68	61.04	66.97	68.46	75.85	80.11	88.40
16	58.90	47.72	60.77	61.59	60.86	62.67	63.61	63.82	70.13	74.41	79.46	88.41
17	64.03	49.03	61.80	60.26	60.00	62.60	63.80	63.66	70.14	74.68	78.54	92.67
18	65.50	57.07	63.16	56.22	59.04	62.13	63.80	65.26	76.12	74.53	77.81	97.45
19	59.12	61.23	64.39	55.59	59.82	63.63	63.49	65.27	76.30	72.66	77.73	96.94
20	51.62	64.70	66.15	57.88	60.92	63.63	64.47	65.18	72.71	72.31	78.86	91.12
21	57.92	67.08	67.15	59.31	61.77	63.18	64.53	64.93	71.36	72.35	83.46	88.98
22	62.29	67.43	69.24	60.53	62.55	62.12	64.01	66.07	70.98	72.42	83.63	86.64
23	65.05	67.99	70.25	61.67	62.68	61.41	62.87	65.89	70.31	75.39	81.83	86.17
24	65.45	68.40	70.22	62.08	62.31	60.82	62.53	64.06	70.79	76.86	80.47	86.97
25	61.52	68.39	69.18	62.46	62.30	60.44	60.38	63.91	75.88	77.64	80.46	92.31
26	58.43	67.95	69.12	63.82	62.93	60.72	58.38	63.71	78.87	78.04	80.30	91.90
27	51.69	68.27	69.37	66.66	63.37	60.91	57.81	64.52	80.07	78.03	81.74	86.76
28	48.37	68.26	69.35	68.61	63.50	60.54	57.68	67.29	79.84	76.93	82.66	85.31
29	46.48	66.27	67.50	70.58	---	58.00	57.94	70.68	75.98	77.62	82.60	84.72
30	57.70	59.17	66.84	72.21	---	55.61	58.29	71.90	74.57	78.91	81.43	84.56
31	64.72	---	66.92	72.14	---	55.42	---	71.49	---	81.94	80.45	---
MEAN	61.89	63.16	62.26	64.61	64.37	62.16	59.11	63.80	71.72	76.12	80.35	88.32
MAX	72.17	69.60	70.25	72.21	73.37	64.65	64.53	71.90	80.07	81.94	84.92	97.45
MIN	46.48	47.72	44.99	55.59	59.04	55.42	52.68	58.47	67.38	72.31	77.73	80.05



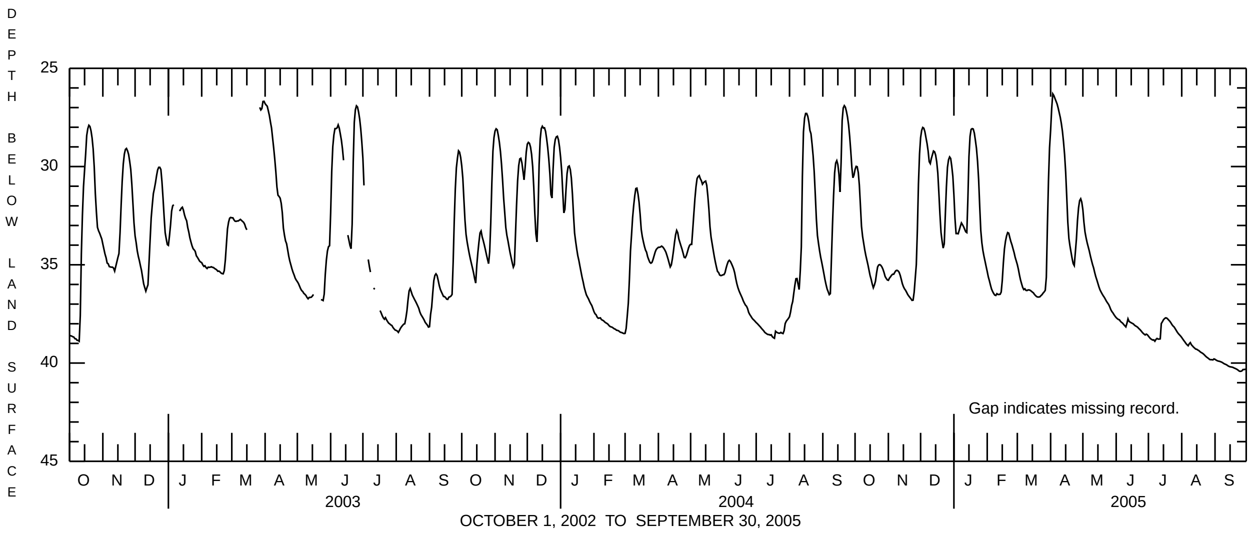
PIKE COUNTY

411833075133601. Local number PI 522.

LOCATION.--Lat 41°18’ 33”, long 75°13’ 36”, Hydrologic Unit 02040103, at Promised Land State Park.
Owner: U.S. Geological Survey.
AQUIFER.-- Catskill Formation.
WELL CHARACTERISTICS.--Drilled unused public supply well, diameter 6 in., depth 150 ft, cased to 28 ft, open hole.
INSTRUMENTATION.--Data collection platform with 60-minute recording interval. Satellite telemetry at station.
DATUM.--Elevation of land-surface datum is 1,730 ft above National Geodetic Vertical Datum of 1929, from survey. Measuring point: Top of casing, 3.64 ft above land-surface datum.
REMARKS.--In addition to the daily mean water-level table shown below, daily maximum and minimum water levels are also available from the USGS Pennsylvania Water Science Center Office.
PERIOD OF RECORD.--October 2001 to current year.
EXTREMES FOR PERIOD OF RECORD.--The extremes shown are extremes of the instantaneous depth below land-surface datum for the period of record indicated above.
Highest water level, 26.30 ft below land-surface datum, Apr. 3, 2005; lowest, 40.96 ft below land-surface datum, Sept. 15, 2002.
EXTREMES FOR CURRENT YEAR.--Highest water level, 26.30 ft below land-surface datum, Apr. 3; lowest, 40.42 ft below land-surface datum, Sept. 24-26.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30.15	35.79	28.53	31.45	35.34	34.99	28.14	32.20	37.69	38.63	38.70	39.81
2	29.99	35.68	28.16	32.64	35.61	35.23	27.04	32.84	37.74	38.70	38.78	39.85
3	30.01	35.61	28.01	33.41	35.81	35.52	26.30	33.33	37.78	38.76	38.86	39.88
4	30.31	35.53	28.05	33.41	36.03	35.77	26.39	33.63	37.80	38.80	38.93	39.90
5	30.95	35.48	28.23	33.42	36.23	35.97	26.53	33.88	37.88	38.83	39.01	39.91
6	31.98	35.48	28.53	33.23	36.36	36.15	26.67	34.09	37.93	38.82	39.07	39.93
7	33.04	35.38	28.83	33.04	36.46	36.26	26.81	34.30	37.97	38.89	39.12	39.95
8	33.55	35.30	29.21	32.87	36.54	36.22	27.02	34.55	38.04	38.80	39.02	39.98
9	33.89	35.28	29.75	32.96	36.56	36.30	27.26	34.77	38.10	38.75	38.96	40.02
10	34.23	35.31	29.85	33.06	36.47	36.31	27.50	34.98	38.16	38.78	39.07	40.05
11	34.52	35.38	29.59	33.19	36.51	36.28	27.82	35.16	37.98	38.78	39.13	40.07
12	34.76	35.53	29.40	33.32	36.51	36.28	28.21	35.39	37.75	38.77	39.19	40.10
13	35.00	35.74	29.21	33.36	36.50	36.30	28.74	35.60	37.88	37.99	39.24	40.14
14	35.28	35.96	29.25	31.64	36.39	36.34	29.40	35.77	37.92	37.90	39.29	40.17
15	35.55	36.11	29.42	29.49	35.81	36.39	30.29	35.95	37.95	37.80	39.30	40.19
16	35.74	36.22	29.76	28.46	34.91	36.43	31.53	36.13	37.98	37.74	39.34	40.20
17	35.98	36.30	30.33	28.11	34.20	36.51	32.83	36.28	38.01	37.70	39.37	40.21
18	36.17	36.40	31.34	28.07	33.80	36.57	33.66	36.39	38.07	37.71	39.42	40.23
19	36.03	36.51	32.43	28.09	33.53	36.62	34.04	36.49	38.11	37.76	39.46	40.26
20	35.84	36.59	33.36	28.30	33.36	36.64	34.36	36.58	38.14	37.82	39.49	40.28
21	35.43	36.66	33.80	28.67	33.39	36.64	34.68	36.66	38.18	37.88	39.53	40.31
22	35.11	36.73	34.15	29.08	33.61	36.63	34.94	36.76	38.24	37.96	39.58	40.34
23	35.01	36.81	33.94	29.74	33.82	36.57	35.04	36.86	38.29	38.05	39.64	40.39
24	34.99	36.80	32.45	30.66	33.98	36.52	34.36	36.94	38.35	38.12	39.69	40.42
25	35.03	36.40	31.05	32.01	34.18	36.44	33.69	37.02	38.42	38.17	39.73	40.42
26	35.11	35.70	30.04	33.24	34.38	36.38	32.75	37.14	38.48	38.26	39.77	40.40
27	35.23	34.99	29.65	33.88	34.62	36.30	32.10	37.28	38.53	38.35	39.82	40.33
28	35.40	33.22	29.51	34.28	34.80	35.63	31.73	37.38	38.57	38.44	39.83	40.33
29	35.60	30.89	29.59	34.57	---	33.03	31.64	37.45	38.53	38.51	39.83	40.32
30	35.69	29.36	29.98	34.83	---	30.73	31.81	37.54	38.56	38.57	39.84	40.32
31	35.77	---	30.50	35.09	---	29.05	---	37.62	---	38.63	39.79	---
MEAN	34.24	35.44	30.19	31.86	35.20	35.71	30.44	35.71	38.10	38.34	39.35	40.16
MAX	36.17	36.81	34.15	35.09	36.56	36.64	35.04	37.62	38.57	38.89	39.84	40.42
MIN	29.99	29.36	28.01	28.07	33.36	29.05	26.30	32.20	37.69	37.70	38.70	39.81



SCHUYLKILL COUNTY

404708076070701. Local number, SC 296.

LOCATION.--Lat 40°47'10", long 76°07'08", Hydrologic Unit 02040203, at Locust Lake State Park.
Owner: U.S. Geological Survey.

AQUIFER.--Mauch Chunk Formation of Early Pennsylvanian age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in., depth 242 ft, cased to 40 ft, open hole.

INSTRUMENTATION.--Data collection platform with 30-minute recording interval. Satellite telemetry at station.

DATUM.--Elevation of land-surface datum is 1,290 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of plywood shelf, 2.78 ft above land-surface datum. Prior to June 26, 1980, top of casing 2.3 ft above land-surface datum.

REMARKS.--In addition to the daily maximum water level table shown below, daily minimum and mean water levels, since October 1994, are also available from the USGS Pennsylvania Water Science Center Office.

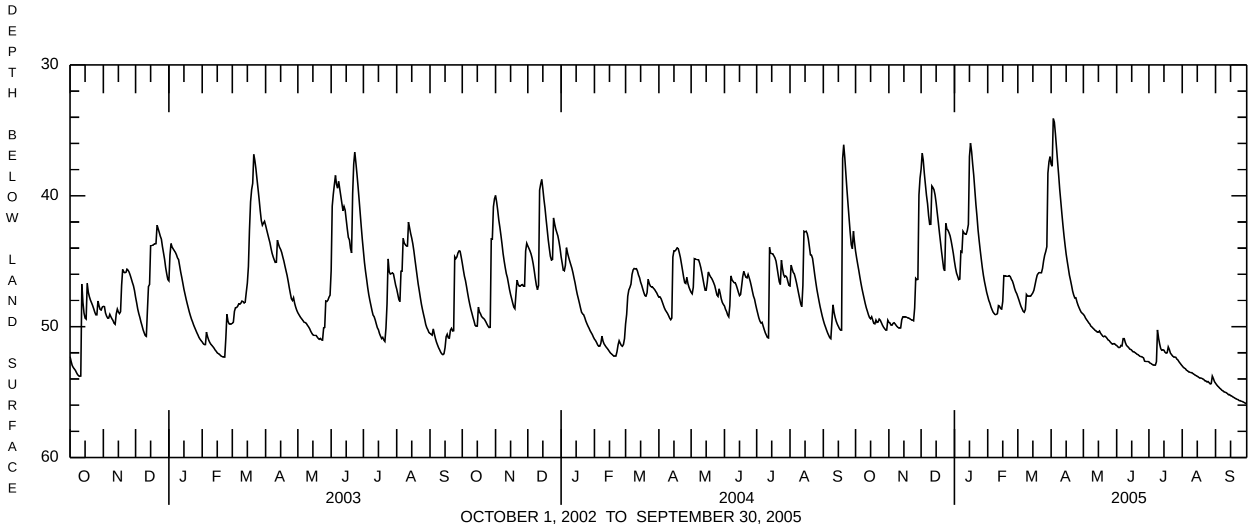
PERIOD OF RECORD.--July 1975 to current year.

EXTREMES FOR PERIOD OF RECORD.--Prior to October 2000, the extremes were based on extremes of the daily maximum depth below land-surface datum. Since that date, the extremes are based on the instantaneous depth below land-surface datum.
Highest water level, 26.27 ft below land-surface datum, May 18, 1989; lowest, 57.46 ft below land-surface datum, Nov. 24, 2001.

EXTREMES FOR CURRENT YEAR.--Highest water level, 33.85 ft below land-surface datum, Apr. 3; lowest, 55.89 ft below land-surface datum, Sept. 30.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44.23	49.67	37.97	45.00	47.68	47.72	37.59	49.06	51.44	52.69	53.00	54.32
2	44.75	49.72	36.73	45.51	47.99	47.96	37.75	49.17	51.53	52.78	53.10	54.44
3	45.23	49.88	37.28	45.92	48.21	48.22	34.10	49.34	51.60	52.82	53.17	54.54
4	45.70	49.88	38.30	46.15	48.49	48.46	34.37	49.47	51.59	52.88	53.22	54.62
5	46.20	49.74	39.14	46.41	48.70	48.64	35.27	49.58	51.43	52.93	53.33	54.71
6	46.67	49.71	39.96	46.36	48.89	48.83	36.31	49.71	51.46	52.95	53.38	54.78
7	47.10	49.81	40.61	44.25	49.00	48.90	37.37	49.80	50.91	52.94	53.45	54.87
8	47.49	49.93	41.53	44.31	49.08	48.69	38.41	49.96	50.91	52.68	53.48	54.91
9	47.86	50.02	42.19	42.71	49.07	47.54	39.51	50.03	51.20	50.24	53.51	54.99
10	48.23	50.09	42.17	42.85	49.00	47.66	40.42	50.12	51.41	50.89	53.52	55.01
11	48.56	50.10	39.25	42.93	48.39	47.67	41.37	50.20	51.51	51.33	53.59	55.05
12	48.82	50.09	39.37	42.93	48.44	47.67	42.25	50.29	51.58	51.68	53.64	55.11
13	49.09	49.47	39.54	42.65	48.62	47.66	43.06	50.34	51.70	51.81	53.70	55.20
14	49.31	49.26	39.94	42.19	48.65	47.54	43.80	50.42	51.74	51.78	53.75	55.19
15	49.40	49.26	40.55	37.00	48.07	47.41	44.47	50.42	51.80	51.80	53.79	55.27
16	49.25	49.26	41.29	35.98	46.10	47.21	45.01	50.33	51.91	51.96	53.85	55.30
17	49.50	49.27	42.02	36.63	46.12	46.82	45.52	50.50	51.92	52.02	53.91	55.36
18	49.76	49.30	42.78	37.59	46.14	46.41	46.06	50.61	51.98	51.99	53.93	55.41
19	49.78	49.34	43.50	38.44	46.16	46.07	46.44	50.72	52.04	51.55	53.94	55.46
20	49.50	49.36	44.25	39.57	46.15	45.93	46.84	50.77	52.11	51.74	53.99	55.51
21	49.68	49.43	44.91	40.66	46.10	45.86	47.28	50.72	52.15	52.02	54.03	55.55
22	49.64	49.48	45.56	41.56	46.18	45.88	47.58	50.79	52.22	52.13	54.13	55.58
23	49.42	49.51	45.75	42.62	46.38	45.88	47.80	50.89	52.28	52.24	54.15	55.65
24	49.51	49.55	42.09	43.41	46.52	45.55	47.79	51.01	52.29	52.31	54.22	55.66
25	49.69	48.57	42.54	44.15	46.77	44.97	48.10	51.06	52.33	52.33	54.19	55.70
26	49.88	46.31	42.63	44.84	47.08	44.54	48.35	51.17	52.39	52.34	54.28	55.72
27	50.03	46.41	42.83	45.52	47.32	44.26	48.55	51.26	52.64	52.48	54.37	55.77
28	50.15	46.40	43.07	46.09	47.48	43.89	48.74	51.34	52.66	52.55	54.35	55.81
29	50.25	39.94	43.46	46.56	---	38.27	48.90	51.30	52.66	52.68	53.78	55.86
30	50.25	38.65	43.92	46.97	---	37.41	48.98	51.30	52.66	52.79	53.97	55.89
31	49.51	---	44.42	47.37	---	37.01	---	51.39	---	52.90	54.20	---
MEAN	48.53	48.58	41.60	43.07	47.60	46.02	43.27	50.42	51.87	52.20	53.77	55.24
MAX	50.25	50.10	45.75	47.37	49.08	48.90	48.98	51.39	52.66	52.95	54.37	55.89
MIN	44.23	38.65	36.73	35.98	46.10	37.01	34.10	49.06	50.91	50.24	53.00	54.32



WAYNE COUNTY

414333075153201. Local number, WN 64.

LOCATION.--Lat 41°43'33", long 75°15'32", Hydrologic Unit 02040103, at State Game Land Number 159.
Owner: U.S. Geological Survey.

AQUIFER.--Sand and gravel of Glacial Outwash of Quaternary age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in., depth 52 ft, cased to 52 ft, open hole.

INSTRUMENTATION.--Data collection platform with 30-minute recording interval. Satellite telemetry at station.

DATUM.--Elevation of land-surface datum is 1,350 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of plywood shelf, 3.92 ft above land-surface datum. Prior to May 7, 1987, top of plywood cover, measuring point above land-surface datum varied.

REMARKS.--Daily maximum water-level data collected prior to May 7, 1987 were referenced to an uncertain datum elevation that cannot be related to any datum after that date. In addition to the daily maximum water level table shown below, daily minimum and mean water levels, since October 1994, are also available from the USGS Pennsylvania Water Science Center Office.

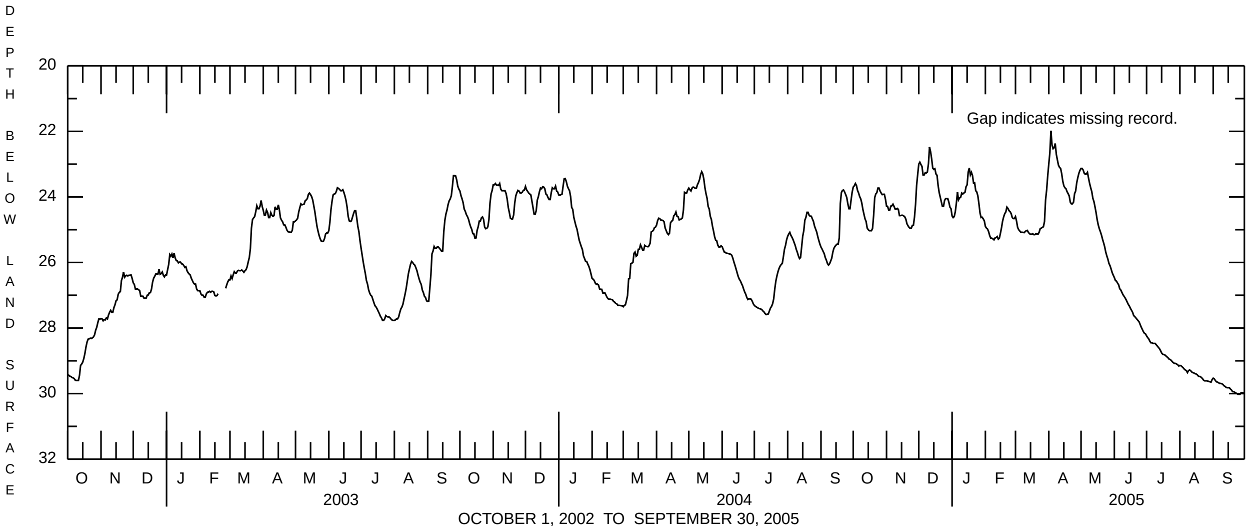
PERIOD OF RECORD.--October 1967 to current year.

EXTREMES FOR PERIOD OF RECORD.--Prior to October 2000, the extremes were based on extremes of the daily maximum depth below land-surface datum. Since that date, the extremes are based on the instantaneous depth below land-surface datum.
Highest water level, 7.88 ft below land-surface datum, Nov. 17, 1972; lowest, 32.98 ft below land-surface datum, Nov. 9, 10, 11, 1991.

EXTREMES FOR CURRENT YEAR.--Highest water level, 21.38 ft below land-surface datum, Apr. 3; lowest, 30.02 ft below land-surface datum, Sept. 24-26.

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.70	24.28	23.00	24.58	24.90	24.60	22.99	23.13	26.46	28.24	29.14	29.53
2	23.66	24.29	22.94	24.63	24.95	24.74	22.65	23.13	26.55	28.29	29.15	29.55
3	23.59	24.40	23.01	24.60	24.98	24.93	21.98	23.18	26.57	28.33	29.18	29.60
4	23.65	24.40	23.07	24.45	25.06	25.00	22.42	23.28	26.63	28.40	29.21	29.64
5	23.80	24.28	23.33	24.19	25.18	25.04	22.53	23.31	26.68	28.45	29.25	29.65
6	23.88	24.27	23.33	23.86	25.26	25.08	22.50	23.30	26.80	28.45	29.28	29.67
7	23.99	24.22	23.26	24.09	25.26	25.08	22.37	23.25	26.84	28.47	29.30	29.69
8	24.06	24.29	23.27	24.03	25.28	25.08	22.70	23.43	26.91	28.47	29.36	29.69
9	24.19	24.37	23.24	24.01	25.31	25.09	22.87	23.59	26.98	28.47	29.30	29.70
10	24.38	24.37	22.99	23.88	25.25	25.06	23.03	23.72	27.03	28.51	29.28	29.72
11	24.53	24.35	22.48	23.91	25.24	25.03	23.10	23.84	27.08	28.55	29.30	29.76
12	24.67	24.38	22.62	23.88	25.21	25.02	23.13	24.04	27.14	28.59	29.34	29.78
13	24.75	24.57	22.84	23.86	25.29	25.08	23.29	24.14	27.21	28.63	29.36	29.81
14	24.95	24.57	23.12	23.69	25.26	25.12	23.52	24.30	27.28	28.69	29.37	29.82
15	25.00	24.56	23.16	23.63	25.11	25.14	23.66	24.48	27.33	28.76	29.39	29.82
16	25.03	24.56	23.14	23.24	24.94	25.14	23.72	24.69	27.40	28.80	29.40	29.82
17	25.03	24.58	23.30	23.12	24.74	25.12	23.75	24.85	27.46	28.81	29.42	29.86
18	25.03	24.61	23.34	23.33	24.61	25.15	23.84	24.97	27.52	28.82	29.46	29.89
19	24.96	24.68	23.65	23.25	24.51	25.15	23.90	25.06	27.62	28.85	29.48	29.94
20	24.57	24.82	23.87	23.35	24.46	25.12	23.97	25.16	27.65	28.88	29.48	29.94
21	24.02	24.88	24.01	23.58	24.31	25.13	24.16	25.29	27.69	28.91	29.51	29.96
22	23.91	24.93	24.15	23.57	24.35	25.14	24.21	25.40	27.73	28.95	29.54	29.98
23	23.87	24.96	24.29	23.81	24.42	25.08	24.21	25.52	27.77	28.96	29.59	30.00
24	23.73	24.96	24.29	23.85	24.45	24.97	24.16	25.68	27.81	28.99	29.61	30.02
25	23.73	24.87	24.11	23.97	24.51	24.95	23.90	25.80	27.89	29.03	29.61	30.02
26	23.82	24.87	24.05	24.21	24.63	24.93	23.82	25.90	27.97	29.06	29.61	30.02
27	23.88	24.62	24.05	24.49	24.66	24.91	23.57	26.03	28.04	29.08	29.62	29.97
28	23.93	24.23	24.05	24.63	24.66	24.75	23.41	26.10	28.11	29.08	29.63	29.97
29	23.92	23.65	24.16	24.62	---	24.09	23.28	26.20	28.16	29.10	29.64	29.98
30	23.92	23.31	24.31	24.67	---	23.79	23.19	26.31	28.18	29.12	29.65	30.00
31	24.07	---	24.36	24.73	---	23.36	---	26.39	---	29.16	29.57	---
MEAN	24.20	24.47	23.51	23.99	24.89	24.90	23.33	24.63	27.35	28.74	29.42	29.83
MAX	25.03	24.96	24.36	24.73	25.31	25.15	24.21	26.39	28.18	29.16	29.65	30.02
MIN	23.59	23.31	22.48	23.12	24.31	23.36	21.98	23.13	26.46	28.24	29.14	29.53



GROUND-WATER DATA COLLECTED AT SPECIAL-STUDY SITES
CHESTER COUNTY GROUND-WATER-QUALITY MONITORING PROGRAM

Stream and ground-water samples were collected in central Chester County in May through September 2005 as part of the Chester County Ground-Water-Quality Monitoring Program and a special project conducted in cooperation with the Chester County Water Resources Authority and Chester County Health Department. The monitoring program began in 1980 with objectives that include providing data on ground-water quality (1) near suspected sources of contamination; (2) in areas of different land use or different underlying geology; (3) for specific contaminants or constituents countywide; and (4) in watersheds as part of regional assessment. Samples typically are collected each summer. In 2005, stream samples were collected under base-flow conditions at 10 sites in May and 8 sites in September. Ground-water samples were collected from 8 wells and 2 springs in June 2005.

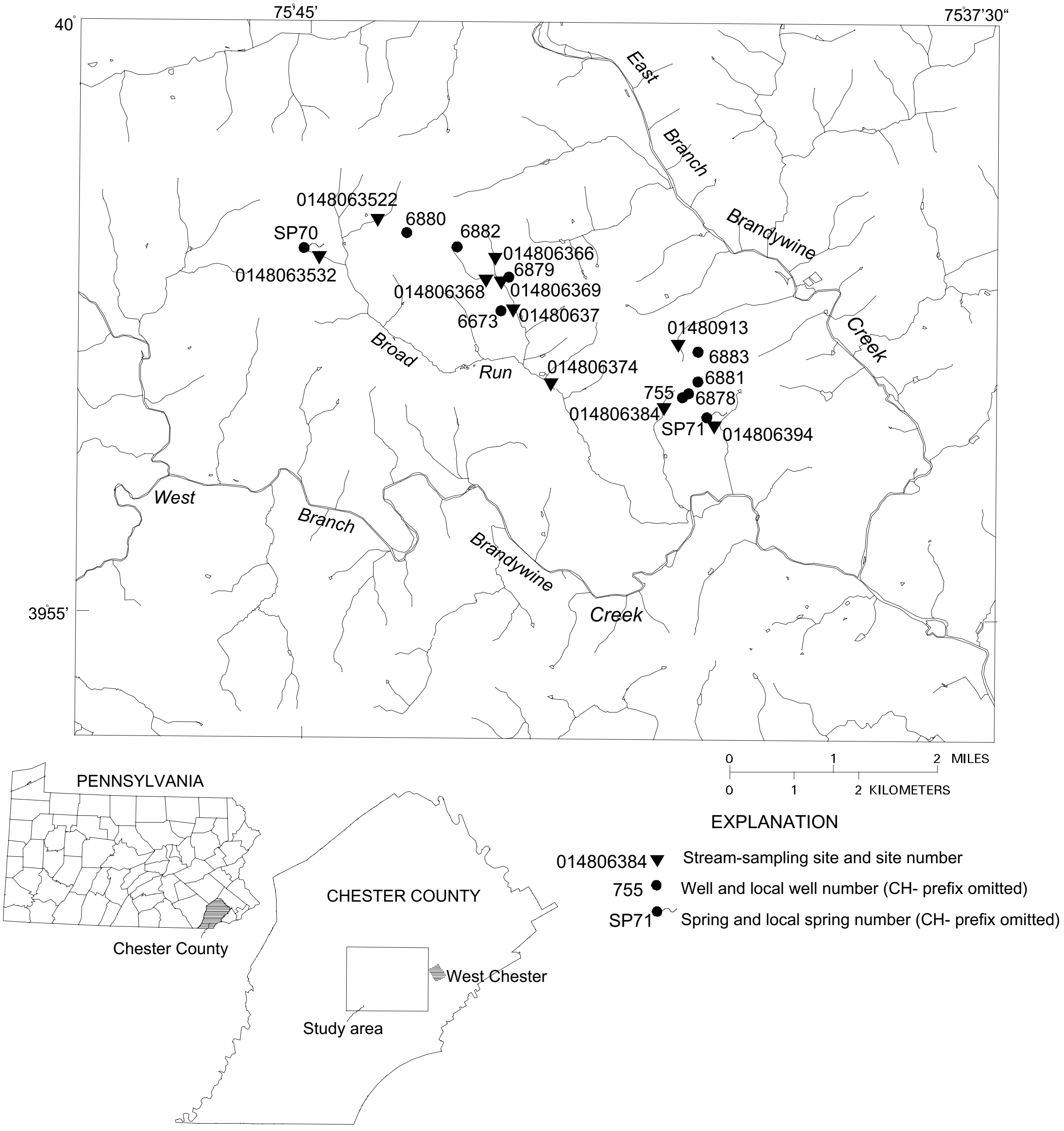


Figure 15.--Locations of stream and ground-water sampling sites for the Chester County ground-water monitoring program, summer 2005.

GROUND-WATER DATA COLLECTED AT SPECIAL-STUDY SITES
CHESTER COUNTY GROUND-WATER-QUALITY MONITORING PROGRAM

REMARKS.--Some values for "*dissolved*" parameters exceed values for the corresponding "*total*" parameter. These results are within the limits of analytical precision and methods.

WATER-QUALITY DATA, WATER YEARS OCTOBER 2004 TO SEPTEMBER 2005

Local ident-i-fier	Station number	Lat-i-tude	Long-i-tude	Date	Time	Agency col-lecting sample, code (00027)	Agency ana-lyzing sample, code (00028)	Depth of well, feet below LSD (72008)	Depth to water level, feet below LSD (72019)
CH 755	395651075405601	39 56 52 N	075 40 54 W	06-07-05	1120	1028	80020	92	--
CH 6673	395735075425301	39 57 34 N	075 42 52 W	06-01-05	1130	1028	80020	430	62.95
CH 6878	395654075405001	39 56 54 N	075 40 50 W	06-02-05	0850	1028	80020	--	--
CH 6879	395752075424801	39 57 52 N	075 42 48 W	06-02-05	1050	1028	80020	128	41.34
CH 6880	395815075435501	39 58 14 N	075 43 54 W	06-02-05	1210	1028	80020	--	38.25
CH 6881	395701075404401	39 57 00 N	075 40 43 W	06-06-05	1130	1028	80020	150	24.03
CH 6882	395807075432201	39 58 07 N	075 43 22 W	06-07-05	1020	1028	80020	--	64.03
CH 6883	395715075404401	39 57 15 N	075 40 43 W	06-08-05	1140	1028	80020	--	17.89
CH SP70	395807075450201	39 58 06 N	075 45 01 W	06-07-05	0830	1028	80020	--	--
CH SP71	395642075403801	39 56 42 N	075 40 37 W	06-08-05	1000	1028	80020	--	--

Local ident-i-fier	Date	Dis-solved oxygen, mg/L (00300)	Dis-solved oxygen, percent of sat-uration (00301)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conduc-tance, wat unf lab, µS/cm 25 degC (90095)	Specif. conduc-tance, wat unf µS/cm 25 degC (00095)	Temper-ature, air, deg C (00020)	Temper-ature, water, deg C (00010)	Calcium water, fltrd, mg/L (00915)	Magnes-ium, water, fltrd, mg/L (00925)
CH 755	06-07-05	9.1	87	5.3	5.6	340	371	27.5	13.3	21.0	8.47
CH 6673	06-01-05	2.7	26	6.8	7.2	148	152	22.5	14.0	17.6	3.94
CH 6878	06-02-05	5.8	55	5.9	6.3	248	264	10.0	12.7	17.3	13.5
CH 6879	06-02-05	8.5	81	5.8	6.1	831	871	17.0	13.3	59.9	21.1
CH 6880	06-02-05	10.1	94	5.6	5.8	295	312	18.5	11.9	8.69	10.6
CH 6881	06-06-05	5.3	52	5.3	5.8	1350	1340	28.0	14.2	80.5	52.7
CH 6882	06-07-05	9.0	87	5.2	5.6	192	207	23.5	13.8	8.82	6.33
CH 6883	06-08-05	9.7	93	5.5	6.0	181	189	29.5	13.7	15.1	7.60
CH SP70	06-07-05	8.3	78	5.7	5.9	230	244	23.5	12.4	18.3	8.39
CH SP71	06-08-05	8.9	83	5.9	6.2	223	239	28.5	12.1	15.6	8.93

Local ident-i-fier	Date	Potas-sium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Alka-linity, wat flt inc tit field, mg/L as CaCO3 (39086)	Chlor-ide, water, fltrd, mg/L (00940)	Fluor-ide, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)
CH 755	06-07-05	2.42	28.8	13	66.5	<.1	15.8	12.8	<.04	10.7	<.008
CH 6673	06-01-05	1.34	5.59	43	4.91	E.1	17.0	17.8	<.04	.40	<.008
CH 6878	06-02-05	1.61	12.9	47	27.4	E.1	27.3	13.6	<.04	6.26	<.008
CH 6879	06-02-05	2.40	72.4	29	242	<.1	14.8	6.5	<.04	.97	<.008
CH 6880	06-02-05	1.11	35.5	19	63.6	<.1	5.1	19.2	<.04	2.46	<.008
CH 6881	06-06-05	4.80	86.1	26	373	E.1	17.6	36.1	<.04	3.11	E.006
CH 6882	06-07-05	1.45	16.8	9	32.3	<.1	5.5	12.9	<.04	5.69	<.008
CH 6883	06-08-05	3.56	6.11	27	5.37	<.1	13.0	22.4	<.04	7.32	<.008
CH SP70	06-07-05	2.16	10.3	18	26.1	<.1	11.7	17.9	<.04	9.18	<.008
CH SP71	06-08-05	2.32	13.6	35	30.4	<.1	17.3	19.0	<.04	2.68	<.008

Local ident-i-fier	Date	Ortho-phos-phate, water, fltrd, mg/L as P (00671)	Entero-cocci, m-E MF, water, col/ 100 mL (31649)	Fecal coli-form, M-FC 0.7µ MF col/ 100 mL (31625)	Boron, water, fltrd, µg/L (01020)	Iron, water, fltrd, µg/L (01046)	Mangan-ese, water, fltrd, µg/L (01056)	1,4-Di-chloro-benzene water, fltrd, µg/L (34572)	1-Methyl-naphth-alene, water, fltrd, µg/L (62054)	2,6-Di-methyl-naphth-alene, water, fltrd, µg/L (62055)	2-Methyl-naphth-alene, water, fltrd, µg/L (62056)
CH 755	06-07-05	.03	<.4	<.4	27	<6	39.2	<.5	<.5	<.5	<.5
CH 6673	06-01-05	<.02	.4	<.4	7.7	<6	25.0	<.5	<.5	<.5	<.5
CH 6878	06-02-05	.04	<.4	<.4	E3.9	E4	2.9	M	<.5	<.5	<.5
CH 6879	06-02-05	<.02	<.4	<.4	E4.9	<6	8.4	<.5	<.5	<.5	<.5
CH 6880	06-02-05	E.01	<.4	<.4	12	9	20.5	<.5	<.5	<.5	<.5
CH 6881	06-06-05	<.02	--	<.4	26	619	279	<.5	<.5	<.5	<.5
CH 6882	06-07-05	.03	<.4	<.4	23	<6	5.1	<.5	<.5	<.5	<.5
CH 6883	06-08-05	.03	<.4	<.4	8.2	<6	E.3	<.5	<.5	<.5	<.5
CH SP70	06-07-05	.02	18	6	8.3	<6	E.5	<.5	<.5	<.5	<.5
CH SP71	06-08-05	E.01	2	.8	11	<6	<.6	<.5	<.5	<.5	<.5

GROUND-WATER DATA COLLECTED AT SPECIAL-STUDY SITES
CHESTER COUNTY GROUND-WATER-QUALITY MONITORING PROGRAM

WATER-QUALITY DATA, WATER YEARS OCTOBER 2004 TO SEPTEMBER 2005

Local ident-i-fier	Date	3-beta-Copros-tanol, water, fltrd, µg/L (62057)	3-Methyl-1H-indole, water, fltrd, µg/L (62058)	3-tert-Butyl-4-hy-droxy-anisole wat flt µg/L (62059)	4-Cumyl-phenol, water, fltrd, µg/L (62060)	4-Octyl-phenol, water, fltrd, µg/L (62061)	4-Nonyl-phenol, water, fltrd, µg/L (62085)	4-tert-Octyl-phenol, water, fltrd, µg/L (62062)	5-Meth-yl-1H-benzo-tri-azole, wat flt µg/L (62063)	9,10-Anthra-quinone water, fltrd, µg/L (62066)	Aceto-phenone water, fltrd, µg/L (62064)
CH 755	06-07-05	<2	<1	<5	<1	<1	<5	<1	<2	<.5	<.5
CH 6673	06-01-05	<2	<1	<5	<1	<1	<5	<1	<2	<.5	<.5
CH 6878	06-02-05	<2	<1	<5	<1	<1	<5	<1	<2	<.5	<.5
CH 6879	06-02-05	<2	<1	<5	<1	<1	<5	M	<2	<.5	<.5
CH 6880	06-02-05	<2	<1	<5	<1	<1	<5	<1	<2	<.5	<.5
CH 6881	06-06-05	<2	<1	<5	<1	<1	<5	<1	<2	<.5	<.5
CH 6882	06-07-05	<2	<1	<5	<1	<1	<5	<1	<2	<.5	<.5
CH 6883	06-08-05	<2	<1	<5	<1	<1	<5	<1	<2	<.5	<.5
CH SP70	06-07-05	<2	<1	<5	<1	<1	<5	<1	<2	<.5	E.2
CH SP71	06-08-05	<2	<1	<5	<1	<1	<5	<1	<2	<.5	E.1

Local ident-i-fier	Date	AHTN, water, fltrd, µg/L (62065)	Anthra-cene, water, fltrd, µg/L (34221)	Benzo-[a]-pyrene, water, fltrd, µg/L (34248)	Benzo-phenone water, fltrd, µg/L (62067)	beta-Sitos-terol, water, fltrd, µg/L (62068)	beta-Stigma-stanol, water, fltrd, µg/L (62086)	Bisphe-nol A, water, fltrd, µg/L (62069)	Bisphenol A-d3 sur Sch 2033 & 8033, wat flt pct rcv (99583)	Broma-cil, water, fltrd, µg/L (04029)	Caf-feine, water, fltrd, µg/L (50305)
CH 755	06-07-05	<.5	<.5	<.5	<.5	<2	<2	<1	28.3	<.5	<.5
CH 6673	06-01-05	<.5	<.5	<.5	<.5	<2	<2	--	24.4	<.5	<.5
CH 6878	06-02-05	<.5	<.5	<.5	<.5	<2	<2	<1	67.1	<.5	<.5
CH 6879	06-02-05	<.5	M	<.5	<.5	<2	<2	<1	78.2	<.5	<.5
CH 6880	06-02-05	<.5	<.5	<.5	<.5	<2	<2	<1	80.6	<.5	<.5
CH 6881	06-06-05	<.5	M	<.5	<.5	<2	<2	<1	32.7	<.5	<.5
CH 6882	06-07-05	<.5	<.5	<.5	<.5	<2	<2	<1	25.1	<.5	<.5
CH 6883	06-08-05	<.5	<.5	<.5	<.5	<2	<2	<1	74.3	<.5	<.5
CH SP70	06-07-05	<.5	<.5	<.5	M	<2	<2	<1	59.4	<.5	<.5
CH SP71	06-08-05	<.5	<.5	<.5	M	<2	<2	<1	30.3	<.5	<.5

Local ident-i-fier	Date	Caffe-ine-13C sur Sch 2033 & 8033, wat flt pct rcv (99584)	Camphor water, fltrd, µg/L (62070)	Car-baryl, water, fltrd 0.7µ GF µg/L (82680)	Carba-zole, water, fltrd, µg/L (62071)	Chlor-pyrifos water, fltrd, µg/L (38933)	Choles-terol, water, fltrd, µg/L (62072)	Cot-inine, water, fltrd, µg/L (62005)	DecaF-biphenl sur Sch 2033 & 8033, wat flt pct rcv (99585)	DEET, water, fltrd, µg/L (62082)	Diazi-non, water, fltrd, µg/L (39572)
CH 755	06-07-05	79.3	<.5	<1	<.5	<.5	<2	<1.00	78.0	M	<.5
CH 6673	06-01-05	86.3	<.5	<1	<.5	<.5	<2	<1.00	101	<.5	<.5
CH 6878	06-02-05	76.5	<.5	<1	<.5	<.5	<2	<1.00	88.9	<.5	<.5
CH 6879	06-02-05	78.6	<.5	<1	<.5	<.5	<2	<1.00	83.9	<.5	<.5
CH 6880	06-02-05	78.6	<.5	<1	<.5	<.5	<2	<1.00	78.6	<.5	<.5
CH 6881	06-06-05	73.3	<.5	<1	<.5	<.5	<2	<1.00	84.3	<.5	<.5
CH 6882	06-07-05	77.2	<.5	<1	<.5	<.5	<2	<1.00	74.5	<.5	<.5
CH 6883	06-08-05	71.9	<.5	<1	<.5	<.5	<2	<1.00	89.0	<.5	<.5
CH SP70	06-07-05	75.5	M	<1	<.5	<.5	<2	<1.00	96.3	M	<.5
CH SP71	06-08-05	80.7	<.5	<1	<.5	<.5	<2	<1.00	65.4	M	<.5

Local ident-i-fier	Date	Di-ethoxy-nonyl-phenol, water, fltrd, µg/L (62083)	Di-ethoxy-octyl-phenol, water, fltrd µg/L (61705)	D-Limo-nene, water, fltrd, µg/L (62073)	Ethoxy-octyl-phenol, water, fltrd µg/L (61706)	Fluor-anthene water, fltrd, µg/L (34377)	Fluor-anthene -d10, sur Sch 20/8033 wat flt pct rcv (99586)	HHCB, water, fltrd, µg/L (62075)	Indole, water, fltrd, µg/L (62076)	Isobor-neol, water, fltrd, µg/L (62077)	Iso-phorone water, fltrd, µg/L (34409)
CH 755	06-07-05	<5	<1	<.5	<1	<.5	76.5	<.5	<.5	<.5	<.5
CH 6673	06-01-05	<5	<1	<.5	<1	<.5	83.6	<.5	<.5	<.5	<.5
CH 6878	06-02-05	<5	<1	<.5	<1	<.5	73.7	<.5	<.5	<.5	<.5
CH 6879	06-02-05	<5	<1	<.5	<1	<.5	73.8	<.5	<.5	<.5	<.5
CH 6880	06-02-05	<5	<1	<.5	<1	<.5	75.0	<.5	<.5	<.5	<.5
CH 6881	06-06-05	<5	<1	<.5	<1	<.5	72.6	<.5	<.5	<.5	<.5
CH 6882	06-07-05	<5	<1	<.5	<1	<.5	75.6	<.5	<.5	<.5	<.5
CH 6883	06-08-05	<5	<1	<.5	<1	<.5	68.9	<.5	<.5	<.5	<.5
CH SP70	06-07-05	<5	<1	<.5	<1	<.5	70.9	<.5	<.5	<.5	M
CH SP71	06-08-05	<5	<1	<.5	<1	<.5	76.7	<.5	<.5	<.5	M

GROUND-WATER DATA COLLECTED AT SPECIAL-STUDY SITES
CHESTER COUNTY GROUND-WATER-QUALITY MONITORING PROGRAM

WATER-QUALITY DATA, WATER YEARS OCTOBER 2004 TO SEPTEMBER 2005

Local identifier	Date	Isopropylbenzene water, fltrd, µg/L (62078)	Isoquinoline, water, fltrd, µg/L (62079)	Menthol water, fltrd, µg/L (62080)	Metalaxyl, water, fltrd, µg/L (50359)	Methyl salicylate, water, fltrd, µg/L (62081)	Metolachlor, water, fltrd, µg/L (39415)	Naphthalene, water, fltrd, µg/L (34443)	p-Cresol, water, fltrd, µg/L (62084)	Pentachlorophenol, water, fltrd, µg/L (34459)	Phenanthrene, water, fltrd, µg/L (34462)
CH 755	06-07-05	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<1	<2	<.5
CH 6673	06-01-05	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<1	--	<.5
CH 6878	06-02-05	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<1	<2	<.5
CH 6879	06-02-05	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<1	<2	<.5
CH 6880	06-02-05	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<1	<2	<.5
CH 6881	06-06-05	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<1	<2	<.5
CH 6882	06-07-05	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<1	<2	<.5
CH 6883	06-08-05	<.5	<.5	<.5	<.5	<.5	<.5	<.5	<1	<2	<.5
CH SP70	06-07-05	<.5	<.5	M	<.5	M	M	<.5	M	<2	<.5
CH SP71	06-08-05	<.5	<.5	M	<.5	M	<.5	<.5	M	<2	<.5

Local identifier	Date	Phenol, water, fltrd, µg/L (34466)	Prometon, water, fltrd, µg/L (04037)	Pyrene, water, fltrd, µg/L (34470)	Tetrachloroethene, water, fltrd, µg/L (34476)	Tribromomethane water, fltrd, µg/L (34288)	Tributyl phosphate, water, fltrd, µg/L (62089)	Triclosan, water, fltrd, µg/L (62090)	Triethyl citrate water, fltrd, µg/L (62091)	Triphenyl phosphate, water, fltrd, µg/L (62092)	Tris(2-butoxyethyl) phosphate, wat flt µg/L (62093)
CH 755	06-07-05	E.3	<.5	<.5	<.5	<.5	<.5	<1	<.5	<.5	<.5
CH 6673	06-01-05	.6	<.5	<.5	<.5	<.5	<.5	<1	<.5	<.5	<.5
CH 6878	06-02-05	E.4	<.5	<.5	M	<.5	<.5	<1	<.5	<.5	<.5
CH 6879	06-02-05	E.2	<.5	<.5	<.5	<.5	<.5	<1	<.5	<.5	E.3
CH 6880	06-02-05	E.2	<.5	<.5	<.5	<.5	<.5	<1	<.5	<.5	<.5
CH 6881	06-06-05	<.5	<.5	<.5	<.5	<.5	<.5	<1	<.5	<.5	<.5
CH 6882	06-07-05	E.3	<.5	<.5	<.5	<.5	<.5	<1	<.5	<.5	<.5
CH 6883	06-08-05	E.1	<.5	<.5	<.5	<.5	<.5	<1	<.5	<.5	<.5
CH SP70	06-07-05	E.2	<.5	<.5	M	<.5	<.5	<1	<.5	<.5	E.2
CH SP71	06-08-05	E.4	<.5	<.5	<.5	<.5	<.5	<1	<.5	<.5	<.5

Local identifier	Date	Tris(2-chloroethyl) phosphate, wat flt µg/L (62087)	Tris(dichloro-i-Pr) phosphate, wat flt µg/L (62088)
CH 755	06-07-05	<.5	M
CH 6673	06-01-05	<.5	<.5
CH 6878	06-02-05	<.5	<.5
CH 6879	06-02-05	<.5	<.5
CH 6880	06-02-05	<.5	<.5
CH 6881	06-06-05	M	<.5
CH 6882	06-07-05	<.5	<.5
CH 6883	06-08-05	<.5	<.5
CH SP70	06-07-05	<.5	<.5
CH SP71	06-08-05	<.5	<.5

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WATER-QUALITY DATA, WATER YEARS OCTOBER 2004 TO SEPTEMBER 2005

MISCELLANEOUS STATION ANALYSES

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Drainage area, mi2 (81024)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conductance, wat unf lab, µS/cm 25 degC (90095)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)
0148063522 Unn Trib to Broad Run ab school nr Thorndale, PA (LAT 39 58 21N LONG 075 44 14W)													
MAY 2005													
26...	1230	1028	80020	.10	.24	11.0	104	8.0	7.8	292	295	17.5	12.8
0148063532 Unn Trib to Broad Run at Chestnut Ln nr Thorndale (LAT 39 58 02N LONG 075 44 51W)													
MAY 2005													
26...	1130	1028	80020	.19	.27	10.0	93	7.2	7.5	217	221	15.0	12.3
SEP													
27...	1130	1028	80020	.04	.27	8.7	88	7.4	6.6	272	271	--	16.2
014806366 L Broad Run ab Shadyside Rd nr Romansville, PA (LAT 39 58 02N LONG 075 42 56W)													
MAY 2005													
25...	0830	1028	80020	.20	.11	11.0	100	7.1	7.3	215	216	11.0	11.3
SEP													
28...	0900	1028	80020	.06	.11	10.0	96	7.3	6.4	250	253	14.0	13.4
014806368 Unn Trib to Little Broad Run nr Romansville, PA (LAT 39 57 51N LONG 075 43 02W)													
MAY 2005													
25...	1100	1028	80020	.12	.21	10.5	98	7.5	7.4	261	262	11.0	11.4
JUN													
10...	1010	1028	80020	.12	.21	9.7	97	7.3	--	--	281	27.5	15.5
SEP													
28...	1000	1028	80020	.01	.21	9.6	92	7.8	5.9	385	386	14.0	13.7
014806369 L Broad Run bl Shadyside Road near Romansville, PA (LAT 39 57 49N LONG 075 42 52W)													
MAY 2005													
25...	1210	1028	80020	.69	.49	10.3	95	7.0	7.5	239	245	11.5	11.8
JUN													
10...	0800	1028	80020	.52	.49	9.0	94	6.8	--	--	270	25.5	17.6
SEP													
28...	1100	1028	80020	.20	.49	9.0	89	7.2	6.2	271	276	17.5	15.2
01480637 Little Broad Run near Marshallton, PA (LAT 39 57 36N LONG 075 42 44W)													
MAY 2005													
25...	1310	1028	80020	.90	.6	10.6	100	7.2	7.2	231	232	--	11.7
JUN													
10...	1120	1028	80020	.82	.6	9.0	96	7.2	--	--	255	25.0	18.4
SEP													
28...	1200	1028	80020	.24	.6	10.0	103	7.5	6.2	265	269	22.0	16.6
28...	1201	1028	80020	.24	.6	10.0	103	7.5	6.3	266	269	22.0	16.6
014806374 Outfall Trib to Broad Run ab Rt 162 nr Marshallton (LAT 39 56 59N LONG 075 42 19W)													
MAY 2005													
26...	1315	1028	80020	.02	--	5.8	57	7.3	7.7	437	444	20.5	13.8
014806384 Unnamed Tributary to Broad Run at Marshallton, PA (LAT 39 56 47N LONG 075 41 06W)													
MAY 2005													
26...	1010	1028	80020	.12	.05	10.5	98	7.1	7.5	427	408	14.5	12.2
SEP													
27...	0900	1028	80020	.03	.05	8.5	86	7.2	6.6	375	368	--	15.5
014806394 Un Tr to Un Tr to WB Brandywine Cr at Marshallton (LAT 39 56 38N LONG 075 40 33W)													
MAY 2005													
26...	0900	1028	80020	.12	.16	10.7	99	7.5	7.5	220	225	13.5	11.7
SEP													
27...	1030	1028	80020	.04	.16	8.6	89	7.5	6.7	264	264	--	16.8
01480913 Unn Trib to EB Brandywine Creek at Marshallton, PA (LAT 39 57 19N LONG 075 40 56W)													
MAY 2005													
26...	0730	1028	80020	.19	.06	10.4	94	7.0	7.3	155	155	13.5	11.2
SEP													
27...	0800	1028	80020	.01	.06	8.3	83	7.2	6.8	144	144	--	15.3

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Date	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)
0148063522 Unn Trib to Broad Run ab school nr Thorndale, PA (LAT 39 58 21N LONG 075 44 14W)													
MAY 2005													
26...	17.9	12.9	1.05	20.2	46	50.5	<.1	7.2	14.8	<.04	3.23	E.005	<.02
0148063532 Unn Trib to Broad Run at Chestnut Ln nr Thorndale (LAT 39 58 02N LONG 075 44 51W)													
MAY 2005													
26...	19.1	10.6	1.07	7.61	41	21.4	<.1	11.3	11.1	E.03	6.37	E.006	<.02
SEP													
27...	26.3	12.3	1.74	7.08	48	21.5	<.1	14.7	9.5	<.04	5.69	<.008	E.01
014806366 L Broad Run ab Shadyside Rd nr Romansville, PA (LAT 39 58 02N LONG 075 42 56W)													
MAY 2005													
25...	9.57	7.82	1.31	20.4	17	39.3	<.1	5.6	13.0	<.04	4.45	<.008	E.01
SEP													
28...	11.2	8.13	1.25	20.0	10	43.6	<.1	5.9	12.4	<.04	5.17	<.008	<.02
014806368 Unn Trib to Little Broad Run nr Romansville, PA (LAT 39 57 51N LONG 075 43 02W)													
MAY 2005													
25...	19.5	12.7	2.60	13.5	36	29.1	<.1	8.7	24.4	<.04	6.30	.008	E.01
JUN													
10...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
28...	32.9	14.1	2.19	19.3	58	44.1	E.1	12.3	29.6	<.04	5.52	<.008	.02
014806369 L Broad Run bl Shadyside Road near Romansville, PA (LAT 39 57 49N LONG 075 42 52W)													
MAY 2005													
25...	16.7	10.3	1.39	16.8	30	37.1	<.1	8.7	16.4	.06	4.17	.027	<.02
JUN													
10...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
28...	18.4	10.2	1.44	16.4	32	40.3	<.1	9.3	16.0	.05	3.93	.033	<.02
01480637 Little Broad Run near Marshallton, PA (LAT 39 57 36N LONG 075 42 44W)													
MAY 2005													
25...	16.4	8.63	1.37	15.3	31	34.6	<.1	9.1	15.0	E.03	4.03	.019	<.02
JUN													
10...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP													
28...	19.0	8.62	1.46	15.6	36	39.8	<.1	9.6	14.7	<.04	3.83	E.005	E.01
28...	19.0	8.83	1.48	15.5	36	39.6	<.1	9.6	14.5	<.04	3.82	E.004	E.01
014806374 Outfall Trib to Broad Run ab Rt 162 nr Marshallton (LAT 39 56 59N LONG 075 42 19W)													
MAY 2005													
26...	61.6	14.2	2.00	14.3	154	20.0	E.1	16.4	30.7	<.04	3.33	<.008	<.02
014806384 Unnamed Tributary to Broad Run at Marshallton, PA (LAT 39 56 47N LONG 075 41 06W)													
MAY 2005													
26...	24.0	19.1	3.29	32.2	56	65.0	<.1	11.8	27.4	<.04	6.61	<.008	E.02
SEP													
27...	23.4	15.4	2.74	23.2	42	51.8	<.1	12.8	22.5	<.04	5.32	<.008	.02
014806394 Un Tr to Un Tr to WB Brandywine Cr at Marshallton (LAT 39 56 38N LONG 075 40 33W)													
MAY 2005													
26...	14.9	8.20	2.23	15.3	34	30.6	<.1	14.8	16.8	<.04	2.82	<.008	<.02
SEP													
27...	18.4	10.0	2.52	14.6	27	34.7	<.1	17.2	18.3	<.04	2.71	<.008	.03
01480913 Unn Trib to EB Brandywine Creek at Marshallton, PA (LAT 39 57 19N LONG 075 40 56W)													
MAY 2005													
26...	12.2	5.49	1.76	8.78	30	11.7	<.1	14.7	17.4	<.04	1.94	<.008	<.02
SEP													
27...	12.2	4.31	2.12	7.56	24	9.61	<.1	16.5	14.7	<.04	1.17	<.008	<.02

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MISCELLANEOUS STATION ANALYSES

Date	Enterococci, m-E MF, water, col/ 100 mL (31649)	Fecal coliform, M-FC 0.7u MF col/ 100 mL (31625)	Boron, water, fltrd, µg/L (01020)	Iron, water, fltrd, µg/L (01046)	Manganese, water, fltrd, µg/L (01056)	1,4-Dichlorobenzene water, fltrd, µg/L (34572)	1-Methylnaphthalene, water, fltrd, µg/L (62054)	2,6-Dimethylnaphthalene, water, fltrd, µg/L (62055)	2-Methylnaphthalene, water, fltrd, µg/L (62056)	3-beta-Coprostanol, water, fltrd, µg/L (62057)	3-Methyl-1H-indole, water, fltrd, µg/L (62058)	3-tert-Butyl-4-hydroxyanisole wat flt µg/L (62059)	4-Cumylphenol, water, fltrd, µg/L (62060)
0148063522 Unn Trib to Broad Run ab school nr Thorndale, PA (LAT 39 58 21N LONG 075 44 14W)													
MAY 2005													
26...	960	110	E6.4	E4	4.8	<.5	<.5	<.5	<.5	<2	<1	<5	<1
0148063532 Unn Trib to Broad Run at Chestnut Ln nr Thorndale (LAT 39 58 02N LONG 075 44 51W)													
MAY 2005													
26...	570	310	8.5	16	39.1	<.5	<.5	<.5	<.5	<2	M	<5	<1
SEP													
27...	2900	330	26	17	12.2	<.5	<.5	<.5	<.5	<2	<1	<5	<1
014806366 L Broad Run ab Shadyside Rd nr Romansville, PA (LAT 39 58 02N LONG 075 42 56W)													
MAY 2005													
25...	60	40	28	7	5.4	<.5	<.5	<.5	<.5	<2	<1	<5	<1
SEP													
28...	610	94	47	E3	.8	<.5	<.5	<.5	<.5	<2	<1	<5	<1
014806368 Unn Trib to Little Broad Run nr Romansville, PA (LAT 39 57 51N LONG 075 43 02W)													
MAY 2005													
25...	60	10	33	<6	3.7	--	--	--	--	--	--	--	--
JUN													
10...	--	--	--	--	--	<.5	<.5	<.5	<.5	<2	<1	<5	<1
SEP													
28...	350	48	90	6	4.5	<.5	<.5	<.5	<.5	<2	M	<5	<1
014806369 L Broad Run bl Shadyside Road near Romansville, PA (LAT 39 57 49N LONG 075 42 52W)													
MAY 2005													
25...	200	190	29	43	51.9	--	--	--	--	--	--	--	--
JUN													
10...	--	--	--	--	--	M	<.5	<.5	<.5	<2	M	<5	<1
SEP													
28...	4100	130	48	74	24.9	<.5	<.5	<.5	<.5	<2	<1	<5	<1
01480637 Little Broad Run near Marshallton, PA (LAT 39 57 36N LONG 075 42 44W)													
MAY 2005													
25...	190	60	29	19	8.7	--	--	--	--	--	--	--	--
JUN													
10...	--	--	--	--	--	M	<.5	<.5	<.5	<2	M	<5	<1
SEP													
28...	7500	34	49	13	7.6	<.5	<.5	<.5	<.5	<2	<1	<5	<1
28...	9200	30	49	10	7.5	<.5	<.5	<.5	<.5	<2	<1	<5	<1
014806374 Outfall Trib to Broad Run ab Rt 162 nr Marshallton (LAT 39 56 59N LONG 075 42 19W)													
MAY 2005													
26...	60	10	7.5	12	17.5	<.5	<.5	<.5	<.5	<2	<1	<5	<1
014806384 Unnamed Tributary to Broad Run at Marshallton, PA (LAT 39 56 47N LONG 075 41 06W)													
MAY 2005													
26...	80	140	44	<6	2.1	<.5	<.5	<.5	<.5	<2	<1	<5	<1
SEP													
27...	3700	410	55	E5	1.2	<.5	<.5	<.5	<.5	<2	<1	<5	<1
014806394 Un Tr to Un Tr to WB Brandywine Cr at Marshallton (LAT 39 56 38N LONG 075 40 33W)													
MAY 2005													
26...	10	10	14	7	4.6	<.5	<.5	<.5	<.5	<2	<1	<5	<1
SEP													
27...	8000	2700	31	E6	3.1	<.5	<.5	<.5	<.5	<2	<1	<5	<1
01480913 Unn Trib to EB Brandywine Creek at Marshallton, PA (LAT 39 57 19N LONG 075 40 56W)													
MAY 2005													
26...	20	<1	11	28	37.1	<.5	<.5	<.5	<.5	<2	<1	<5	<1
SEP													
27...	1480	620	31	106	55.1	<.5	<.5	<.5	<.5	<2	<1	<5	<1

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MISCELLANEOUS STATION ANALYSES

Date	4-Octylphenol, water, fltrd, µg/L (62061)	4-Nonylphenol, water, fltrd, µg/L (62085)	4-tert-Octylphenol, water, fltrd, µg/L (62062)	5-Methyl-1H-benzotriazole, wat flt µg/L (62063)	9,10-Anthraquinone water, fltrd, µg/L (62066)	Acetophenone water, fltrd, µg/L (62064)	AHTN, water, fltrd, µg/L (62065)	Anthracene, water, fltrd, µg/L (34221)	Benzo[a]pyrene, water, fltrd, µg/L (34248)	Benzophenone water, fltrd, µg/L (62067)	beta-Sitosterol, water, fltrd, µg/L (62068)	beta-Stigmastanol, water, fltrd, µg/L (62086)	Bisphenol A, water, fltrd, µg/L (62069)
0148063522 Unn Trib to Broad Run ab school nr Thorndale, PA (LAT 39 58 21N LONG 075 44 14W)													
MAY 2005													
26...	<1	<5	<1	<2	<.5	<.5	<.5	<.5	<.5	<.5	<2	<2	--
0148063532 Unn Trib to Broad Run at Chestnut Ln nr Thorndale (LAT 39 58 02N LONG 075 44 51W)													
MAY 2005													
26...	M	<5	<1	<2	<.5	<.5	<.5	<.5	<.5	<.5	<2	<2	--
SEP													
27...	<1	E1	<1	<2	<.5	<.5	<.5	<.5	<.5	<.5	<2	<2	--
014806366 L Broad Run ab Shadyside Rd nr Romansville, PA (LAT 39 58 02N LONG 075 42 56W)													
MAY 2005													
25...	<1	<5	<1	<2	<.5	<.5	<.5	<.5	<.5	<.5	<2	<2	--
SEP													
28...	<1	M	<1	<2	<.5	<.5	<.5	<.5	<.5	<.5	<2	<2	--
014806368 Unn Trib to Little Broad Run nr Romansville, PA (LAT 39 57 51N LONG 075 43 02W)													
MAY 2005													
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
10...	<1	<5	<1	<2	<.5	<.5	M	<.5	<.5	<.5	<2	<2	<1
SEP													
28...	<1	<5	<1	<2	<.5	<.5	<.5	<.5	<.5	<.5	<2	<2	--
014806369 L Broad Run bl Shadyside Road near Romansville, PA (LAT 39 57 49N LONG 075 42 52W)													
MAY 2005													
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
10...	<1	<5	<1	<2	<.5	<.5	M	M	<.5	<.5	<2	<2	<1
SEP													
28...	<1	<5	<1	<2	<.5	<.5	<.5	<.5	<.5	<.5	<2	<2	--
01480637 Little Broad Run near Marshallton, PA (LAT 39 57 36N LONG 075 42 44W)													
MAY 2005													
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
10...	<1	<5	<1	<2	<.5	<.5	M	M	<.5	<.5	<2	<2	<1
SEP													
28...	<1	M	<1	<2	<.5	<.5	<.5	<.5	<.5	<.5	<2	<2	--
28...	<1	M	<1	<2	<.5	<.5	<.5	<.5	<.5	<.5	<2	<2	--
014806374 Outfall Trib to Broad Run ab Rt 162 nr Marshallton (LAT 39 56 59N LONG 075 42 19W)													
MAY 2005													
26...	<1	<5	<1	<2	<.5	<.5	<.5	<.5	<.5	<.5	<2	<2	--
014806384 Unnamed Tributary to Broad Run at Marshallton, PA (LAT 39 56 47N LONG 075 41 06W)													
MAY 2005													
26...	M	<5	<1	<2	<.5	<.5	<.5	<.5	<.5	<.5	<2	<2	--
SEP													
27...	<1	M	<1	<2	<.5	<.5	<.5	<.5	<.5	<.5	<2	<2	--
014806394 Un Tr to Un Tr to WB Brandywine Cr at Marshallton (LAT 39 56 38N LONG 075 40 33W)													
MAY 2005													
26...	<1	<5	<1	<2	<.5	<.5	<.5	<.5	<.5	<.5	<2	<2	--
SEP													
27...	<1	E1	<1	<2	<.5	<.5	<.5	<.5	<.5	<.5	<2	<2	--
01480913 Unn Trib to EB Brandywine Creek at Marshallton, PA (LAT 39 57 19N LONG 075 40 56W)													
MAY 2005													
26...	M	<5	<1	<2	<.5	<.5	<.5	<.5	<.5	<.5	<2	<2	M
SEP													
27...	<1	<5	<1	<2	<.5	<.5	<.5	<.5	<.5	<.5	<2	<2	--

GROUND-WATER DATA COLLECTED AT SPECIAL-STUDY SITES
CHESTER COUNTY GROUND-WATER-QUALITY MONITORING PROGRAM

WATER-QUALITY DATA, WATER YEARS OCTOBER 2004 TO SEPTEMBER 2005

MISCELLANEOUS STATION ANALYSES

Date	Bisphenol A-d3 sur Sch 2033 & 8033, wat flt pct rcv (99583)	Bromacil, water, fltrd, µg/L (04029)	Caffeine, water, fltrd, µg/L (50305)	Caffeine-13C sur Sch 2033 & 8033, wat flt pct rcv (99584)	Camphor water, fltrd, µg/L (62070)	Carbaryl, water, fltrd 0.7u GF µg/L (82680)	Carbazole, water, fltrd, µg/L (62071)	Chlorpyrifos water, fltrd, µg/L (38933)	Cholesterol, water, fltrd, µg/L (62072)	Cotinine, water, fltrd, µg/L (62005)	DecaF-biphenl sur Sch 2033 & 8033, wat flt pct rcv (99585)	DEET, water, fltrd, µg/L (62082)	Diazinon, water, fltrd, µg/L (39572)
0148063522 Unn Trib to Broad Run ab school nr Thorndale, PA (LAT 39 58 21N LONG 075 44 14W)													
MAY 2005													
26...	27.6	<.5	<.5	83.6	<.5	<1	<.5	<.5	<2	<1.00	75.7	<.5	<.5
0148063532 Unn Trib to Broad Run at Chestnut Ln nr Thorndale (LAT 39 58 02N LONG 075 44 51W)													
MAY 2005													
26...	13.6	<.5	<.5	81.0	<.5	<1	<.5	<.5	<2	<1.00	78.7	<.5	<.5
SEP													
27...	.0	<.5	<.5	85.7	M	<1	<.5	<.5	<2	<1.00	56.3	<.5	<.5
014806366 L Broad Run ab Shadyside Rd nr Romansville, PA (LAT 39 58 02N LONG 075 42 56W)													
MAY 2005													
25...	72.4	<.5	<.5	86.1	<.5	<1	<.5	<.5	<2	<1.00	76.8	M	<.5
SEP													
28...	.0	<.5	<.5	100	<.5	<1	<.5	<.5	<2	<1.00	69.3	<.5	<.5
014806368 Unn Trib to Little Broad Run nr Romansville, PA (LAT 39 57 51N LONG 075 43 02W)													
MAY 2005													
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
10...	.0	<.5	M	77.8	M	<1	<.5	<.5	<2	<1.00	61.2	M	<.5
SEP													
28...	.0	<.5	M	110	<.5	<1	<.5	<.5	<2	<1.00	86.2	M	<.5
014806369 L Broad Run bl Shadyside Road near Romansville, PA (LAT 39 57 49N LONG 075 42 52W)													
MAY 2005													
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
10...	.0	<.5	<.5	76.2	M	<1	<.5	M	<2	<1.00	48.7	<.5	<.5
SEP													
28...	.0	<.5	<.5	94.5	M	<1	<.5	<.5	<2	<1.00	74.7	<.5	<.5
01480637 Little Broad Run near Marshallton, PA (LAT 39 57 36N LONG 075 42 44W)													
MAY 2005													
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
10...	.0	<.5	M	84.3	M	<1	<.5	<.5	<2	<1.00	62.1	<.5	<.5
SEP													
28...	16.3	<.5	<.5	91.6	<.5	<1	<.5	<.5	<2	<1.00	88.5	<.5	<.5
28...	.0	<.5	<.5	96.0	M	<1	<.5	<.5	<2	<1.00	67.4	<.5	<.5
014806374 Outfall Trib to Broad Run ab Rt 162 nr Marshallton (LAT 39 56 59N LONG 075 42 19W)													
MAY 2005													
26...	22.1	<.5	<.5	81.9	<.5	<1	<.5	<.5	<2	<1.00	74.1	<.5	<.5
014806384 Unnamed Tributary to Broad Run at Marshallton, PA (LAT 39 56 47N LONG 075 41 06W)													
MAY 2005													
26...	24.9	<.5	<.5	80.9	<.5	<1	<.5	<.5	<2	<1.00	73.4	<.5	<.5
SEP													
27...	.0	<.5	<.5	90.0	M	<1	<.5	<.5	<2	<1.00	48.8	M	<.5
014806394 Un Tr to Un Tr to WB Brandywine Cr at Marshallton (LAT 39 56 38N LONG 075 40 33W)													
MAY 2005													
26...	25.0	<.5	<.5	80.0	<.5	<1	<.5	<.5	<2	<1.00	61.5	<.5	<.5
SEP													
27...	.0	<.5	<.5	87.0	M	<1	<.5	<.5	<2	<1.00	68.1	<.5	<.5
01480913 Unn Trib to EB Brandywine Creek at Marshallton, PA (LAT 39 57 19N LONG 075 40 56W)													
MAY 2005													
26...	25.4	<.5	<.5	81.3	<.5	<1	<.5	<.5	<2	<1.00	64.3	<.5	<.5
SEP													
27...	.0	<.5	<.5	86.7	M	<1	<.5	<.5	<2	<1.00	51.7	<.5	<.5

GROUND-WATER DATA COLLECTED AT SPECIAL-STUDY SITES
CHESTER COUNTY GROUND-WATER-QUALITY MONITORING PROGRAM

WATER-QUALITY DATA, WATER YEARS OCTOBER 2004 TO SEPTEMBER 2005

MISCELLANEOUS STATION ANALYSES

Date	Diethoxynonylphenol, water, fltrd, µg/L (62083)	Diethoxyoctylphenol, water, fltrd µg/L (61705)	D-Limonene, water, fltrd, µg/L (62073)	Ethoxyoctylphenol, water, fltrd µg/L (61706)	Fluoranthene water, fltrd, µg/L (34377)	Fluoranthene-d10, sur Sch 20/8033 wat flt pct rcv (99586)	HHCB, water, fltrd, µg/L (62075)	Indole, water, fltrd, µg/L (62076)	Isoborneol, water, fltrd, µg/L (62077)	Isophorone water, fltrd, µg/L (34409)	Isopropylbenzene water, fltrd, µg/L (62078)	Isoquinoline, water, fltrd, µg/L (62079)	Menthol water, fltrd, µg/L (62080)
0148063522 Unn Trib to Broad Run ab school nr Thorndale, PA (LAT 39 58 21N LONG 075 44 14W)													
MAY 2005													
26...	<5	<1	<.5	<1	<.5	74.7	<.5	<.5	<.5	<.5	<.5	<.5	<.5
0148063532 Unn Trib to Broad Run at Chestnut Ln nr Thorndale (LAT 39 58 02N LONG 075 44 51W)													
MAY 2005													
26...	<5	<1	<.5	<1	<.5	72.7	<.5	<.5	<.5	M	<.5	<.5	M
SEP													
27...	<5	<1	<.5	<1	<.5	85.7	<.5	<.5	<.5	<.5	<.5	<.5	<.5
014806366 L Broad Run ab Shadyside Rd nr Romansville, PA (LAT 39 58 02N LONG 075 42 56W)													
MAY 2005													
25...	<5	<1	<.5	<1	<.5	78.9	<.5	<.5	<.5	<.5	<.5	<.5	<.5
SEP													
28...	<5	<1	<.5	<1	<.5	97.6	<.5	<.5	<.5	<.5	<.5	<.5	<.5
014806368 Unn Trib to Little Broad Run nr Romansville, PA (LAT 39 57 51N LONG 075 43 02W)													
MAY 2005													
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
10...	<5	<1	<.5	<1	<.5	72.1	<.5	<.5	<.5	M	<.5	<.5	M
SEP													
28...	<5	<1	<.5	<1	M	95.1	<.5	M	<.5	<.5	<.5	<.5	<.5
014806369 L Broad Run bl Shadyside Road near Romansville, PA (LAT 39 57 49N LONG 075 42 52W)													
MAY 2005													
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
10...	<5	M	<.5	M	<.5	70.7	<.5	M	<.5	M	<.5	<.5	<.5
SEP													
28...	<5	<1	<.5	<1	M	95.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5
01480637 Little Broad Run near Marshallton, PA (LAT 39 57 36N LONG 075 42 44W)													
MAY 2005													
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
10...	<5	<1	<.5	M	<.5	75.9	<.5	M	<.5	M	<.5	<.5	<.5
SEP													
28...	<5	<1	<.5	<1	<.5	94.0	<.5	<.5	<.5	<.5	<.5	<.5	<.5
28...	<5	<1	<.5	<1	<.5	97.0	<.5	<.5	<.5	<.5	<.5	<.5	<.5
014806374 Outfall Trib to Broad Run ab Rt 162 nr Marshallton (LAT 39 56 59N LONG 075 42 19W)													
MAY 2005													
26...	<5	<1	<.5	<1	<.5	73.5	<.5	<.5	<.5	<.5	<.5	<.5	<.5
014806384 Unnamed Tributary to Broad Run at Marshallton, PA (LAT 39 56 47N LONG 075 41 06W)													
MAY 2005													
26...	<5	<1	<.5	<1	<.5	76.1	<.5	<.5	<.5	<.5	<.5	<.5	<.5
SEP													
27...	<5	<1	<.5	<1	<.5	84.1	<.5	<.5	<.5	<.5	<.5	<.5	<.5
014806394 Un Tr to Un Tr to WB Brandywine Cr at Marshallton (LAT 39 56 38N LONG 075 40 33W)													
MAY 2005													
26...	<5	<1	<.5	<1	<.5	73.8	<.5	<.5	<.5	<.5	<.5	<.5	<.5
SEP													
27...	<5	<1	<.5	<1	<.5	87.9	<.5	<.5	<.5	<.5	<.5	<.5	<.5
01480913 Unn Trib to EB Brandywine Creek at Marshallton, PA (LAT 39 57 19N LONG 075 40 56W)													
MAY 2005													
26...	<5	<1	<.5	<1	<.5	72.6	<.5	<.5	<.5	M	<.5	<.5	<.5
SEP													
27...	<5	<1	<.5	<1	M	85.7	<.5	<.5	<.5	<.5	<.5	<.5	<.5

GROUND-WATER DATA COLLECTED AT SPECIAL-STUDY SITES
CHESTER COUNTY GROUND-WATER-QUALITY MONITORING PROGRAM

WATER-QUALITY DATA, WATER YEARS OCTOBER 2004 TO SEPTEMBER 2005

MISCELLANEOUS STATION ANALYSES

Date	Meta-laxyl, water, fltrd, µg/L (50359)	Methyl salicy-late, water, fltrd, µg/L (62081)	Metola-chlor, water, fltrd, µg/L (39415)	Naphth-alene, water, fltrd, µg/L (34443)	p-Cresol, water, fltrd, µg/L (62084)	Penta-chloro-phenol, water, fltrd, µg/L (34459)	Phenan-threne, water, fltrd, µg/L (34462)	Phenol, water, fltrd, µg/L (34466)	Prome-ton, water, fltrd, µg/L (04037)	Pyrene, water, fltrd, µg/L (34470)	Tetra-chloro-ethene, water, fltrd, µg/L (34476)	Tri-bromo-methane water, fltrd, µg/L (34288)	Tri-butyl phos-phate, water, fltrd, µg/L (62089)
0148063522 Unn Trib to Broad Run ab school nr Thorndale, PA (LAT 39 58 21N LONG 075 44 14W)													
MAY 2005													
26...	<.5	<.5	<.5	<.5	<1	--	<.5	E.2	<.5	<.5	<.5	<.5	<.5
0148063532 Unn Trib to Broad Run at Chestnut Ln nr Thorndale (LAT 39 58 02N LONG 075 44 51W)													
MAY 2005													
26...	<.5	<.5	<.5	<.5	<1	--	<.5	E.3	<.5	<.5	<.5	<.5	<.5
SEP													
27...	<.5	E.1	<.5	<.5	M	--	<.5	<.5	<.5	<.5	<.5	<.5	<.5
014806366 L Broad Run ab Shadyside Rd nr Romansville, PA (LAT 39 58 02N LONG 075 42 56W)													
MAY 2005													
25...	<.5	<.5	<.5	<.5	<1	--	<.5	E.2	<.5	<.5	<.5	<.5	<.5
SEP													
28...	<.5	M	<.5	<.5	<1	--	<.5	1.0	<.5	<.5	<.5	<.5	<.5
014806368 Unn Trib to Little Broad Run nr Romansville, PA (LAT 39 57 51N LONG 075 43 02W)													
MAY 2005													
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
10...	<.5	M	M	<.5	M	<2	<.5	E.2	<.5	<.5	<.5	<.5	<.5
SEP													
28...	<.5	M	E.1	M	M	--	M	1.4	<.5	M	<.5	<.5	<.5
014806369 L Broad Run bl Shadyside Road near Romansville, PA (LAT 39 57 49N LONG 075 42 52W)													
MAY 2005													
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
10...	<.5	<.5	M	<.5	M	<2	M	E.1	<.5	<.5	<.5	<.5	<.5
SEP													
28...	<.5	M	<.5	M	<1	--	M	1.1	<.5	M	<.5	<.5	<.5
01480637 Little Broad Run near Marshallton, PA (LAT 39 57 36N LONG 075 42 44W)													
MAY 2005													
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN													
10...	<.5	M	M	<.5	M	<2	M	E.5	<.5	<.5	<.5	<.5	<.5
SEP													
28...	<.5	<.5	<.5	<.5	M	--	<.5	.6	<.5	<.5	<.5	<.5	<.5
28...	<.5	M	<.5	<.5	M	--	<.5	.6	<.5	<.5	<.5	<.5	<.5
014806374 Outfall Trib to Broad Run ab Rt 162 nr Marshallton (LAT 39 56 59N LONG 075 42 19W)													
MAY 2005													
26...	<.5	<.5	<.5	<.5	<1	--	<.5	E.1	<.5	<.5	<.5	<.5	<.5
014806384 Unnamed Tributary to Broad Run at Marshallton, PA (LAT 39 56 47N LONG 075 41 06W)													
MAY 2005													
26...	<.5	<.5	<.5	<.5	<1	--	<.5	E.3	<.5	<.5	<.5	<.5	<.5
SEP													
27...	<.5	M	<.5	<.5	<1	--	<.5	E.1	<.5	<.5	<.5	<.5	<.5
014806394 Un Tr to Un Tr to WB Brandywine Cr at Marshallton (LAT 39 56 38N LONG 075 40 33W)													
MAY 2005													
26...	<.5	<.5	<.5	<.5	<1	--	<.5	E.1	<.5	<.5	<.5	<.5	<.5
SEP													
27...	<.5	M	<.5	<.5	<1	--	<.5	E.2	<.5	<.5	<.5	<.5	<.5
01480913 Unn Trib to EB Brandywine Creek at Marshallton, PA (LAT 39 57 19N LONG 075 40 56W)													
MAY 2005													
26...	<.5	<.5	<.5	<.5	<1	--	<.5	<.5	<.5	<.5	<.5	<.5	<.5
SEP													
27...	<.5	E.1	<.5	<.5	<1	--	<.5	E.1	<.5	M	<.5	<.5	<.5

GROUND-WATER DATA COLLECTED AT SPECIAL-STUDY SITES
CHESTER COUNTY GROUND-WATER-QUALITY MONITORING PROGRAM

WATER-QUALITY DATA, WATER YEARS OCTOBER 2004 TO SEPTEMBER 2005

MISCELLANEOUS STATION ANALYSES

Date	Triclosan, water, fltrd, µg/L (62090)	Triethyl citrate water, fltrd, µg/L (62091)	Triphenyl phosphate, water, fltrd, µg/L (62092)	Tris(2-butoxyethyl) phosphate, wat flt µg/L (62093)	Tris(2-chloroethyl) phosphate, wat flt µg/L (62087)	Tris(dichloro-i-Pr) phosphate, wat flt µg/L (62088)	Data base number	Medium code
0148063522 Unn Trib to Broad Run ab school nr Thorndale, PA (LAT 39 58 21N LONG 075 44 14W)								
MAY 2005								
26...	<1	<.5	<.5	<.5	<.5	<.5	01	9
0148063532 Unn Trib to Broad Run at Chestnut Ln nr Thorndale (LAT 39 58 02N LONG 075 44 51W)								
MAY 2005								
26...	<1	<.5	<.5	<.5	E.1	M	01	9
SEP								
27...	<1	<.5	<.5	<.5	<.5	<.5	01	9
014806366 L Broad Run ab Shadyside Rd nr Romansville, PA (LAT 39 58 02N LONG 075 42 56W)								
MAY 2005								
25...	<1	<.5	<.5	<.5	<.5	<.5	01	9
SEP								
28...	<1	<.5	<.5	<.5	<.5	<.5	01	9
014806368 Unn Trib to Little Broad Run nr Romansville, PA (LAT 39 57 51N LONG 075 43 02W)								
MAY 2005								
25...	--	--	--	--	--	--	01	9
JUN								
10...	<1	<.5	<.5	<.5	<.5	<.5	01	9
SEP								
28...	<1	<.5	<.5	<.5	<.5	<.5	01	9
014806369 L Broad Run bl Shadyside Road near Romansville, PA (LAT 39 57 49N LONG 075 42 52W)								
MAY 2005								
25...	--	--	--	--	--	--	01	9
JUN								
10...	<1	<.5	<.5	<.5	<.5	<.5	01	9
SEP								
28...	<1	<.5	<.5	<.5	<.5	<.5	01	9
01480637 Little Broad Run near Marshallton, PA (LAT 39 57 36N LONG 075 42 44W)								
MAY 2005								
25...	--	--	--	--	--	--	01	9
JUN								
10...	<1	<.5	<.5	<.5	<.5	<.5	01	9
SEP								
28...	<1	<.5	<.5	<.5	<.5	<.5	01	9
28...	<1	<.5	<.5	<.5	<.5	<.5	01	9
014806374 Outfall Trib to Broad Run ab Rt 162 nr Marshallton (LAT 39 56 59N LONG 075 42 19W)								
MAY 2005								
26...	<1	<.5	<.5	<.5	<.5	<.5	01	9
014806384 Unnamed Tributary to Broad Run at Marshallton, PA (LAT 39 56 47N LONG 075 41 06W)								
MAY 2005								
26...	<1	<.5	<.5	<.5	<.5	M	01	9
SEP								
27...	<1	<.5	<.5	<.5	<.5	<.5	01	9
014806394 Un Tr to Un Tr to WB Brandywine Cr at Marshallton (LAT 39 56 38N LONG 075 40 33W)								
MAY 2005								
26...	<1	<.5	<.5	<.5	<.5	M	01	9
SEP								
27...	<1	<.5	<.5	<.5	<.5	<.5	01	9
01480913 Unn Trib to EB Brandywine Creek at Marshallton, PA (LAT 39 57 19N LONG 075 40 56W)								
MAY 2005								
26...	<1	<.5	<.5	<.5	<.5	M	01	9
SEP								
27...	<1	<.5	<.5	<.5	<.5	<.5	01	9

GROUND-WATER DATA COLLECTED AT SPECIAL-STUDY SITES
GROUND WATER PESTICIDES NETWORK PROJECT

The following tables contain water-quality data from wells sampled in Pennsylvania during the third year of the Ground Water Pesticides Network project. The 5-year study is being conducted by the U.S. Geological Survey in cooperation with the Pennsylvania Department of Agriculture. Sites were selected to meet project objectives in the Annual Baseline, Baseline Trends, and Hot-Spot Trends networks. In fiscal year 2005, 28 Annual-Baseline sites were selected in the Devonian-Silurian carbonate hydrogeologic setting to fill a data gap in ground-water quality. Sites in this network are sampled one time as part of an occurrence survey. The Baseline Trend network was discontinued in 2005 due to the relatively low concentrations of pesticides (compared to previous samples collected at the sites) and the higher analytical reporting levels which led to a preponderance of censored data (less-than values). A research component was added to the project in 2005 which involved reconnaissance re-sampling for pesticide parent compounds, breakdown products (degradates), nitrate, bromide, and chloride in wells at and near the three concentration “hot spots” identified and sampled as part of the original project. Data from samples collected at and near “hot spot” Local Well BE 1370 are included in this volume. The well locations are shown in Figure 17.

The following analytical methods were used for the October and December 2004 samples analyzed at the PA Department of Environmental Protection Laboratory (PADEP) (Analyzing Agency Code 9813), pesticides -SAC USGS2 (EPA 525.2) solid phase extraction gas chromatography/mass spectrometry, nitrate/nitrite - colorimetry (cadmium reduction), total coliform and E. coli bacteria - Colilert Quantitray. The pesticides for the May 2005 sample were analyzed at the USGS National Water Quality Laboratory (NWQL) (Analyzing Agency Code 80020) using solid-phase extraction and capillary-column gas chromatography/mass spectrometry with selected-ion monitoring, and the nitrate/nitrite and total coliform and *E. coli* continued to be analyzed at the PADEP Laboratory. Pesticides analyzed for this study are identified in the table which follows study area maps. Pesticide samples collected at Local Well BE 1370 in August and other Berks County wells were analyzed at the USGS Organic Geochemistry Research Laboratory in Lawrence, Kansas (Analyzing Agency Code 82013) using liquid chromatography and mass spectrometry; nitrate was analyzed by colorimetry, automated-segmented flow (ASF), cadmium reduction-diazotization; bromide by colorimetry, automated-segmented flow, fluorescein; and chloride by ion chromatography were done at the USGS NWQL. Other data for the project can be found in the annual Water Data Report PA-05-2. For additional information, contact Kevin Breen (717-730-6970; email - kjbreen@usgs.gov) or Connie Loper (717-730-6976; email - caloper@usgs.gov) at the USGS Pennsylvania Water Science Center, 215 Limekiln Road, New Cumberland, PA 17070.

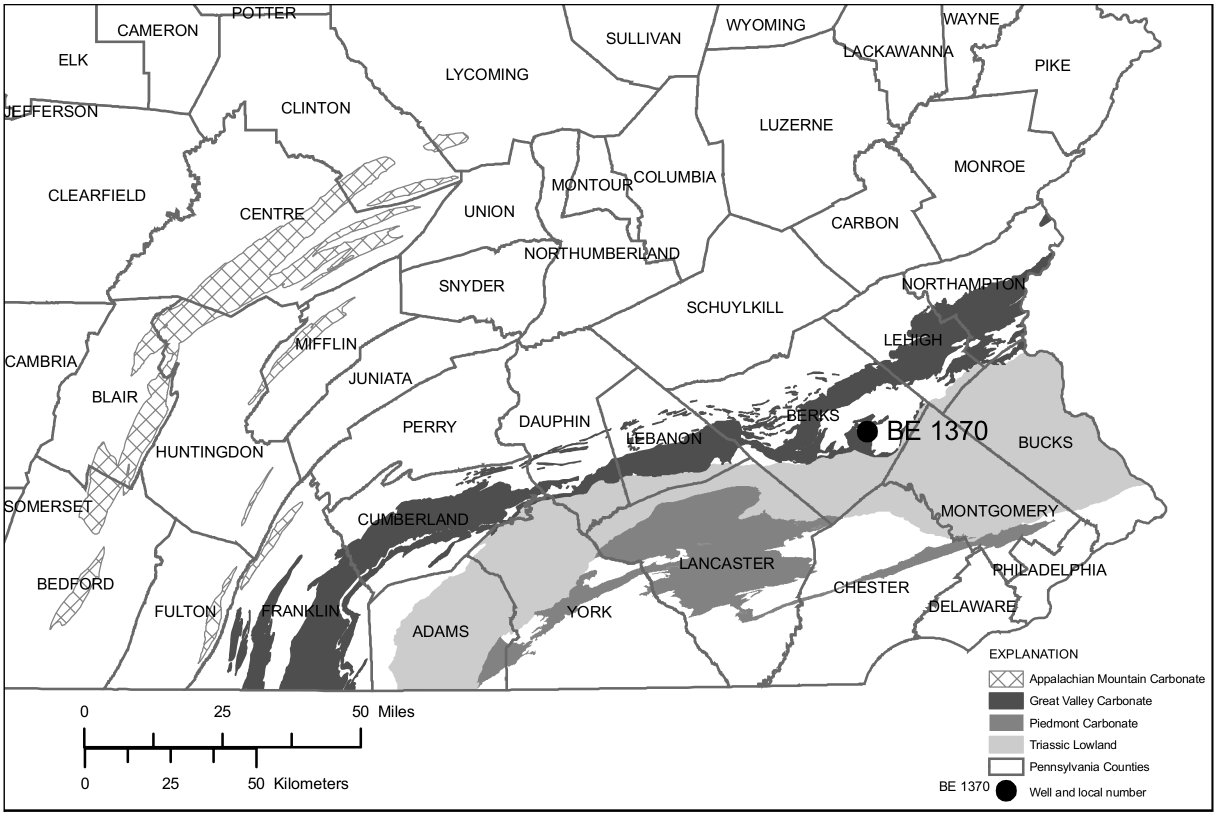

Figure 16.--Location of the Hot-Spot Trend Network well, in the Delaware River Basin, sampled as part of the Ground Water Pesticides Network project.

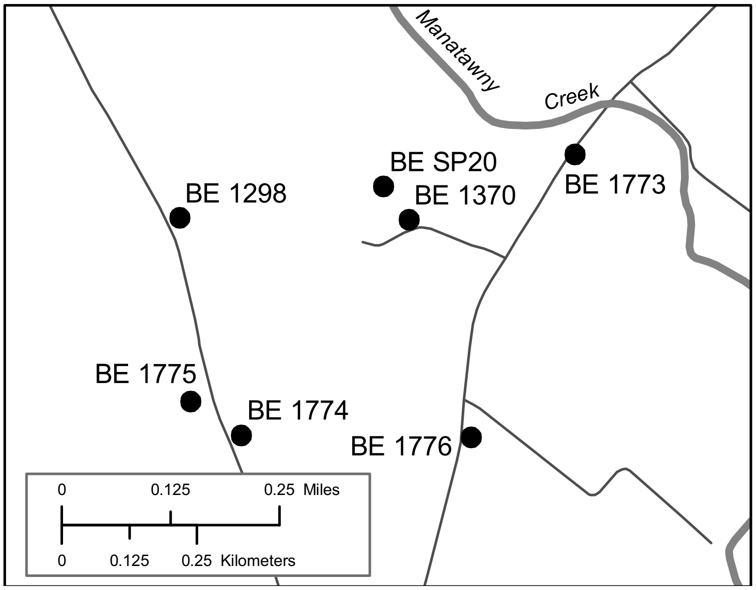

Figure 17.--Locations of ground-water wells and a spring sampled in August 2005 as part of the Ground Water Pesticides Network project.

GROUND-WATER DATA COLLECTED AT SPECIAL-STUDY SITES
GROUND WATER PESTICIDES NETWORK PROJECT

402238075443401 -- BE 1370

REMARKS.--Explanation of column headings--Station number: 15-digit unique identifier based on site latitude (first six digits), longitude (digits seven through thirteen), and a 2-digit sequence number suffix; Altitude of land surface: land-surface at well site in feet above sea level; Sampling method code 4040 = submersible pump; Sampling condition code 8 = pumping; µS/cm: microsiemens per centimeter at 25 degrees Celsius; deg C: degrees Celsius; µg/L: micrograms per liter (parts per billion); mg/L = milligrams per liter (parts per million); "<" = less than; ">" = more than; MPN = Most Probable Number; GF = Glass fiber filter; Type of sample related QA data code (99111) "1" = no associated quality-assurance samples and "40 " = spike.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Station number	Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Depth of well, feet below LSD (72008)	Altitude of land surface feet (72000)	Pump or flow period prior to sampling, minutes (72004)	Sampling method, code (82398)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)
OCT 2004 06...	402238075443401	20041006	0950	1028	9813	110	330	40	4040	768	5.9	55
DEC 15...	402238075443401	20041215	0935	1028	9813	110	330	45	4040	760	4.3	39
MAY 2005 24...	402238075443401	20050524	0925	1028	80020	110	330	35	4040	744	10.0	95

Date	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	E coli, Defined Substr. Tech., water, MPN/ 100 mL (50468)	Total coliform, Defined Tech., MPN/ 100 mL (50569)	2,6-Diethylaniline water fltrd 0.7µ GF µg/L (82660)	CIAT, water, fltrd, µg/L (04040)
OCT 2004 06...	7.1	716	8.9	12.9	22.0	22.0	.010	<1	15	--	--
DEC 15...	7.1	658	--	11.1	--	14.7	<.010	4	>200	--	--
MAY 2005 24...	7.1	690	18.3	12.0	--	23.5	<.010	<1	1	<.006	E.194

Date	Acetochlor, water, fltrd, µg/L (49260)	Alachlor, water, fltrd, µg/L (46342)	alpha-HCH, water, fltrd, µg/L (34253)	alpha-HCH-d6, surrog, wat flt 0.7µ GF percent recovry (91065)	Atrazine, water, fltrd, µg/L (39632)	Azinphos-methyl, water, fltrd 0.7µ GF µg/L (82686)	Benfluralin, water, fltrd 0.7µ GF µg/L (82673)	Butylate, water, fltrd, µg/L (04028)	Carbaryl, water, fltrd 0.7µ GF µg/L (82680)	Carbofuran, water, fltrd 0.7µ GF µg/L (82674)	Chlorothalonil, water, fltrd 0.7µ GF µg/L (49306)	Chlorpyrifos water, fltrd, µg/L (38933)	cis-Permethrin water fltrd 0.7µ GF µg/L (82687)
OCT 2004 06...	--	--	--	--	--	--	--	--	--	--	--	--	--
DEC 15...	<.100	<.10	--	--	.18	--	--	--	--	--	<.10	<.10	--
MAY 2005 24...	<.006	.046	<.005	91.5	.154	<.050	<.010	<.004	<.041	<.020	--	<.005	<.006

Date	Cyanazine, water, fltrd, µg/L (04041)	DCPA, water fltrd 0.7µ GF µg/L (82682)	Desulfinyl fipronil, water, fltrd, µg/L (62170)	Diazinon, water, fltrd, µg/L (39572)	Diazinon-d10 surrog. wat flt 0.7µ GF percent recovry (91063)	Dichlobenil, water, fltrd, µg/L (63009)	Dieldrin, water, fltrd, µg/L (39381)	Disulfoton, water, fltrd 0.7µ GF µg/L (82677)	EPTC, water, fltrd 0.7µ GF µg/L (82668)	Ethalfluralin, water, fltrd 0.7µ GF µg/L (82663)	Ethoprop, water, fltrd 0.7µ GF µg/L (82672)	Fenpropathrin, water, fltrd, µg/L (64044)	Desulfinylfipronil amide, wat flt µg/L (62169)
OCT 2004 06...	--	--	--	--	--	--	--	--	--	--	--	--	--
DEC 15...	--	--	--	--	--	<.10	--	--	--	--	--	<.10	--
MAY 2005 24...	<.018	<.003	<.012	<.005	81.7	--	<.009	<.02	<.004	<.009	<.005	--	<.029

Date	Fipronil sulfide water, fltrd, µg/L (62167)	Fipronil sulfone water, fltrd, µg/L (62168)	Fipronil, water, fltrd, µg/L (62166)	Fonofos water, fltrd, µg/L (04095)	Hexachlorocyclopentadiene, wat unf µg/L (34386)	Lindane water, fltrd, µg/L (39341)	Linuron water fltrd 0.7µ GF µg/L (82666)	Malathion, water, fltrd, µg/L (39532)	Methyl parathion, water, fltrd 0.7µ GF µg/L (82667)	Metolachlor, water, fltrd, µg/L (39415)	Metribuzin, water, fltrd, µg/L (82630)	Molinate, water, fltrd 0.7µ GF µg/L (82671)	Napropamide, water, fltrd 0.7µ GF µg/L (82684)
OCT 2004 06...	--	--	--	--	--	--	--	--	--	--	--	--	--
DEC 15...	--	--	--	--	<.1	--	--	--	--	.48	<.10	--	--
MAY 2005 24...	<.013	<.024	<.016	<.003	--	<.004	<.035	<.027	<.015	.216	<.006	<.003	<.007

GROUND-WATER DATA COLLECTED AT SPECIAL-STUDY SITES GROUND WATER PESTICIDES NETWORK PROJECT

402238075443401 -- BE 1370--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	p,p'-DDE, water, fltrd, µg/L (34653)	Parathion, water, fltrd, µg/L (39542)	Pebulate, water, fltrd 0.7µ GF µg/L (82669)	Pendimethalin, water, fltrd 0.7µ GF µg/L (82683)	Phorate water fltrd 0.7µ GF µg/L (82664)	Phosmet water, fltrd, µg/L (61601)	Prometon, water, fltrd, µg/L (04037)	Propyzamide, water, fltrd 0.7µ GF µg/L (82676)	Propachlor, water, fltrd, µg/L (04024)	Propanil, water, fltrd 0.7µ GF µg/L (82679)	Propargite, water, fltrd 0.7µ GF µg/L (82685)	Simazine, water, fltrd, µg/L (04035)	Tebuthiuron water fltrd 0.7µ GF µg/L (82670)
OCT 2004													
06...	--	--	--	--	--	--	--	--	--	--	--	--	--
DEC													
15...	--	--	--	<.100	--	<.100	--	--	--	--	--	<.10	--
MAY 2005													
24...	<.003	<.010	<.004	<.022	<.011	--	<.01	<.004	<.025	<.011	<.02	<.005	<.02

Date	Terbacil, water, fltrd 0.7µ GF µg/L (82665)	Terbufos, water, fltrd 0.7µ GF µg/L (82675)	Thiobencarb water fltrd 0.7µ GF µg/L (82681)	Triallate, water, fltrd 0.7µ GF µg/L (82678)	Trifluralin, water, fltrd 0.7µ GF µg/L (82661)	Purpose site visit, code (50280)	Sample purpose code (71999)	Sample volume, Schedule 2001, mL (99856)	Sampling condition, code (72006)	Type of sample related QA data, code (99111)
OCT 2004										
06...	--	--	--	--	--	2001	50.00	--	8.00	1
DEC										
15...	--	--	--	--	--	2001	50.00	--	8.00	1
MAY 2005										
24...	<.034	<.02	<.010	<.006	<.009	2001	50.00	909	8.00	40

GROUND-WATER DATA COLLECTED AT SPECIAL-STUDY SITES
GROUND WATER PESTICIDES NETWORK PROJECT

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Depth to water level, feet below LSD (72019)	Sampling method, code (82398)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Bromide water, fltrd, mg/L (71870)	Chloride, water, fltrd, mg/L (00940)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	2-[(2-Ethyl-6methyl phenyl) amino]2 oxoESA µg/L (62850)
402239075443701 BE SP20 (LAT 40 22 39N LONG 075 44 37W)													
AUG 2005 18...	1045	--	4090	755	5.2	--	608	13.3	.17	12.3	12.6	E.006	.08
402237075445501 BE 1298 (LAT 40 22 37N LONG 075 44 55W)													
AUG 2005 23...	1000	19.30	4040	753	8.4	7.2	715	12.4	.17	21.2	15.3	<.008	.02
402238075443401 BE 1370 (LAT 40 22 38N LONG 075 44 34W)													
AUG 2005 18...	1020	15.45	4040	755	8.7	--	735	13.7	.14	5.23	24.5	<.008	.08
402242075442201 BE 1773 (LAT 40 22 42N LONG 075 44 22W)													
AUG 2005 23...	1700	--	4090	753	.1	7.6	528	13.5	.20	7.69	<.06	<.008	<.02
402225075444801 BE 1774 (LAT 40 22 25N LONG 075 44 48W)													
AUG 2005 23...	1430	40.54	4040	753	.1	7.5	662	11.9	.17	17.0	.58	<.008	<.02
402227075445201 BE 1775 (LAT 40 22 27N LONG 075 44 52W)													
AUG 2005 23...	1110	33.76	4040	753	7.1	7.2	795	12.8	.21	40.6	6.44	<.008	<.02
402225075443001 BE 1776 (LAT 40 22 25N LONG 075 44 30W)													
AUG 2005 23...	1245	27.22	4040	753	1.7	7.3	747	13.5	.19	37.0	2.77	<.008	<.02

Date	CIAT, water, fltrd, µg/L (04040)	CEAT, water, fltrd, µg/L (04038)	Alachlor 2nd amide, water, fltrd, µg/L (63781)	Acetochlor 3rd amide, water, fltrd, µg/L (63782)	OIAT, water, fltrd 0.7µ GF µg/L (62676)	OIET, water, fltrd, µg/L (50355)	OEAT, water, fltrd 0.7µ GF µg/L (62678)	Acetochlor ESA, water, fltrd 0.7µ GF µg/L (61029)	Acetochlor OA, water, fltrd 0.7µ GF µg/L (61030)	Acetochlor SAA, water, fltrd, µg/L (62847)	Acetochlor, water, fltrd, µg/L (49260)	Alachlor ESA SA, water, fltrd, µg/L (62849)	Alachlor ESA, water, fltrd 0.7µ GF µg/L (50009)
402239075443701 BE SP20 (LAT 40 22 39N LONG 075 44 37W)													
AUG 2005 18...	.370	.030	<.02	<.02	.030	<.025	<.025	.03	<.02	<.02	<.02	<.02	.26
402237075445501 BE 1298 (LAT 40 22 37N LONG 075 44 55W)													
AUG 2005 23...	.470	.030	<.02	<.02	<.025	<.025	<.025	<.02	<.02	<.02	<.02	<.02	.08
402238075443401 BE 1370 (LAT 40 22 38N LONG 075 44 34W)													
AUG 2005 18...	.360	<.025	<.02	<.02	.040	<.025	<.025	.03	<.02	<.02	<.02	<.02	.31
402242075442201 BE 1773 (LAT 40 22 42N LONG 075 44 22W)													
AUG 2005 23...	<.025	<.025	<.02	<.02	<.025	<.025	<.025	<.02	<.02	<.02	<.02	<.02	.02
402225075444801 BE 1774 (LAT 40 22 25N LONG 075 44 48W)													
AUG 2005 23...	<.025	<.025	<.02	<.02	<.025	<.025	<.025	<.02	<.02	<.02	<.02	<.02	.13
402227075445201 BE 1775 (LAT 40 22 27N LONG 075 44 52W)													
AUG 2005 23...	.260	<.025	<.02	<.02	.030	<.025	<.025	<.02	<.02	<.02	<.02	<.02	.92
402225075443001 BE 1776 (LAT 40 22 25N LONG 075 44 30W)													
AUG 2005 23...	.040	<.025	<.02	<.02	<.025	<.025	<.025	<.02	<.02	<.02	<.02	.03	.12

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Date	Ala-chlor OA, water, fltrd 0.7µ GF µg/L (61031)	Ala-chlor SAA, water, fltrd, µg/L (62848)	Ala-chlor, water, fltrd, µg/L (46342)	Atra-zine, water, fltrd, µg/L (39632)	Broma-cil, water, fltrd, µg/L (04029)	Chloro-di-amino-s-tri-azine, wat flt µg/L (04039)	Cyana-zine acid, water, wat flt µg/L (61745)	Cyana-zine amide, water, fltrd, µg/L (61709)	Cyana-zine, water, fltrd, µg/L (04041)	De-chloro-aceto-chlor, water, fltrd, µg/L (63778)	De-chloro-ala-chlor, water, fltrd, µg/L (63777)	De-chloro-dimeth-enamid, water, fltrd, µg/L (63779)	De-chloro-metola-chlor, water, fltrd, µg/L (63780)
402239075443701 BE SP20 (LAT 40 22 39N LONG 075 44 37W)													
AUG 2005													
18...	.05	<.02	<.02	.100	<.025	.210	<.025	<.025	<.025	<.02	<.02	<.02	.05
402237075445501 BE 1298 (LAT 40 22 37N LONG 075 44 55W)													
AUG 2005													
23...	<.02	<.02	<.02	.110	<.025	.270	<.025	<.025	<.025	<.02	<.02	<.02	<.02
402238075443401 BE 1370 (LAT 40 22 38N LONG 075 44 34W)													
AUG 2005													
18...	.99	.03	.04	.150	<.025	.210	<.025	<.025	<.025	<.02	.02	<.02	<.02
402242075442201 BE 1773 (LAT 40 22 42N LONG 075 44 22W)													
AUG 2005													
23...	<.02	<.02	<.02	<.025	<.025	<.025	<.025	<.025	<.025	<.02	<.02	<.02	<.02
402225075444801 BE 1774 (LAT 40 22 25N LONG 075 44 48W)													
AUG 2005													
23...	<.02	<.02	<.02	<.025	<.025	.030	<.025	<.025	<.025	<.02	<.02	<.02	<.02
402227075445201 BE 1775 (LAT 40 22 27N LONG 075 44 52W)													
AUG 2005													
23...	<.02	<.02	<.02	.080	<.025	.150	<.025	<.025	<.025	<.02	<.02	<.02	<.02
402225075443001 BE 1776 (LAT 40 22 25N LONG 075 44 30W)													
AUG 2005													
23...	<.02	<.02	<.02	<.025	<.025	<.025	<.025	<.025	<.025	<.02	<.02	<.02	<.02

Date	De-ethyl cyana-zine acid, wat flt µg/L (61750)	De-ethyl cyana-zine amide, wat flt µg/L (61751)	De-ethyl cyana-zine, water, fltrd, µg/L (61749)	De-methyl fluo-meturon water, fltrd, µg/L (61755)	Dimeth-enamid ESA, water, fltrd, µg/L (61951)	Dimeth-enamid OA, water, fltrd, µg/L (62482)	Dimeth-enamid water, fltrd, µg/L (61588)	Diuron, water, fltrd, µg/L (50374)	Flufen-acet ESA, water, fltrd, µg/L (61952)	Flufe-nacet OA, water, fltrd, µg/L (62483)	Flufe-nacet, water, fltrd, µg/L (62481)	Fluo-meturon water fltrd 0.7µ GF µg/L (38811)	Hydroxy aceto-chlor, water, fltrd, µg/L (63784)
402239075443701 BE SP20 (LAT 40 22 39N LONG 075 44 37W)													
AUG 2005													
18...	<.025	<.025	<.20	<.2	<.02	<.02	<.02	<.2	<.02	<.02	<.02	<.2	<.02
402237075445501 BE 1298 (LAT 40 22 37N LONG 075 44 55W)													
AUG 2005													
23...	<.025	<.025	<.20	<.2	<.02	<.02	<.02	<.2	<.02	<.02	<.02	<.2	<.02
402238075443401 BE 1370 (LAT 40 22 38N LONG 075 44 34W)													
AUG 2005													
18...	<.025	<.025	<.20	<.2	<.02	<.02	<.02	<.2	<.02	<.02	<.02	<.2	<.02
402242075442201 BE 1773 (LAT 40 22 42N LONG 075 44 22W)													
AUG 2005													
23...	<.025	<.025	<.20	<.2	<.02	<.02	<.02	<.2	<.02	<.02	<.02	<.2	<.02
402225075444801 BE 1774 (LAT 40 22 25N LONG 075 44 48W)													
AUG 2005													
23...	<.025	<.025	<.20	<.2	<.02	<.02	<.02	<.2	<.02	<.02	<.02	<.2	<.02
402227075445201 BE 1775 (LAT 40 22 27N LONG 075 44 52W)													
AUG 2005													
23...	<.025	<.025	<.20	<.2	<.02	<.02	<.02	<.2	<.02	<.02	<.02	<.2	<.02
402225075443001 BE 1776 (LAT 40 22 25N LONG 075 44 30W)													
AUG 2005													
23...	<.025	<.025	<.20	<.2	<.02	<.02	<.02	<.2	<.02	<.02	<.02	<.2	<.02

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WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Hydroxy alachlor, water, fltrd, µg/L (63783)	Hydroxy dimethenamid, water, fltrd, µg/L (64045)	Hydroxy metolachlor, water, fltrd, µg/L (63785)	Hydroxysimazine, water, fltrd, µg/L (63154)	Linuron water fltrd 0.7µ GF µg/L (38478)	Metolachlor ESA, water, fltrd 0.7µ GF µg/L (61043)	Metolachlor OA, water, fltrd 0.7µ GF µg/L (61044)	Metolachlor, water, fltrd, µg/L (39415)	Prometon, water, fltrd, µg/L (04037)	Propachlor ESA, water, fltrd 0.7µ GF µg/L (62766)	Propachlor OA, water, fltrd 0.7µ GF µg/L (62767)	Propachlor, water, fltrd, µg/L (04024)	Propazine, water, fltrd, µg/L (38535)
402239075443701 BE SP20 (LAT 40 22 39N LONG 075 44 37W)													
AUG 2005 18...	<.02	<.02	<.02	<.025	<.2	1.92	.25	.16	<.025	<.05	<.02	<.02	<.025
402237075445501 BE 1298 (LAT 40 22 37N LONG 075 44 55W)													
AUG 2005 23...	<.02	<.02	<.02	<.025	<.2	2.29	.02	<.02	<.025	<.05	<.02	<.02	<.025
402238075443401 BE 1370 (LAT 40 22 38N LONG 075 44 34W)													
AUG 2005 18...	<.02	<.02	<.02	<.025	<.2	.63	.41	.19	<.025	<.05	<.02	<.02	<.025
402242075442201 BE 1773 (LAT 40 22 42N LONG 075 44 22W)													
AUG 2005 23...	<.02	<.02	<.02	<.025	<.2	.04	<.02	<.02	<.025	<.05	<.02	<.02	<.025
402225075444801 BE 1774 (LAT 40 22 25N LONG 075 44 48W)													
AUG 2005 23...	<.02	<.02	<.02	<.025	<.2	.19	<.02	<.02	<.025	<.05	<.02	<.02	<.025
402227075445201 BE 1775 (LAT 40 22 27N LONG 075 44 52W)													
AUG 2005 23...	<.02	<.02	<.02	<.025	<.2	1.05	.03	<.02	<.025	<.05	<.02	<.02	<.025
402225075443001 BE 1776 (LAT 40 22 25N LONG 075 44 30W)													
AUG 2005 23...	<.02	<.02	<.02	<.025	<.2	.22	<.02	<.02	<.025	<.05	<.02	<.02	<.025

Date	Simazine, water, fltrd, µg/L (04035)
402239075443701 BE SP20 (LAT 40 22 39N LONG 075 44 37W)	
AUG 2005 18...	<.025
402237075445501 BE 1298 (LAT 40 22 37N LONG 075 44 55W)	
AUG 2005 23...	<.025
402238075443401 BE 1370 (LAT 40 22 38N LONG 075 44 34W)	
AUG 2005 18...	<.025
402242075442201 BE 1773 (LAT 40 22 42N LONG 075 44 22W)	
AUG 2005 23...	<.025
402225075444801 BE 1774 (LAT 40 22 25N LONG 075 44 48W)	
AUG 2005 23...	<.025
402227075445201 BE 1775 (LAT 40 22 27N LONG 075 44 52W)	
AUG 2005 23...	<.025
402225075443001 BE 1776 (LAT 40 22 25N LONG 075 44 30W)	
AUG 2005 23...	<.025

Compounds analyzed at the Pennsylvania Department of Environmental Protection Laboratory

Pesticide Schedule Used for Annual Baseline Trends and Hot-Spot Trends Networks (SAC USGS2)

Analyte	NWIS Parameter Code
EPA 525.2	
Acetochlor	49260
Alachlor	46342
Atrazine	39632
Chlorothalonil	49306
Chlorpyriphos (Dursban)	38933
Dichlobenil	63009
Fenpropathrin	64044
Hexachlorocyclopentadiene	34386
Metolachlor	39415
Metribuzin	82630
Pendimethalin	82683
Phosmet (added after April 2004)	61601
Simazine	04035

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Compounds analyzed at the U.S. Geological Survey National Water-Quality Laboratory

Pesticide Schedule (SH2001)		Pesticide Schedule (SH2001)	
Analyte	NWIS Parameter Code	Analyte	NWIS Parameter Code
Alpha-HC	34253	Parathion-methyl	82667
Acetochlor	49260	Metolachlor	39415
Alachlor	46342	Metribuzin	82630
2,6 –Diethylaniline	82660	Molinate	82671
Atrazine	39632	Napropamide	82684
Desethyl atrazine (currentlyCIAT {2-chloro-4-isopropylamino-6-amino-s-trizine})	04040	p,p’-DDE	34653
Azinphos-methyl	82686	Parathion	39542
Benfluralin	82673	Pebulate	82669
Butylate	04028	Pendimethalin	82683
Carbaryl	82680	Phorate	82664
Carbofuran	82674	Prometon	04037
Chlorpyrifos	38933	Propyzamide	82676
cis-Permethrin	82687	Propachlor	04024
Cyanazine	04041	Propanil	82679
Dacthal (DCPA)	82682	Propargite	82685
Desulfinylfipronil	62170	Simazine	04035
Desulfinylfipronil amide	62169	Tebuthiuron	82670
Diazinon	39572	Terbacil	82665
Diazinon-d10 (surrogate)	91063	Terbufos	82675
Dieldrin	39381	Thiobencarb	82681
Disulfoton	82677	Triallate	82678
EPTC	82668	Trifluralin	82661
Ethalfluralin	82663		
Ethoprophos	82672		
Fipronil	62166		
Fipronil sulfide	62167		
Fipronil sulfone	62168		
Fonofos	04095		
alpha-HCH-d6 (surrogate)	91065		
Lindane	39341		
Linuron	82666		
Malathion	39532		

GROUND-WATER DATA COLLECTED AT SPECIAL-STUDY SITES
DELAWARE RIVER BASIN NAWQA PROJECT

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.

NAWQA study units are divided into three groups that are studied intensively on a rotational basis. Three NAWQA studies have been active in the state of Pennsylvania. The Lower Susquehanna (LSUS) study unit conducted intensive sampling from 1993 through 1995 and the Allegheny and Monongahela River Basins (ALMN) study unit conducted intensive sampling from 1996 through 1998; sampling for both study units has been discontinued. The Delaware River Basin (DELR) study unit conducted intensive sampling from 1999 to 2001, and currently is in a low-intensity phase. The DELR is scheduled to resume intensive sampling in 2009.

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/

DELR NAWQA low-intensity phase ground-water sample locations are shown on figure 18. Data from the ground-water sample locations are published in the analyses of ground-water samples collected at special-study sites section of this report. A complete list of DELR NAWQA data, including water-quality results from all synoptic and fixed sampling sites, can be found in ’Water Resources Data, New Jersey, Water Year 2003’, Water-Data Report NJ-05-3.

GROUND WATER IN THE CLASTIC BEDROCK WITHIN THE TRIASSIC LOWLANDS SECTION OF THE PIEDMONT PHYSIOGRAPHIC PROVINCE

The following table contains site, water-level, and water-quality data from a network of five domestic wells. The wells are a subset from a network of 30 wells that were established and sampled in 1999 as part of the National Water-Quality Assessment Program in the Delaware River Basin.

The five wells were first re-sampled in 2003 to assess the status and trends of ground-water quality in the clastic bedrock of the Piedmont Physiographic Province (fig. 18). Samples were tested for field parameters, nutrients, major ions, trace elements, dissolved and volatile organic compounds (VOCs), pesticides (including their metabolites), and radioisotopes. The same wells were sampled again in 2005 to continue the assessment of ground-water-quality trends in this hydrogeologic setting. Analytical work on these samples were similar to those collected in 2003 but did not include radioisotopes. Many VOCs and pesticides constituents were not detected at any of the five wells. Data collected during the initial sampling of all 30 wells in 1999 for this network can be found in the annual ’Water Resources Data, Pennsylvania, Water Year 2000’, Water Data Report PA-00-1. Data collected in 2003 can be found in the annual ’Water Resources Data, Pennsylvania, Water Year 2003’, Water Data Report PA-03-1. For additional information, contact Jeff Fischer at the U.S. Geological Survey, 810 Bear Tavern Road, Suite 206, West Trenton, NJ 08628, 609-771-3953 (email: fischer@usgs.gov) or Connie Loper at the U.S. Geological Survey, 215 Limekiln Road, New Cumberland, PA 17070, 717-730-6976 (email: caloper@usgs.gov).

GROUND-WATER DATA COLLECTED AT SPECIAL-STUDY SITES DELAWARE RIVER BASIN NAWQA PROJECT

GROUND WATER IN THE CLASTIC BEDROCK WITHIN THE TRIASSIC LOWLANDS SECTION OF THE PIEDMONT PHYSIOGRAPHIC PROVINCE

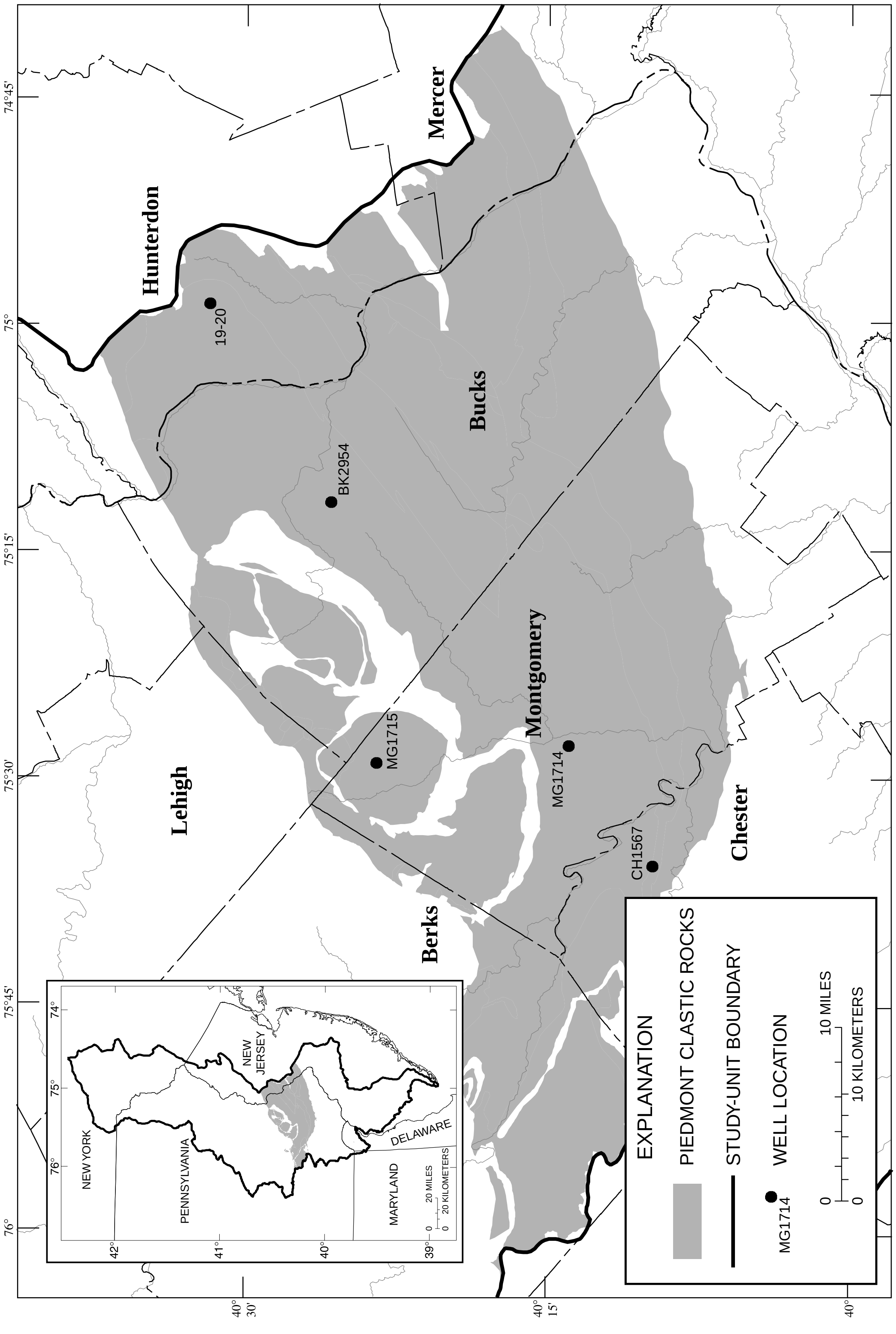

Figure 18.--Location of Delaware River Basin National Water-Quality Assessment Program low-intensity phase ground-water sampling sites in the Clastic Bedrock within the Triassic Lowlands Section of the Piedmont Physiographic Province.

GROUND-WATER DATA COLLECTED AT SPECIAL-STUDY SITES
DELAWARE RIVER BASIN NAWQA PROJECT

REMARKS.--Explanation of column headings--Station number = 15-digit unique identifier based on site latitude (first six digits), longitude (digits seven through thirteen), and a 2-digit sequence number suffix; Altitude of land surface = land surface at well site in feet above sea level; Sampling method code 4040 = submersible pump; µS/cm = microsiemens per centimeter at 25 degrees Celsius; deg C = degrees Celsius; µg/L = micrograms per liter (parts per billion); mg/L = milligrams per liter (parts per million); "<" = less than; "E" = estimated; "M" = presence of material verified but not quantified; CIAT = deethylatrazine; DCPA = dacthal; GF = glass fiber filter.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Station number	Local ID	Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Depth of well, feet below LSD (72008)	Depth to water level, feet below LSD (72019)	Altitude of land surface feet (72000)	Pump or flow period prior to sampling, minutes (72004)	Sampling method, code (82398)	Turbdty white light, det ang 90+/-30 corrctd NTRU (63676)	Barometric pressure, mm Hg (00025)
BUCKS COUNTY, PA												
402555075114701	BK 2954	06-28-05	1110	1028	80020	92	50.38	370	58	4040	.3	759
CHESTER COUNTY, PA												
400954075354501	CH 1567	06-27-05	1200	1028	80020	105	21.04	340	110	4040	1.5	751
MONTGOMERY COUNTY, PA												
401405075275101	MG 1714	06-29-05	1140	1028	80020	210	57.51	200	60	4040	.2	755
402337075290001	MG 1715	07-05-05	1150	1028	80020	200	16.90	325	103	4040	2.5	753
HUNTERDON COUNTY, NJ												
403156074583901	190020	06-30-05	1150	1028	80020	275	17.52	525	70	4040	.2	746

Date	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conductance, wat unf lab, µS/cm 25 degC (90095)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Noncarb hardness, wat flt field, mg/L as CaCO3 (00904)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)
BUCKS COUNTY, PA													
06-28-05	6.0	60	7.3	7.4	259	284	28.8	15.3	130	44	25.8	16.0	.90
CHESTER COUNTY, PA													
06-27-05	5.1	48	6.9	7.1	409	446	25.5	13.1	190	100	61.0	9.10	1.01
MONTGOMERY COUNTY, PA													
06-29-05	6.2	61	7.5	7.8	382	426	27.1	14.4	220	56	45.6	25.8	.81
07-05-05	4.6	45	7.3	7.6	446	484	24.7	14.7	250	64	51.9	28.2	.97
HUNTERDON COUNTY, NJ													
06-30-05	3.4	33	8.0	8.1	252	278	24.5	13.7	130	27	26.1	14.8	.67

GROUND-WATER DATA COLLECTED AT SPECIAL-STUDY SITES
DELAWARE RIVER BASIN NAWQA PROJECT

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Sodium adsorption ratio (00931)	Sodium, water, fltrd, mg/L (00930)	Sodium, percent (00932)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of constituents mg/L (70301)	Residue water, fltrd, tons/ acre-ft (70303)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)
BUCKS COUNTY, PA													
06-28-05	.3	8.94	13	87	10.8	<.1	16.2	13.2	168	.23	169	<.04	5.33
CHESTER COUNTY, PA													
06-27-05	.4	12.4	12	89	52.4	<.1	24.3	13.2	246	.39	289	<.04	4.22
MONTGOMERY COUNTY, PA													
06-29-05	.3	11.6	10	166	19.2	E.1	25.8	11.9	259	.34	252	<.04	3.93
07-05-05	.3	11.1	9	183	13.4	<.1	22.8	16.9	288	.40	296	<.04	7.13
HUNTERDON COUNTY, NJ													
06-30-05	.5	11.7	17	102	6.47	E.1	23.7	12.6	175	.22	165	<.04	3.50

Date	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L (00660)	Orthophosphate, water, fltrd, mg/L as P (00671)	Total nitrogen, wat flt by analysis, mg/L (62854)	Aluminum, water, fltrd, µg/L (01106)	Antimony, water, fltrd, µg/L (01095)	Arsenic water, fltrd, µg/L (01000)	Barium, water, fltrd, µg/L (01005)	Beryllium, water, fltrd, µg/L (01010)	Boron, water, fltrd, µg/L (01020)	Cadmium water, fltrd, µg/L (01025)	Chromium, water, fltrd, µg/L (01030)	Cobalt water, fltrd, µg/L (01035)
BUCKS COUNTY, PA													
06-28-05	<.008	.089	.029	5.15	<2	E.11	1.4	301	<.06	21	E.03	<.8	.053
CHESTER COUNTY, PA													
06-27-05	<.008	.184	.060	4.41	<2	<.20	1.2	449	<.06	15	<.04	<.8	.134
MONTGOMERY COUNTY, PA													
06-29-05	<.008	.028	.009	3.82	<2	<.20	13.3	253	<.06	35	<.04	<.8	.096
07-05-05	<.008	.018	.006	6.80	<2	<.20	3.8	378	<.06	35	<.04	<.8	.058
HUNTERDON COUNTY, NJ													
06-30-05	<.008	.083	.027	3.56	M	<.20	25.3	98	<.06	253	<.04	E.4	.055

Date	Copper, water, fltrd, µg/L (01040)	Iron, water, fltrd, µg/L (01046)	Lead, water, fltrd, µg/L (01049)	Lithium water, fltrd, µg/L (01130)	Manganese, water, fltrd, µg/L (01056)	Molybdenum, water, fltrd, µg/L (01060)	Nickel, water, fltrd, µg/L (01065)	Selenium, water, fltrd, µg/L (01145)	Silver, water, fltrd, µg/L (01075)	Strontium, water, fltrd, µg/L (01080)	Thallium, water, fltrd, µg/L (01057)	Vanadium, water, fltrd, µg/L (01085)	Zinc, water, fltrd, µg/L (01090)
BUCKS COUNTY, PA													
06-28-05	35.1	<6	.37	8.3	.5	1.4	.79	.8	<.2	222	<.04	1.1	27.5
CHESTER COUNTY, PA													
06-27-05	5.1	<6	.19	21.0	.3	<.4	2.26	.6	<.2	187	<.04	1.4	1.7
MONTGOMERY COUNTY, PA													
06-29-05	6.4	<6	.12	13.2	<.2	7.4	1.35	.5	<.2	1010	<.04	4.3	4.8
07-05-05	2.3	<6	.26	20.2	<.2	1.0	1.27	1.0	<.2	550	<.04	2.1	2.9
HUNTERDON COUNTY, NJ													
06-30-05	2.4	<6	.96	11.8	<.2	2.6	.84	.9	<.2	2150	<.04	7.9	36.9

GROUND-WATER DATA COLLECTED AT SPECIAL-STUDY SITES
DELAWARE RIVER BASIN NAWQA PROJECT

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	1-Naphthol, water, fltrd 0.7µ GF µg/L (49295)	2,6-Diethylaniline water fltrd 0.7µ GF µg/L (82660)	2Chloro-2',6'-diethyl acetanilide wat flt µg/L (61618)	CIAT, water, fltrd, µg/L (04040)	2-Ethyl-6-methylaniline water, fltrd, µg/L (61620)	3,4-Dichloroaniline water fltrd, µg/L (61625)	3,5-Dichloroaniline water, fltrd, µg/L (61627)	4Chloro 2methyl phenol, water, fltrd, µg/L (61633)	Acetochlor, water, fltrd, µg/L (49260)	Alachlor, water, fltrd, µg/L (46342)	alpha-Endosulfan, water, fltrd, µg/L (34362)	Atrazine, water, fltrd, µg/L (39632)
BUCKS COUNTY, PA												
06-28-05	<.09	<.006	<.005	E.009	<.004	<.005	<.004	<.006	<.006	<.005	<.005	E.007
CHESTER COUNTY, PA												
06-27-05	<.09	<.006	<.005	<.006	<.004	<.005	<.004	<.006	<.006	<.005	<.005	<.007
MONTGOMERY COUNTY, PA												
06-29-05	<.09	<.006	<.005	E.012	<.004	<.005	<.004	<.006	<.006	<.005	<.005	<.007
07-05-05	<.09	<.006	<.005	E.020	<.004	<.005	<.004	<.006	<.006	<.005	<.005	.009
HUNTERDON COUNTY												
06-30-05	<.09	<.006	<.005	<.006	<.004	<.005	<.004	<.006	<.006	<.005	<.005	<.007

Date	Azinphosmethyl oxon, water, fltrd, µg/L (61635)	Azinphosmethyl, water, fltrd 0.7µ GF µg/L (82686)	Benfluralin, water, fltrd 0.7µ GF µg/L (82673)	Carbaryl, water, fltrd 0.7µ GF µg/L (82680)	Carbofuran, water, fltrd 0.7µ GF µg/L (82674)	Chlorpyrifos oxon, water, fltrd, µg/L (61636)	Chlorpyrifos water, fltrd, µg/L (38933)	cis-Permethrin water fltrd 0.7µ GF µg/L (82687)	cis-Propiconazole, water, fltrd, µg/L (79846)	Cyanazine, water, fltrd, µg/L (04041)	Cyfluthrin, water, fltrd, µg/L (61585)	lambda-Cyhalothrin, water, fltrd, µg/L (61595)	Cypermethrin water, fltrd, µg/L (61586)
BUCKS COUNTY, PA													
06-28-05	<.07	<.050	<.010	<.041	<.020	<.06	<.005	<.006	<.008	<.018	<.027	<.009	<.009
CHESTER COUNTY, PA													
06-27-05	<.07	<.050	<.010	<.041	<.020	<.06	<.005	<.006	<.008	<.018	<.027	<.009	<.009
MONTGOMERY COUNTY, PA													
06-29-05	<.07	<.050	<.010	<.041	<.020	<.06	<.005	<.006	<.008	<.018	<.027	<.009	<.009
07-05-05	<.07	<.050	<.010	<.041	<.020	<.06	<.005	<.006	<.008	<.018	<.027	<.009	<.009
HUNTERDON COUNTY, NJ													
06-30-05	<.07	<.050	<.010	<.041	<.020	<.06	<.005	<.006	<.008	<.018	<.027	<.009	<.009

Date	DCPA, water fltrd 0.7µ GF µg/L (82682)	Desulfinyl fipronil, water, fltrd, µg/L (62170)	Diazinon, water, fltrd, µg/L (39572)	Dicrotophos, water fltrd, µg/L (38454)	Dieldrin, water, fltrd, µg/L (39381)	Dimethoate, water, fltrd 0.7µ GF µg/L (82662)	Disulfoton sulfone water, fltrd, µg/L (61640)	Disulfoton, water, fltrd 0.7µ GF µg/L (82677)	Endosulfan sulfate water, fltrd, µg/L (61590)	EPTC, water, fltrd 0.7µ GF µg/L (82668)	Ethion monoxon water, fltrd, µg/L (61644)	Ethion, water, fltrd, µg/L (82346)
BUCKS COUNTY, PA												
06-28-05	<.003	E.003	<.005	<.08	<.009	<.006	<.01	<.02	<.014	<.004	<.002	<.004
CHESTER COUNTY, PA												
06-27-05	<.003	<.012	<.005	<.08	<.009	<.006	<.01	<.02	<.014	<.004	<.002	<.004
MONTGOMERY COUNTY, PA												
06-29-05	<.003	<.012	<.005	<.08	<.009	<.006	<.01	<.02	<.014	<.004	<.002	<.004
07-05-05	<.003	<.012	<.005	<.08	<.009	<.006	<.01	<.02	<.014	<.004	<.002	<.004
HUNTERDON COUNTY, NJ												
06-30-05	<.003	<.012	<.005	<.08	<.009	<.006	<.01	<.02	<.014	<.004	<.002	<.004

GROUND-WATER DATA COLLECTED AT SPECIAL-STUDY SITES
DELAWARE RIVER BASIN NAWQA PROJECT

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Ethoprop, water, fltrd 0.7µ GF µg/L (82672)	Fenamiphos sulfone water, fltrd, µg/L (61645)	Fenamiphos sulfoxide, water, fltrd, µg/L (61646)	Fenamiphos, water, fltrd, µg/L (61591)	Desulfinylfipronil amide, wat flt µg/L (62169)	Fipronil sulfide water, fltrd, µg/L (62167)	Fipronil sulfone water, fltrd, µg/L (62168)	Fipronil, water, fltrd, µg/L (62166)	Fonofos water, fltrd, µg/L (04095)	Hexazinone, water, fltrd, µg/L (04025)	Iprodione, water, fltrd, µg/L (61593)	Isofenphos, water, fltrd, µg/L (61594)	Malaoxon, water, fltrd, µg/L (61652)
BUCKS COUNTY, PA													
06-28-05	<.005	<.049	<.04	<.03	<.029	<.013	E.005	<.016	<.003	<.013	<.538	<.003	<.030
CHESTER COUNTY, PA													
06-27-05	<.005	<.049	<.04	<.03	<.029	<.013	<.024	<.016	<.003	<.013	<.538	<.003	<.030
MONTGOMERY COUNTY, PA													
06-29-05	<.005	<.049	<.04	<.03	<.029	<.013	<.024	<.016	<.003	<.013	<.538	<.003	<.030
07-05-05	<.005	<.049	<.04	<.03	<.029	<.013	<.024	<.016	<.003	<.013	<.538	<.003	<.030
HUNTERDON COUNTY, NJ													
06-30-05	<.005	<.049	<.04	<.03	<.029	<.013	<.024	<.016	<.003	<.013	<.538	<.003	<.030

Date	Malathion, water, fltrd, µg/L (39532)	Metalaxyl, water, fltrd, µg/L (61596)	Methidathion water, fltrd, µg/L (61598)	Methyl paraoxon, water, fltrd, µg/L (61664)	Methyl parathion, water, fltrd 0.7µ GF µg/L (82667)	Metolachlor, water, fltrd, µg/L (39415)	Metribuzin, water, fltrd, µg/L (82630)	Molinate, water, fltrd 0.7µ GF µg/L (82671)	Myclobutanil water, fltrd, µg/L (61599)	Oxyfluorfen, water, fltrd, µg/L (61600)	Pendimethalin, water, fltrd 0.7µ GF µg/L (82683)	Phorate oxon, water, fltrd, µg/L (61666)	Phorate water fltrd 0.7µ GF µg/L (82664)
BUCKS COUNTY, PA													
06-28-05	<.027	<.005	<.006	<.03	<.015	E.005	E.005	<.003	<.008	<.007	<.022	<.10	<.011
CHESTER COUNTY, PA													
06-27-05	<.027	<.005	<.006	<.03	<.015	<.006	<.006	<.003	<.008	<.007	<.022	<.10	<.011
MONTGOMERY COUNTY, PA													
06-29-05	<.027	<.005	<.006	<.03	<.015	<.006	<.006	<.003	<.008	<.007	<.022	<.10	<.011
07-05-05	<.027	<.005	<.006	<.03	<.015	<.006	<.006	<.003	<.008	<.007	<.022	<.10	<.011
HUNTERDON COUNTY, NJ													
06-30-05	<.027	<.005	<.006	<.03	<.015	<.006	<.006	<.003	<.008	<.007	<.022	<.10	<.011

Date	Phosmet oxon, water, fltrd, µg/L (61668)	Phosmet water, fltrd, µg/L (61601)	Prometon, water, fltrd, µg/L (04037)	Prometryn, water, fltrd, µg/L (04036)	Propyzamide, water, fltrd 0.7µ GF µg/L (82676)	Propanil, water, fltrd 0.7µ GF µg/L (82679)	Propargite, water, fltrd 0.7µ GF µg/L (82685)	Simazine, water, fltrd, µg/L (04035)	Tebuthiuron water fltrd 0.7µ GF µg/L (82670)	Tefluthrin, water, fltrd, µg/L (61606)	Terbufos oxon sulfone water, fltrd, µg/L (61674)	Terbufos, water, fltrd 0.7µ GF µg/L (82675)	Terbuthylazine, water, fltrd, µg/L (04022)
BUCKS COUNTY, PA													
06-28-05	<.05	<.008	E.01	<.005	<.004	<.011	<.02	.148	<.02	<.008	<.07	<.02	<.01
CHESTER COUNTY, PA													
06-27-05	--	--	<.01	<.005	<.004	<.011	<.02	<.005	<.02	<.008	<.07	<.02	<.01
MONTGOMERY COUNTY, PA													
06-29-05	<.05	<.008	<.01	<.005	<.004	<.011	<.02	<.005	<.02	<.008	<.07	<.02	<.01
07-05-05	--	--	<.01	<.005	<.004	<.011	<.02	E.006	<.02	<.008	<.07	<.02	<.01
HUNTERDON COUNTY, NJ													
06-30-05	<.05	<.008	<.01	<.005	<.004	<.011	<.02	<.005	<.02	<.008	<.07	<.02	<.01

GROUND-WATER DATA COLLECTED AT SPECIAL-STUDY SITES
DELAWARE RIVER BASIN NAWQA PROJECT

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Thiobencarb water fltrd 0.7µ GF µg/L (82681)	trans-Propiconazole, water, fltrd, µg/L (79847)	Tribuphos, water, fltrd, µg/L (61610)	Trifluralin, water, fltrd 0.7µ GF µg/L (82661)	1,1,1,2-Tetrachloroethane, water, unfltrd µg/L (77562)	1,1,1-Trichloroethane, water, unfltrd µg/L (34506)	1,1,2,2-Tetrachloroethane, water, unfltrd µg/L (34516)	CFC-113 water unfltrd µg/L (77652)	1,1,2-Trichloroethane, water, unfltrd µg/L (34511)	1,1-Dichloroethane, water unfltrd µg/L (34496)	1,1-Dichloroethene, water, unfltrd µg/L (34501)	1,1-Dichloropropene water unfltrd µg/L (77168)	1,2,3,4 Tetramethylbenzene water unfltrd µg/L (49999)
BUCKS COUNTY, PA													
06-28-05	<.010	<.01	<.004	<.009	<.03	<.03	<.08	<.04	<.04	<.04	<.02	<.03	<.1
CHESTER COUNTY, PA													
06-27-05	<.010	<.01	<.004	<.009	<.03	E.02	<.08	<.04	<.04	<.04	<.02	<.03	<.1
MONTGOMERY COUNTY, PA													
06-29-05	<.010	<.01	<.004	<.009	<.03	<.03	<.08	<.04	<.04	<.04	<.02	<.03	<.1
07-05-05	<.010	<.01	<.004	<.009	<.03	.19	<.08	<.04	<.04	<.04	.11	<.03	<.1
HUNTERDON COUNTY, NJ													
06-30-05	<.010	<.01	<.004	<.009	<.03	<.03	<.08	<.04	<.04	<.04	<.02	<.03	<.1

Date	1,2,3,5 Tetramethylbenzene water unfltrd µg/L (50000)	1,2,3-Trichlorobenzene water unfltrd µg/L (77613)	1,2,3-Trichloropropane water unfltrd µg/L (77443)	1,2,3-Trimethylbenzene water unfltrd µg/L (77221)	1,2,4-Trichlorobenzene water unfltrd µg/L (34551)	1,2,4-Trimethylbenzene water unfltrd µg/L (77222)	Dibromochloropropane water unfltrd µg/L (82625)	1,2-Dibromoethane, water, unfltrd µg/L (77651)	1,2-Dichlorobenzene water unfltrd µg/L (34536)	1,2-Dichloroethane, water, unfltrd µg/L (32103)	1,2-Dichloropropane water unfltrd µg/L (34541)	1,3,5-Trimethylbenzene water unfltrd µg/L (77226)
BUCKS COUNTY, PA												
06-28-05	<.1	<.2	<.18	<.1	<.1	<.06	<.5	<.04	<.05	<.1	<.03	<.04
CHESTER COUNTY, PA												
06-27-05	<.1	<.2	<.18	<.1	<.1	<.06	<.5	<.04	<.05	<.1	<.03	<.04
MONTGOMERY COUNTY, PA												
06-29-05	<.1	<.2	<.18	<.1	<.1	<.06	<.5	<.04	<.05	<.1	<.03	<.04
07-05-05	<.1	<.2	<.18	<.1	<.1	<.06	<.5	<.04	<.05	<.1	<.03	<.04
HUNTERDON COUNTY, NJ												
06-30-05	<.1	<.2	<.18	<.1	<.1	<.06	<.5	<.04	<.05	<.1	<.03	<.04

Date	1,3-Dichlorobenzene water unfltrd µg/L (34566)	1,3-Dichloropropane water unfltrd µg/L (77173)	1,4-Dichlorobenzene water unfltrd µg/L (34571)	2,2-Dichloropropane water unfltrd µg/L (77170)	2-Chlorotoluene water unfltrd µg/L (77275)	2-Ethyltoluene water unfltrd µg/L (77220)	3-Chloropropene water unfltrd µg/L (78109)	4-Chlorotoluene water unfltrd µg/L (77277)	4-Isopropyltoluene water unfltrd µg/L (77356)	Acetone water unfltrd µg/L (81552)	Acrylonitrile water unfltrd µg/L (34215)	Benzene water unfltrd (34030)
BUCKS COUNTY, PA												
06-28-05	<.03	<.1	<.03	<.05	<.04	<.06	<.50	<.05	<.08	<6	<.8	<.02
CHESTER COUNTY, PA												
06-27-05	<.03	<.1	<.03	<.05	<.04	<.06	<.50	<.05	<.08	<6	<.8	<.02
MONTGOMERY COUNTY, PA												
06-29-05	<.03	<.1	<.03	<.05	<.04	<.06	<.50	<.05	<.08	<6	<.8	<.02
07-05-05	<.03	<.1	<.03	<.05	<.04	<.06	<.50	<.05	<.08	<6	<.8	<.02
HUNTERDON COUNTY, NJ												
06-30-05	<.03	<.1	<.03	<.05	<.04	<.06	<.50	<.05	<.08	<6	<.8	<.02

GROUND-WATER DATA COLLECTED AT SPECIAL-STUDY SITES
DELAWARE RIVER BASIN NAWQA PROJECT

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Bromobenzene water unfltrd µg/L (81555)	Bromochloromethane water unfltrd µg/L (77297)	Bromodichloromethane water unfltrd µg/L (32101)	Bromoethene, water, unfltrd µg/L (50002)	Bromomethane water unfltrd µg/L (34413)	Carbon disulfide water unfltrd µg/L (77041)	Chlorobenzene water unfltrd µg/L (34301)	Chloroethane, water, unfltrd µg/L (34311)	Chloromethane water unfltrd µg/L (34418)	cis-1,2-Dichloroethene, water, unfltrd µg/L (77093)	cis-1,3-Dichloropropene water unfltrd µg/L (34704)	Dibromochloromethane water unfltrd µg/L (32105)	Dibromomethane water unfltrd µg/L (30217)
BUCKS COUNTY, PA													
06-28-05	<.03	<.12	<.03	<.1	<.3	<.04	<.03	<.1	<.2	<.02	<.05	<.1	<.05
CHESTER COUNTY, PA													
06-27-05	<.03	<.12	<.03	<.1	<.3	<.04	<.03	<.1	<.2	<.02	<.05	<.1	<.05
MONTGOMERY COUNTY, PA													
06-29-05	<.03	<.12	<.03	<.1	<.3	<.04	<.03	<.1	<.2	<.02	<.05	<.1	<.05
07-05-05	<.03	<.12	<.03	<.1	<.3	<.04	<.03	<.1	<.2	<.02	<.05	<.1	<.05
HUNTERDON COUNTY, NJ													
06-30-05	<.03	<.12	<.03	<.1	<.3	<.04	<.03	<.1	<.2	<.02	<.05	<.1	<.05

Date	Dichlorodifluoromethane wat unf µg/L (34668)	Dichloromethane water unfltrd µg/L (34423)	Diethyl ether, water, unfltrd µg/L (81576)	Diisopropyl ether, water, unfltrd µg/L (81577)	Ethyl methacrylate, water, unfltrd µg/L (73570)	Ethyl methyl ketone, water, unfltrd µg/L (81595)	Ethylbenzene water unfltrd µg/L (34371)	Hexachlorobutadiene, water, unfltrd µg/L (39702)	Hexachloroethane, water, unfltrd µg/L (34396)	Iodomethane water unfltrd µg/L (77424)	Isobutyl methyl ketone, water, unfltrd µg/L (78133)	Isopropylbenzene water unfltrd µg/L (77223)	Methyl acrylonitrile water unfltrd µg/L (81593)
BUCKS COUNTY, PA													
06-28-05	<.18	<.1	<.1	<.10	<.2	<2.0	<.03	<.1	<.1	<.50	<.4	<.04	<.4
CHESTER COUNTY, PA													
06-27-05	<.18	<.1	<.1	<.10	<.2	<2.0	<.03	<.1	<.1	<.50	<.4	<.04	<.4
MONTGOMERY COUNTY, PA													
06-29-05	<.18	<.1	<.1	<.10	<.2	<2.0	<.03	<.1	<.1	<.50	<.4	<.04	<.4
07-05-05	<.18	<.1	<.1	<.10	<.2	<2.0	<.03	<.1	<.1	<.50	<.4	<.04	<.4
HUNTERDON COUNTY, NJ													
06-30-05	<.18	<.1	<.1	<.10	<.2	<2.0	<.03	<.1	<.1	<.50	<.4	<.04	<.4

Date	Methyl acrylate, water, unfltrd µg/L (49991)	Methyl methacrylate, water, unfltrd µg/L (81597)	Methyl tert-pentyl ether, water, unfltrd µg/L (50005)	meta- + para-Xylene, water, unfltrd µg/L (85795)	Naphthalene, water, unfltrd µg/L (34696)	Methyl n-butyl ketone, water, unfltrd µg/L (77103)	n-Butyl benzene water unfltrd µg/L (77342)	n-propylbenzene water unfltrd µg/L (77224)	o-Xylene, water, unfltrd µg/L (77135)	sec-Butylbenzene water unfltrd µg/L (77350)	Styrene water unfltrd µg/L (77128)	t-Butyl ethyl ether, water, unfltrd µg/L (50004)	Methyl t-butyl ether, water, unfltrd µg/L (78032)
BUCKS COUNTY, PA													
06-28-05	<1.0	<.2	<.04	<.06	<.5	<.4	<.1	<.04	<.04	<.06	<.04	<.03	<.1
CHESTER COUNTY, PA													
06-27-05	<1.0	<.2	<.04	<.06	<.5	<.4	<.1	<.04	<.04	<.06	<.04	<.03	.2
MONTGOMERY COUNTY, PA													
06-29-05	<1.0	<.2	<.04	<.06	<.5	<.4	<.1	<.04	<.04	<.06	<.04	<.03	<.1
07-05-05	<1.0	<.2	<.04	<.06	<.5	<.4	<.1	<.04	<.04	<.06	<.04	<.03	<.1
HUNTERDON COUNTY, NJ													
06-30-05	<1.0	<.2	<.04	<.06	<.5	<.4	<.1	<.04	<.04	<.06	<.04	<.03	<.1

GROUND-WATER DATA COLLECTED AT SPECIAL-STUDY SITES
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WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	tert-Butyl-benzene water unfltrd µg/L (77353)	Tetra-chloro-ethene, water, unfltrd µg/L (34475)	Tetra-chloro-methane water unfltrd µg/L (32102)	Tetra-hydro-furan, water, unfltrd µg/L (81607)	Toluene water unfltrd µg/L (34010)	trans-1,2-Di-chloro-ethene, water, unfltrd µg/L (34546)	trans-1,3-Di-chloro-propene water unfltrd µg/L (34699)	trans-1,4-Di-chloro-2-butene, wat unf µg/L (73547)	Tri-bromo-methane water unfltrd µg/L (32104)	Tri-chloro-ethene, water, unfltrd µg/L (39180)	Tri-chloro-fluoro-methane water unfltrd µg/L (34488)	Tri-chloro-methane water unfltrd µg/L (32106)
BUCKS COUNTY, PA												
06-28-05	<.06	<.03	<.06	<1	<.02	<.03	<.09	<.7	<.10	<.04	<.08	<.02
CHESTER COUNTY, PA												
06-27-05	<.06	<.03	<.06	<1	<.02	<.03	<.09	<.7	<.10	E.07	<.08	.11
MONTGOMERY COUNTY, PA												
06-29-05	<.06	<.03	<.06	<1	<.02	<.03	<.09	<.7	<.10	<.04	<.08	E.02
07-05-05	<.06	<.03	<.06	<1	<.02	<.03	<.09	<.7	<.10	<.04	<.08	<.02
HUNTERDON COUNTY, NJ												
06-30-05	<.06	<.03	<.06	<1	<.02	<.03	<.09	<.7	<.10	<.04	<.08	E.03

Date	Vinyl chlor-ide, water, unfltrd µg/L (39175)	Di-chlor-vos, water fltrd, µg/L (38775)	Uranium natural water, fltrd, µg/L (22703)
BUCKS COUNTY, PA			
06-28-05	<.1	<.01	1.85
CHESTER COUNTY, PA			
06-27-05	<.1	<.01	.90
MONTGOMERY COUNTY, PA			
06-29-05	<.1	<.01	2.93
07-05-05	<.1	<.01	3.12
HUNTERDON COUNTY, NJ			
06-30-05	<.1	<.01	2.26

GROUND-WATER DATA COLLECTED AT SPECIAL-STUDY SITES
DELAWARE RIVER BASIN NAWQA PROJECT

REMARKS.--The following are quality-control samples (blanks) processed during the 2005 water year. “Blanks” are defined in the explanation of records entitled “Water-Quality-Control Data”; "<" = less than; "E" = estimated; µS/cm = microsiemens per centimeter at 25 degrees Celsius; deg C = degrees Celsius; µg/L = micrograms per liter (parts per billion); mg/L = milligrams per liter (parts per million); GF = glass fiber filter. Blank types are defined as follows: S-VOC = source blank for volatile organic compounds; E-VOC = equipment blank for volatile organic compounds; S-Nu/TE = source blank for nutrients and trace elements; E-Nu/TE = equipment blank for nutrients and trace elements; F-Nu/TE/MI = field blank for nutrients, trace elements, and major ions; and F-P/VOC = field blank for pesticides and volatile organic compounds.

QUALITY-CONTROL DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Station number	Blank Type	Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Depth of well, feet below LSD (72008)	Altitude of land surface feet (72000)	pH, water, unfltrd lab, std units (00403)	Specif. conductance, wat unf lab, µS/cm 25 degC (90095)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)
CUMBERLAND COUNTY												
401435076540910	S-VOC	05-25-05	1307	1028	80020	--	--	--	--	--	--	--
401435076540910	E-VOC	05-25-05	1315	1028	80020	--	--	--	--	--	--	--
401435076540910	S-Nu/TE	05-25-05	1407	1028	80020	--	--	E5.6	3	--	--	--
401435076540910	E-Nu/TE	05-25-05	1415	1028	80020	--	--	E5.7	<3	--	--	--
401435076540910	S-VOC	07-05-05	0615	1028	80020	--	--	--	--	--	--	--
MONTGOMERY COUNTY												
401405075275101	F-Nu/TE/MI	06-29-05	1010	1028	80020	210	200	E5.5	<3	<.02	<.008	<.16
402337075290001	F-P/VOC	07-05-05	0945	1028	80020	200	325	--	--	--	--	--

Date	Sodium, water, fltrd, mg/L (00930)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Total nitrogen, wat flt by analysis, mg/L (62854)	Aluminum, water, fltrd, µg/L (01106)	Antimony, water, fltrd, µg/L (01095)
CUMBERLAND COUNTY													
05-25-05	--	--	--	--	--	--	--	--	--	--	--	--	--
05-25-05	--	--	--	--	--	--	--	--	--	--	--	--	--
05-25-05	--	--	--	--	--	--	<.04	<.06	<.008	<.006	E.03	<2	<.20
05-25-05	--	--	--	--	--	--	<.04	<.06	<.008	<.006	<.06	<2	<.20
07-05-05	--	--	--	--	--	--	--	--	--	--	--	--	--
MONTGOMERY COUNTY													
06-29-05	<.20	<.20	<.1	<.04	<.2	<10	<.04	<.06	<.008	<.006	<.06	<2	<.20
07-05-05	--	--	--	--	--	--	--	--	--	--	--	--	--

Date	Arsenic water, fltrd, µg/L (01000)	Barium, water, fltrd, µg/L (01005)	Beryllium, water, fltrd, µg/L (01010)	Boron, water, fltrd, µg/L (01020)	Cadmium water, fltrd, µg/L (01025)	Chromium, water, fltrd, µg/L (01030)	Cobalt water, fltrd, µg/L (01035)	Copper, water, fltrd, µg/L (01040)	Iron, water, fltrd, µg/L (01046)	Lead, water, fltrd, µg/L (01049)	Lithium water, fltrd, µg/L (01130)	Manganese, water, fltrd, µg/L (01056)	Molybdenum, water, fltrd, µg/L (01060)
CUMBERLAND COUNTY													
05-25-05	--	--	--	--	--	--	--	--	--	--	--	--	--
05-25-05	--	--	--	--	--	--	--	--	--	--	--	--	--
05-25-05	<.2	<.2	<.06	<8	<.04	<.8	<.014	E.2	--	<.08	<.6	<.2	<.4
05-25-05	<.2	<.2	<.06	<8	<.04	<.8	<.014	<.4	--	<.08	<.6	<.2	<.4
07-05-05	--	--	--	--	--	--	--	--	--	--	--	--	--
MONTGOMERY COUNTY													
06-29-05	<.2	<.2	<.06	<8	<.04	<.8	<.014	<.4	<6	<.08	<.6	<.2	<.4
07-05-05	--	--	--	--	--	--	--	--	--	--	--	--	--

GROUND-WATER DATA COLLECTED AT SPECIAL-STUDY SITES
DELAWARE RIVER BASIN NAWQA PROJECT

QUALITY-CONTROL DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Nickel, water, fltrd, µg/L (01065)	Selenium, water, fltrd, µg/L (01145)	Silver, water, fltrd, µg/L (01075)	Strontium, water, fltrd, µg/L (01080)	Thallium, water, fltrd, µg/L (01057)	Vanadium, water, fltrd, µg/L (01085)	Zinc, water, fltrd, µg/L (01090)	1-Naphthol, water, fltrd 0.7µ GF µg/L (49295)	2,6-Diethylaniline water fltrd 0.7µ GF µg/L (82660)	2Chloro-2',6'-diethyl acetanilide wat flt µg/L (61618)	CIAT, water, fltrd, µg/L (04040)	2-Ethyl-6-methylaniline water, fltrd, µg/L (61620)	3,4-Dichloroaniline water fltrd, µg/L (61625)
CUMBERLAND COUNTY													
05-25-05	--	--	--	--	--	--	--	--	--	--	--	--	--
05-25-05	--	--	--	--	--	--	--	--	--	--	--	--	--
05-25-05	<.06	<.4	<.2	<.40	<.04	<.1	<.6	--	--	--	--	--	--
05-25-05	<.06	<.4	<.2	<.40	<.04	<.1	<.6	--	--	--	--	--	--
07-05-05	--	--	--	--	--	--	--	--	--	--	--	--	--
MONTGOMERY COUNTY													
06-29-05	<.06	<.4	<.2	<.40	<.04	<.1	<.6	--	--	--	--	--	--
07-05-05	--	--	--	--	--	--	--	<.09	<.006	<.005	<.006	<.004	<.004

Date	3,5-Dichloroaniline water, fltrd, µg/L (61627)	4Chloro 2methyl phenol, water, fltrd, µg/L (61633)	Acetochlor, water, fltrd, µg/L (49260)	Alachlor, water, fltrd, µg/L (46342)	alpha-Endosulfan, water, fltrd, µg/L (34362)	alpha-HCH-d6, surrog, Sch2003 wat flt percent recovry (99995)	Atrazine, water, fltrd, µg/L (39632)	Azinphos-methyl oxon, water, fltrd, µg/L (61635)	Azinphos-methyl, water fltrd 0.7µ GF µg/L (82686)	Benfluralin, water, fltrd 0.7µ GF µg/L (82673)	Carbaryl, water, fltrd 0.7µ GF µg/L (82680)	Carbofuran, water, fltrd 0.7µ GF µg/L (82674)	Chlorpyrifos oxon, water, fltrd, µg/L (61636)
CUMBERLAND COUNTY													
05-25-05	--	--	--	--	--	--	--	--	--	--	--	--	--
05-25-05	--	--	--	--	--	--	--	--	--	--	--	--	--
05-25-05	--	--	--	--	--	--	--	--	--	--	--	--	--
05-25-05	--	--	--	--	--	--	--	--	--	--	--	--	--
07-05-05	--	--	--	--	--	--	--	--	--	--	--	--	--
MONTGOMERY COUNTY													
06-29-05	--	--	--	--	--	--	--	--	--	--	--	--	--
07-05-05	<.004	<.006	<.006	<.005	<.005	90.3	<.007	<.07	<.050	<.010	<.041	<.020	<.06

Date	Chlorpyrifos water, fltrd, µg/L (38933)	cis-Permethrin water fltrd 0.7µ GF µg/L (82687)	cis-Propiconazole, water, fltrd, µg/L (79846)	Cyanazine, water, fltrd, µg/L (04041)	Cyfluthrin, water, fltrd, µg/L (61585)	lambda-Cyhalothrin, water, fltrd, µg/L (61595)	Cypermethrin water, fltrd, µg/L (61586)	DCPA, water fltrd 0.7µ GF µg/L (82682)	Desulfinyl fipronil, water, fltrd, µg/L (62170)	Diazinon, water, fltrd, µg/L (39572)	Diazinon-d10 surrog, Sch2003 wat flt percent recovry (99994)	Dicrotophos, water fltrd, µg/L (38454)	Dieldrin, water, fltrd, µg/L (39381)
CUMBERLAND COUNTY													
05-25-05	--	--	--	--	--	--	--	--	--	--	--	--	--
05-25-05	--	--	--	--	--	--	--	--	--	--	--	--	--
05-25-05	--	--	--	--	--	--	--	--	--	--	--	--	--
05-25-05	--	--	--	--	--	--	--	--	--	--	--	--	--
07-05-05	--	--	--	--	--	--	--	--	--	--	--	--	--
MONTGOMERY COUNTY													
06-29-05	--	--	--	--	--	--	--	--	--	--	--	--	--
07-05-05	<.005	<.006	<.008	<.018	<.027	<.009	<.009	<.003	<.012	<.005	92.5	<.08	<.009

Date	Dimethoate, water, fltrd 0.7µ GF µg/L (82662)	Disulfoton sulfone water, fltrd, µg/L (61640)	Disulfoton, water, fltrd 0.7µ GF µg/L (82677)	Endosulfan sulfate water, fltrd, µg/L (61590)	EPTC, water, fltrd 0.7µ GF µg/L (82668)	Ethion monoxon water, fltrd, µg/L (61644)	Ethion, water, fltrd, µg/L (82346)	Ethoprop, water, fltrd 0.7µ GF µg/L (82672)	Fenamiphos sulfone water, fltrd, µg/L (61645)	Fenamiphos sulfoxide, water, fltrd, µg/L (61646)	Fenamiphos, water, fltrd, µg/L (61591)	Desulfinyl-fipronil amide, wat flt µg/L (62169)	Fipronil sulfide water, fltrd, µg/L (62167)
CUMBERLAND COUNTY													
05-25-05	--	--	--	--	--	--	--	--	--	--	--	--	--
05-25-05	--	--	--	--	--	--	--	--	--	--	--	--	--
05-25-05	--	--	--	--	--	--	--	--	--	--	--	--	--
05-25-05	--	--	--	--	--	--	--	--	--	--	--	--	--
07-05-05	--	--	--	--	--	--	--	--	--	--	--	--	--
MONTGOMERY COUNTY													
06-29-05	--	--	--	--	--	--	--	--	--	--	--	--	--
07-05-05	<.006	<.01	<.02	<.014	<.004	<.002	<.004	<.005	<.049	<.04	<.03	<.029	<.013

GROUND-WATER DATA COLLECTED AT SPECIAL-STUDY SITES
DELAWARE RIVER BASIN NAWQA PROJECT

QUALITY-CONTROL DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Fipronil sulfone water, fltrd, µg/L (62168)	Fipronil, water, fltrd, µg/L (62166)	Fonofos water, fltrd, µg/L (04095)	Hexazinone, water, fltrd, µg/L (04025)	Iprodione, water, fltrd, µg/L (61593)	Isofenphos, water, fltrd, µg/L (61594)	Malaoxon, water, fltrd, µg/L (61652)	Malathion, water, fltrd, µg/L (39532)	Metalaxyl, water, fltrd, µg/L (61596)	Methialthion water, fltrd, µg/L (61598)	Methyl paraoxon, water, fltrd, µg/L (61664)	Methyl parathion, water, fltrd 0.7µ GF µg/L (82667)	Metolachlor, water, fltrd, µg/L (39415)
CUMBERLAND COUNTY													
05-25-05	--	--	--	--	--	--	--	--	--	--	--	--	--
05-25-05	--	--	--	--	--	--	--	--	--	--	--	--	--
05-25-05	--	--	--	--	--	--	--	--	--	--	--	--	--
05-25-05	--	--	--	--	--	--	--	--	--	--	--	--	--
07-05-05	--	--	--	--	--	--	--	--	--	--	--	--	--
MONTGOMERY COUNTY													
06-29-05	--	--	--	--	--	--	--	--	--	--	--	--	--
07-05-05	<.024	E.006	<.003	<.013	<.538	<.003	<.030	<.027	<.005	<.006	<.03	<.015	<.006

Date	Metribuzin, water, fltrd, µg/L (82630)	Molinate, water, fltrd 0.7µ GF µg/L (82671)	Myclobutanil water, fltrd, µg/L (61599)	Oxyfluorfen, water, fltrd, µg/L (61600)	Pendimethalin, water, fltrd 0.7µ GF µg/L (82683)	Phorate oxon, water, fltrd, µg/L (61666)	Phorate water fltrd 0.7µ GF µg/L (82664)	Prometon, water, fltrd, µg/L (04037)	Prometryn, water, fltrd, µg/L (04036)	Propyzamide, water, fltrd 0.7µ GF µg/L (82676)	Propanil, water, fltrd 0.7µ GF µg/L (82679)	Propargite, water, fltrd 0.7µ GF µg/L (82685)	Simazine, water, fltrd, µg/L (04035)
CUMBERLAND COUNTY													
05-25-05	--	--	--	--	--	--	--	--	--	--	--	--	--
05-25-05	--	--	--	--	--	--	--	--	--	--	--	--	--
05-25-05	--	--	--	--	--	--	--	--	--	--	--	--	--
05-25-05	--	--	--	--	--	--	--	--	--	--	--	--	--
07-05-05	--	--	--	--	--	--	--	--	--	--	--	--	--
MONTGOMERY COUNTY													
06-29-05	--	--	--	--	--	--	--	--	--	--	--	--	--
07-05-05	<.006	<.003	<.008	<.007	<.022	<.10	<.011	<.01	<.005	<.004	<.011	<.02	<.005

Date	Tebuthiuron water fltrd 0.7µ GF µg/L (82670)	Tefluthrin, water, fltrd, µg/L (61606)	Terbufos oxon sulfone water, fltrd, µg/L (61674)	Terbufos, water, fltrd 0.7µ GF µg/L (82675)	Terbuthylazine, water, fltrd, µg/L (04022)	Thiobencarb water fltrd 0.7µ GF µg/L (82681)	trans-Propiconazole, water, fltrd, µg/L (79847)	Tribuphos, water, fltrd, µg/L (61610)	Trifluralin, water, fltrd 0.7µ GF µg/L (82661)	1,1,1,2-Tetrachloroethane, water, unfltrd µg/L (77562)	1,1,1-Trichloroethane, water, unfltrd µg/L (34506)	1,1,2,2-Tetrachloroethane, water, unfltrd µg/L (34516)	CFC-113 water unfltrd µg/L (77652)
CUMBERLAND COUNTY													
05-25-05	--	--	--	--	--	--	--	--	--	<.03	<.03	<.08	<.04
05-25-05	--	--	--	--	--	--	--	--	--	<.03	<.03	<.08	<.04
05-25-05	--	--	--	--	--	--	--	--	--	--	--	--	--
05-25-05	--	--	--	--	--	--	--	--	--	--	--	--	--
07-05-05	--	--	--	--	--	--	--	--	--	<.03	<.03	<.08	<.04
MONTGOMERY COUNTY													
06-29-05	--	--	--	--	--	--	--	--	--	--	--	--	--
07-05-05	<.02	<.008	<.07	<.02	<.01	<.010	<.01	<.004	<.009	<.03	<.03	<.08	<.04

Date	1,1,2-Trichloroethane, water, unfltrd µg/L (34511)	1,1-Dichloroethane, water unfltrd µg/L (34496)	1,1-Dichloroethene, water, unfltrd µg/L (34501)	1,1-Dichloropropene water unfltrd µg/L (77168)	1,2,3,4-Tetramethylbenzene water unfltrd µg/L (49999)	1,2,3,5-Tetramethylbenzene water unfltrd µg/L (50000)	1,2,3-Trichlorobenzene water unfltrd µg/L (77613)	1,2,3-Trichloropropane water unfltrd µg/L (77443)	1,2,3-Trimethylbenzene water unfltrd µg/L (77221)	1,2,4-Trichlorobenzene water unfltrd µg/L (34551)	1,2,4-Trimethylbenzene water unfltrd µg/L (77222)	Dibromochloropropane water unfltrd µg/L (82625)	1,2-Dibromoethane, water, unfltrd µg/L (77651)
CUMBERLAND COUNTY													
05-25-05	<.04	<.04	<.02	<.03	<.1	<.1	<.2	<.18	<.1	<.1	<.06	<.5	<.04
05-25-05	<.04	<.04	<.02	<.03	<.1	<.1	<.2	<.18	<.1	<.1	<.06	<.5	<.04
05-25-05	--	--	--	--	--	--	--	--	--	--	--	--	--
05-25-05	--	--	--	--	--	--	--	--	--	--	--	--	--
07-05-05	<.04	<.04	<.02	<.03	<.1	<.1	<.2	<.18	<.1	<.1	<.06	<.5	<.04
MONTGOMERY COUNTY													
06-29-05	--	--	--	--	--	--	--	--	--	--	--	--	--
07-05-05	<.04	<.04	<.02	<.03	<.1	<.1	<.2	<.18	<.1	<.1	<.06	<.5	<.04

GROUND-WATER DATA COLLECTED AT SPECIAL-STUDY SITES
DELAWARE RIVER BASIN NAWQA PROJECT

QUALITY-CONTROL DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	1,2-Dichlorobenzene water unfltrd µg/L (34536)	1,2-Dichloroethane, water, unfltrd µg/L (32103)	1,2-Dichloroethane-d4, sur Sch2090 wat unf pct rcv (99832)	1,2-Dichloropropane water unfltrd µg/L (34541)	1,3,5-Trimethylbenzene water unfltrd µg/L (77226)	1,3-Dichlorobenzene water unfltrd µg/L (34566)	1,3-Dichloropropane water unfltrd µg/L (77173)	1,4-Dichlorobenzene water unfltrd µg/L (34571)	14Bromofluorobenzene surrog. VOC Sch wat unf pct rcv (99834)	2,2-Dichloropropane water unfltrd µg/L (77170)	2-Chlorotoluene water unfltrd µg/L (77275)	2-Ethyltoluene water unfltrd µg/L (77220)	3-Chloropropene water unfltrd µg/L (78109)
CUMBERLAND COUNTY													
05-25-05	<.05	<.1	106	<.03	<.04	<.03	<.1	<.03	72.2	<.05	<.04	<.06	<.50
05-25-05	<.05	<.1	112	<.03	<.04	<.03	<.1	<.03	64.7	<.05	<.04	<.06	<.50
05-25-05	--	--	--	--	--	--	--	--	--	--	--	--	--
05-25-05	--	--	--	--	--	--	--	--	--	--	--	--	--
07-05-05	<.05	<.1	100	<.03	<.04	<.03	<.1	<.03	97.9	<.05	<.04	<.06	<.50
MONTGOMERY COUNTY													
06-29-05	--	--	--	--	--	--	--	--	--	--	--	--	--
07-05-05	<.05	<.1	98.8	<.03	<.04	<.03	<.1	<.03	95.0	<.05	<.04	<.06	<.50

Date	4-Chlorotoluene water unfltrd µg/L (77277)	4-Isopropyltoluene water unfltrd µg/L (77356)	Acetone water unfltrd µg/L (81552)	Acrylonitrile water unfltrd µg/L (34215)	Benzene water unfltrd µg/L (34030)	Bromobenzene water unfltrd µg/L (81555)	Bromochloromethane water unfltrd µg/L (77297)	Bromodichloromethane water unfltrd µg/L (32101)	Bromoethene, water, unfltrd µg/L (50002)	Bromomethane water unfltrd µg/L (34413)	Carbon disulfide water unfltrd µg/L (77041)	Chlorobenzene water unfltrd µg/L (34301)	Chloroethane, water, unfltrd µg/L (34311)
CUMBERLAND COUNTY													
05-25-05	<.05	<.08	<6	<.8	<.02	<.03	<.12	<.03	<.1	<.3	<.04	<.03	<.1
05-25-05	<.05	<.08	<6	<.8	<.02	<.03	<.12	<.03	<.1	<.3	<.04	<.03	<.1
05-25-05	--	--	--	--	--	--	--	--	--	--	--	--	--
05-25-05	--	--	--	--	--	--	--	--	--	--	--	--	--
07-05-05	<.05	<.08	<6	<.8	<.02	<.03	<.12	<.03	<.1	<.3	E.01	<.03	<.1
MONTGOMERY COUNTY													
06-29-05	--	--	--	--	--	--	--	--	--	--	--	--	--
07-05-05	<.05	<.08	<6	<.8	<.02	<.03	<.12	<.03	<.1	<.3	E.02	<.03	<.1

Date	Chloromethane water unfltrd µg/L (34418)	cis-1,2-Dichloroethene, water, unfltrd µg/L (77093)	cis-1,3-Dichloropropene water unfltrd µg/L (34704)	Dibromochloromethane water unfltrd µg/L (32105)	Dibromomethane water unfltrd µg/L (30217)	Dichlorodifluoromethane wat unf µg/L (34668)	Dichloromethane water unfltrd µg/L (34423)	Diethyl ether, water, unfltrd µg/L (81576)	Diisopropyl ether, water, unfltrd µg/L (81577)	Ethyl methacrylate, water, unfltrd µg/L (73570)	Ethyl methyl ketone, water, unfltrd µg/L (81595)	Ethylbenzene water unfltrd µg/L (34371)	Hexachlorobutadiene, water, unfltrd µg/L (39702)
CUMBERLAND COUNTY													
05-25-05	<.2	<.02	<.05	<.1	<.05	<.18	<.1	<.1	<.10	<.2	<2.0	<.03	<.1
05-25-05	<.2	<.02	<.05	<.1	<.05	<.18	<.1	<.1	<.10	<.2	<2.0	<.03	<.1
05-25-05	--	--	--	--	--	--	--	--	--	--	--	--	--
05-25-05	--	--	--	--	--	--	--	--	--	--	--	--	--
07-05-05	<.2	<.02	<.05	<.1	<.05	<.18	<.1	<.1	<.10	<.2	<2.0	<.03	<.1
MONTGOMERY COUNTY													
06-29-05	--	--	--	--	--	--	--	--	--	--	--	--	--
07-05-05	<.2	<.02	<.05	<.1	<.05	<.18	<.1	<.1	<.10	<.2	<2.0	<.03	<.1

Date	Hexachloroethane, water, unfltrd µg/L (34396)	Iodomethane water unfltrd µg/L (77424)	Isobutyl methyl ketone, water, unfltrd µg/L (78133)	Isopropylbenzene water unfltrd µg/L (77223)	Methyl acrylonitrile water unfltrd µg/L (81593)	Methyl acrylate, water, unfltrd µg/L (49991)	Methyl methacrylate, water, unfltrd µg/L (81597)	Methyl tert-pentyl ether, water, unfltrd µg/L (50005)	meta- + para-Xylene, water, unfltrd µg/L (85795)	Naphthalene, water, unfltrd µg/L (34696)	Methyl n-butyl ketone, water, unfltrd µg/L (77103)	n-Butylbenzene water unfltrd µg/L (77342)	n-Propylbenzene water unfltrd µg/L (77224)
CUMBERLAND COUNTY													
05-25-05	<.1	<.50	<.4	<.04	<.4	<1.0	<.2	<.04	<.06	<.5	<.4	<.1	<.04
05-25-05	<.1	<.50	<.4	<.04	<.4	<1.0	<.2	<.04	<.06	<.5	<.4	<.1	<.04
05-25-05	--	--	--	--	--	--	--	--	--	--	--	--	--
05-25-05	--	--	--	--	--	--	--	--	--	--	--	--	--
07-05-05	<.1	<.50	<.4	<.04	<.4	<1.0	<.2	<.04	<.06	<.5	<.4	<.1	<.04
MONTGOMERY COUNTY													
06-29-05	--	--	--	--	--	--	--	--	--	--	--	--	--
07-05-05	<.1	<.50	<.4	<.04	<.4	<1.0	<.2	<.04	<.06	<.5	<.4	<.1	<.04

GROUND-WATER DATA COLLECTED AT SPECIAL-STUDY SITES
DELAWARE RIVER BASIN NAWQA PROJECT

QUALITY-CONTROL DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	o-Xylene, water, unfltrd µg/L (77135)	sec-Butylbenzene water unfltrd µg/L (77350)	Styrene water unfltrd µg/L (77128)	t-Butyl ethyl ether, water, unfltrd µg/L (50004)	Methyl t-butyl ether, water, unfltrd µg/L (78032)	tert-Butylbenzene water unfltrd µg/L (77353)	Tetrachloroethene, water, unfltrd µg/L (34475)	Tetrachloromethane water unfltrd µg/L (32102)	Tetrahydrofuran, water, unfltrd µg/L (81607)	Toluene water unfltrd µg/L (34010)	Toluene-d8, surrog, Sch2090 wat unf percent recovry (99833)	trans-1,2-Dichloroethene, water, unfltrd µg/L (34546)	trans-1,3-Dichloropropene water unfltrd µg/L (34699)
CUMBERLAND COUNTY													
05-25-05	<.04	<.06	<.04	<.03	<.1	<.06	<.03	<.06	<1	<.02	92.5	<.03	<.09
05-25-05	<.04	<.06	<.04	<.03	<.1	<.06	<.03	<.06	<1	E.01	92.7	<.03	<.09
05-25-05	--	--	--	--	--	--	--	--	--	--	--	--	--
05-25-05	--	--	--	--	--	--	--	--	--	--	--	--	--
07-05-05	<.04	<.06	<.04	<.03	<.1	<.06	<.03	<.06	<1	<.02	105	<.03	<.09
MONTGOMERY COUNTY													
06-29-05	--	--	--	--	--	--	--	--	--	--	--	--	--
07-05-05	<.04	<.06	<.04	<.03	<.1	<.06	<.03	<.06	<1	<.02	106	<.03	<.09

Date	trans-1,4-Dichloro-2-butene, wat unf µg/L (73547)	Tribromomethane water unfltrd µg/L (32104)	Trichloroethene, water, unfltrd µg/L (39180)	Trichlorofluoromethane water unfltrd µg/L (34488)	Trichloromethane water unfltrd µg/L (32106)	Vinyl chloride, water, unfltrd µg/L (39175)	Dichlorvos, water fltrd, µg/L (38775)	Uranium natural water, fltrd, µg/L (22703)	Lot no. first, inorganic grade water, number (99200)	Lot no. first, VOC-free water, number (99204)	Number of TICS from VOC by GCMS number (99871)	Purpose site visit, code (50280)	Sample purpose code (71999)
CUMBERLAND COUNTY													
05-25-05	<.7	<.10	<.04	<.08	<.02	<.1	--	--	--	80501	.0	2098	15.00
05-25-05	<.7	<.10	<.04	<.08	E.07	<.1	--	--	--	80501	.0	2098	15.00
05-25-05	--	--	--	--	--	--	--	<.04	1406620	--	--	2098	15.00
05-25-05	--	--	--	--	--	--	--	<.04	1406620	--	--	2098	15.00
07-05-05	<.7	<.10	<.04	<.08	<.02	<.1	--	--	--	80501	.0	2098	15.00
MONTGOMERY COUNTY													
06-29-05	--	--	--	--	--	--	--	<.04	1406620	--	--	2098	15.00
07-05-05	<.7	<.10	<.04	<.08	<.02	<.1	<.01	--	--	80501	.0	2098	15.00

Date	Sample volume, Sched 2003, ml (99972)	Source of blank solution, code (99101)	Type of blank sample, code (99102)	Type of blank solution, code (99100)
CUMBERLAND COUNTY				
05-25-05	--	10.00	1.00	50.00
05-25-05	--	10.00	80.00	50.00
05-25-05	--	10.00	1.00	10.00
05-25-05	--	10.00	80.00	10.00
07-05-05	--	10.00	1.00	50.00
MONTGOMERY COUNTY				
06-29-05	--	10.00	100.00	10.00
07-05-05	898	10.00	100.00	50.00

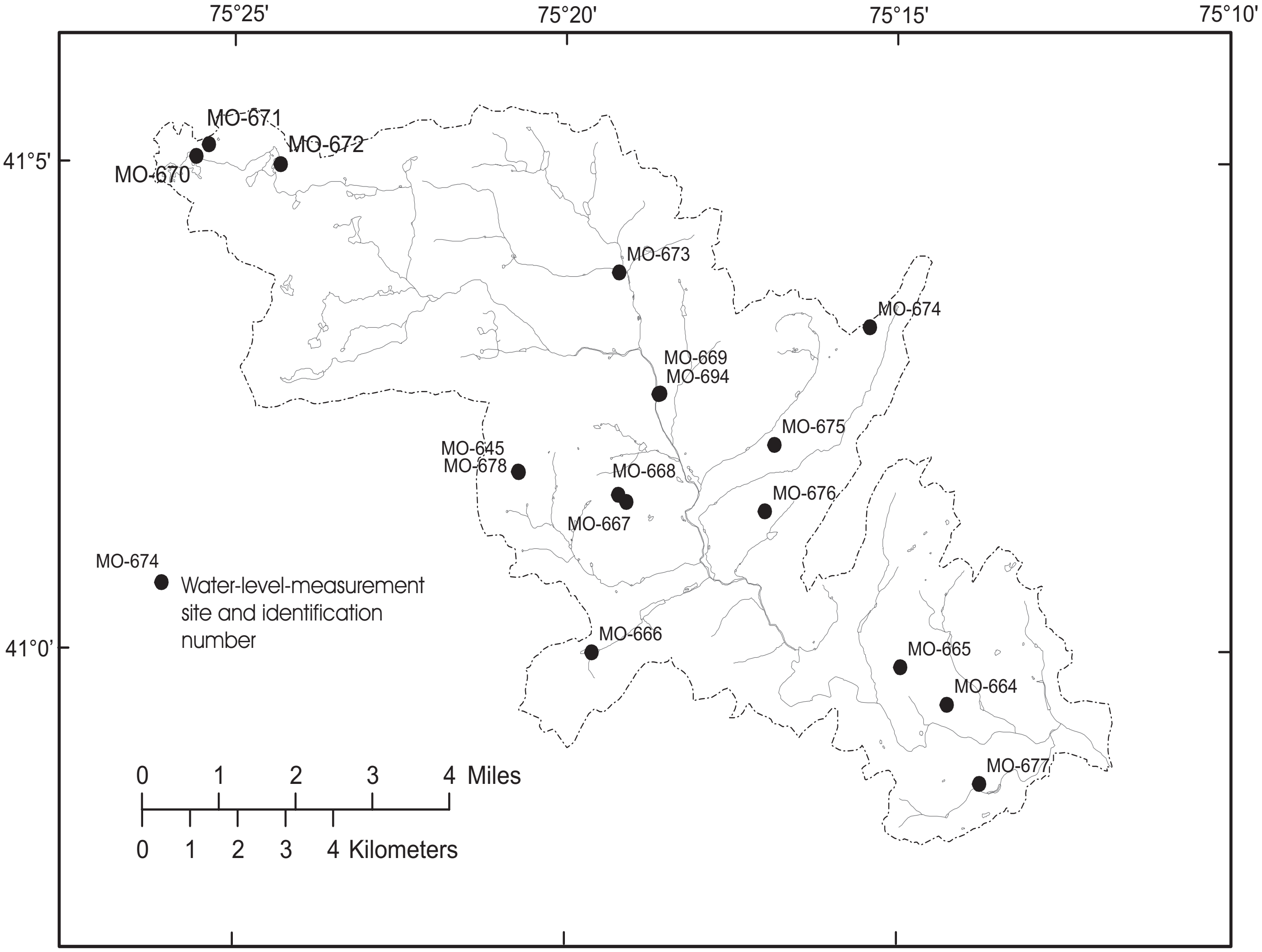


Figure 19.--Location of wells where water levels were measured, Pocono Creek Basin, Monroe County, Pennsylvania.

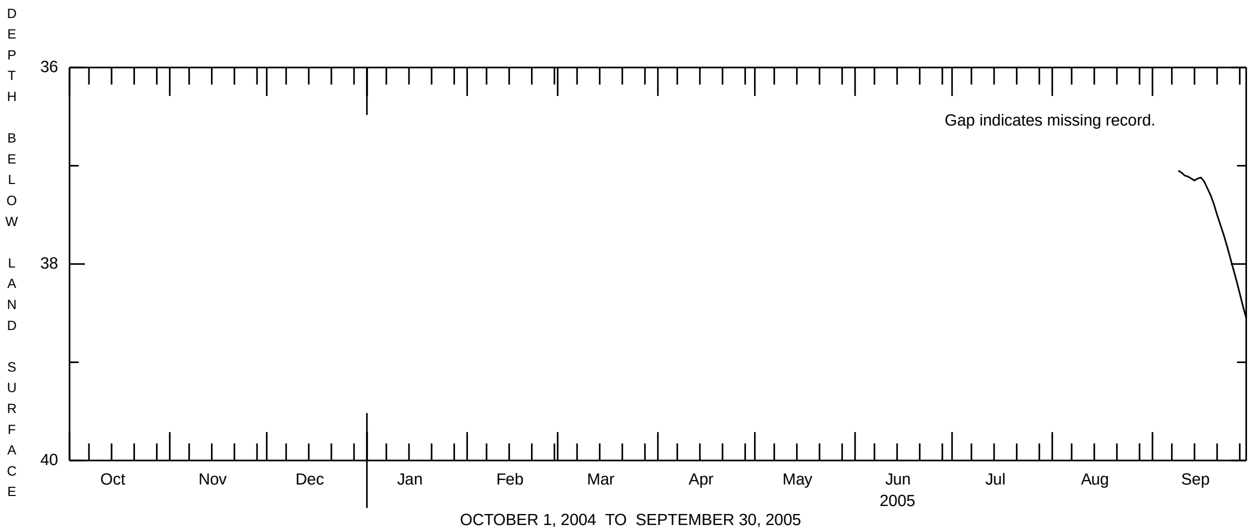
GROUND-WATER DATA COLLECTED AT SPECIAL-STUDY SITES
HYDROGEOLOGY OF THE POCONO CREEK BASIN, MONROE COUNTY

410149075204201. Local number, MO 645.

LOCATION.--Lat 41°01'49", long 75°20'42", Hydrologic Unit 02040104, near Reeders.
Owner: U.S. Environmental Protection Agency.
AQUIFER.--Mahantango Formation of Middle Devonian age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in., 101 ft deep, open hole.
INSTRUMENTATION.--Transducer and data logger with 60-minute recording interval.
DATUM.--Elevation of land-surface datum is 1,117 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.7 ft above land-surface datum.
PERIOD OF RECORD.--September 9, 2005 to current year.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	37.05
10	---	---	---	---	---	---	---	---	---	---	---	37.07
11	---	---	---	---	---	---	---	---	---	---	---	37.10
12	---	---	---	---	---	---	---	---	---	---	---	37.11
13	---	---	---	---	---	---	---	---	---	---	---	37.13
14	---	---	---	---	---	---	---	---	---	---	---	37.15
15	---	---	---	---	---	---	---	---	---	---	---	37.13
16	---	---	---	---	---	---	---	---	---	---	---	37.12
17	---	---	---	---	---	---	---	---	---	---	---	37.16
18	---	---	---	---	---	---	---	---	---	---	---	37.23
19	---	---	---	---	---	---	---	---	---	---	---	37.30
20	---	---	---	---	---	---	---	---	---	---	---	37.39
21	---	---	---	---	---	---	---	---	---	---	---	37.50
22	---	---	---	---	---	---	---	---	---	---	---	37.60
23	---	---	---	---	---	---	---	---	---	---	---	37.70
24	---	---	---	---	---	---	---	---	---	---	---	37.81
25	---	---	---	---	---	---	---	---	---	---	---	37.93
26	---	---	---	---	---	---	---	---	---	---	---	38.05
27	---	---	---	---	---	---	---	---	---	---	---	38.17
28	---	---	---	---	---	---	---	---	---	---	---	38.30
29	---	---	---	---	---	---	---	---	---	---	---	38.43
30	---	---	---	---	---	---	---	---	---	---	---	38.55
31	---	---	---	---	---	---	---	---	---	---	---	---
MEAN	---	---	---	---	---	---	---	---	---	---	---	37.54
MAX	---	---	---	---	---	---	---	---	---	---	---	38.55
MIN	---	---	---	---	---	---	---	---	---	---	---	37.05



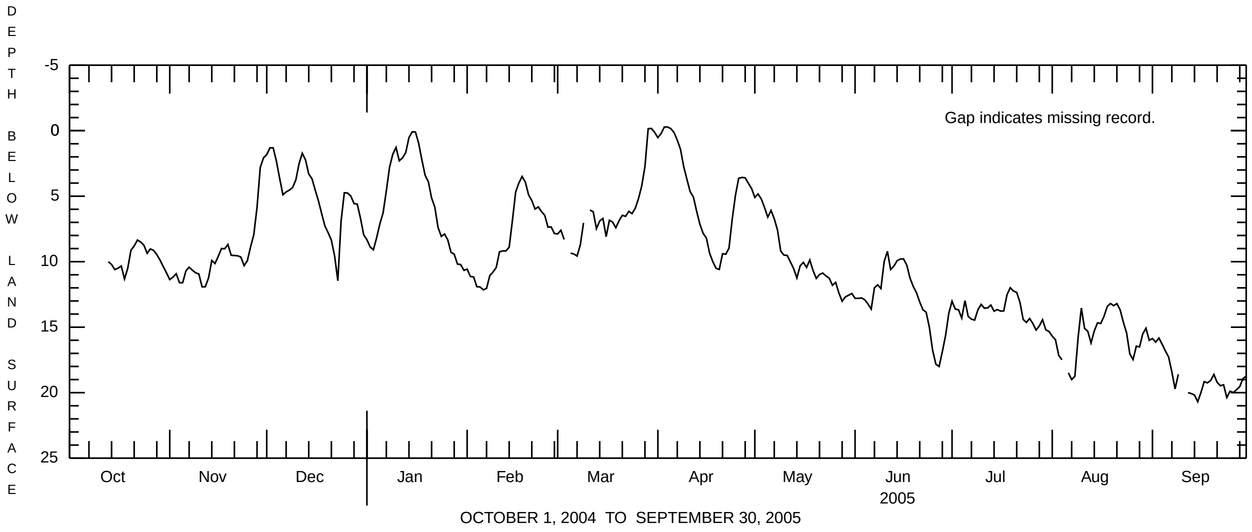
GROUND-WATER DATA COLLECTED AT SPECIAL-STUDY SITES HYDROGEOLOGY OF THE POCONO CREEK BASIN, MONROE COUNTY

405950075145801. Local number, MO 665.

LOCATION.--Lat 40°59'50", long 75°14'58", Hydrologic Unit 02040104, near Stroudsburg.
Owner: Barton Heights Veterinary Hospital.
AQUIFER.--Mahantango Formation of Middle Devonian age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in., 250 ft deep, open hole.
INSTRUMENTATION.--Transducer and data logger with 60-minute recording interval.
DATUM.--Elevation of land-surface datum is 778 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.2 ft above land-surface datum.
REMARKS.--Negative number indicates water level above land-surface datum.
PERIOD OF RECORD.--September 14, 2004 to current year.
EXTREMES FOR CURRENT YEAR.--Highest water level, 0.29 ft above land-surface datum, Apr. 3-7; lowest, 22.10 ft below land-surface datum, Sept. 24.

DEPTH ABOVE (-) OR BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	11.37	1.83	8.33	10.57	7.88	0.53	5.10	12.80	13.02	15.69	15.87
2	---	11.18	1.31	8.88	11.13	7.60	0.22	4.83	12.80	13.62	15.96	16.14
3	---	10.92	1.31	9.09	11.17	8.31	-0.28	5.22	12.77	13.67	17.15	15.83
4	---	11.60	2.33	8.17	11.91	---	-0.28	5.87	12.91	14.30	17.49	16.31
5	---	11.61	3.64	7.11	11.93	9.35	-0.16	6.60	13.23	12.98	---	16.82
6	---	10.70	4.89	6.27	12.15	9.41	0.14	6.09	13.62	14.18	18.49	17.28
7	---	10.42	4.68	4.59	12.04	9.57	0.72	6.72	11.99	14.39	19.00	18.42
8	---	10.65	4.54	2.78	11.07	8.73	1.42	7.58	11.77	14.46	18.75	19.71
9	---	10.85	4.34	1.80	10.79	7.04	2.75	9.19	12.05	13.67	15.77	18.60
10	---	10.94	3.76	1.28	10.44	---	3.73	9.50	10.00	13.26	13.54	---
11	---	11.92	2.52	2.30	9.25	6.06	4.67	9.52	9.21	13.55	15.09	---
12	---	11.92	1.72	2.08	9.18	6.19	5.07	10.02	10.60	13.53	15.32	20.00
13	10.0	11.24	2.23	1.68	9.18	7.48	6.16	10.53	10.34	13.31	16.20	20.07
14	10.22	9.91	3.31	0.52	8.90	6.89	7.14	11.24	9.93	13.78	15.29	20.18
15	10.60	10.14	3.67	0.09	6.87	6.70	7.84	10.32	9.80	13.66	14.67	20.69
16	10.50	9.60	4.54	0.10	4.69	8.09	8.19	10.05	9.79	13.77	14.72	19.99
17	10.33	9.00	5.36	0.96	3.99	6.84	9.35	10.44	10.26	13.76	14.18	19.16
18	11.32	9.01	6.34	2.23	3.50	6.98	10.01	9.87	11.26	12.52	13.43	19.25
19	10.51	8.69	7.28	3.41	3.92	7.41	10.51	10.67	11.89	11.99	13.19	19.07
20	9.13	9.51	7.79	3.90	4.90	6.87	10.59	11.28	12.37	12.24	13.36	18.61
21	8.80	9.53	8.36	5.14	5.34	6.46	9.40	10.98	13.08	12.35	13.20	19.21
22	8.35	9.55	9.56	5.84	5.98	6.54	9.43	10.87	13.67	13.10	13.67	19.47
23	8.50	9.65	11.45	7.39	5.82	6.16	8.97	11.09	13.86	14.41	14.63	19.40
24	8.74	10.30	6.91	8.07	6.18	6.33	6.75	11.26	15.03	14.64	15.44	20.37
25	9.36	9.94	4.74	7.89	6.46	5.93	4.93	11.80	16.77	14.34	17.05	19.89
26	9.03	8.88	4.76	8.33	7.36	5.19	3.63	11.58	17.83	14.72	17.47	19.99
27	9.14	7.94	4.99	9.28	7.35	4.23	3.57	12.39	18.00	15.22	16.45	19.78
28	9.46	5.85	5.56	9.43	7.85	2.74	3.60	13.02	16.87	14.91	16.51	19.54
29	9.88	2.81	5.61	10.18	---	-0.15	4.02	12.69	15.64	14.43	15.51	18.92
30	10.38	2.07	6.68	10.22	---	-0.17	4.42	12.56	13.93	15.20	15.08	18.74
31	10.86	---	7.95	10.66	---	0.13	---	12.43	---	15.33	16.00	---
MEAN	9.74	9.59	4.97	5.42	8.21	6.23	4.90	9.72	12.80	13.82	15.61	18.83
MAX	11.32	11.92	11.45	10.66	12.15	9.57	10.59	13.02	18.00	15.33	19.00	20.69
MIN	8.35	2.07	1.31	0.09	3.50	-0.17	-0.28	4.83	9.21	11.99	13.19	15.83



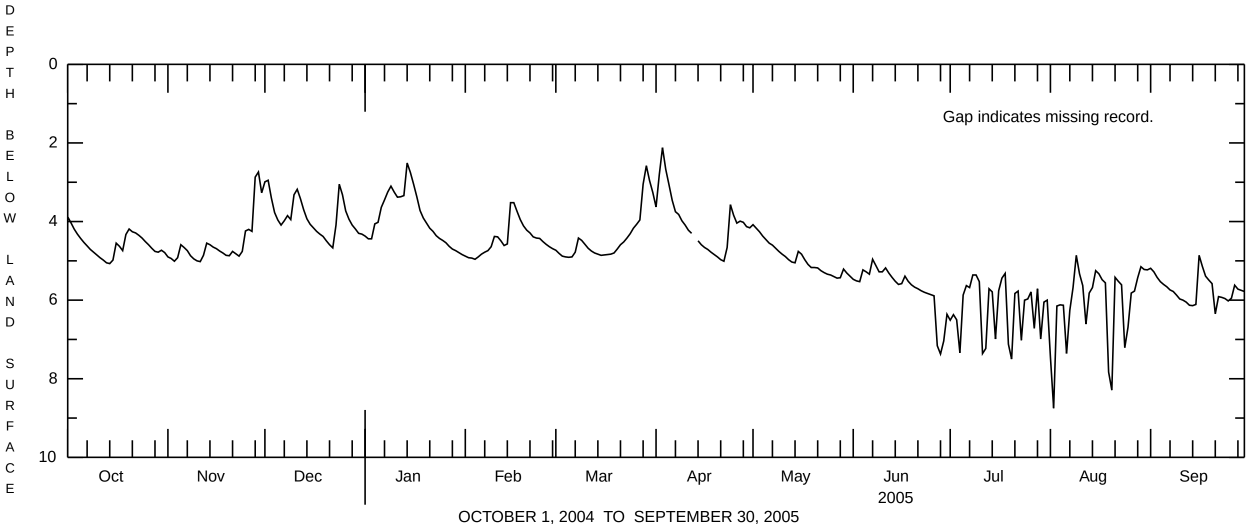
GROUND-WATER DATA COLLECTED AT SPECIAL-STUDY SITES
HYDROGEOLOGY OF THE POCONO CREEK BASIN, MONROE COUNTY

405957075193801. Local number, MO 666.

LOCATION.--Lat 40°59'57", long 75°19'38", Hydrologic Unit 02040104, near Stroudsburg.
Owner: Camp Pinemere.
AQUIFER.--Beaverdam Run member of the Catskill Formation of Upper Devonian age.
WELL CHARACTERISTICS.--Drilled unused well, diameter 6 in., unknown depth, open hole.
INSTRUMENTATION.--Transducer and data logger with 60-minute recording interval.
DATUM.--Elevation of land-surface datum is 914 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 2.5 ft above land-surface datum.
PERIOD OF RECORD.--September 14, 2004 to current year.
EXTREMES FOR CURRENT YEAR.--Highest water level, 1.72 ft below land-surface datum, Apr. 2; lowest, 10.44 ft below land-surface datum, Aug. 2.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.88	4.90	2.99	4.37	4.88	4.73	3.63	4.08	5.47	6.51	7.45	5.19
2	4.03	4.94	2.95	4.44	4.92	4.81	2.81	4.17	5.51	6.37	8.75	5.28
3	4.19	5.01	3.40	4.44	4.93	4.88	2.12	4.26	5.53	6.50	6.15	5.42
4	4.32	4.92	3.77	4.06	4.96	4.90	2.67	4.37	5.23	7.34	6.12	5.53
5	4.43	4.59	3.96	4.02	4.90	4.91	3.06	4.46	5.28	5.87	6.13	5.60
6	4.53	4.66	4.09	3.64	4.83	4.90	3.46	4.55	5.34	5.63	7.36	5.66
7	4.62	4.74	3.98	3.45	4.78	4.78	3.75	4.60	4.96	5.68	6.26	5.74
8	4.71	4.87	3.85	3.25	4.74	4.42	3.82	4.68	5.12	5.36	5.68	5.78
9	4.78	4.95	3.95	3.10	4.64	4.48	3.98	4.76	5.28	5.36	4.86	5.87
10	4.85	5.00	3.32	3.25	4.38	4.58	4.09	4.83	5.28	5.53	5.33	5.97
11	4.92	5.02	3.18	3.38	4.39	4.68	4.22	4.89	5.18	7.36	5.63	6.00
12	4.98	4.86	3.42	3.37	4.49	4.75	4.30	4.97	5.31	7.23	6.61	6.05
13	5.05	4.55	3.70	3.34	4.61	4.80	---	5.03	5.42	5.71	5.82	6.13
14	5.07	4.59	3.93	2.51	4.57	4.83	4.49	5.05	5.52	5.79	5.68	6.14
15	4.98	4.65	4.07	2.75	3.52	4.86	4.59	4.76	5.60	6.99	5.25	6.11
16	4.55	4.69	4.16	3.05	3.52	4.85	4.66	4.83	5.58	5.76	5.33	4.86
17	4.63	4.75	4.25	3.37	3.74	4.84	4.71	4.97	5.39	5.44	5.48	5.14
18	4.74	4.80	4.32	3.72	3.95	4.83	4.78	5.09	5.52	5.32	5.56	5.39
19	4.33	4.86	4.38	3.91	4.11	4.80	4.84	5.17	5.61	7.12	7.83	5.49
20	4.19	4.87	4.49	4.04	4.22	4.70	4.90	5.17	5.67	7.50	8.29	5.58
21	4.26	4.76	4.59	4.17	4.29	4.59	4.97	5.18	5.71	5.83	5.42	6.35
22	4.29	4.82	4.67	4.25	4.39	4.52	5.01	5.25	5.76	5.77	5.52	5.91
23	4.35	4.88	4.09	4.36	4.42	4.42	4.66	5.30	5.80	7.02	5.61	5.93
24	4.42	4.76	3.05	4.43	4.43	4.31	3.57	5.34	5.83	6.00	7.21	5.96
25	4.51	4.24	3.32	4.48	4.51	4.17	3.84	5.36	5.86	5.97	6.69	6.02
26	4.59	4.20	3.73	4.54	4.58	4.07	4.04	5.40	5.89	5.79	5.82	5.95
27	4.68	4.25	3.94	4.63	4.64	3.96	3.99	5.44	7.16	6.72	5.77	5.62
28	4.76	2.87	4.09	4.70	4.69	3.05	4.02	5.43	7.37	5.71	5.43	5.72
29	4.78	2.74	4.19	4.74	---	2.58	4.13	5.21	7.04	6.99	5.15	5.75
30	4.73	3.27	4.30	4.79	---	2.96	4.16	5.31	6.36	6.05	5.22	5.78
31	4.79	---	4.32	4.84	---	3.26	---	5.39	---	6.00	5.23	---
MEAN	4.58	4.57	3.89	3.92	4.47	4.43	4.04	4.95	5.69	6.20	6.09	5.73
MAX	5.07	5.02	4.67	4.84	4.96	4.91	5.01	5.44	7.37	7.50	8.75	6.35
MIN	3.88	2.74	2.95	2.51	3.52	2.58	2.12	4.08	4.96	5.32	4.86	4.86



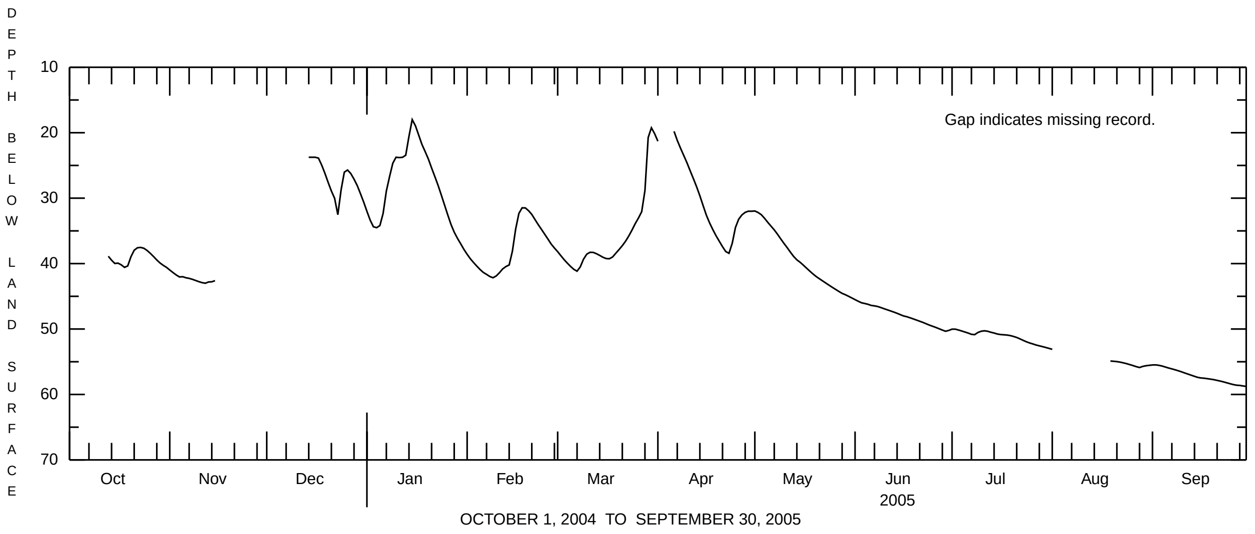
GROUND-WATER DATA COLLECTED AT SPECIAL-STUDY SITES
HYDROGEOLOGY OF THE POCONO CREEK BASIN, MONROE COUNTY

410132075190701. Local number, MO 667.

LOCATION.--Lat 41°01'32", long 75°19'07", Hydrologic Unit 02040104, near Reeders.
Owner: Pocono Mountain School District.
AQUIFER.--Long Run member of the Catskill Formation of Upper Devonian age.
WELL CHARACTERISTICS.--Drilled unused well, diameter 6 in., depth unknown, open hole.
INSTRUMENTATION.--Transducer and data logger with 60-minute recording interval.
DATUM.--Elevation of land-surface datum is 1030 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.0 ft above land-surface datum.
PERIOD OF RECORD.--October 13, 2004 to current year.
EXTREMES FOR CURRENT YEAR.--Highest water level, 17.76 ft above land-surface datum, Apr. 5; lowest, 58.81 ft below land-surface datum, Sept. 30.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	40.98	---	32.01	38.58	38.18	21.30	31.96	45.51	50.02	53.10	55.49
2	---	41.37	---	33.36	39.27	38.80	---	32.19	45.76	50.02	---	55.48
3	---	41.74	---	34.37	39.85	39.40	---	32.53	45.99	50.15	---	55.55
4	---	42.04	---	34.51	40.39	39.94	---	33.08	46.10	50.30	---	55.66
5	---	42.01	---	34.19	40.91	40.44	---	33.70	46.22	50.46	---	55.81
6	---	42.16	---	32.33	41.35	40.88	19.79	34.28	46.39	50.62	---	55.96
7	---	42.26	---	28.92	41.65	41.16	21.17	34.85	46.46	50.81	---	56.09
8	---	42.40	---	26.71	41.97	40.50	22.36	35.51	46.56	50.86	---	56.23
9	---	42.58	---	24.67	42.16	39.33	23.47	36.22	46.72	50.53	---	56.38
10	---	42.76	---	23.75	41.89	38.56	24.60	36.91	46.90	50.34	---	56.54
11	---	42.91	---	23.80	41.39	38.28	25.83	37.56	47.07	50.27	---	56.72
12	---	43.00	---	23.76	40.81	38.29	27.04	38.26	47.24	50.34	---	56.89
13	38.88	42.81	---	23.44	40.45	38.49	28.28	38.91	47.41	50.49	---	57.06
14	39.48	42.78	23.75	20.54	40.21	38.75	29.65	39.43	47.60	50.61	---	57.23
15	39.98	42.61	23.75	18.00	38.11	39.03	31.15	39.80	47.80	50.76	---	57.39
16	39.93	---	23.75	18.94	34.74	39.23	32.60	40.24	48.00	50.84	---	57.48
17	40.19	---	23.88	20.35	32.34	39.26	33.78	40.70	48.12	50.88	---	57.52
18	40.58	---	24.95	21.77	31.48	38.99	34.81	41.15	48.28	50.92	---	57.59
19	40.36	---	26.21	22.88	31.49	38.41	35.75	41.59	48.45	51.00	54.89	57.66
20	38.95	---	27.60	24.02	31.92	37.85	36.59	41.99	48.63	51.13	54.93	57.74
21	37.96	---	28.91	25.39	32.49	37.26	37.42	42.33	48.81	51.29	54.98	57.85
22	37.58	---	30.02	26.69	33.28	36.59	38.16	42.66	48.99	51.50	55.06	57.96
23	37.53	---	32.53	28.03	34.06	35.78	38.43	42.99	49.20	51.73	55.17	58.08
24	37.66	---	28.74	29.52	34.78	34.87	36.90	43.32	49.40	51.95	55.29	58.22
25	38.00	---	26.03	31.04	35.52	33.89	34.48	43.64	49.58	52.13	55.44	58.36
26	38.44	---	25.70	32.56	36.26	33.03	33.22	43.95	49.76	52.28	55.59	58.49
27	38.93	---	26.24	34.01	37.02	32.07	32.56	44.26	49.96	52.44	55.75	58.58
28	39.45	---	27.10	35.19	37.62	28.83	32.17	44.55	50.16	52.57	55.88	58.62
29	39.91	---	28.08	36.14	---	20.74	31.99	44.76	50.34	52.69	55.71	58.70
30	40.27	---	29.32	36.97	---	19.25	32.00	45.00	50.21	52.82	55.61	58.77
31	40.58	---	30.61	37.83	---	20.15	---	45.25	---	52.96	55.55	---
MEAN	39.19	42.29	27.07	28.25	37.57	36.01	30.60	39.47	47.92	51.15	55.21	57.20
MAX	40.58	43.00	32.53	37.83	42.16	41.16	38.43	45.25	50.34	52.96	55.88	58.77
MIN	37.53	40.98	23.75	18.00	31.48	19.25	19.79	31.96	45.51	50.02	53.10	55.48



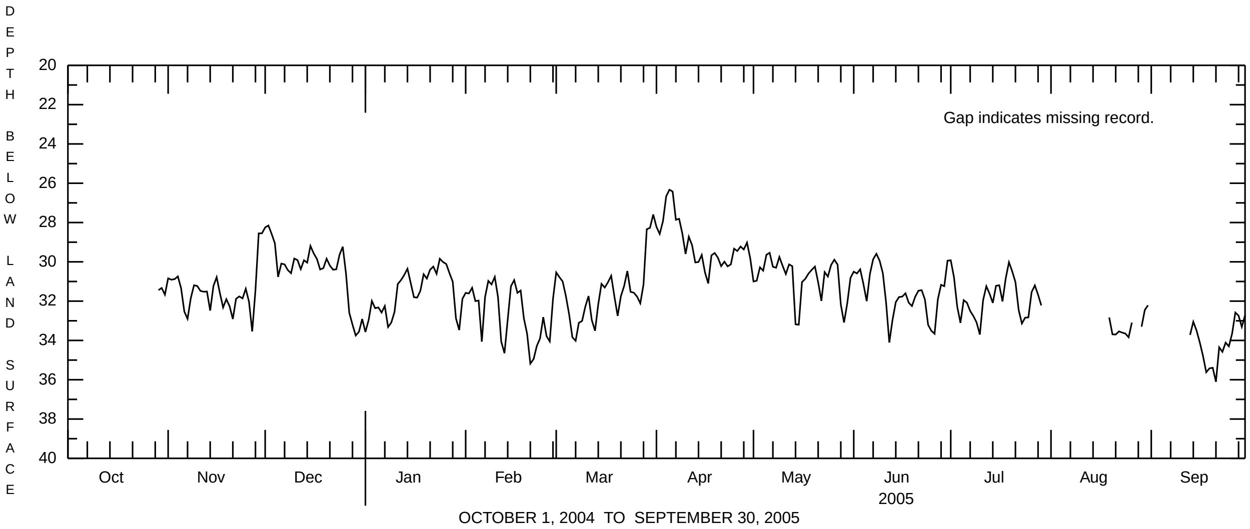
GROUND-WATER DATA COLLECTED AT SPECIAL-STUDY SITES
HYDROGEOLOGY OF THE POCONO CREEK BASIN, MONROE COUNTY

410237075183601. Local number, MO 669.

LOCATION.--Lat 41°02'37", long 75°18'36", Hydrologic Unit 02040104, at Tannersville.
Owner: Pocono Mountain School District.
AQUIFER.--Long Run member of the Catskill Formation of Upper Devonian age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 8 in., 185 ft deep, cased to 103 ft, open hole.
INSTRUMENTATION.--Transducer and data logger with 60-minute recording interval.
DATUM.--Elevation of land-surface datum is 914 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of well pit at land-surface datum.
PERIOD OF RECORD.--September 15, 2004 to current year.
EXTREMES FOR CURRENT YEAR.--Highest water level, 17.78 ft above land-surface datum, Aug. 13, 14; lowest, 37.55 ft below land-surface datum, Sept 18.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	30.84	28.25	33.57	31.58	30.54	28.22	31.00	30.50	29.92	---	---
2	---	30.91	28.15	32.96	31.61	30.78	28.58	30.96	30.59	30.79	---	---
3	---	30.88	28.58	31.99	31.32	31.00	27.94	30.28	30.38	32.28	---	32.70
4	---	30.74	29.06	32.36	32.00	31.75	26.67	30.45	31.13	33.10	---	---
5	---	31.34	30.76	32.32	31.97	32.68	26.33	29.64	32.00	31.95	---	---
6	---	32.53	30.09	32.58	34.06	33.84	26.42	29.54	30.62	32.08	---	33.42
7	---	32.90	30.13	32.25	31.79	34.02	27.86	30.25	29.87	32.50	---	---
8	---	31.85	30.42	33.32	30.97	33.10	27.81	30.30	29.59	32.76	---	33.84
9	---	31.19	30.58	33.09	31.15	33.01	28.56	29.75	29.94	33.09	---	---
10	---	31.23	29.83	32.55	30.77	32.28	29.60	30.20	30.58	33.70	---	---
11	---	31.48	29.91	31.13	31.79	31.74	28.72	30.62	32.07	31.95	---	---
12	---	31.52	30.37	30.93	34.06	32.96	29.15	30.13	34.10	31.24	---	---
13	---	31.51	29.92	30.67	34.65	33.51	30.03	30.22	32.95	31.62	---	33.72
14	---	32.48	30.04	30.35	32.94	32.16	30.01	33.18	32.05	32.09	---	33.05
15	---	31.23	29.19	31.07	31.24	31.12	29.65	33.20	31.79	31.22	---	33.49
16	---	30.78	29.57	31.80	30.93	31.31	30.54	31.03	31.77	31.19	---	34.10
17	---	31.59	29.85	31.82	31.58	31.04	31.10	30.87	31.60	32.01	---	34.79
18	---	32.32	30.39	31.47	31.46	30.71	29.67	30.60	32.08	30.84	---	35.62
19	---	31.90	30.32	30.63	32.88	31.77	29.55	30.41	32.25	30.02	32.83	35.42
20	---	32.26	29.84	30.85	33.66	32.75	29.79	30.24	31.78	30.48	33.69	35.39
21	---	32.91	30.19	30.40	35.18	31.75	30.22	31.04	31.47	31.03	33.70	36.10
22	---	31.88	30.40	30.24	34.95	31.23	29.99	31.98	31.44	32.45	33.54	34.35
23	---	31.76	30.38	30.61	34.28	30.47	30.23	30.52	31.91	33.14	33.60	34.58
24	---	31.86	29.64	29.84	33.90	31.53	30.13	30.75	33.21	32.84	33.65	34.11
25	---	31.37	29.23	30.01	32.82	31.57	29.33	30.16	33.51	32.83	33.84	34.30
26	---	32.03	30.61	30.11	33.78	31.77	29.45	29.89	33.66	31.54	33.09	33.65
27	---	33.54	32.59	30.58	34.05	32.11	29.22	30.14	31.91	31.20	---	32.58
28	---	31.45	33.19	31.01	31.89	31.15	29.37	32.17	31.17	31.67	---	32.74
29	31.44	28.55	33.75	32.88	---	28.34	29.02	33.09	31.24	32.22	33.30	33.31
30	31.33	28.55	33.56	33.47	---	28.27	29.83	32.10	29.94	---	32.45	32.72
31	31.67	---	32.91	31.88	---	27.59	---	30.81	---	---	32.21	---
MEAN	31.48	31.51	30.38	31.57	32.62	31.54	29.10	30.82	31.57	31.85	33.26	34.00
MAX	31.67	33.54	33.75	33.57	35.18	34.02	31.10	33.20	34.10	33.70	33.84	36.10
MIN	31.33	28.55	28.15	29.84	30.77	27.59	26.33	29.54	29.59	29.92	32.21	32.58



GROUND-WATER DATA COLLECTED AT SPECIAL-STUDY SITES
HYDROGEOLOGY OF THE POCONO CREEK BASIN, MONROE COUNTY

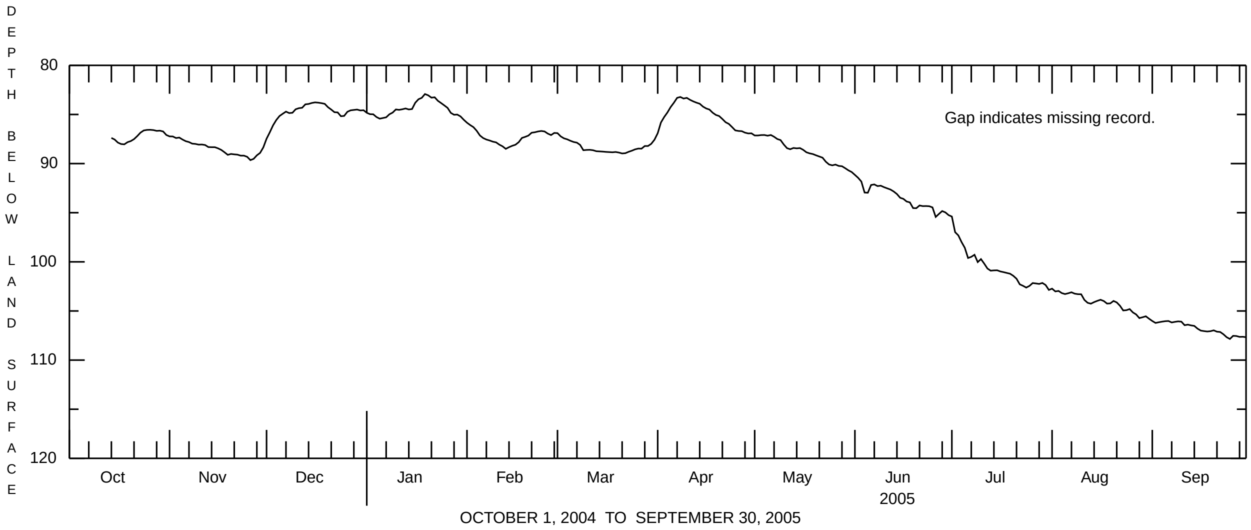
410515075252201. Local number, MO 670.

LOCATION.--Lat 41°05'15", long 75°25'22", Hydrologic Unit 02040104, near Pocono Summit.
Owner: Emerald Lakes Association.
AQUIFER.--Poplar Gap member of the Catskill Formation of Upper Devonian age.
WELL CHARACTERISTICS.--Drilled unused well, diameter 6 in., 550 ft deep, open hole.
INSTRUMENTATION.--Transducer and data logger with 60-minute recording interval.
DATUM.--Elevation of land-surface datum is 2023 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing at land-surface datum.
PERIOD OF RECORD.--October 14, 2004 to current year.
EXTREMES FOR CURRENT YEAR.--Highest water level, 82.80 ft above land-surface datum, Jan. 19; lowest, 108.46 ft below land-surface datum, Sept. 25.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	87.23	87.47	84.83	85.84	86.90	86.91	87.14	91.15	95.39	102.73	106.02
2	---	87.24	86.82	84.97	86.08	87.23	85.82	87.14	91.45	96.98	103.01	106.22
3	---	87.40	86.11	84.98	86.29	87.43	85.26	87.10	91.83	97.31	102.96	106.15
4	---	87.35	85.57	85.26	86.66	87.53	84.80	87.09	92.95	97.99	103.18	106.09
5	---	87.55	85.16	85.43	87.14	87.68	84.25	87.16	92.97	98.57	103.28	106.04
6	---	87.72	84.93	85.36	87.40	87.80	83.81	87.09	92.18	99.61	103.20	106.02
7	---	87.81	84.71	85.29	87.55	87.87	83.31	87.27	92.12	99.49	103.10	106.17
8	---	87.97	84.86	84.98	87.65	88.10	83.22	87.50	92.29	99.28	103.24	106.11
9	---	88.00	84.83	84.81	87.77	88.64	83.38	87.61	92.25	100.03	103.29	106.06
10	---	88.07	84.47	84.49	87.84	88.61	83.31	88.06	92.40	99.72	103.30	106.09
11	---	88.06	84.36	84.53	88.07	88.60	83.51	88.43	92.52	100.18	103.88	106.45
12	---	88.11	84.32	84.47	88.24	88.64	83.67	88.54	92.64	100.68	104.17	106.39
13	---	88.32	83.97	84.39	88.50	88.74	83.80	88.41	92.84	100.90	104.26	106.47
14	87.39	88.33	83.93	84.49	88.33	88.76	83.91	88.45	93.10	100.87	104.10	106.52
15	87.55	88.33	83.83	84.45	88.19	88.78	84.20	88.42	93.48	100.86	103.97	106.80
16	87.86	e88.45	83.77	83.81	88.08	88.81	84.39	88.60	93.59	100.98	103.86	107.00
17	88.01	88.61	83.80	83.45	87.82	88.83	84.50	88.85	93.86	101.05	103.99	107.05
18	88.04	88.85	83.85	83.31	87.39	88.85	84.82	88.96	93.95	101.13	104.25	107.09
19	87.82	89.11	83.92	82.92	87.28	88.82	85.05	89.03	94.53	101.21	104.23	107.06
20	87.71	89.02	84.26	83.05	87.15	88.88	85.16	89.16	94.54	101.42	103.98	106.97
21	87.51	89.06	84.50	83.29	86.86	88.97	85.46	89.28	94.26	101.72	104.13	107.11
22	87.20	89.09	84.77	83.25	86.81	88.94	85.79	89.40	94.33	102.29	104.47	107.14
23	86.85	89.19	84.79	83.61	86.73	88.80	85.96	89.81	94.32	102.44	104.95	107.37
24	86.63	89.19	85.18	83.84	86.68	88.69	86.28	90.09	94.34	102.62	104.92	107.67
25	86.57	89.31	85.15	84.08	86.73	88.55	86.62	90.18	94.46	102.45	104.81	107.85
26	86.56	89.65	84.73	84.33	86.95	88.47	86.68	90.10	95.43	102.16	105.15	107.53
27	86.59	89.52	84.58	84.84	87.10	88.48	86.70	90.24	95.12	102.20	105.35	107.55
28	86.67	89.16	84.54	85.03	86.88	88.21	86.85	90.27	94.83	102.25	105.73	107.64
29	86.65	88.91	84.50	85.01	---	88.21	86.93	90.47	94.97	102.15	105.64	107.63
30	86.73	88.35	84.59	85.20	---	87.99	86.92	90.69	95.25	102.36	105.54	107.67
31	87.09	---	84.57	85.54	---	87.57	---	90.86	---	102.86	105.79	---
MEAN	87.19	88.43	84.74	84.43	87.29	88.33	85.04	88.75	93.47	100.62	104.14	106.80
MAX	88.04	89.65	87.47	85.54	88.50	88.97	86.93	90.86	95.43	102.86	105.79	107.85
MIN	86.56	87.23	83.77	82.92	85.84	86.90	83.22	87.09	91.15	95.39	102.73	106.02

e Estimated



OCTOBER 1, 2004 TO SEPTEMBER 30, 2005

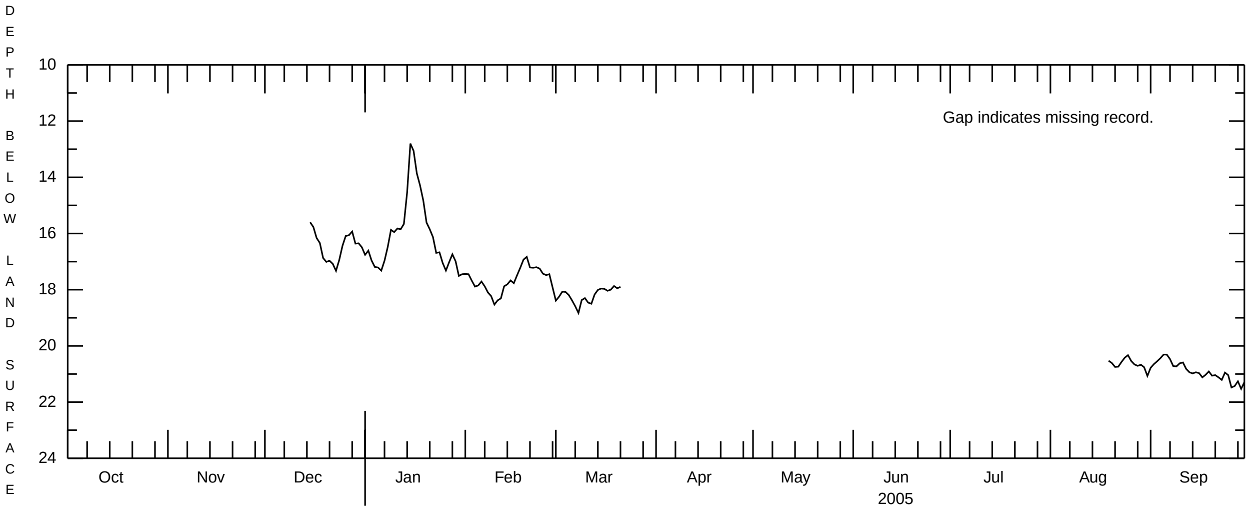
GROUND-WATER DATA COLLECTED AT SPECIAL-STUDY SITES
HYDROGEOLOGY OF THE POCONO CREEK BASIN, MONROE COUNTY

410149075204202. Local number, MO 678.

LOCATION.--Lat 41°01'49", long 75°20'42", Hydrologic Unit 02040104, near Reeders.
Owner: U.S. Environmental Protection Agency.
AQUIFER.--Woodfordian ground moraine of Pleistocene age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in., 29 ft deep.
INSTRUMENTATION.--Transducer and data logger with 60-minute recording interval.
DATUM.--Elevation of land-surface datum is 1118 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.4 ft above land-surface datum.
PERIOD OF RECORD.--December 15, 2004 to current year.
EXTREMES FOR CURRENT YEAR.--Highest water level recorded, 12.68 ft below land-surface datum, Jan. 15; lowest recorded, 21.71 ft below land-surface datum, Sept. 26.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	16.76	17.44	18.39	---	---	---	---	---	20.78
2	---	---	---	16.61	17.45	18.25	---	---	---	---	---	20.65
3	---	---	---	16.96	17.68	18.07	---	---	---	---	---	20.55
4	---	---	---	17.19	17.89	18.08	---	---	---	---	---	20.44
5	---	---	---	17.21	17.85	18.19	---	---	---	---	---	20.31
6	---	---	---	17.32	17.71	18.38	---	---	---	---	---	20.31
7	---	---	---	16.97	17.88	18.59	---	---	---	---	---	20.47
8	---	---	---	16.48	18.10	18.83	---	---	---	---	---	20.72
9	---	---	---	15.87	18.23	18.37	---	---	---	---	---	20.73
10	---	---	---	15.95	18.53	18.30	---	---	---	---	---	20.62
11	---	---	---	15.82	18.38	18.46	---	---	---	---	---	20.59
12	---	---	---	15.85	18.31	18.50	---	---	---	---	---	20.82
13	---	---	---	15.66	17.88	18.17	---	---	---	---	---	20.94
14	---	---	---	14.53	17.81	18.01	---	---	---	---	---	20.98
15	---	---	15.60	12.80	17.67	17.96	---	---	---	---	---	20.94
16	---	---	15.77	13.06	17.77	17.97	---	---	---	---	---	20.97
17	---	---	16.16	13.86	17.49	18.04	---	---	---	---	---	21.12
18	---	---	16.34	14.29	17.22	18.00	---	---	---	---	---	21.03
19	---	---	16.87	14.83	16.93	17.87	---	---	---	---	20.53	20.91
20	---	---	17.01	15.61	16.83	17.95	---	---	---	---	20.61	21.06
21	---	---	16.97	15.85	17.21	17.90	---	---	---	---	20.75	21.04
22	---	---	17.08	16.13	17.22	---	---	---	---	---	20.74	21.12
23	---	---	17.33	16.69	17.20	---	---	---	---	---	20.57	21.21
24	---	---	16.94	16.67	17.25	---	---	---	---	---	20.42	20.95
25	---	---	16.44	17.05	17.43	---	---	---	---	---	20.33	21.04
26	---	---	16.09	17.32	17.48	---	---	---	---	---	20.54	21.48
27	---	---	16.06	17.02	17.45	---	---	---	---	---	20.66	21.43
28	---	---	15.93	16.74	17.92	---	---	---	---	---	20.71	21.26
29	---	---	16.36	16.99	---	---	---	---	---	---	20.67	21.53
30	---	---	16.35	17.51	---	---	---	---	---	---	20.76	21.29
31	---	---	16.49	17.45	---	---	---	---	---	---	21.07	---
MEAN	---	---	16.46	16.10	17.65	18.20	---	---	---	---	20.64	20.91
MAX	---	---	17.33	17.51	18.53	18.83	---	---	---	---	21.07	21.53
MIN	---	---	15.60	12.80	16.83	17.87	---	---	---	---	20.33	20.31



OCTOBER 1, 2004 TO SEPTEMBER 30, 2005

GROUND-WATER DATA COLLECTED AT SPECIAL-STUDY SITES
HYDROGEOLOGY OF THE POCONO CREEK BASIN, MONROE COUNTY

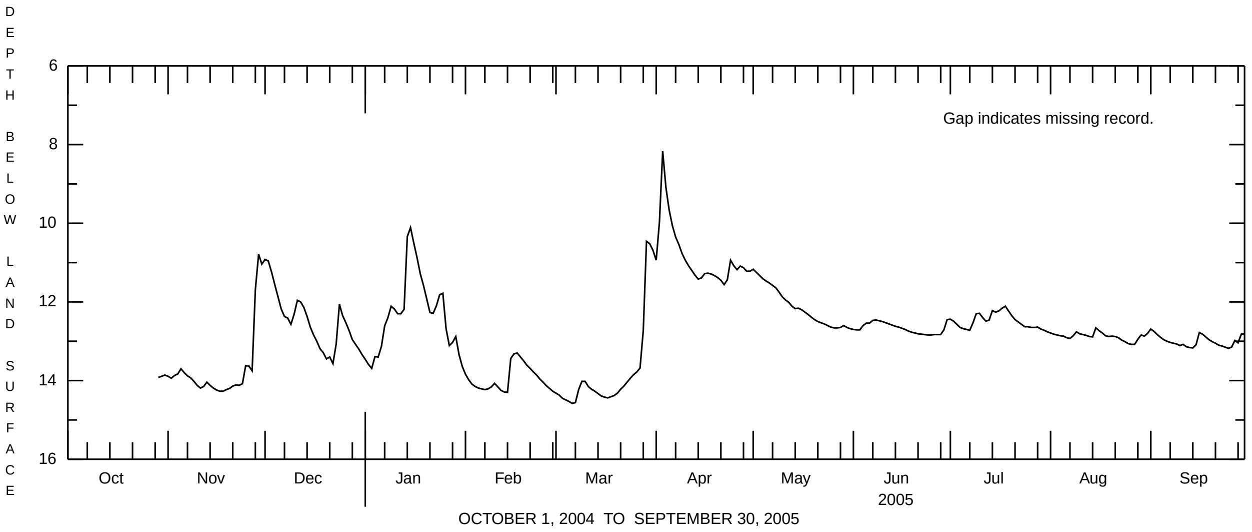
410237075183602. Local number, MO 694.

LOCATION.--Lat 41°02'37", long 75°18'36", Hydrologic Unit 02040104, at Tannersville.
Owner: U.S. Geological Survey.
AQUIFER.--Woodfordian outwash of Pleistocene age.
WELL CHARACTERISTICS.--Drilled observation well, diameter 1 in., 28 ft deep, screened 18-28 ft.
INSTRUMENTATION.--Transducer and data logger with 60-minute recording interval.
DATUM.--Elevation of land-surface datum is 915 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.3 ft below land-surface datum.
PERIOD OF RECORD.--October 29, 2004 to current year.
EXTREMES FOR CURRENT YEAR.--Highest water level, 7.63 ft above land-surface datum, Apr. 2; lowest, 14.60 ft below land-surface datum, Mar. 7.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	13.89	10.92	13.46	13.84	14.32	10.94	11.17	12.70	12.44	12.79	12.69
2	---	13.94	10.96	13.59	13.98	14.37	9.97	11.25	12.71	12.49	12.82	12.75
3	---	13.87	11.24	13.69	14.09	14.45	8.17	11.33	12.71	12.57	12.84	12.83
4	---	13.83	11.56	13.39	14.15	14.49	9.09	11.41	12.60	12.65	12.86	12.90
5	---	13.70	11.87	13.40	14.19	14.53	9.66	11.47	12.54	12.68	12.87	12.96
6	---	13.80	12.18	13.13	14.21	14.58	10.06	11.52	12.54	12.70	12.91	13.00
7	---	13.88	12.37	12.61	14.23	14.56	10.35	11.58	12.47	12.72	12.93	13.03
8	---	13.93	12.41	12.40	14.21	14.23	10.54	11.64	12.46	12.53	12.86	13.05
9	---	14.02	12.57	12.11	14.16	14.02	10.77	11.75	12.48	12.30	12.76	13.07
10	---	14.12	12.31	12.18	14.07	14.02	10.94	11.87	12.50	12.29	12.81	13.11
11	---	14.19	11.96	12.30	14.16	14.15	11.08	11.95	12.53	12.40	12.83	13.08
12	---	14.15	12.00	12.30	14.25	14.22	11.20	12.01	12.56	12.49	12.85	13.14
13	---	14.04	12.14	12.19	14.29	14.27	11.32	12.11	12.59	12.46	12.88	13.16
14	---	14.12	12.37	10.34	14.30	14.33	11.42	12.17	12.62	12.22	12.89	13.17
15	---	14.19	12.64	10.11	13.44	14.39	11.39	12.16	12.64	12.26	12.66	13.09
16	---	e14.24	12.84	10.50	13.32	14.42	11.28	12.20	12.67	12.23	12.73	12.78
17	---	14.27	13.00	10.87	13.30	14.44	11.27	12.26	12.70	12.16	12.79	12.82
18	---	14.27	13.19	11.28	13.40	14.41	11.29	12.32	12.74	12.11	12.86	12.89
19	---	14.23	13.29	11.58	13.50	14.38	11.33	12.39	12.77	12.23	12.88	12.96
20	---	14.20	13.45	11.92	13.61	14.32	11.38	12.45	12.79	12.35	12.87	13.01
21	---	14.14	13.40	12.27	13.69	14.22	11.45	12.50	12.81	12.45	12.88	13.05
22	---	14.11	13.57	12.29	13.78	14.14	11.56	12.53	12.82	12.51	12.91	13.10
23	---	14.12	13.07	12.10	13.86	14.04	11.44	12.56	12.83	12.57	12.97	13.12
24	---	14.08	12.06	11.82	13.96	13.94	10.94	12.60	12.84	12.63	13.01	13.15
25	---	13.62	12.35	11.78	14.04	13.85	11.08	12.64	12.84	12.63	13.06	13.18
26	---	13.63	12.53	12.68	14.13	13.78	11.18	12.66	12.83	12.65	13.08	13.15
27	---	13.75	12.73	13.11	14.20	13.68	11.09	12.66	12.83	12.65	13.08	12.98
28	---	11.69	12.96	13.03	14.27	12.73	11.13	12.65	12.83	12.64	12.95	13.04
29	13.92	10.79	13.08	12.88	---	10.46	11.22	12.60	12.71	12.69	12.84	12.82
30	13.89	11.04	13.20	13.34	---	10.52	11.22	12.65	12.45	12.72	12.87	12.81
31	13.86	---	13.34	13.64	---	10.69	---	12.68	---	12.76	12.80	---
MEAN	13.89	13.73	12.50	12.33	13.95	13.84	10.86	12.12	12.67	12.49	12.88	13.00
MAX	13.92	14.27	13.57	13.69	14.30	14.58	11.56	12.68	12.84	12.76	13.08	13.18
MIN	13.86	10.79	10.92	10.11	13.30	10.46	8.17	11.17	12.45	12.11	12.66	12.69

e Estimated



GROUND-WATER DATA COLLECTED AT SPECIAL-STUDY SITES
HYDROGEOLOGY OF THE POCONO CREEK BASIN, MONROE COUNTY

REMARKS.--Explanation of column headings--LOCAL NUMBER: unique identification code that utilizes a county abbreviation (MO is Monroe County) and a sequential series of numbers to represent individual wells in a specific county. SITE IDENTIFIER: unique 15-digit identifier based on site latitude (first six digits), longitude (digits seven through thirteen), and a 2-digit sequence number suffix. LOCATION MAP NAME: name of 1:24,000 U.S. Geological Survey topographic map on which well is located. ELEVATION OF LAND SURFACE: land-surface altitude at well site, in feet above sea level, determined from appropriate topographic map. AQUIFER CODE: abbreviation of geologic formation names. Devonian--341LNGR, Long Run Member of the Catskill Formation; 341PLPG, Poplar Gap Member of the Catskill Formation; 341WCKV, Walcksville Member of the Catskill Formation; 344MNNG, Mahantango Formation; 344MRCL, Marcellus Shale WATER-LEVEL METHOD: T, electric tape.

LOCAL NUMBER	SITE IDENTIFIER	LOCATION MAP NAME	ELEVATION OF LAND SURFACE (FEET)	AQUIFER CODE	WATER LEVEL IN FEET BELOW LAND SURFACE	WATER-LEVEL METHOD	WATER-LEVEL DATE
MO 645	410149075204201	MOUNT POCONO	1117	341LNGR	25.49	T	1/13/05
MO 645	410149075204201	MOUNT POCONO	1117	341LNGR	26.46	T	2/8/05
MO 645	410149075204201	MOUNT POCONO	1117	341LNGR	28.37	T	3/22/05
MO 645	410149075204201	MOUNT POCONO	1117	341LNGR	24.26	T	4/13/05
MO 645	410149075204201	MOUNT POCONO	1117	341LNGR	26.50	T	5/10/05
MO 645	410149075204201	MOUNT POCONO	1117	341LNGR	31.93	T	7/7/05
MO 645	410149075204201	MOUNT POCONO	1117	341LNGR	35.26	T	8/19/05
MO 645	410149075204201	MOUNT POCONO	1117	341LNGR	37.16	T	9/15/05
MO 664	405925075141401	STROUDSBURG	625	344MNNG	46.56	T	9/20/04
MO 664	405925075141401	STROUDSBURG	625	344MNNG	60.50	T	10/13/04
MO 664	405925075141401	STROUDSBURG	625	344MNNG	56.20	T	11/16/04
MO 664	405925075141401	STROUDSBURG	625	344MNNG	49.52	T	12/13/04
MO 664	405925075141401	STROUDSBURG	625	344MNNG	49.94	T	1/13/05
MO 664	405925075141401	STROUDSBURG	625	344MNNG	58.29	T	2/8/05
MO 664	405925075141401	STROUDSBURG	625	344MNNG	57.38	T	3/22/05
MO 664	405925075141401	STROUDSBURG	625	344MNNG	53.98	T	4/13/05
MO 664	405925075141401	STROUDSBURG	625	344MNNG	59.25	T	5/10/05
MO 664	405925075141401	STROUDSBURG	625	344MNNG	65.47	T	7/7/05
MO 664	405925075141401	STROUDSBURG	625	344MNNG	62.84	T	8/19/05
MO 664	405925075141401	STROUDSBURG	625	344MNNG	64.29	T	9/15/05
MO 668	410136075191301	MOUNT POCONO	1034	341LNGR	50.19	T	8/10/04
MO 668	410136075191301	MOUNT POCONO	1034	341LNGR	37.58	T	9/14/04
MO 668	410136075191301	MOUNT POCONO	1034	341LNGR	23.25	T	9/20/04
MO 668	410136075191301	MOUNT POCONO	1034	341LNGR	51.53	T	10/13/04
MO 668	410136075191301	MOUNT POCONO	1034	341LNGR	50.12	T	11/16/04
MO 668	410136075191301	MOUNT POCONO	1034	341LNGR	28.39	T	12/13/04
MO 668	410136075191301	MOUNT POCONO	1034	341LNGR	27.35	T	1/13/05
MO 668	410136075191301	MOUNT POCONO	1034	341LNGR	54.30	T	2/8/05
MO 668	410136075191301	MOUNT POCONO	1034	341LNGR	47.33	T	3/22/05
MO 668	410136075191301	MOUNT POCONO	1034	341LNGR	44.76	T	4/13/05
MO 668	410136075191301	MOUNT POCONO	1034	341LNGR	48.72	T	5/10/05
MO 668	410136075191301	MOUNT POCONO	1034	341LNGR	59.78	T	7/7/05
MO 668	410136075191301	MOUNT POCONO	1034	341LNGR	60.17	T	8/19/05
MO 668	410136075191301	MOUNT POCONO	1034	341LNGR	63.38	T	9/15/05
MO 671	410503075263601	POCONO PINES	1949	341PLGP	63.28	T	8/10/04
MO 671	410503075263601	POCONO PINES	1949	341PLGP	60.20	T	9/20/04
MO 671	410503075263601	POCONO PINES	1949	341PLGP	56.87	T	10/13/04
MO 671	410503075263601	POCONO PINES	1949	341PLGP	55.76	T	11/16/04
MO 671	410503075263601	POCONO PINES	1949	341PLGP	55.64	T	12/13/04
MO 671	410503075263601	POCONO PINES	1949	341PLGP	54.37	T	1/13/05
MO 671	410503075263601	POCONO PINES	1949	341PLGP	53.78	T	2/8/05
MO 671	410503075263601	POCONO PINES	1949	341PLGP	56.92	T	3/22/05
MO 671	410503075263601	POCONO PINES	1949	341PLGP	53.25	T	4/13/05
MO 671	410503075263601	POCONO PINES	1949	341PLGP	54.21	T	5/10/05
MO 671	410503075263601	POCONO PINES	1949	341PLGP	60.92	T	7/7/05
MO 671	410503075263601	POCONO PINES	1949	341PLGP	64.90	T	8/19/05
MO 671	410503075263601	POCONO PINES	1949	341PLGP	67.08	T	9/15/05
MO 672	410458075241901	POCONO PINES	1888	341PLGP	64.64	T	8/10/04
MO 672	410458075241901	POCONO PINES	1888	341PLGP	62.25	T	9/20/04
MO 672	410458075241901	POCONO PINES	1888	341PLGP	61.17	T	10/13/04
MO 672	410458075241901	POCONO PINES	1888	341PLGP	61.62	T	11/16/04
MO 672	410458075241901	POCONO PINES	1888	341PLGP	60.43	T	12/13/04
MO 672	410458075241901	POCONO PINES	1888	341PLGP	59.57	T	1/13/05
MO 672	410458075241901	POCONO PINES	1888	341PLGP	59.38	T	2/8/05
MO 672	410458075241901	POCONO PINES	1888	341PLGP	61.15	T	3/22/05
MO 672	410458075241901	POCONO PINES	1888	341PLGP	56.86	T	4/13/05
MO 672	410458075241901	POCONO PINES	1888	341PLGP	59.67	T	5/10/05
MO 672	410458075241901	POCONO PINES	1888	341PLGP	83.24	T	7/7/05
MO 672	410458075241901	POCONO PINES	1888	341PLGP	65.44	T	8/19/05
MO 672	410458075241901	POCONO PINES	1888	341PLGP	66.91	T	9/15/05
MO 673	410352075191301	MOUNT POCONO	1027	341LNGR	8.68	T	9/14/04
MO 673	410352075191301	MOUNT POCONO	1027	341LNGR	6.60	T	9/20/04
MO 673	410352075191301	MOUNT POCONO	1027	341LNGR	10.84	T	10/13/04
MO 673	410352075191301	MOUNT POCONO	1027	341LNGR	11.00	T	11/16/04
MO 673	410352075191301	MOUNT POCONO	1027	341LNGR	7.82	T	12/13/04
MO 673	410352075191301	MOUNT POCONO	1027	341LNGR	5.32	T	1/13/05
MO 673	410352075191301	MOUNT POCONO	1027	341LNGR	11.10	T	2/8/05
MO 673	410352075191301	MOUNT POCONO	1027	341LNGR	10.24	T	3/22/05
MO 673	410352075191301	MOUNT POCONO	1027	341LNGR	9.17	T	4/13/05
MO 673	410352075191301	MOUNT POCONO	1027	341LNGR	10.54	T	5/19/05
MO 673	410352075191301	MOUNT POCONO	1027	341LNGR	12.21	T	7/7/05
MO 673	410352075191301	MOUNT POCONO	1027	341LNGR	12.53	T	8/19/05
MO 673	410352075191301	MOUNT POCONO	1027	341LNGR	12.84	T	9/15/05

GROUND-WATER DATA COLLECTED AT SPECIAL-STUDY SITES
HYDROGEOLOGY OF THE POCONO CREEK BASIN, MONROE COUNTY

LOCAL ID	SITE IDENTIFIER	LOCATION MAP NAME	ELEVATION OF LAND SURFACE (FEET)	AQUIFER CODE	WATER LEVEL IN FEET BELOW LAND SURFACE	WATER-LEVEL METHOD	WATER-LEVEL DATE
MO 674	410319075152601	MOUNT POCONO	956	341LNGR	28.45	T	9/14/04
MO 674	410319075152601	MOUNT POCONO	956	341LNGR	12.62	T	9/20/04
MO 674	410319075152601	MOUNT POCONO	956	341LNGR	28.91	T	10/13/04
MO 674	410319075152601	MOUNT POCONO	956	341LNGR	29.85	T	11/16/04
MO 674	410319075152601	MOUNT POCONO	956	341LNGR	26.53	T	12/13/04
MO 674	410319075152601	MOUNT POCONO	956	341LNGR	23.61	T	1/13/05
MO 674	410319075152601	MOUNT POCONO	956	341LNGR	30.59	T	2/8/05
MO 674	410319075152601	MOUNT POCONO	956	341LNGR	28.70	T	3/22/05
MO 674	410319075152601	MOUNT POCONO	956	341LNGR	28.91	T	4/13/05
MO 674	410319075152601	MOUNT POCONO	956	341LNGR	30.35	T	5/10/05
MO 674	410319075152601	MOUNT POCONO	956	341LNGR	34.12	T	7/7/05
MO 674	410319075152601	MOUNT POCONO	956	341LNGR	35.55	T	8/19/05
MO 674	410319075152601	MOUNT POCONO	956	341LNGR	38.00	T	9/15/05
MO 675	410206075165101	MOUNT POCONO	994	341LNGR	26.15	T	8/18/04
MO 675	410206075165101	MOUNT POCONO	994	341LNGR	22.03	T	9/20/04
MO 675	410206075165101	MOUNT POCONO	994	341LNGR	32.81	T	10/13/04
MO 675	410206075165101	MOUNT POCONO	994	341LNGR	33.28	T	11/16/04
MO 675	410206075165101	MOUNT POCONO	994	341LNGR	25.44	T	12/13/04
MO 675	410206075165101	MOUNT POCONO	994	341LNGR	24.91	T	1/13/05
MO 675	410206075165101	MOUNT POCONO	994	341LNGR	33.56	T	2/8/05
MO 675	410206075165101	MOUNT POCONO	994	341LNGR	31.55	T	3/22/05
MO 675	410206075165101	MOUNT POCONO	994	341LNGR	28.56	T	4/13/05
MO 675	410206075165101	MOUNT POCONO	994	341LNGR	31.40	T	5/10/05
MO 675	410206075165101	MOUNT POCONO	994	341LNGR	33.45	T	5/19/05
MO 675	410206075165101	MOUNT POCONO	994	341LNGR	40.85	T	7/7/05
MO 675	410206075165101	MOUNT POCONO	994	341LNGR	42.70	T	8/19/05
MO 675	410206075165101	MOUNT POCONO	994	341LNGR	44.57	T	9/15/05
MO 676	410126075170101	MOUNT POCONO	981	341WCKV	13.39	T	9/14/04
MO 676	410126075170101	MOUNT POCONO	981	341WCKV	12.22	T	9/20/04
MO 676	410126075170101	MOUNT POCONO	981	341WCKV	19.38	T	10/13/04
MO 676	410126075170101	MOUNT POCONO	981	341WCKV	19.53	T	11/16/04
MO 676	410126075170101	MOUNT POCONO	981	341WCKV	14.45	T	12/13/04
MO 676	410126075170101	MOUNT POCONO	981	341WCKV	13.61	T	1/13/05
MO 676	410126075170101	MOUNT POCONO	981	341WCKV	20.31	T	2/8/05
MO 676	410126075170101	MOUNT POCONO	981	341WCKV	18.32	T	3/22/05
MO 676	410126075170101	MOUNT POCONO	981	341WCKV	17.50	T	4/13/05
MO 676	410126075170101	MOUNT POCONO	981	341WCKV	17.95	T	5/10/05
MO 676	410126075170101	MOUNT POCONO	981	341WCKV	24.60	T	7/7/05
MO 676	410126075170101	MOUNT POCONO	981	341WCKV	29.38	T	8/19/05
MO 676	410126075170101	MOUNT POCONO	981	341WCKV	33.31	T	9/15/05
MO 677	405838075134601	STROUDSBURG	539	344MRCL	47.55	T	9/14/04
MO 677	405838075134601	STROUDSBURG	539	344MRCL	46.67	T	9/20/04
MO 677	405838075134601	STROUDSBURG	539	344MRCL	47.73	T	10/13/04
MO 677	405838075134601	STROUDSBURG	539	344MRCL	48.15	T	11/16/04
MO 677	405838075134601	STROUDSBURG	539	344MRCL	47.30	T	12/13/04
MO 677	405838075134601	STROUDSBURG	539	344MRCL	47.20	T	1/13/05
MO 677	405838075134601	STROUDSBURG	539	344MRCL	47.74	T	2/8/05
MO 677	405838075134601	STROUDSBURG	539	344MRCL	48.11	T	3/22/05
MO 677	405838075134601	STROUDSBURG	539	344MRCL	46.8	T	4/13/05
MO 677	405838075134601	STROUDSBURG	539	344MRCL	47.75	T	5/10/05
MO 677	405838075134601	STROUDSBURG	539	344MRCL	48.84	T	7/7/05
MO 677	405838075134601	STROUDSBURG	539	344MRCL	50.21	T	8/19/05
MO 677	405838075134601	STROUDSBURG	539	344MRCL	49.47	T	9/15/05
MO 678	410149075204202	MOUNT POCONO	1118	341LNGR	15.59	T	12/13/04
MO 678	410149075204202	MOUNT POCONO	1118	341LNGR	15.50	T	1/13/05
MO 678	410149075204202	MOUNT POCONO	1118	341LNGR	18.05	T	2/8/05
MO 678	410149075204202	MOUNT POCONO	1118	341LNGR	17.92	T	3/22/05
MO 678	410149075204202	MOUNT POCONO	1118	341LNGR	16.01	T	4/13/05
MO 678	410149075204202	MOUNT POCONO	1118	341LNGR	17.49	T	5/10/05
MO 678	410149075204202	MOUNT POCONO	1118	341LNGR	19.62	T	8/19/05
MO 678	410149075204202	MOUNT POCONO	1118	341LNGR	20.44	T	9/15/05

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